EXPANDED PROJECT NOTIFICATION FORM

Artists For Humanity

Submitted to:
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Submitted by:
Artists For Humanity
100 West Second Street
Boston, MA 02127

Prepared by:
Epsilon Associates, Inc.
3 Clock Tower Place, Suite 250
Maynard, MA 01754

In Association with:
Behnisch Architekten
Studio 2112 Landscape Architecture
Goodwin Procter LLP
Howard/Stein-Hudson Associates, Inc
Samiotes Consultants, Inc
Buro Happold Consulting Engineers, P.C.
Transsolar, Inc.
Knippers Helbig

June 3, 2015

Epsilon
ASSOCIATES INC.

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Table of Contents

Table of Contents

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

List of Appendices

List of Figures

List of Figures (Continued)

List of Tables

Chapter 1.0

Project Summary

1.0 PROJECT SUMMARY

1.1 Project Overview

Artists For Humanity (the Proponent or AFH), proposes to expand its existing 24,000 square-foot (sf) EpiCenter at 100 West Second Street (the Project) by adding approximately 57,000 square feet (sf) of new studios, studio partners, event and retail space.

AFH was founded on the ambitious and unconventional idea that young people can provide, through their talent and vision, creative services to the business community. In 2004, AFH built its own youth arts facility – the EpiCenter – which was the first building in Boston to achieve Platinum LEED certification. The EpiCenter has grown into the largest onsite employer of teens in Boston, and youth demand exceeds its current space.

Through the acquisition of adjacent property, AFH finds itself positioned, once again, at the vanguard of youth development and sustainability. The expanded studios will allow Artists For Humanity to provide educational and employment opportunities to more young people. It also allows Artists For Humanity to open up its facility to new community involvement through a 'Makers Studio' with public access and classes, a gallery and local meeting space to create a new South Boston cultural hub, and an exciting and environmentally responsible facility to spur creativity, connections and collaboration.

AFH is committed to designing and building a pioneering, sustainable expansion of the EpiCenter, targeting to become New England's first Energy Positive (E+) commercial structure, and to construct a building that will serve as a new template for planning, construction and energy use for Boston.

Because the proposed Project is located in the South Boston Waterfront Interim Planning Overlay District and exceeds 10,000 square feet of gross floor area, the Project is subject to the requirements of Large Project Review pursuant to Article 80 of the Boston Zoning Code (the Code). This Expanded Project Notification Form (PNF) is being submitted to the Boston Redevelopment Authority (BRA) to initiate review of the Project under Article 80B, Large Project Review, of the Boston Zoning Code.

1.2 Development Team

Address/Location:	100 West Second Street
Developer:	Artists For Humanity 100 West Second Street Boston, MA 02127 (617) 268-7620 Susan Rodgerson Andrew Motta

Architect:	Behnisch Architekten 125 Kingston Street Boston, MA 02111 (617) 375-9380 Robert Matthew Noblett Jill Kaehler Heinrich Lipp
Landscape Architect	Studio 2112 Landscape Architecture 35 Channel Center Street, Suite #103 Boston, MA 02210 (857) 350-3856 James Royce Lynne Giesecke Ryan Booth
Legal Counsel:	Goodwin Procter LLP Exchange Place, 53 State Street Boston, MA 02109 (617) 570-1000 Lawrence Kaplan Robert Fitzgerald
Permitting Consultants:	Epsilon Associates, Inc. 3 Clock Tower Place, Suite 250 Maynard, MA 01754 (978) 897-7100 David Hewett Talya Moked
Transportation and Parking Consultant	Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108 (617) 348-3350 Michael Santos
Civil Engineer	Samiotes Consultants, Inc. 20 A Street Framingham, MA 01701 (508) 877-6688 Stephen Garvin Jessica Berber

MEP Engineer	Buro Happold Consulting Engineers, P.C. 11 Beacon Street, Suite 400 Boston, MA 02108 (617) 419-2284 John Swift Michael Pang Michael Vecchione Ronald Furbish
Climate Engineer	Transsolar Inc. 134 Spring Street, Suite 601 New York, NY 10012 (212) 219-2255 Erik Olsen Linda Lam
Structural Engineer and Façade Consultant	Knippers Helbig 75 Broad Street New York, NY 10004 (212) 313 9618 Thorsten Helbig Soheil Mohammadi Roman Schieber

1.3 About Artists For Humanity

Artists For Humanity's mission is to provide underserved urban youth with the keys to self-sufficiency through paid employment in art and design. AFH's mission is built on the philosophy that engagement in the creative process is a powerful force for social change, and that creative entrepreneurship is a productive and life-changing opportunity for young people and their communities. Bridging economic, racial, and social divisions, AFH restores urban neighborhoods by introducing young people's creativity to the business world.

AFH utilizes four strategies to realize their mission by offering youth: (1) **the respect and responsibility** of **paid employment** that promotes self-esteem and workforce readiness; (2) a **safe, meaningful place** where teens develop important mentoring relationships; (3) an opportunity to be part of a **creative community**; and (4) **educational enrichment** that supports and encourages high school graduation and post-secondary education.

In 1991, artist/entrepreneur Susan Rodgerson felt the need to address the lack of arts experiences for Boston's under-resourced youth. Her vision was to inspire a group of teens to engage in the creative process and participate in commerce. The intent was to communicate youth experiences to the larger world through the creation and marketing of

their collaborative works, thereby empowering them and educating their community. Rodgerson found these young people hungry for the opportunity to have a voice and engage in the world, and this inspired her founding Artists For Humanity.

> *"They came every day after school. In the summer, they were sitting on the steps outside my studio and I was driving them home at night."* (Susan Rodgerson, artist, AFH co-founder and Executive/Artistic Director)

AFH began with what was then an ambitious and unconventional idea – young people can provide, through their innate talent and vision, contemporary creative services to the business community. Training and employing urban teens offers them a key solution to economic disenfranchisement and has a resounding effect on their lives, their families, and their communities. AFH employs approximately 250 Boston teens annually in paid apprenticeships in the visual arts and creative industries.

Since 2004, when AFH constructed Boston's first Platinum LEED-certified facility, the Artists For Humanity EpiCenter, AFH has continued to bring leadership and vision to their work in the community. They have grown exponentially as a youth and cultural community resource, a successful enterprise, and a center for economic and environmental sustainability. The EpiCenter serves their youth apprentices and the greater community as a learning laboratory in creative industries, environmental sciences and renewable technologies. It has inspired AFH to formalize interdisciplinary arts and STEM (Science, Technology, Engineering and Mathematics) learning – or STEAM! – in AFH studios. AFH continues to pioneer opportunities for youth to utilize creativity, industry and innovation toward an overarching goal of preparing them for emerging trends in workforce and educational pathways.

1.3.1 Artists For Humanity Achievements

In the past 24 years, AFH has received many awards[1], gained national recognition[2] and been studied extensively[3] as an exemplar of program excellence, community arts, effective mentorship and youth empowerment. Their model has been disseminated internationally to organizations that utilize the framework of respect, relationships, and responsibility to empower young people in their communities.

In 2014, AFH:

- Continued in their role as the largest youth employer in Boston, with 239 teens employed.
- Invested nearly $618,000 in youth salaries, stimulating economic development in urban communities.
- Hosted and/or leased 67 exhibits and public installations, which introduced a diverse audience to the voice and vision of urban teens.
- Completed 723 custom commissions for business clients, including Clark Shoes, Boston Landmark Opera, and Foxrock Properties.
- Hosted 89 events in the Lewis Gallery, which cultivated a captive audience for the young people's work and created an important revenue source for AFH programming.
- Earned $1,450,000 through sales of AFH fine art and creative services.

AFH's **real** achievements lie in the pathways young people take following their experiences at AFH. By mastering self-discipline through arts practice, AFH youth apply greater focus to academics and future goals. This helps them become role models for each other and to other young people in their families and communities.

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1 Select Awards include: 2011 Award for Sustainable Institute of Architects and Designers, Metropolis Magazine; 2010 Neighborhood Builders Award, Bank of America Charitable Foundation; 2010 MetLife Foundation Innovative Space Awards; 2010 Massachusetts Network of Nonprofits Excellence in Social Entrepreneurship Award; 2010 SunLife Rising Star Award; 2007 Silver Medal, Rudy Bruner Award for Urban Excellence; 2005 LEED Platinum Certification, U.S. Green Building Council; 2005 *Best Practices in Teen Programming* award, Boston's After School for All Partnership; and 2001 Coming Up Taller Award, President's Committee on Arts and Humanities.

2 Select recent profiles include: Boston Neighborhood Network (January 2014); *Urban Update* (2014); *Open Studios with Jared Bowen*, WGBH (April 2013); *Chronicle* (July 2012; August 2011; December 2010); WBZ-TV (March 2012); TEDxMassArt (March 2012); *CBS Evening News with Katie Couric* (September 2010); TEDxBoston (July 2010)

3 Institutions conducting and/or teaching case studies include: Boston College, Boston University, Brandeis University, Brown University, Harvard University Business School, Harvard University Law, Pace University, and Stanford University Business School.

- 100% of AFH's high school seniors graduate; 95% *on time* (compared with the Boston Public School's 65.9% rate[4] of students graduating in four years).

- 95% of AFH's program graduates annually go on to post-secondary education or advanced vocational training; 66% successfully earn a college degree (compared with the national average[5] – 46% – of college goers obtaining a degree).

A 2014 alumni survey[6] found 89% of program alumni either actively enrolled in school or in productive careers.

1.3.2 Artists For Humanity Participation

AFH is the largest onsite employer of youth in the City of Boston, with 250+ youth employed each year during their out-of-school hours. AFH youth participants represent Boston's diverse demographics. Most are aged 14-18 and attend Boston high schools. The ethnic breakdown of current participants is: Asian 18%; African American 23%; Latino 27%; Caucasian 6%; Haitian 9%; Cape Verdean 2%; Somali 1% and bi- or multi-racial 14%. Female participants comprise 50% of the population. AFH brings young people from different backgrounds together as artists and innovators.

Having a job enhances a teen's future employability, earning potential, and even the likelihood of them graduating from high school, but "very high fractions of low income and minority teens are … jobless[7]." As noted above, this demographic is largely represented in AFH's youth workforce. 83% of AFH's youth employees are from low- and very-low income families; and 94% are non-Caucasian. Moreover, 54% live in the Boston neighborhoods most beset with violence and 44% live in single-parent households. These factors place AFH youth at higher risk for failing or dropping out of school and for significantly decreased employability.

Approximately 700 adults annually contract with youth to commission design services, purchase fine art, and negotiate the parameters of the client/artist relationship. AFH engages an additional 2,000 youth through adjunct programming. The gallery rental and exhibition program exposes millions of people annually to their creative works through public installations at venues such as Logan Airport and the MBTA.

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4 http://www.bostonpublicschools.org/domain/238

5 2011"Pathways to Prosperity" study by the Harvard Graduate School of Education

6 Response from 30% of pre-2010 AFH alumni.

7 Sum, Andrew. Center for Labor Market Studies. Northeastern University. September 15, 2008.

1.3.3 Artists For Humanity Core Program

Under-resourced teens enter AFH because they need a job, because they want a safe place to go with their peers after school, because they want to be part of something productive. What they find is a culture of respect, responsibility, and engaged mentorship where their creativity is valued, their peers are their colleagues, and they have an opportunity to learn and conduct business. These experiences open doors to successful, self-sufficient futures by inspiring youth and equipping them with the advanced skills in creative-thinking, communications and problem solving that will assist them as they plan their futures.

The Youth Arts Enterprise: AFH's central program, the Youth Arts Enterprise, employs 250 Boston teens annually during their crucial out-of-school hours: Tuesday-Thursday from 3:00-6:00 PM during the school year and Monday-Friday from 12:00-5:30 PM during the summer. Following a paid apprenticeship model, AFH partners teens with little or no experience, over a prolonged time period with professional artists and designers; 70% of youth participate for more than one year. Youth and art/design mentors collaborate on innovative projects – like animating a video for National Grid's website, developing a workforce training video for Jobs for the Future and engineering bike racks for installation throughout the City – that promote active learning and advanced 21st Century Skills development in creativity, media, collaboration, technology, critical-thinking, problem-solving and STEM (Science, Technology, Engineering and Mathematics) concepts.

AFH offers youth this project-based learning in fully-equipped, staffed studios in Graphic Design/Motion Graphics, Painting/Murals, Photography, Screen-Printing, Sculpture/3D Design, Video and Web Design. AFH's studios focus on developing youth creativity and innovation, and feature a small group structure of 7-12 young people working alongside a professional artist mentor, involving one-on-one tutelage. This individual attention enables the mentor to introduce new concepts, discuss the work's direction, give constructive advice on techniques, and ensure that each participant is working to his/her potential. Remember: youth enter AFH with no previous experience; this hands-on approach builds skills and aptitude. Youth are further encouraged to self-direct by choosing subject matter, researching ideas/images, and exploring techniques of choice. Group critique strengthens communication and critical analysis.

Commissioned projects require apprentices to focus attention, listen carefully and craft a product that responds to client needs. Through this process, young people have positive and encouraging interactions with adults who value their work and appreciate their contributions. Teens participate in planning, product development and marketing of projects. Like any other job, they are expected to be punctual, treat the work seriously and function as team members. *Unlike most jobs available to teens, young people are directly involved in client negotiations and meetings, giving them an important introduction to the professional world.*

AFH further prepares teens for today's global knowledge-based economy by ensuring they have access to computer literacy, digital media, STEM concepts and advanced technological training. *Significantly, the combined experiences and skills gained at AFH are the same ones defined by the Partnership for 21st Century Skills as necessary for academic, career and life success.*[8]

1.3.4 Educational Programs

AFH offers rigorous academic support systems to steward youth toward high school and college graduation, toward an overarching goal of increasing future employability and earning potential.

- High School Credit-Bearing Program – For the second consecutive year, AFH is participating in Edvestors/BPS Arts Expansion's new High School Credit Bearing Program, through which youth employees at under-performing schools earn high school credits for the integrated arts education they receive while working in the Youth Arts Enterprise. Ten AFH youth earned credits in the 2013-2014 school year, including one youth who was able to graduate high school on time, thanks to this initiative; 17 youth are receiving credits in the current school year. AFH provides intensive program-specific youth tracking and evaluation in addition to rigorous project-based curriculum.

- STEAM Power: Integrated Arts and STEM Learning – AFH mentors make explicit the STEM concepts embedded in current AFH design projects and practices to better connect youth with the STEM disciplines they are learning in school. We also coordinate special projects, requiring intensive youth study on specific STEM concepts and visual communication of these concepts through explanatory images, to increase the STEM career pipeline for under-represented youth. Curriculum and evaluative development are ongoing, with promising initial results.

- Literacy Through the Arts – All teens craft and refine artist statements, reflection pieces, and descriptions of their use of math in art making. Teens receive ongoing help with writing and gain computer literacy through tutorials in online research and word processing, working in groups and one-on-one sessions with a full-time Education Director.

- After-Work Tutoring – (Tuesday and Thursday, 6-8PM) As needed, AFH provides teens with individualized, one-on-one tutoring to help them develop basic and advanced comprehension in core subjects, succeed in tests, and improve grades.

[8] www.p21.org

- College Readiness – AFH helps youth develop individualized plans for post-secondary education, tour colleges, complete applications, and secure financing and scholarships. AFH helps the majority of their teens secure scholarships and financial aid packages through a variety of opportunities and institutional partnerships.

- College Retention – AFH links program alumni enrolled in post-secondary education with financial and human resources, and provides them with ongoing employment opportunities and leadership training.

The indicators of success are compelling. 100% of high school seniors working at AFH graduate, 95% on time. 95% of these graduates segue to post-secondary education; the remaining youth attend advanced vocational training or enter the workforce. For comparison: 74% of Boston Public School students graduate from high school; 65.9% on time.

1.3.5 Additional AFH Programming

Additional programming includes:

- School Partnerships – AFH is in the second year of a Visual Arts Residency at the Eliot K-8 Innovation School. An AFH alumnus/painting mentor leads weekly art projects for students and engages them in creating public artworks to be installed in the school. AFH also led a special three-week project for Grade 8 students during extended learning hours. AFH just completed a similar, three-year residency at the Oliver H. Perry K-8 School and have discussed possibilities with other Boston public, private and charter schools.

- Inward Bound – Inward Bound is a team-building experience for groups of adult clients to work with trained teen artists. Adult participants leave with a finished art piece and a new understanding of urban teens. Significantly, Inward Bound offers a role reversal with teens as teachers.

- Spiritus Solaris fuses art and science to increase public awareness of energy, conservation and environmental sustainability by highlighting the EpiCenter's sustainable features and renewable technologies

1.4 Public Benefits

AFH is committed to designing and building a pioneering, sustainable expansion of the EpiCenter, targeting to become New England's first Energy Positive (E+) commercial structure. Additional community benefits include:

- Doubling AFH's employment of high school-aged teens from approximately 250 to 500;

- Developing vocational programs in technology-based arts media and trades;
- Engaging the community through a fully-equipped Makers Studio;
- Crafting a unique community-based space dedicated to the urban youth experience;
- Expanding its successful event space for corporate and social celebrations;
- Connecting youth through partnerships with universities and synergistic industries; and
- Creating a vibrant center for creativity in the Innovation District.

1.5 Preliminary Project Schedule

Construction is anticipated to begin in the fall of 2015 and will occur over approximately 14 months.

1.6 Consistency with Zoning

The Project site is located in South Boston in the M-2 (Restricted Industrial) District, the Restricted Parking Overlay District, and the South Boston Waterfront Interim Planning Overlay District ("IPOD") (Article 27P). Within the South Boston Waterfront IPOD, the Project site is located within the Fort Point Industrial Subdistrict.

Given its location in the South Boston Waterfront IPOD, the Project will require an Interim Planning Permit from the Board of Appeal. In addition, the mix of uses may require conditional use permits or variances from the Board of Appeal, and the Project may require variances from otherwise applicable dimensional requirements, including the interim height and floor area ratio controls set forth in Appendix B to Article 27P.

For purposes of Article 80 review, the Project is subject to the thresholds for Large Project Review for the Harborpark set forth in Section 80B-2.3 of the Boston Zoning Code. See Boston Zoning Code, § 27P-14. Because the Project exceeds the 10,000 square feet threshold for Large Project Review applicable in the Interim Planning Overlay District, it is subject to Large Project Review.

1.7 Legal Information

1.7.1 Legal Judgments Adverse to the Proposed Project

The Proponent is not aware of any legal judgments or actions pending concerning the Project or the Project site.

1.7.2 History of Tax Arrears on Property Owned in Boston by the Proponent

The Proponent owns no real estate in Boston on which real estate tax payments are in arrears.

1.7.3 Site Control/ Public Easements

Artists For Humanity, Inc. acquired feet title to Project site by deed from The Gillette Company dated July 30, 2013, recorded with the Suffolk County Registry of Deeds at Book 647, Page 90 and filed with the Land Court, Certificate of Title No. 130290. The Project site is not subject to any public easements, except in so far as any portion of the Site lies within the bounds of any adjacent public streets and ways. See Appendix A for a site survey.

1.8 Regulatory Controls and Permits

Table 1-1 presents a preliminary list of local, state, and federal permits and approvals that may be required for the Proposed Project. The list is based on current information about the Proposed Project and is subject to change as the design of the Project advances. Some of the permits listed may not be required, while there may be others not listed that will be needed.

Table 1-1 Preliminary List of Permits and Approvals

Agency	Approval
Federal	
Environmental Protection Agency	NPDES Notice of Intent for Construction Stormwater
Federal Aviation Administration	Determination of No Hazard to Air Navigation (for building and crane, if applicable)
State	
Massachusetts Water Resources Authority	Temporary Construction Dewatering Discharge Permit (if applicable) Sewer Use Discharge Permit for Discharge of Industrial Waste (if applicable)
Boston	
Boston Redevelopment Authority	Article 80B Large Project Revie
Boston Zoning Board of Appeal	IPOD Planning Permit Conditional Use Permits (if applicable) Variances (if applicable)
Boston Transportation Department	Construction Management Plan Transportation Access Plan Agreement
Boston Water and Sewer Commission	Site Plan Review General Service Application Water and Sewer Connection Permits
Public Improvement Commission	Improvements Within Public Streets or Sidewalks Demolition, Foundation, Building and Occupancy Permits Maintenance Agreement
Boston Inspectional Services Department	Demolition, Foundation, Building and Occupancy Permits

Chapter 2.0

Project Description

2.0 PROJECT DESCRIPTION

This Chapter describes the proposed Project in detail, including its location, Project site plan, and proposed building program.

2.1 Surrounding Neighborhood

The Project site is located in South Boston at a juxtaposition where the grids of the St Vincent's/West Broadway neighborhoods merge with the Fort Point/Seaport neighborhood.

To the southwest of the site is the West Broadway neighborhood, which has rapidly developed within the past ten years with new residential projects. New mid-rise residential developments under construction or constructed within the last decade range in height from four to thirteen stories. To the southeast of the site across the Haul Road is the St. Vincent residential neighborhood with buildings ranging in height from two to four stories. Along West First and West Second Street there are new and developing residential units.

One thousand feet to the northeast across the South Boston Bypass Road is the Boston Convention and Exhibition Center property. To the north is the mixed Fort Point neighborhood which is comprised of residential and artist-owned buildings, commercial properties (notably within the Channel Center development) and creative industries, and new residential development. Extending to the South Boston Seaport, this area has been identified as the 'Innovation District'. Across A Street from Artists For Humanity is the industrial 'World Shaving Headquarters' of P&G Gillette.

The site is located within one-quarter mile (less than a five minute walk) of the MBTA Broadway Station which provides excellent access to bus and Red Line service. This proximity to public transit makes the area an ideal location for this Project, where a majority of its occupants will utilize public transit.

These surrounding areas have become increasingly desirable among young professionals, those at or near retirement, and others, and has seen a number of new residential developments over the past several years, with several currently under construction, including 11 West Broadway, 22-26 West Broadway, West Square and 339 D Street. Other notable new projects include One Channel Center, 500,000 sf for State Street with a large public park and public parking garage, and recent approval of the South Boston Boutique Hotel on Dorchester Avenue.

Artists For Humanity has worked from this area since 1993, headquartered at 300 A Street (1993- 2002), at 322 & 281 Summer Street (2002-2004), and 100 W 2nd Street (2004 – today).

2.2 Project Description

2.2.1 Project Site

The Project site, at 100 W 2nd Street, is located along the southern edge of South Boston's Fort Point Channel between West First Street and West Second Street. It consists of three adjoining parcels. On one of the parcels is the existing, approximately 24,000 square-foot Artists For Humanity EpiCenter. The other two parcels currently consist of a surface parking lot. See Figure 2-1 for an aerial locus of the Project site.

2.2.2 Project Description

Artists For Humanity is setting out to expand its facility to provide additional opportunities for young people.

AFH has grown to become the largest onsite employer of teens in Boston, and youth demand exceeds its current space. To meet its space needs, and those of Boston's youth, AFH proposes to expand their existing approximately 24,000 square-foot building by adding approximately 57,000 square feet of new space to bring the total building to approximately 81,000 sf. Table 2-1 presents the proposed addition divided into the four program elements that are necessary for AFH's success: studios, studio partners, events and retail.

The event space will remain on the ground floor and will not be expanded. Breakout spaces will also be added to attract corporate clients. Additional work will be done to bring cooking and event preparation into the building as it is now done in an outdoor lot. Levels two through four will contain the studio spaces, as well as some administration space. The studio partners will be on levels five through eight. See Figures 2-2 through 2-13 at the end of this chapter for floor plans and elevations.

Table 2-1 Project Program

Project Component	Existing (sf)	Proposed (sf)	Proposed Total (sf)
Studios	12,000	12,000	24,000
Studio Partners	0	27,000	27,000
Event Space	7,000	2,000	9,000
Retail	0 sf	7,000	7,000
Service Spaces	5,000	9,000	14,000
Total Gross	24,000	57,000	81,000

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Data Source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division - Data Obtained October 2014

Artists For Humanity Boston, Massachusetts

Epsilon Associates Inc.

Figure 2-1

Aerial Locus Map

2.2.2.1 Project Need – Youth Engagement

Each year, AFH maintains a waitlist of approximately 150 prospective youth employees that cannot be hired due to space limitations. In addition, components of design commissions must be outsourced due to a lack of studio space for fabrication. Space constraints do not allow Artists For Humanity to display artwork in a gallery setting, involve the public in art making and creativity, and fully be the bridge between different ages and cultures. The expansion of the youth and community centric components will bring more work and educational experiences to under-resourced populations, build a new community and cultural resource for South Boston and provide for the long-term sustainability of AFH.

Growing Youth Employment

Within an expanded facility, Artists For Humanity will be able to increase the annual number of jobs offered to high school youth to work in their creative studios. AFH will also introduce vocational training for out-of-school youth, supported by onsite partners, the construction industry and government job training initiatives. AFH projects that by 2019, they will employ more than 500 youth annually and invest $1.8 million in youth wages and commissions. This increase in youth wages will be offset by a concomitant increase in earned income, as their larger youth workforce meets the growing demand for AFH's creative products and services.

Included in the studio space is administration as well as the following AFH studios: 3D, painting, media arts, and screen-printing. The growth in these spaces will allow AFH to double the number of young people it employs, as well as develop new programs to provide structured pre-apprenticeship training for young people interested in joining building trade training programs.

The new layout of the spaces will provide for more flexibility in programming, as well as allow the organization to complete larger scale work. These larger commissions will provide teen artists with a deeper experience with technology.

2.2.2.2 Project Need – Community Connections

AFH's expanded EpiCenter will make more creative places open to the public, with communal Maker Studios, gallery, retail store, and event space. Access to our Maker Studios and scheduled classes will facilitate collaboration and innovation. Expanded and flexible events space will allow for multiple, concurrent community meetings, events and presentations. Sustainable building and guided art tours will introduce new audiences to Artists For Humanity, green design and the creative process.

Makers Space

Throughout its history AFH has been a maker space, providing opportunities for professional and emerging artists to mentor youth in media, design and 3D design/sculptural arts as well as providing high-tech equipment for personal projects during non-studio hours. With the expansion of the EpiCenter, AFH will build on this spirit of creation, innovation and inclusion by expanding the maker studios and opening them to the greater community.

AFH's expanded maker studios will welcome all – from the start-up entrepreneur who needs the resources to develop a prototype, to the tinkerer who has moved from the suburbs to the city and lost their basement shop, to the recent art-school graduate who wants to stay in Boston to develop their craft, to the neighbor who is taking up a new hobby. AFH is developing the space for people to create and make things right here in the Innovation District.

The maker studios will be designed to maximize opportunities for collaboration, and the cross-pollination of ideas, methods, and perspectives in a social atmosphere. They will feature bright, open and flexible spaces, equipped with cutting edge technologies (CNC machines, video production and editing, advanced 3D printers) and industrial machinery (welders, full woodshop). AFH program alumni will be certified to staff the operations and lead classes geared for a wide range of ages, experiences and interests of members.

Event Space

The EpiCenter has built an award-winning private event space popular for weddings and other social events. These events provide an opportunity for visitors to experience artwork created by Boston teens, and often participate in interactive artistic experiences.

The overall size of the main event space is not proposed to increase; rather the expansion includes a plan to make the main event space able to be partitioned for smaller groups, and to add breakout spaces to attract some more corporate clients. Additional work will be done to bring cooking and event prep into the building as it is now done in an outdoor lot. A separate, upper level event space will be available for more intimate events, as well as artist presentations and community meetings.

Retail

The existing EpiCenter lacks the space and design layout to properly welcome visitors. All of the square footage is currently dedicated to the organization's participating young people and a private event space. A central goal of the expansion is to welcome the general public inside to experience the voice, vision, and virtuosity of Boston's teens.

A fine art gallery for rotating exhibitions, artist exchanges, and profiles of new and emerging Boston artists is proposed. This space will build upon and strengthen the role of the arts in the Fort Point Arts District. A retail store and café, featuring locally made goods such as youth-created art, furniture, and apparel, will provide urban teens with retail operations and management opportunities. AFH seeks to support the uses of the Channel Center Park and provide activities and resources for the growing residential and commercial tenants in the neighborhood.

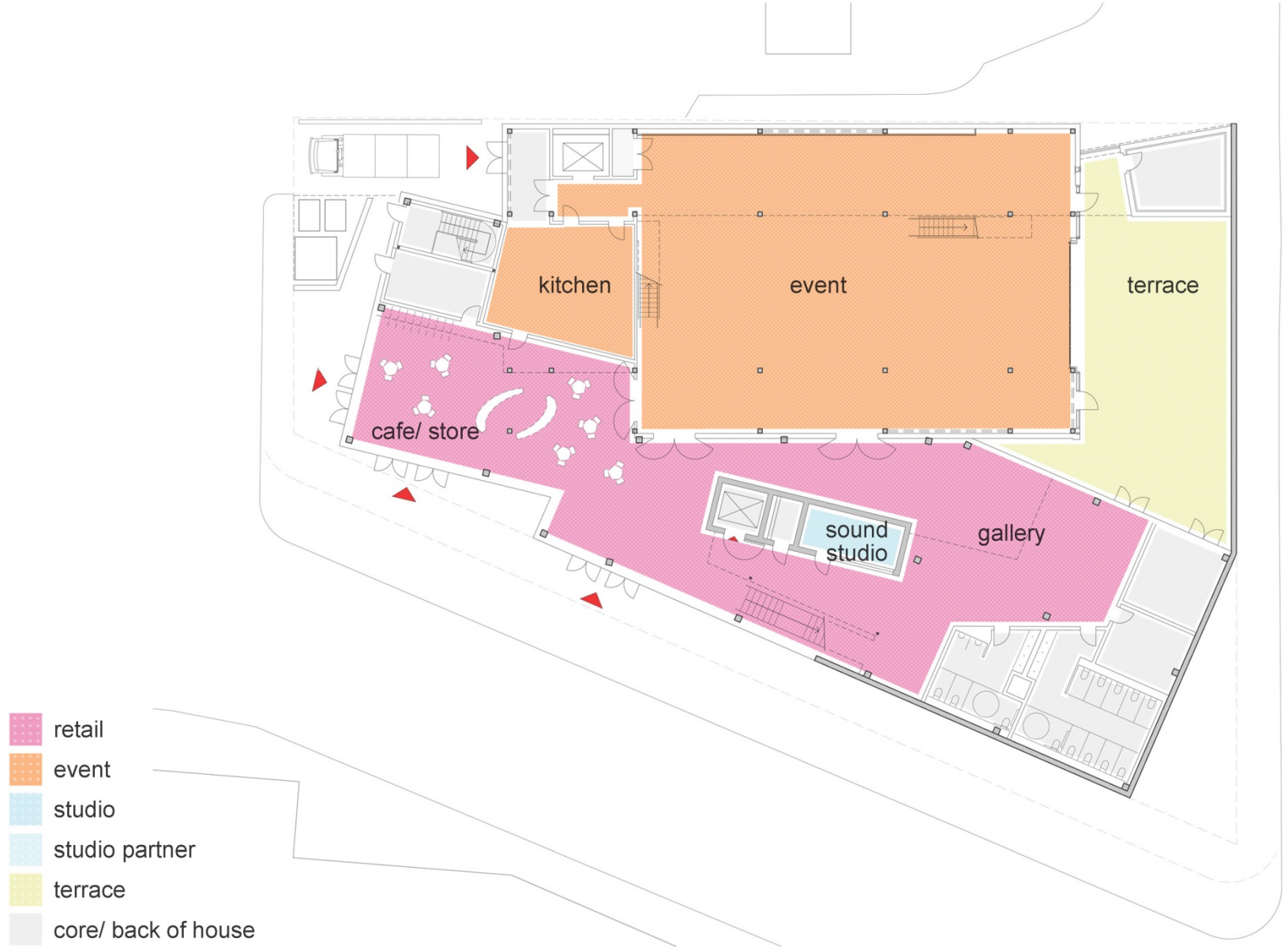
Studio Partners

AFH is a leader in college readiness and youth workforce development programming. The expanded EpiCenter will strengthen this role, by allowing AFH to better bridge the education to employment continuum. The studio partners on levels 5-8 are a critical component of the AFH studios in both program and operation.

A central part of AFH's expansion plan includes deepening synergistic partnerships with local colleges and universities. This would connect the youth to some of the best local educational resources, open pathways to college success, and offer the opportunity to earn college credits as part of their ongoing work at AFH.

Similarly, onsite vocational partners in fast-growing creative or green industries like HVAC/plumbing, welding or environmental sciences would provide studio learning or training in marketable career paths for youth who need immediate work experience to steer them toward productive career pathways. Within the larger facility, AFH will work with industry partners and trade associations/labor unions to develop training programs and industry-specific certifications to connect youth with in-demand careers that do not require a college degree.

Synergistic partners on all levels will deepen the exposure and connection our young people have within Boston to opportunity, innovation and success. AFH looks to rent to the socially conscious partner that can bring more innovation to our growing part of the City. Through lease revenue, partners support AFH programming, reducing the organization's reliance on contributed funding and providing employment, education and opportunity for future generations of young people.

