

Touloukian Touloukian Inc.
Architecture & Urban Design

Historic Harvard Square Kiosk

**Cambridge Historic Commission
Application Presentation**

Harvard Square Kiosk

1. Timeline of Alterations
2. Design Proposal
3. Preservation + Renovation Approach



Harvard Square - 1970's

HARVARD SQUARE KIOSK - CAMBRIDGE, MASSACHUSETTS
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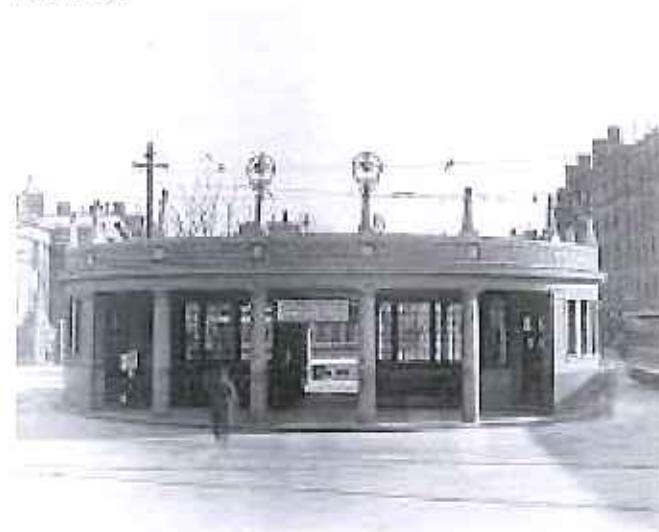
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CITY OF CAMBRIDGE

Kiosk Timeline

Initial



"Original"



Relocated



Today



1912

Initial Harvard Square subway headhouse

1928

Original headhouse structure built to cover entrance to subway station

1981

Kiosk disassembled & stored during construction work on Red Line

1983

Relocated, Out of Town News kiosk

2014

CDD and the Harvard Square Business Association publish the Harvard Square Vision Plan prepared by PPS.

1900

2019

1978

Listed on National Registry of Historic Places (MHC Review)

2000

City Council designates Harvard Square a conservation district (CHC review)

2015

CHC staff initiates (2) fundamental principles
1. "that all original material that remained after the conversion to a newsstand in 1983 should be preserved to the greatest extent possible..."
2. "...there should be no additional enclosure of the structure."

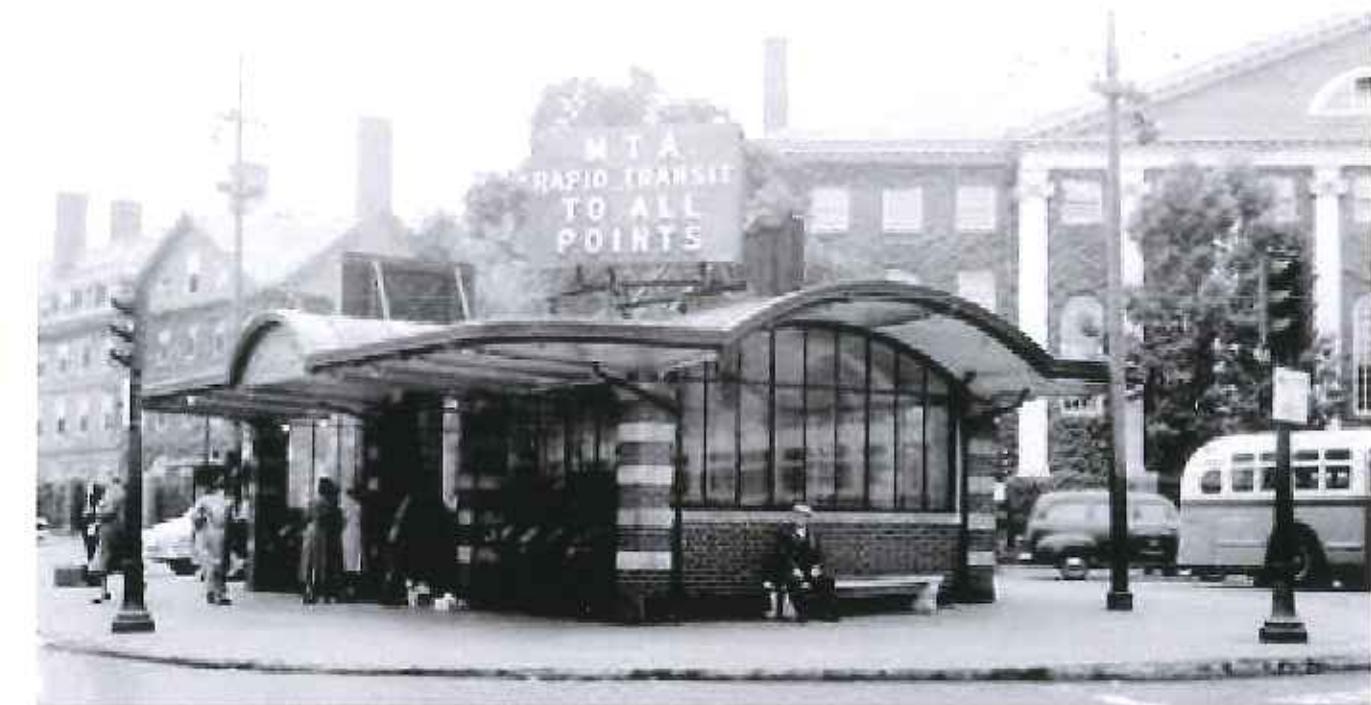
Landmark Designation Report 11/30/2017

"Original" Kiosk

Roof, Cornice, Masonry, Steel Framing, Wood Soffit and Windows



Harvard Square Kiosk - circa 1977



Harvard Square Kiosk - estimated 1960's



Harvard Square Kiosk - circa 1928

"Original" Kiosk

Rooftop Signage - circa 1961



"Original" Kiosk

Steel Windows - circa 1938



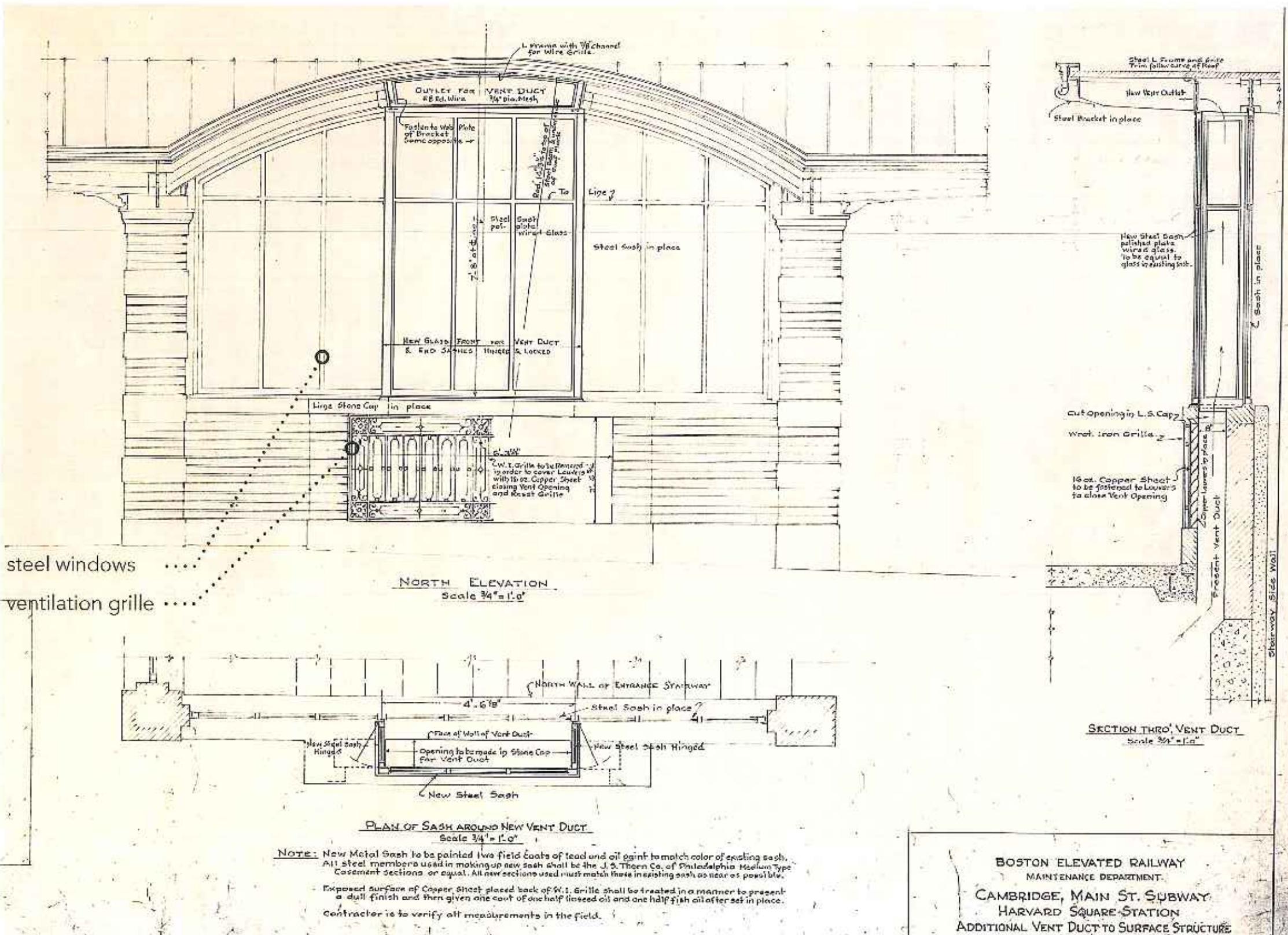
"Original" Kiosk

North Facade Ventilation Grille - circa 1955



"Original" Kiosk

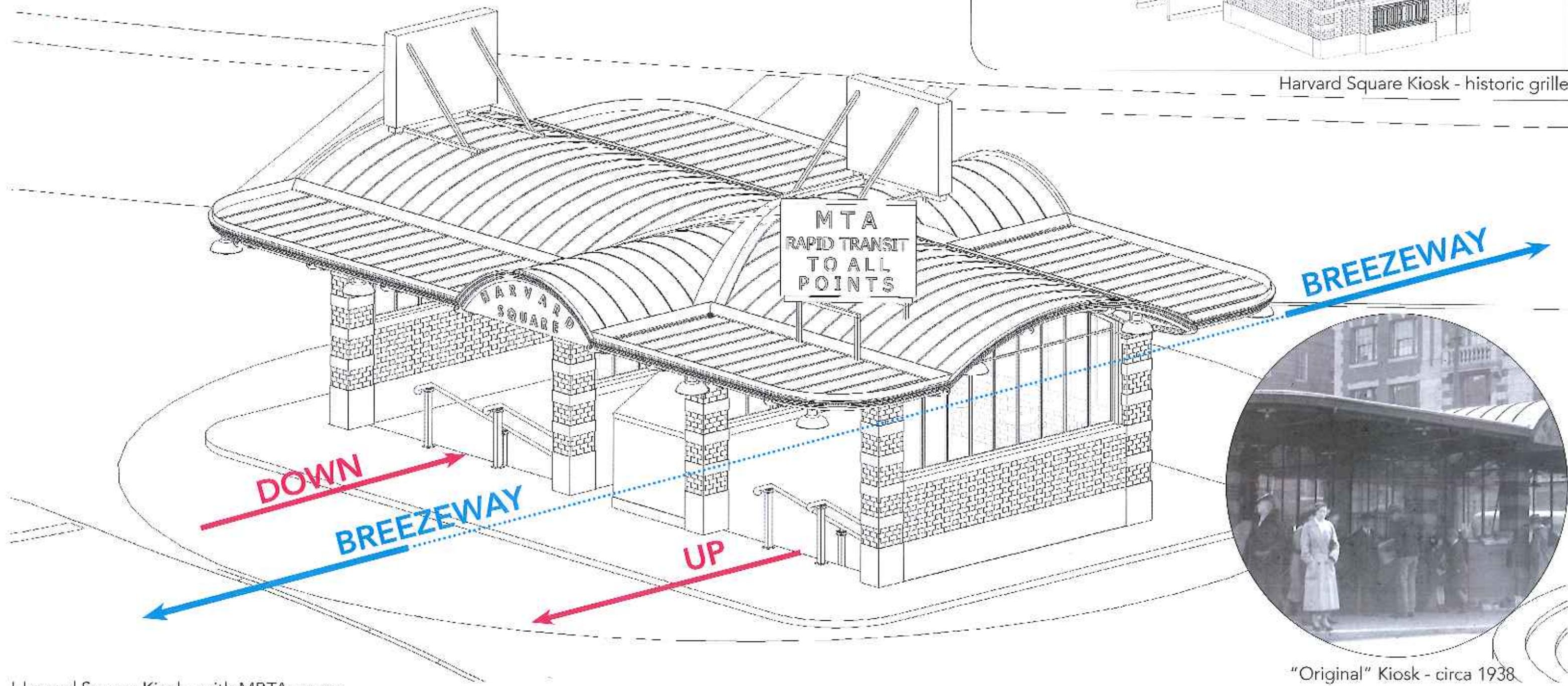
Drawings



"Original" Kiosk - circa 1966



"Original" Kiosk



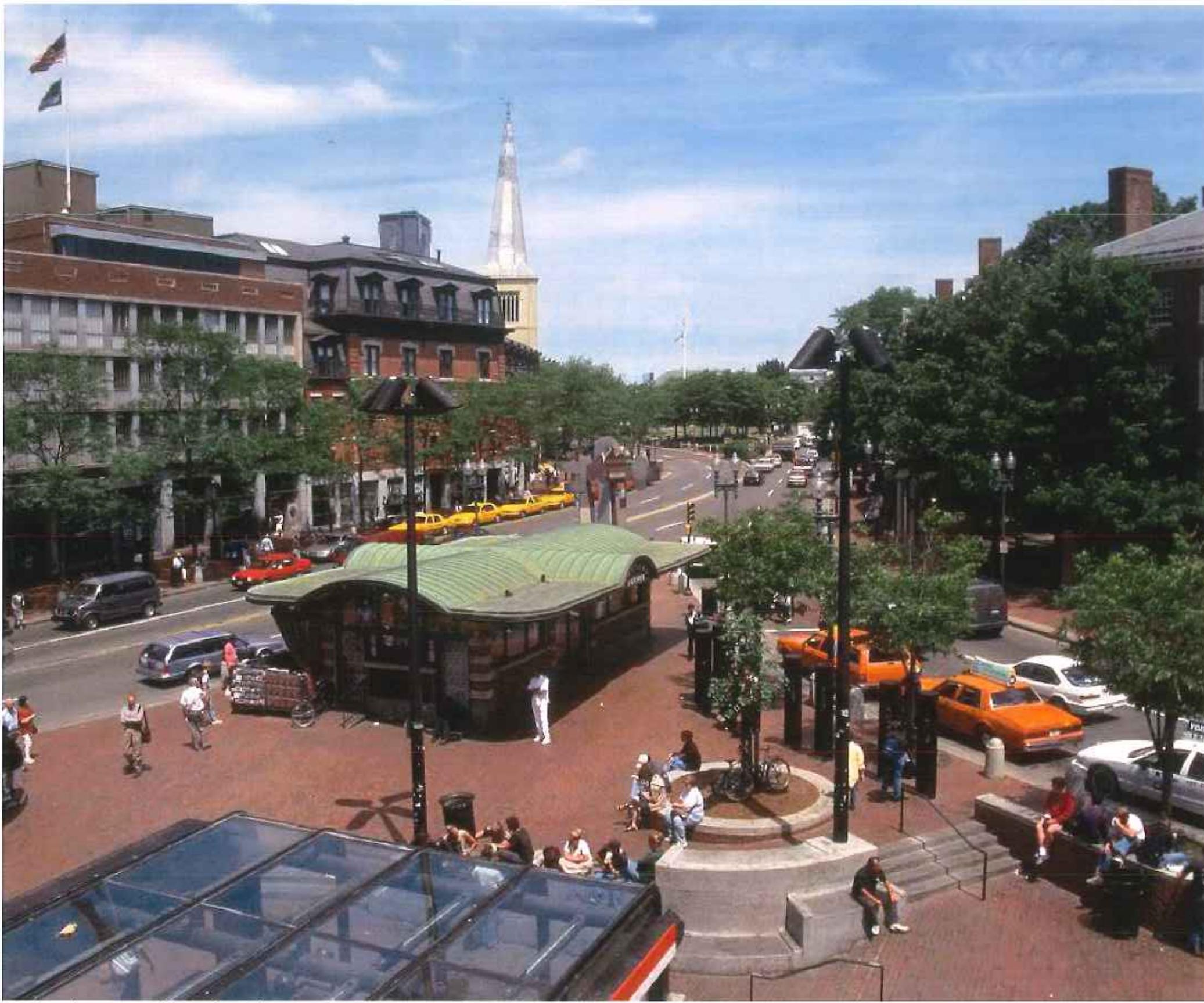
Harvard Square Kiosk - with MBTA access

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"Original" Kiosk - circa 1938

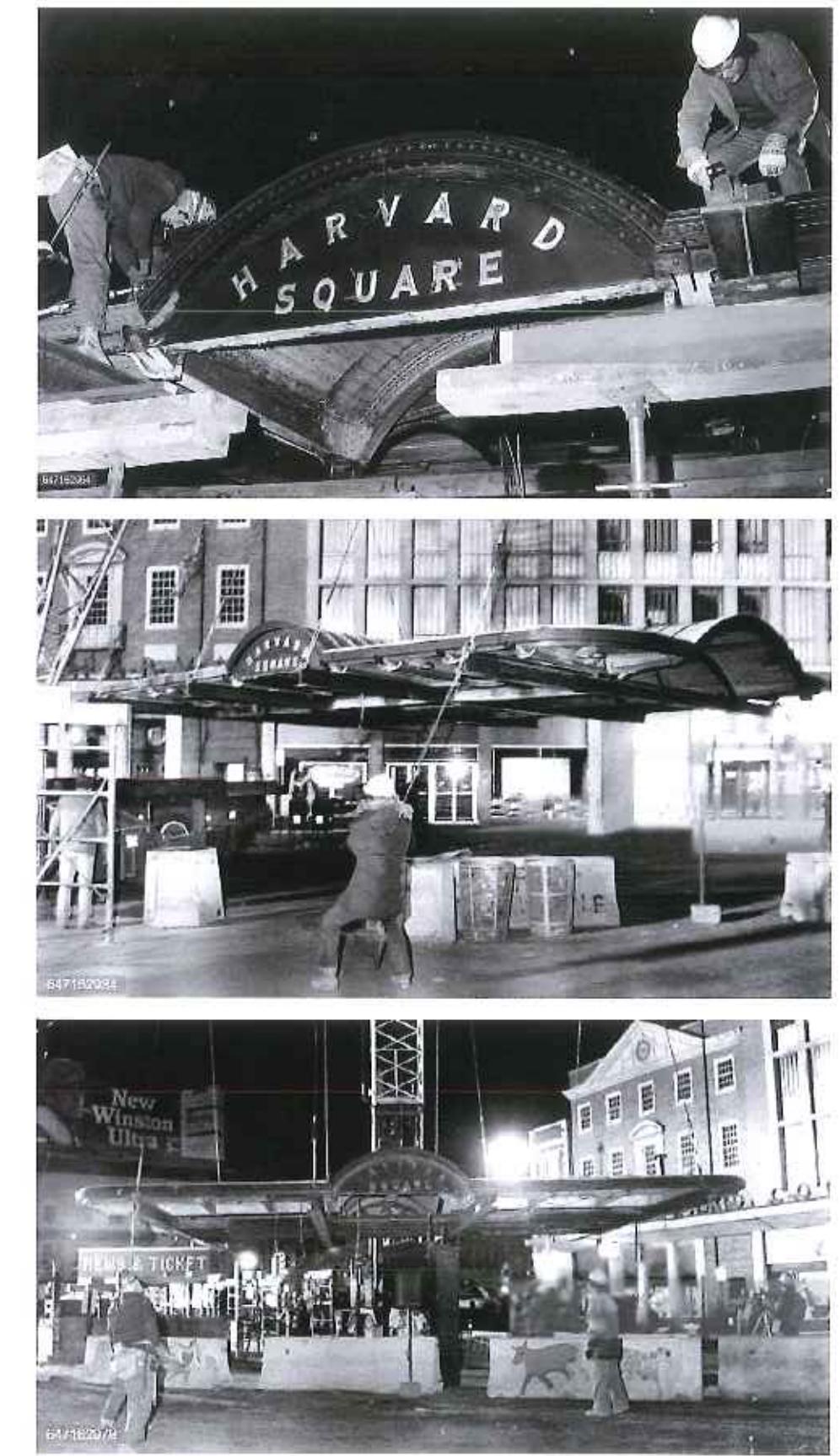
Relocated Kiosk - circa 1983

"...all original material that remained after the conversion to a newsstand in 1983 should be preserved to the greatest extent possible, and that there should be no additional enclosure of the structure."



1983 relocation of kiosk roof & structure (photo credit: Boston Globe)

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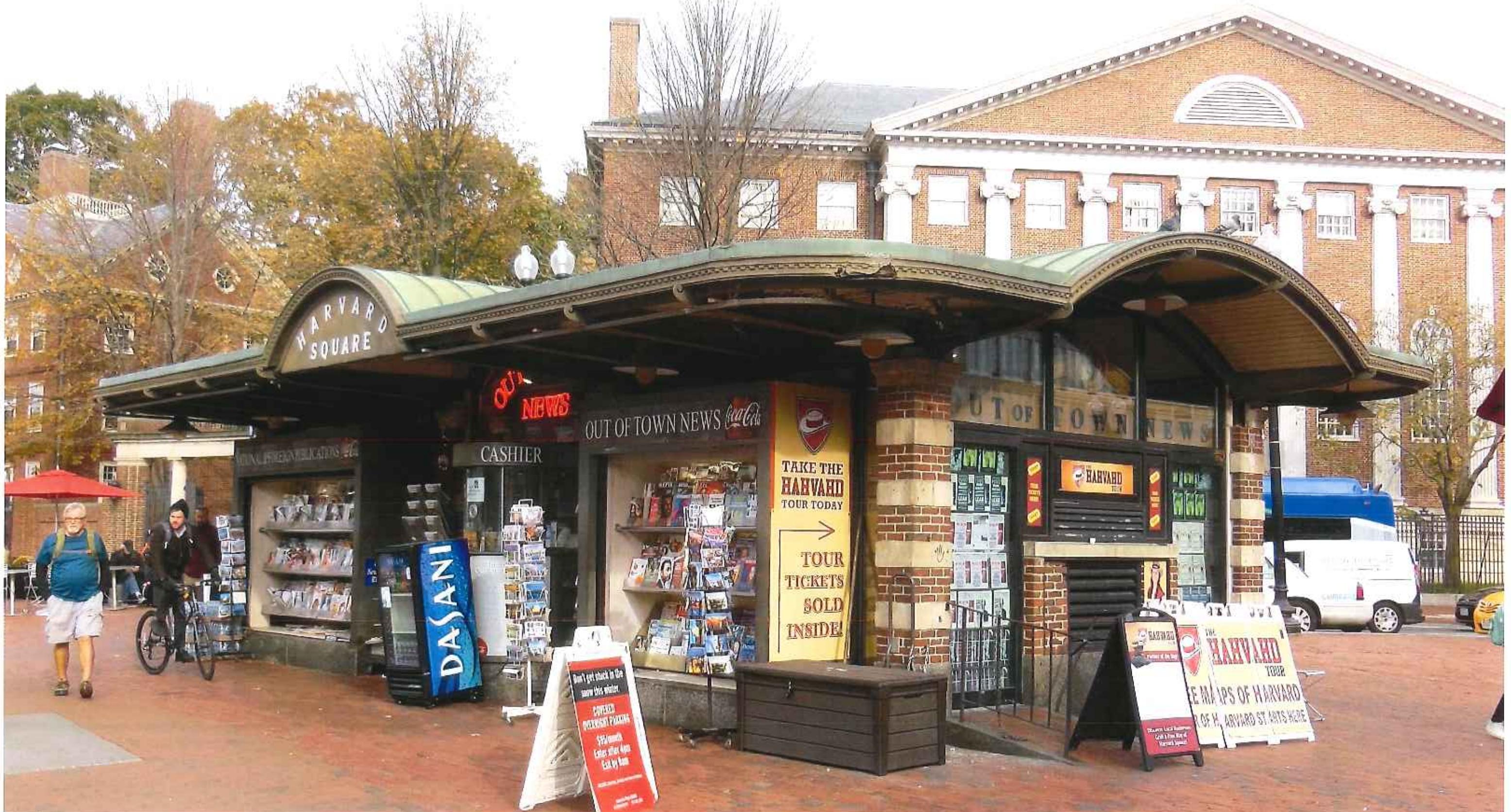
moving of kiosk roof & structure (photo credit: Boston Globe)

HDR HALVORSON DESIGN PARTNERSHIP

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Kiosk Today



southwest

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Kiosk Today



northeast

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Kiosk Today



present day kiosk - interior



interior

interior casework & electrical room
select interior light fixtures
interior heating & cooling systems

"Out of Town News" signage
news stands, magazine racks & ticket booth
exterior suspended curtain tracks



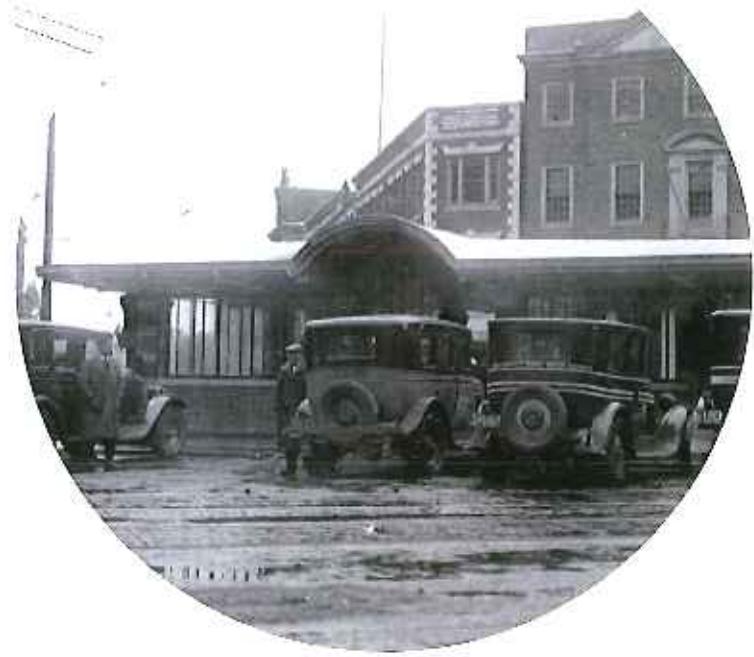
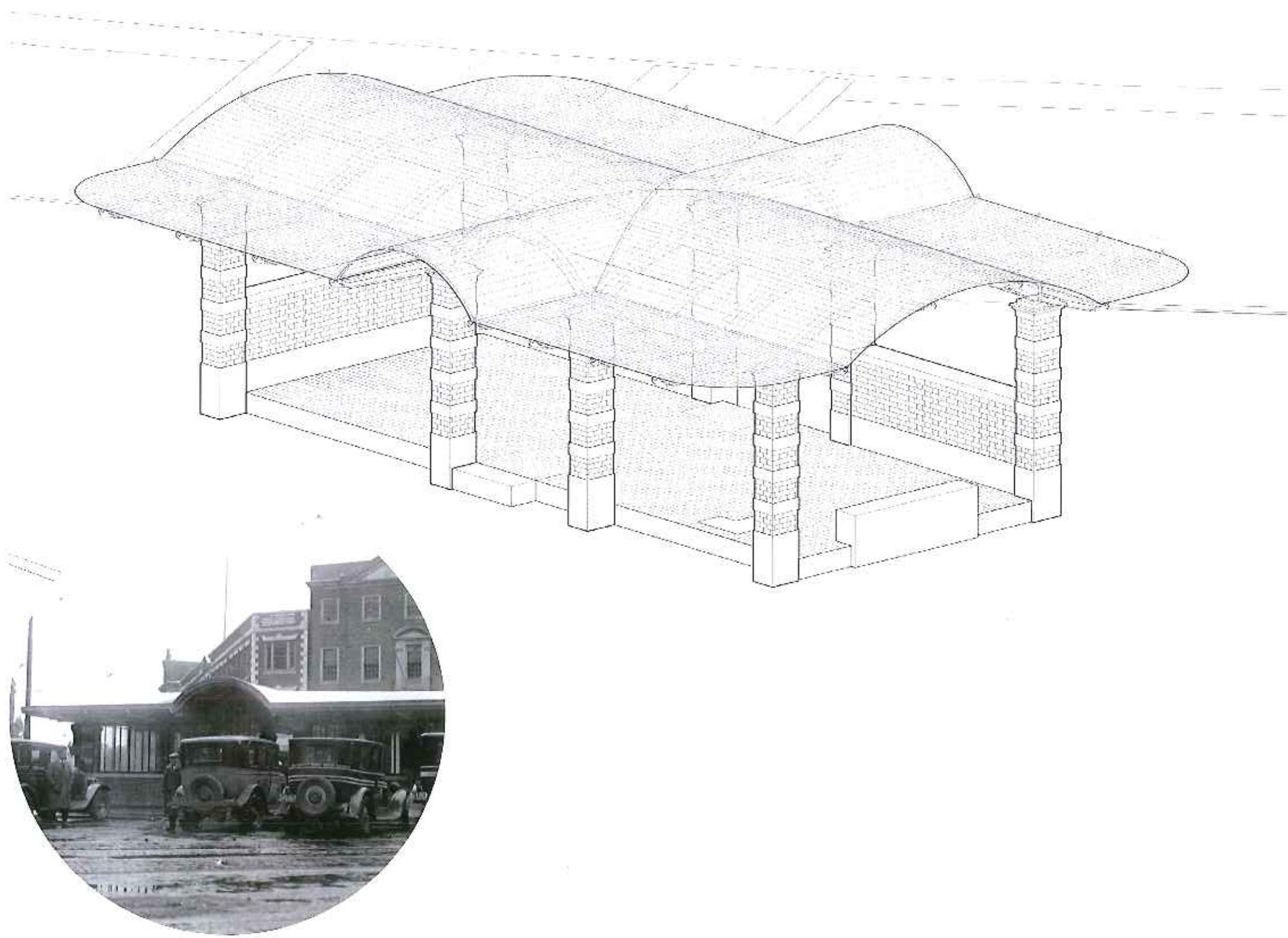
present day kiosk - exterior



present day kiosk - exterior

Design Proposal

Remove back to the "original" bones?



original kiosk - 1928

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kiosk today



original kiosk - 1928

Design Proposal

Preservation of Historic Elements

a. masonry

b. roof

c. fenestration

d. utilities

e. lighting

f. signs

g. paint Colors

h. accessibility

3. interior features

Final Landmark Designation Report Harvard Square Kiosk 0 Harvard Square, Cambridge, Mass.



Harvard Square Kiosk, 2016

CHC photo

Summary

The Harvard Square Kiosk, constructed in 1927-28 by the Massachusetts Department of Public Utilities and reconstructed by the Massachusetts Bay Transportation Authority and adaptively reused as a newsstand in 1981-84, is significant for its architecture and method of construction and for its associations with the suburban and commercial development of Cambridge in the 19th and 20th centuries. It is a rare and distinctive example of a specialized early twentieth-century transportation structure that has been adaptively reused for commercial purposes. The kiosk is significant for its associations with architects Blackall, Clapp & Whittemore and M.I.T. civil engineering professor Charles B. Breed. The building is also culturally significant as the central identifying structure in a commercial area associated with Harvard University.

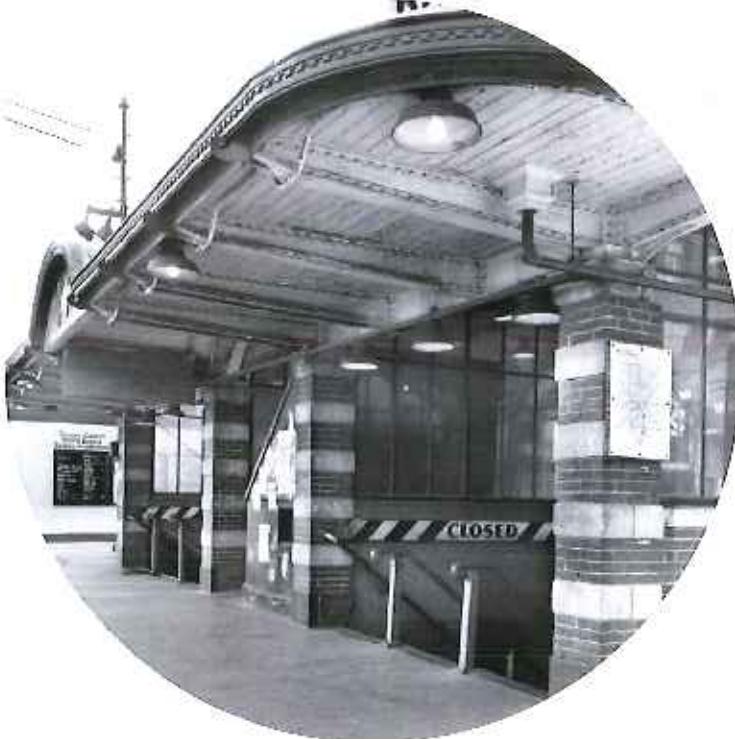
The Historical Commission received a petition seeking landmark designation of the kiosk in September 2016. Although the structure was already protected by the Harvard Square Conservation District under Ch. 2.78, Art. III of the City Code, the Commission voted to initiate the requested study on November 3, 2016. The proposed designation was reviewed at public hearings on September 7 and October 5, 2017. The Final Landmark Designation Report and recommendation were finalized on October 23, 2017 and submitted to the Cambridge Planning Board, which declined to comment. The current version includes recently-received information about the history of the kiosk, but the conclusions and recommendations are unchanged.

Designation of the Harvard Square Kiosk will enhance the Historical Commission's current jurisdiction over alterations to the publicly-visible exterior features of the building. Proposed alterations will still require Historical Commission issuance of Certificates of Appropriateness, Non-Applicability, or Hardship. The historical background in this report is intended to increase awareness of the history and significance of the building, while the proposed goals and guidelines will inform future decisions about alterations.

Charles Sullivan
Cambridge Historical Commission
November 30, 2017

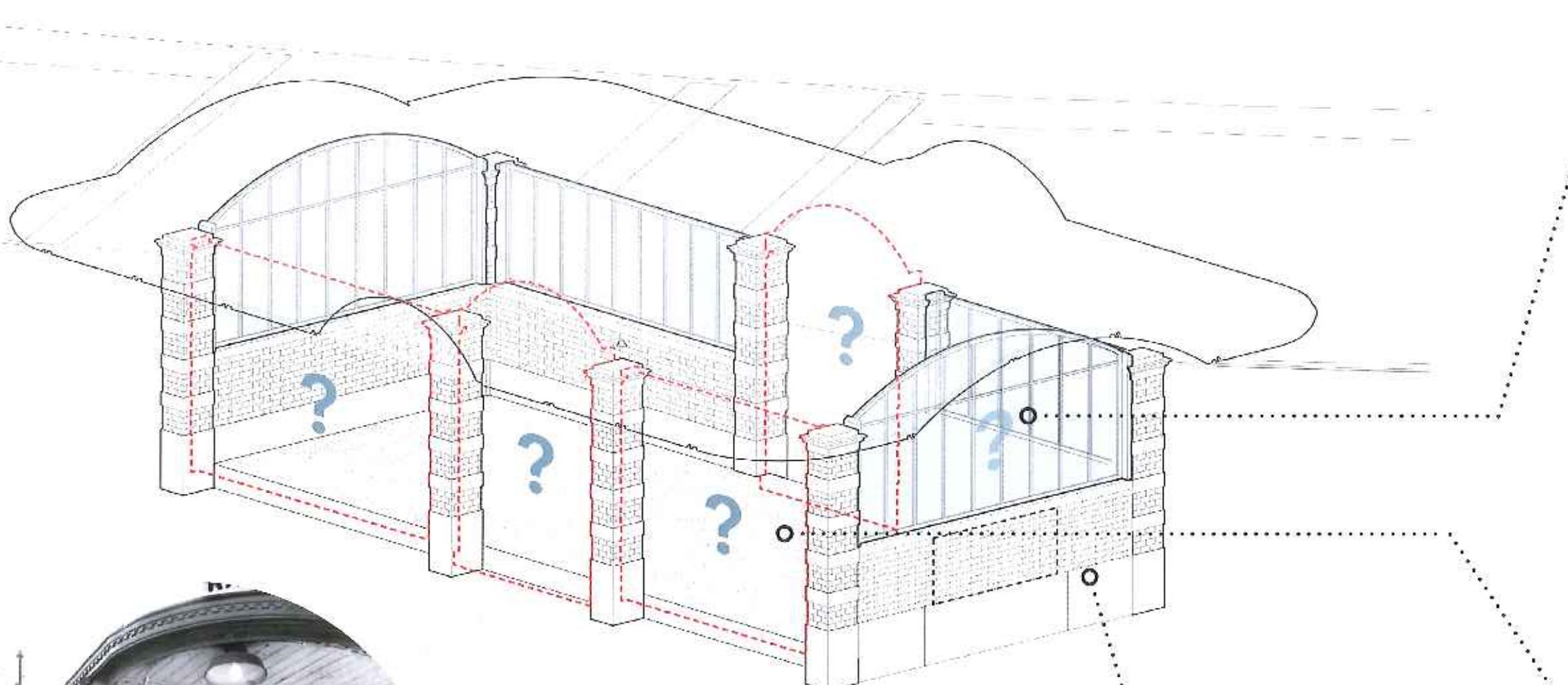
Design Proposal

Historic Steel Windows

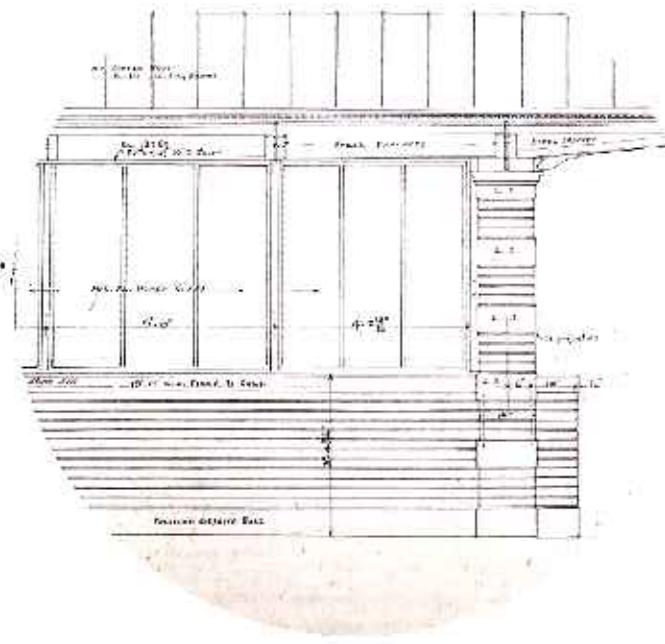


original entrance into train

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..... masonry wall reconstruction



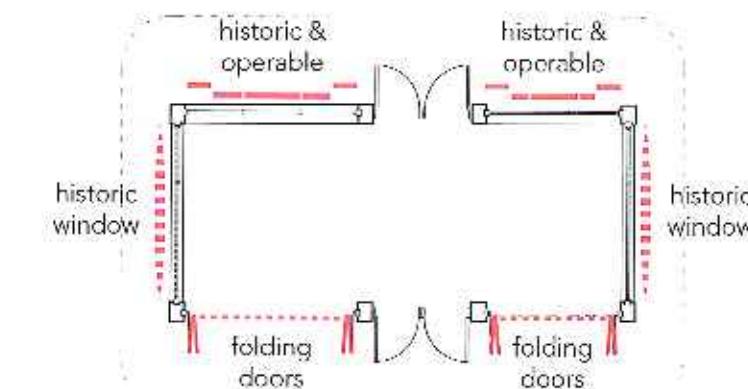
historic elevations



restore glass with thin dimensions of the original mullions.

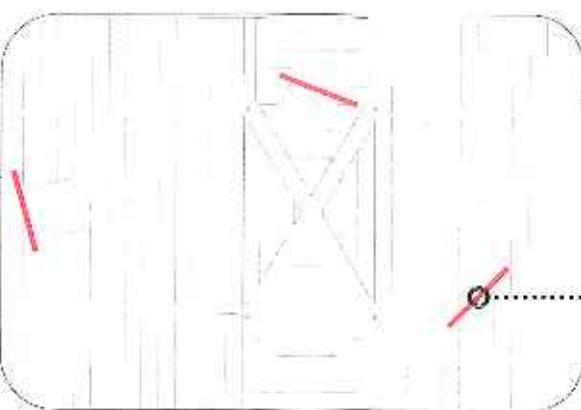
Design Proposal

Operable Doors + Historic Rooftop Signage

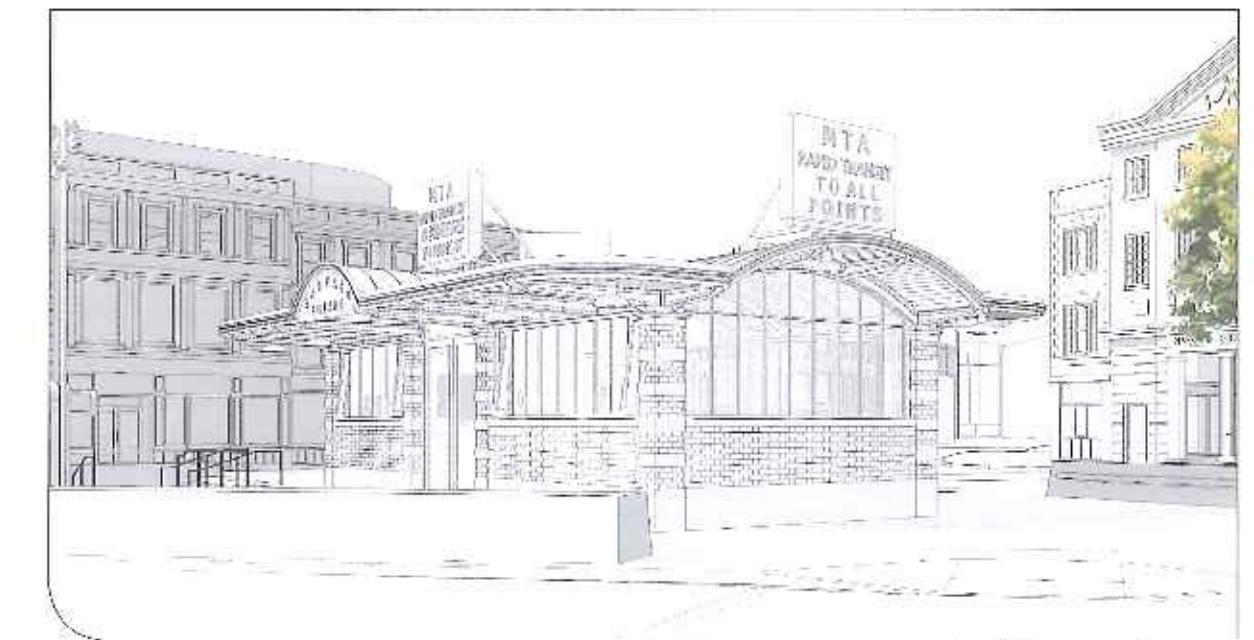


key floor plan

signage panels: 4'-0" tall x 6'-0" wide (approx.)
structurally feasible with existing structure



key roof plan



view looking southwest



view looking northeast

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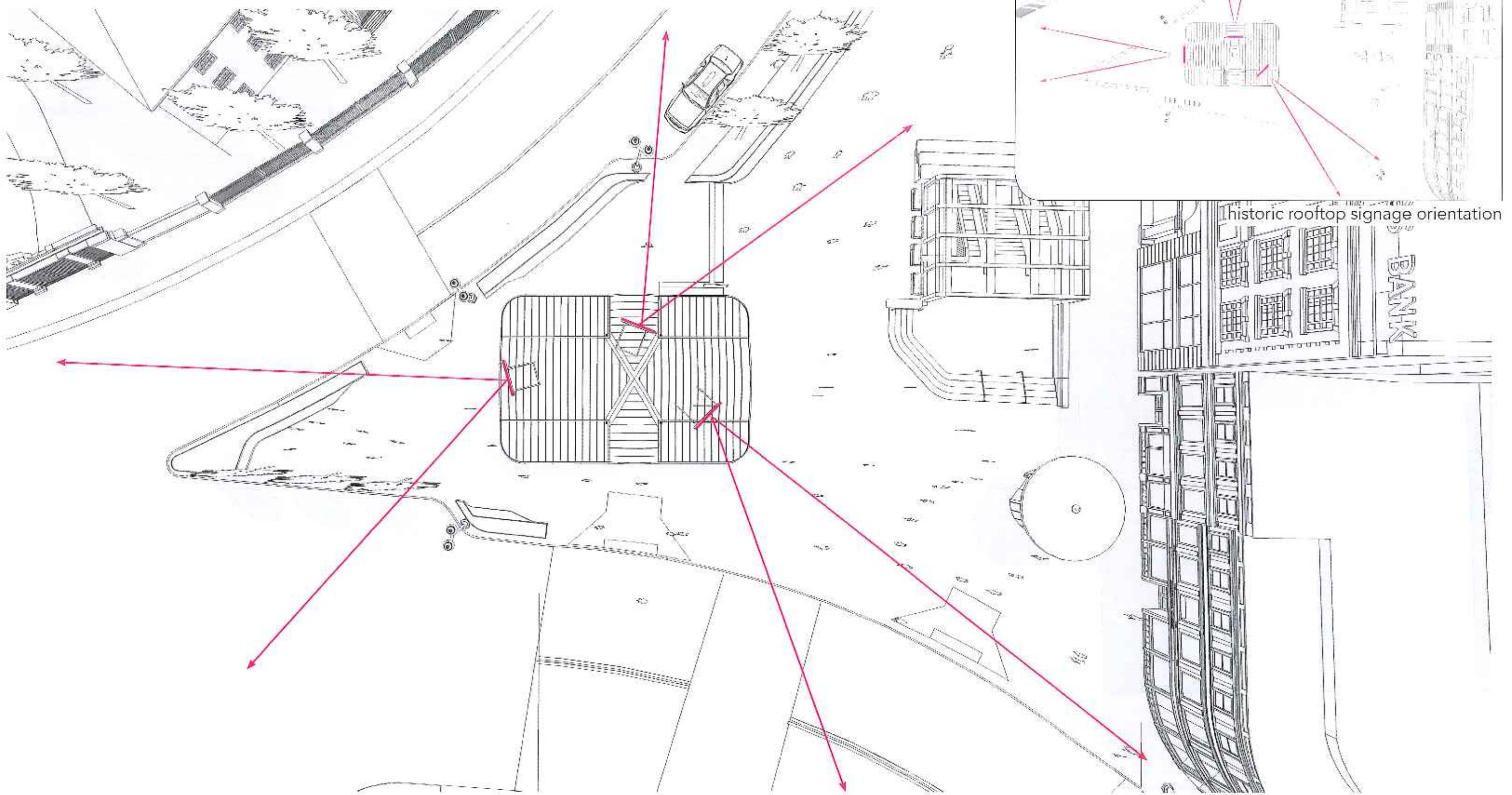
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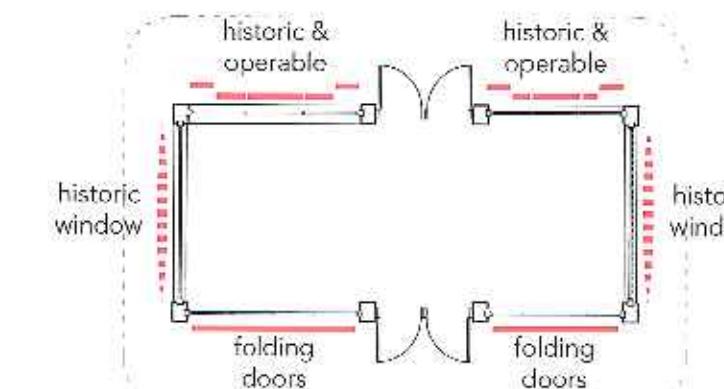
Design Proposal