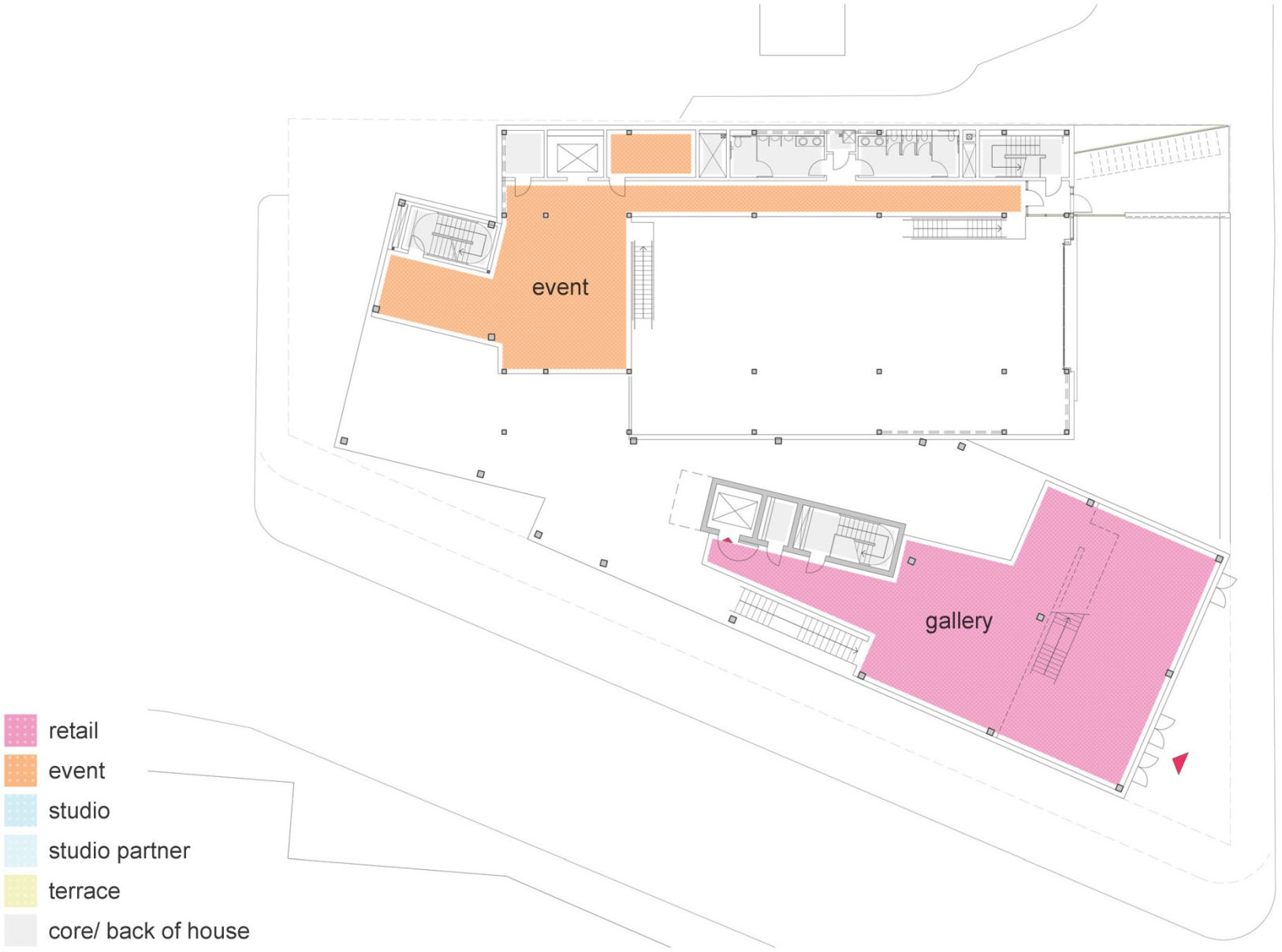


Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 2-2

Level 1 Floor Plan



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BEHNISCH ARCHITEKTEN

Figure 2-3

Level M Floor Plan

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Figure 2-4

Level 2 Floor Plan

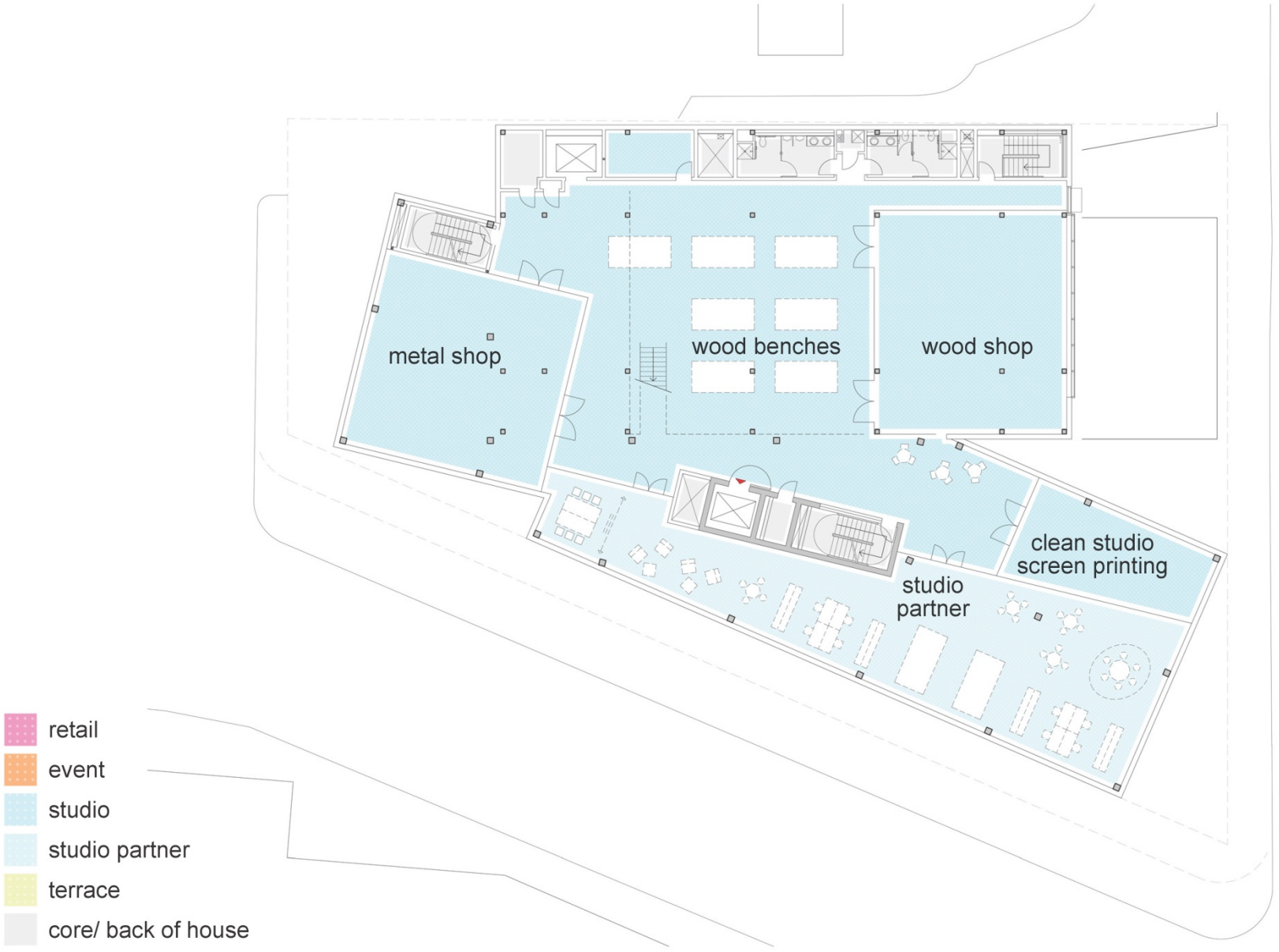

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Figure 2-5

Level 3 Floor Plan

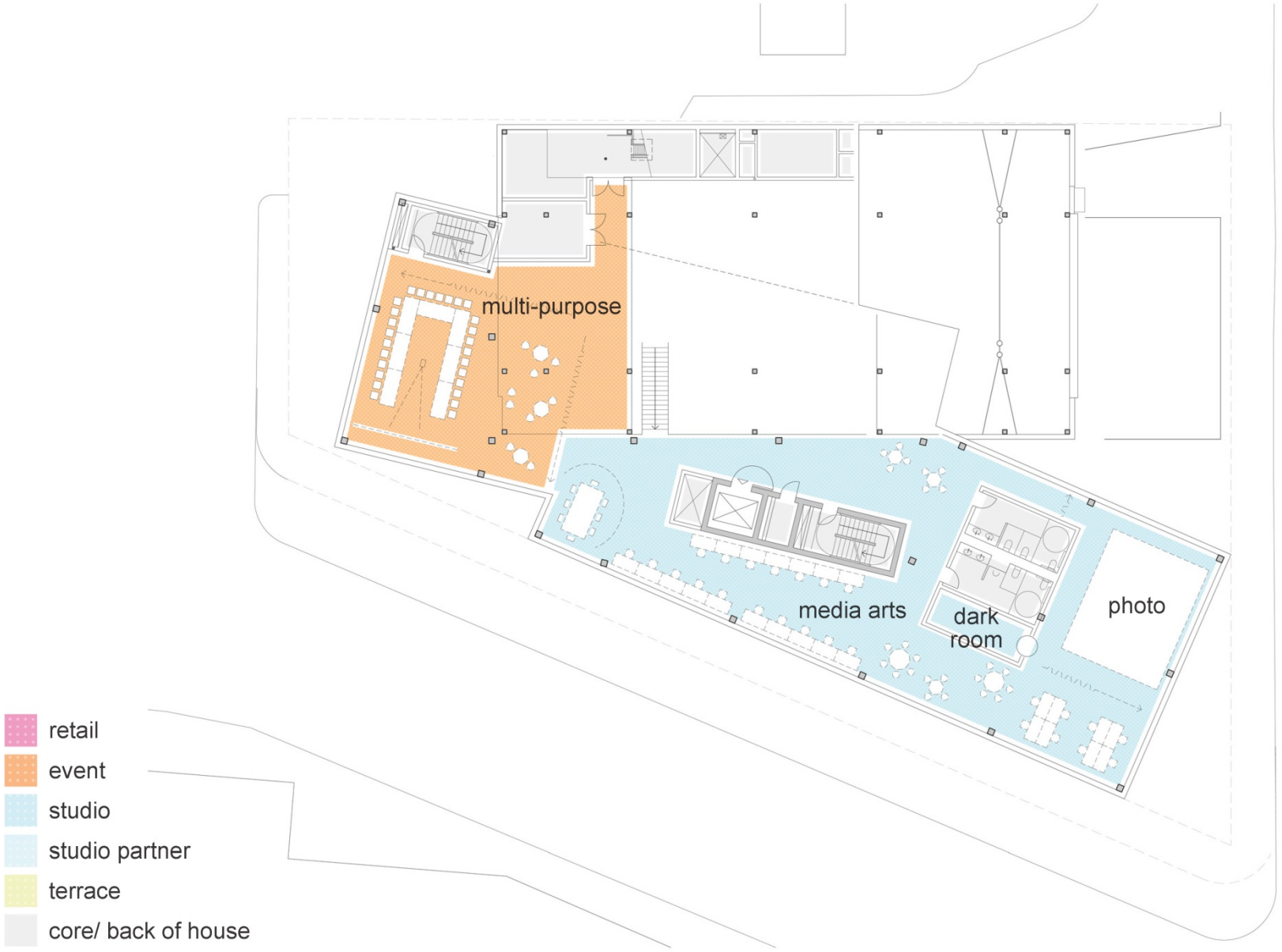

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Figure 2-6

Level 4 Floor Plan

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BEHNISCH ARCHITEKTEN

Figure 2-7

Level 5 Floor Plan

Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 2-8

Level 6 Floor Plan

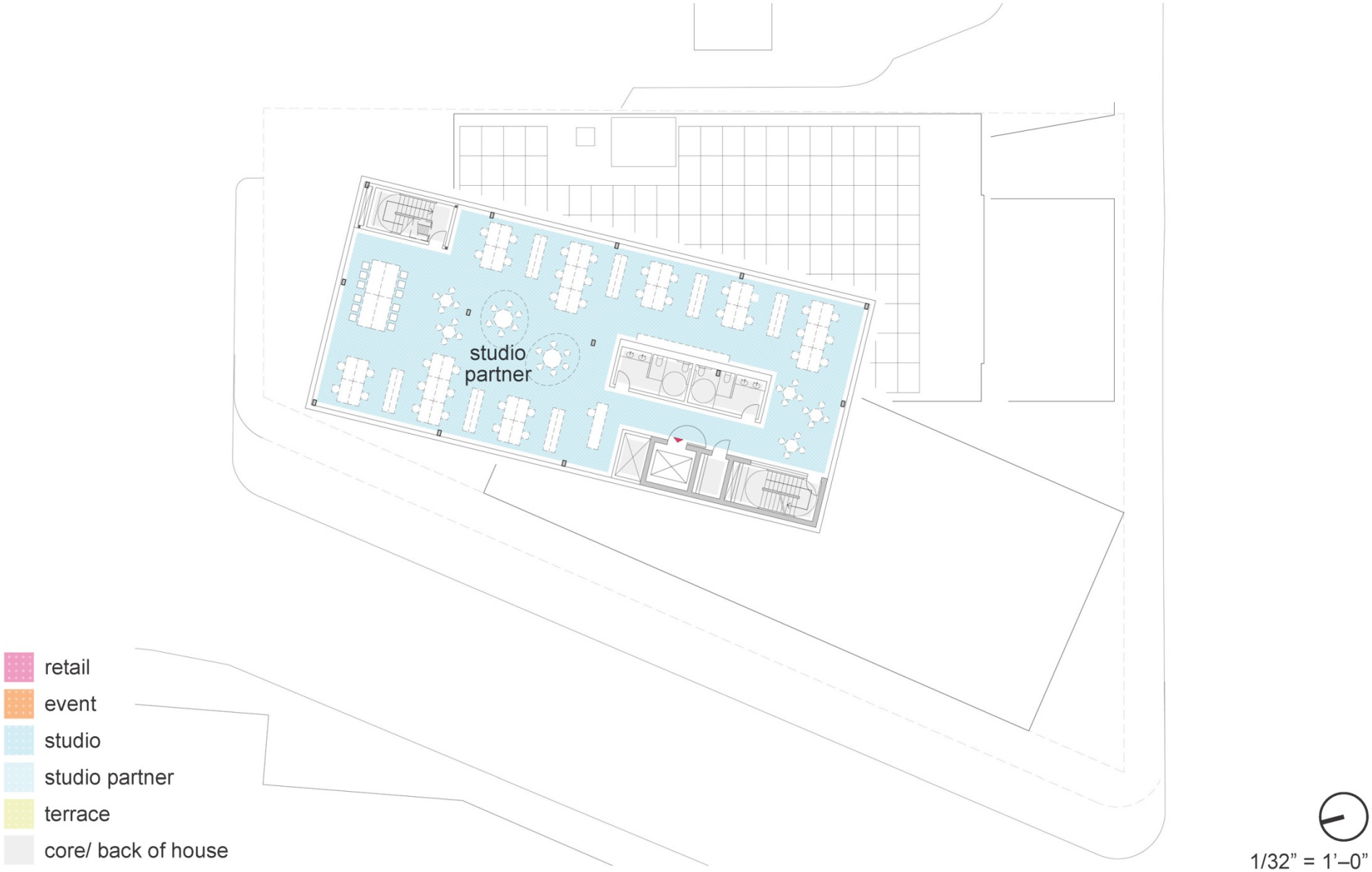

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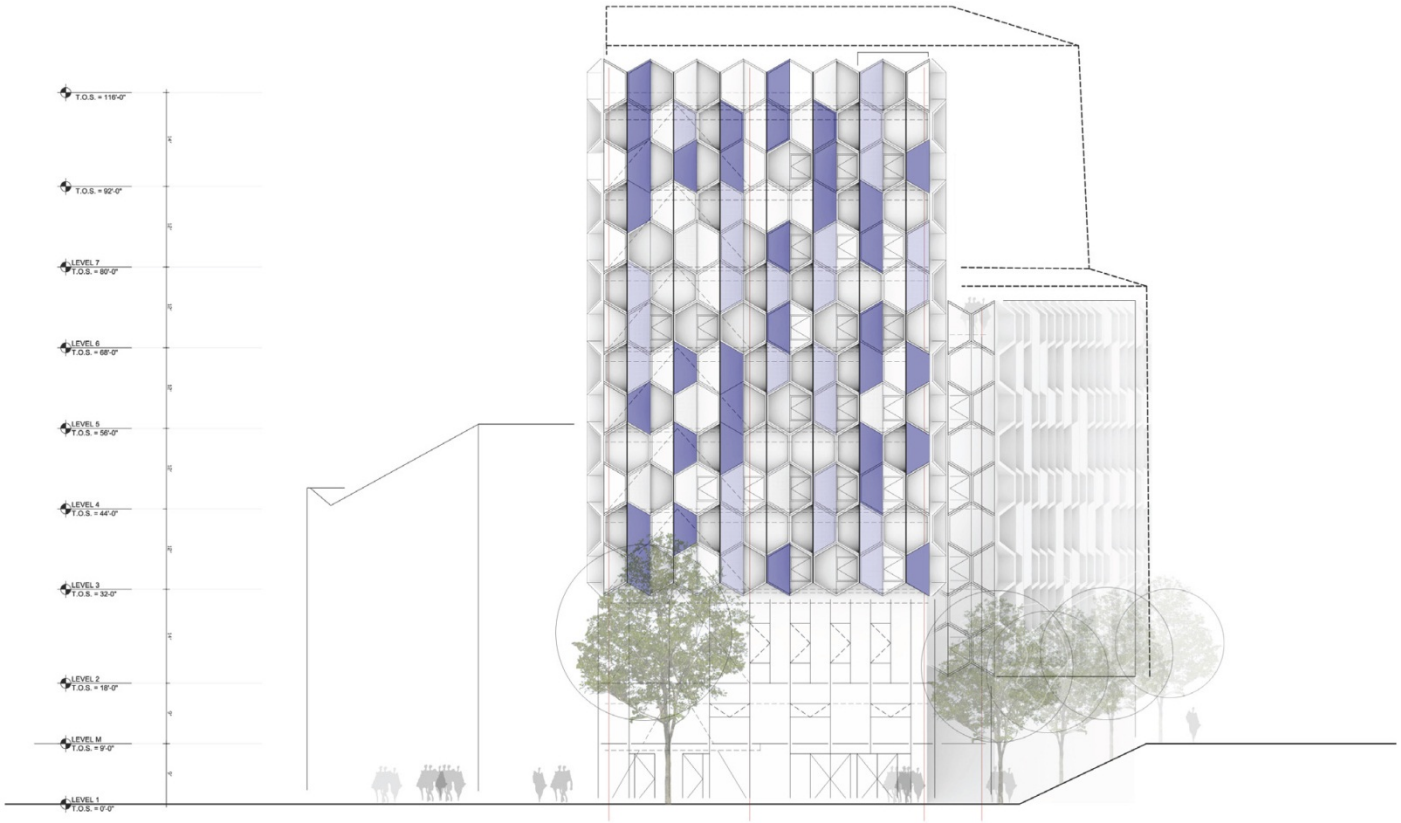
Figure 2-9

Level 7-8 Floor Plan



1/32" = 1'–0"

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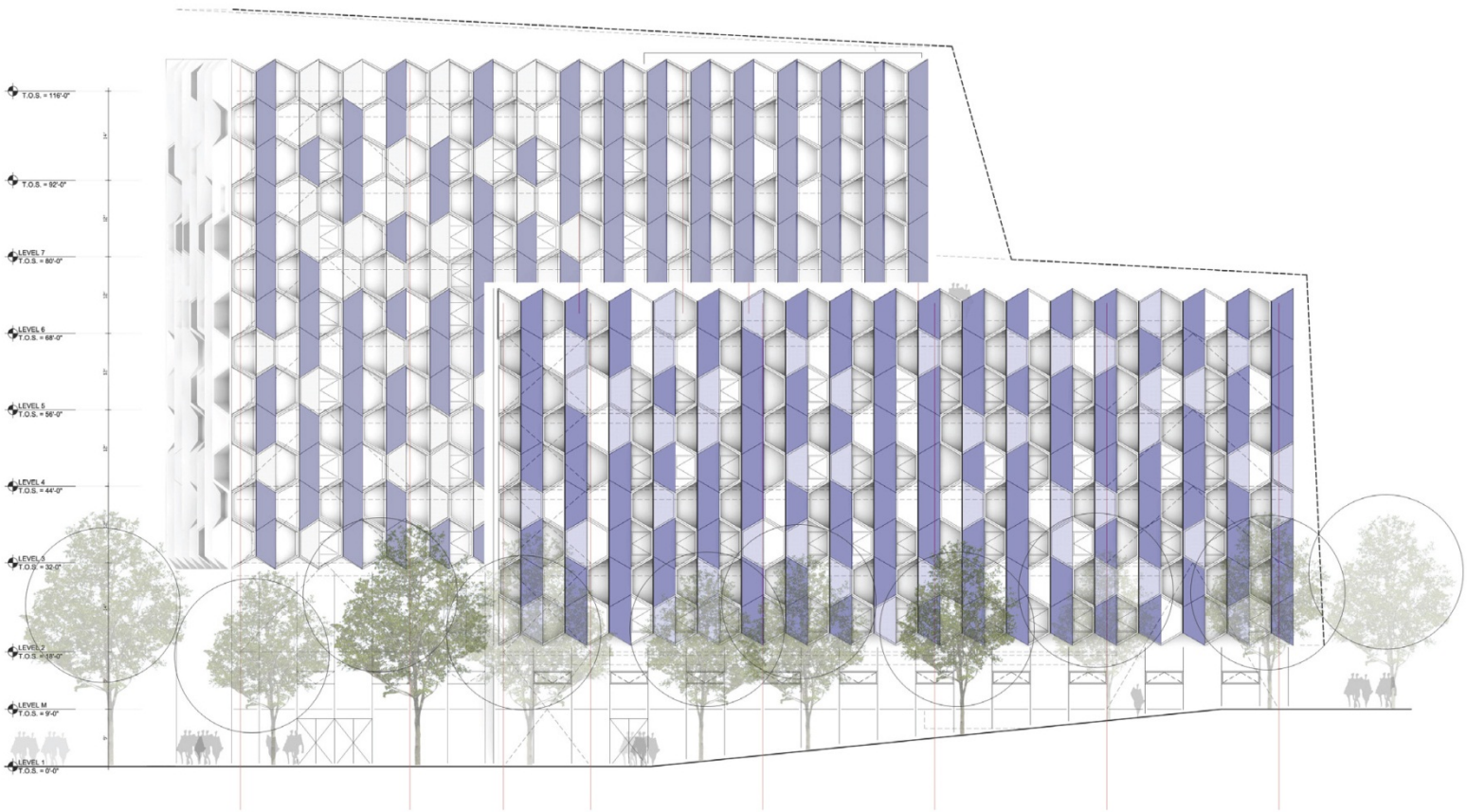
Figure 2-10

North Elevation



1/32" = 1'–0"

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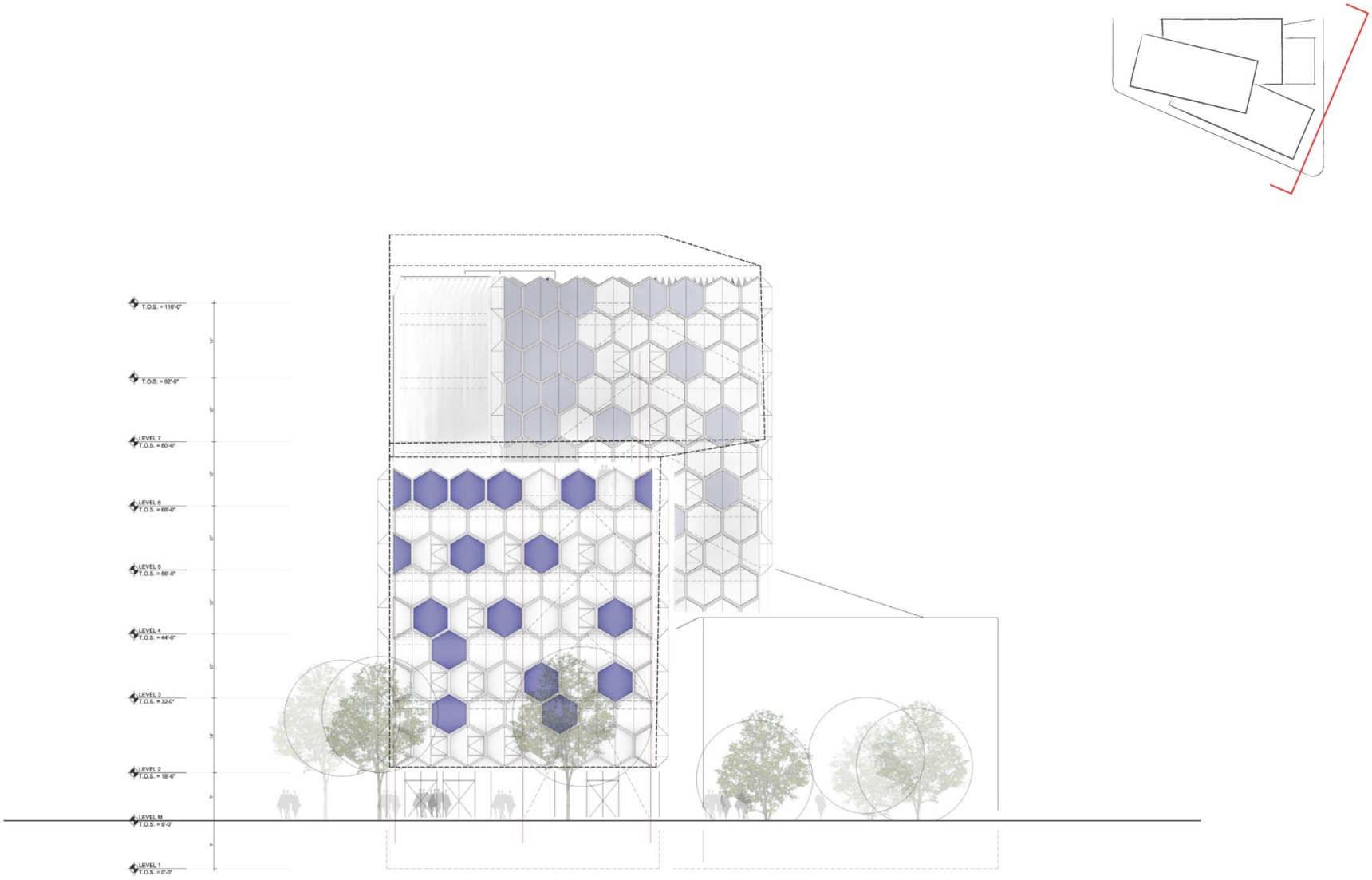
Figure 2-11

West Elevation



1/32" = 1'–0"

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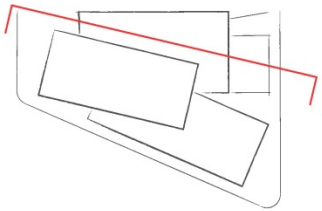
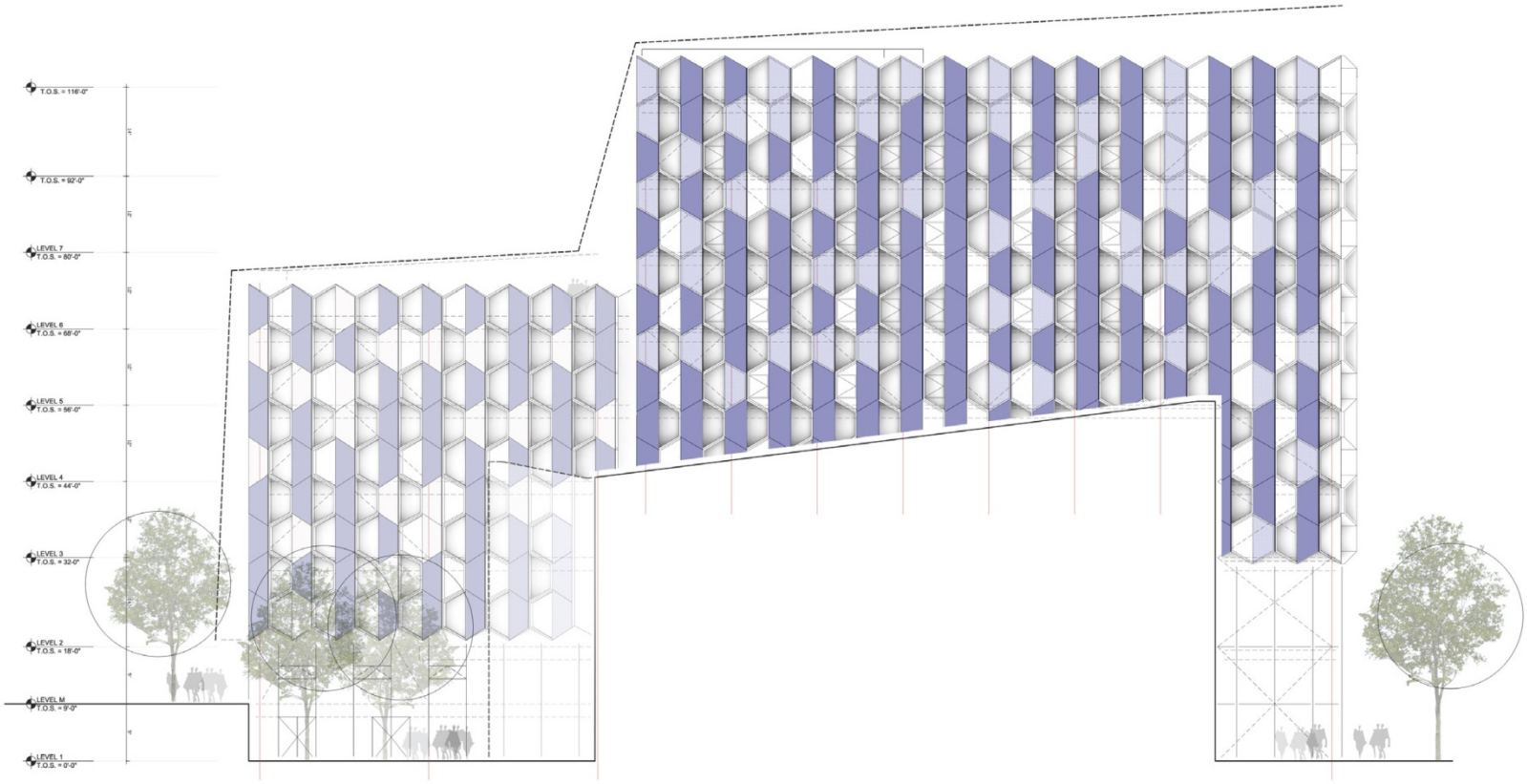
Figure 2-12

South Elevation





1/32" = 1'–0"

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Figure 2-13

East Elevation

Chapter 3.0

Transportation Component

3.0 TRANSPORTATION COMPONENT

3.1 Introduction

3.1.1 Purpose of the Transportation Component

Howard Stein Hudson (HSH) has conducted an evaluation of the transportation impacts of the proposed expansion of the Artists for Humanity (AFH) EpiCenter located at 100 West Second Street (the "Project" and/or the "Site") in Boston. The following transportation study adheres to the Boston Transportation Department (BTD) *Transportation Access Plan Guidelines* and Boston Redevelopment Authority's (BRA) *Development Review Guidelines* (2006). This study includes an evaluation of existing transportation conditions; future transportation conditions with and without the Project; roadway, pedestrian, and bicycle conditions; transportation issues; parking and loading; pedestrian and bicycle circulation; proposed mitigation; and transportation goals for the Project.

3.1.2 Project Description

The Project site is bounded by A Street to the west, West Second Street to the south, West First Street to the north, and a commercial property to the east, and is shown in Figure 3-1. The Project involves the expansion of the current building to include an additional 57,000 square feet (sf) of space containing AFH studios, event venue space, a public art maker's studio, galleries, a café, retail space, and dedicated space for related organizations in creative industries and sustainability.

There will be no parking on-site as part of the Project. The nearby Channel Center Garage provides public parking and will serve the parking demands for the expansion. The Project site is well served by public transportation. The MBTA Red Line can be accessed at Broadway Station and several MBTA bus routes travel in proximity to the Project site. South Station is also conveniently located within walking distance (three quarters of a mile) of the Project site and provides access to the Red Line, Commuter Rail, Amtrak, and regional bus terminals.

3.1.3 Study Methodology

The existing conditions analyses includes an inventory of the transportation conditions such as roadway capacities, traffic characteristics, parking and curb usage, transit, pedestrian circulation, bicycle facilities, loading, and site conditions.

The future transportation conditions analysis evaluates potential transportation impacts associated with the Project. Long-term impacts are evaluated. Expected roadway, parking, transit, pedestrian, bicycle accommodation, and loading capacities and deficiencies are identified.

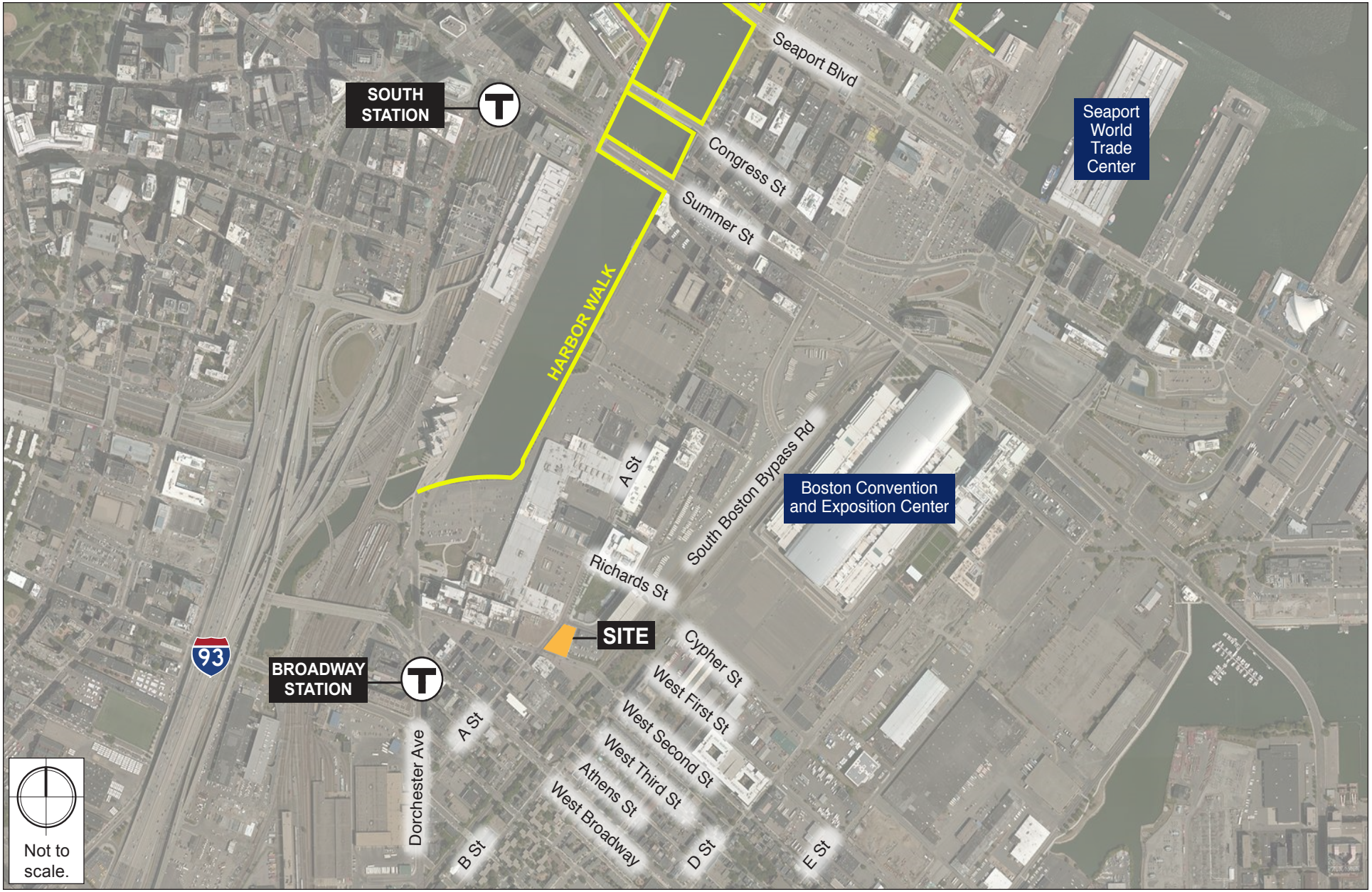

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Figure 3-1
Site Locus Map

The final part of the transportation study identifies measures to mitigate Project-related impacts, if any exist. These impacts include any traffic, pedestrian, bicycle, transit, parking, safety, or construction-related issues that are necessary to accommodate the Project.

An evaluation of short-term traffic impacts associated with construction activities is also provided.

3.2 Existing Transportation Conditions

This section includes descriptions of existing roadway geometries, intersection traffic control, transit availability, parking and curb usage, and loading conditions in the vicinity of the site. A site visit was conducted on March 26, 2015 to assess the existing facilities.

3.2.1 Existing Roadway Conditions

The roadways in the vicinity of the Project site are described below. The descriptions reflect functional classifications by the Massachusetts Department of Transportation (MassDOT) Highway Division's Office of Transportation Planning.

A Street is a two-way roadway under BTD jurisdiction located adjacent to the west side of the Project site. It is classified as an urban minor arterial roadway, and runs in a north-south direction between Congress Street to the north and Dorchester Street to the south. A Street consists of one travel lane with bike lanes in each direction. In the vicinity of the Project site, curbside parking is restricted on both sides of the roadway. Sidewalks are provided along both sides of the roadway.

West Second Street is a one-way westbound roadway under BTD jurisdiction located adjacent to the south side of the Project site. It is classified as a local roadway to the east of B Street (adjacent to the Project Site) and an urban minor arterial west of B Street, and runs in an east-west direction between Dorchester Avenue to the west and Dorchester Street to the east. In the vicinity of the Project site, West Second Street consists of one travel lane in the westbound direction with curbside parking restricted on both sides. Sidewalks are provided along both sides of the roadway.

West First Street is a two-way roadway under BTD jurisdiction located adjacent to the north of the Project site. It is classified as a local roadway and runs in an east-west direction between A Street to the west and Medallion Avenue to the east. The roadway consists of one travel lane in each direction. In the vicinity of the Project site, curbside parking is allowed on the south side of the roadway. Sidewalks are provided along both sides of the roadway.

South Boston Bypass Road is a two-way roadway under MassDOT jurisdiction located to the east of the Project site. It is classified as an urban principal arterial roadway and is restricted to commercial truck traffic only. South Boston Bypass Road runs in a north-south direction between I-93 SB Frontage Road to the south and Massport Haul Road to the north.

The roadway consists of one travel lane in each direction. In the vicinity of the Project site, curbside parking is restricted on both sides of the roadway. Sidewalks are not provided along either side of the roadway.

Richards Street is a two-way roadway under BTD jurisdiction located to the north of the Project site. It runs in an east-west direction between A Street to the west and South Boston Bypass Road to the east. The roadway consists of one travel lane in each direction. In the vicinity of the Project site, curbside parking is restricted on both sides of the roadway. Sidewalks are provided along both sides of the roadway.

Medallion Avenue is a two-way roadway under BTD jurisdiction located to the north of the Project site. It runs in a north-south direction between West First Street to the south and Binford Street to the north. The roadway consists of one travel lane in each direction. In the vicinity of the Project site, curbside parking is allowed on the west side of the roadway. Sidewalks are provided along both sides of the roadway.

Cypher Street is a two-way roadway under BTD jurisdiction located to the northeast of the Project site. It runs in an east-west direction between South Boston Bypass Road to the west and D Street to the east. The roadway consists of one travel lane in each direction. Curbside parking is restricted along both sides of the roadway. Sidewalks are not provided along either side of the roadway.

Sobin Park is a two-way roadway under BTD jurisdiction located to the north of the Project site. It runs in an east-west direction between A Street to the east and the Gillette Headquarters to the west. The roadway consists of one travel lane in each direction. In the vicinity of the Project site, curbside parking is restricted on both sides of the roadway. Sidewalks are provided along both sides of the roadway.

3.2.2 Existing Intersection Conditions

The intersections in the vicinity of the Project site are described below. Intersection characteristics such as traffic control, lane usage, pedestrian facilities, and pavement markings are presented.

A Street/West Second Street is a four-legged, signalized intersection with four approaches. The signal operates in two phases: (1) A Street northbound/southbound, (2) West Second Street eastbound/westbound. Pedestrian phases are provided concurrently with the parallel vehicular movements.

The West Second Street eastbound approach consists of a single travel lane that accommodates left-turns and right-turns. Eastbound through movements are prohibited. Right turns on red are permitted on this approach. The West Second Street westbound approach is one-way and consists of an exclusive left-turn lane and a shared through/right-turn lane. Right turns on red are permitted along this approach.

The A Street northbound approach consists of a single travel lane accommodating left-turns and through movements. The A Street southbound approach consists of a single travel lane accommodating through and right-turn movements. Right turns on red are permitted along the A Street southbound approach.

Sidewalks are provided along both sides of all roadways. Crosswalks and wheelchair ramps are marked across all approaches and pedestrian signal equipment are not provided.

A Street/Richards Street/Sobin Park is a four-legged, signalized intersection with four approaches. The signal operates in two phases: (1) A Street northbound/southbound, (2) Richards Street/Sobin Park eastbound/westbound. Pedestrian phases are provided concurrently with the parallel vehicular movements.

The Sobin Park eastbound and Richards Street westbound approaches each consist of two travel lanes and an exclusive left-turn lane and shared through/right-turn lane. Right turns on red are permitted on both approaches. The A Street northbound and southbound approaches each consist of a single travel lane accommodating left-turn/through/right-turn movements. Both A Street approaches also have a bike lane. Right turns on red are permitted on both approaches. Sidewalks are provided along both sides of all roadways. Crosswalks, wheelchair ramps, and pedestrian signal equipment are provided across all approaches to the intersection.

South Boston Bypass Road/Richards Street/Cypher Street is a four-legged, signalized intersection with four approaches. The signal operates in two phases: (1) South Boston Bypass Road northbound/southbound, (2) Richards Street/Cypher Street eastbound/ westbound.

The Richards Street eastbound approach consists of a single travel lane accommodating left-turn/through/right-turn movements. Right turns on red are permitted along this approach. The Cypher Street westbound approach consists of a shared left-turn/through lane and an exclusive right-turn lane. Right turns on red are not permitted along this approach.

The South Boston Bypass Road northbound approach consists of a shared left-turn/through lane and an exclusive right-turn only lane. Right turns on red are not permitted on this approach. The South Boston Bypass Road southbound approach consists of a single travel lane allowing left-turn/through/right-turn movements. Right turns on red are permitted on this approach. Sidewalks and crosswalks are not provided on any approach to the intersection.

A Street/West First Street is a three-legged, unsignalized intersection with three approaches. The A Street northbound and southbound approaches consist of single travel lanes and operate under free control. The West First Street eastbound approach operates under STOP sign control and consists of a single travel lane with curbside parking on the north side of

the street. Sidewalks are provided along both sides of all roadways. A crosswalk is marked across the West Second Street approach. Wheelchair ramps are provided at both ends of this crosswalk.

West First Street/Medallion Avenue is a three-legged, unsignalized intersection with three approaches. The West First Street eastbound approach operates under free control and consists of a shared lane accommodating through and right-turn movements. The West First Street westbound approach operates under STOP sign control and consists of a shared lane accommodating left-turn and right-turn movements. The Medallion Avenue southbound approach operates under free control and consists of a shared lane accommodating left-turn and through movements. On-street parking is provided along the west side of the Medallion Avenue approach. Sidewalks are provided along both sides of all roadways. A crosswalk is provided across the Medallion Avenue approach and the West First Street westbound approach. Wheelchair ramps are provided at all entrances to the crosswalks.

Medallion Avenue/Richards Street is a four-legged, unsignalized intersection with four approaches. The Richards Street eastbound and westbound approaches each consist of a single travel lane accommodating left-turn/through/right-turn movements. The Medallion Avenue northbound and southbound approaches are under STOP sign control and each consists of a single travel lane accommodating left-turn/through/right-turn movements. Sidewalks are provided along both sides of all roadways except the northeast corner. Crosswalk and wheelchair ramps are provided across the east and south approaches to the intersection.

3.2.3 Existing Parking and Curb Use

Within the vicinity of the Project site, on-street parking is generally restricted along A Street and West Second Street. Some metered parking is provided along A Street, north of the site and two-hour parking is provided in several locations throughout the surrounding roadway network. On-street parking regulations within the study area are illustrated in Figure 3-2.

The site currently provides approximately 20 parking spaces split between a triangular shaped parking lot along A Street, adjacent to the building, and a parking/loading area located in the rear of the building off of West First Street. Fifteen vehicles were counted at the parking lot during a site visit on March 26, 2015. Additional off-street parking supply consists primarily of the Channel Center Garage located to the north of the Project site and several surface lots that allow for public parking.

3.2.4 Existing Public Transportation

The Project site is located within a half-mile of Broadway Station along the MBTA Red Line. Several MBTA bus routes are also located within a quarter-mile of the Project site. The following describes the public transportation facilities in the vicinity of the Project site, with a map of the nearby public transportation services shown in Figure 3-3.

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Figure 3-2
On-Street Parking and Curb Usage

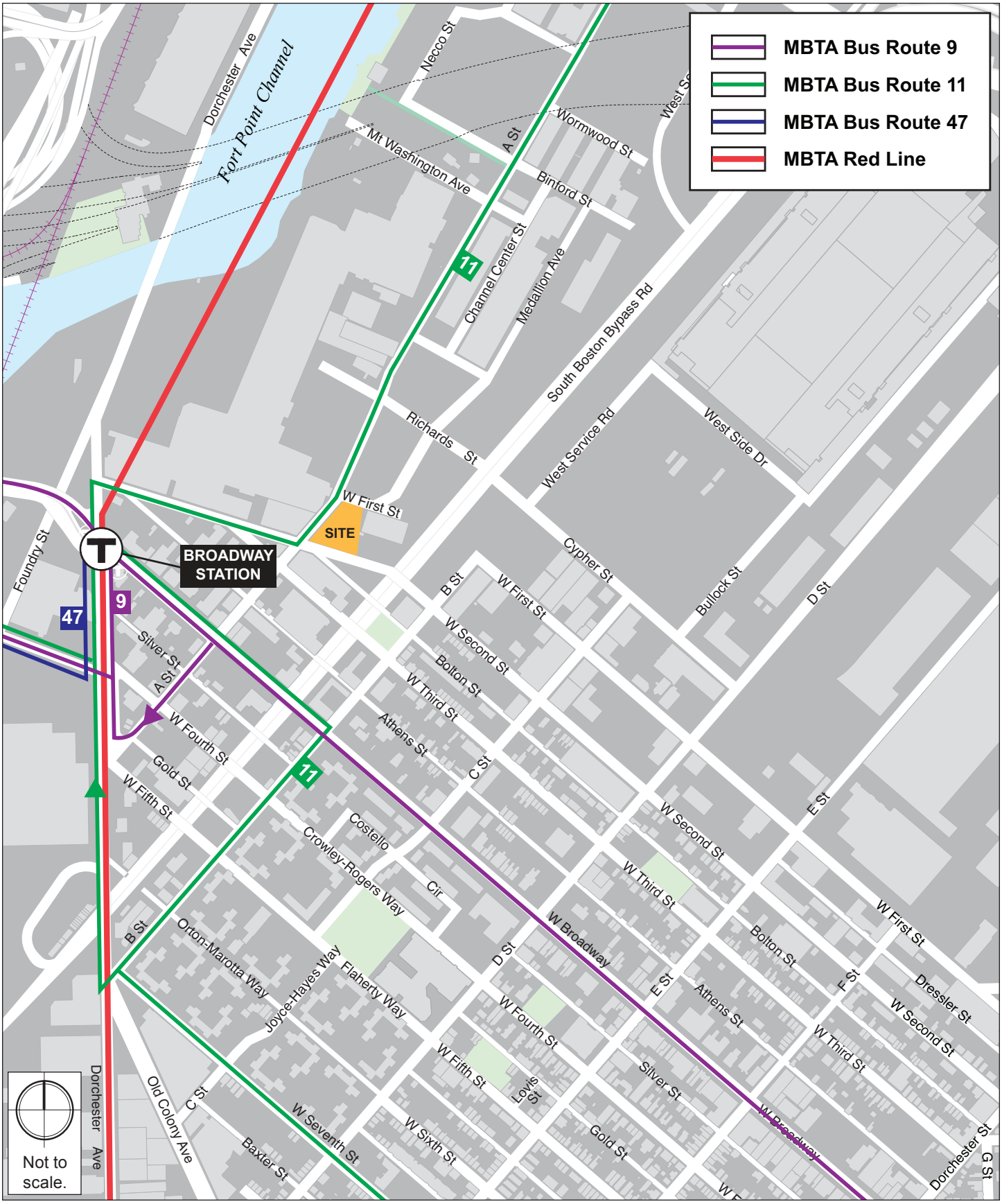

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Figure 3-3
Public Transportation

MBTA Red Line – Broadway Station is located within a half-mile of the Project site and serves the Red Line branch of the MBTA subway system. The Red Line provides access between Alewife Station to the north and both Braintree Station and Ashmont Station to the south. The Red Line also provides convenient access to downtown Boston, Quincy, and Cambridge. The Red Line operates with headways of approximately 8-9 minutes during the peak periods and 14 minute headways during the off peak periods between the two branches.

MBTA Bus Route 9 – This route provides service between the City Point bus terminal in South Boston and Copley Square in the Back Bay. Weekday and Saturday service run from approximately 5:10 a.m. to 1:15 a.m., with Sunday service running from approximately 6:00 a.m. to 1:15 a.m. Headways range from approximately 5 minutes to 30 minutes. The route runs along West Broadway in the vicinity of the site, with the nearest stops located at the intersections of West Broadway/B Street and West Broadway/C Street.

MBTA Bus Route 11 – This route provides service between City Point and Downtown Crossing Station. The nearest bus stop is located along West Second Street one block to the west of the Project site. Weekday service runs from approximately 5:11 a.m. to 1:22 a.m., Saturday service runs from approximately 5:10 a.m. to 1:20 a.m., and Sunday service runs from approximately 6:15 a.m. to 1:28 a.m. Headways range from approximately 6 minutes during the peak periods to 25 minutes during the off peak periods.

MBTA Bus Route 47 – This route provides service between Broadway Station in South Boston and Central Square in Cambridge via Ruggles Station in the Fenway area. Weekday service runs from approximately 6:00 a.m. to 1:00 a.m. with headways of approximately 10 to 45 minutes. Saturday service runs from approximately 5:35 a.m. to 1:10 a.m. with headways of approximately 25 to 40 minutes. Sunday service runs from approximately 8:00 a.m. to 1:10 a.m. with headways of approximately 40 minutes to one hour. The route runs along Dorchester Avenue, west of the Project site, with the nearest stop located at Broadway Station.

3.2.5 Existing Pedestrian and Bicycle Conditions

Sidewalks are provided along all streets within the study area. All sidewalks are generally in good condition and range from approximately five to ten feet in width.

Within the study area, on-road bicycle accommodations exist at A Street and off-street, shared-use bicycle paths exist along the South Bay Harbor Trail, which connects Fort Point to Ruggles Station. According to the 2013 Boston Bikes map, the South Bay Harbor Trail and the South Boston Bypass Road are listed as beginner routes suitable for all types of bicyclists, and A Street is listed as an intermediate route, suitable for riders with some on-road experience.

3.2.6 Bicycle and Car Sharing

Hubway is a bicycle sharing system in the Boston area, which was launched in 2011 and consists of over 140 stations and 1,300 bicycles. There are two Hubway station within a one-quarter mile radius of the site. The nearby Hubway stations are shown in Figure 3-4.

The increasingly popular car-sharing services provide easy access to vehicular transportation for urban residents who do not own cars. The local car-sharing provider, Zipcar, offers short-term rental service for members. Vehicles are rented on an hourly and per-mile basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location. The nearby Zipcar services provide an important transportation option for area residents, reducing the need for vehicle ownership. Figure 3-4 shows the nearby car sharing locations.

3.3 Future Conditions

To assess the project-related impacts upon the full build-out, a future-conditions assessment was conducted. This assessment includes identifying any nearby development projects and roadway projects, and developing estimates for future trips traveling to and from the Project site. The following sections present the results of the assessment of the future conditions.

3.3.1 Background Development Projects

Specific planned developments that may affect traffic patterns in the vicinity of the Project site were identified. These projects are summarized in Table 3-1 and mapped in Figure 3-5.

3.3.2 Proposed Infrastructure Improvements

A review of planned improvements to roadway, transit, bicycle, and pedestrian facilities was conducted to identify nearby projects in the study area. The following projects are proposed in the vicinity of the Project site:

A Street Reconstruction: The project team's understanding is that the A Street corridor is proposed to be widened from two lanes (one in each direction) to three lanes in the vicinity of the Project site. Exclusive bicycle lanes will also be installed along A Street in both directions. Adjacent to the Project site, A Street will consist of a bicycle lane and a shared through/right-turn lane in the northbound direction and a bicycle lane, a right-turn lane, and a through travel lane in the southbound direction. Additionally, an exclusive left-turn lane will be provided along A Street southbound at the intersection with West First Street and an exclusive right-turn lane will be provided along A Street southbound at the intersection with West Second Street. The addition of the new turning lanes will help alleviate existing weekday peak congestion issues throughout the A Street corridor. However, due to the

already existing congestion levels experienced along A Street to the south at West Broadway, West Fourth Street, and Dorchester Avenue, the new turning lanes may not completely alleviate the congestion levels throughout the area during the peak hours.

The A Street reconstruction project is currently in preliminary stages. This improvement is described and presented in the Fort Point District 100 Acres Master Plan document. The project schedule for the A Street reconstruction is unknown and the design team is mindful in developing a landscape plan that will easily accommodate the project. Project Team proposals of potential A Street reconstruction improvements are shown in Figures 3-6 through 3-8.

Traffic Signal Upgrades: The BTD plans to upgrade two signalized intersections at A Street/West Second Street and A Street/Binford Street. The signal equipment at the intersection of A Street/West Second Street will be upgraded and a traffic signal is proposed to be installed at the intersection of A Street/Binford Street.

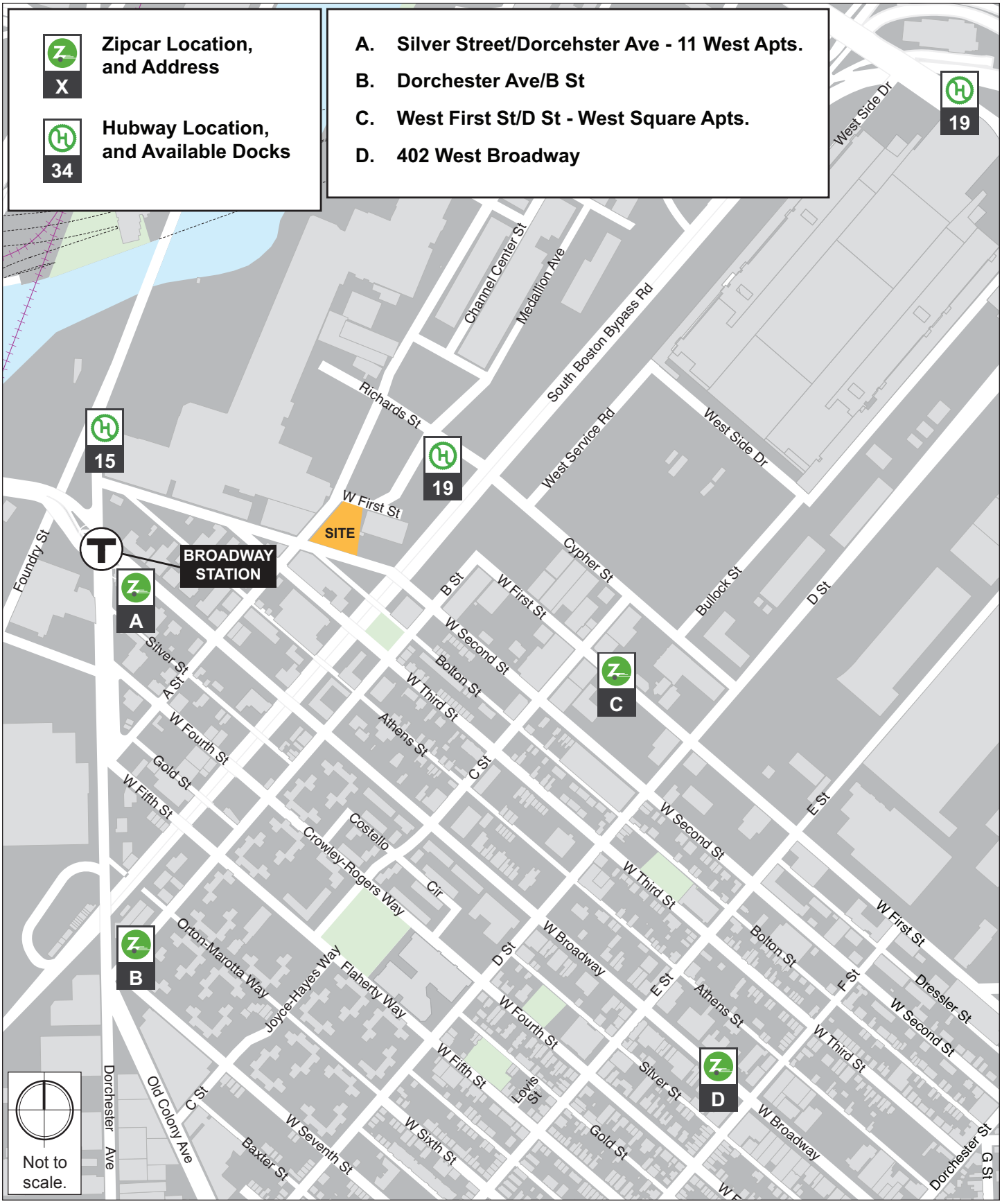

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Figure 3-4
Bicycle and Car Sharing Locations

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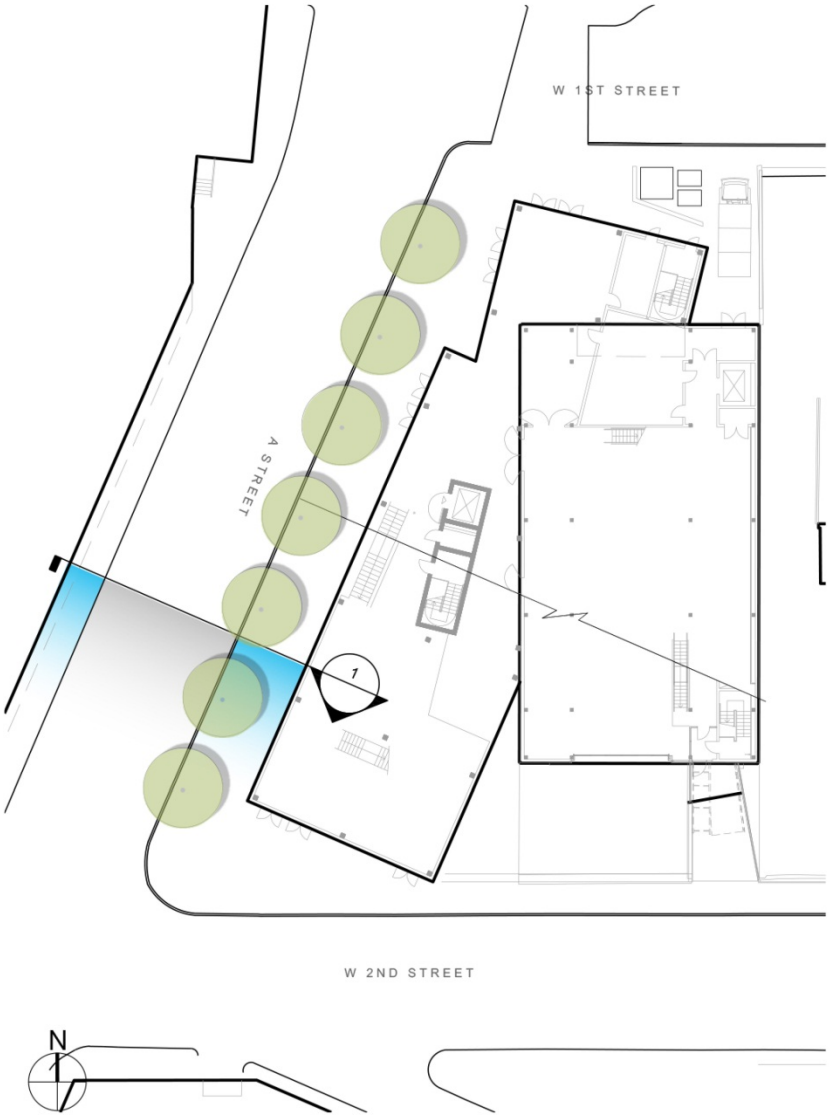
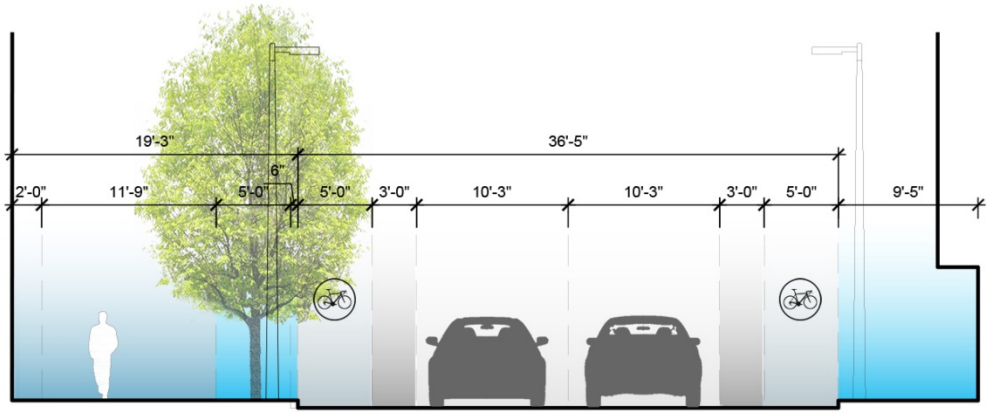
Figure 3-5
Background Development Projects





1 SECTION - EXISTING CURB WITH PROPOSED BUILDING MAXIMUM PEDESTRIAN ZONE

- Opportunity to comply with "Neighborhood Connector" street type under Boston Complete Street Design Guidelines
- Bike lane and buffer zone on both sides of A Street
- Room for street trees, stormwater infiltration and bike parking along sidewalk of proposed building
- Maximized pedestrian zone along sidewalk of proposed building

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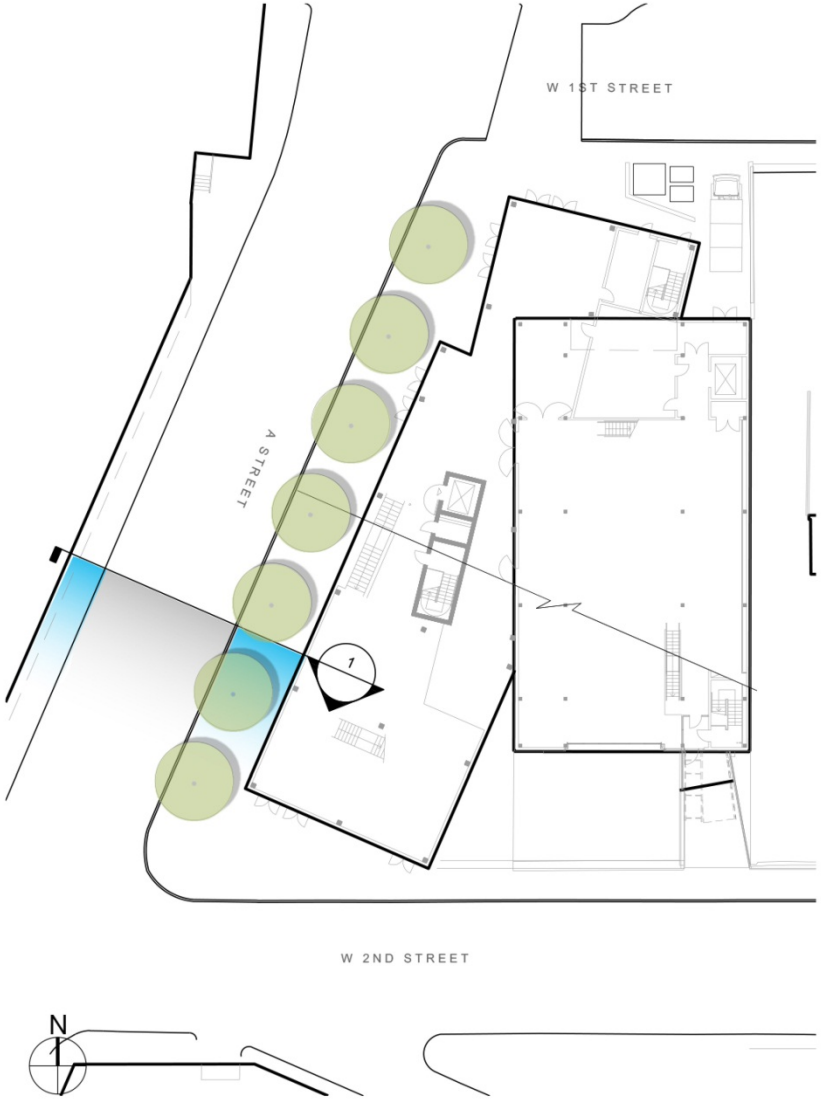
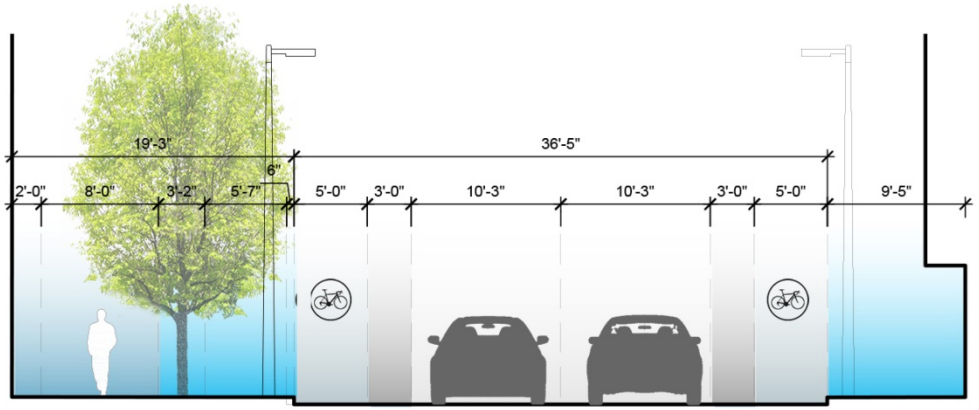
studio2112 LANDSCAPE ARCHITECTURE

Figure 3-6

A Street Corridor Improvements





1 SECTION - EXISTING CURB WITH PROPOSED BUILDING ANTICIPATING THE A STREET RECONSTRUCTION

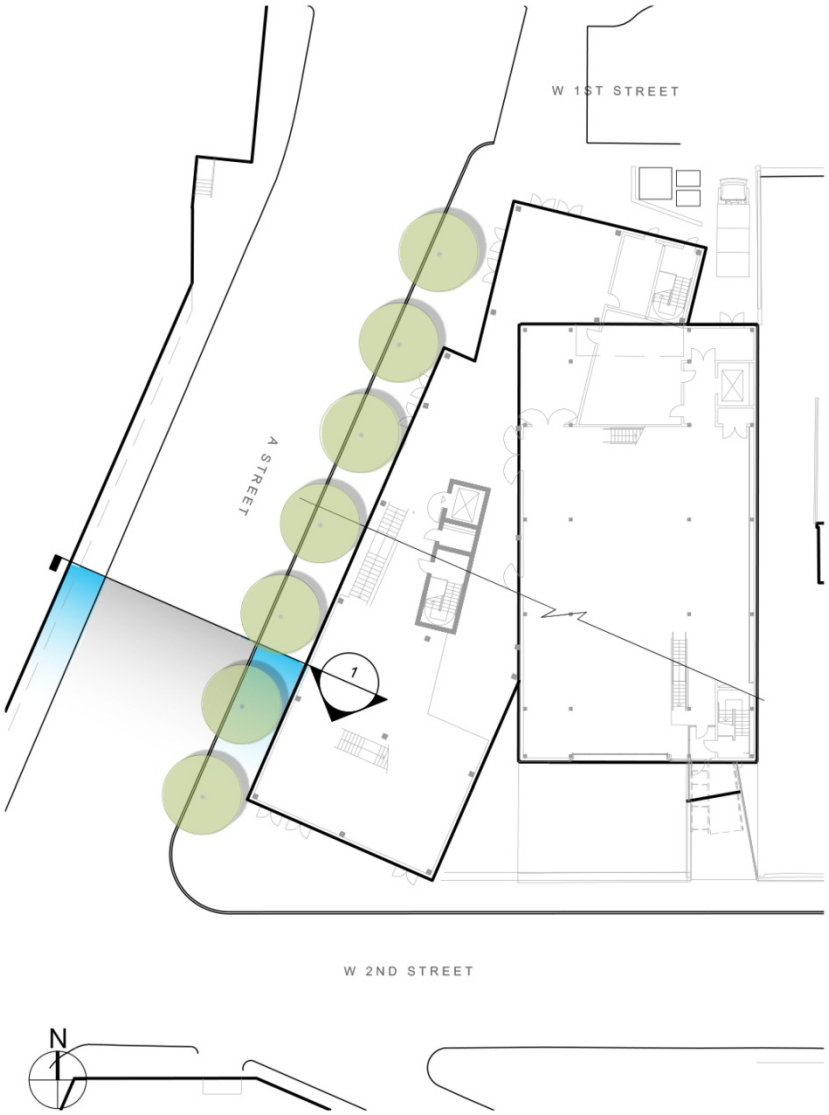
- Opportunity to comply with "Neighborhood Connector" street type under Boston Complete Street Design Guidelines
- Bike lane and buffer zone on both sides of A Street
- Room for street trees, stormwater infiltration and bike parking along sidewalk of proposed building

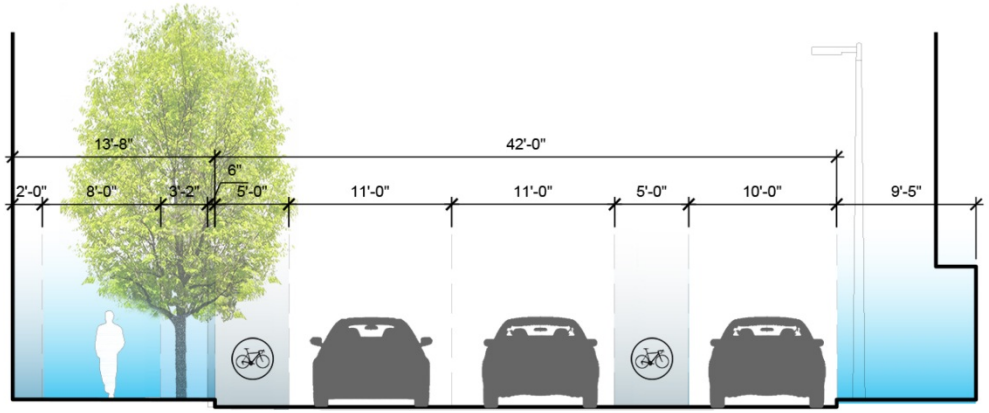
Artists for Humanity Boston, Massachusetts

studio2112 LANDSCAPE ARCHITECTURE

Figure 3-7

A Street Corridor Improvements





1 SECTION - A STREET RECONSTRUCTION OPTION

- Opportunity to comply with "Neighborhood Connector" street type under Boston Complete Street Design Guidelines
- Addition of a right turn lane for south bound traffic
- Room for street trees, stormwater infiltration and bike parking along sidewalk of proposed building

Table 3-1 Background Development Projects

Development Name	Address	Status	Description
45 West Third Street	45 West Third Street	Under Review	164 Residential Units 3,000 sf Retail 115 Parking Spaces
9 Channel Center	9 Channel Center	Board Approved	6,687 sf Retail 65,874 sf Office
South Boston Boutique Hotel	6-8 West Broadway	Board Approved	156 Room Hotel 39-62 Valet Parking Spaces
14 West Broadway	14 West Broadway Street	Under Review	47 Residential Units 6,315 sf Restaurant 4,836 sf Retail 70 Parking Spaces
248 Dorchester Avenue	248 Dorchester Avenue	Board Approved	33 Rental Units 4,400 sf Retail 33 Parking Spaces
30 B Street	30 B Street	Board Approved	32 Condominium Units 28 Parking Spaces
150 West Broadway Street	150 West Broadway Street	Board Approved	31 Residential Units 5,785 sf Retail 33 Parking Spaces
135 Athens	135 Athens Street	Board Approved	15 Residential units 20 Parking Spaces
170 West Broadway	170 West Broadway Street	Board Approved	33 Condominium Units 4,283 sf Retail/Restaurant 39 Parking Spaces
181-185 West First Street and 184, 190, & 206 West Second Street	181-185 West First Street and 184, 190, & 206 West Second Street	Board Approved	97 Residential Units 4,000 sf Retail 115 Parking Spaces

Table 3-1 Background Development Projects (Continued)

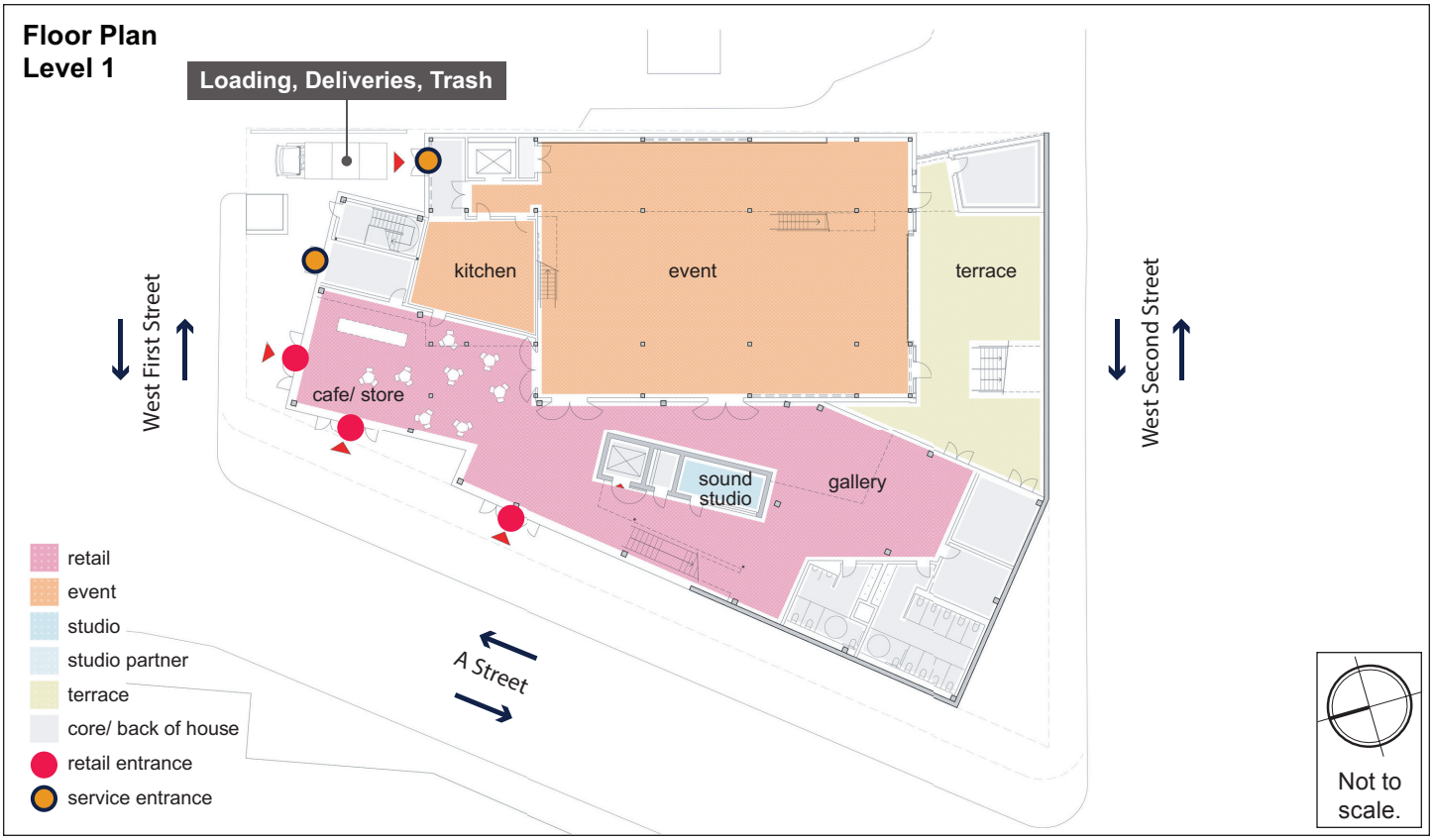
Development Name	Address	Status	Description
22-26 West Broadway Street	22-26 West Broadway Street	Under Construction	31 Rental Units 3,834 sf Retail 18 Parking Spaces
371-401 D Street	371-401 D Street	Under Construction	500 Hotel Rooms 26,300 sf Retail 1,350 Parking Spaces
148-152 Dorchester Avenue Phase II	148-152 Dorchester Avenue	Under Construction	30 Condominium Units Commercial Space 30 Parking Spaces
11 West Broadway	11 West Broadway	Construction Complete	50 Residential Units 8,000 sf Retail
411 D Street	411 D Street	Construction Complete	197 Residential Units 129 Parking Spaces
E Street Self-Storage	380-400 E Street	Construction Complete	98,000 sf of Self Storage 16 Parking Spaces

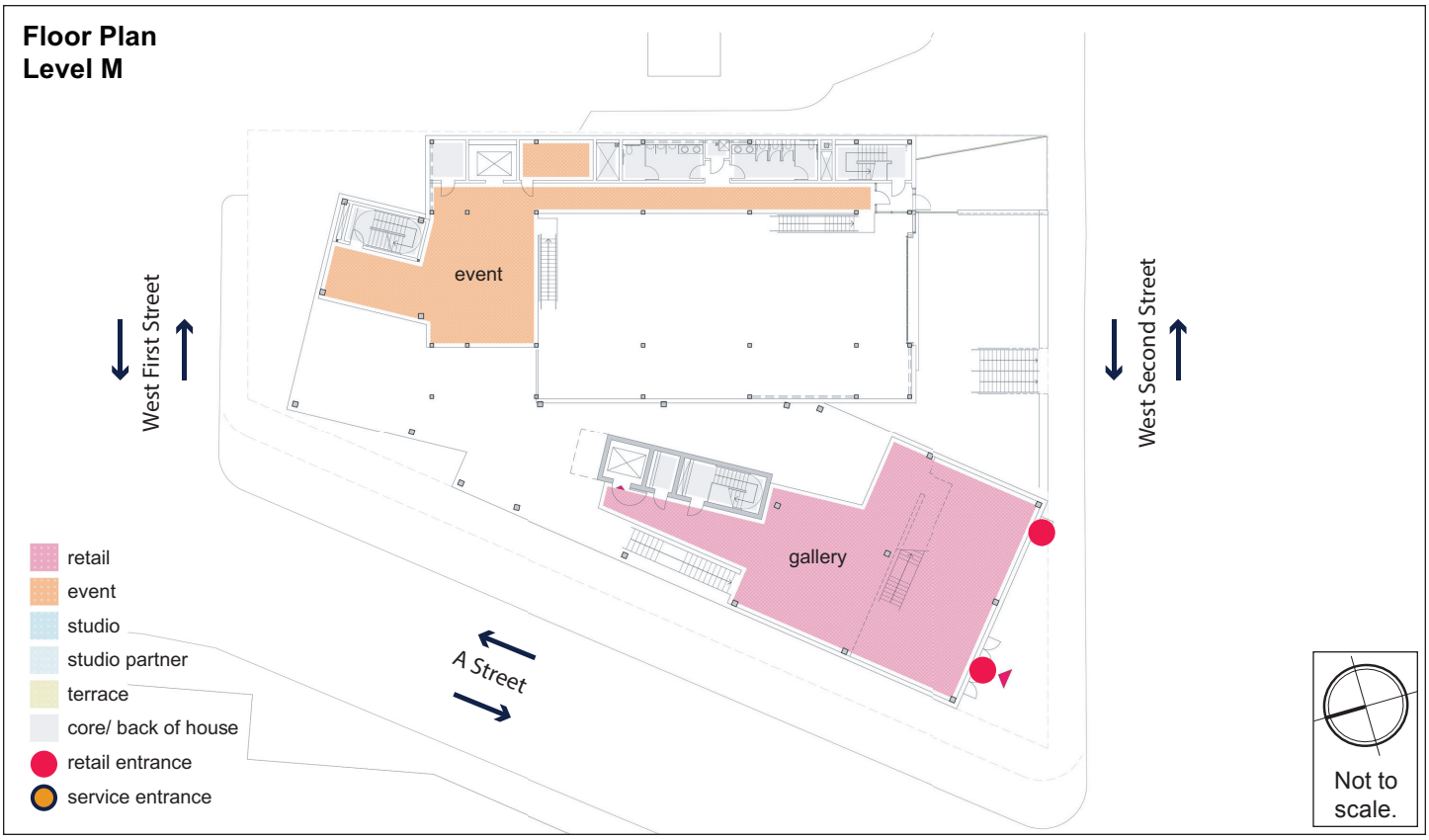
3.3.3 Site Access, Circulation, and Parking

As previously summarized, the Project involves the expansion of the current building into the existing surface parking abutting A Street. The expansion will add the 57,000 sf of space onto the 24,000 sf building for a total of 81,000 sf. The new building will contain AFH studios, event venue space, a public art maker's studio, galleries, a café, retail space, and dedicated space for related organizations in creative industries and sustainability.

Parking will not be provided on-site as part of the Project. The nearby Channel Center Garage will serve the minimal vehicular trips traveling to and from the site. The Project is also well served by public transportation. Broadway Station serves the MBTA Red Line and is located in proximity to the site, as well as several MBTA bus routes.

As shown in the Project site plan in Figure 3-9, the main entrance will be moved from its current location at the southeast corner of 100 West Second Street to the corners of A Street/West Second Street and A Street/West First Street. Loading and service will take place in the northeast corner of the building from West First Street, near its current location.





Artists For Humanity **Boston, Massachusetts**

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Figure 3-9
Site Access Plan

3.3.4 Trip Generation

Trip generation is a complex multi-step process that produces an estimate of vehicle trips, transit trips, walk trips, and bicycle trips associated with a proposed project and a specific land use program. A project's location and proximity to different modes determines how people will travel to and from that project site.

Typically, the trip generation estimates comes from data published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual[1]. However, due to the nature of the specific uses of the AFH facility, the trip generation estimates were based on arrival and departure data provided by AFH staff.