Proposed Rooftop Signage Orientation



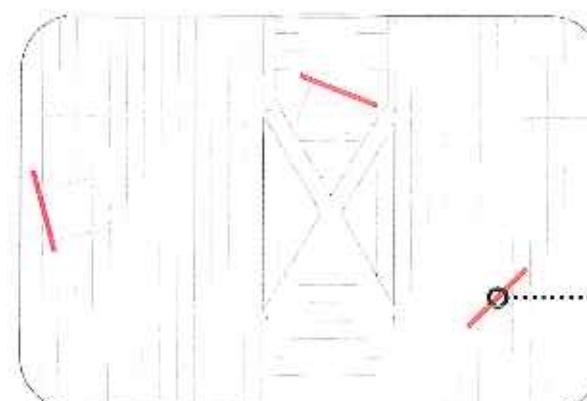
Design Proposal

Operable Doors + Digital Rooftop Signage



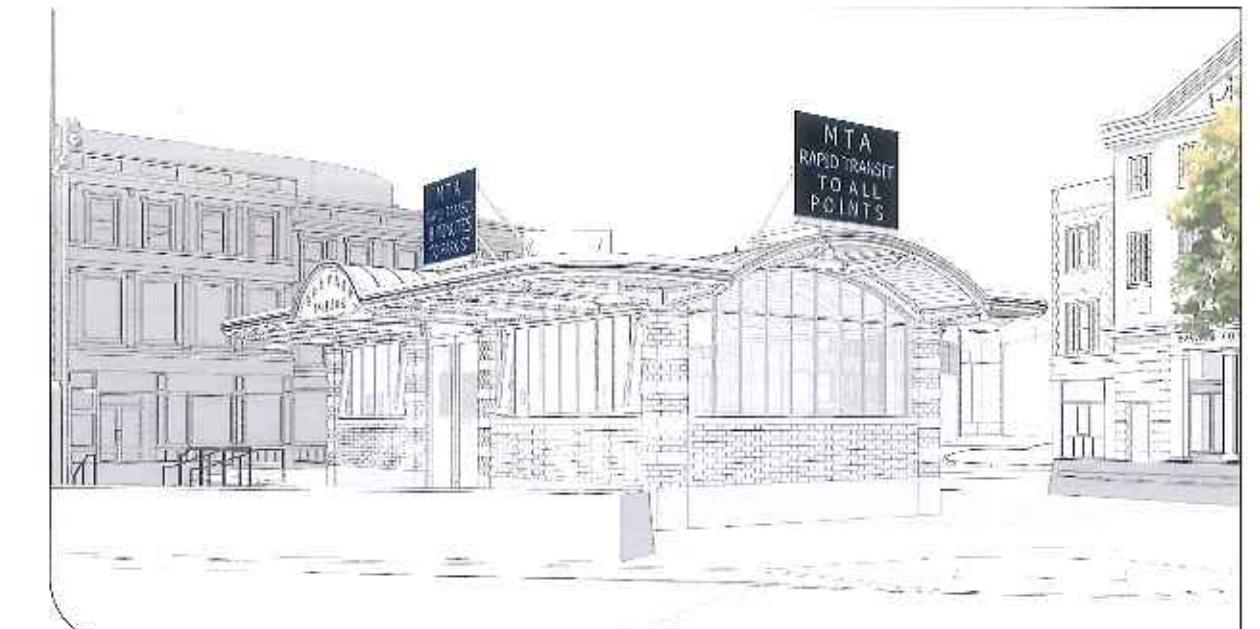
key floor plan

signage panels: 1'-0" tall x 6'-0" wide (approx.)
structurally feasible with existing structure



key roof plan

digital signage
with historic
content



view looking southwest



view looking northeast

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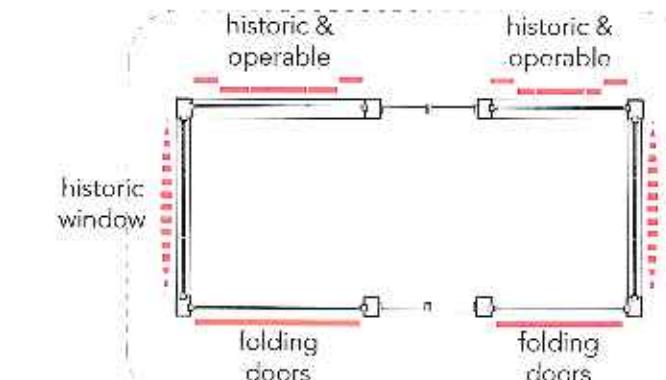
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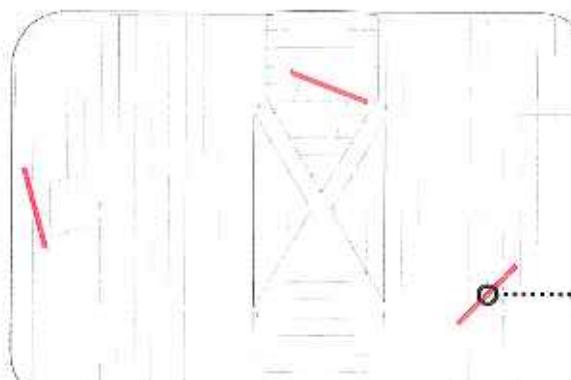
Design Proposal

Operable Doors + Digital Rooftop Signage

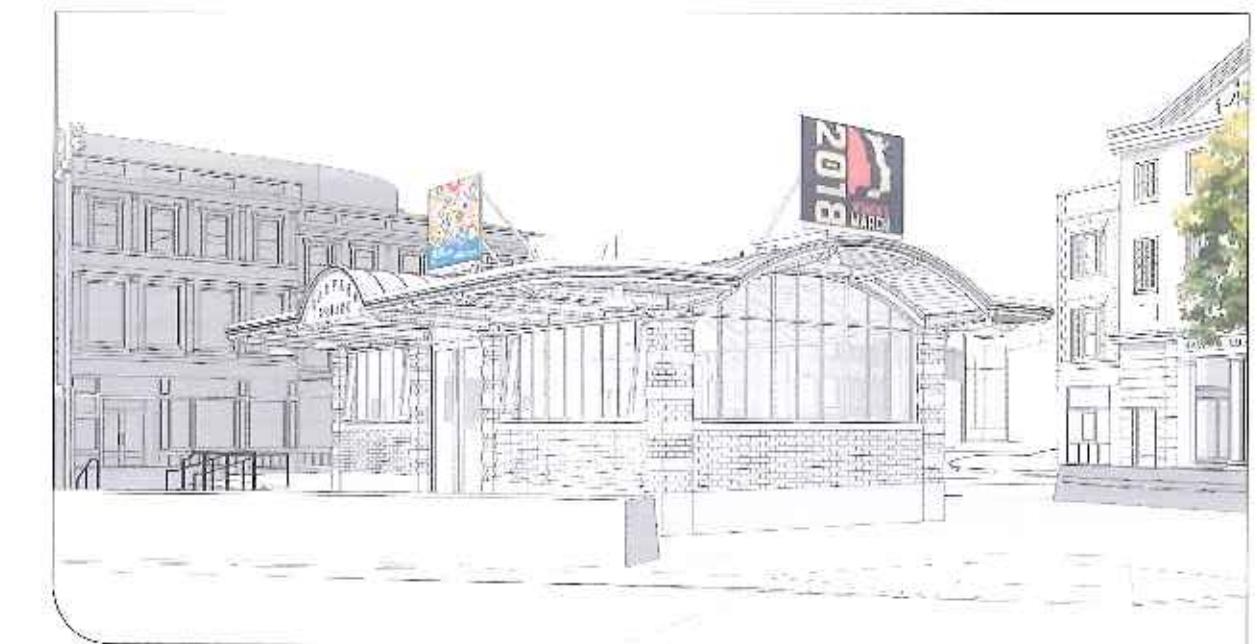


key floor plan

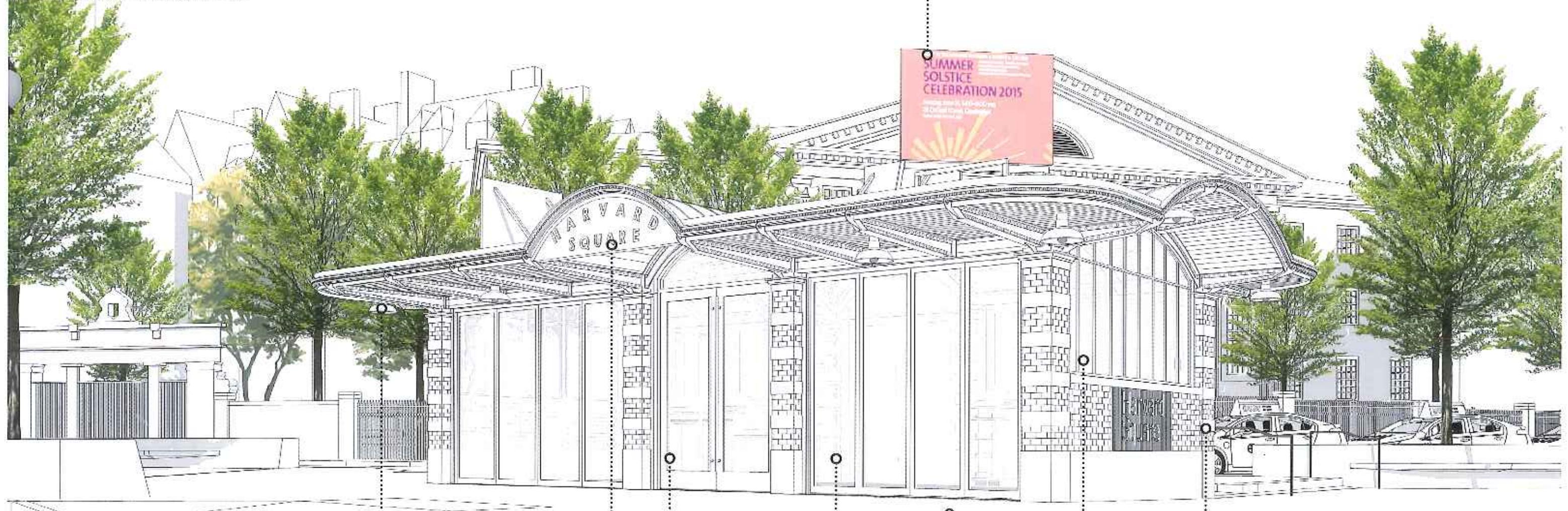
signage panels: 4'-0" tall x 6'-0" wide (approx.)
structurally feasible with existing structure



key roof plan



view looking southwest



view looking northeast

1 historic lights • 2 restored vacuum formed signage

3 accessible entry doors

4 folding glass doors

5 indoor / outdoor brick flooring

6 historic windows

7 restored south facade with signage

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Design Proposal

Harvard Square Signage



view from MBTA
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Design Proposal

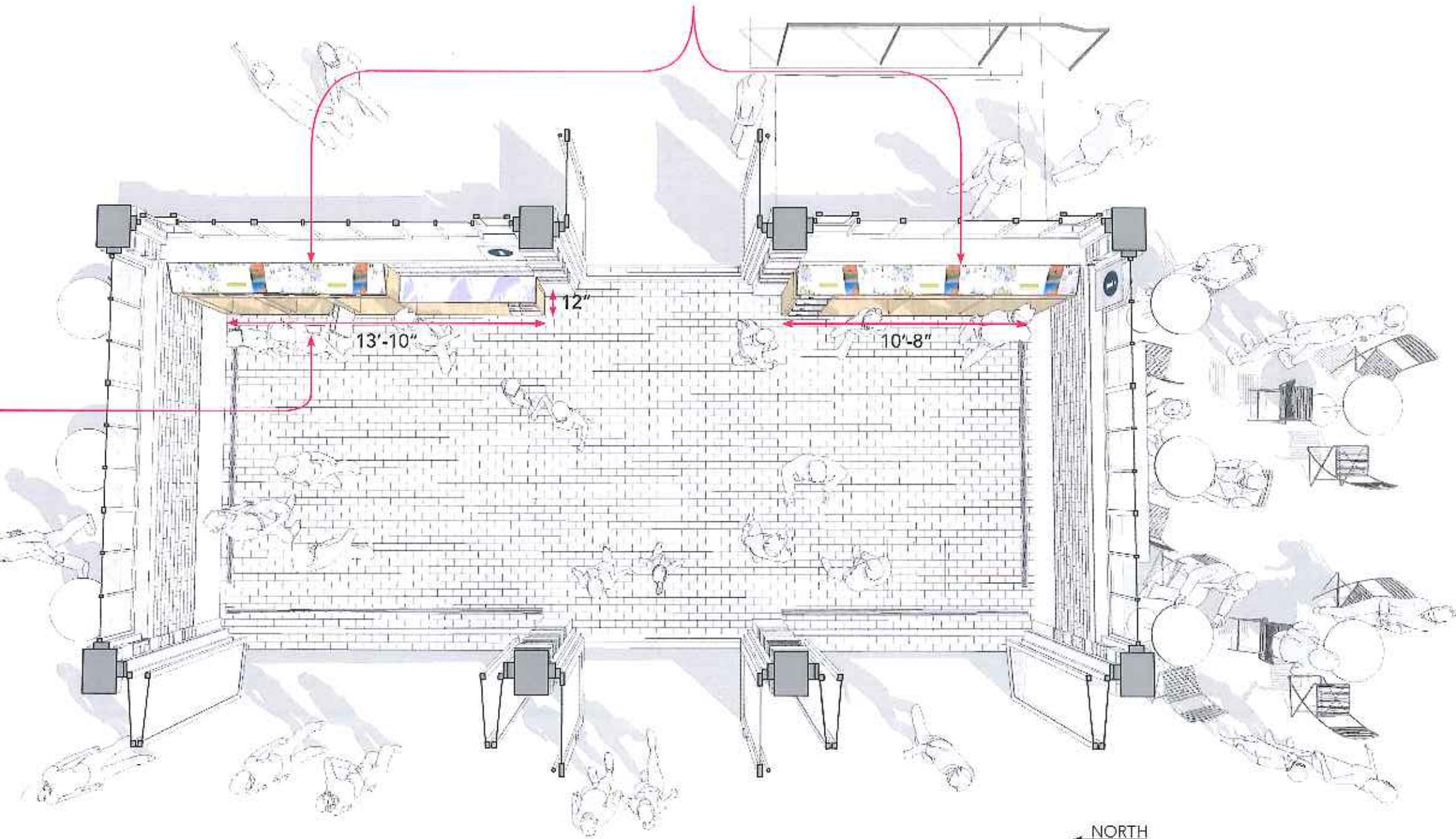
Daily Uses - Visitor Information



Visitor Information



flexible storage with foldable
tables and stackable chairs



plan (500 sq.ft.) - diagram

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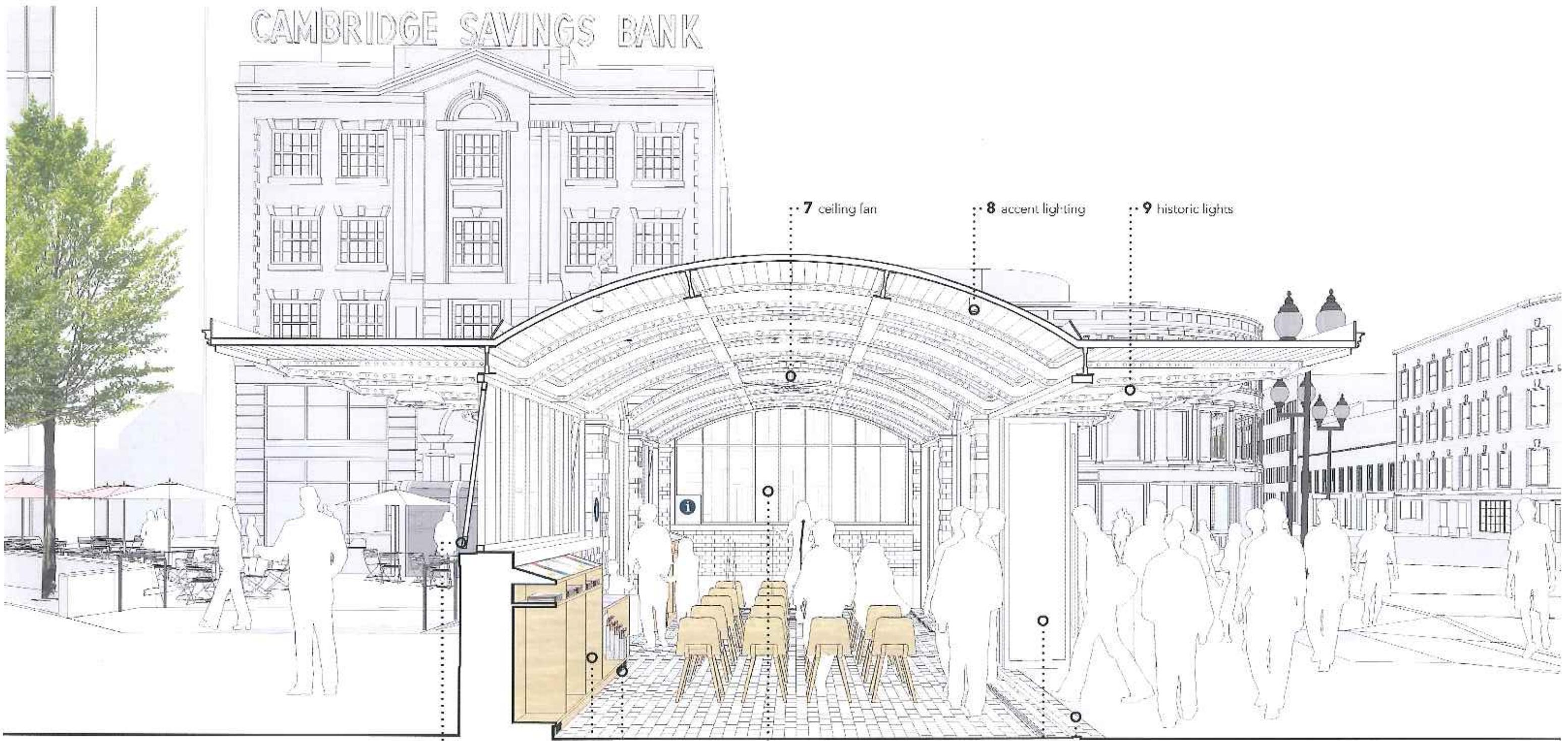
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Design Proposal

Daily Uses - Alternative Programs



1 awning window

2 visitor information casework

3 toe kick heater

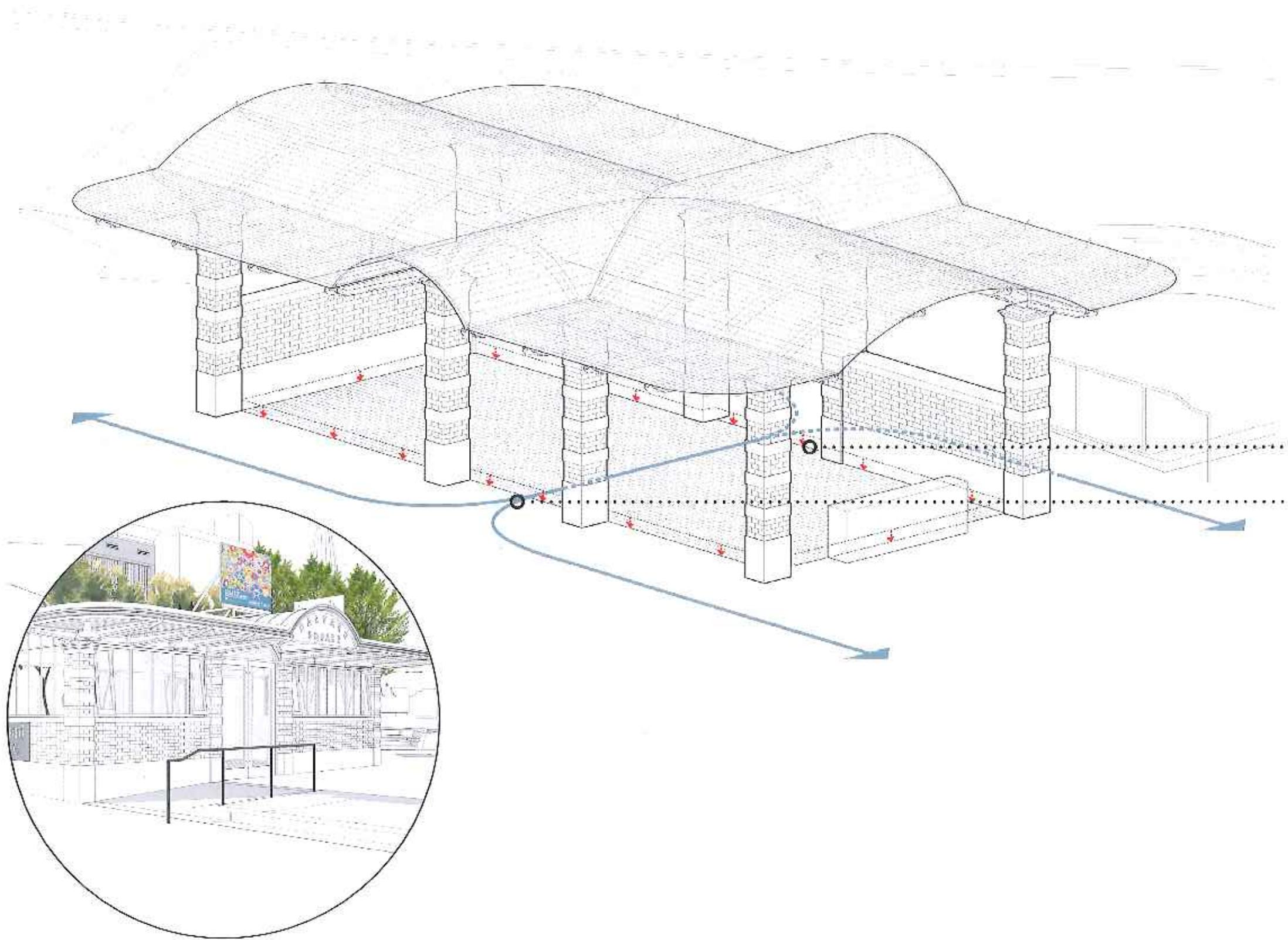
4 historic windows

5 folding glass doors

6 indoor / outdoor brick flooring

Preservation + Renovation Approach

Accessibility - Lower Finish Floor Elevation by Approx. 8 inches



proposed accessible ramp at east elevation

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present day entry - east



present day entry - west



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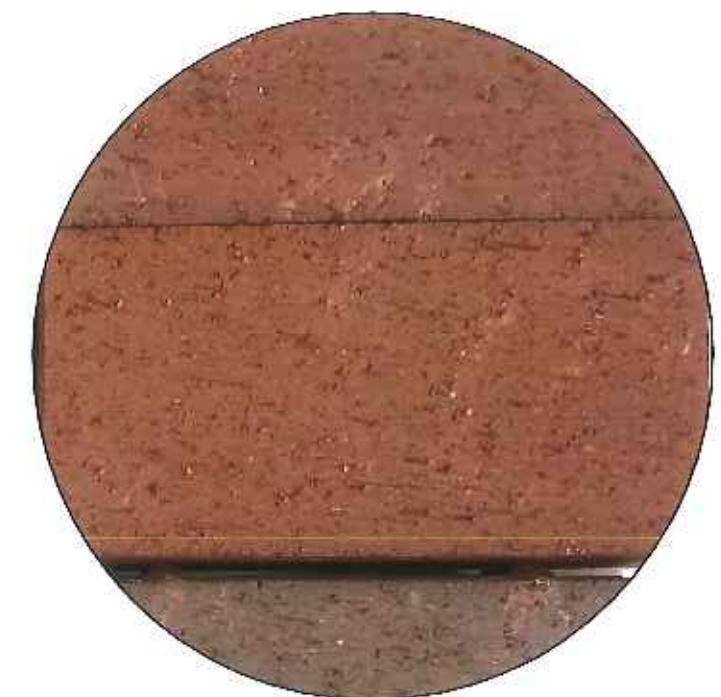
Preservation + Renovation Approach

Floor Material - Indoor / Outdoor Brick Flooring



site plan (Halvorson Design Partnership, Inc.)

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proposed brick
City of Cambridge Standard
pathway HD full range



address MAAB compliant
brick floor



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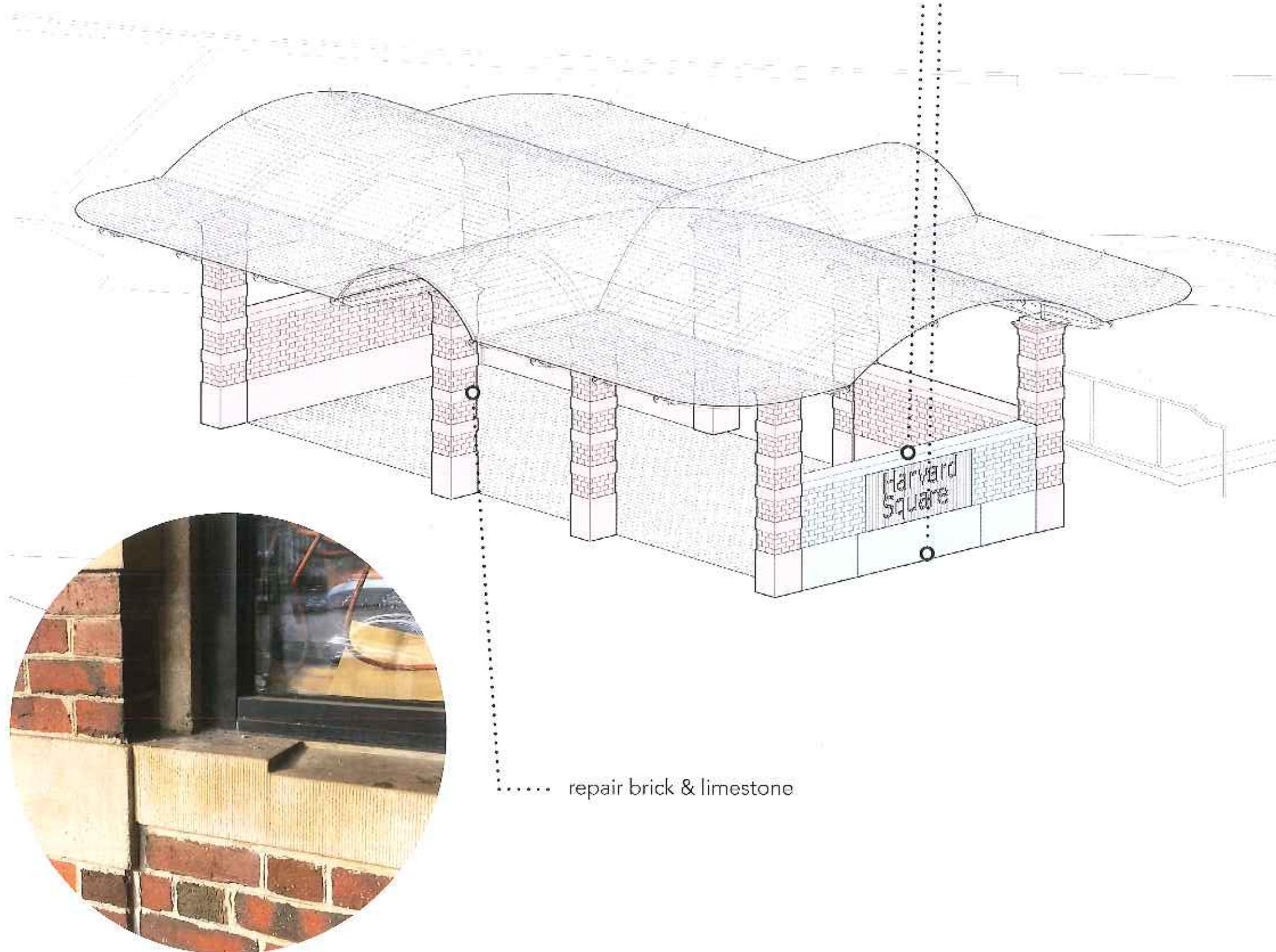
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Preservation + Renovation Approach

Masonry - Brick, Limestone & Granite Repairs



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reconstruction of continuous low wall across south elevation



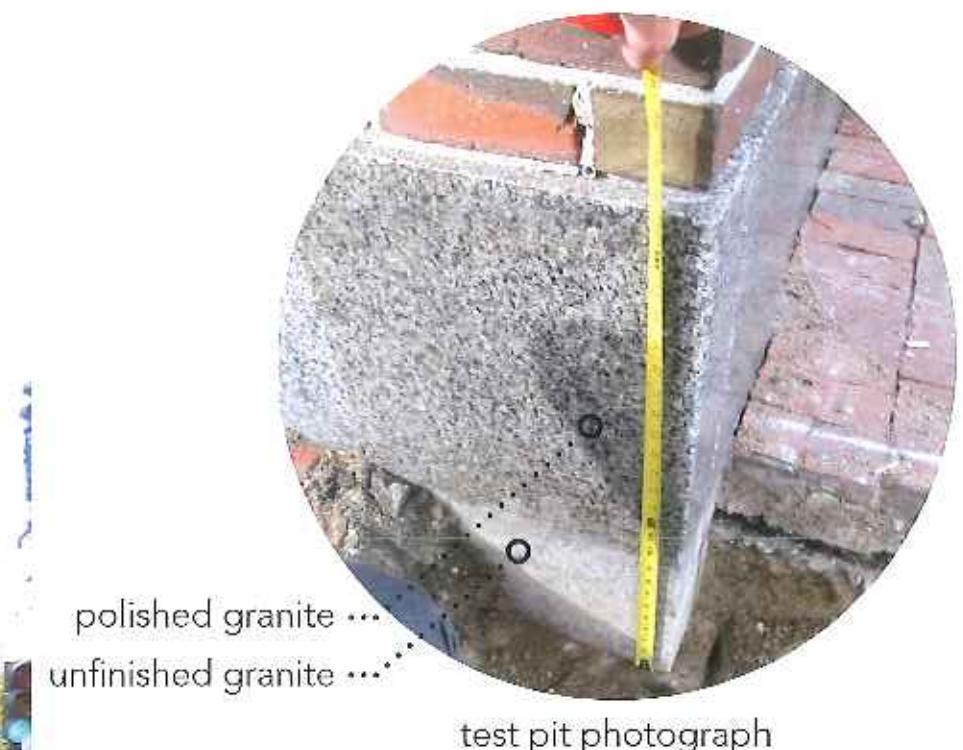
repointing of mortar joints to maintain color, texture and profile of original joints

Preservation + Renovation Approach

Masonry - Granite Test Pits



area of potentially exposed granite ..



polished granite ...
unfinished granite ...

test pit photograph



polished granite ...
unfinished granite ...

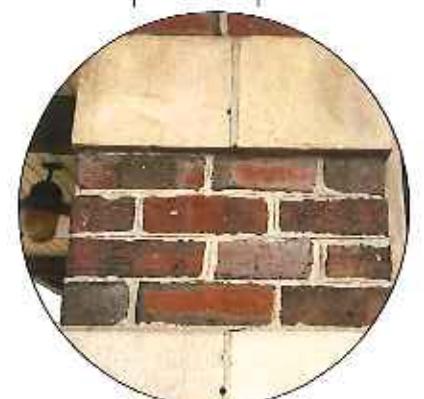
test pit photograph

Preservation + Renovation Approach

Masonry - Brick, Limestone & Granite Repairs - North Elevation



1
spall / no repair



2a-b
hole / patch



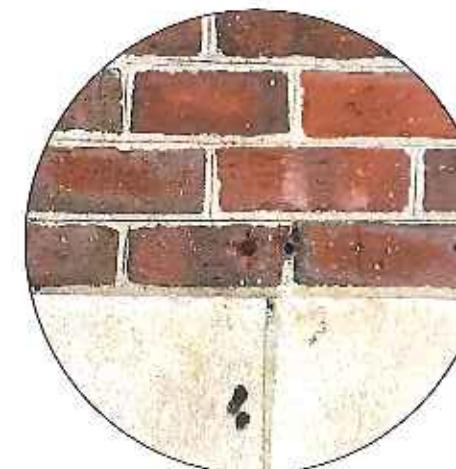
3
limestone spall / dutchman



4
anchor / remove and patch



5
two small spalls / one
dutchman at end of stone



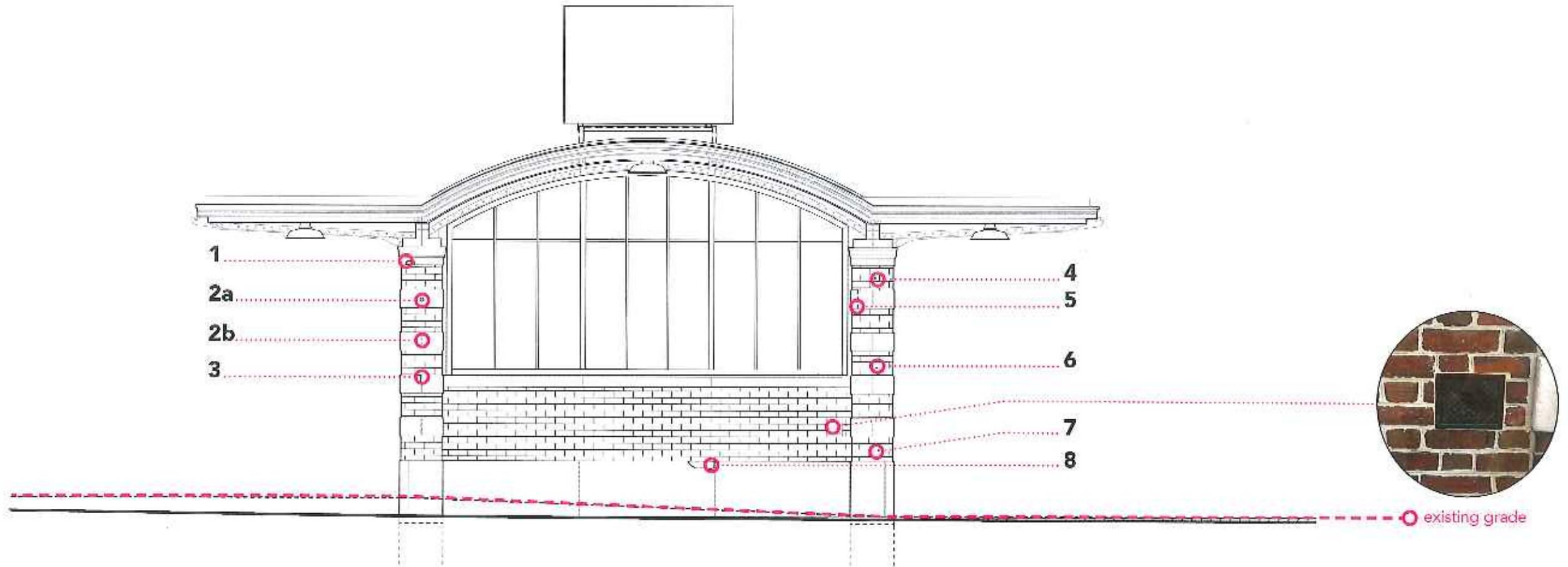
6
anchor / remove and patch



7
anchor / remove and patch

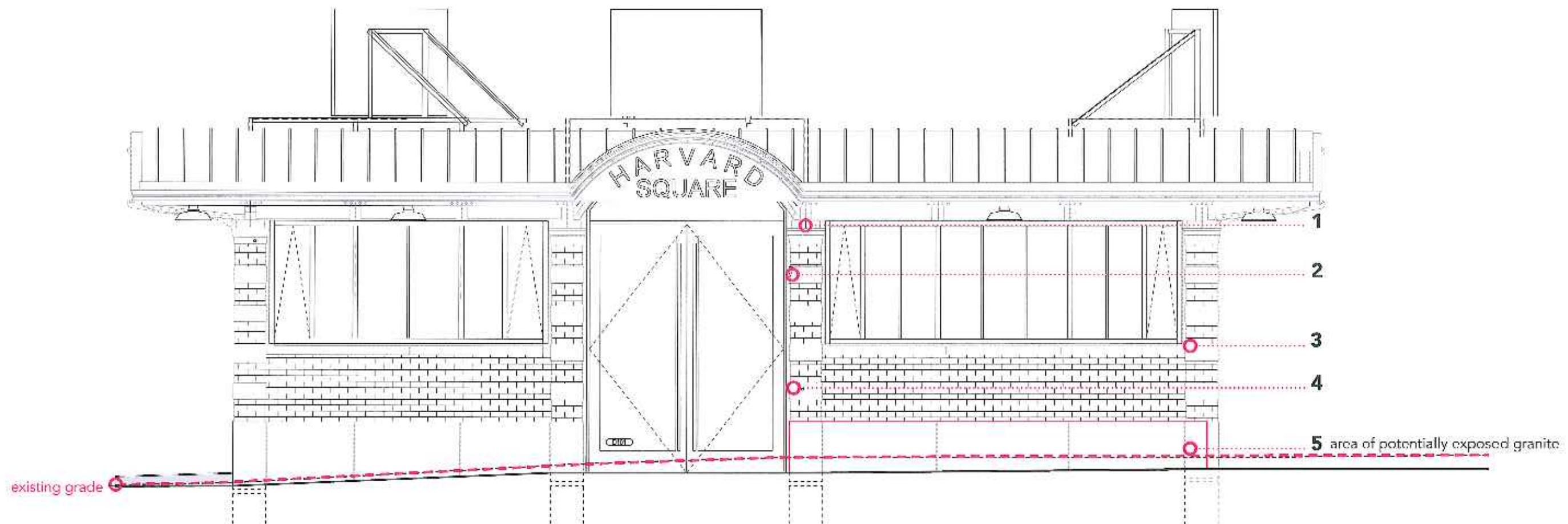


8
granite spall / dutchman

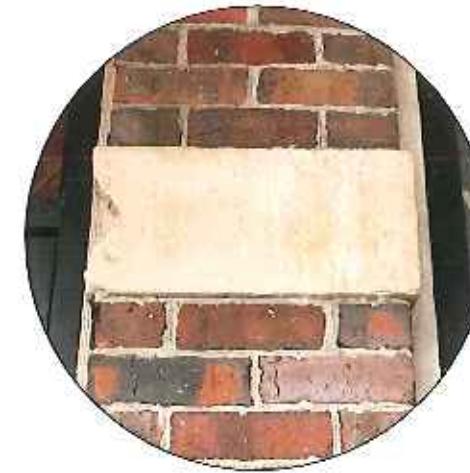


Preservation + Renovation Approach

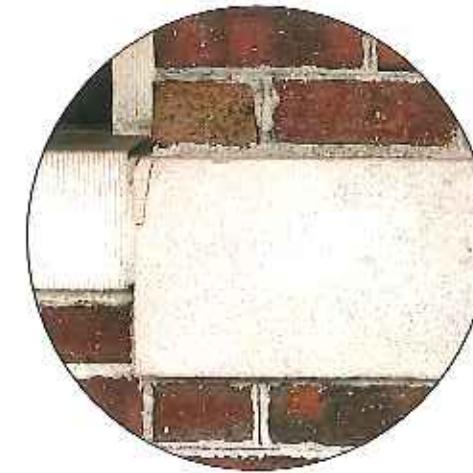
Masonry - Brick, Limestone & Granite Repairs - East Elevation



1
limestone spall / dutchman



2
limestone spall / dutchman



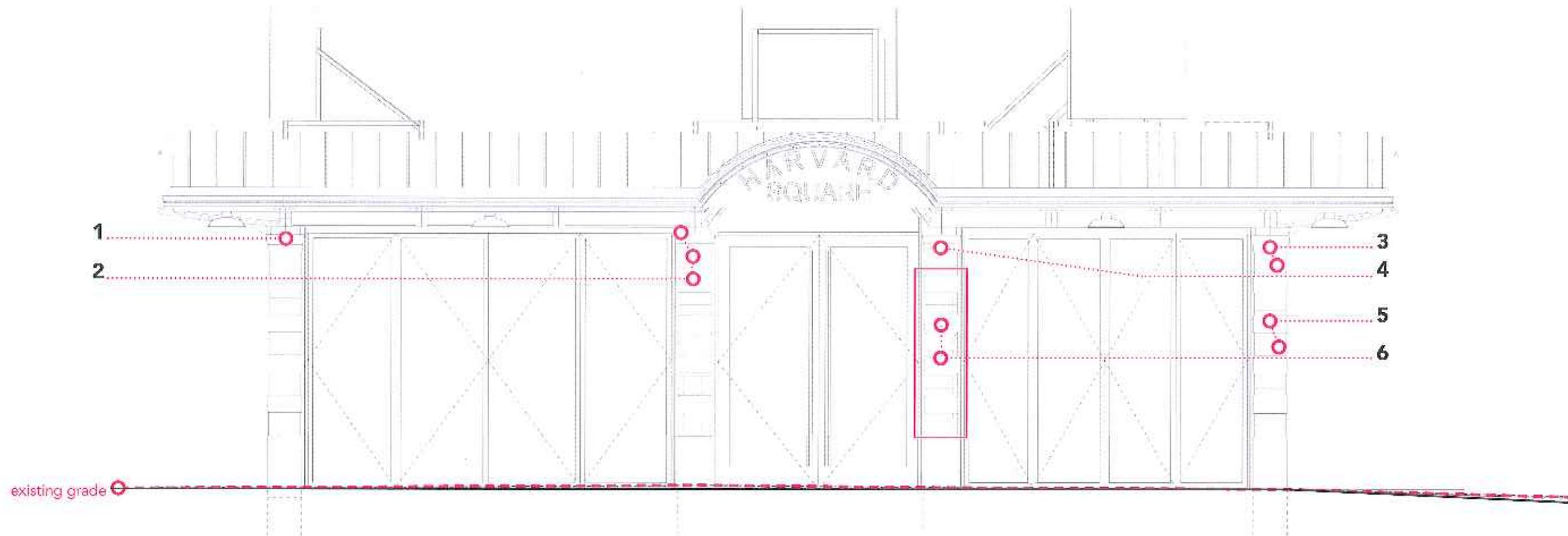
3
limestone spall / no repair



4
anchor / remove and patch

Preservation + Renovation Approach

Masonry - Brick, Limestone & Granite Repairs - West Elevation



1 anchor / remove and patch



2 anchor / remove and patch
limestone spall / dutchman



3 anchor / remove and patch



4 anchor / remove and patch



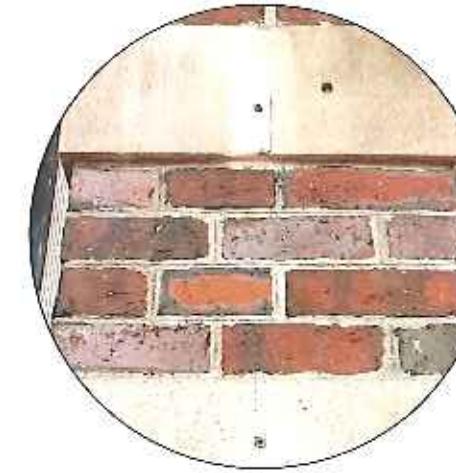
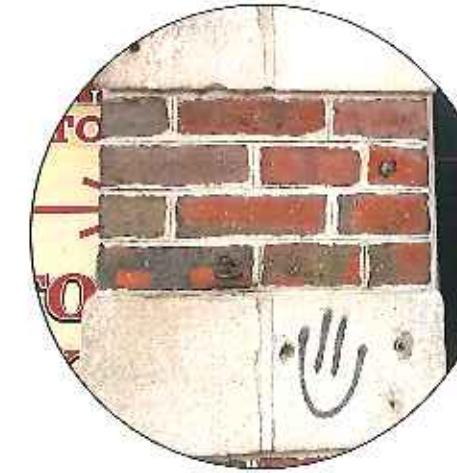
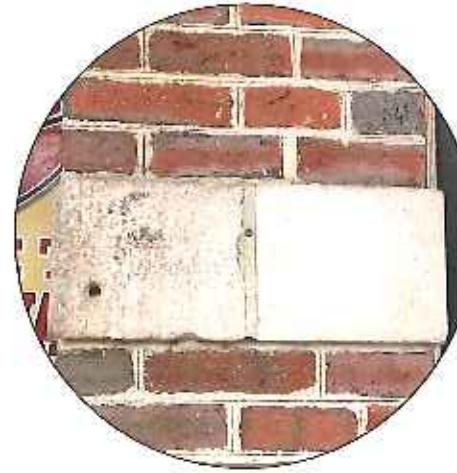
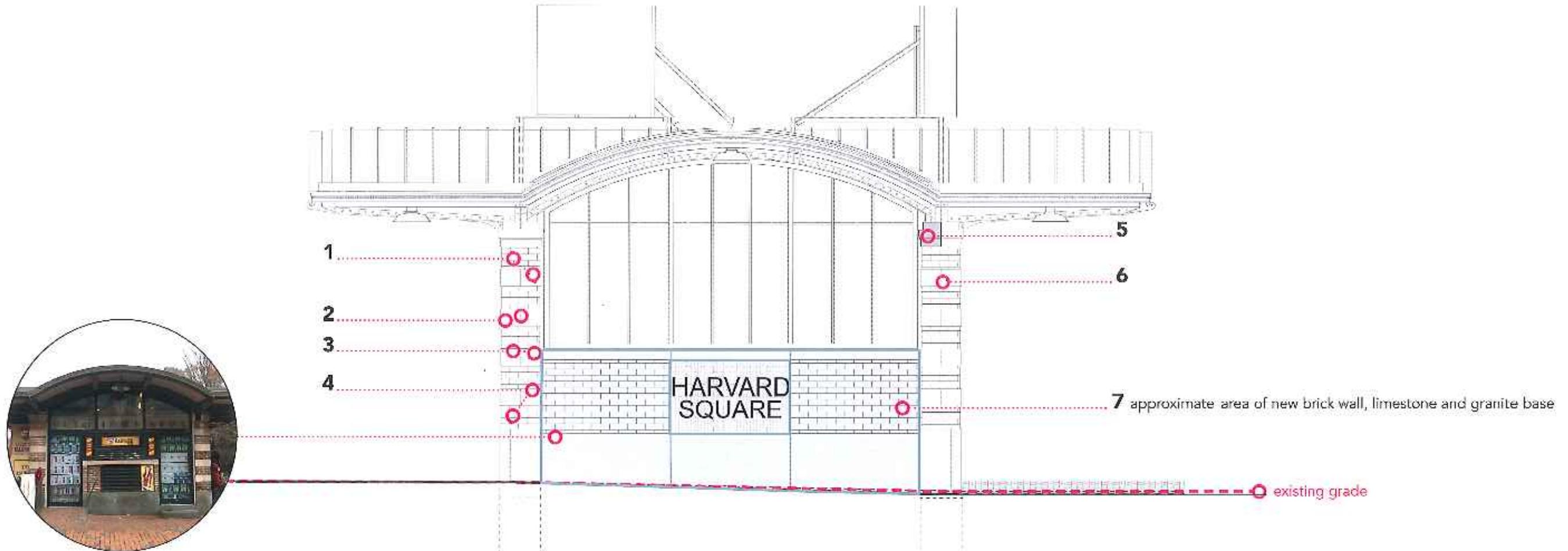
5 anchors / remove and patch
hole / patch



6 anchors / remove and patch
area of repeated water
saturation and biological growth