Existing Trip Generation

AFH provided data summarizing the existing activity throughout the day at the facility. Data was provided for both the peak period during the school year (September through June) and the summer peak period (July and August). Figure 3-10 summarizes the existing activity between the months of September through June on a typical weekday, and Figure 3-11 summarizes the existing activity between the months of July through August on a typical weekday. The detailed data is provided in Appendix B.

As shown in Figure 3-10, there are a total of approximately 210 arrivals and 210 departures over the course of an average weekday during the school period. These trips include both staff members that arrive in the morning and leave in the early evening and teen artists that arrive after school (around 3:00 p.m.) and depart in the early evening. The peak arrival time is 3:00 p.m. and the peak departure time is 6:00 p.m. The majority of these peak trips are made by transit. Most of the trips during the peak hours represent teen artists arriving at the site after school and then departing the area a few hours later. The arrivals throughout the earlier parts of the morning are primarily staff members.

As shown in Figure 3-11, during July and August, there are a total of approximately 205 arrivals and 205 departures over the course of an average weekday. The peak arrival time in the summer is around noon and the peak departure time is around 6:00 p.m.

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[1] *Trip Generation Manual*, 9th Edition; Institute of Transportation Engineers; Washington, D.C.; 2012.

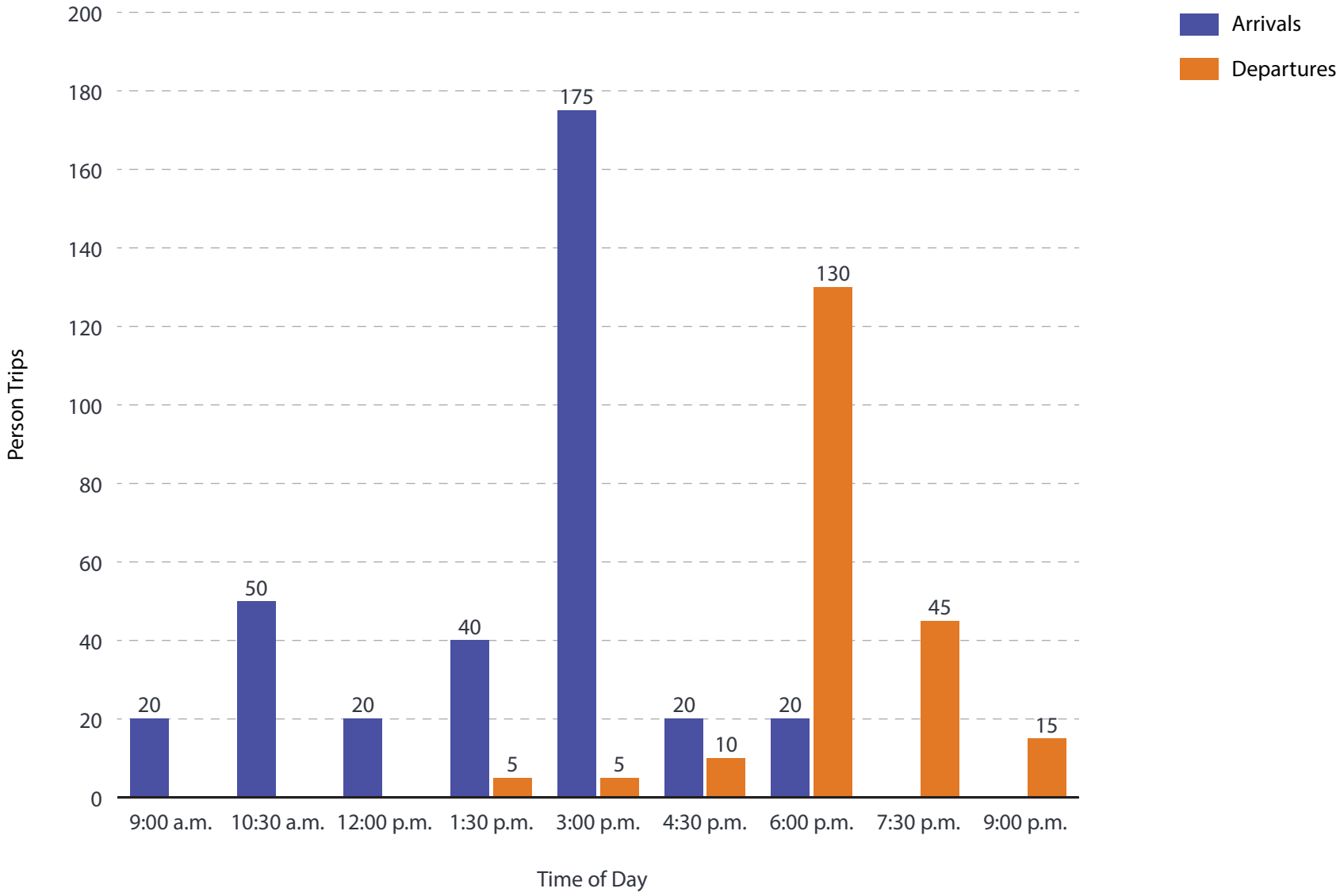

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Figure 3-10
Existing Site Activity, September through June

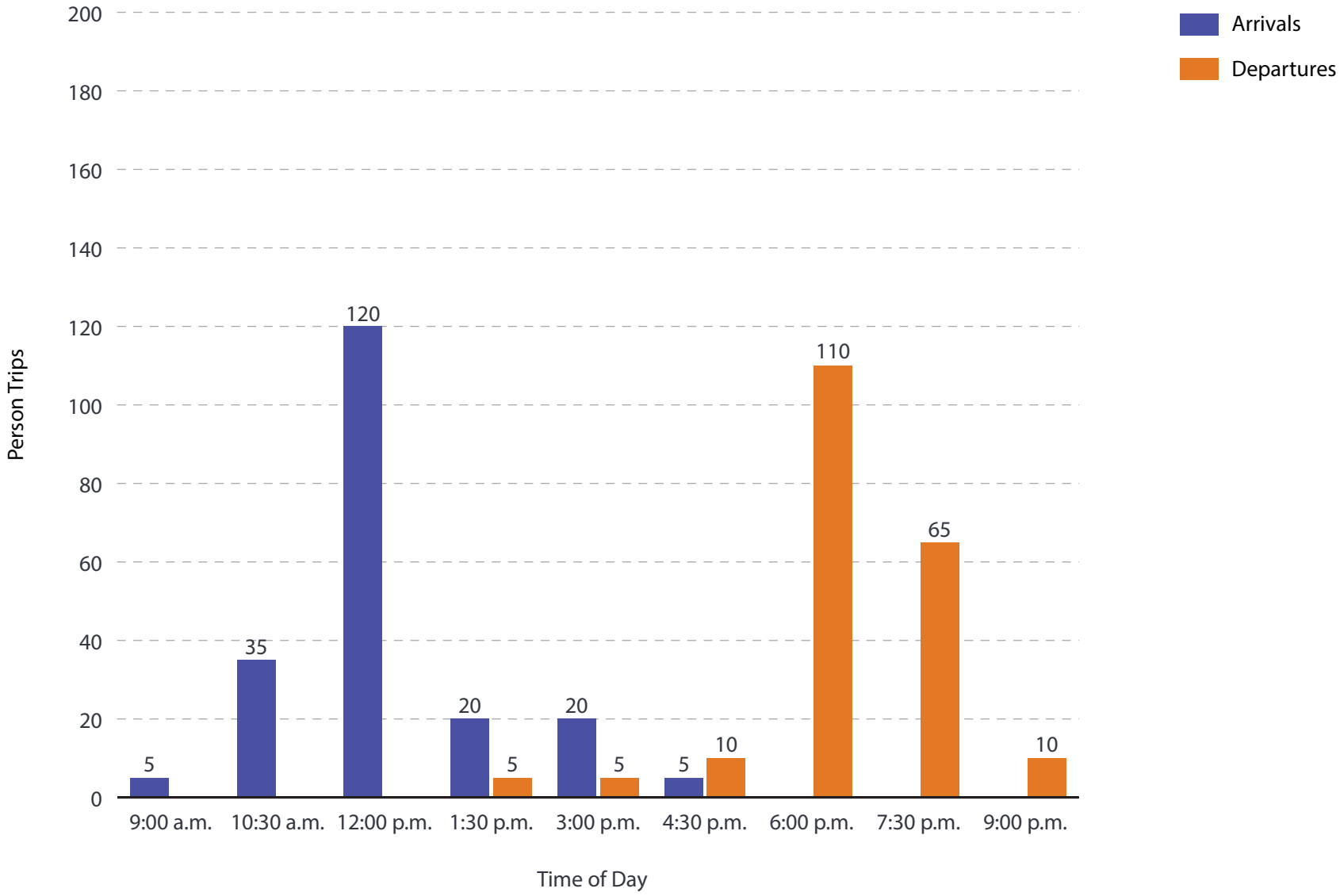

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Figure 3-11
Existing Site Activity, July through August

Future Trip Generation

Similar to the existing data, AFH provided details of the expected activity on the Project site upon completion and full occupancy of the expansion. The new facility will accommodate additional uses including partners of AFH, local artists, and the general public. The various user types have been separated into four categories.

- Studio Partners – Studio partners are the users of the studio, including partners of the AFH community, such as local university students or start-up companies. These users will occupy the building on a typical workday schedule (9 a.m. to 5 p.m.). The partners are expected to arrive at the site primarily by the public transportation facilities and other non-vehicular modes of transportation.

- Makers – Makers are artists and members of the community that will apply for a membership for the AFH and will be provided access to the space when needed. The memberships will be offered on an application based process open to South Boston residents first. These users will most likely occupy the space on an as needed basis and will most likely not be daily users of the site. The makers are expected to travel to/from the site primarily by non-vehicular modes of transportation.

- Public – Public users include users of the retail space on the ground floor, the gallery space, and visitors during events. Typically, public users of the retail space will be pass-by trips occupying the building for a short amount of time. The majority of the public users are expected to travel to the site as a pedestrian on the way to another destination.

- Artists for Humanity – AFH users will encompass the youth employees of the AFH, as well as any staff and administration employees of the AFH. These users will be the same as described in the existing conditions. The youth employees of AFH are expected to travel to/from the site by public transportation and other non-vehicular modes of transportation.

Figure 3-12 summarizes the expected future activity on a typical weekday. Based on the data provided by AFH, the summer activity is expected to be similar to the school-year activity. As shown in Figure 3-12, a total of 255 trips will be made to the site and 125 trips will be made from the site during the morning peak period (9:00 – 10:30 a.m.). Of these trips, 150 entering trips will be made by the public and all 125 departing trips will be made by the public. The public trips will generally consist of people passing by the retail space on their way to a different destination. A total of 90 trips will be made to the site and 300 trips will be made from the site during the evening peak period (6:00 – 7:30 p.m.). The majority of the AFH arrivals are expected to occur around 3:00 p.m. and depart around 6:00 p.m.

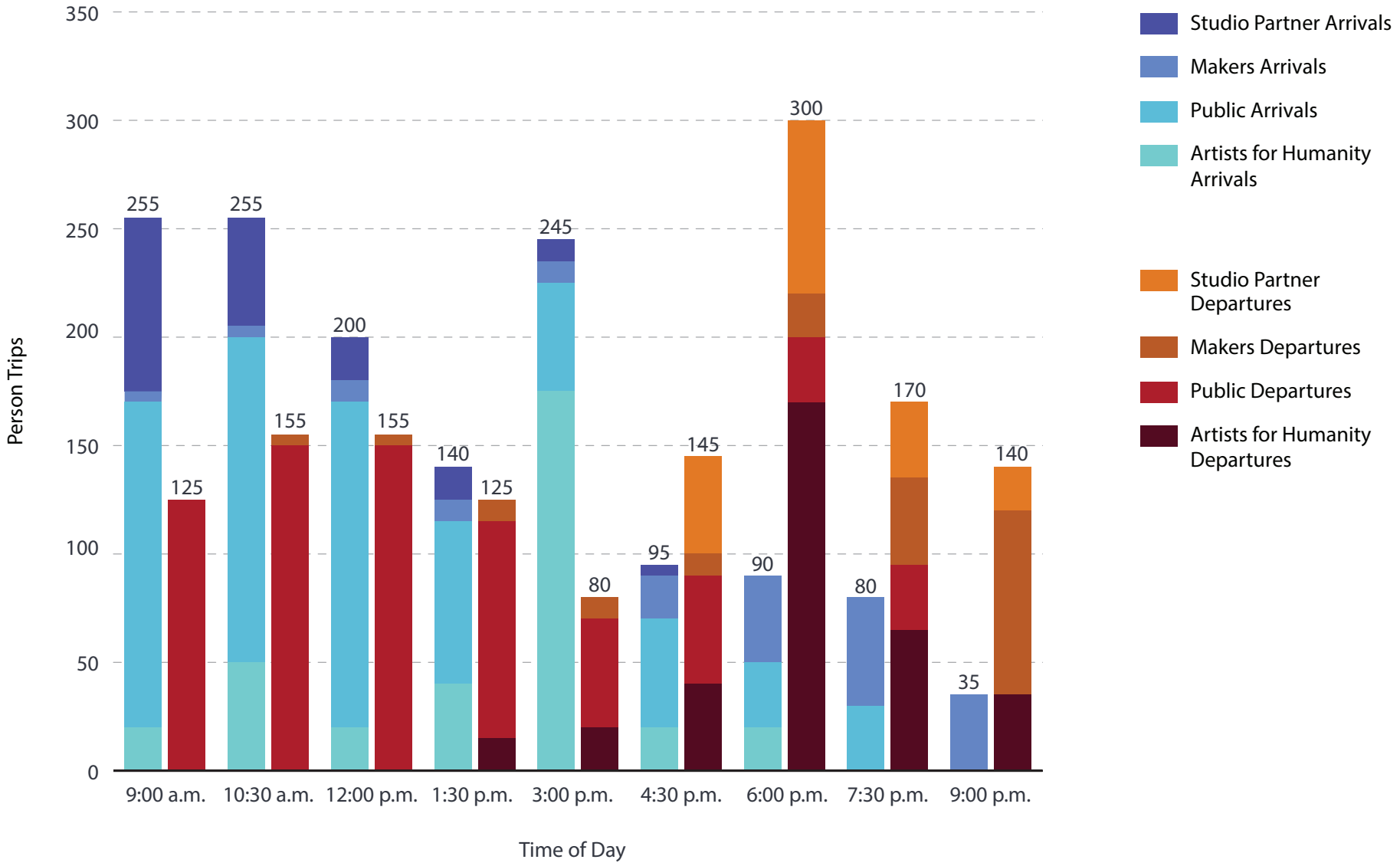

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Figure 3-12
Proposed Site Activity

3.3.5 Bicycle Accommodations

Artists for Humanity participates in the City of Boston's Roll It Forward program. The program is a project of Boston Bikes that collects, repairs, and distributes bikes to low-income Boston residents who might not otherwise have access to a bike. Twice per year, select Artists for Humanity teens are provided a bike, equipment, and safety training. The bikes provide the teens with a quick and efficient mode of transportation to and from work.

BTD has established guidelines requiring projects subject to Transportation Access Plan Agreements (TAPA) to provide secure covered bicycle parking for employees and short-term bicycle racks for visitors. The Project will provide covered and secure storage for 25 bicycles. Additional storage will be provided by outdoor bicycle racks accessible to visitors to the site in accordance with BTD guidelines.

There are also two Hubway stations located within a quarter-mile of the Project site. One Hubway station is located at Gillette Park near the intersection of Dorchester Avenue/West Second Street and another Hubway Station is located along Richards Road at the recently constructed Channel Center.

3.3.6 Loading and Service Accommodations

Loading and service operations will occur on-site at the ground level near the northeast corner of the building off of West First Street. The loading dock will accommodate a delivery vehicle up to 40-feet in length. All trash truck activity will take place in loading area.

Delivery trip estimates were based on data provided in the Truck Trip Generation Rates by Land Use in the Central Artery/Tunnel Project Study Area report[2]. Deliveries to the Project site will be limited to SU-36 trucks and smaller delivery vehicles. Based on the CTPS report, commercial uses similar to the AFH facility generate approximately 0.11 deliveries trips per 1,000 sf of gross floor area. The Project is expected to generate approximately ten delivery trips per day. These numbers do not include trash truck trips. The low number of anticipated deliveries will have minimal impact on the vehicular operations along A Street and West First Street and will be accommodated on site.

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[2] *Truck Trip Generation Rates by Land Use in the Central Artery/Tunnel Project Study Area*; Central Transportation Planning Staff; September 1993.

3.3.7 Events

Artists For Humanity hosts events in its main event space. The average number of guests at these events is 125. AFH event staff work diligently with planners in advance of the event to coordinate arrival and departure of guests. Currently, free parking is offered for up to 100 cars, and AFH often works with Valet companies for hosted parking. During the average event approximately half of these spots are utilized by guests. The primary modes of transportation for event guests are taxi, private coach, and public transportation. Proximity to the MBTA encourages use of public transportation for many event guests. The majority of events occur on weekends.

In the expanded EpiCenter, the size of the main event space will not expand and functions are expected to be similar in size as in current conditions. With the expansion AFH will no longer offer free parking, further encouraging the use of taxis and public transportation.

3.4 Transportation Mitigation Measures

While the traffic impacts associated with the new Project generated trips are minimal, the Proponent will continue to work with the City of Boston to create a Project that efficiently serves vehicle trips, improves the pedestrian environment, and encourages transit and bicycle usage.

As part of the Project, the Proponent will bring all abutting sidewalks and pedestrian ramps to the City of Boston standards in accordance with the Boston Complete Streets design guidelines. This will include the reconstruction and widening of the sidewalks where possible the installation of new, accessible ramps, improvements to street lighting where necessary, planting of street trees, and providing bicycle storage racks surrounding the site, where appropriate.

The Proponent is responsible for preparation of the Transportation Access Plan Agreement (TAPA), a formal legal agreement between the Proponent and the BTD. The TAPA formalizes the findings of the transportation study, mitigation commitments, elements of access and physical design, travel demand management measures, and any other responsibilities that are agreed to by both the Proponent and BTD. Because the TAPA must incorporate the results of the technical analysis, it must be executed after these other processes have been completed. The transportation improvements to be undertaken as part of this Project will be defined and documented in the TAPA.

The Proponent will also produce a Construction Management Plan (CMP) for review and approval by BTD. The CMP will detail the schedule, staging, parking, delivery, and other associated impacts of the construction of the Project. See Section 3.6 for additional information related to the CMP.

3.5 Transportation Demand Management

The Proponent is committed to implementing Transportation Demand Management (TDM) measures to minimize automobile usage and Project related traffic impacts. TDM will be facilitated by the nature of the Project (which does not generate significant peak hour trips) and its proximity to numerous public transit alternatives.

On-site management will keep a supply of transit information (schedules, maps, and fare information) to be made available to the residents of the site. The Proponent will work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

The Proponent is prepared to take advantage of good transit access in marketing the site to future partners by working with them to implement the following TDM measures to encourage the use of non-vehicular modes of travel.

The TDM measures for the Project may include but are not limited to the following:

- ***Orientation Packets:*** The Proponent will provide orientation packets to new tenants and employees containing information on available transportation choices, including transit routes/schedules and nearby vehicle sharing and bicycle sharing locations. On-site management will work with tenants as they move in to help facilitate transportation for new arrivals.

- ***Bicycle Accommodation:*** The Proponent will provide bicycle storage in secure, sheltered areas for tenants and employees. Subject to necessary approvals, public use bicycle racks for visitors will be placed near building entrances. Artists for Humanity also participates in the Roll it Forward program administered by Boston Bikes.

- ***Transportation Coordinator:*** The Proponent will designate a transportation coordinator to oversee transportation issues including parking, service and loading, and deliveries and will work with partners and employees as they move in to raise awareness of public transportation, bicycling, and walking opportunities.

- ***Project Web Site:*** The web site will include transportation-related information for partners, workers, and visitors.

The Proponent will work with BTD to determine an appropriate TDM program and will formalize this program in a TAPA for the Project.

3.6 Evaluation of Short-term Construction Impacts

Details of the overall construction schedule, working hours, number of construction workers, worker transportation and parking, number of construction vehicles, and routes will be addressed in detail in a Construction Management Plan (CMP) to be filed with BTD in accordance with the City's transportation maintenance plan requirements. The CMP will also address the need for pedestrian detours, temporary parking for the project, lanes closures, and/or parking restrictions, if necessary, to accommodate a safe and secure work zone.

To minimize transportation impacts during the construction period, the following measures will be incorporated into the Construction Management Plan:

- Construction workers will be encouraged to use public transportation and/or carpool.
- A subsidy for MBTA passes will be considered for construction workers; and
- Secure spaces will be provided on-site for workers' supplies and tools so they do not have to be brought to the site each day.

The CMP will be executed with the City prior to commencement of construction and will document all committed measures.

Chapter 4.0

Environmental Review Component

4.0 ENVIRONMENTAL PROTECTION COMPONENT

4.1 Pedestrian Level Winds

Rowan Williams Davies & Irwin Inc. (RWDI) has reviewed the pedestrian wind conditions around the proposed expansion of the Artists For Humanity building at 100 West 2nd Street in Boston, Massachusetts. This initial feedback is based on knowledge of the local wind climate, as well as on years of experience and professional judgment.

4.1.1 Site and Building Information

The proposed development will be approximately 116 feet tall, stepping down towards A Street and W 2nd Street, and will cantilever over the existing Artists For Humanity Building as shown in Figure 4.1-1. The development will be located on the west side of the block bound by A Street to the west, West 1st Street to the north, S Boston Bypass to the east and West 2nd Street to the south (Figure 4.1-2).

The site is currently occupied by the four-story tall Artists For Humanity building. The proposed development, at a height of 116 feet is comparable in height to mid-rise buildings located to the north and west. The immediate surroundings to the northwest are fairly open in terms of exposing the site to winds from that direction. The cluster of high-rise buildings in downtown Boston is situated to the northwest and west of the site and would reduce winds approaching the site. The surroundings in all other directions are comprised of low to mid-rise commercial and residential buildings. Boston International Airport is to the northeast, across the Boston Main Channel, which is less than a mile from the site.

Known pedestrian areas around the site are:

- Main entry points of the development, indicated in Figure 4.1-3;
- Sidewalks on adjacent streets; and,
- Park to the north, on the east side of A Street.

4.1.2 Meteorological Information

An analysis of the long-term wind data in the Boston area indicates that, on an annual basis, the most common wind directions are those between southwest and northwest. Winds from the east and east-southeast are also relatively common. Strong winds with mean speeds greater than 20 mph (red bands in the windrose in Figure 4.1-4), are prevalent from the northwesterly and southwesterly directions throughout the year, while northeasterly winds are also frequent and strong, especially in the spring months. Typically, winds in the winter and spring are stronger than those in the summer and fall.

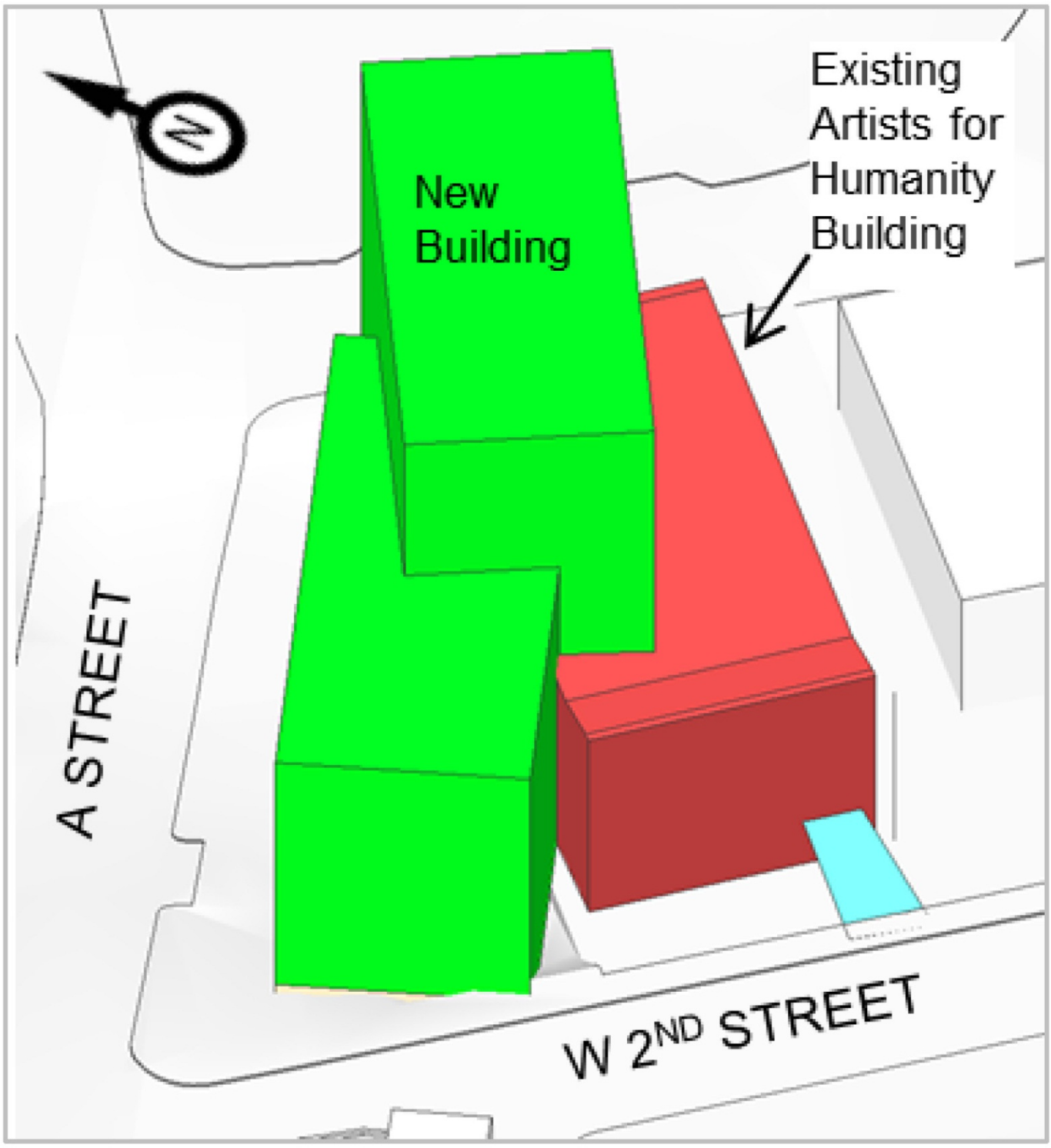
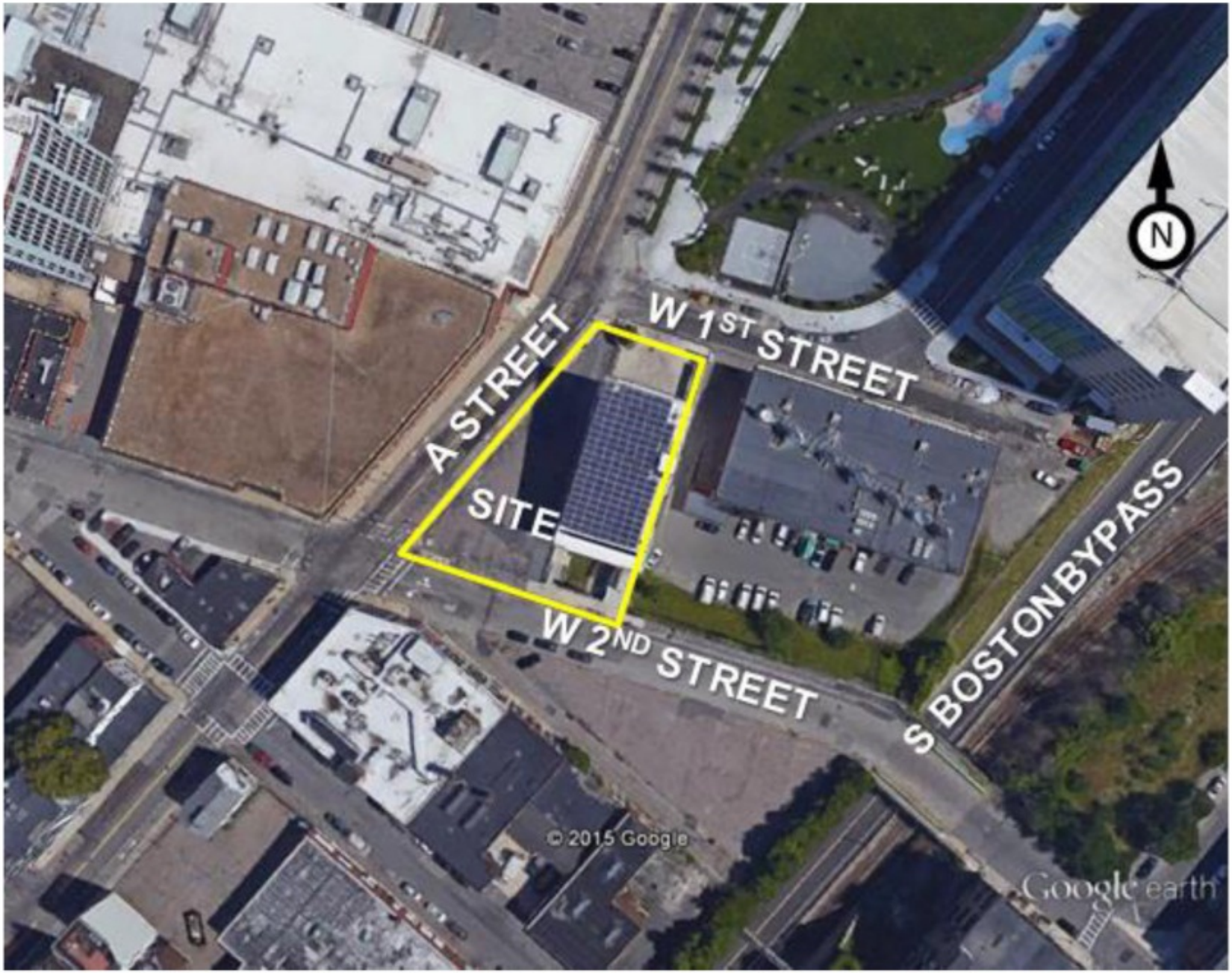


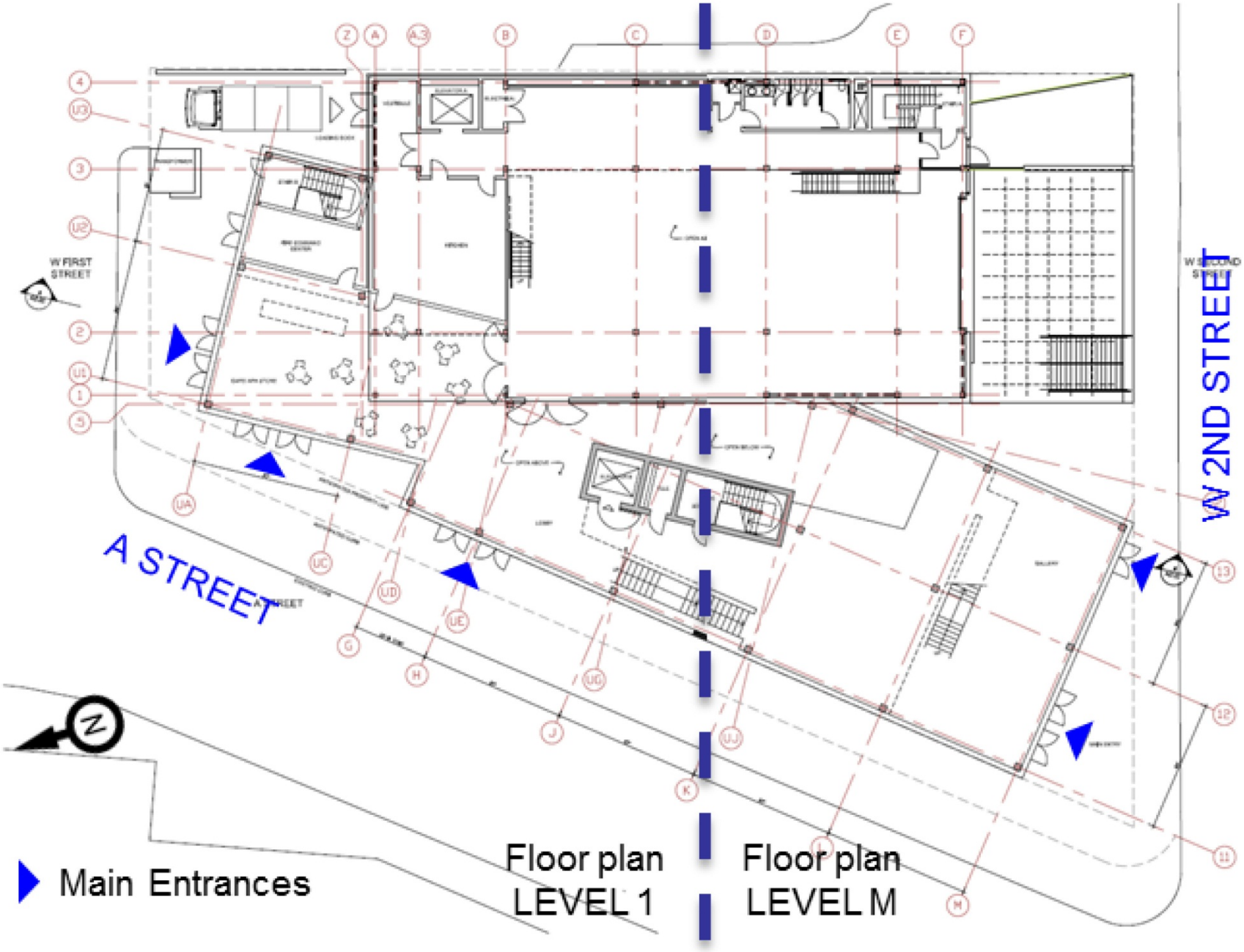
Figure 4.1-1
Massing of Proposed Development



Artists For Humanity Boston, Massachusetts

Figure 4.1-2

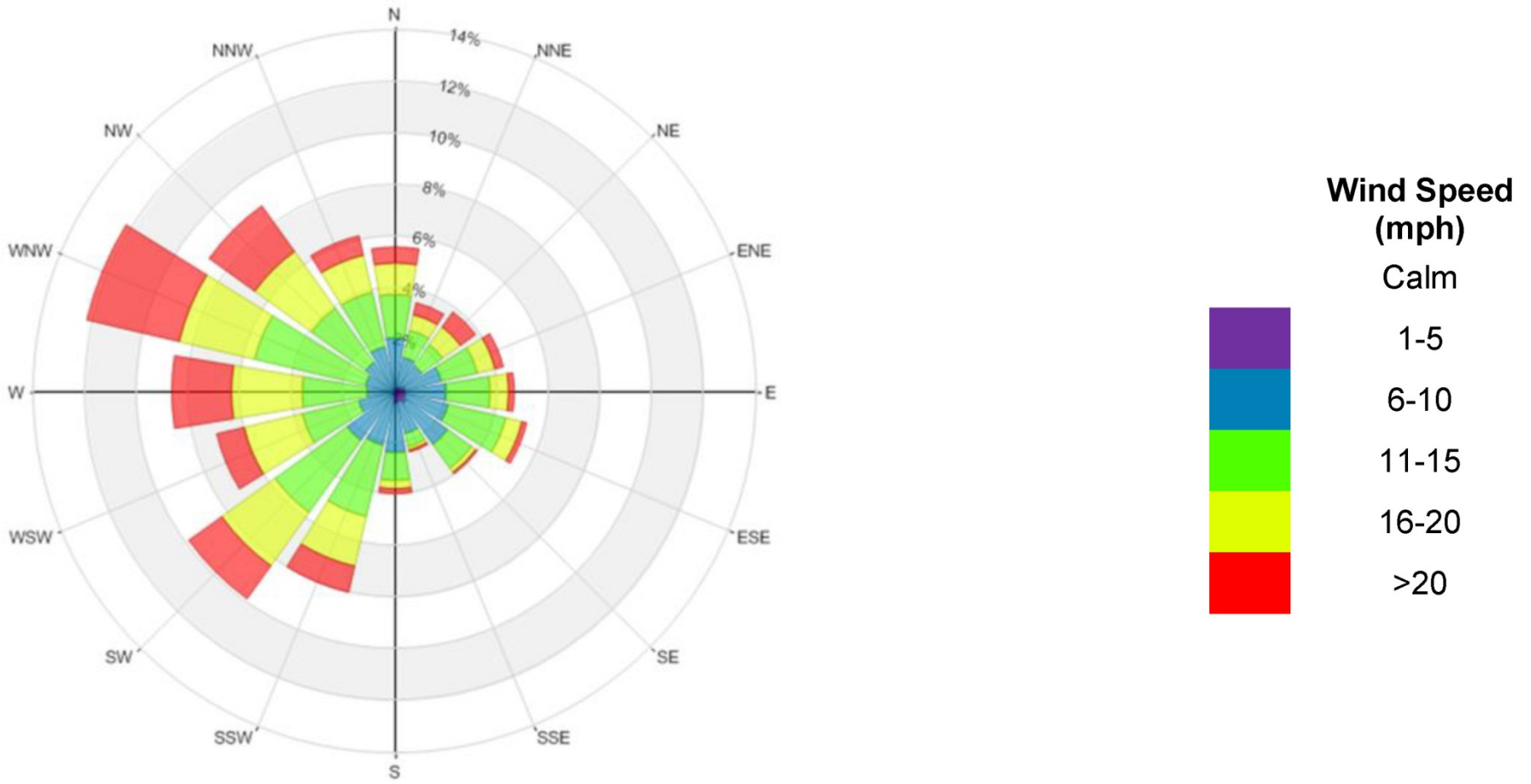
Aerial View of the Existing Site



Artists For Humanity **Boston, Massachusetts**

Figure 4.1-3

Locations of Main Entrances



Annual Winds

Artists For Humanity Boston, Massachusetts

Figure 4.1-4

Directional Distribution (%) of Winds (Blowing From) - Boston Logan International Airport (1981 to 2011)

4.1.3 Pedestrian Wind Assessment

In order to provide an opinion on the overall wind conditions expected around the proposed development, RWDI reviewed the meteorological data, as described previously. Three dimensional massing of the Project and location of entrances were also reviewed, as well as information regarding the existing surroundings. This information, in conjunction with previous work experience in the Boston region and an understanding of current wind conditions on the site, allows RWDI to summarize the expected wind conditions as follows.