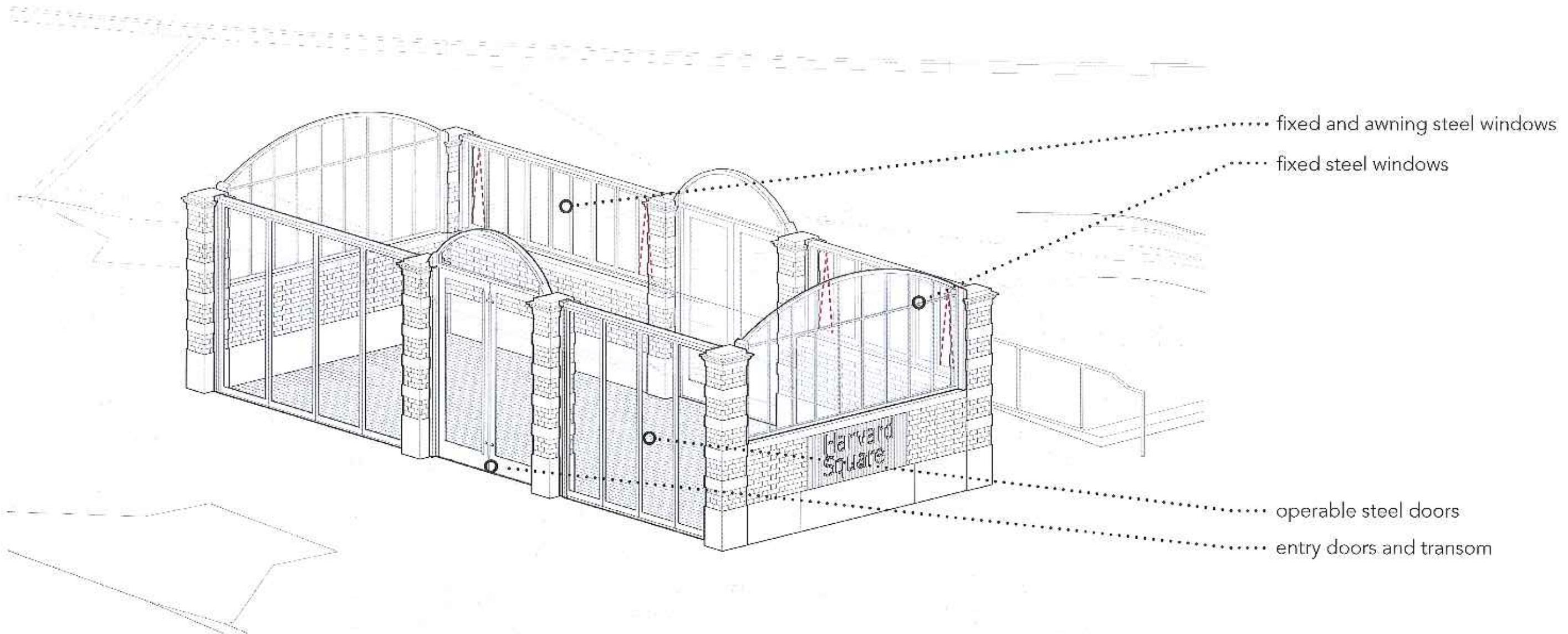
Preservation + Renovation Approach

Masonry - Brick, Limestone & Granite Repairs - South Elevation



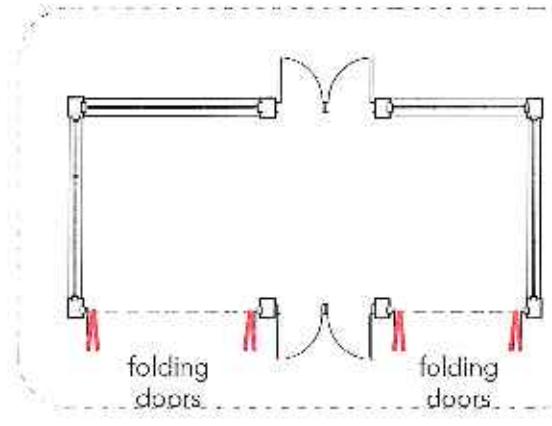
Preservation + Renovation Approach

Doors and Windows

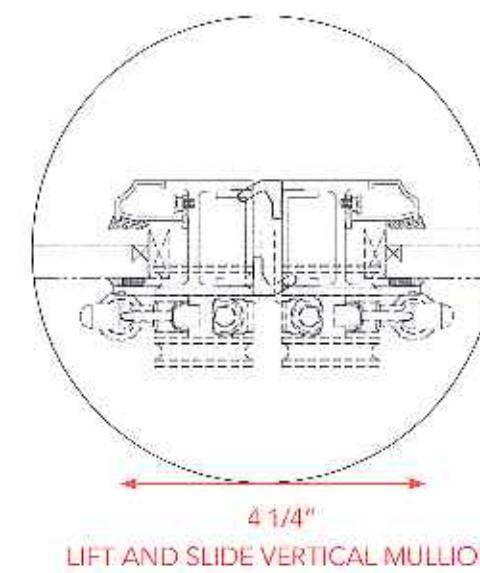


Preservation + Renovation Approach

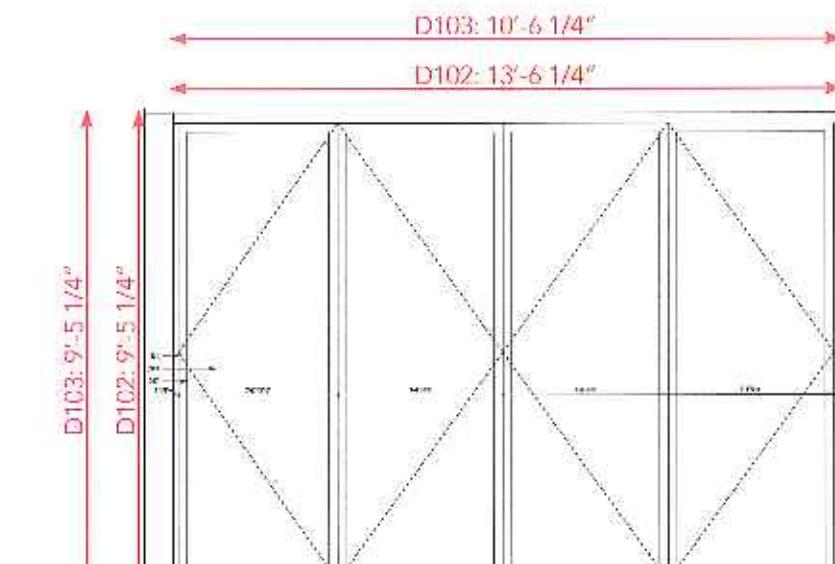
Proposed Slide and Fold Doors at the West Elevation



key plan

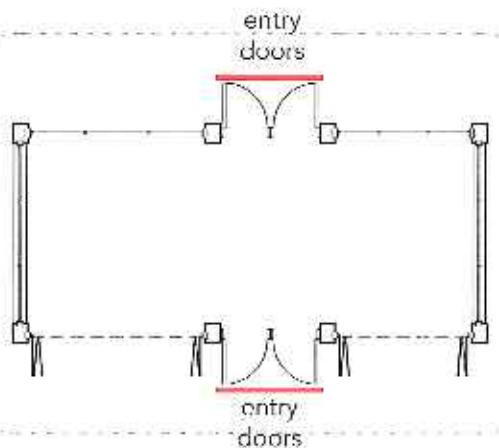


LIFT AND SLIDE VERTICAL MULLION

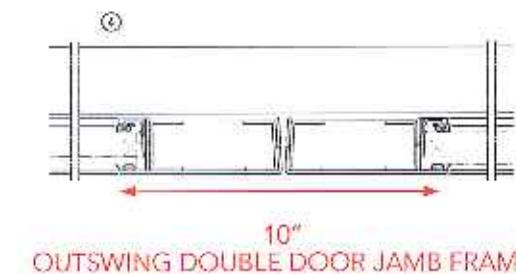


key elevation

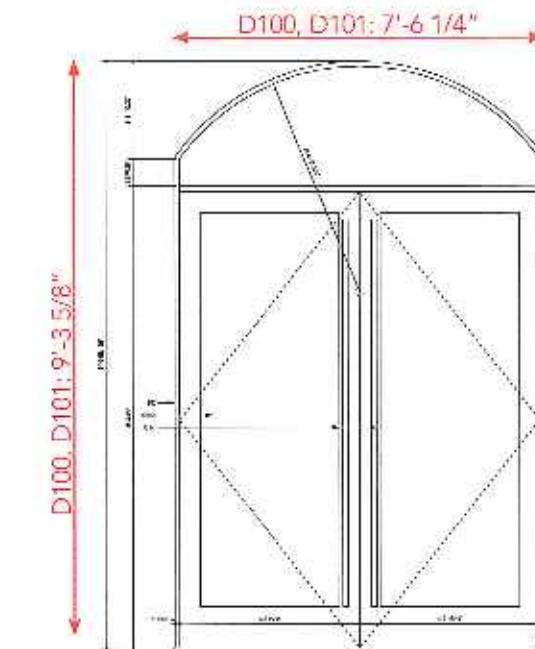
Proposed Entry Doors at the East and West Elevation HOPE'S 5000 Series