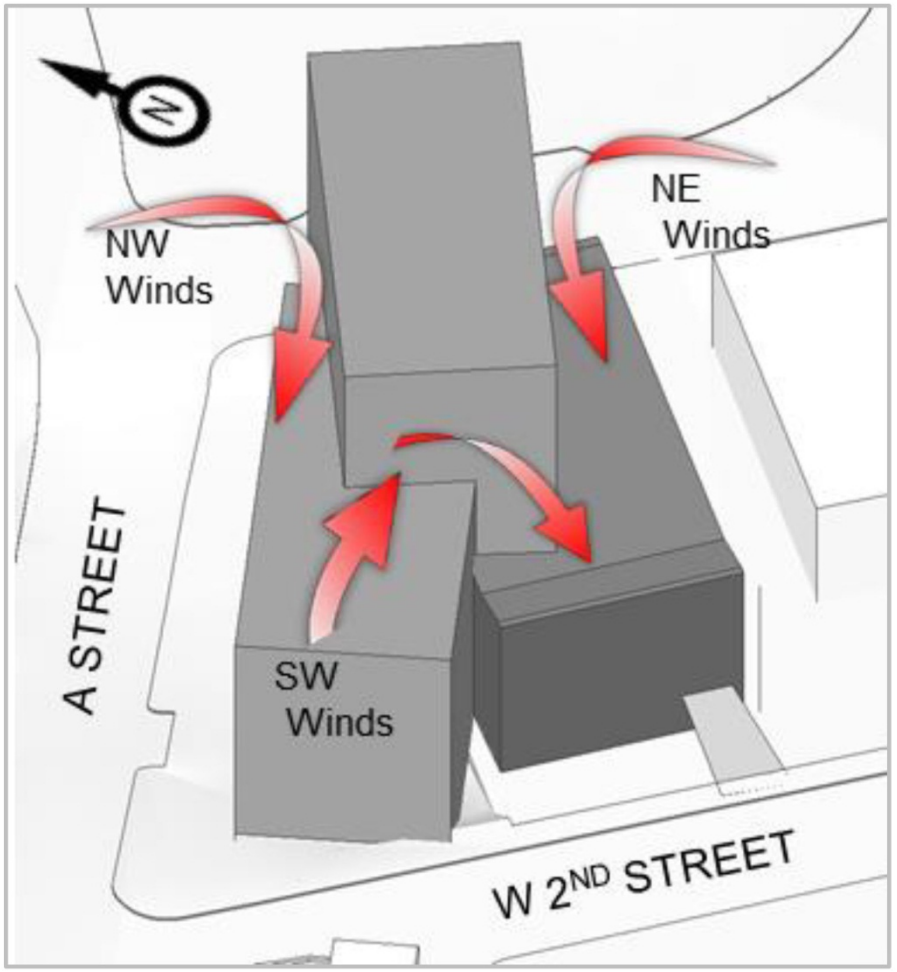
At grade level, winds approaching from the northwest and southwest would be slowed down by the existing surroundings. The site is also sheltered from the northeast winds by the mid-rise buildings in the adjacent lots in those directions. Therefore, existing conditions around the site would be suitable for pedestrians walking on the sidewalks as well as in the park to the north of the site throughout the year. On particularly windy days, areas near building corners may be windier than desired for pedestrian use, particularly in the winter, but this can be mitigated by smart landscape design which has not been accounted for in this review.

The building has a tiered design as shown in Figure 4.1-1. The tallest portion of the building is set back from West 2nd Street and from A Street at the south side of the site, which is positive in terms of wind control. As illustrated in Figure 4.1-5, winds from the northwest, southwest and northeast would be intercepted by the building and directed downwards. This downwashed flow would be captured by the shorter segments of the building and thereby be directed away from pedestrian areas at grade level. It is anticipated that wind conditions on West 2nd Street would continue to be suitable for pedestrian use and fairly similar to the existing wind conditions there.

On the north side, however, there is no massing setback and the taller segment will direct winds from the northwest and northeast down to grade level. These winds could then potentially channel into A Street and also flow across West 1st Street, and thereby increase wind activity on the associated sidewalks. These flow patterns are illustrated in Figure 4.1-6. The redirected flows along A Street and W 1st Street would yield conditions suitable for walking on the associated sidewalks during most of the year. However, during windier days, particularly in the spring and winter, winds could potentially be uncomfortable for walking. Again, this can be mitigated by smart landscape design which has not been accounted for in this review.

With the new development in place, the gap between the on-site building and the building across A Street would be reduced from the existing dimensions. This would encourage southwesterly winds to channel through A Street and increase wind activity on the sidewalks there.

Downwashing Flow



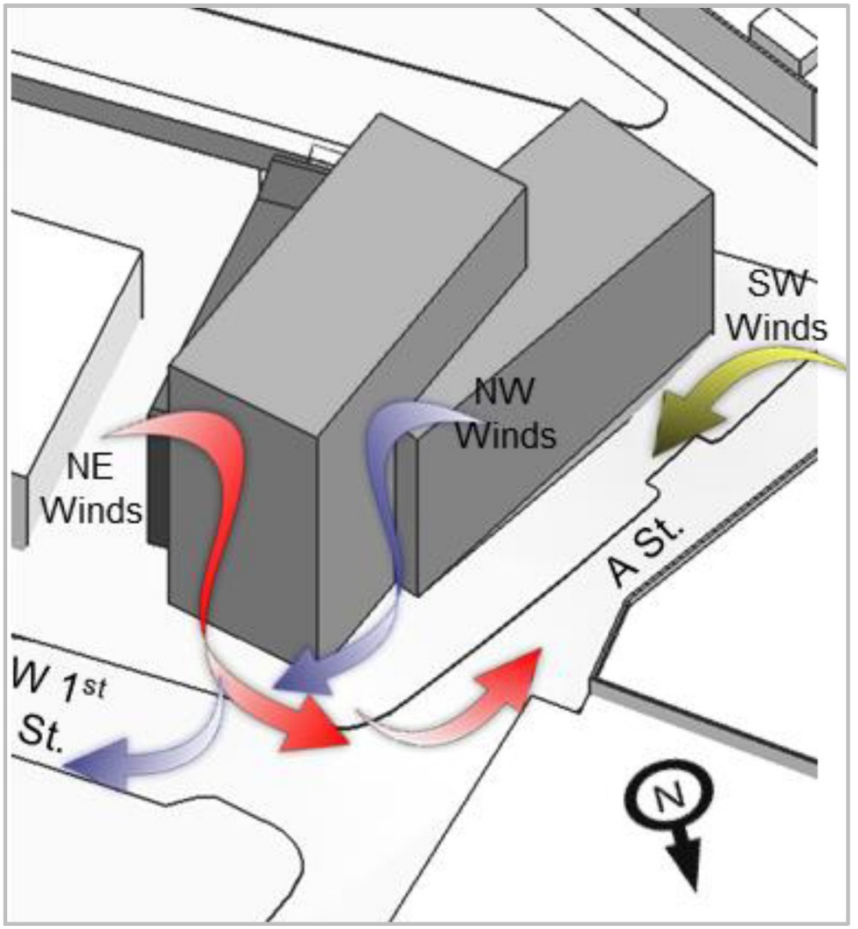
Lower Segments Capture Downwashed Flows

Artists For Humanity **Boston, Massachusetts**

Figure 4.1-5

Downwashing Flow

Downwashing Flow



Lower Segments Capture Downwashed Flows

The localized accelerations around the proposed building are not expected to influence the interior of the park to the north owing to the distance as well as trees along the south edge that protect the park from winds in the summer. During the winter, the park is unlikely to be used for passive activities and therefore, higher wind speeds suitable for walking would be acceptable.

The main entrances, particularly those located near the western corners of the building would benefit from being designed with one of the following wind control features:

- North café / gallery entrance: Trellis or canopy above OR recess entrance from the main facade;
- All other entrances: Recess from the main building façade OR place wind screen or coniferous landscaping on both sides of the entrances of the new development.

Vestibules and/or lobbies are a good measure to serve as waiting areas for patrons on windy days. Any landscaping proposed on and around the development site would enhance wind conditions in the summer. It is to be noted that deciduous plants and trees drop their leaves in the fall and therefore will have reduced wind control efficacy in the winter, when seasonally stronger winds prevail. The design team may consider coniferous or marcescent species of plants in the landscape design, particularly around the northwest and southwest building corners to enhance wind conditions around the entrances.

Severe wind conditions that would affect the safety of pedestrians are not expected to be generated by the proposed building.

4.1.4 Conclusion

Due to the building massing and the terrain roughness created by the surrounding buildings, winds at grade level are expected to be suitable for pedestrians using the sidewalks. The proposed development is not predicted to have a substantial impact on the wind conditions in the surrounding areas compared to the existing wind conditions. Localized wind accelerations are expected at building corners, but wind conditions would likely be similar to those around other building corners in the surroundings and would be suitable for pedestrian use in general. Building entrances would benefit from wind control features such as wind screens, trellis/canopy, landscaping etc. as described previously.

4.2 Shadow Impacts

4.2.1 Introduction and Methodology

A shadow impact analysis was conducted to assess potential shadow impacts from the Project. The study looked at the following four times of the year:

1. Spring Equinox (March 21) at 9:00 a.m., 12:00 noon, and 3:00 p.m.
2. Summer Solstice (June 21) at 9:00 a.m., 12:00 noon, 3:00 p.m. and 6:00 p.m.
3. Autumnal Equinox (September 21) at 9:00 a.m., 12:00 noon, 3:00 p.m. and 6:00 p.m.
4. Winter Solstice at 9:00 a.m., 12:00 noon, and 3:00 p.m.

The shadow analysis presents the existing shadow and new shadow that would be created by the Proposed Project, illustrating the incremental impact of the Project. The analysis focuses on nearby open spaces, sidewalks and bus stops adjacent to and in the vicinity of the Project site. It should be noted that the model used for the analysis does not include trees, which can block new shadow from the proposed buildings during much of the year during certain time periods. Shadows have been determined using the applicable Altitude and Azimuth data for Boston. Figures showing the net new shadow from the Project are provided in Figures 4.2-1 to 4.2-14 at the end of this section.

4.2.2 Vernal Equinox (March 21)

At 9:00 a.m. during the vernal equinox, new shadows will be cast across A Street and its sidewalks and onto the side of the Gillette Building at the corner of A and W 2nd Streets.

At 12:00 p.m., the shadows shift north and will be largely confined to A and W 1st Street. They will just touch the southwest corner of the Channel Center Park at 135 A Street.

At 3:00 p.m., the shadows extend northeast across W 1st Street and onto a small area in the south central part of Channel Center Park that is the basketball court.

4.2.3 Summer Solstice (June 21)

At 9:00 a.m., new shadows will be cast across A Street and its sidewalks and onto the side of the Gillette Building at the corner of A and W 2nd Streets.

At 12:00 p.m., shadows are very slight and fall primarily onto the Project site itself with a small area falling on A Street and W 1st Street.

At 3:00 p.m., the shadows extend northeast onto W 1st Street, but do not reach Channel Center Park.

At 6:00 p.m., shadows extend east onto the adjacent commercial property at 105 W 1st Street (RCN Building), with some reaching the street itself.

4.2.4 Autumnal Equinox (September 21)

At 9:00 a.m., new shadows will be cast across A Street and its sidewalks and onto the side of the Gillette Building at the corner of A and W 2nd Streets.

At 12:00 p.m., the shadows shift north and will be largely confined to A and W 1st Street. They will just touch the southwest corner of Channel Center Park.

At 3:00 p.m., the shadows extend northeast across W 1st Street and onto a small area in the south central part of Channel Center Park that is the basketball court.

At 6:00 p.m., shadows are long. New shadow will be cast onto the roof of the adjacent commercial property at 105 W 1st Street (RCN Building) and onto vacant property and parking lots east of the South Boston Bypass Road.

4.2.5 Winter Solstice (December 21)

The winter solstice creates the least favorable conditions for sunlight in New England. The sun angle during the winter is lower than in any other season, causing the shadows in urban areas to elongate and be cast onto large portions of the surrounding area.

At 9:00 a.m., the Project will not cast any new shadow.

At 12:00 p.m., new shadow will extend nearly due north onto A Street, W 1wt Street, and onto the southwest of corner of Channel Center Park.

At 3:00 p.m., shadows are at their longest. New shadow will be cast to the northeast across W 1st Street and onto Channel Center Park, Richards Street, and the State Street Building at 1 Iron Street. A narrow sliver of new shadow will extend the length of Channel Center Park, with a broader area in the northeast corner

4.2.6 Conclusions

Shadow impacts will be relatively minor. Most new shadow will cast onto the Project site itself, the surrounding roadways, and onto the roofs of adjacent commercial buildings. At certain times of the year, generally late in the day, some shadow will reach Channel Center Park immediately north of the site; however, given the times of day and year, this impact will not be significant.

Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 4.2-1

Shadow Study: March 21, 9 a.m.

Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 4.2-2

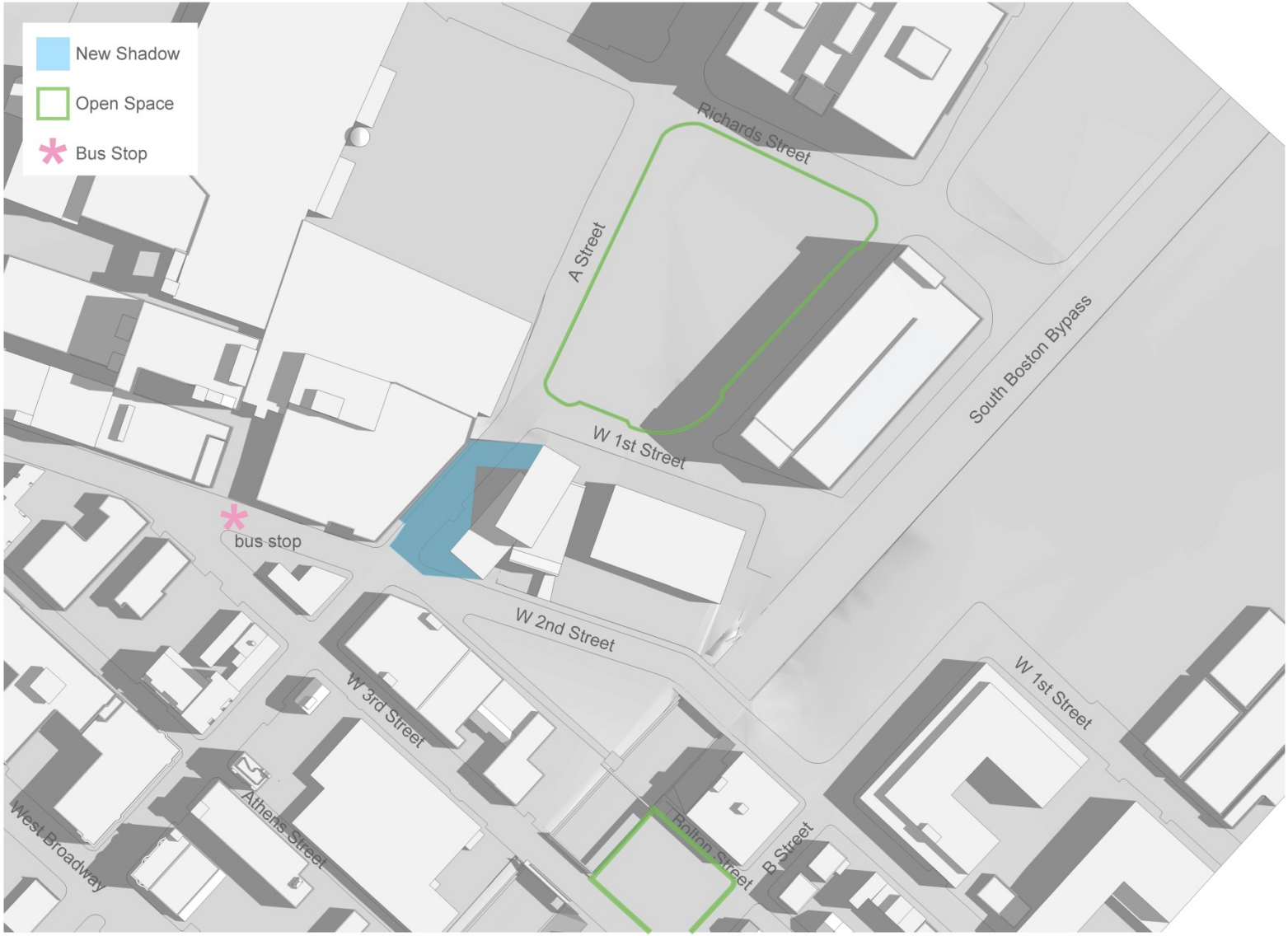
Shadow Study: March 21, 12 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-3

Shadow Study: March 21, 3 p.m.



Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 4.2-4

Shadow Study: June 21, 9 a.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-5

Shadow Study: June 21, 12 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-6

Shadow Study: June 21, 3 p.m.

Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 4.2-7

Shadow Study: June 21, 6 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-8

Shadow Study: September 21, 9 a.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-9

Shadow Study: September 21, 12 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-10

Shadow Study: September 21, 3 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-11

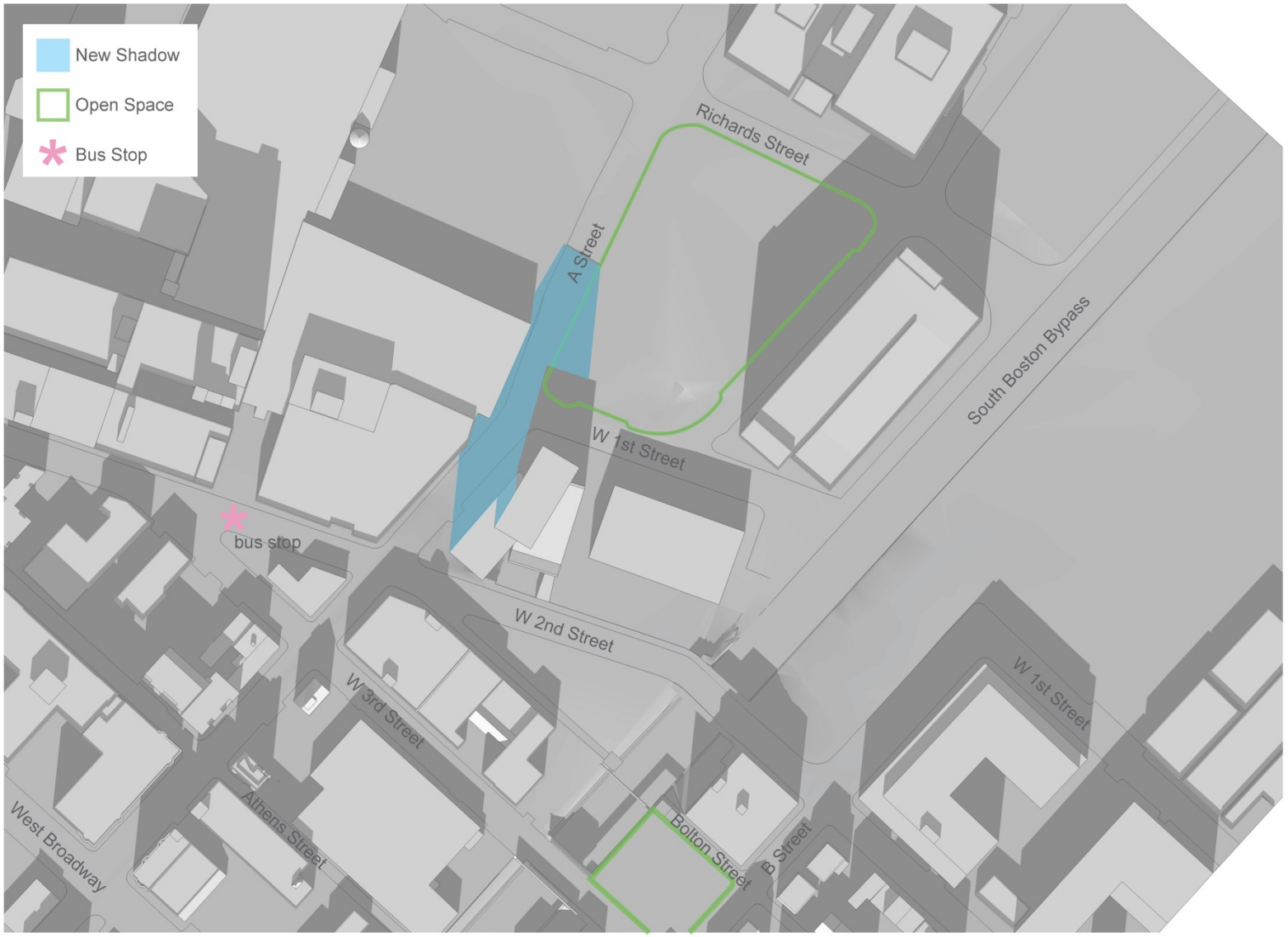
Shadow Study: September 21, 6 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-12

Shadow Study: December 21, 9 a.m.



Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-13

Shadow Study: December 21, 12 p.m.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 4.2-14

Shadow Study: December 21, 3 p.m.

4.3 Daylight Analysis

4.3.1 Introduction

The purpose of the daylight analysis is to estimate the extent to which a proposed project will affect the amount of daylight reaching the streets and the sidewalks in the immediate vicinity of a project site.

Because the existing Artists For Humanity building only takes up a portion of the site, the proposed Project will increase daylight obstruction, however, the resulting conditions will be typical of the South Boston area and other urban areas.

4.3.2 Methodology

The daylight analysis was performed using the Boston Redevelopment Authority Daylight Analysis (BRADA) computer program[1]. This program measures the percentage of sky-dome that is obstructed by a project and is a useful tool in evaluating the net change in obstruction from existing to build conditions at a specific site.

Using BRADA, a silhouette view of the building is taken at ground level from the middle of the adjacent city streets or pedestrian ways centered on the proposed building. The façade of the building facing the viewpoint, including heights, setbacks, corners and other features, is plotted onto a base map using lateral and elevation angles. The two-dimensional base map generated by BRADA represents a figure of the building in the "sky dome" from the viewpoint chosen. The BRADA program calculates the percentage of daylight that will be obstructed on a scale of 0 to 100 percent based on the width of the view, the distance between the viewpoint and the building, and the massing and setbacks incorporated into the design of the building; the lower the number, the lower the percentage of obstruction of daylight from any given viewpoint.

The analysis compares three conditions: Existing Conditions; Proposed Conditions; and the context of the area.

Three viewpoints were chosen to evaluate the daylight obstruction for the Existing and Proposed Conditions. Three area context points were considered to provide a basis of comparison to existing conditions in the surrounding area. The viewpoint and area context viewpoints were taken in the following locations and are shown on Figure 4.3-1.

- **Viewpoint 1:** West Second Street facing north toward the Project site
- **Viewpoint 2:** View from A Street facing east toward the Project site

[1] Method developed by Harvey Bryan and Susan Stuebing, computer program developed by Ronald Fergle, Massachusetts Institute of Technology, Cambridge, MA, September 1984.

Data Source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division - Data Obtained October 2014

Artists For Humanity **Boston, Massachusetts**

Epsilon Associates Inc.

Figure 4.3-1

Viewpoint and Area Context Locations

- **Viewpoint 3:** View from West First Street facing south toward the Project site
- **Area Context Viewpoint AC1:** View from A Street facing northwest toward the building at 50 West Broadway
- **Area Context Viewpoint AC2:** View from West Second Street facing southwest toward the building at 141 West Second Street
- **Area Context Viewpoint AC3:** View from West Second Street facing northeast toward the building at 44 West Second Street

4.3.3 Results

The results for each viewpoint are described in Table 4.3-1. Figures 4.3-2 through 4.3-4 illustrate the BRADA results for each analysis.

Table 4.3-1 Daylight Analysis Results

Viewpoint Locations		Existing Conditions	Proposed Conditions
Viewpoint 1	West Second Street facing north toward the Project site	15.7%	39.9%
Viewpoint 2	View from A Street facing east toward the Project site	26.2%	62.6%
Viewpoint 3	View from West First Street facing south toward the Project site	21.3%	48.2%
Area Context Points			
AC1	View from A Street facing northwest toward the building at 50 West Broadway	64.0%	N/A
AC2	View from West Second Street facing southwest toward the building at 141 West Second Street	69.3%	N/A
AC3	View from West Second Street facing northeast toward the building at 44 West Second Street	77.6%	N/A

West Second Street – Viewpoint 1

West Second Street runs along the southern edge of the Project site. Viewpoint 1 was taken from the center of West Second Street looking north toward the Project site. The site has an existing daylight obstruction value of 15.7% due to a portion of the site being a surface parking lot. The development of the Project will increase the daylight obstruction value to 39.9%. While this is an increase over existing conditions, the daylight obstruction value is lower than other buildings in the area, including the Area Context buildings.

A Street – Viewpoint 2

A Street runs along the western edge of the Project site. Viewpoint 2 was taken from the center of A Street looking east toward the Project site. The site has an existing daylight obstruction value of 26.2%. Due to the Project developing on the surface parking lot, the Project will increase the daylight obstruction value to 62.6%. While this is an increase over existing conditions, the daylight obstruction value is consistent with other buildings in the area, including the Area Context buildings.

West First Street – Viewpoint 3

West First Street runs along the northern edge of the Project site. Viewpoint 3 was taken from the center of West First Street looking south toward the Project site. The site has an existing daylight obstruction value of 21.3%. The development of the Project will increase the daylight obstruction value to 48.2%. While this is an increase over existing conditions, the daylight obstruction value is consistent with other buildings in the area, including the Area Context buildings.

Area Context Viewpoints

The Project site is located in South Boston in an area with a mix of relatively low density commercial and residential uses with surface parking lots. However, the area has seen a number of new developments over the past several years. To provide a larger context for comparison of daylight conditions, obstruction values were calculated for the three Area Context Viewpoints described above and shown on Figure 4.3-1. The daylight obstruction values ranged from 64.0% for AC1 to 77.6% for AC3. Daylight obstruction values for the Project are consistent with the Area Context values.

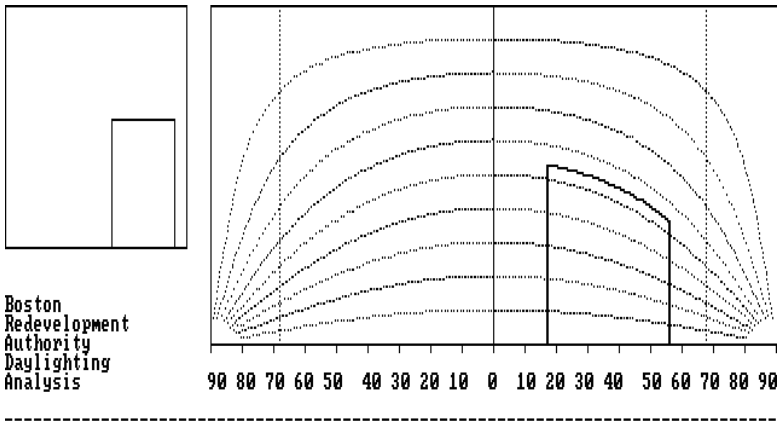
4.3.4 Conclusions

The daylight analysis conducted for the Project describes existing and proposed daylight obstruction conditions at the Project site and in the surrounding area. The results of the BRADA analysis indicate that while the development of the Project will result in increased daylight obstruction over existing conditions, the resulting conditions will be similar to the daylight obstruction values within the surrounding area and typical of densely built urban areas. The increased daylight obstruction value is mainly due to proposed density and characteristics of the massing which is consistent with other projects in the area.

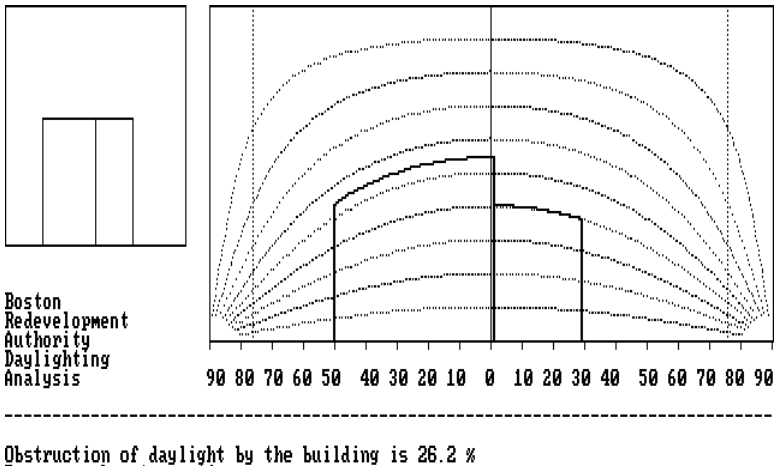
4.4 Solar Glare

The Project materials are still being studied and glazing of the windows will be determined as the design progresses. Due to the type of potential glass and glazing used, solar glare impacts are not currently anticipated.

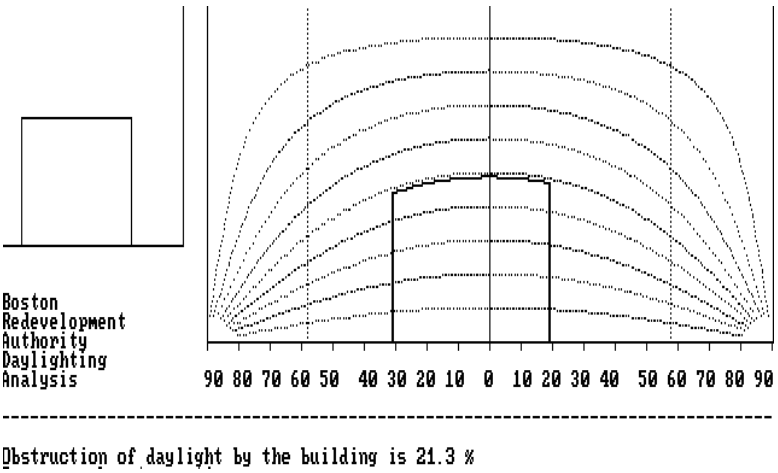
Viewpoint 1: View from West 2nd Street facing north toward the Project site



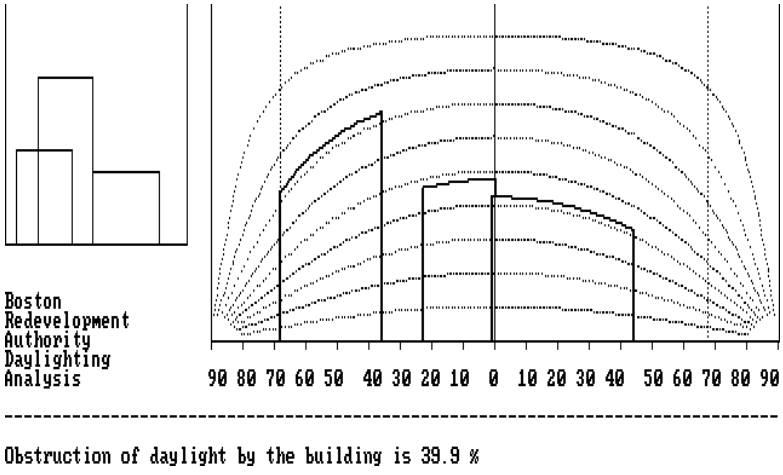
Viewpoint 2: View from A Street facing east toward the Project site



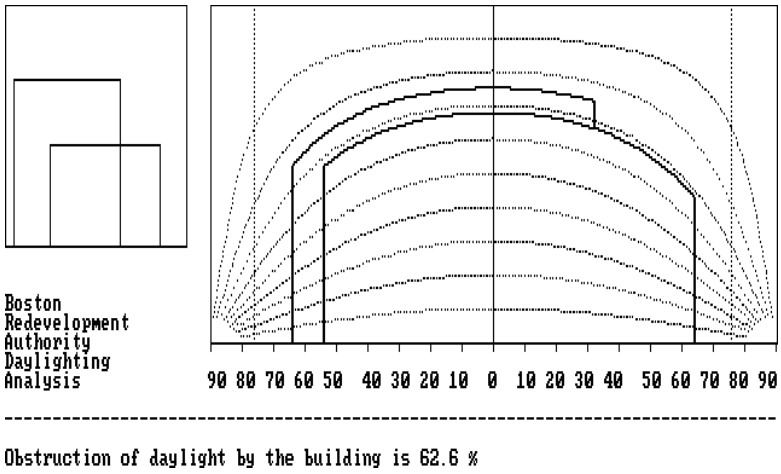
Viewpoint 3: View from West 1st Street facing south toward the Project site



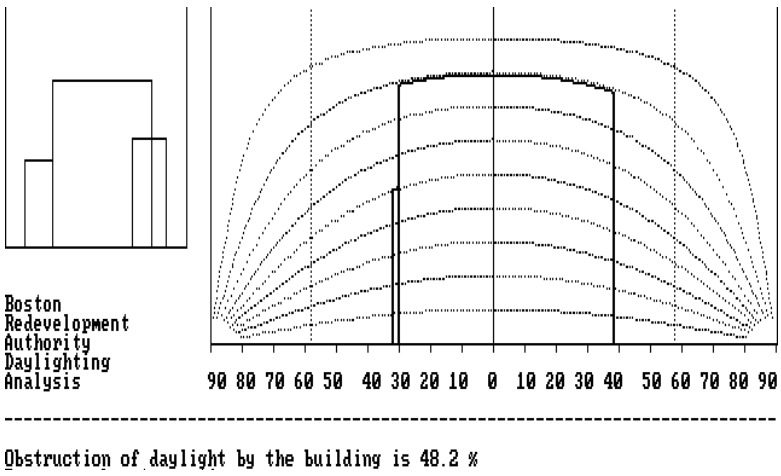
Viewpoint 1: View from West 2nd Street facing north toward the Project site



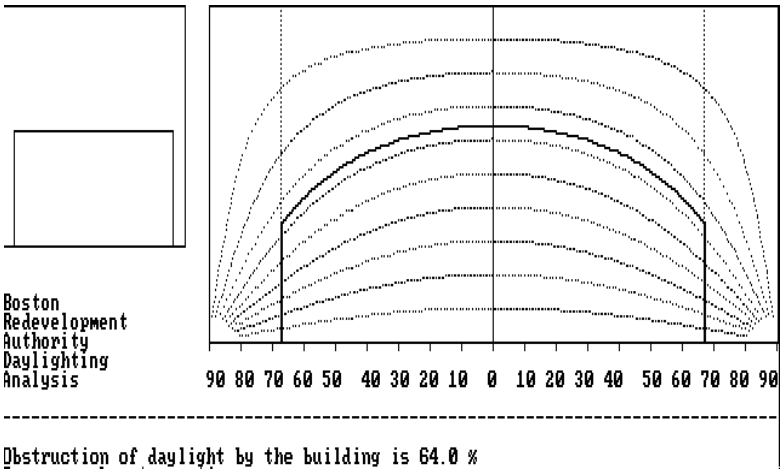
Viewpoint 2: View from A Street facing east toward the Project site



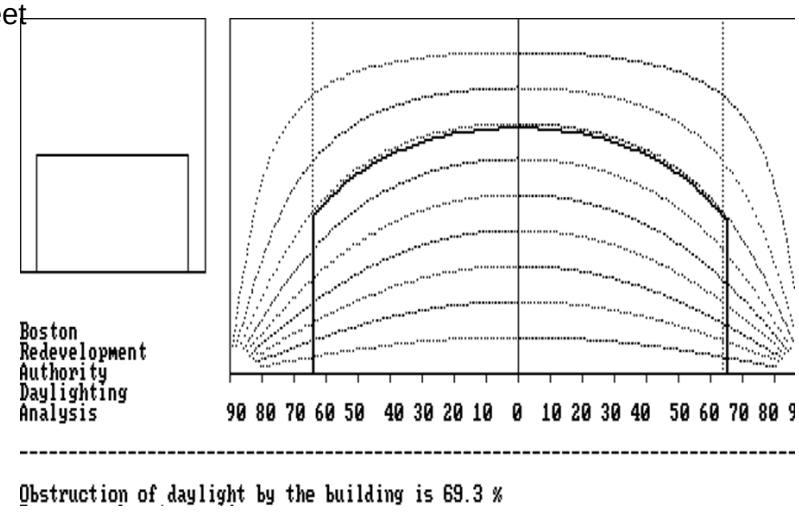
Viewpoint 3: View from West 1st Street facing south toward the Project site



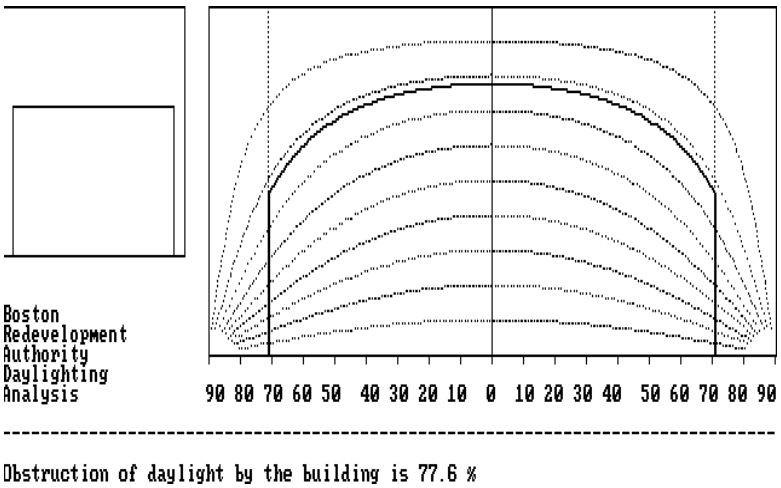
Area Context Viewpoint AC1: View from A Street facing northwest toward the building at 50 West Broadway



Area Context Viewpoint AC2: View from West 2nd Street facing southwest toward the building at 141 West Second Street



Area Context Viewpoint AC3: View from West Second Street facing northeast toward the building at 44 West Second Street



4.5 Air Quality Analysis

4.5.1 Traffic Related Air Quality Impacts

The BRA typically requests an analysis of the effect on air quality of the increase in traffic generated by projects subject to Large Project Review. This "microscale" analysis is typically required for any intersection (including garage entrances/exits) where 1) Project traffic would impact intersections or roadway links currently operating at LOS D, E, or F or would cause LOS to decline to D, E, or F; 2) Project traffic would increase traffic volumes on nearby roadways by ten percent or more (unless the increase in traffic volume is less than 100 vehicles per hour); or, 3) the Project will generate 3,000 or more new average daily trips on roadways providing access to a single location. The microscale analysis involves modeling of carbon monoxide (CO) emissions from vehicles idling at and traveling through signaled intersections. Predicted ambient concentrations of CO for the Build and No Build cases are compared with federal (and state) ambient air quality standards for CO.

A microscale analysis typically examines ground-level CO impacts due to traffic queues in the immediate vicinity of a project. CO is used in microscale studies to indicate roadway pollutant levels since it is the most abundant pollutant emitted by motor vehicles and can result in so-called "hot spot" (high concentration) locations around congested intersections. The National Ambient Air Quality Standards (NAAQS) do not allow ambient CO concentrations to exceed 35 parts per million (ppm) for a one-hour averaging period and 9 ppm for an eight-hour averaging period, more than once per year at any location. The widespread use of CO catalysts on current vehicles has reduced the occurrences of CO hotspots.