key plan



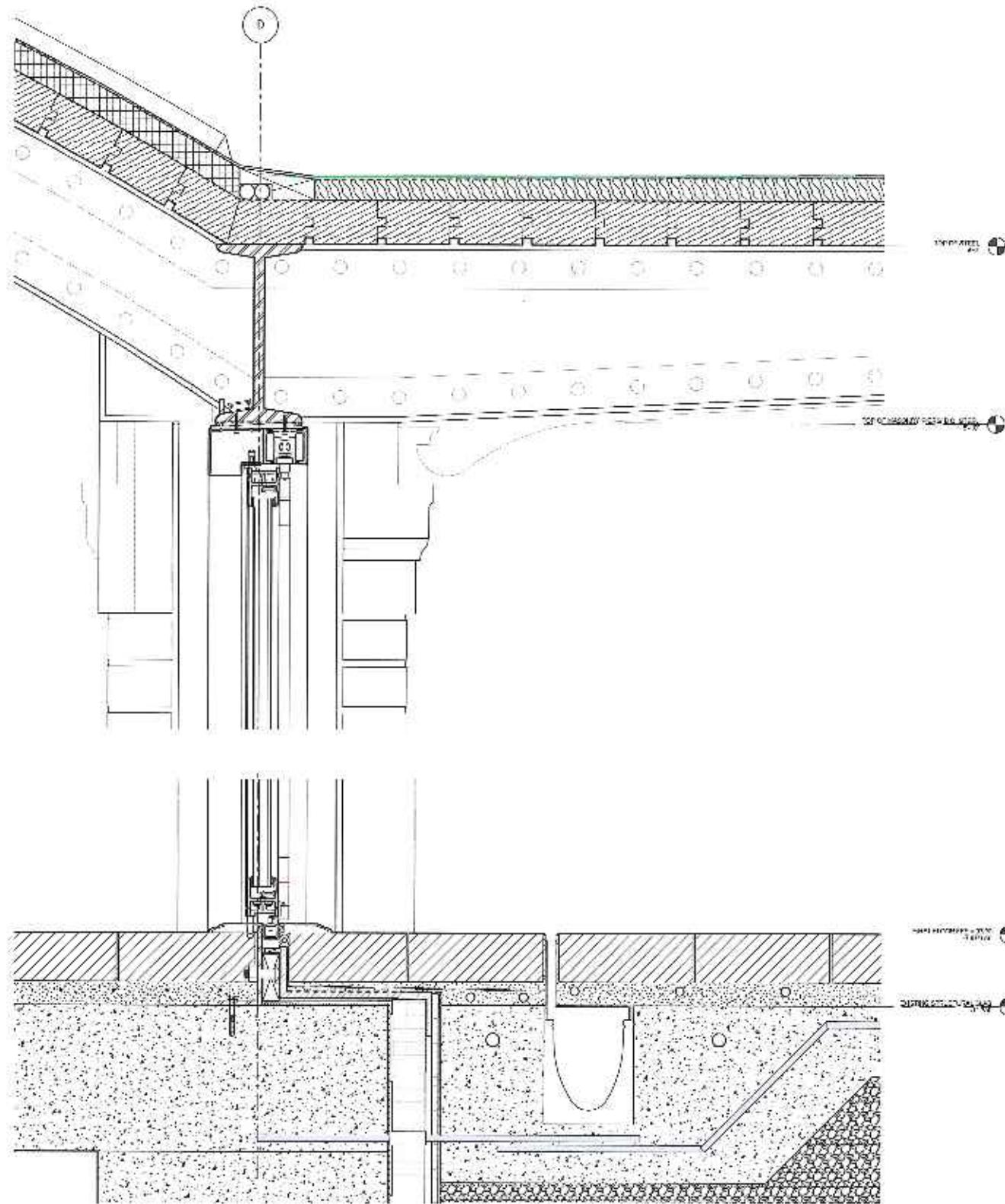
10"
OUTSWING DOUBLE DOOR JAMB FRAME



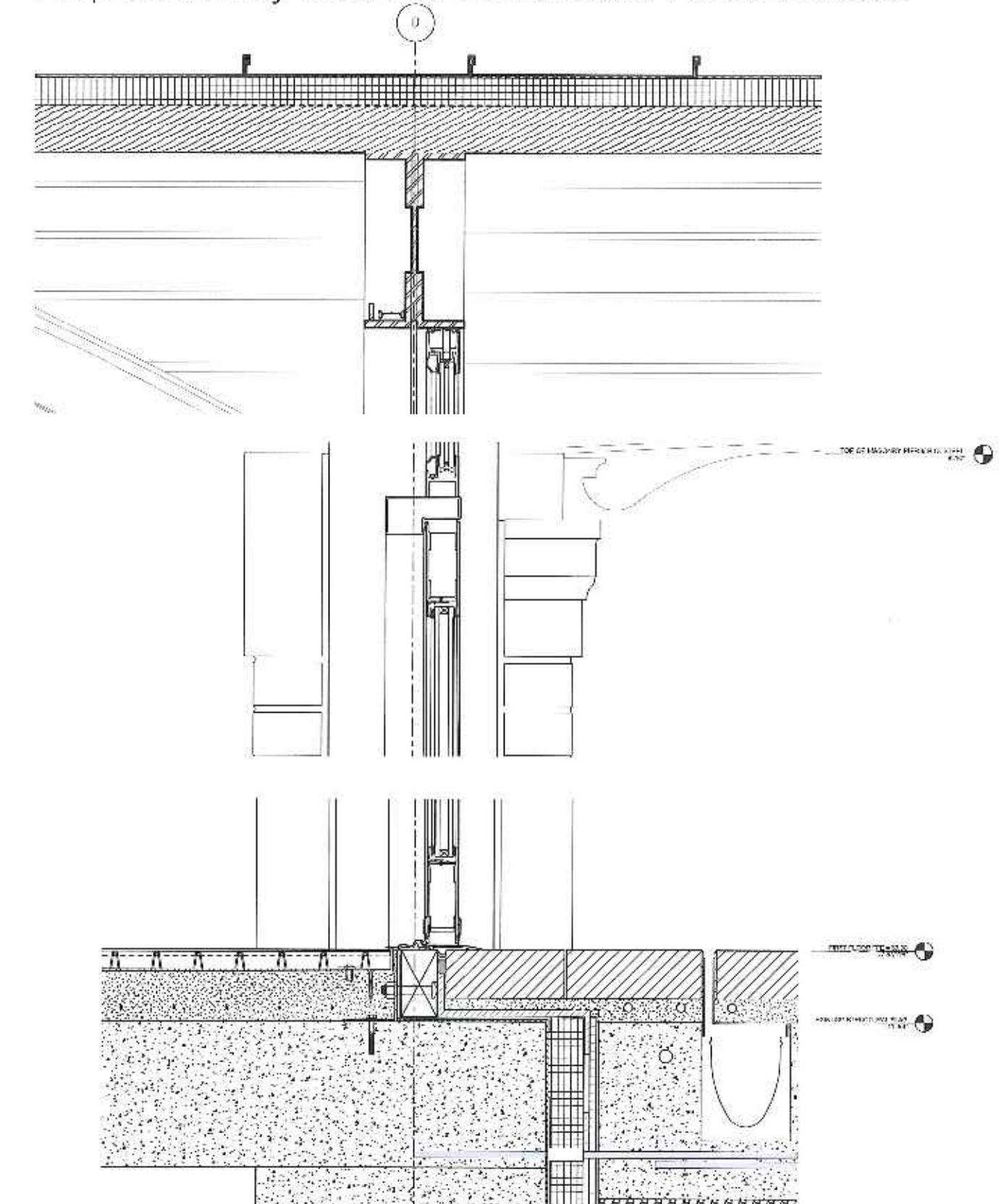
key elevation

Preservation + Renovation Approach

Proposed Slide and Fold Doors at the West Elevation

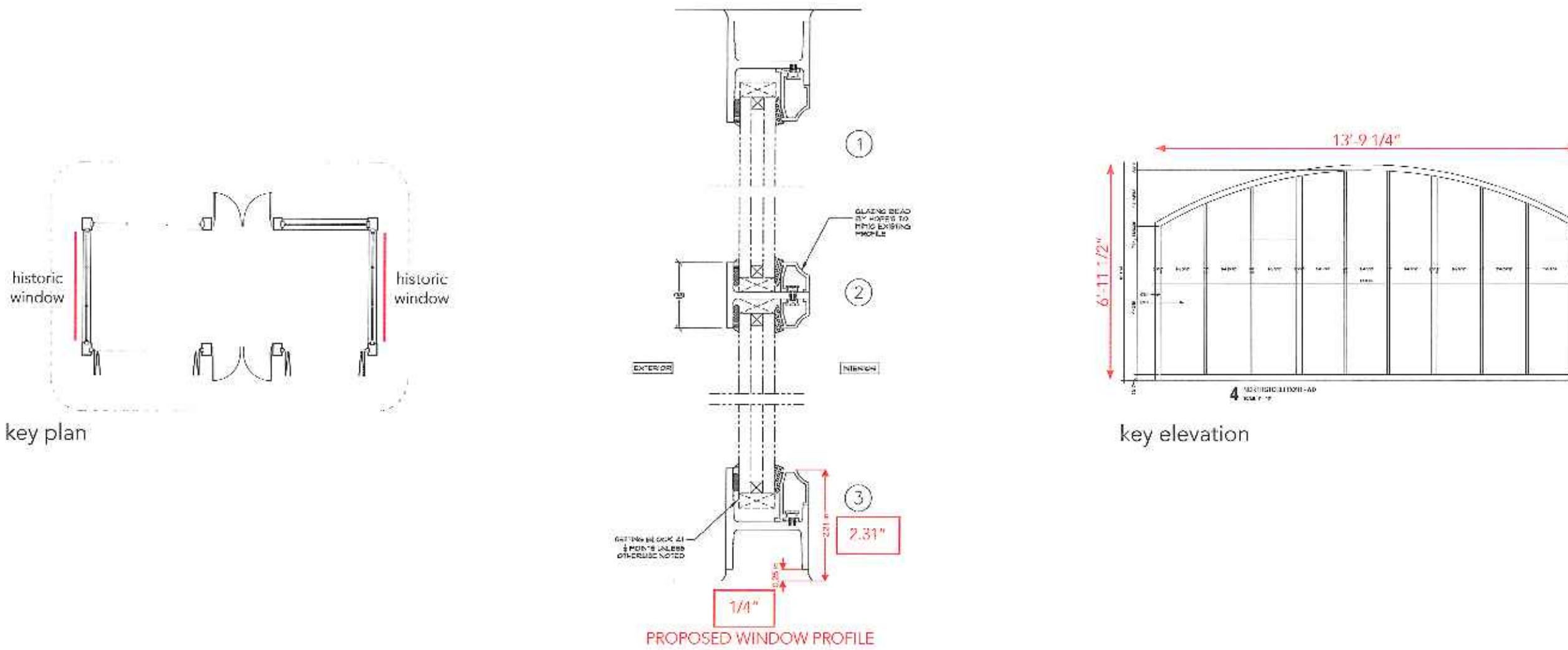


Proposed Entry Doors at the East and West Elevation

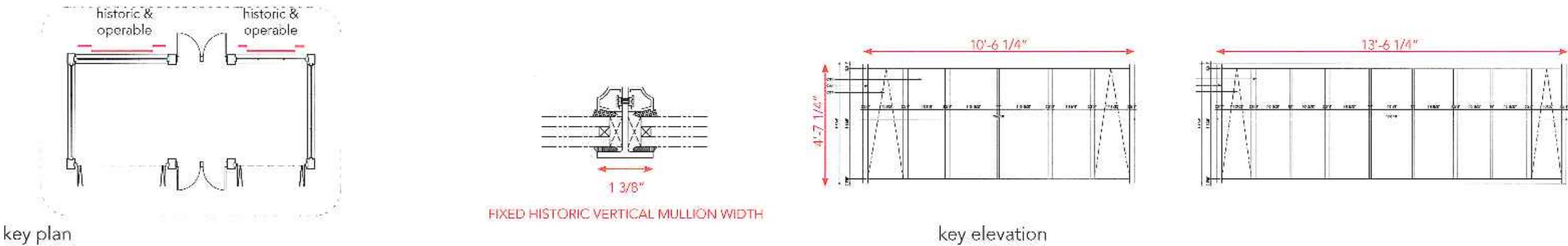


Preservation + Renovation Approach

Proposed Steel Windows at the North and South Elevation

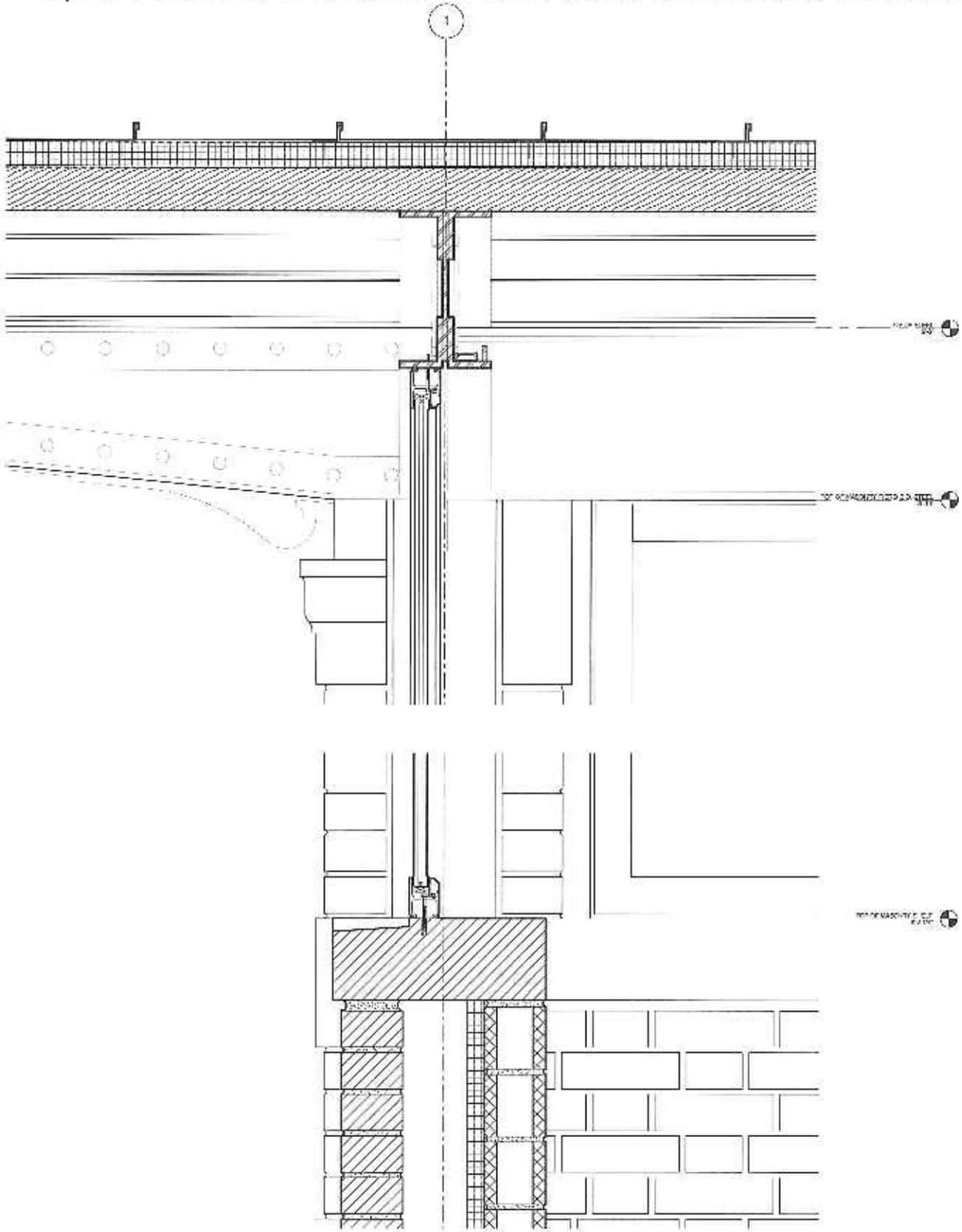


Proposed Steel Windows at the East Elevation

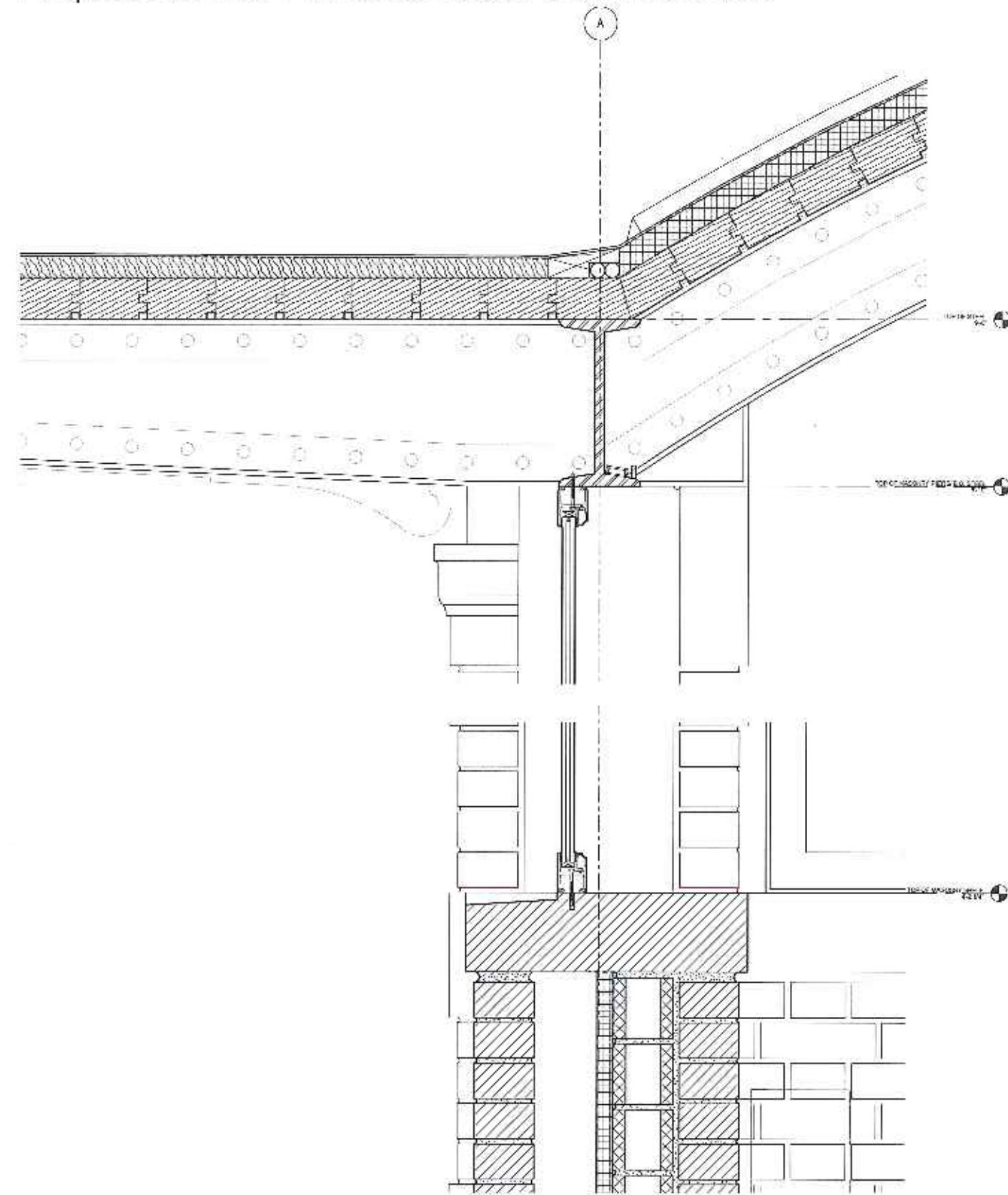


Preservation + Renovation Approach

Proposed Steel Windows at the North and South Elevation

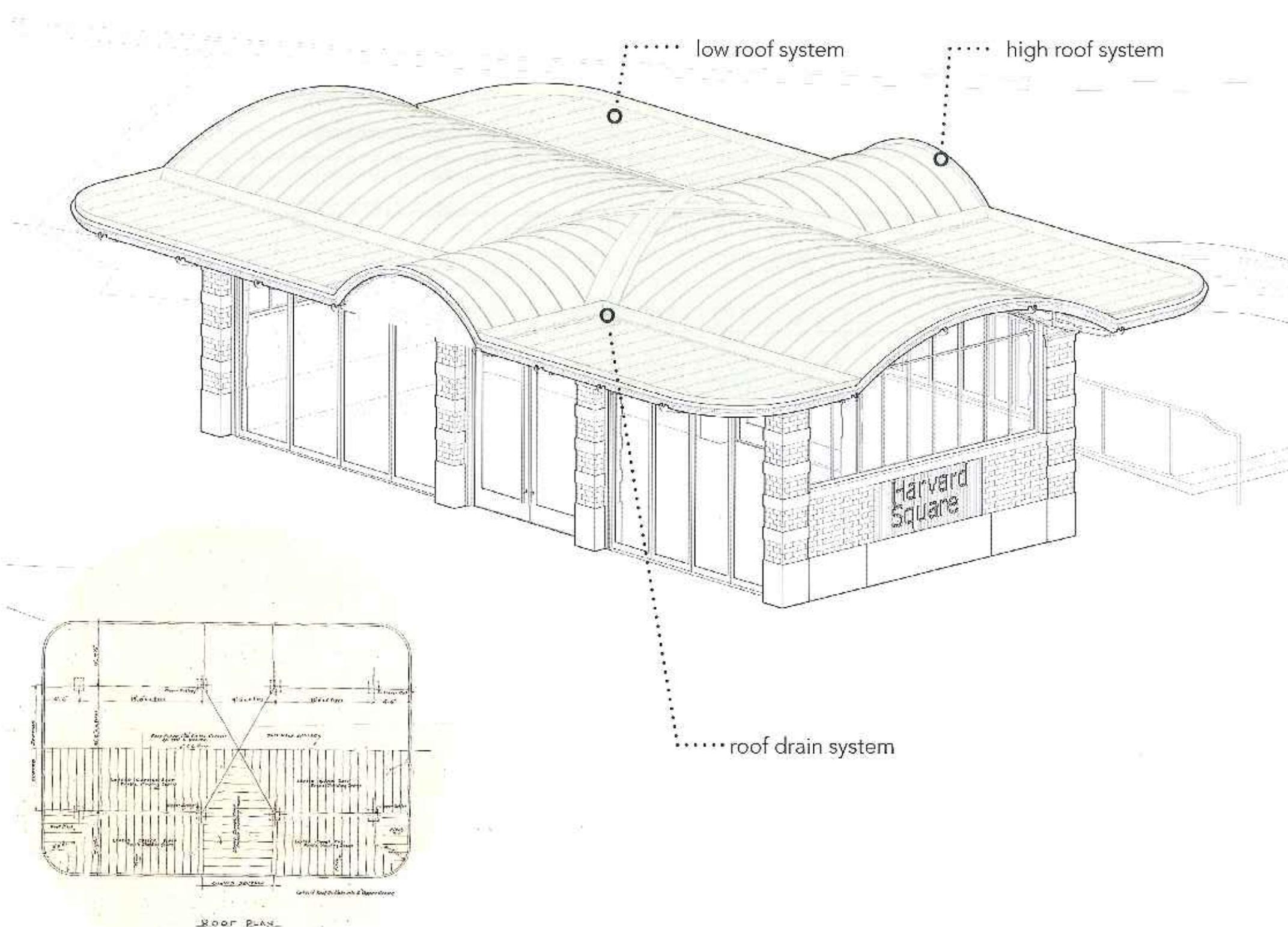


Proposed Steel Windows at the East Elevation



Preservation + Renovation Approach

Roof System

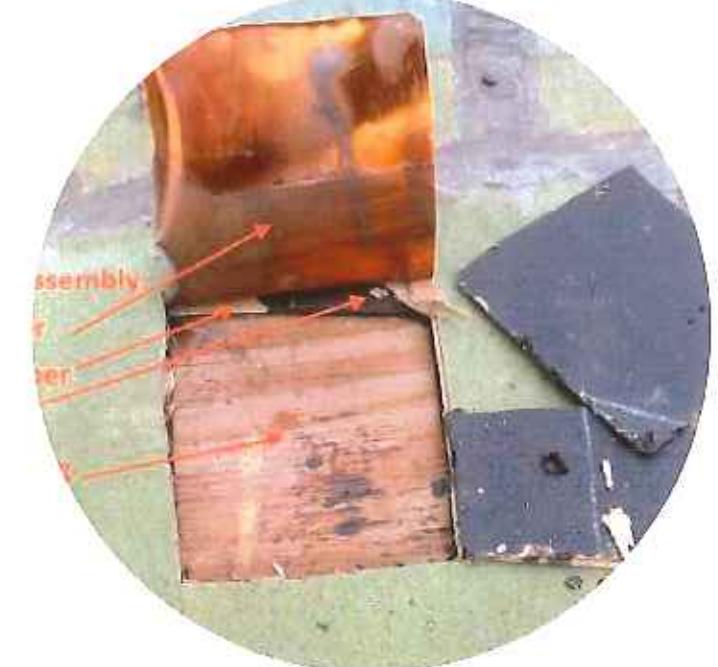


original drawings - roof plan

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replacement of standing seam copper roof & allow for thermo dynamic movement.
all new copper will be red copper and let to weather
(photo credit: Second Forensic Roof System Evaluation by Fulmer Associates LLC)



replace wood sheathing & install new insulation between sheathing and copper roof
(photo credit: Second Forensic Roof System Evaluation by Fulmer Associates LLC)



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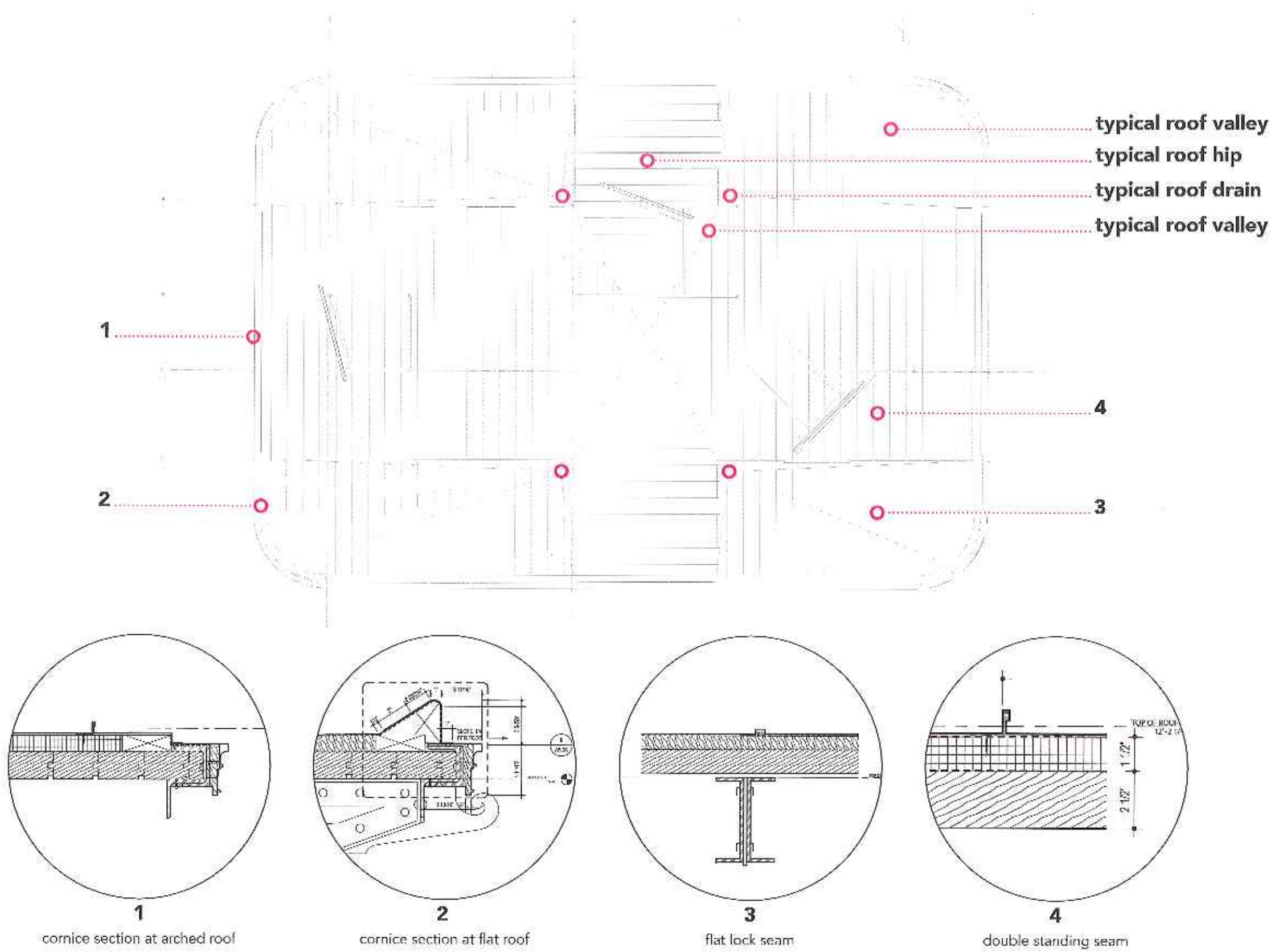
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PARTNERSHIP



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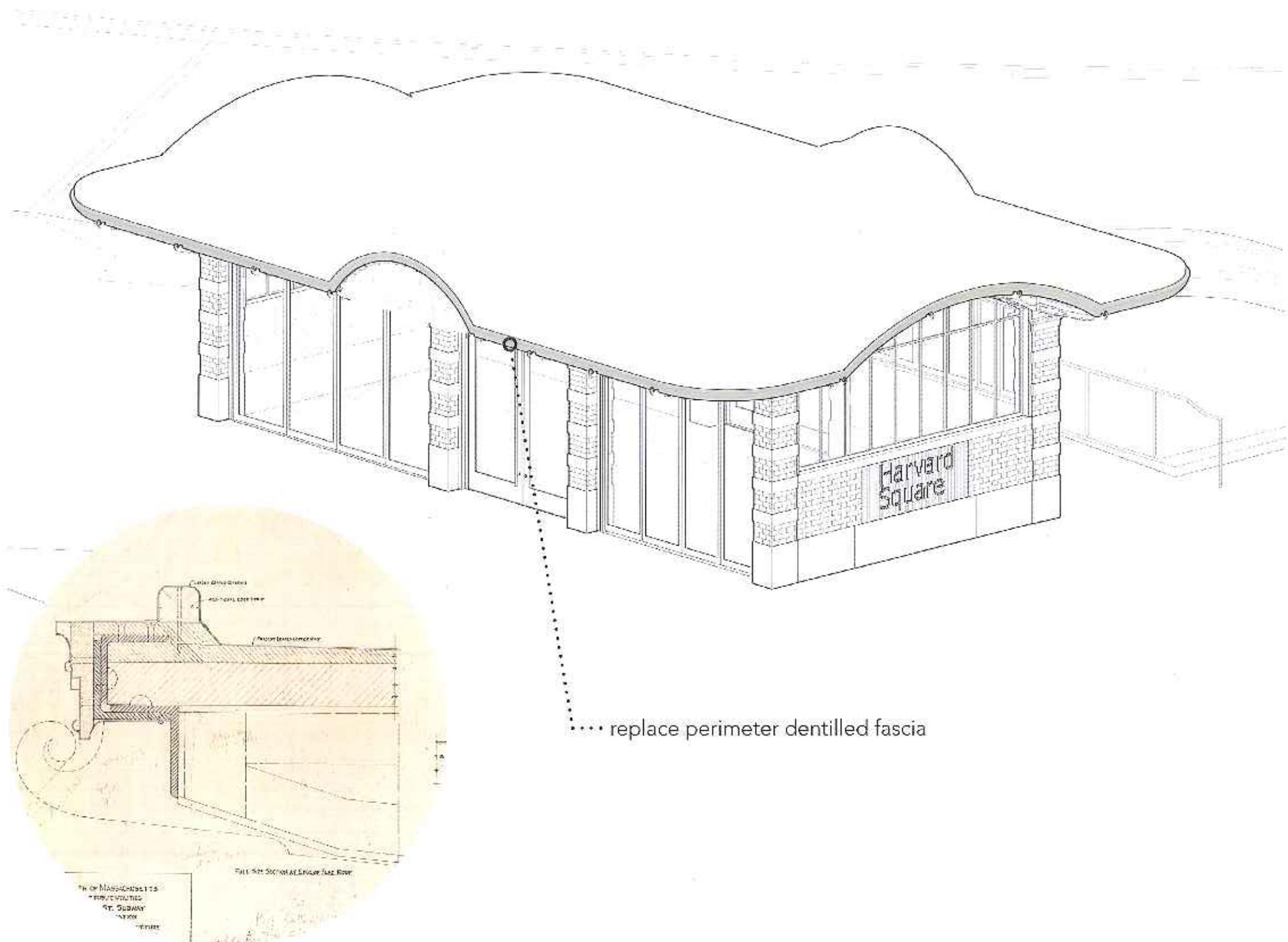
Preservation + Renovation Approach

Roof Details



Preservation + Renovation Approach

Perimeter Dentilled Fascia



original drawing - section at edge of flat roof

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.... replace perimeter dentilled fascia



replacement of perimeter
dentilled fascia to 1927 details
existing lead coated copper to be replaced
with new red copper and let to weather



oxidization of the horizontal leg
of the steel cornice angle

significant oxidization due to a dissimilar
metals reaction and water infiltration



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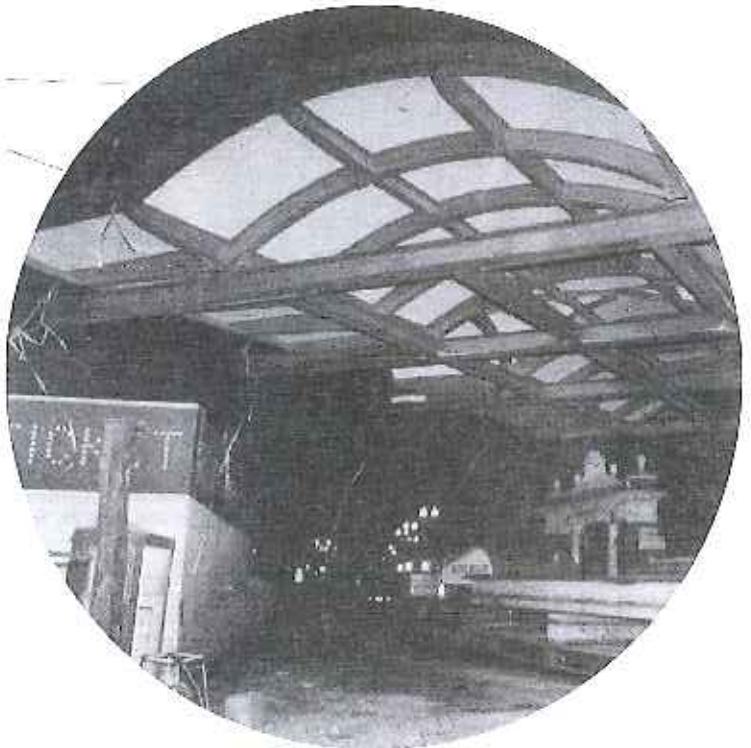
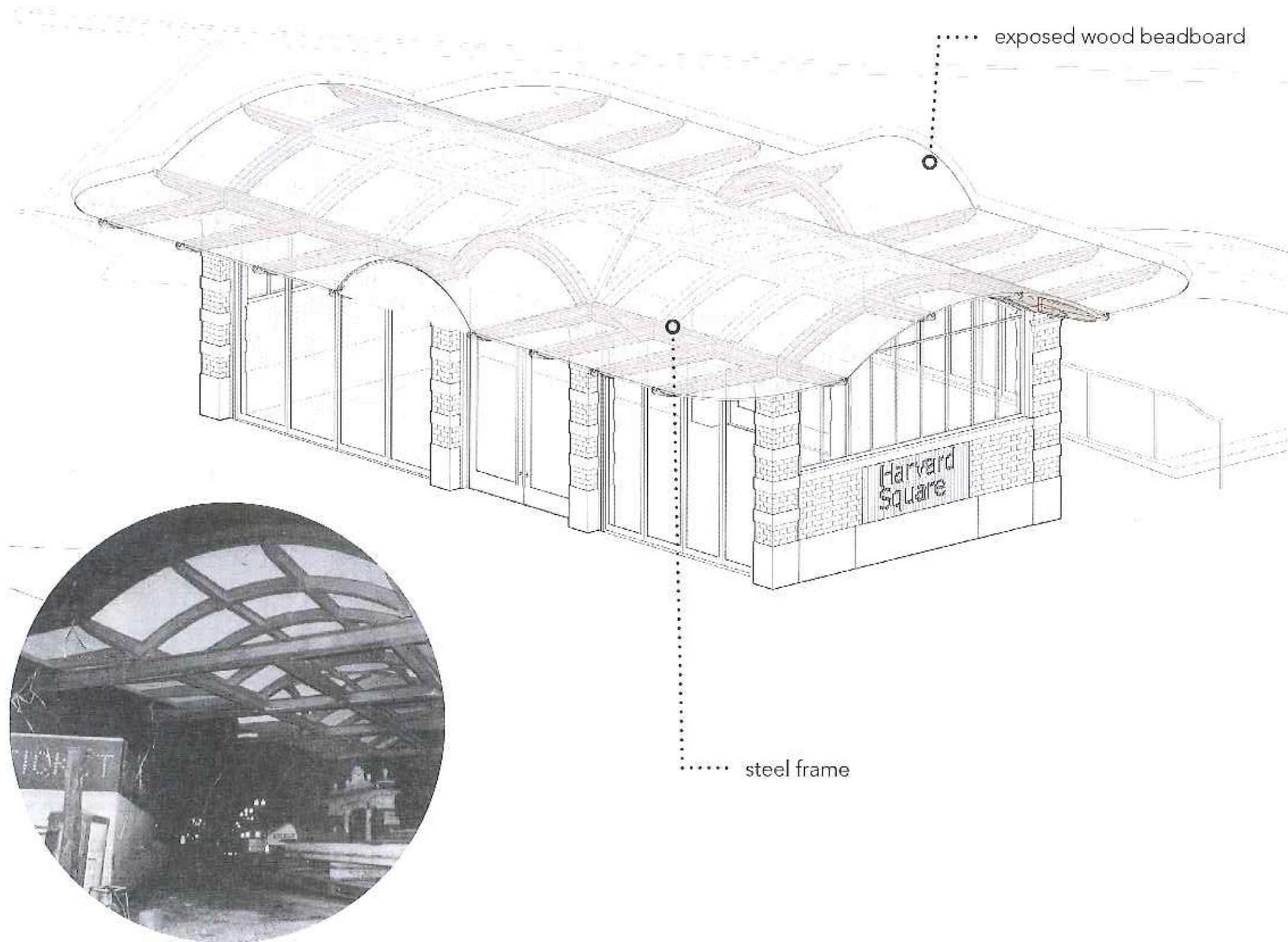
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Preservation + Renovation Approach

Steel Exterior Structure & Wood Soffit



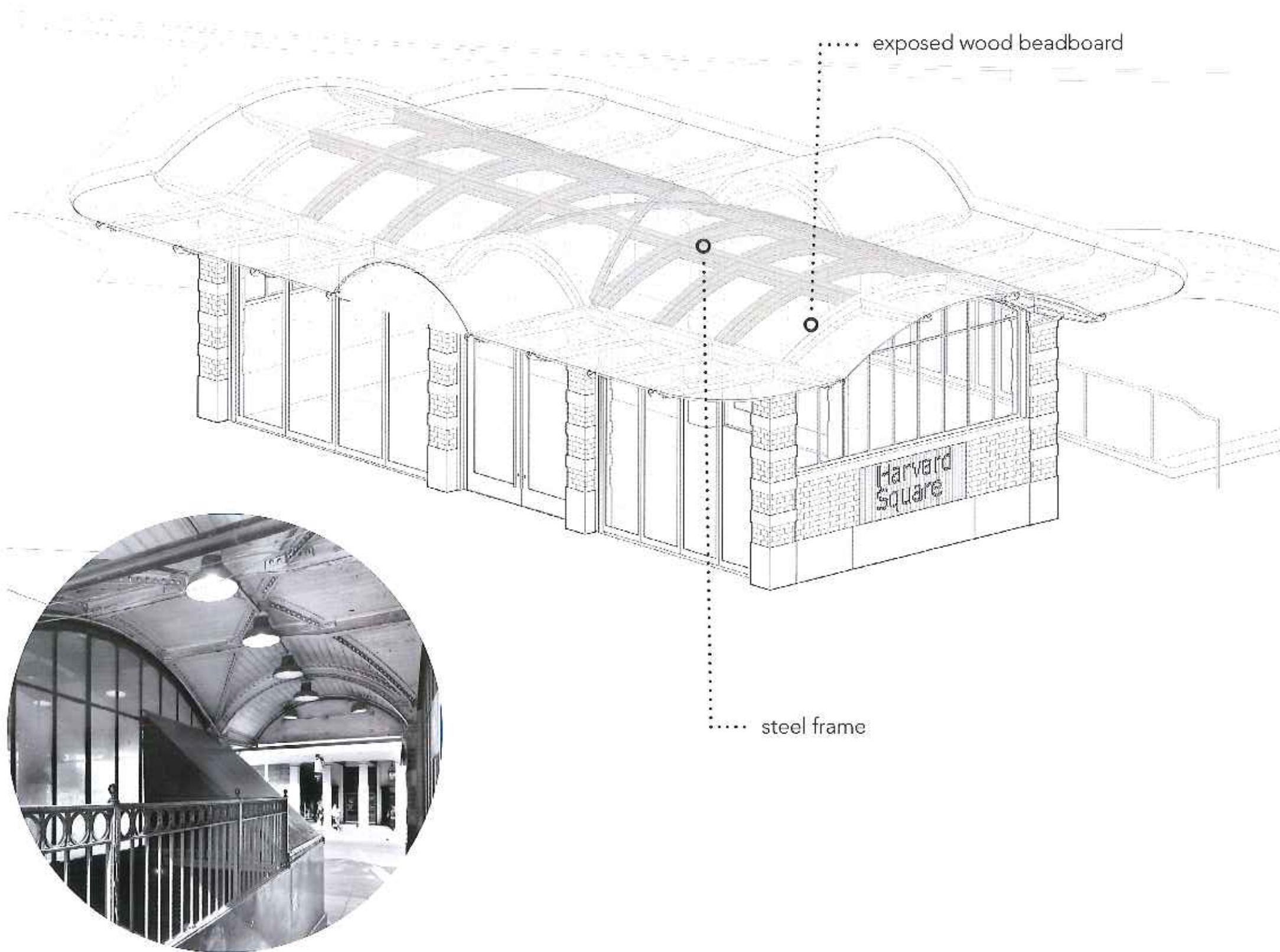
re-installation of original kiosk roof - 1983

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Interior Steel Structure and Wood Soffit



original breezeway - 1977

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..... exposed wood beadboard

..... steel frame



preserve exposed wood beadboard
& riveted iron structure



height of casework should not exceed
the perimeter brick walls



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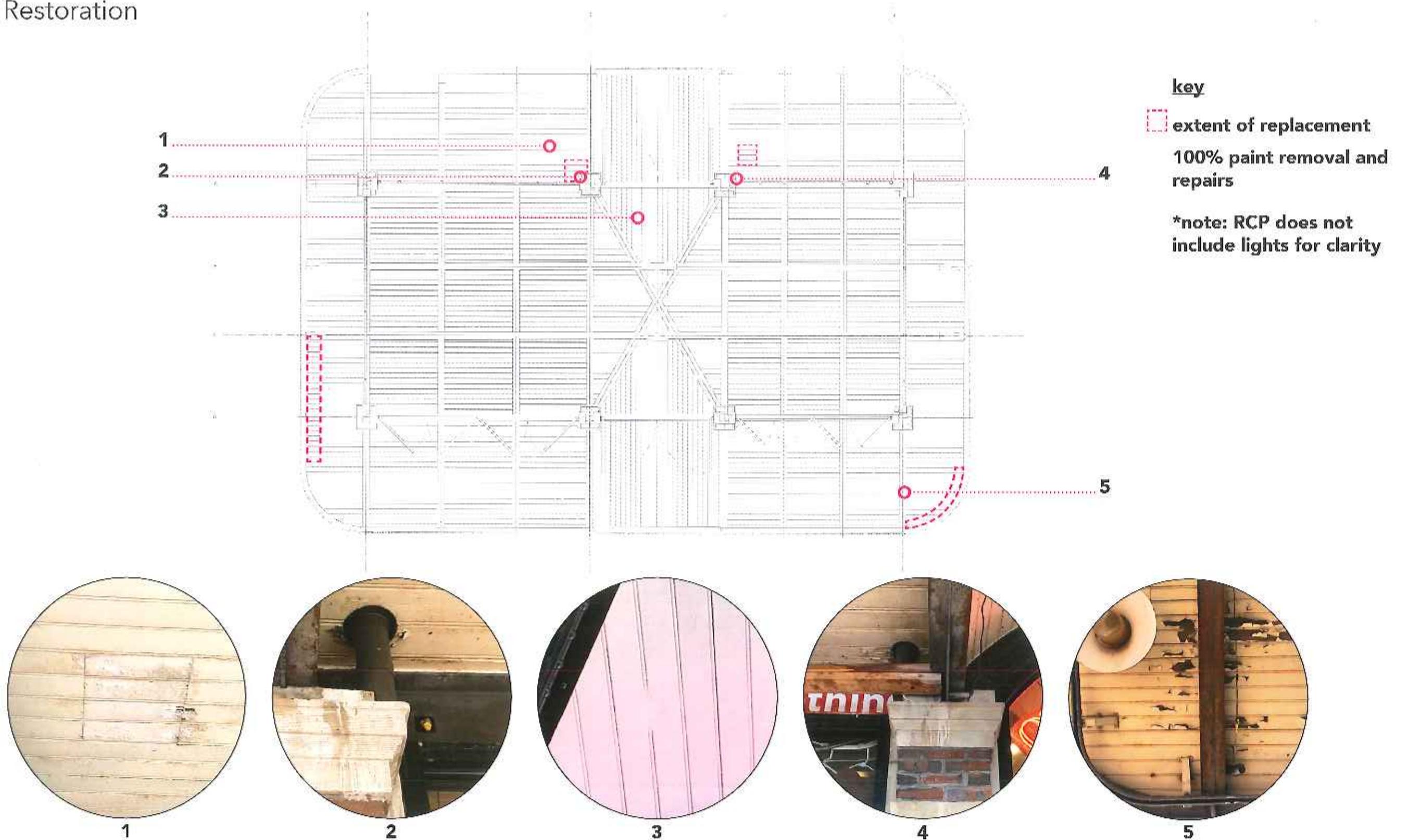
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Preservation + Renovation Approach

Wood Soffit Restoration



Preservation + Renovation Approach

Paint Analysis



Preservation + Renovation Approach

Paint Analysis + Lab Testing



original soffit - dark color



renovated soffit - light color



soffit today - dark steel, light soffit



wood ceiling cross section
photomicrograph
100x magnification



steel beam cross section
photomicrograph
200x magnification



steel structure paint
recommendation
Benjamin Moore
color preview 2128-10



wood soffit paint
recommendation
Benjamin Moore
Navaho White - OC-95

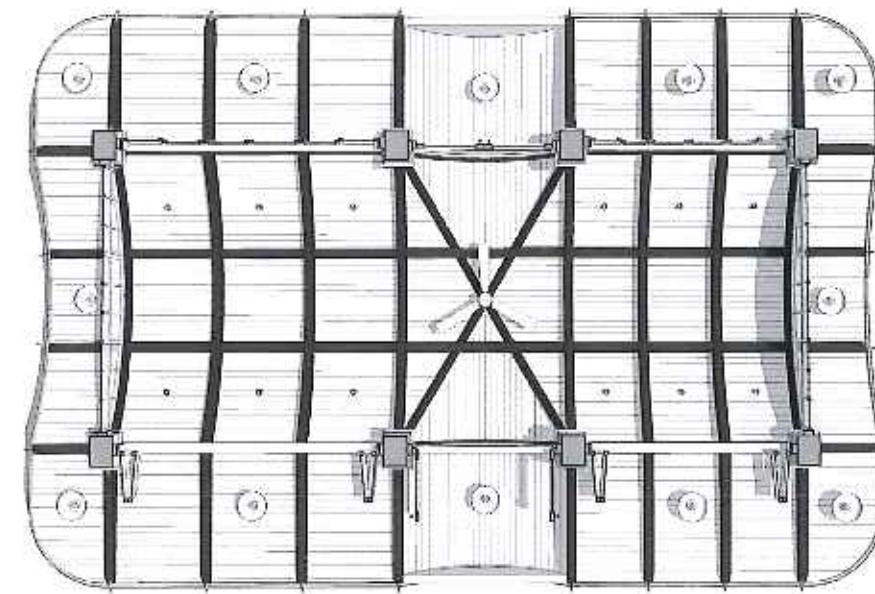
Preservation + Renovation Approach

Proposed Design with Paint Colors



plaza renderings (Halvorson Design Partnership, Inc.)

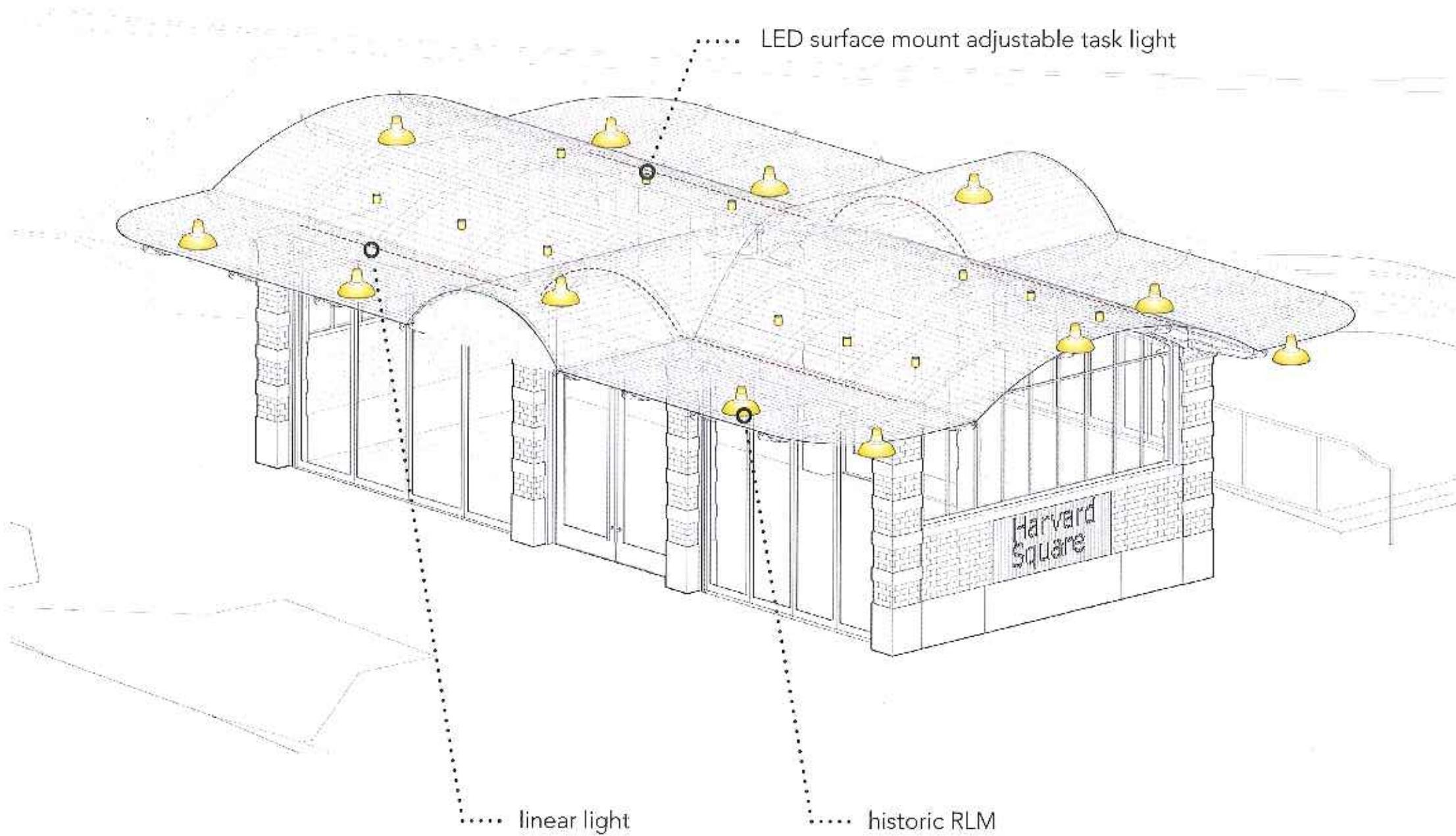
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Key Reflected Ceiling Plan

Preservation + Renovation Approach

Lighting Recommendations



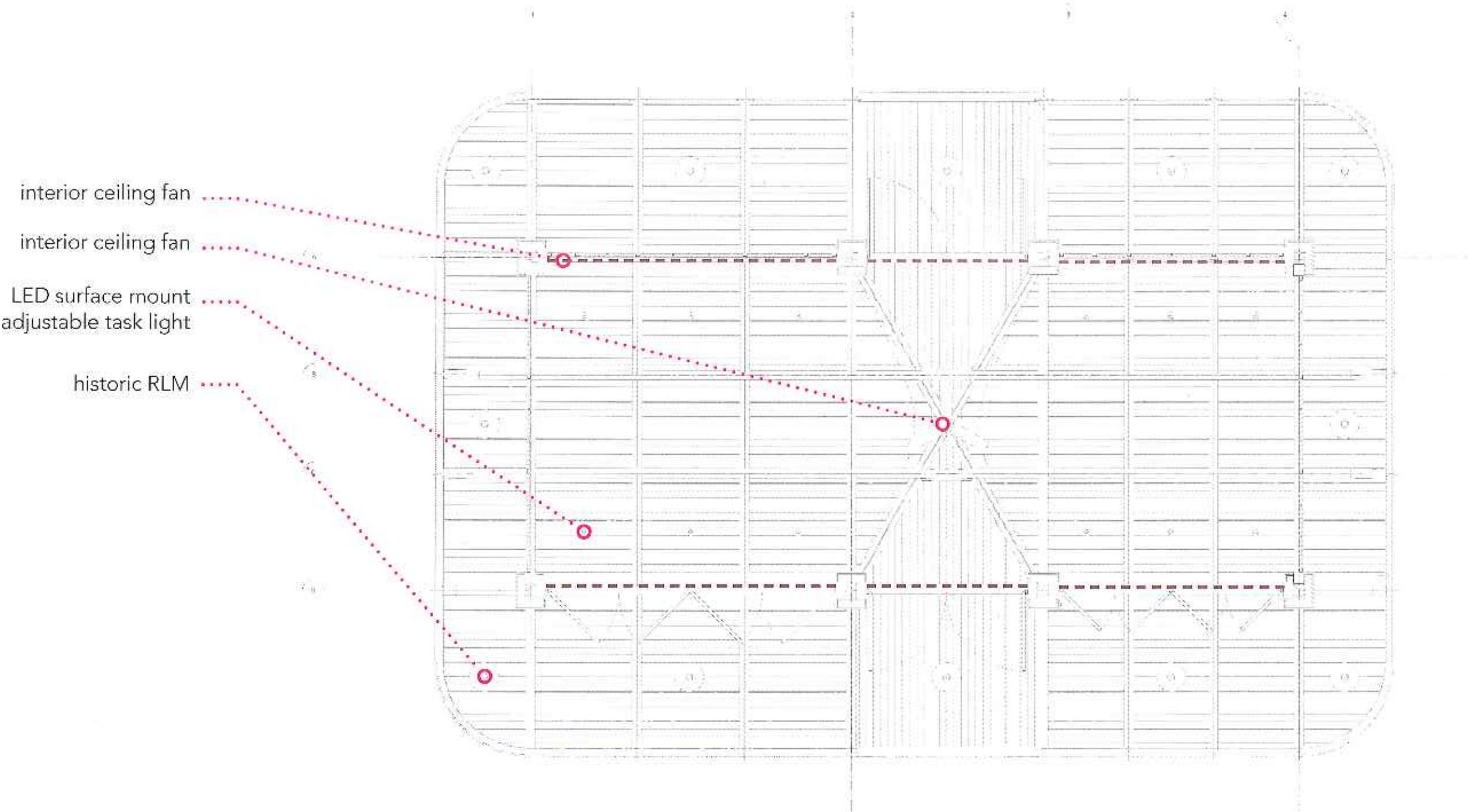
historic lighting - 1977
new conduit to be concealed
above wood deck



1977 RLMs surface mounted to junction box

Preservation + Renovation Approach

Lighting Recommendations



Preservation + Renovation Approach

Historic RLM Recommendation



SBW20
LED

Weight: 4 lbs

Catalog Logic:

SBW20	M037LD	D	W	40K	UNV	E6	PC	41
RLM Style	Light Source & Wattage	Dimming	Distribution	CCT	Voltage	Mounting	Accessories	Finish

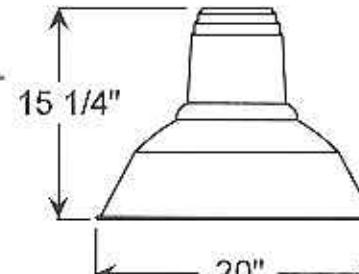
Specifications SBW20

Project: _____

Fixture Type: _____ Quantity: _____

Customer: _____

Dimensions:


Specifications

Material: RLM shades are constructed of heavy duty spun aluminum. Wall back plate and driver housing are cast aluminum. All fasteners are stainless steel. Inside of shade is reflective white finish for all colors except galvanized paint finish. Screw hardware may not match paint.

Electrical: Universal voltage 120-277 is standard. 0-10V, TRIAC and ELV dimming protocols are standard. (24w is D-10v only) See page 2 table for LED module and driver specs, voltage and dimming protocols.

Certifications: Cord mounts are UL Listed for dry locations. Arm mount, stem mount and wall mount are UL Listed for wet locations.

Finish: A polyester powder coat high quality finish is electro-statically applied and baked at 450° for exceptional durability and color retention. Products undergo an intensive five-step cleansing and pretreatment process for maximum paint adhesion.

Marine grade finish provides superior salt, humidity and UV protection. This coating withstands up to 3000 hours of continuous salt spray, comes with a 5-year warranty and is available in either a frosted or gloss surface.

Modifications: Consult factory for custom or modified designs.

Light Source & Wattages

Model	Description
M012LD	112w, 750 lumen, Cree module; Integral driver, 120V, dimming & narrow distribution only.
M009LD	9w, 850 lumen, Cree module
M010LD	10w, 1250 lumen, Cree module
M016LD	16w, 2000 lumen, Cree module
M024LD	24w, 3000 lumen, Cree module
M037LD	37w, 4000 lumen, Cree module

MOUNTING SOURCES

Mounting Type	Models
Arm Mounts (Cast back plate included (CR))	E3 E4 E6 E7 E8 E9 E10 E11 E12 E13 E18 E25
Wall Mounts	WM35 WM41 WM66 WM318 WM85
Pest Mounts	(Postline driver only; 4" OD x 12" pole required)
Cord Mounts	BLC-6W (6' black cord with 1" x 5 3/8" canopy) WHC-6W (6' white cord with 1" x 5 3/8" canopy) XXXX-DCC (Color Cord. Replace XXXX with color cord designation from page 4.)
Stem Mounts	1/2" (13/16" OD) Right Stem with STC Flat Canopy 2ST6 2ST12 2ST18 2ST24 2ST36 2ST48 2ST60 2ST72 2ST96 3/4" (1" OD) Right Stem with STC Flat Canopy 3ST6 3ST12 3ST18 3ST24 3ST36 3ST48 3ST60 3ST72 3ST96

ACCESSORIES

Accessory	Description
CBC	(Cast back plate Spin Alum Cover)
*EMG-LEO5	(lw. LED Emergency Driver, remote placement, Cree module only)
*EMG-LED7	(lw. LED Emergency Driver, remote placement, Cree module only)
*EMG-LED10	(lw. LED Emergency Driver, remote placement, Cree module only)
GR20	(20" Wire Grill)
PC	(Button Photo Cell) Remote Only
SC	(Scroll for Arms)
SLC	(Sloped Ceiling Mount, 20° Max)
SQ	(Square Back Plate)
SWL	(Adjustable Locking Srew)
TBK	(Turn Buckle Kit)

*For Emergency lumen output data, see Resources section at www.ANPlighting.com.

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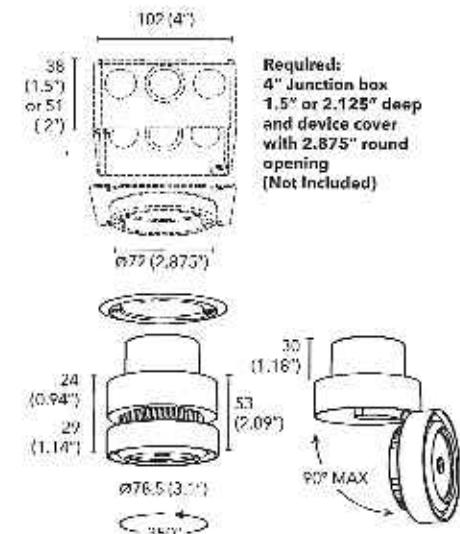
Preservation + Renovation Approach

Task Light Recommendation

50mm (2") LED Adjustable, Semi Recessed Mount- 120VAC

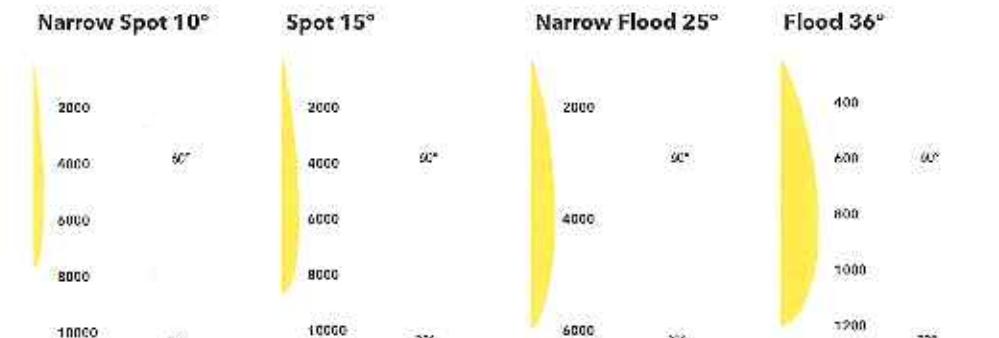
SORAA arc™

The Soraa Arc™ Adjustable combines elegant design with Soraa's unique quality of light to create a dynamic and versatile solution for retail, hospitality, and residential applications. Soraa Arc gets its name from the form of its unique die-cast curved heat sink, which is carefully engineered for optimal thermal performance. Soraa Arc is compatible with the Soraa SNAP System™, which allows you to shape beams, shift color, and more... in a snap.



Photometrics - Soraa Arc™ 50mm (2")

Data is shown for 3000K, for 2700K multiply FC by 0.95, for 4000K by 1.04.



W	CCT	Lm	CBP	W	CCT	Lm	CBP	W	CCT	Lm	CBP	W	CCT	Lm	CBP
11	2700	505	7360 cd	18	2700	880	7690 cd	18	2700	950	8510 cd	18	2700	950	2560 cd
11	3000	535	7800 cd	18	3000	930	8090 cd	18	3000	1000	9800 cd	18	3000	1000	2700 cd
11	4000	555	8090 cd	18	4000	965	8380 cd	18	4000	1040	6030 cd	18	4000	1040	2800 cd

Candelas at Nadir		Candelas at Nadir		Candelas at Nadir		Candelas at Nadir	
0°	6139	0°	8165	0°	5670	0°	2771
5°	5415	5°	6573	5°	4970	5°	2683
15°	248	15°	628	15°	1562	15°	1627
25°	91	25°	151	25°	128	25°	408
35°	54	35°	87	35°	37	35°	82
45°	25	45°	46	45°	25	45°	32
Soraa SNAP Compatible		Soraa SNAP Compatible		Soraa SNAP Compatible		Soraa SNAP Compatible	

Soraa VIVID™ LED

Soraa Full Spectrum Integral LED Light Engine available in 2700K, 3000K, and 4000K with 95 CRI and 95 R9. IR and UV free.

Soraa Optics

Soraa optic technology with exceptional beam control and smooth uniform light distribution. The 10° and 15° beam versions are compatible with Soraa SNAP accessories.

Construction and Finish

Light engine is made of die cast aluminum, transformer case from extruded aluminum. Durable satin finish. Custom colors available. Tilt: 0-90°, rotation: 350°.

Applications

Suitable for damp or dry locations. For interior use only. Visit www.soraa.com for details.

Installation

Requires 4" junction box with 1.5" or 2.125" depth and device cover with 2.875" round opening (Not Included). Semi-recessed mounting. Recommended ceiling opening: 3.3/5" (86mm).

Electrical

120VAC integrated electronic constant current LED driver (included). Frequency: 50/60Hz. Power Factor: 0.93. Wattage: 11W, 18W.

Dimming and Flicker

Dimmable to <1%. Percent Flicker: < 30%. Triac and ELV dimming standard. Visit www.soraa.com for details.

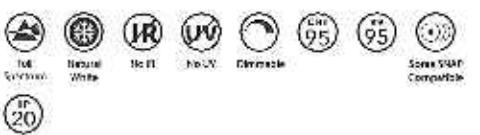


Operating Temperature
Minimum -40°C, 25°C typical.

Accessories
Luminaires accommodate both Arc accessories and the Soraa SNAP System simultaneously.

Compliance
cULus Listed. Damp location rated. FCC CFR Title 47 Part 15 Class B compliant. NOM compliant.

Warranty
Five year warranty. See www.soraa.com.