As presented in Chapter 3, the proposed Project is expected to have minimal traffic impacts. The site is very well served by public transportation via the nearby Broadway Station on the MBTA Red Line as well as several bus routes. The great majority of trips to the site will be made via public transportation, cycling, and walking. No additional parking will be provided at the site. Approximately 255 trips are expected to be made to the site and 125 trips will be made from the site during the morning peak period (9:00 – 10:30 a.m.); a total of 90 trips will be made to the site and 300 trips will be made from the site during the evening peak period (6:00 – 7:30 p.m.). The majority of the arrivals are expected to occur around 3:00 p.m. and departures around 6:00 p.m. Again, the great majority of these trips will be made on foot.

Given the very small number of vehicular trips the Project will generate, a microscale analysis is unwarranted. It can be noted, however, that a microscale analysis was recently performed for a proposed mixed use 144,500 square-foot residential and retail development at 45 W 3rd Street, just one block (less than 300 feet) from the AFH site. The microscale study looked at the intersection of A Street and West Broadway, which was the only nearby intersection that met the BRA's criteria to require a microscale study. The study found that under future conditions the intersection would experience a high of 4.0 ppm of 1-hour CO

concentrations and a high of 2.9 ppm of 8-hour CO concentrations, significantly lower than the NAAQS which are 35 and 9, respectively.[2] Therefore, it can be reasoned that since this very nearby project, which is expected to generate significantly more traffic than AFH will, did not result in any violations of the NAAQS, the proposed EpiCenter expansion will also not result in any violations of the NAAQS.

4.5.2 Stationary Sources

Stationary sources of air pollution are typically units that combust fuel. For the proposed Project, these sources consist of an emergency electrical generator.

Permitting

It's expected that the Project's stationary sources will be subject to the MassDEP's Environmental Results Program (ERP).

The ERP regulation applies to new emergency generators greater than 37 kW. The regulation is similar to the boiler ERP in that new engines are subject to emission standards, recordkeeping, certification, and compliance with the MassDEP noise policy. Since the generator maximum rating capacity will be greater than the ERP limit of 37 kW, it will be subject to the ERP program. Per the ERP, the generator owner will limit operation of the generator to less than 300 hours per year and submit a certification form to MassDEP within 60 days of installation.

4.6 Solid and Hazardous Waste

4.6.1 Hazardous Waste

A Phase I Environmental Site Assessment was done for the Project site in 2013 (the Site Assessment).[3] The Site Assessment found that the site was used for industrial/commercial and/or residential purposes through the 1920s. A bedrock groundwater monitoring well was installed at the Site in 1998 to evaluate the extent of VOC impacts at the Gillette Facility Property. Soil samples collected during the installation of the well were analyzed for VOCs, SVOCs, and extractable petroleum hydrocabons, which identified various impacts below applicable MassDEP reporting standards. Groundwater samples have identified relatively low levels of contaminants also below applicable MassDEP reporting standards.

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[2] *Expanded Project Notification Form, 45 West Third Street*, submitted by Spaulding & Slye Investments to the Boston Redevelopment Authority, February 12, 2014. Prepared by Epsilon Associates, Inc.

[3] Phase I Environmental Site Assessment, The Gillette Compnay – Lot 7, A Street, South Boston, Massachusetts, USA, ERM Project No. 0203195, 24 June 2013.

If soil disposal is required, the Proponent will obtain site specific information regarding environmental conditions of excavated soils to evaluate for the presence of oil and hazardous materials. Foundation construction for the new building is anticipated to generate approximately 5,500 tons of soil that will require off-site transport. Chemical testing of the material will be required by receiving facilities to identify chemical constituents and any contaminants present. Chemical testing of the material will be conducted prior to construction in accordance with facility requirements.

Any material leaving the site will be required to be legally transported in accordance with local, state and federal requirements. In addition, any regulated soil conditions related to oil and hazardous materials will be managed in accordance with appropriate Massachusetts MassDEP regulatory requirements.

4.6.2 Operation Solid and Hazardous Waste Generation

The Project will generate solid waste typical of commercial uses. Solid waste is expected to include wastepaper, cardboard, glass bottles and food.

As sustainability leaders, Artists For Humanity will require full participation in recycling programs by all program participants and partners. The responsibility to reduce-reuse-recycle is a core component of the organization's work to introduce young people to environmental responsibility. An on-staff recycling coordinator will be identified to provide educational information for youth and adult staff and other facility users. This coordinator shall utilize the Environmental Protection Agency's Recycling on the Go resources.

Massport Recycling Awareness - Artists For Humanity created this sculpture for Massport as part of their recycling awareness program at Logan Airport. AFH's Design team poses proudly with the 4th graders from the Otis School in East Boston, who collected the largest number of plastic bottle caps in the Massport Recycle competition

ReBloom at Bank of America - Artists For Humanity created this large-scale sculpture entirely out of recycled materials for Bank of America's Recycle Now global engagement campaign.

Currently and in an expanded facility, Artists For Humanity requires caterers utilizing our events space to recycle all cardboard, cans and bottles. Artists For Humanity does not and shall not allow unrecyclable materials such as polystyrene to be used in events. Within public spaces, recycling bins will be clearly and attractively marked to encourage full utilization. 'Trash' bins will be labeled 'LANDFILL' to discourage use.

Artists For Humanity will contract with a single-stream recycler to service the building. A clear schedule for emptying the bins will be provided to all tenants and department leaders. Recycled materials shall be stored and maintained within the facility by contracted cleaning staff.

4.7 Noise Impacts

New noise associated with development projects are most commonly due to mechanical equipment required for the operation of the buildings. Minimal noise impacts are anticipated as the new equipment will have similar or less impact. The Project will include appropriate measures to ensure compliance with the City of Boston Zoning District Noise Standards and the MassDEP Noise Policy.

Construction period noise impacts and mitigation are discussed below in Section 4.11.9.

4.8 Storm Drainage System

Please see Section 8.3.

4.9 Flood Hazard Zones/ Wetlands

The existing Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Project site indicates that it is located outside of a designated flood zone (FIRM, City of Boston, Community-Panel Number 25025C0083G, Effective Date September 25, 2009). However, a "preliminary" revised floodplain map for the site area was recently released by FEMA which shows the site as lying within the 100-year flood zone (FIRM, Suffolk County, Massachusetts; Panel 0083J, Map Number 25025C0083J, Map Revised, Preliminary November 15, 2013). As discussed in Chapter 5, the design of the site and buildings will recognize and account for the site's location proximate to the harbor and within this newly preliminarily designated flood zone, as well as the potential impacts of sea level rise.

The site does not contain wetlands.

4.10 Geotechnical Impacts

4.10.1 Subsurface Soil and Bedrock Conditions

Subsurface exploration of the site was completed prior to the construction of the existing Artists For Humanity building. The site is underlain by man-placed fill which varies in depth from approximately two to 15 feet attenuating towards West Second Street to the south. The fill varies in composition but generally consists of a silty-clay sand with minor gravel, brick, cinders, organics, rubble and other foreign matter. The upper few feet of the fill are expected to be more granular consisting of a silty sand with varying gravel content. In general, the fill is more compact near the surface becoming increasingly softer with depth. The parent subgrade conditions below the fill include dense glacial till soils. More specifically, the till generally consists of an olive brown, well-graded, silty sand with some to little gravel.

4.10.2 Groundwater

According to groundwater contour maps developed as part of the Phase II CSA for Gillette, groundwater at the Project site flows in a general northwest direction towards the Gillette property and Fort Point Channel. The Project is not located in the Groundwater Conservation Overlay District (GCOD) and will therefore not need to comply with the requirements of Article 32 of the City of Boston Zoning Code.

4.10.3 Project Impacts and Foundation Considerations

The Project anticipates utilizing straight drilled shafts as a foundation system. These drilled shafts transfer the reactions via end-bearing into the dense glacial till. Given the profile of the glacial till, the drilled shaft lengths vary from one side of the building to the other. The building reactions require the shafts to be located below the columns and the core. The Level 1 concrete slabs will be supported with on grade beams, which in turn are supported by the drilled shafts. These grade beams, additionally, serve to distribute the building base shear more uniformly among the drilled shafts by linking them together.

The depth of excavation and foundation construction will have limited impacts to the area. The foundation design and construction will be specified and conducted to eliminate potential adverse impacts, especially to adjacent structures and to groundwater levels.

4.11 Construction Impacts

4.11.1 Introduction

A Construction Management Plan (CMP) in compliance with the City's Construction Management Program will be submitted to the Boston Transportation Department (BTD) once final plans are developed and the construction schedule is fixed. The construction contractor will be required to comply with the details and conditions of the approved CMP.

Proper pre-planning with the City and neighborhood will be essential to the successful construction of the Project. Construction methodologies, which ensure public safety and protect nearby residences and businesses, will be employed. Techniques such as barricades, walkways and signage will be used. The CMP will include routing plans for trucking and deliveries, plans for the protection of existing utilities, and control of noise and dust.

During the construction phase of the Project, the Proponent will provide the name, telephone number and address of a contact person to communicate with on issues related to the construction.

The Proponent intends to follow the guidelines of the City of Boston and the MassDEP, which direct the evaluation and mitigation of construction impacts.

4.11.2 Construction Methodology/Public Safety

Construction methodologies that ensure public safety and protect nearby tenants will be employed. Techniques such as barricades and signage will be used. Construction management and scheduling will minimize impacts on the surrounding environment and will include plans for construction worker commuting and parking, routing plans for trucking and deliveries, and the control of noise and dust.

As the design of the Project progresses, the Proponent will meet with BTD to discuss the specific location of barricades, the need for lane closures, pedestrian walkways, and truck queuing areas. Secure fencing, signage, and covered walkways may be employed to ensure the safety and efficiency of all pedestrian and vehicular traffic flows. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to protect pedestrians and ensure their safety. Public safety for pedestrians on abutting sidewalks will also include covered pedestrian walkways when appropriate. If required by BTD and the Boston Police Department, police details will be provided to facilitate traffic flow. These measures will be incorporated into the CMP which will be submitted to BTD for approval prior to the commencement of construction work.

4.11.3 Construction Schedule

Construction is anticipated to begin in the fall of 2015 and will occur over approximately 14 months.

Typical construction hours will be from 7:00 am to 6:00 pm, Monday through Friday, with most shifts ordinarily ending at 3:30 pm. No substantial sound-generating activity will occur before 7:00 am. If longer hours, additional shifts, or Saturday work is required, the construction manager will place a work permit request to the Boston Air Pollution Control Commission and BTD in advance. Notification should occur during normal business hours, Monday through Friday. It is noted that some activities such as finishing activities could run beyond 6:00 pm to ensure the structural integrity of the finished product; certain components must be completed in a single pour, and placement of concrete cannot be interrupted.

4.11.4 Construction Staging/Access

Access to the site and construction staging areas will be provided in the CMP.

Although specific construction and staging details have not been finalized, the Proponent and its construction management consultant will work to ensure that staging areas will be located to minimize impacts to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic adjacent to the site. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

4.11.5 Construction Mitigation

The Proponent will follow City and MassDEP guidelines which will direct the evaluation and mitigation of construction impacts. As part of this process, the Proponent and construction team will evaluate the Commonwealth's Clean Air Construction Initiative.

A CMP will be submitted to BTD for review and approval prior to issuance of a Building Permit. The CMP will include detailed information on specific construction mitigation measures and construction methodologies to minimize impacts to abutters and the local community. The CMP will also define truck routes which will help in minimizing the impact of trucks on City and neighborhood streets.

"Don't Dump - Drains to Boston Harbor" plaques will be installed at storm drains that are replaced or installed as part of the Project.

4.11.6 Construction Employment and Worker Transportation

The number of workers required during the construction period will vary. It is anticipated that approximately 100 construction jobs will be created over the length of construction. The Proponent will make reasonable good-faith efforts to have at least 50% of the total employee work hours be for Boston residents, at least 25% of total employee work hours be for minorities and at least 10% of the total employee work hours be for women. The Proponent will enter into jobs agreements with the City of Boston.

To reduce vehicle trips to and from the construction site, minimal construction worker parking will be available at the site and all workers will be strongly encouraged to use public transportation and ridesharing options. The general contractors will work aggressively to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools so they do not have to be brought to the site each day.

4.11.7 Construction Truck Routes and Deliveries

Truck traffic will vary throughout the construction period, depending on the activity. The construction team will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with BTD. Traffic logistics and routing will be planned to minimize community impacts. Truck access during construction will be determined by the BTD as part of the CMP. These routes will be mandated as a part of all subcontractors' contracts for the development. The construction team will provide subcontractors and vendors with Construction Vehicle & Delivery Truck Route Brochures in advance of construction activity.

"No Idling" signs will be included at the loading, delivery, pick-up and drop-off areas.

4.11.8 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during demolition, excavation and the early phases of construction. Plans for controlling fugitive dust during demolition, excavation and construction include mechanical street sweeping, wetting

portions of the site during periods of high wind, and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts, pursuant to this Article 80 approval. These measures are expected to include:

- Encouraging the contractor to comply with the MassDEP's Clean Diesel Retrofit Program;
- Using wetting agents on areas of exposed soil on a scheduled basis;
- Using covered trucks;
- Minimizing spoils on the construction site;
- Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- Minimizing storage of debris on the site; and
- Periodic street and sidewalk cleaning with water to minimize dust accumulations.

4.11.9 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the Project. Increased community sound levels, however, are an inherent consequence of construction activities. Construction work will comply with the requirements of the City of Boston Noise Ordinance. Every reasonable effort will be made to minimize the noise impact of construction activities.

Mitigation measures are expected to include:

- Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- Replacing specific construction operations and techniques by less noisy ones where feasible;
- Selecting the quietest of alternative items of equipment where feasible;

- Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;

- Turning off idling equipment; and

- Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

4.11.10 Construction Vibration

All means and methods for performing work at the site will be evaluated for potential vibration impacts on adjoining property, utilities, and adjacent existing structures. Acceptable vibration criteria will be established prior to construction, and vibration will be monitored, if required, during construction to ensure compliance with the agreed-upon standard.

4.11.11 Construction Waste

The Proponent will take an active role with regard to the reprocessing and recycling of construction waste. The disposal contract will include specific requirements that will ensure that construction procedures allow for the necessary segregation, reprocessing, reuse and recycling of materials when possible. For those materials that cannot be recycled, solid waste will be transported in covered trucks to an approved solid waste facility, per MassDEP Regulations for Solid Waste Facilities, 310 CMR 16.00. This requirement will be specified in the disposal contract. Construction will be conducted so that materials that may be recycled are segregated from those materials not recyclable to enable disposal at an approved solid waste facility.

4.11.12 Protection of Utilities

Existing public and private infrastructure located within the public right-of-way will be protected during construction. The installation of proposed utilities within the public way will be in accordance with the MWRA, BWSC, Boston Public Works, Dig Safe, and the governing utility company requirements. All necessary permits will be obtained before the commencement of the specific utility installation. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer and drain facilities will be reviewed by BWSC as part of its site plan review process.

4.11.13 Rodent Control

A rodent extermination certificate will be filed with each building permit application for the Project. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for each phase of the Project, in compliance with the City's requirements.

4.11.14 Wildlife Habitat

The Project Site is in an established urban neighborhood. There are no wildlife habitats in or adjacent to the Project Site.

Chapter 5.0

Sustainable Design and Climate Change Preparedness

5.0 SUSTAINABLE DESIGN AND CLIMATE CHANGE PREPAREDNESS

5.1 Sustainable Practices

Artists For Humanity was founded on an ambitious and unconventional idea that young people can provide, through their talent and vision, creative services to the business community. The organization built its own youth arts facility – the Artists For Humanity EpiCenter.

The Artists For Humanity EpiCenter, was Boston's first LEED Platinum Building and the ninth in the nation to achieve the highest certification. Among numerous other awards, the EpiCenter was named a Top Ten Green Building in the Nation by the American Institute of Architects (2007), Boston Society of Architects Honor Award for Design Excellence (2006), Architectural Record's Top 10 Buildings of the 21st Century in Boston (2007), the Rudy Bruner Award for Urban Excellence Silver Medal (2007).

Through the acquisition of adjacent property, AFH is itself positioned, once again, at the vanguard of youth development and sustainability. AFH is committed to designing and building a pioneering, sustainable expansion of the EpiCenter, targeting to become New England's first Energy Positive (E+) commercial structure, and will serve as a new template for planning, construction and energy use for Boston and its next generation of young people.

The sustainable design strategy for the Project focuses on two primary goals: maximum user comfort and minimum environmental impact. The proposed design for the AFH Expansion is the result of a highly integrated design process wherein the a high performance envelope is meticulously analyzed to minimize heating and cooling loads in the building such that natural ventilation is sufficient to maintain comfort for a significant portion of the year (every regularly occupied space will have operable windows that provide access to fresh air and daylight) and a highly efficient mechanical system can be selected to heat and cool for the remainder of the year. The focus on minimizing building operations energy is also balanced with detailed investigation of occupant loads expected in the building so that alternative approaches to reducing plug load consumption can be explored. These strategies set the building design and operation on the path to net positive energy as excess electricity generated from roof-top and façade-integrated photovoltaics can then be put back into the grid. Finally, the Expansion not only aims to achieve net-positive energy, but also strives to set an example of a highly user-interactive building that simultaneously engages occupants and reduces its impact on the earth.

5.2 Sustainable Design

To comply with Article 37 of the Code, the Proponent intends to measure the results of their sustainability initiatives using the framework of the Leadership in Energy and Environmental Design (LEED) rating system. The Project will use the LEED V4 for BD+C: New Construction and Major Renovation to show compliance with Article 37. The LEED rating system tracks the sustainable features of a project by achieving points in the following categories: Sustainable Sites; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality; and Innovation in Design.

A LEED checklist is included at the end of this section, and shows the credits the Project anticipates achieving. The checklist will be updated regularly as the design develops and engineering assumptions are substantiated. While the Proponent is not applying for LEED certification, it targets that the design would achieve Platinum with 84 points. The sections below describe the strategies being utilized to attain an Energy Positive building.

5.3 Energy Systems

5.3.1 Measures to Reduce Building Energy Consumption

The Project will utilize the following strategies to reduce energy consumption in the building:

1. **High-performance envelope:** A high-performance envelope both reduces overall heating and cooling energy consumption and provides superior thermal comfort. It also enables the use of the low-energy heating and cooling systems described below. The project is targeting R-30 walls and roof, and an U-0.23 overall window.

2. **Dedicated outside air system (DOAS):** Delivery of heating and cooling by air instead of water requires ten times as much energy and nearly 300 times as much area. Separation of ventilation and temperature control into two separate systems enables the use of a hydronic heating and cooling system, reducing overall space demand and energy demand. It also provides better temperature control at the zone level.

3. **Low-energy heating / cooling:** Low-energy systems (low-temperature heating and high/medium-temperature cooling) enables the use of the constant ground temperature for free-cooling and thermal heat storage, contributing significantly to the net-energy-positive goal.

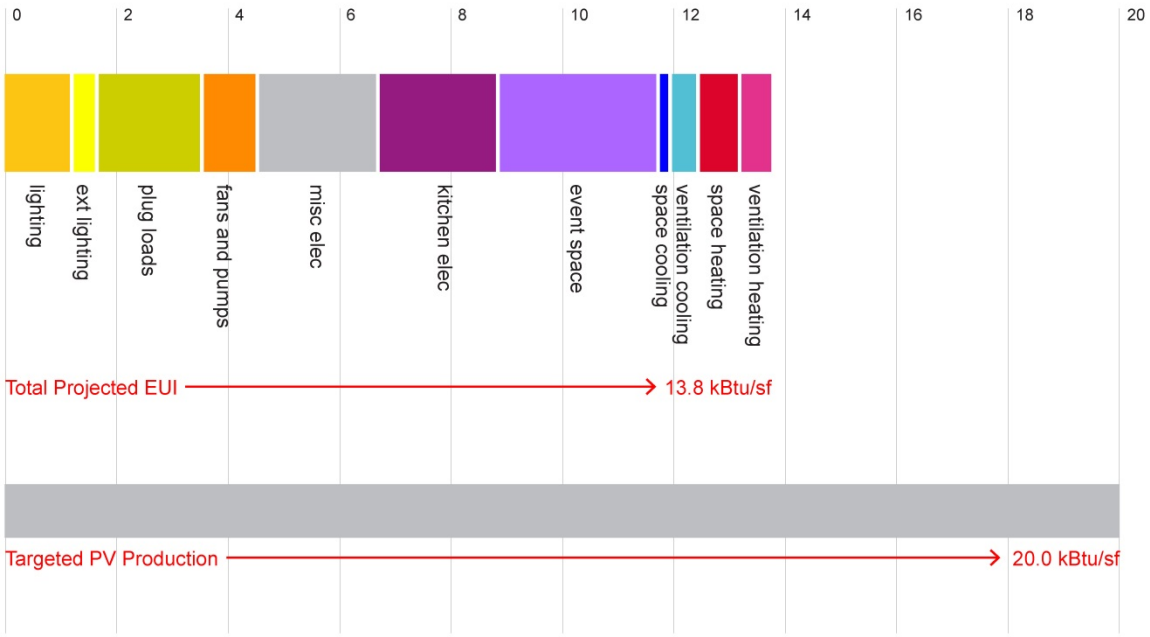
4. **Natural ventilation:** Outdoor conditions in Boston are well-suited for natural ventilation for ~50% of the year. Operable openings provide individual control elements that optimize air quality and room temperature for the occupant in nearly all zones. This increases the quality and comfort of the indoor environment.

5. **Controlled lighting / optimized daylighting:** Use of the sun as a lighting source is the most efficient renewable energy use. Daylighting while carefully controlling solar heat gains reduces overall energy demand and increases comfort. Occupant- and daylight-controlled, high-efficiency LED electric lighting ensures low energy demand for lighting.

6. **Mechanical ventilation with high-efficiency air heat recovery:** Mechanical ventilation is used in extreme winter and summer periods. High–efficiency heat recovery dramatically decreases the thermal energy required to condition outside ventilation air.

7. **Displacement Ventilation in the Event Space:** Ventilation air supplied at a neutral temperature near the occupants in the event space allows for simultaneous control of temperature and humidity while ensuring optimal air quality and minimized energy consumption.

8. **Energy Use Intensity (EUI):** The current EUI is shown in the graph below. Through an in-depth understanding of the building operation and equipment as well as the façade design, the EUI has been estimated using TRNSYS (Transient System Simulation Tool) – an entirely custom engineering process that is well equipped to accurately calculate AFH's natural ventilation and active slab approach, providing valuable insight for the project to achieve Energy Positive (E+).



5.3.2 Interior Heating and Cooling

The proposed energy source system includes a geothermal heat pump system where the interaction between ground-source heating and cooling, heat pumps, and radiant systems is critical. The design goal is to achieve a system that matches the energy supply needs of the building - for which heating is greater than cooling, though this balance is heavily influenced by the final facade shading design and thermal insulation performance. In addition, the concept avoids the use of compressor-based cooling in order to minimize electricity use and simplify system operation. The modes of operation are described as follows:

Summer Night: Ground temperature water circulates directly through the active slab (and radiant panels retrofitted into existing spaces). All other systems are off. Water supply temperature is controlled above indoor dewpoint to avoid any condensation risk.

Summer Day: Ground temperature water circulates directly through the dual-temperature coil in the air handling unit (AHU), tempering mechanical supply air to 65-70°F. Active slab is off. The thermal mass of the slab keeps the space cool over the course of the day. Radiant panels retrofitted into existing spaces may need to operate during the day. (The slab may be run if necessary, but the design goal is to not require slab activation during the day.)

Winter Night: Warm water circulates through the active slab (and radiant panels retrofitted into existing spaces) to provide all space heating. Warm water is supplied by a storage tank. A ground-source water-to-water heat pump generates warm water as necessary to recharge the hot water storage tank.

Winter Day: Warm water circulates directly through the dual-temperature coil in the AHU, tempering mechanical supply air to a neutral temperature. Warm water circulates through the active slab to provide all space heating. Warm water is supplied by a storage tank. A ground-source water-to-water heat pump generates warm water as necessary to recharge the hot water storage tank

5.3.3 Solar Photovoltaic System

The current schematic design maximizes the roof and south surfaces via a "solar wrapper" for solar PV panels for onsite electric generation. Limited PV will be located on the west and east surfaces to ensure achievement of Energy Positive (E+). The system will be connected to the grid in order to feed additional electricity back to the grid. The Project is anticipated to generate approximately 439,624 kWh.

5.4 Climate Change Preparedness

5.4.1 Introduction

The Project team examined three areas of concern related to climate change: sea level rise, drought conditions and increased number of high-heat days. Although the Project site is not currently in a designated flood zone, a "preliminary" revised floodplain map released by FEMA shows the site as lying within the 100-year flood zone. A copy of the preliminary Climate Change Checklist is included in Appendix C.

5.4.2 Sea Level Rise

According to the IPCC, if the sea level continues to rise at historic rates, the sea level in Massachusetts as a whole will rise by one foot by the year 2100. However, using a high emissions scenario of climate change, sea level rise could reach six feet by 2100. Adding this potential rise to the mean higher high water (MHHW) level, in 50 years the MHHW could be as high as 15.2 feet Boston City Base (BCB), assuming a sea level rise of approximately four feet.[1] The first floor elevation of the Project is approximately 17'-5" feet BCB.

Sea level rise is also a concern when combined with a large storm. If a major storm, such as another "Superstorm Sandy" with significant storm surge, were to impact Boston at high tide, the potential for flooding would markedly increase. Such a storm would be anticipated to increase sea level to approximately 18.7 feet BCB, which would impact the first floor of the building.[2] To minimize the impact of flooding, critical mechanical equipment is located above the first floor and the utility conduits will be water tight.

5.4.3 Drought Conditions

Under a global high emissions scenario that would increase the potential climate change impacts, the occurrence of droughts lasting one to three months could go up by as much as 75 percent over existing conditions by the end of the century. To minimize the Project's susceptibility to drought conditions, the landscape design is anticipated to incorporate native and adaptive plant materials which require low or no irrigation and are known for their ability to withstand adverse conditions. Plumbing fixtures will be specified to achieve a reduction in water use through low-flow water-closets, low-flow showers, and low-flow sinks.

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1 "Preparing for the Rising Tide". The Boston Harbor Association. February 2013.

2 Ibid.

5.4.4 High Heat Days

The Intergovernmental Panel on Climate Change (IPCC) has predicted that in Massachusetts the number of days with temperatures greater than 90°F will increase from the current five-to-twenty days annually, to thirty-to-sixty days annually[3].

As described above, the Project is designed as an Energy Positive building, and utilizes nearly all potential space for placing solar PV panels for onsite electricity generation. The Project is anticipated to have minimal impacts on the grid during times of high demand.

The high performing 'honeycomb sawtooth' façade of the AFH EpiCenter Expansion provides shading and natural ventilation, controls and enhances interior daylight conditions, creates strong visual connections, and contributes to the building's energy production. Its tight thermal envelope, with its R-30 walls and roof and U-0.23 overall window, is a key element in the building's ability to achieve Energy Positive (E+).

The sawtooth geometry transforms the east and west orientated surfaces into more northern and southern surfaces. This allows diffused northern light to fill the interior studio spaces while the southern surfaces can accommodate PV panels for increased electric production or translucent panels for diffused light (see Figure 5-1). The honeycomb geometry provides external sunshading that blocks direct sunlight from entering the studios while projecting a playful, artistic and industrial character suitable for AFH and the neighborhood.

Inside, the simple principle of north facing transparent wall elements and south facing translucent and opaque wall elements allow the users to orient themselves and develop awareness of their environment. Operable windows are integrated in the transparent wall elements to provide natural ventilation.

The alteration both in geometry and materiality creates a lively appearance for the building that changes with the point-of-view, reflecting the creative and artistic work of its users.

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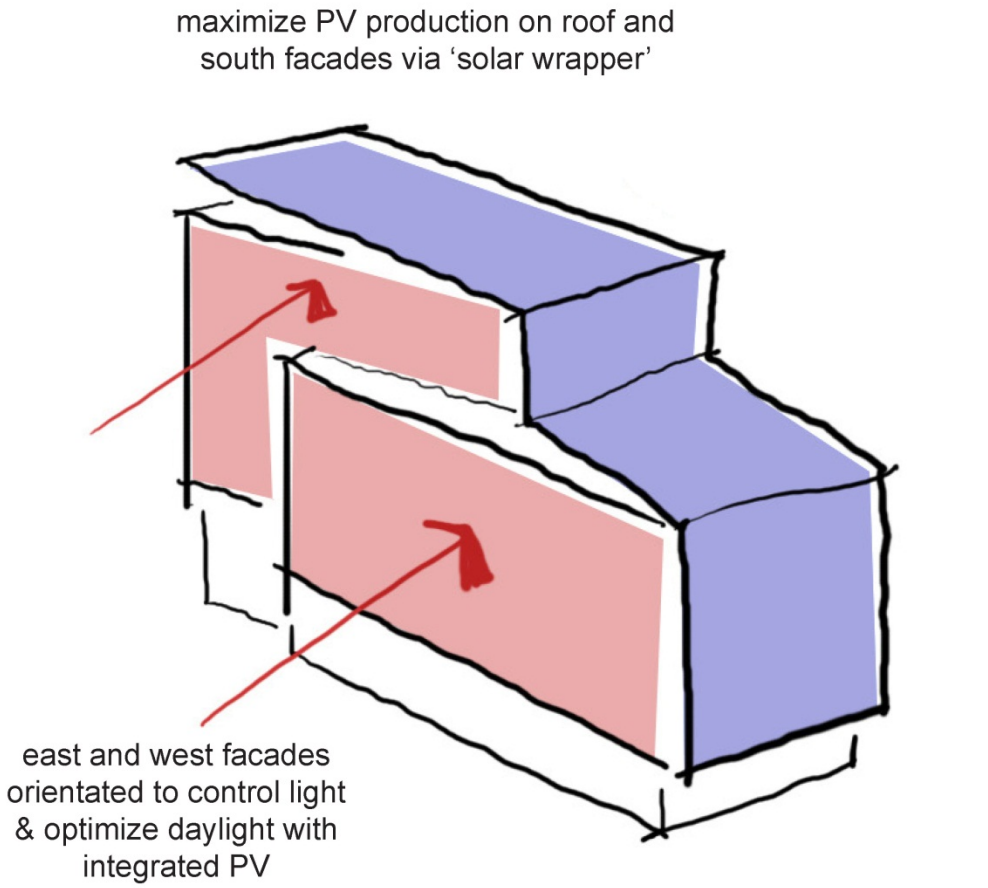
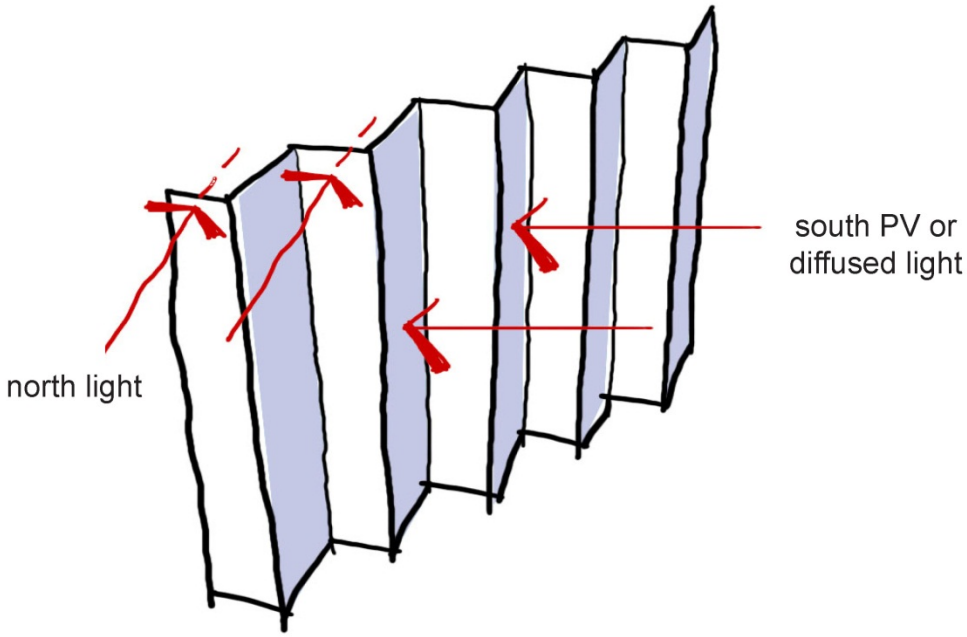
[3] IPCC (Intergovernmental Panel on Climate Change), 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Avery, M. Tignor, and H. L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, 996 pp.





Artists for Humanity Boston, Massachusetts

Figure 5-1
Building Façade

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

Project Checklist

Project Name: Boston Artists For Humanity Expansion
Date: 3/25/2015

Y	?	N				
1			Credit	Integrative Process	1	Perform "simple box" energy modeling analysis and preliminary water budget analysis

13	1	2	**Location and Transportation**		**16**	**Notes**
		0	Credit	LEED for Neighborhood Development Location	16	No nearby LEED ND Neighborhood or certified plan area
1			Credit	Sensitive Land Protection	1	1) Previously developed site 2) not 5 feet below the 100 yr flood plain
		2	Credit	High Priority Site	2	Project site is not located in a historic district, priority designation (ie renewal community), or brownfield where soil or groundwater contamination has been identified
5			Credit	Surrounding Density and Diverse Uses	5	1) Within 1/4 mile of residential neighborhood (sqft of buildable land? Residential density?) 2) Within 1/2 mile radius of hospital, school, restaurant, church, gym, haire care, other retail
5			Credit	Access to Quality Transit	5	minimum weekday trips 360; minimum weekend trips 216
1			Credit	Bicycle Facilities	1	Provide short-term bike storage for 2.5% of peak visitors (min 4). Provide long-term bicycle storage for 5% of regular building occupants (min 4). Provide at least one on-site shower with changing facility.
1			Credit	Reduced Parking Footprint	1	In some cases, local codes do not establish minimum thresholds. Projects located in areas without a code minimum automatically meet this requirement.
	1		Credit	Green Vehicles	1	Designate 5% of parking for green vehicles. 1) Install electrical vehicle supply equipment in 2% of parking spaces. Check if parking spaces are included in site.

7	3	0	**Sustainable Sites**		**10**	**Notes**
Y			Prereq	Construction Activity Pollution Prevention	Required	
Y			Prereq	Environmental Site Assessment	Required	
1			Credit	Site Assessment	1	Complete a site survey that assesses topography, hydrology, climate, vegetation, soils, human use, and human health effects, demonstrating relationships and how they influence project design
	2		Credit	Site Development - Protect or Restore Habitat	2	1) Restore 30% of site vegetation, or incorporate vegetated roof.
	1		Credit	Open Space	1	Outdoor space greater than or equal to 30% of site area. Garden space for visual interest, water features
3			Credit	Rainwater Management	3	1) Runoff water can be retained in water feature to accomodate 100 year flood
2			Credit	Heat Island Reduction	2	1) Use plants or other structures to provide shade, especially because of higher temperatures and sunlight in Houston. Use paving materials with 3 year-aged solar reflectance value of at least 0.28
1			Credit	Light Pollution Reduction	1	2) Exceed IESNA standards for LZ3 zone

6	3	2	**Water Efficiency**		**11**	**Notes**
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	2) Show that the landscape water requirement by 30% compared to EPA baseline: http://www.epa.gov/watersense/water_budget/application.html
3	3		Credit	Indoor Water Use Reduction	6	Reduce water use by 35%. 50% is 6 points
		2	Credit	Cooling Tower Water Use	2	No cooling tower if using geothermal for heat rejection
1			Credit	Water Metering	1	Install permanent water meters for two or more: indoor plumbing fixtures, domestic hot water? (water subsystems)

29	4	0	**Energy and Atmosphere**		**33**	**Notes**
Y			Prereq	Fundamental Commissioning and Verification	Required	
Y			Prereq	Minimum Energy Performance	Required	
Y			Prereq	Building-Level Energy Metering	Required	

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

Project Checklist

Project Name: Boston Artists For Humanity Expansion
Date: 3/25/2015

Y	?	N				
Y			Prereq	Fundamental Refrigerant Management	Required	
6			Credit	Enhanced Commissioning	6	2 additional points for monitoring based commissioning and building envelope commissioning (new for v4)
18			Credit	Optimize Energy Performance	18	1) Analyze efficiency measures, focusing on load reduction and HVAC-related strategies and demonstrate percentage improvement in proposed building performance rating (20%). Ashrae 2010.
1			Credit	Advanced Energy Metering	1	Install advanced energy metering
	2		Credit	Demand Response	2	Design building and equipment for participation in demand response programs through load shedding or shifting
3			Credit	Renewable Energy Production	3	Use renewable energy to offset building energy costs
1			Credit	Enhanced Refrigerant Management	1	1) Do not use refrigerants or use refrigerants that have ozone depletion potential of zero
	2		Credit	Green Power and Carbon Offsets	2	Requires purchasing

4	7	2	**Materials and Resources**		13	**Notes**
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	only Option 4 relevant. 4) Requires LCA software to calculate proposed and baseline LCA
1	1		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2	1) Use at least 20 different permanently installed products from 5 different manufacturers that conform to product-specific declarations. doesn't require specific mass, fraction, or $ totals just a fixed number of products to meet certain requirements.
1	1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2	1) Use at least 20 different permanently installed products from 5 different manufacturers that released a report from raw material suppliers and bio-based materials. doesn't require specific mass, fraction, or $ totals just a fixed number of products to meet certain requirements.
1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2	1) Use products with low chemical inventory and 2) document material ingredient optimization. doesn't require specific mass, fraction, or $ totals just a fixed number of products to meet certain requirements.
1	1		Credit	Construction and Demolition Waste Management	2	1) Divert at least 75% of total construction or 2) do not generate more than 2.5 pounds of construction waste per sqft

14	2	0	**Indoor Environmental Quality**		16	**Notes**
Y			Prereq	Minimum Indoor Air Quality Performance	Required	
Y			Prereq	Environmental Tobacco Smoke Control	Required	
2			Credit	Enhanced Indoor Air Quality Strategies	2	1) Entryway systems, Interior Cross- Contamination Prevention, Filtration, Natural Ventilation Design Calculations, Mixed-Mode Design Calculations 2) additional
2	1		Credit	Low-Emitting Materials	3	1) Achieve threshold level of compliance with emissions and content standards for 4 categories
1			Credit	Construction Indoor Air Quality Management Plan	1	Develop indoor air quality management plan for construction phase of building
2			Credit	Indoor Air Quality Assessment	2	2) Before occupancy, conduct baseline IAQ testing
1			Credit	Thermal Comfort	1	1) Design HVAC systems and building envelope to meet requirements in ASHRAE Standard 55-2010
2			Credit	Interior Lighting	2	1) Have light control system and 2) meet four lighting recommendations (see list in guidebook)
2	1		Credit	Daylight	3	1) Demonstrate 55% sDA
1			Credit	Quality Views	1	Internal glass elements that blacken out during performances (will it be 75% of regularly occupied floor area?)
1			Credit	Acoustic Performance	1	Meet requirements for HVAC background noise and sound transmission

6	0	0	**Innovation**		6	**Notes**
5			Credit	Innovation	5	1) Innovation - Green Cleaning. 2) Choose from Pilot Credits. http://www.usgbc.org/pilotcredits
1			Credit	LEED Accredited Professional	1	

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

Project Checklist

Project Name: Boston Artists For Humanity Expansion

Date: 3/25/2015

Y	?	N				
4	**0**	**0**	**Regional Priority**		**4**	Others:High Priority Site, Building Product Disclosure and Optimization - Material Ingredients
1			Credit	Regional Priority: Specific Credit	1	Optimize energy performance (8)
1			Credit	Regional Priority: Specific Credit	1	Renewable Energy production (2)
1			Credit	Regional Priority: Specific Credit	1	Rainwater management (2)
1			Credit	Regional Priority: Specific Credit	1	Indoor water use reduction (4)

84	**20**	**6**	**TOTALS**	Possible Points: **110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

Chapter 6.0

Urban Design

6.0 URBAN DESIGN

6.1 Physical Characteristics and Development Context

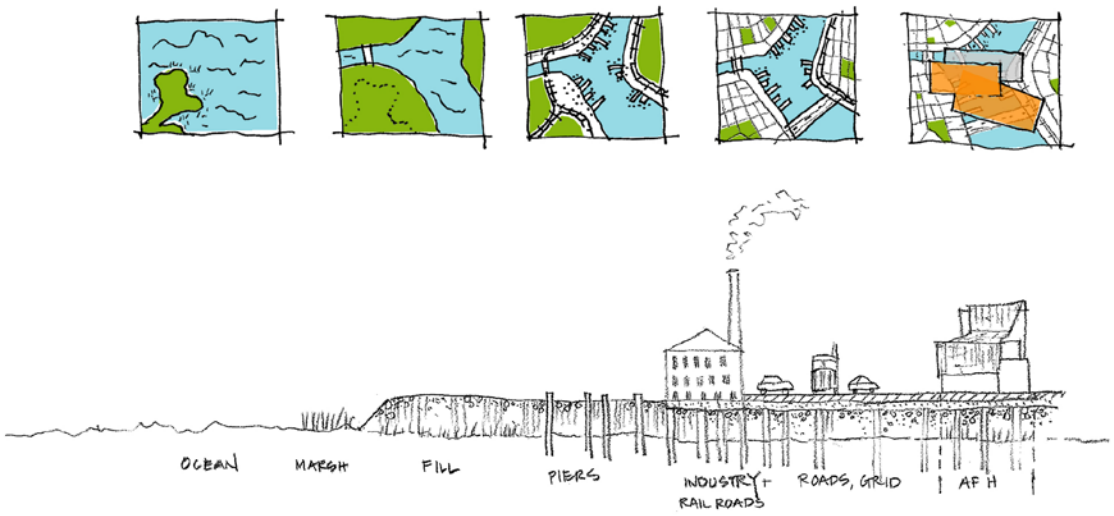
The proposed massing eloquently responds to its transitional juxtaposition between the industrial buildings to its north and the residential buildings to its south with a proposed arrangement of three boxes – one existing and two new – on a triangular site. The arrangement of the two new boxes takes their cues from the surrounding context in both orientation and height. The lower box aligns its orientation and height – five levels with 62 feet from grade – with the residential grid of South Boston, while the upper box motions itself towards the Fort Point Channel – eight levels with 106 feet from grade. The upper box partially cantilevers over the existing EpiCenter and is set back approximately 60 feet from the West Second Street property line, respecting the scale of the residential fabric that lies to the site's southern edge.