Preservation + Renovation Approach

Linear Light Recommendation

FLEX DC® 30

Specification Sheet



FLEX DC® 30 is a high performance flexible LED fixture suitable for use in coves, under cabinets, in shelves, in-grade, and virtually anywhere a linear fixture is required.

ELECTRICAL

Input Voltage	24VDC
Dimming Options	• PURE DC™ • M12V • 0-10V • DMX • Lutron (2-WIRE, 3-WIRE, EcoSystem)
Power Consumption	3.0 Watts per foot
Wire Size	18AWG, 2 wire
Certification	ETL - Conforms to UL Std. 2108; Certified to CSA Std. C22.2 No. 9.0. Closet Rated - Suitable for installation in the storage area of a clothes closet when used in Optic Arts® channel.

PHYSICAL

Field Cuttable	Every 1.97"
Operating Temperature	-40° C (-40°F) to +70°C (+158°F)
Environment	IP40 - Dry Location IP68 - Wet Location
Maximum Run Length	IP40: 32', IP68: 32'
Dimensions (WxH)	IP40: 0.31" (8.0mm) x 0.12" (3.2mm) IP68: 0.41" (10.4mm) x 0.18" (4.5mm) IP68 Endcaps - 0.50" (12.70mm) x 0.31" (7.8mm)

PERFORMANCE

CRI	90+
Lumen Maintenance	50,000 Hours
Binning Tolerance	1/- 100K
Warranty	5 years

ACCESSORIES

Mounting Clips	FLFXMNT.SIL.INT, FLFXMNT.SIL.EXT12 (pg. 8)
Channels	Optic Arts® Channel (pg. 3-7)
Connectors	LC-I2P-M, LC-I2P-F, LC-O2P-F, LC-O2P-M (pg. 8)
FLEXConfig-1 Accessories	FLFXDC.PFC.02.08, FLEXDC.BSC.02.08, LO-18G-2C-W-72, LP-18G-2C-W-72, LO-18G-2C-W-SP, LP-18G-2C-W-SP (pg. 9)

LUMEN OUTPUT

2000K (IP40 only)	171.44 lm/ft 62.41 lm/Watt
2400K	230.22 lm/ft 70.74 lm/Watt
2700K	262.59 lm/ft 87.53 lm/Watt
3000K	265.65 lm/ft 88.55 lm/Watt
3500K	276.03 lm/ft 92.01 lm/Watt
4100K	286.77 lm/ft 95.59 lm/Watt
6000K	272.91 lm/ft 90.98 lm/Watt
Amber	72.00 lm/ft 27.00 lm/Watt

Note: Stated lumen values have a tolerance of +/- 10%.

PART NUMBER BUILDER

SERIES	+	IP RATING	+	COLOR	+	VOLTAGE	+	WATTAGE	+	CONFIGURATION	+	LENGTH
FLEXDC	+	40 - IP40 - Dry Location 68 - IP68 - Wet Location	+	ED = White R = Red G = Green B = Blue A = Amber	+	24 - 24 VDC	+	30 - 3.0W	+	FLC1 = FLEX Config 1 FLC2 = FLEX Config 2 FLC3 = FLEX Config 3	+	XX - Custom Length

1130 Monterey Pass Rd, Monterey Park, CA 91751

213.250.6069 | customerservice@opticarts.com | www.opticarts.com

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Optic Arts reserves the right to modify this specification without prior notice.

Last Modified: March 19, 2019 4:32 PM

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Preservation + Renovation Approach

Interior Ceiling Fan Recommendation

Haiku L by Big Ass Fans

TECHNICAL SPECIFICATIONS

Haiku's signature design elements, energy efficiency, and effectiveness at a more accessible price point.

THE CEILING FAN, REINVENTED

- Airfoils — Hybrid resin construction; 52 in. (1.3 m) fan swoop
- Mounting — Flat or sloped ceilings 8 ft (2.4 m) and taller
- Integrated LED Light — Settings include on/off, Swoop mode, and 16 dimmable light levels; life expectancy of 50,000 hours
- Fan Settings — On/Off, Whoosh[®] mode, Sleep mode, and timer
- Motor — High-efficiency, brushless DC motor with digital Inverter drive
- Environment — Indoor use only
- Sound Level — <35 dBA at max speed¹
- Controls — Handheld remote control, Haiku L Wall Control (optional), voice control² (with addition of Wi-Fi module), or 0–10 V Module (optional)
- Accessories — Haiku L Wall Control and Wi-Fi module
- Warranty — Visit the [Big Ass Fans website](#) for details.



Airfoil Finishes



Black



White

ORDERING INFORMATION

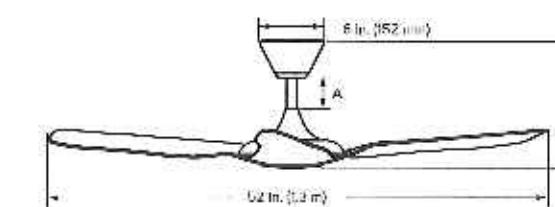
DIAMETER	INPUT POWER	AIRFOIL AND MOTOR FINISH	COUNTRY	MOTOR
L3127				00E
52; L3127	120 V: X6 240 V: X6	Hybrid Resin, Black: PB Hybrid Resin, White: PW	US/CA/MX: 00 Europe: 01 Saudi Arabia, UAE: 03	L52: 00E

FAN SPECIFICATIONS

VOLTAGE	WEIGHT	MAX SPEED	AIRFLOW (MIN/MAX)	FAN WATTS
100–120 VAC, 1Φ, 50/60 Hz	11 lb (5 kg)	181 RPM	1,675/5,604 cfm	3.1/18.9 W

LIGHT SPECIFICATIONS

LIGHT WATTS	LIGHT OUTPUT	COLOR TEMP	CRI
20 W	988 Lumens	2700 K	82



Extension [™] Tube (A)	Extension Tube Lengths				
	Included	Optional*			
6 in. (142.5 mm)	6 in. (142.5 mm)	12 in. (289.5 mm)	23 in. (574.5 mm)	36 in. (897.5 mm)	52 in. (1324.5 mm)
Fan Height (B)	11.4 in. (289 mm)	16.1 in. (417 mm)	28.4 in. (721 mm)	41.1 in. (1044 mm)	57.1 in. (1451 mm)
Ceiling Height	≤ 8 ft (2.4 m)	≤ 9 ft (2.7 m)	≤ 10 ft (3 m)	≤ 11 ft (3.4 m)	≤ 12 ft (3.7 m)
	≤ 13 ft (4 m)	≤ 13 ft (4 m)	≤ 13 ft (4 m)	≤ 13 ft (4 m)	≤ 13 ft (4 m)

* Optional extension tube lengths produced separately.

¹ Actual levels of sound measurement in the field may vary due to room reflective surfaces and environmental conditions.

² Voice control requires an Amazon Alexa-enabled device or the Google Assistant.

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BIG ASS FANS

USA
[BIGASSFANS.COM](#)
800-690-2458

CANADA
[BIGASSFANS.COM/AU](#)
944-924-1277

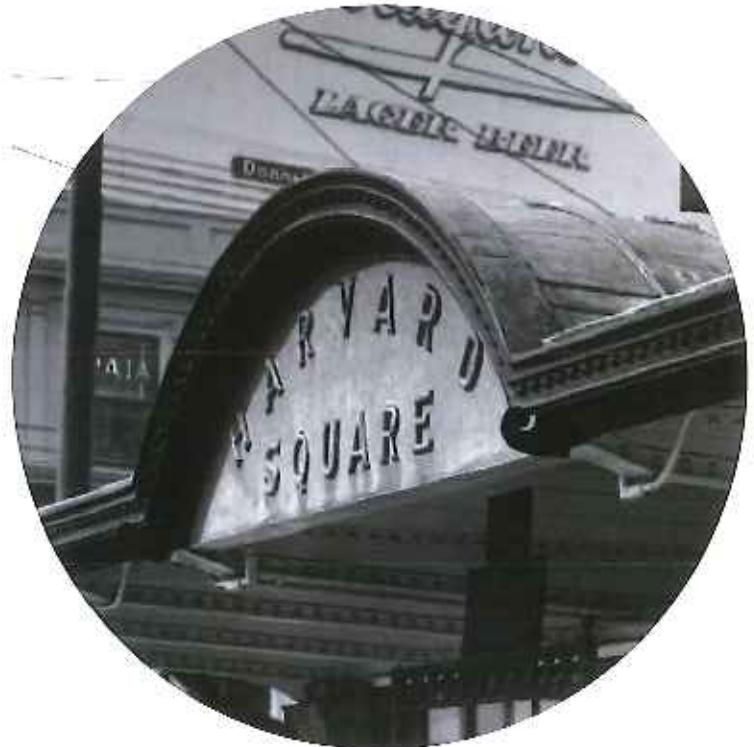
AUSTRALIA
[BIGASSFANS.COM/AU](#)
1300 234 277

SINGAPORE
[BIGASSFANS.COM/SG](#)
65 6709 8500

MALAYSIA
[BIGASSFANS.COM/SG](#)
+603 5565 0988

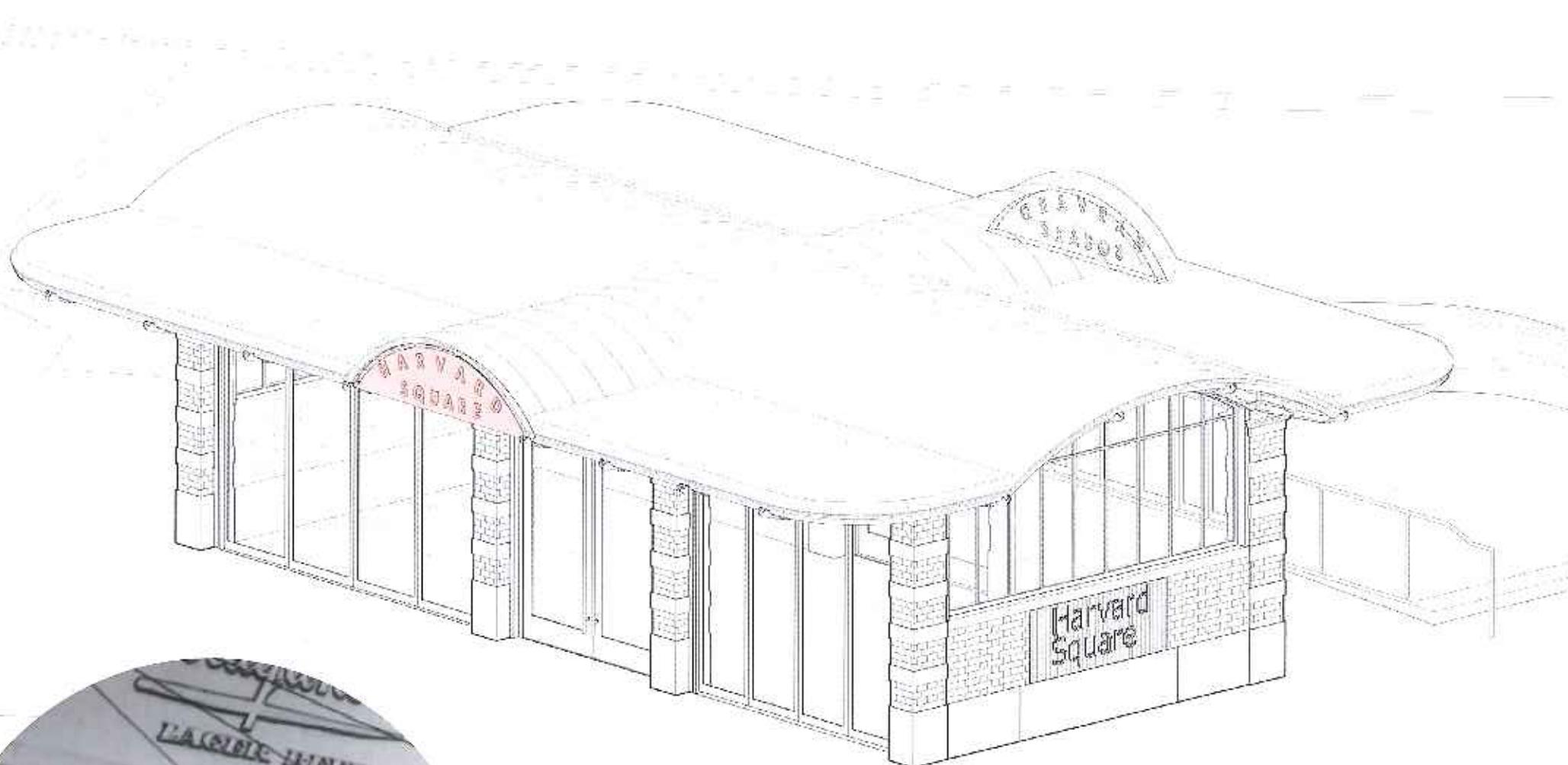
Preservation + Renovation Approach

Exterior Arched Thermoformed Signage



original signage - 1950's

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the back-lit semi circular signs should be restored with vacuum formed translucent red letters matching the originals.



removal of all commercial advertising and clutter not original to the 1928 kiosk design.



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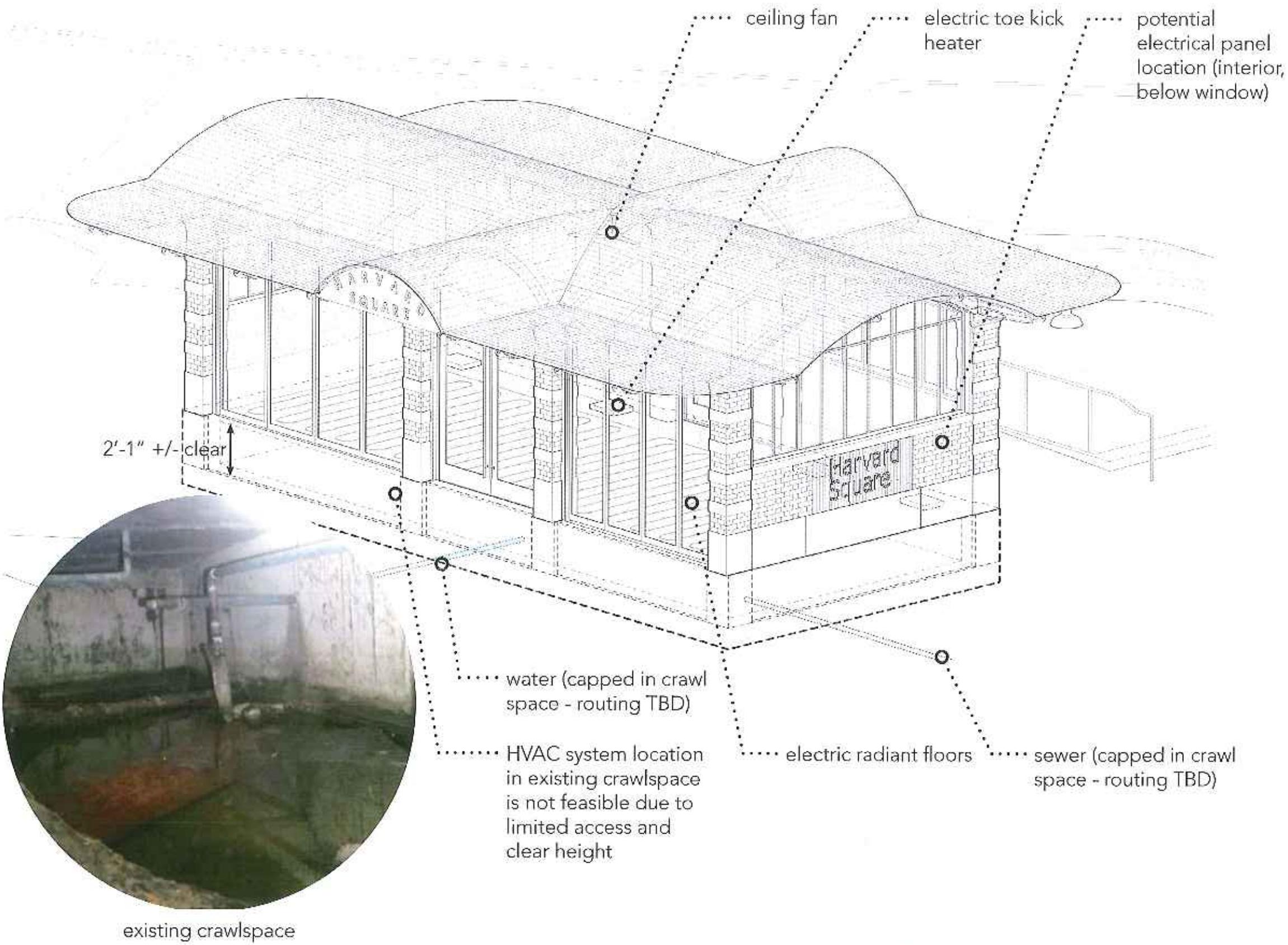
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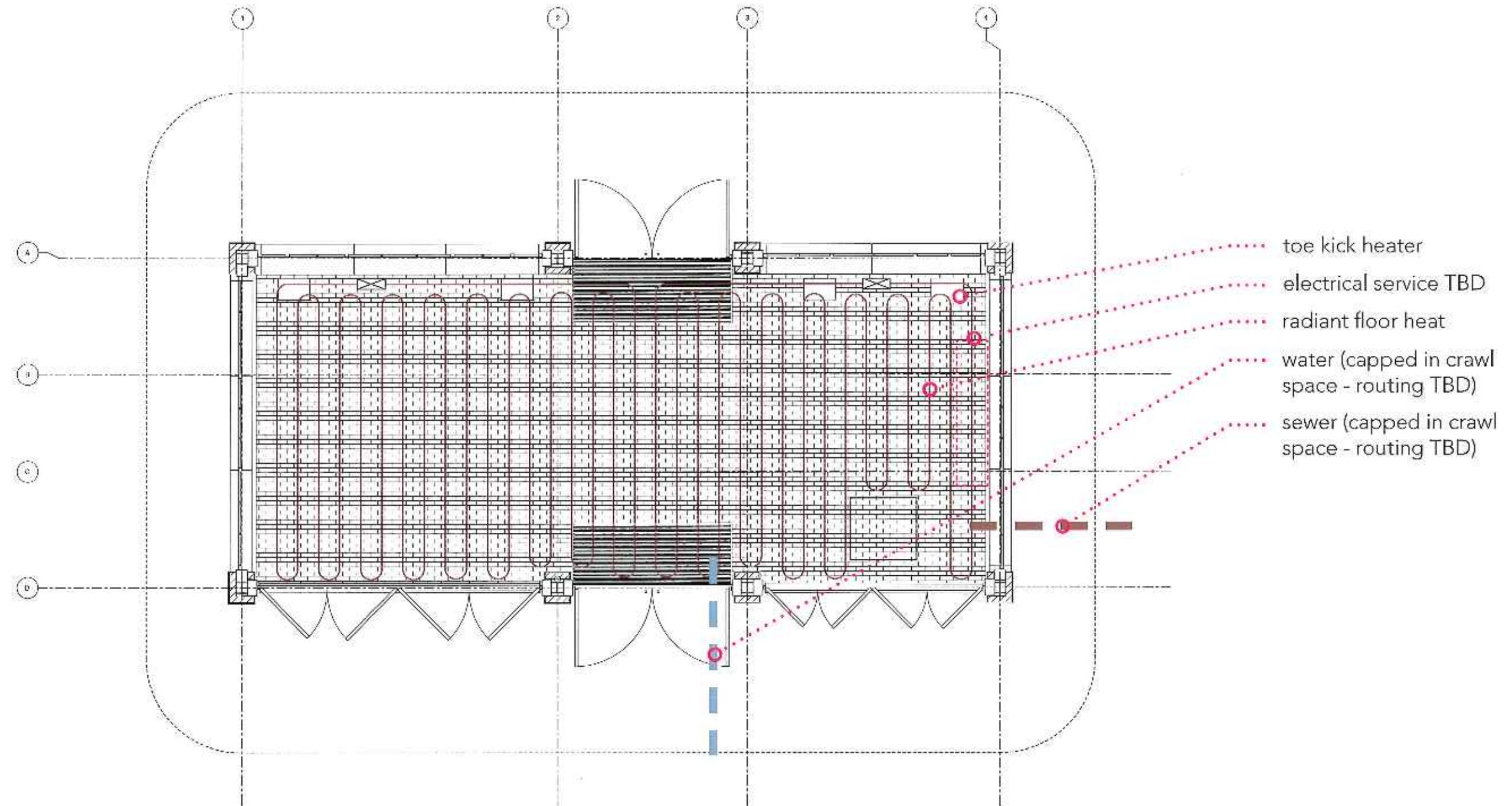
Utilities - Electric, Heat, Ventilation & Water / Sewer



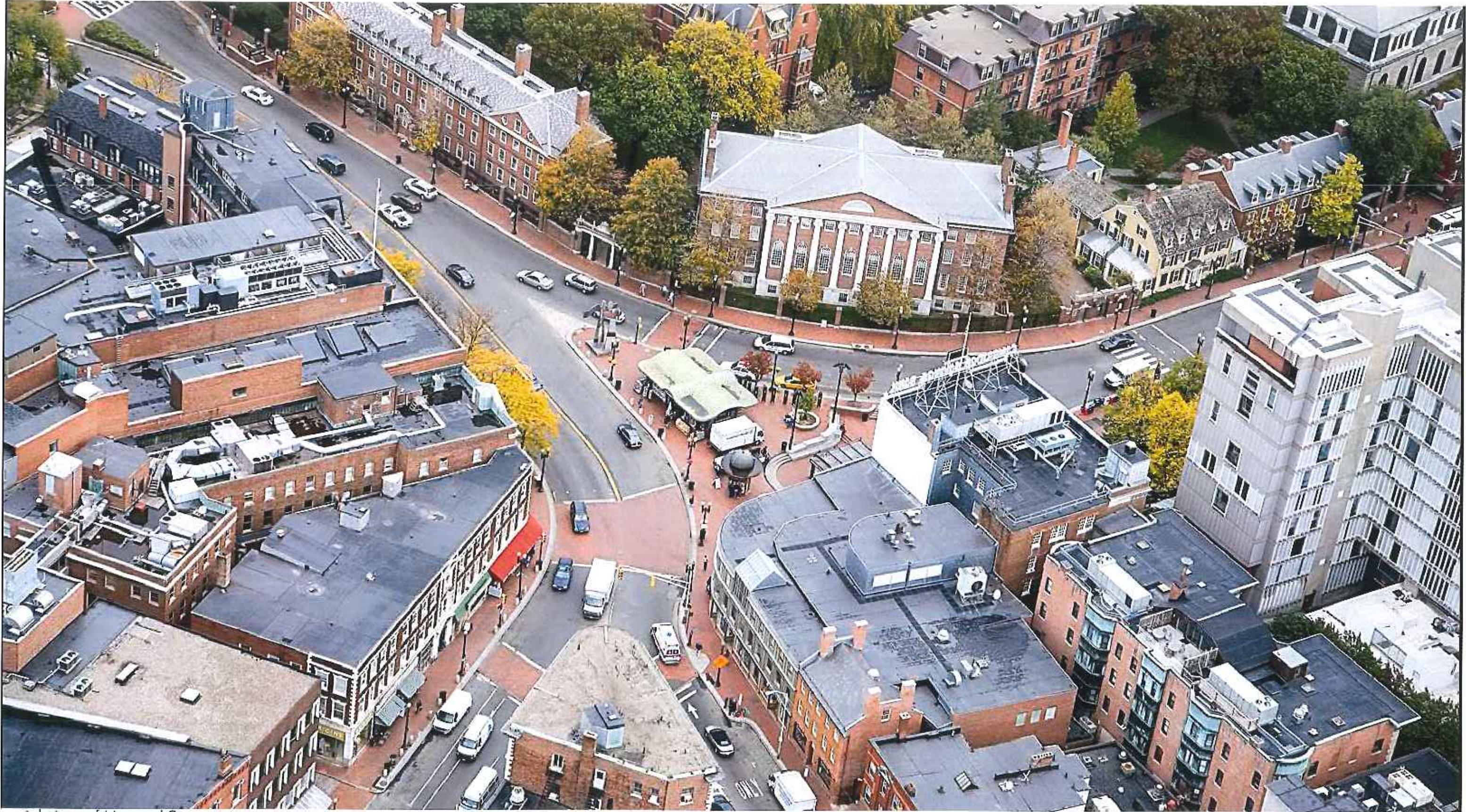
removal of all interior & exterior heating and cooling units for redesign of systems for greater efficiency

Preservation + Renovation Approach

Utilities - Electric, Heat, Ventilation & Water / Sewer



Kiosk and Plaza Relationships



aerial view of Harvard Square

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Character of the Place



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