The façade's honeycomb geometry projects a playful, artistic and industrial character suitable for AFH and the neighborhood. See Figures 6-1 and 6-2 for views of the Project from West First Street and West Second Street.

The grade changes eight feet from West First Street to West Second Street, allowing for public entries at both the Level 1 and Level Mezzanine. These two highly-public levels will be art- and activity-filled spaces, populated with a public café facing the park for informal gatherings with friends and colleagues and a public gallery to showcase full-time, rotating exhibitions, artist exchanges and profiles of new and emerging Boston artists. Space will also be provided for a video screening room and AFH store. Open stairs at these levels will encourage visitors to circulate vertically through the building to the AFH studios, maker's space and studio partners, interacting with AFH teen artists, mentors and staff along the way.

6.2 Landscape Design

The concept for the AFH Epicenter Expansion combines historical, cultural and contextual elements into the landscape design which connects the site to the region and reflects the mission and values of the organization. Drawing inspiration and references from the rich urban fabric of South Boston and the Innovation District, a series of related but unique landscape spaces will provide flexible areas for the many teen artists, staff and community events at AFH.



URBAN SUCCESSION

Specific design goals include creating a unique identity for the organization, redesign for the sunken garden, visible and accessible urban nodes at building entries, connection to Channel Center Park and a streetscape that meets Boston's Complete Streets guidelines and vibrantly engages the public realm. The building expansion layout creates major entries at the north and south along A Street where urban plazas highlight building access and bring the material palette into the building. See Figure 6-3 for a schematic site plan, Figures 6-4 and 6-5 for landscape plans.

The overall goal is to create a unique and identifiable landscape that serves as a connective element to the city and urban context as well as providing a canvas to which AFH can add temporary installations and graphics. The approach to the landscape design is a minimalistic layered approach which will provide a rich context for the site and architecture on its own while creating a framework for AFH to build upon over time. Durable urban landscape spaces will adapt with future uses maintaining their usefulness while allowing flexibility to be repurposed as needs grow and change with the evolving organization.

Artists For Humanity Boston, Massachusetts

BEHNISCH ARCHITEKTEN

Figure 6-1

View from West First Street

Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Figure 6-2

View from West Second Street

Artists For Humanity **Boston, Massachusetts**

studio2112 LANDSCAPE ARCHITECTURE

Figure 6-3

Schematic Site Plan

Artists For Humanity **Boston, Massachusetts**

studio2112
LANDSCAPE ARCHITECTURE

Figure 6-4

Level 1 Landscape Plan

Artists For Humanity Boston, Massachusetts

studio2112
LANDSCAPE ARCHITECTURE

Figure 6-5

Level M Landscape Plan

Chapter 7.0

Historic and Archaeological Resources

7.0 HISTORIC AND ARCHAEOLOGICAL RESOURCES

This section describes the historic and archaeological resources within and in the vicinity of the Project site.

7.1 Project Site

No historic resources listed in the State and National Registers of Historic Places or included in the Inventory of Historic and Archaeological Assets of the Commonwealth are located within the Project site.

The Project site is located at the intersection of A Street and West Second Street, consisting of three adjoining parcels. On one of the parcels is the existing Artists For Humanity Epicenter addressed as 100 West Second Street, which consists of approximately 23,500 sf building constructed in 2003. The other two parcels currently consist of a surface parking lot addressed as West Second Street and 117-121 A Street.

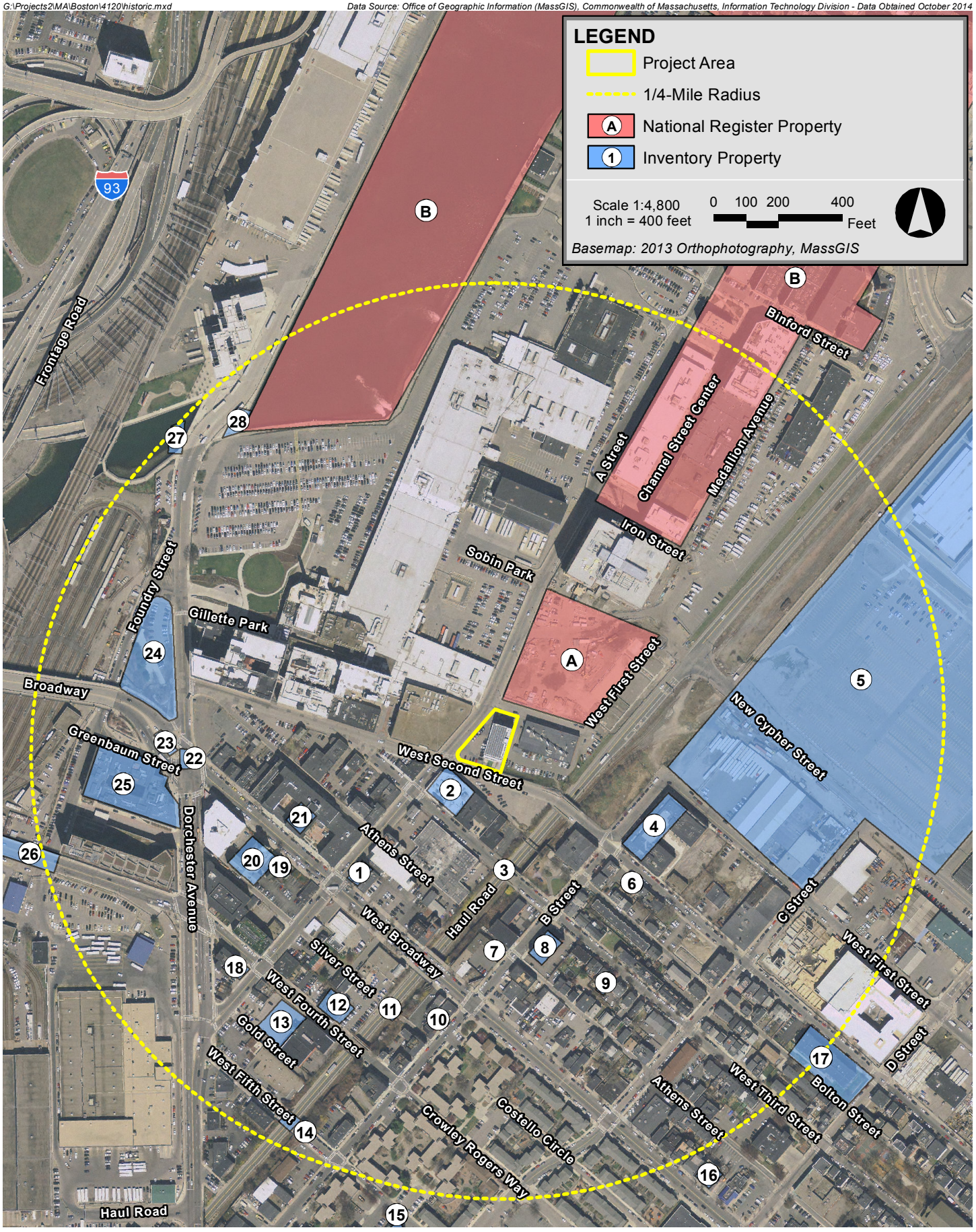
7.2 Historic Resources in the Project Vicinity

The Project site is located within the vicinity of several historic resources listed in the State and National Registers and included in the Inventory. Table 7-1 and Figure 7-1 identify historic resources within one-quarter mile of the Project site. Please note that several identified resources have been demolished. Extant resources are located around other new and non-historic, older industrial and commercial buildings.

Table 7-1 State and National Register-Listed Properties and Historic Districts

Map No.	Name	Address
State and National Registers of Historic Places		
A	United States Post Office Garage (demolished)	135 A Street
B	Fort Point Channel Historic District	
Inventory of Historic and Archaeological Resources		
1		82 West Broadway
2	Gillette Research Facility	87-97 A Street
3	West Third Street Bridge over Conrail	West Third Street
4	Ipswich Mills	154 West Second Street
5	C Street Area	
6		161-167 West Second Street
7	Boston Fire Department Hose Co. No. 9	116 B Street
8	Lawrence School	125 B Street
9		117 West Third Street
10		92-94 B Street
11	Silver Street Bridge over Conrail (demolished)	Silver Street
12		146 and 150-154 West Fourth Street
13		123-125 West Fourth Street
14	West Fifth Street Bridge over Conrail	West Fifth Street
15	St. Peter's Lithuanian Catholic Church	Flaherty Way
16		264-272 West Broadway
17	Boston Beer Company (demolished)	300-312 D Street and 249 West Second Street
18	South Boston Hotel	99-101 West Fourth Street
19		55-59 West Broadway
20	St. Peter and Paul Church	45 West Broadway
21	Cardinal Cushing Central High School for Girls (demolished)	54-58 West Broadway
22	Broadway MBTA Station	Broadway
23	Broadway MBTA Bus Station	Broadway
24	450-454 Broadway (demolished)	450-454 Broadway
25	Macallen Co.	135-137 Dorchester Avenue, 8-20 Greenbaum Street, 70-76 Foundry
26	West Fourth Street Bridge	West Fourth Street at Broadway
27	Old Colony Railroad Bridge	Fort Point Channel
28	Fort Point Channel Bridge (demolished)	Fort Point Channel at Dorchester Avenue

Data Source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, Information Technology Division - Data Obtained October 2014



Artists For Humanity Boston, Massachusetts

Epsilon Associates Inc.

Figure 7-1
Historic Resources

7.3 Impacts to Historic Resources

7.3.1 Urban Design

The area largely consists of multi-story masonry and metal clad industrial buildings two to thirteen stories in height with rectangular footprints and massing. Buildings in the area also contain cast stone features and large multi-light windows. The existing AFH building opened in 2004 fits with the style and palette of materials seen in this urban industrial streetscape. The building is located adjacent to the two-story brick and cast stone clad building at 105 West Second Street and across A Street from the three-story brick and cast stone clad building at 20 Gillette Park as well as across West Second Street from three-story brick, cast stone, and metal clad buildings at 18-40 West Third Street. To the north are larger four to thirteen story brick, metal clad residential, commercial and industrial buildings along A Street.

The proposed rectangular massing responds to rectilinear forms of nearby buildings seen throughout the area. The box design resembles shipping containers and is sympathetic to the industrial character of South Boston including the Black Falcon Terminal, Reserve Channel and nearby Fort Point Channel as past and present centers of shipping and industrial activity. The orientation of the upper stories with cantilevered floors breaks up the proposed mass of the building and takes advantage of the triangular site. Additionally, the proposed project takes advantage of the changing grade on the site with five stories along West Second Street where buildings are smaller in height (three to five stories) and eight stories to the rear along A Street where nearby buildings are taller (four to thirteen stories).

7.3.2 Shadow

No new shadow will be cast by the Project on historic resources. New shadow will be cast on 135 A Street the former location of the US Post Office Garage, however this resource has been demolished and will therefore not be affected.

7.4 Archaeological Resources

A review of the Massachusetts Historical Commission's online archaeological site locations (MACRISMAPS2.0) determined that no identified archaeological resources are located within the Project site. Due to the Project site's previous disturbance, no archaeological resources are anticipated to be located within the Project site.

7.5 Status of Project Reviews with Historical Agencies

7.5.1 Boston Landmarks Commission Article 85 Review

The existing building on the site is under 50 years of age; therefore, the proposed demolition of the building is not subject to review by the Boston Landmarks Commission under Article 85 of the Boston Zoning Code.

7.5.2 Massachusetts Historical Commission Review

A Project Notification Form was submitted to the Massachusetts Historical Commission (MHC) as the proposed project utilizes state funding via MassDevelopment's Cultural Facilities Fund and was subject to State Register Review (950 CMR 71.00). The MHC determined on November 11, 2014 that the project was unlikely to affect historic or archaeological resources and no further review by MHC is anticipated.

Chapter 8.0

Infrastructure

8.0 INFRASTRUCTURE

8.1 Wastewater

8.1.1 Existing Sewer System

The existing sewage system in the abutting streets consists of combined sewers that are owned and operated by the Boston Water and Sewer Commission (BWSC) as shown on Figure 8-1. The existing building is currently serviced by a 6″ PVC lateral connected to the existing 24″x28″ combined sewer in West First Street.

8.1.2 Project-Generated Sanitary Sewer Flow

The proposed expansion is anticipated to increase the occupancy by approximately 800 people, with a peak occupancy rate of 1,600 people during times when the event space is full. Table 8-1 provides a summary of estimated average daily flow and peak flow. This assumes 5 gallons per day (GPD)/person with a peaking factor of 2.0.

Table 8-1 Project-Generated Sewer Flow

	Occupancy	Estimated Flow[1] (GPD/Person)	Estimated Average Daily Flow[2]		Estimated Peak Flow	
			(GPD)	(CFS)	(GPD)	(CFS)
Net New	800	5	4,000	0.019	8,000	0.037

1 - The Occupancy Method assumes a daily flow of 5 gallons per person. This estimate is taken from the approved Artist of Humanity BWSC submission in 2002, utilizing historical flow data.

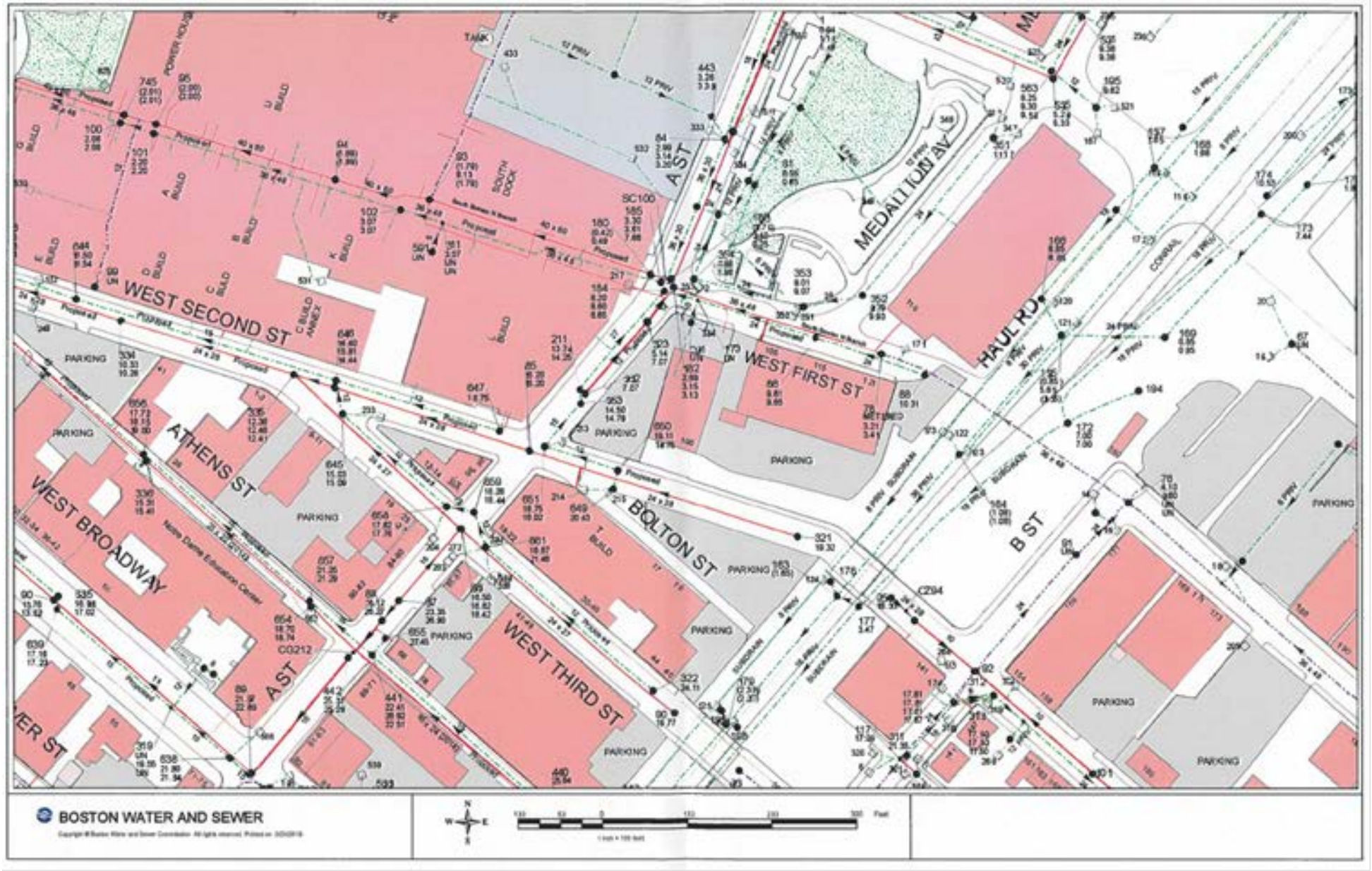
2 - Estimated flows assumes a peaking factor of 2.0 and an 8 hour day.

8.1.3 Sanitary Sewer Connection

No new sewer connection is currently proposed for the expansion as it will reuse the existing 6″ sewer line which ties to the main along West First Street.

8.1.4 Sewage Capacity

The existing building sewer is a 6″ PVC pipe with a 2% slope. The full flow capacity for this line is estimated to be 1.1 cfs. The projected flow for the proposed development is assumed to have a peak flow of 0.16 cfs based on the occupancy method estimate summarized above. Therefore, the existing sewer line is anticipated to be adequate for the additional wastewater load discharged from the proposed expansion and renovations.



Artists For Humanity **Boston, Massachusetts**

Epsilon ASSOCIATES INC.

Figure 8-1

Existing Sewer System

8.2 Water System

8.2.1 Existing Water Service

The site is bounded by three main streets; A Street, West First Street and West Second Street. Water mains are located in all three streets, varying in size from a 16″ main in A Street, to a 10″ main in West First Street. BWSC records indicate that the water supply for the building is currently supplied from the existing 12″ main in West Second Street. All of the water mains are owned and operated by BWSC. The building is currently serviced by a 2″ domestic line and 6″ fire protection line from West Second Street. A fire hydrant is also located along West Second Street, which is tied to the main located along West Second Street. The existing water system is illustrated in Figure 8-2.

8.2.2 Anticipated Water Consumption

It is normally assumed that the majority of building water flow is converted to wastewater flow, with minimal losses due to various factors including, but not limited to, consumption and washing. Thus, the water demand for the facility is assumed to be 1.1 times the estimated wastewater flow. The anticipated demand yields approximately 9,075 gpd of new wastewater flow, for a total of 19,140 gpd. Hydrant flow tests may be performed to confirm flows and pressures of the BWSC water mains.

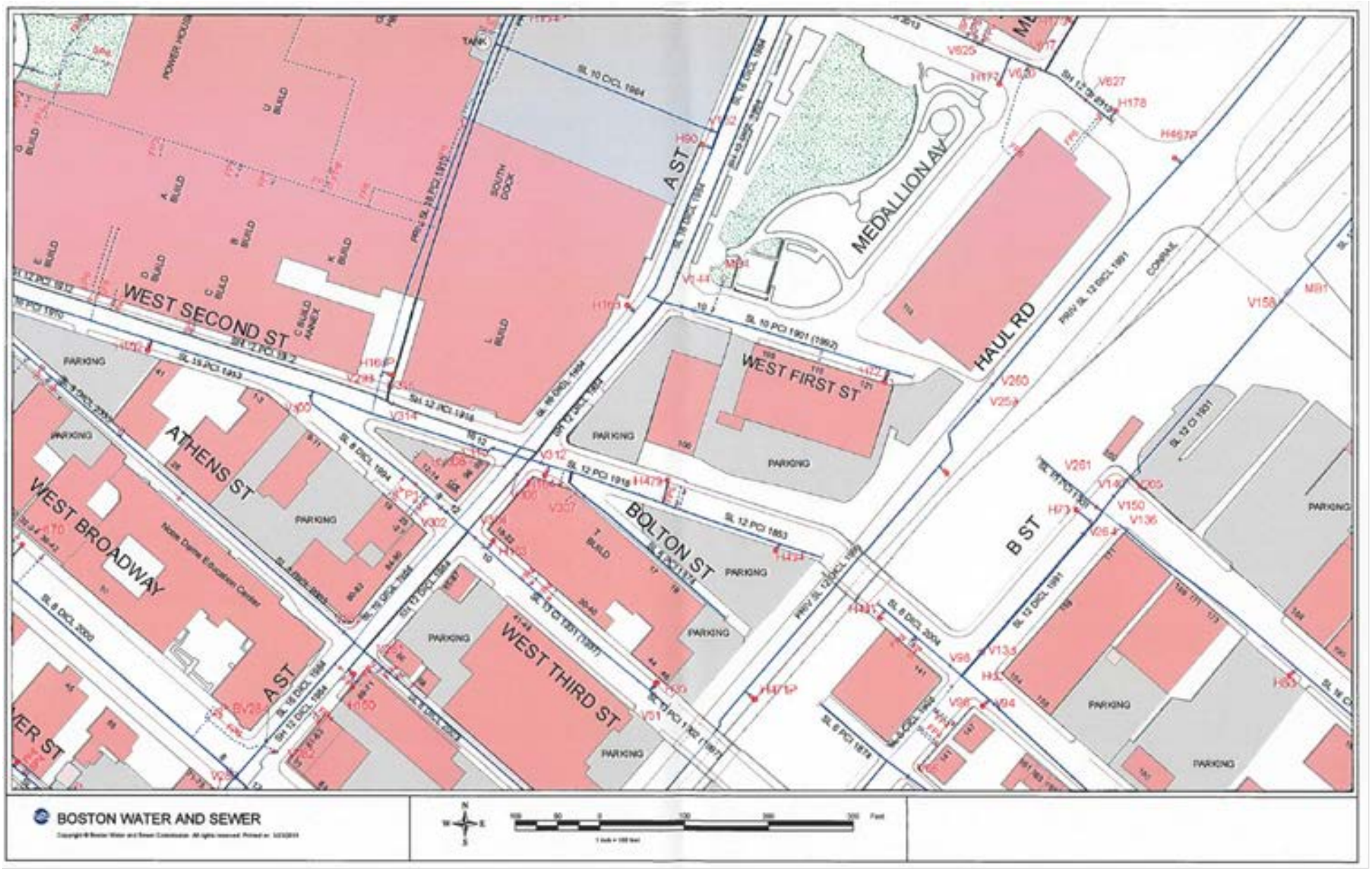
8.2.3 Proposed Water Service

A new 4″ domestic water service line and two 8″ fire protection lines will be brought into the building from West Second Street. These shall be ductile iron cement lined (Class 52) pipes and the connection of these to the existing main shall be made using a tapping sleeve and valve (Mueller Type H615 or equal). All water services shall be installed with a minimum cover of five feet throughout.

8.3 Stormwater

8.3.1 Existing Stormwater System

Runoff from the existing bituminous parking lot slopes into West First Street whereby it enters the existing combined sewer system via an existing catch basin on the corner of West First Street and A Street. The existing building roof drainage consists of external roof drains that ultimately discharge into the surrounding BWSC combined sewers, an irrigation tank, and a drywell. The irrigation tank is located in the courtyard, located just south of the building, where it receives stormwater runoff from a portion of the building roof and courtyard surface. The collected stormwater is harvested for irrigation, thereby promoting water conservation practices. An existing drywell is located on the north side of the existing building where it also collects a portion of building roof and pavement surface runoff. Overflow from the dry well is discharged to the 36″x48″combined sewer line along West First Street via a 10″ PVC pipe.



Artists For Humanity **Boston, Massachusetts**

Epsilon ASSOCIATES INC.

Figure 8-2

Existing Water System

8.3.2 Proposed Conditions

The proposed storm drainage system will be designed in accordance with BWSC standards. The requirements state that no less than a volume of one inch of rainfall (drainage runoff) on the lot must be detained across that portion of the impervious area of the lot for the proposed Project. See Figure 8-3 for a diagram of the proposed stormwater system.

8.4 Electrical Service

Eversource Energy owns the electrical system in the vicinity of the Project site. It is expected that adequate service is available in the existing electrical systems in the surrounding streets to serve the Project. The Proponent will work with Eversource Energy to confirm adequate system capacity as the design is finalized.

8.5 Natural Gas

The Project is pursuing Energy Positive, and will not require natural gas services.

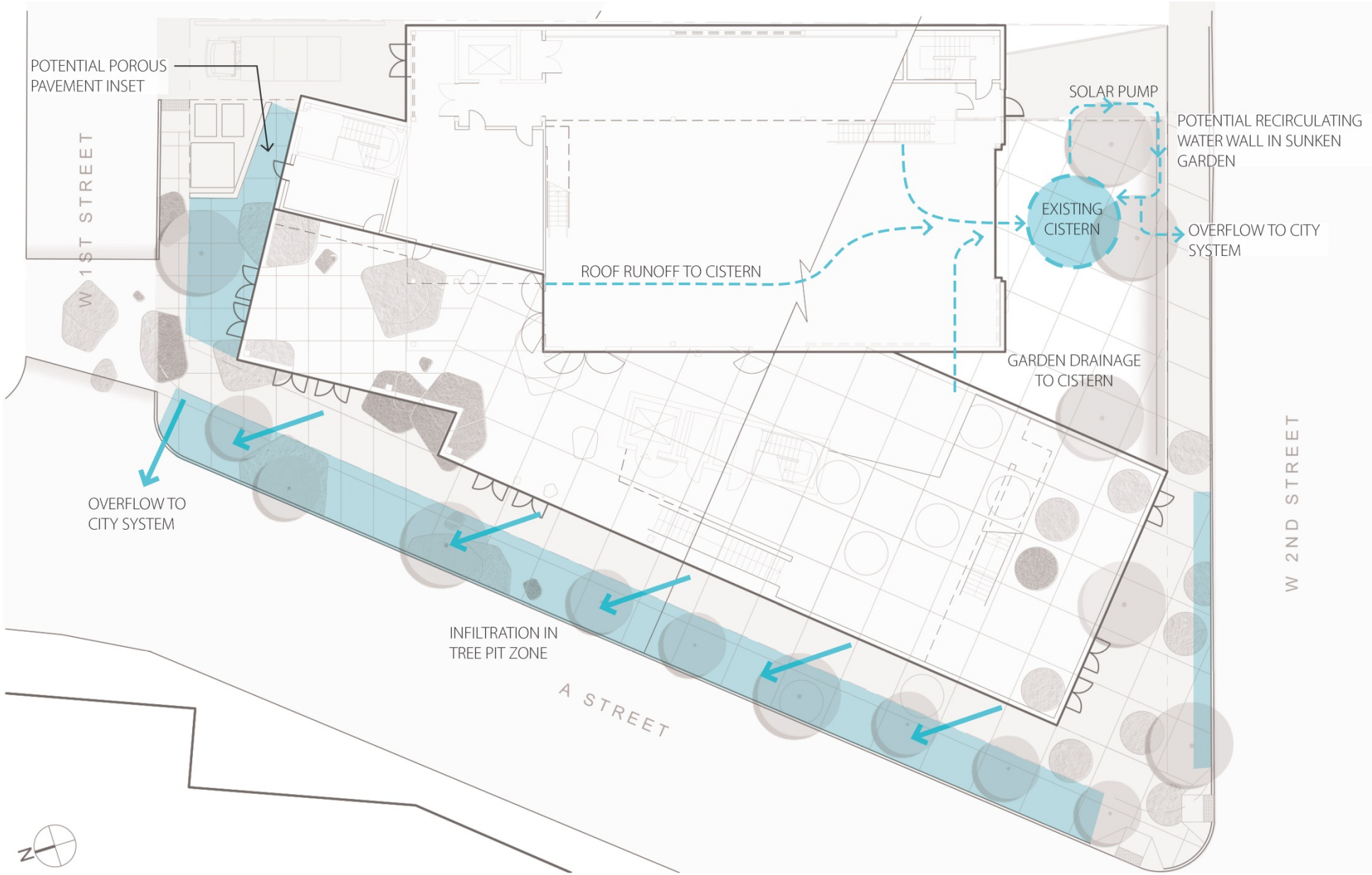
8.6 Telecommunications Systems

The Proponent will select private telecommunications companies to provide telephone, cable, and data services. There are several potential candidates with substantial Boston networks capable of providing service. Upon selection of a provider or providers, the Proponent will coordinate service connection locations and obtain appropriate approvals.

8.7 Utility Protection During Construction

Existing public and private infrastructure located within nearby public rights-of-way will be protected during Project construction. The installation of proposed utility connections within public ways will be undertaken in accordance with BWSC, Boston Public Works Department, the Dig-Safe Program, and applicable utility company requirements. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer, and drain facilities will be reviewed by the BWSC as part of its Site Plan Review process. All necessary permits will be obtained before the commencement of work.

The Proponent will continue to work and coordinate with the BWSC and the utility companies to ensure safe and coordinated utility operations in connection with the Project.



Artists For Humanity **Boston, Massachusetts**

studio2112
LANDSCAPE ARCHITECTURE

Figure 8-3

Proposed Stormwater Concept

Chapter 9.0

Coordination with other Governmental Agencies

9.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

9.1 Architectural Access Board Requirements

The Project will comply with the requirements of the Massachusetts Architectural Access Board and will be designated to comply with the standards of the Americans with Disabilities Act. See Appendix D for the Accessibility Checklist.

9.2 Massachusetts Environmental Policy Act (MEPA)

The Proponent does not expect that the Project will require review by the Massachusetts Environmental Policy Act (MEPA) Office of the Massachusetts Executive Office of Energy and Environmental Affairs. Current plans do not call for the Project to receive any state permits, state funding or involve any state land transfers.

9.3 Massachusetts Historical Commission

The Proponent does not anticipate that the Project will require any state or federal licenses, permits or approvals, and does not anticipate utilizing any state or federal funds. Therefore, review by the Massachusetts Historical Commission (MHC) is not anticipated at this time. In the event that state or federal licenses, permits, approvals or funding is involved, the Proponent will file an MHC Project Notification Form to initiate review of the Project.

9.4 Boston Civic Design Commission

The Project will comply with the provisions of Article 28 of the Boston Zoning Code. This PNF will be submitted to the Boston Civic Design Commission by the BRA as part of the Article 80 process.

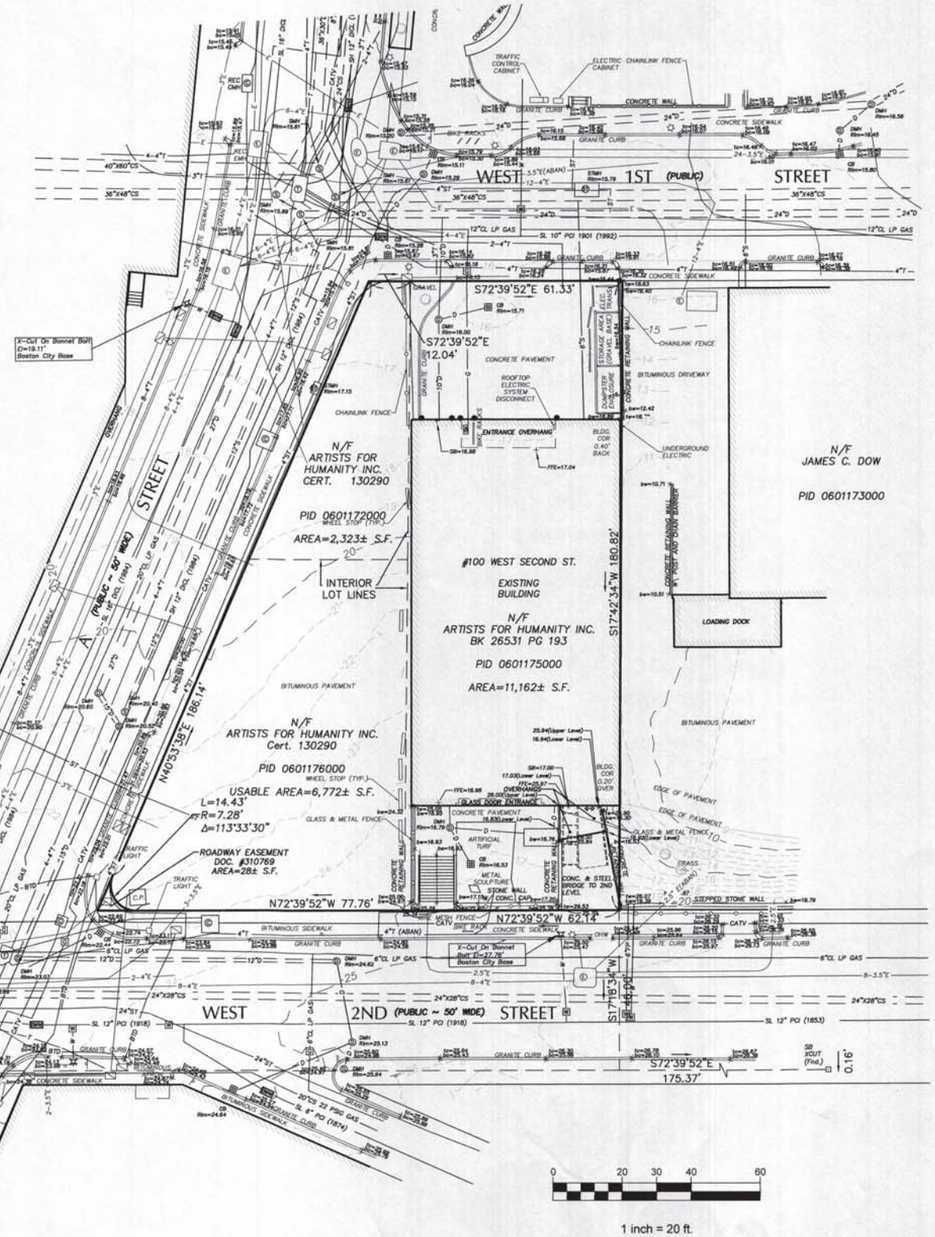
Appendix A

Site Survey

LEGEND

- CATCHBASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE BOX
- UNKNOWN MANHOLE
- HYDRANT
- WATER GATE
- WATER SERVICE
- BWSC WATER GATE
- FIRE DEPARTMENT CONNECTION
- GAS METER
- GAS SERVICE
- SIGN
- UTILITY POLE
- LIGHT POLE
- HANDHOLE
- CS — COMBINED SEWER LINE
- S — SEWER LINE
- D — DRAIN LINE
- T — TELEPHONE LINE
- G — GAS LINE
- W — WATER LINE
- E — ELECTRIC LINE
- OHW — OVERHEAD WIRES
- 100 — INTERMEDIATE CONTOUR
- 60 — INDEX CONTOUR
- ST — STEAM LINE
- +58.7 — SPOT GRADE
- C.P. — CONCRETE PAD
- tc= — TOP OF CURB ELEVATION
- bc= — BOTTOM OF CURB ELEVATION
- bw= — BOTTOM OF WALL ELEVATION
- tw= — TOP OF WALL ELEVATION
- ds= — DOOR SILL ELEVATION
- ffe= — FINISH FLOOR ELEVATION
- ts= — TOP STEP ELEVATION
- bs= — BOTTOM STEP ELEVATION
- (R) — RECORD (TAKEN FROM RECORD DRAWINGS)
- n/a — INVERT NOT AVAILABLE
- BOLLARD
- DECIDUOUS TREE (WITH TRUNK CALIPER SIZE)
- CONIFEROUS TREE (WITH TRUNK CALIPER SIZE)
- SHRUB
- ELECTRIC METER
- ELECTRIC MANHOLE
- COMMUNICATIONS MANHOLE
- STEAM MANHOLE

Massachusetts State Plane Coordinate System – NAD83



NOTES:

1. THIS PROJECT IS REFERENCED HORIZONTALLY TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD 83) BY RTK GPS OBSERVATIONS.
2. THE ELEVATIONS AS REFERENCED HEREON ARE BASED ON BOSTON CITY BASE. SEE PLAN FOR PROJECT BENCHMARK LOCATION.
3. THIS PLAN IS THE RESULT OF AN INSTRUMENT SURVEY PERFORMED IN APRIL 6, 2015 THROUGH MAY 2, 2015.
4. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH BEING PROVIDED TO THE SURVEYOR AND MAY NOT SHOW ANY MATTERS THAT WOULD BE DISCLOSED BY ONE.
5. UNDERGROUND UTILITIES ARE BASED UPON A FIELD SURVEY AND INFORMATION OF RECORD. IT IS NOT WARRANTED THAT THEY ARE EXACTLY LOCATED, NOR THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.
6. ABUTTERS' NAMES REFER TO CURRENT CITY OF BOSTON ASSESSOR'S RECORDS AVAILABLE ONLINE.
7. THE SUBJECT LAND AS SHOWN LIES WITHIN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS INDICATED ON PANEL 83 OF 151 FOR THE CITY OF BOSTON, MAP NUMBER 25025C0083G, HAVING AN EFFECTIVE DATE OF SEPTEMBER 25, 2009.
8. THE CURRENT RECORD OWNER IS ARTISTS FOR HUMANITY INC. FOR LOCUS DEED, SEE BOOK 26531 PAGE 193 AND CERTIFICATE OF TITLE NUMBER 130290 RECORDED AT THE SUFFOLK COUNTY REGISTRY OF DEEDS.
9. THE SURVEYOR WAS UNABLE TO RECOVER ANY MONUMENTS SHOWN ON LCC 1073–A, LCC 25502–A, 22068–A
10. PROPERTY LINES SHOWN HEREON WERE DETERMINED FROM THE FOLLOWING PLANS OF RECORD FILED AT THE SUFFOLK COUNTY COUNTY REGISTRY OF DEEDS AND MASSACHUSETTS LAND COURT.

    –Land Court Case No. 1073–A
    –Land Court Case No. 22068–A
    –Land Court Case No. 25502–A
    –Land Court Case No. 28658–A
    –Land Court Case No. 10853–A
    –Land Court Case No. 30190–A

    UNRECORDED PLAN ENTITLED "TOPOGRAPHIC PLAN OF LAND No. 100 WEST SECOND STREET BOSTON (SOUTH BOSTON), MASS. NOVEMBER 3, 2000 BY HARRY R. FELDMAN, INC." (THIS PLAN WAS UNSTAMPED)

    UNRECORDED PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY A STREET BOSTON, MASSACHUSETTS JUNE 7, 2013 BY DANA F. PERKINS, INC." (THIS PLAN WAS UNSTAMPED AND PROVIDED TO THE SURVEYOR BY THE CLIENT)

samiotes

Samiotes Consultants Inc.
Civil Engineers + Land Surveyors
20 A Street
Framingham, MA 01701
T 508.877.6688
F 508.877.8349
www.samiotes.com

Artists for Humanity
100 West Second Street
Boston, MA 02127

SEAL

COMMONWEALTH OF MASSACHUSETTS
TODD M. CHAPMAN
No. 46322
REGISTERED PROFESSIONAL LAND SURVEYOR

6/11/2015

REVISION

EXISTING CONDITIONS PLAN OF LAND

JOB # 21096.02
DATE: May 29, 2015
SCALE: 1"=20'
DRAWN BY: dp / sd
APPROVED BY: tmc

EX-1.1

FILE: 21-096 AFH-2015-05-06.DWG

P:\PROJECTS\2009\21096.02 ARTISTS FOR HUMANITY\CORRESPONDENCE\2015-05-22\21-096 AFH-2015-05-06.DWG

Appendix B

Transportation Appendix

TRANSPORTATION TECHNICAL APPENDIX

- ARTISTS FOR HUMANITY PROVIDED EXISTING PROJECT TRIPS
- ARTISTS FOR HUMANITY PROVIDED FUTURE PROJECTED PROJECT TRIPS

ARTISTS FOR HUMANITY PROVIDED EXISTING PROJECT TRIPS

September through June

Monday:

10	arrive at	9am	0	depart
25	arrive at	10:30am	0	depart
10	arrive at	noon	0	depart
10	arrive at	1:30pm	5	depart
20	arrive at	3:00pm	15	depart
5	arrive at	4:30pm	5	depart
0	arrive at	6:00pm	35	depart
0	arrive at	7:30pm	15	depart
0	arrive at	9:00pm	5	depart
80			80	

Tuesday/Wednesday/Thursday

10	arrive at	9am	0	depart
25	arrive at	10:30am	0	depart
10	arrive at	noon	0	depart
20	arrive at	1:30pm	5	depart
125	arrive at	3:00pm	5	depart
10	arrive at	4:30pm	10	depart
10	arrive at	6:00pm	130	depart
0	arrive at	7:30pm	45	depart
0	arrive at	9:00pm	15	depart
210			210	

Friday

5	arrive at	9am	0	depart
15	arrive at	10:30am	0	depart
5	arrive at	noon	0	depart
5	arrive at	1:30pm	5	depart
20	arrive at	3:00pm	5	depart
0	arrive at	4:30pm	5	depart
0	arrive at	6:00pm	30	depart
0	arrive at	7:30pm	5	depart
0	arrive at	9:00pm	0	depart
50			50	

July & August

Monday/Tuesday/Wednesday/Thursday

5	arrive at	9am	0	depart
35	arrive at	10:30am	0	depart
120	arrive at	noon	0	depart
20	arrive at	1:30pm	5	depart
20	arrive at	3:00pm	5	depart
5	arrive at	4:30pm	10	depart
0	arrive at	6:00pm	110	depart
0	arrive at	7:30pm	65	depart
0	arrive at	9:00pm	10	depart
205			205	

Friday

5	arrive at	9am	0	depart
35	arrive at	10:30am	0	depart
75	arrive at	noon	0	depart
50	arrive at	1:30pm	5	depart
20	arrive at	3:00pm	10	depart
5	arrive at	4:30pm	35	depart
0	arrive at	6:00pm	110	depart
0	arrive at	7:30pm	25	depart
0	arrive at	9:00pm	5	depart
190			190	

ARTISTS FOR HUMANITY PROVIDED FUTURE PROJECTED PROJECT TRIPS

September through June

Monday through Friday

TEN	MAK	PUB	AFH	TOTAL			TEN.	MAK	PUB.	AFH	TOTAL	
80	5	150	20	**255**	arrive at	9am	0	0	125	0	**125**	depart
50	5	150	50	**255**	arrive at	10:30am	0	5	150	0	**155**	depart
20	10	150	20	**200**	arrive at	noon	0	5	150	0	**155**	depart
15	10	75	40	**140**	arrive at	1:30pm	0	10	100	15	**125**	depart
10	10	50	175	**245**	arrive at	3:00pm	0	10	50	20	**80**	depart
5	20	50	20	**95**	arrive at	4:30pm	45	10	50	40	**145**	depart
0	40	30	20	**90**	arrive at	6:00pm	80	20	30	170	**300**	depart
0	50	30	0	**80**	arrive at	7:30pm	35	40	30	65	**170**	depart
0	35		0	**35**	arrive at	9:00pm	20	85		35	**140**	depart
180	185	685	345	**1395**			180	185	685	345	**1395**	

Saturday

10	20	0	125	**155**	arrive at	9am	0	0	0	0	**0**	depart
5	45	0	10	**60**	arrive at	10:30am	0	15	0	0	**15**	depart
5	45	20	0	**70**	arrive at	noon	10	35	20	0	**65**	depart
5	30	30	0	**65**	arrive at	1:30pm	5	40	30	0	**75**	depart
0	45	15	0	**60**	arrive at	3:00pm	5	35	15	110	**165**	depart
0	30	15	0	**45**	arrive at	4:30pm	5	40	15	25	**85**	depart
0	25	35	0	**60**	arrive at	6:00pm	0	40	35	0	**75**	depart
0	25	40	0	**65**	arrive at	7:30pm	0	35	40	0	**75**	depart
0	20	0	0	**20**	arrive at	9:00pm	0	45	0	0	**45**	depart
25	285	155	135	**600**			25	285	155	135	**600**	

Sunday

0	20	0	0	**20**	arrive at	9am	0	0	0	0	**0**	depart
0	20	0	0	**20**	arrive at	10:30am	0	20	0	0	**20**	depart
0	20	20	0	**40**	arrive at	noon	0	20	20	0	**40**	depart
0	15	30	0	**45**	arrive at	1:30pm	0	20	30	0	**50**	depart
0	30	15	0	**45**	arrive at	3:00pm	0	15	15	0	**30**	depart
0	20	15	0	**35**	arrive at	4:30pm	0	30	15	0	**45**	depart
0	20	0	0	**20**	arrive at	6:00pm	0	20	0	0	**20**	depart
0	10	0	0	**10**	arrive at	7:30pm	0	20	0	0	**20**	depart
0	10	0	0	**10**	arrive at	9:00pm	0	20	0	0	**20**	depart
0	165	80	0	**245**			0	165	80	0	**245**	

July and August

Monday through Friday

TEN	MAK	PUB	AFH	TOTAL			TEN.	MAK	PUB.	AFH	TOTAL	
80	5	150	20	**255**	arrive at	9am	0	0	125	0	**125**	depart
50	5	150	50	**255**	arrive at	10:30am	0	5	150	0	**155**	depart
20	10	150	20	**200**	arrive at	noon	0	5	150	0	**155**	depart
15	10	75	40	**140**	arrive at	1:30pm	0	10	100	15	**125**	depart
10	10	50	175	**245**	arrive at	3:00pm	0	10	50	20	**80**	depart
5	20	50	20	**95**	arrive at	4:30pm	45	10	50	40	**145**	depart
0	40	30	20	**90**	arrive at	6:00pm	80	20	30	170	**300**	depart
0	50	30	0	**80**	arrive at	7:30pm	35	40	30	65	**170**	depart
0	35	0	0	**35**	arrive at	9:00pm	20	85	0	35	**140**	depart
180	185	685	345	**1395**			180	185	685	345	**1395**	

Saturday

10	20	0	0	**30**	arrive at	9am	0	0		0	**0**	depart
5	45	0	0	**50**	arrive at	10:30am	0	15		0	**15**	depart
5	45	20	0	**70**	arrive at	noon	10	35	20	0	**65**	depart
5	30	30	0	**65**	arrive at	1:30pm	5	40	30	0	**75**	depart
0	45	15	0	**60**	arrive at	3:00pm	5	35	15	0	**55**	depart
0	30	15	0	**45**	arrive at	4:30pm	5	40	15	0	**60**	depart
0	25	35	0	**60**	arrive at	6:00pm	0	40	35	0	**75**	depart
0	25	40	0	**65**	arrive at	7:30pm	0	35	40	0	**75**	depart
0	20	0	0	**20**	arrive at	9:00pm	0	45	0	0	**45**	depart
25	285	155	0	**465**			25	285	155	0	**465**	

Sunday

0	20	0	0	**20**	arrive at	9am	0	0	0	0	**0**	depart
0	20	0	0	**20**	arrive at	10:30am	0	20	0	0	**20**	depart
0	20	20	0	**40**	arrive at	noon	0	20	20	0	**40**	depart
0	15	30	0	**45**	arrive at	1:30pm	0	20	30	0	**50**	depart
0	30	15	0	**45**	arrive at	3:00pm	0	15	15	0	**30**	depart
0	20	15	0	**35**	arrive at	4:30pm	0	30	15	0	**45**	depart
0	20	0	0	**20**	arrive at	6:00pm	0	20	0	0	**20**	depart
0	10	0	0	**10**	arrive at	7:30pm	0	20	0	0	**20**	depart
0	10	0	0	**10**	arrive at	9:00pm	0	20	0	0	**20**	depart
0	165	80	0	**245**			0	165	80	0	**245**	

Appendix C

Climate Change Preparedness Questionnaire

Climate Change Preparedness and Resiliency Checklist for New Construction

In November 2013, in conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the Boston Redevelopment Authority adopted policy for all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding project resiliency, preparedness, and to mitigate any identified adverse impacts that might arise under future climate conditions.

For more information about the City of Boston's climate policies and practices, and the 2011 update of the climate action plan, *A Climate of Progress*, please see the City's climate action web pages at http://www.cityofboston.gov/climate

In advance we thank you for your time and assistance in advancing best practices in Boston.

Climate Change Analysis and Information Sources:

1. Northeast Climate Impacts Assessment (www.climatechoices.org/ne/)
2. USGCRP 2009 (http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/)
3. Army Corps of Engineers guidance on sea level rise (http://planning.usace.army.mil/toolbox/library/ECs/EC11652212Nov2011.pdf)
4. Proceeding of the National Academy of Science, "Global sea level rise linked to global temperature", Vermeer and Rahmstorf, 2009 (http://www.pnas.org/content/early/2009/12/04/0907765106.full.pdf)
5. "Hotspot of accelerated sea-level rise on the Atlantic coast of North America", Asbury H. Sallenger Jr*, Kara S. Doran and Peter A. Howd, 2012 (http://www.bostonredevelopmentauthority.org/planning/Hotspot of Accelerated Sea-level Rise 2012.pdf)
6. "Building Resilience in Boston": Best Practices for Climate Change Adaptation and Resilience for Existing Buildings, Linnean Solutions, The Built Environment Coalition, The Resilient Design Institute, 2103 (http://www.greenribboncommission.org/downloads/Building_Resilience_in_Boston_SML.pdf)

Checklist

Please respond to all of the checklist questions to the fullest extent possible. For projects that respond "Yes" to any of the D.1 – Sea-Level Rise and Storms, Location Description and Classification questions, please respond to all of the remaining Section D questions.

Checklist responses are due at the time of initial project filing or Notice of Project Change and final filings just prior seeking Final BRA Approval. A PDF of your response to the Checklist should be submitted to the Boston Redevelopment Authority via your project manager.

Please Note: When initiating a new project, please visit the BRA web site for the most current Climate Change Preparedness & Resiliency Checklist.

A.1 - Project Information

Project Name:	Artists For Humanity
Project Address Primary:	100 W 2nd Street
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	Andrew Motta/Artists For Humanity/(617) 268-7620

A.2 - Team Description

Owner / Developer:	Artists For Humanity
Architect:	Behnisch Architekten
Engineer (building systems):	Transsolar/Buro Happold
Sustainability / LEED:	Behnisch Architekten
Permitting:	Epsilon Associates
Construction Management:	
Climate Change Expert:	

A.3 - Project Permitting and Phase

At what phase is the project – most recent completed submission at the time of this response?

☑ PNF / Expanded PNF Submission	☐ Draft / Final Project Impact Report Submission	☐ BRA Board Approved	☐ Notice of Project Change
☐ Planned Development Area	☐ BRA Final Design Approved	☐ Under Construction	☐ Construction just completed:

A.4 - Building Classification and Description

List the principal Building Uses:	Youth Arts Enterprise
List the First Floor Uses:	Café, gallery, lobby, event space, kitchen, mechanical spaces

What is the principal Construction Type – select most appropriate type?

☐ Wood Frame	☐ Masonry	☑ Steel Frame	☐ Concrete

Describe the building?

Site Area:	*20,280 SF*	Building Area:	*56,000 new, 80,000 total SF*
Building Height:	*116 Ft.*	Number of Stories:	*8 Flrs.*
First Floor Elevation (reference Boston City	*17'5" Elev.*	Are there below grade spaces/levels, if yes how many:	*No /*

Base):		

A.5 - Green Building

Which LEED Rating System(s) and version has or will your project use (by area for multiple rating systems)?

Select by Primary Use:	☑ New Construction	☐ Core & Shell	☐ Healthcare	☐ Schools
	☐ Retail	☐ Homes Midrise	☐ Homes	☐ Other
Select LEED Outcome:	☐ Certified	☐ Silver	☐ Gold	☑ Platinum

Will the project be USGBC Registered and / or USGBC Certified?

Registered:	*Yes* / *No*	Certified:	*Yes* / *No*
	Project is targeting Energy Positive (E+)		

A.6 - Building Energy-

What are the base and peak operating energy loads for the building?

Electric:	*317,000 (kW)*	Heating:	*1.1 (MMBtu/hr)*
What is the planned building Energy Use Intensity:	*15.3 (kBtu/GSF)*	Cooling:	*70 (Tons/hr)*

What are the peak energy demands of your critical systems in the event of a service interruption?

Electric:	*317,000 (kW)*	Heating:	*1.1 (MMBtu/hr)*
		Cooling:	*70 (Tons/hr)*

What is nature and source of your back-up / emergency generators?

Electrical Generation:	*350 (kW)*		Fuel Source:	*Fuel Oil*
System Type and Number of Units:	☑ Combustion Engine	☑ Gas Turbine	☐ Combine Heat and Power	*(Units)*

B - Extreme Weather and Heat Events

Climate change will result in more extreme weather events including higher year round average temperatures, higher peak temperatures, and more periods of extended peak temperatures. The section explores how a project responds to higher temperatures and heat waves.

B.1 - Analysis

What is the full expected life of the project?

Select most appropriate:	☐ 10 Years	☐ 25 Years	☐ 50 Years	☑ 75 Years

What is the full expected operational life of key building systems (e.g. heating, cooling, ventilation)?

Select most appropriate:	☐ 10 Years	☐ 25 Years	☑ 50 Years	☐ 75 Years

What time span of future Climate Conditions was considered?

Select most appropriate:	☐ 10 Years	☐ 25 Years	☐ 50 Years	☑ 75 Years

Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

8/91 Deg.	Based on ASHRAE Fundamentals 2013 99.6% heating; 0.4% cooling

What Extreme Heat Event characteristics will be used for project planning – Peak High, Duration, and Frequency?

91 Deg.	*8 Days*	*8 Events / yr.*

What Drought characteristics will be used for project planning – Duration and Frequency?

30-90 Days	*0.2 Events / yr.*

What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

45 Inches / yr.	*4 Inches*	*0.5 Events / yr.*

What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

130 Peak Wind	*10 Hours*	*0.25 Events / yr.*

B.2 - Mitigation Strategies

What will be the overall energy performance, based on use, of the project and how will performance be determined?

Building energy use below code:	*100%*
How is performance determined:	TRNSYS 17.1 (TRaNsient System Simulation Program)

What specific measures will the project employ to reduce building energy consumption?

Select all appropriate:				
	☑ High performance building envelop	☑ High performance lighting & controls	☑ Building day lighting	☑ EnergyStar equip. / appliances
	☑ High performance HVAC equipment	☑ Energy recovery ventilation	☑ No active cooling	☐ No active heating
Describe any added measures:	Natural ventilation stack with low velocity fans, ceiling fans, expanded operative temperature setpoints			

What are the insulation (R) values for building envelop elements?

Roof:	*R = 30*	Walls / Curtain Wall Assembly:	*R = 30*
Foundation:	*R = 15 for 4'*	Basement / Slab:	*R =15 for 4'*
Windows:	*R = / U =0.23*	Doors:	*R = / U =0.7*

What specific measures will the project employ to reduce building energy demands on the utilities and infrastructure?

☐ On-site clean energy / CHP system(s)	☐ Building-wide power dimming	☐ Thermal energy storage systems	☑ Ground source heat pump
☑ On-site Solar PV	☐ On-site Solar Thermal	☐ Wind power	☐ None

Describe any added measures:	Space occupancy sensors for lighting

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems?

Select all appropriate:	☑ Connected to local distributed electrical	☐ Building will be Smart Grid ready	☐ Connected to distributed steam, hot, chilled water	☐ Distributed thermal energy ready

Will the building remain operable without utility power for an extended period?

	Yes / No	If yes, for how long:	*Days*
If Yes, is building "Islandable?			
If Yes, describe strategies:			

Describe any non-mechanical strategies that will support building functionality and use during an extended interruption(s) of utility services and infrastructure:

Select all appropriate:	☑ Solar oriented – longer south walls	☑ Prevailing winds oriented	☑ External shading devices	☐ Tuned glazing,
	☐ Building cool zones	☑ Operable windows	☑ Natural ventilation	☑ Building shading
	☐ Potable water for drinking / food preparation	☐ Potable water for sinks / sanitary systems	☐ Waste water storage capacity	☑ High Performance Building Envelop
Describe any added measures:				

What measures will the project employ to reduce urban heat-island effect?

Select all appropriate:	☑ High reflective paving materials	☑ Shade trees & shrubs	☑ High reflective roof materials	☐ Vegetated roofs
Describe other strategies:	Solar covered roofs			

What measures will the project employ to accommodate rain events and more rain fall?

Select all appropriate:	☐ On-site retention systems & ponds	☐ Infiltration galleries & areas	☐ Vegetated water capture systems	☐ Vegetated roofs
Describe other strategies:	On-site 1,500 gallon water storage tank			

What measures will the project employ to accommodate extreme storm events and high winds?

Select all appropriate:	☐ Hardened building structure & elements	☐ Buried utilities & hardened infrastructure	☐ Hazard removal & protective landscapes	☑ Soft & permeable surfaces (water infiltration)
Describe other strategies:				

C - Sea-Level Rise and Storms

Rising Sea-Levels and more frequent Extreme Storms increase the probability of coastal and river flooding and enlarging the extent of the 100 Year Flood Plain. This section explores if a project is or might be subject to Sea-Level Rise and Storm impacts.

C.1 - Location Description and Classification:

Do you believe the building to susceptible to flooding now or during the full expected life of the building?

Yes / No

Describe site conditions?

Site Elevation – Low/High Points:	17'5" Boston City Base Elev.(Ft.)
Building Proximity to Water:	1,150 Ft.

Is the site or building located in any of the following?

Coastal Zone:	Yes / No	Velocity Zone:	Yes / No
Flood Zone:	Yes / No	Area Prone to Flooding:	Yes / No

Will the 2013 Preliminary FEMA Flood Insurance Rate Maps or future floodplain delineation updates due to Climate Change result in a change of the classification of the site or building location?

2013 FEMA Prelim. FIRMs:	Yes / No	Future floodplain delineation updates:	Yes / No

What is the project or building proximity to nearest Coastal, Velocity or Flood Zone or Area Prone to Flooding?

0 Ft.

If you answered YES to any of the above Location Description and Classification questions, please complete the following questions. ***Otherwise you have completed the questionnaire; thank you!***

C - Sea-Level Rise and Storms

This section explores how a project responds to Sea-Level Rise and / or increase in storm frequency or severity.

C.2 - Analysis

How were impacts from higher sea levels and more frequent and extreme storm events analyzed:

Sea Level Rise:	3 Ft.	Frequency of storms:	0.25 per year

C.3 - Building Flood Proofing

Describe any strategies to limit storm and flood damage and to maintain functionality during an extended periods of disruption.

What will be the Building Flood Proof Elevation and First Floor Elevation:

Flood Proof Elevation:	17'5"Boston City Base Elev.(Ft.)	First Floor Elevation:	17'5" Boston City Base Elev. (Ft.)

Will the project employ temporary measures to prevent building flooding (e.g. barricades, flood gates):

	Yes / No	If Yes, to what elevation	17'5" Boston City Base Elev. (Ft.)
If Yes, describe:			

What measures will be taken to ensure the integrity of critical building systems during a flood or severe storm event:

☑ Systems located above 1st Floor.	☑ Water tight utility conduits	☐ Waste water back flow prevention	☐ Storm water back flow prevention

Were the differing effects of fresh water and salt water flooding considered:

Yes / No

Will the project site / building(s) be accessible during periods of inundation or limited access to transportation:

Yes / No	If yes, to what height above 100 Year Floodplain:	*Boston City Base Elev. (Ft.)*

Will the project employ hard and / or soft landscape elements as velocity barriers to reduce wind or wave impacts?

Yes / No

If Yes, describe:

Will the building remain occupiable without utility power during an extended period of inundation:

Yes / No	If Yes, for how long:	*days*

Describe any additional strategies to addressing sea level rise and or sever storm impacts:

C.4 - Building Resilience and Adaptability

Describe any strategies that would support rapid recovery after a weather event and accommodate future building changes that respond to climate change:

Will the building be able to withstand severe storm impacts and endure temporary inundation?

Select appropriate:	*Yes / No*	☐ Hardened / Resilient Ground Floor Construction	☐ Temporary shutters and or barricades	☐ Resilient site design, materials and construction

Can the site and building be reasonably modified to increase Building Flood Proof Elevation?

Select appropriate:	*Yes / No*	☐ Surrounding site elevation can be raised	☐ Building ground floor can be raised	☐ Construction been engineered
Describe additional strategies:				

Has the building been planned and designed to accommodate future resiliency enhancements?

Select appropriate:	*Yes / No*	☑ Solar PV	☐ Solar Thermal	☑ Clean Energy / CHP System(s)
		☐ Potable water storage	☐ Wastewater storage	☑ Back up energy systems & fuel
Describe any specific or additional strategies:	The generator is currently sized to support code required systems such as fire pump, egress lights/exit signs, pressurization fans and fire-fighter elevator, sump/ejector pumps, etc for a minimum of 2 hrs.			

The PV system inverters will not be generating power under loss of normal power as its has a required built in safety controls to shutdown when there is a power outage.

Thank you for completing the Boston Climate Change Resilience and Preparedness Checklist!

For questions or comments about this checklist or Climate Change Resiliency and Preparedness best practices, please contact: John.Dalzell.BRA@cityofboston.gov

Appendix D

Accessibility Checklist

Accessibility Checklist

(to be added to the BRA Development Review Guidelines)

In 2009, a nine-member Advisory Board was appointed to the Commission for Persons with Disabilities in an effort to reduce architectural, procedural, attitudinal, and communication barriers affecting persons with disabilities in the City of Boston. These efforts were instituted to work toward creating universal access in the built environment.

In line with these priorities, the Accessibility Checklist aims to support the inclusion of people with disabilities. In order to complete the Checklist, you must provide specific detail, including descriptions, diagrams and data, of the universal access elements that will ensure all individuals have an equal experience that includes full participation in the built environment throughout the proposed buildings and open space.

In conformance with this directive, all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding the following:

- improvements for pedestrian and vehicular circulation and access;
- encourage new buildings and public spaces to be designed to enhance and preserve Boston's system of parks, squares, walkways, and active shopping streets;
- ensure that persons with disabilities have full access to buildings open to the public;
- afford such persons the educational, employment, and recreational opportunities available to all citizens; and
- preserve and increase the supply of living space accessible to persons with disabilities.

We would like to thank you in advance for your time and effort in advancing best practices and progressive approaches to expand accessibility throughout Boston's built environment.

Accessibility Analysis Information Sources:

1. Americans with Disabilities Act – 2010 ADA Standards for Accessible Design
    a. http://www.ada.gov/2010ADAstandards_index.htm
2. Massachusetts Architectural Access Board 521 CMR
    a. http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
3. Boston Complete Street Guidelines
    a. http://bostoncompletestreets.org/
4. City of Boston Mayors Commission for Persons with Disabilities Advisory Board
    a. http://www.cityofboston.gov/Disability
5. City of Boston – Public Works Sidewalk Reconstruction Policy
    a. http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf
6. Massachusetts Office On Disability Accessible Parking Requirements
    a. www.mass.gov/anf/docs/mod/hp-parking-regulations-mod.doc
7. MBTA Fixed Route Accessible Transit Stations
    a. http://www.mbta.com/about_the_mbta/accessibility/

Article 80 | ACCESSIBILTY CHECKLIST

Project Information

Project Name:	Artists For Humanity
Project Address Primary:	100 W 2nd Street
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	Andrew Motta/Artists For Humanity/(617) 268-7620

Team Description

Owner / Developer:	Artists For Humanity
Architect:	Behnisch Architekten
Engineer (building systems):	Transsolar/Buro Happold
Sustainability / LEED:	Behnisch Architekten
Permitting:	Epsilon Associates
Construction Management:	

Project Permitting and Phase

At what phase is the project – at time of this questionnaire?

☑PNF / Expanded PNF Submitted	Draft / Final Project Impact Report Submitted	BRA Board Approved
BRA Design Approved	Under Construction	Construction just completed:

Article 80 | ACCESSIBILTY CHECKLIST

Building Classification and Description

What are the principal Building Uses - select all appropriate uses?

	Residential – One to Three Unit	Residential - Multi-unit, Four +	Institutional	Education
	☑Commercial	☑Office	☑Retail	☑Assembly
	Laboratory / Medical	Manufacturing / Industrial	Mercantile	Storage, Utility and Other
First Floor Uses (List)	*Café, gallery, lobby, event space, kitchen*			

What is the Construction Type – select most appropriate type?

	Wood Frame	Masonry	☑Steel Frame	Concrete

Describe the building?

Site Area:	*20,280 SF*	Building Area:	*56,000 new,* *80,000 total SF*
Building Height:	*116 Ft.*	Number of Stories:	*8 Flrs.*
First Floor Elevation:	*17'5" Elev.*	Are there below grade spaces:	*No*

Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and proximate institutions such as, but not limited to hospitals, elderly and disabled housing, and general neighborhood information. The proponent should identify how the area surrounding the development is accessible for people with mobility impairments and should analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the development neighborhood and identifying characteristics.	The Project site is located in South Boston in an area that is transitioning from mostly industrial and commercial uses to predominantly residential and ground floor retail uses. To the east of the site across the Haul Road is the more densely developed St. Vincent residential neighborhood with buildings ranging in height from two to four stories. To the west are new mid-rise residential developments under construction or constructed within the last decade, with buildings ranging in height from four to eight stories.
List the surrounding ADA compliant MBTA transit lines and the proximity	The site is located within one-quarter mile (less than a five minute walk) of the MBTA Broadway Station which provides excellent access to bus and Red Line

to the development site: Commuter rail, subway, bus, etc.	service
List the surrounding institutions: hospitals, public housing and elderly and disabled housing developments, educational facilities, etc.	Within the vicinity of the Project site is the J F Condon School, and the Massachusetts Convention Center
Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.	The Project site is not on a priority accessible route. The site is located near several parks including the Flaherty Park, and the Lawn on D.

Surrounding Site Conditions – Existing:

This section identifies the current condition of the sidewalks and pedestrian ramps around the development site.

Are there sidewalks and pedestrian ramps existing at the development site?	There are existing sidewalks along A Street, W First Street and W second Street.
If yes above, list the existing sidewalk and pedestrian ramp materials and physical condition at the development site.	The sidewalks are concrete. No landscape elements are present.
Are the sidewalks and pedestrian ramps existing-to-remain? **If yes,** have the sidewalks and pedestrian ramps been verified as compliant? **If yes,** please provide surveyors report.	The sidewalks will be replaced and enhanced, and will comply with Complete Streets.
Is the development site within a historic district? **If yes,** please identify.	No.

Surrounding Site Conditions – Proposed

This section identifies the proposed condition of the walkways and pedestrian ramps in and around the

development site. The width of the sidewalk contributes to the degree of comfort and enjoyment of walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Typically, a five foot wide Pedestrian Zone supports two people walking side by side or two wheelchairs passing each other. An eight foot wide Pedestrian Zone allows two pairs of people to comfortable pass each other, and a ten foot or wider Pedestrian Zone can support high volumes of pedestrians.

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? See: www.bostoncompletestreets.org	Yes, the proposed sidewalks are designed to meet the Boston Complete Street Guidelines. The sidewalk along A Street is designed to exceed the recommendations.
If yes above, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, Boulevard.	Industrial
What is the total width of the proposed sidewalk? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone.	The proposed sidewalk dimensions, starting at back of curb, are as follows: W 1st Street Total Width = 5' Frontage Zone = N/A Pedestrian Zone = 5' Furnishing/Greenscape Zone= N/A W 2nd Street Total Width = 8' Frontage Zone = N/A Pedestrian Zone = 5' Furnishing/Greenscape Zone= 3' A Street Total Width = 18.5' Frontage Zone = 2' Pedestrian Zone = 8' Furnishing/Greenscape Zone= 8.5
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	All proposed walkways surfaces in the City of Boston Pedestrian right-of-way will be concrete pavement. The Greenscape Zone along A street will include hardy, urban tolerant street trees in planters designed to intercept storm water run-off. The adjacent private property include temporary, semi-permanent and permanent art displays and installation opportunities for the Artists for Humanity teen artists.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the City of Boston Public	N/A

Improvement Commission?	
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way?	There are no sidewalk cafes or furnishing proposed in the pedestrian right-of-way
If yes above, what are the proposed dimensions of the sidewalk café or furnishings and what will the right-of-way clearance be?	N/A

Proposed Accessible Parking:

See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability Handicap Parking Regulations.

What is the total number of parking spaces provided at the development site parking lot or garage?	0
What is the total number of accessible spaces provided at the development site?	0
Will any on street accessible parking spaces be required? **If yes,** has the proponent contacted the Commission for Persons with Disabilities and City of Boston Transportation Department regarding this need?	No
Where is accessible visitor parking located?	In the public parking structure, Channel Center Garage, located at 116 W 1st Street, Boston, MA 02127
Has a drop-off area been identified? **If yes,** will it be accessible?	Yes, the drop off area is located on W 1st Street and it is accessible.
Include a diagram of the accessible routes to and from the accessible	See attached

parking lot/garage and drop-off areas to the development entry locations. Please include route distances.	

Circulation and Accessible Routes:

The primary objective in designing smooth and continuous paths of travel is to accommodate persons of all abilities that allow for universal access to entryways, common spaces and the visit-ability* of neighbors.

**Visit-ability – Neighbors ability to access and visit with neighbors without architectural barrier limitations*

Provide a diagram of the accessible route connections through the site.	See attached.
Describe accessibility at each entryway: Flush Condition, Stairs, Ramp Elevator.	Flush condition
Are the accessible entrance and the standard entrance integrated?	Yes
If no above, what is the reason?	N/A
Will there be a roof deck or outdoor courtyard space? If yes, include diagram of the accessible route.	Yes, there is a sunken courtyard and its entry/exit is accesible and integrated with the standard entry/exist with a flush condition. The roof terrace at Level 6 is private to the tenant space as it is accessed from within the tenant space; its entry/exit is accessible and integrated with the standard entry/exit with a flush condition.
Has an accessible routes way-finding and signage package been developed? If yes, please describe.	Not at this time.

Accessible Units: (If applicable)

In order to facilitate access to housing opportunities this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing choice.

What is the total number of proposed units for the development?	N/A

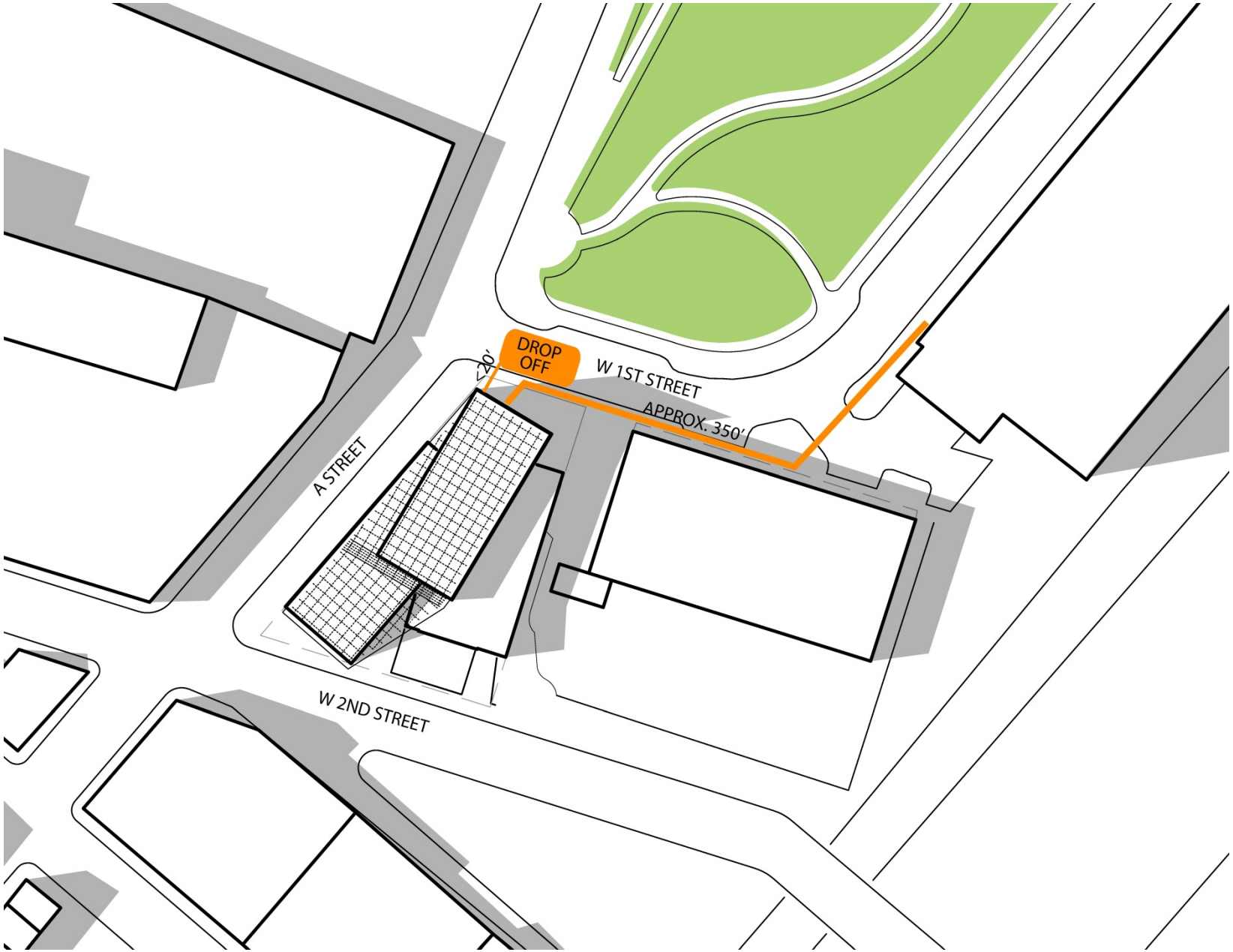
Article 80 | ACCESSIBILTY CHECKLIST

How many units are for sale; how many are for rent? What is the market value vs. affordable breakdown?	N/A
How many accessible units are being proposed?	N/A
Please provide plan and diagram of the accessible units.	N/A
How many accessible units will also be affordable? If none, please describe reason.	N/A
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs at entry or step to balcony. **If yes,** please provide reason.	N/A
Has the proponent reviewed or presented the proposed plan to the City of Boston Mayor's Commission for Persons with Disabilities Advisory Board?	N/A
Did the Advisory Board vote to support this project? **If no,** what recommendations did the Advisory Board give to make this project more accessible?	

Thank you for completing the Accessibility Checklist!

For questions or comments about this checklist or accessibility practices, please contact:

kathryn.quigley@boston.gov | Mayors Commission for Persons with Disabilities



Artists For Humanity **Boston, Massachusetts**

BEHNISCH ARCHITEKTEN

Accessibility Diagram