

3 PLEASANT STREET AT BRICK MARKET

HDC WORK SESSION 3 / PUBLIC HEARING
AUGUST 2019



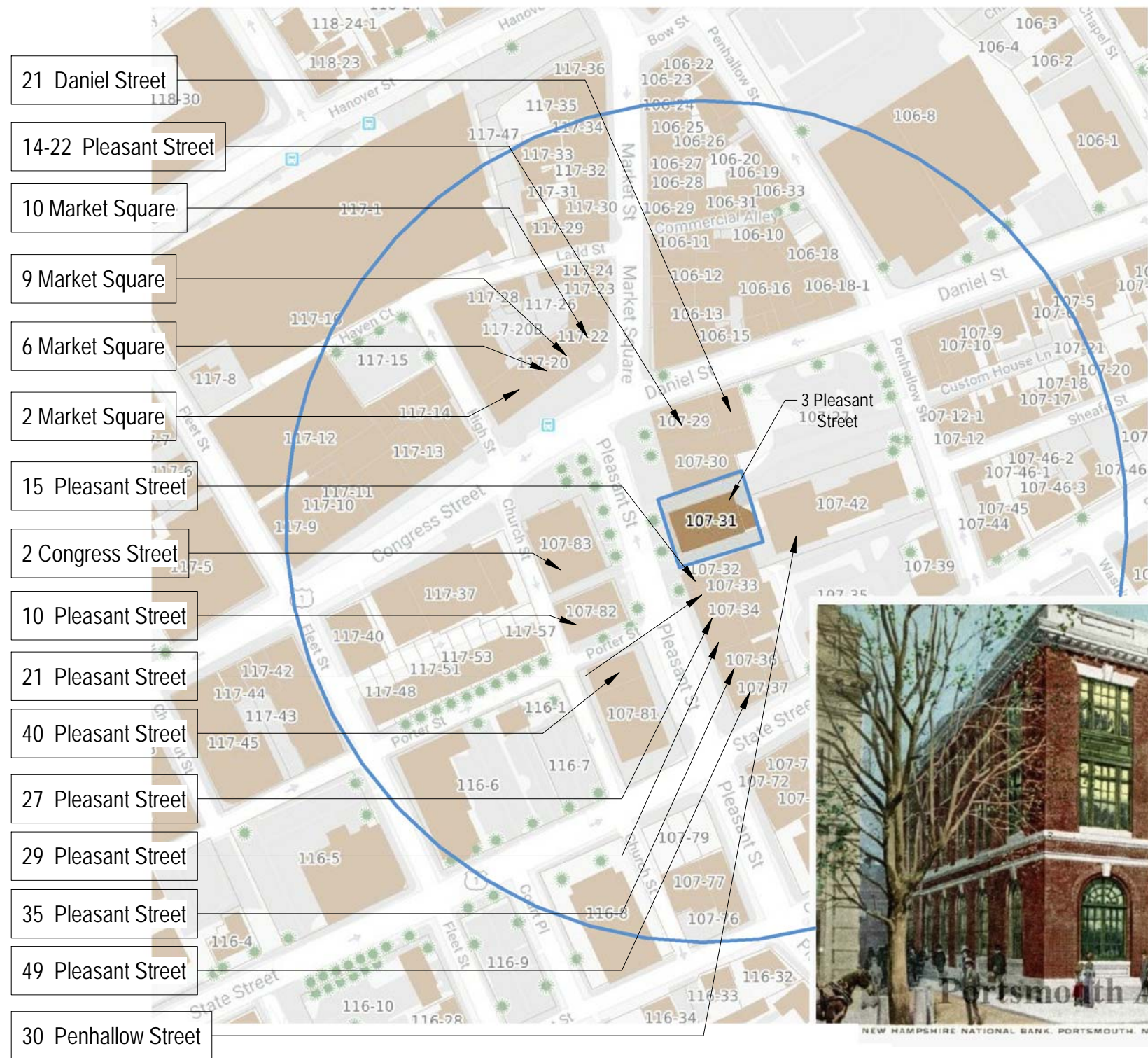
DRAWING LIST

- P1.1 Cover
- P1.2 Locus Map & Objectives
- P1.3 Site Plans
- P1.4 Floor Plans
- P1.5 Exterior Elevations - West
- P1.6 Exterior Elevations - East
- P1.7 Exterior Elevations - North
- P1.8 Exterior Elevations - South
- P1.9 Partial Exterior Elevation
- P1.10 Partial Exterior Elevation
- P1.11 Partial Exterior Elevations
- P1.12 Partial Exterior Elevation
- P1.13 Partial Exterior Elevation
- P1.14 Perspective views
- P1.15 Axonometric views
- P1.16 Street Sections
- P1.17 Street Sections
- P1.18 Street Sections
- P1.19 Street Sections
- P1.20 Renderings
- P1.21 Window & Door Types

P1.1 COVER
BRICK MARKET

SCALE:
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OBJECTIVES

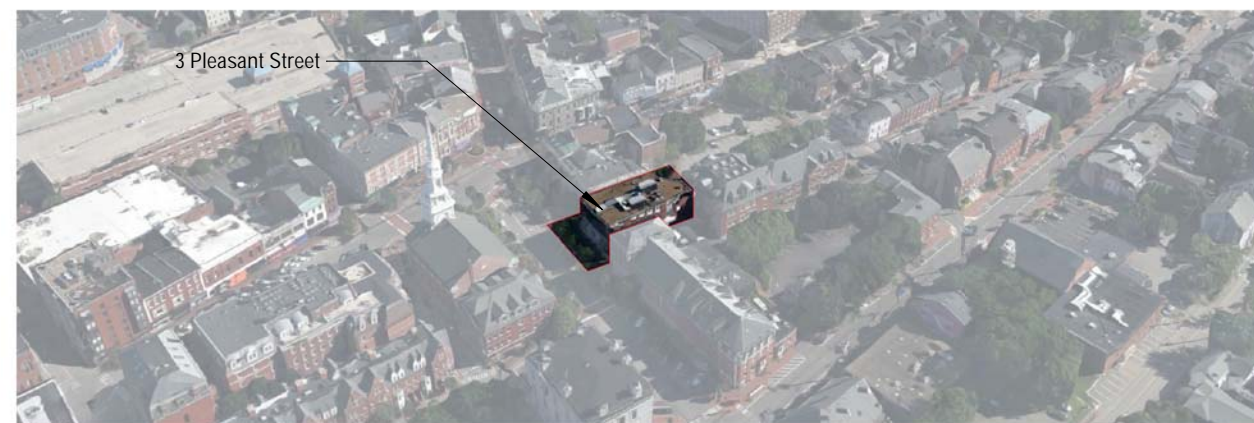
- Enliven and enhance pedestrian vibrancy.
- Widened sidewalk plazas, outdoor dining, artist and musician spaces.
- Street level restaurant, with office space above.
- Public pocket courtyard, gardens and landscaped pedestrian ways.
- Public art at street level outdoor spaces.



c.1919

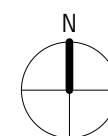


c.2019



ZONING

- Character District CD-5
- Community Space Development Incentive 10.5A43.33:
+1 story and +10' height

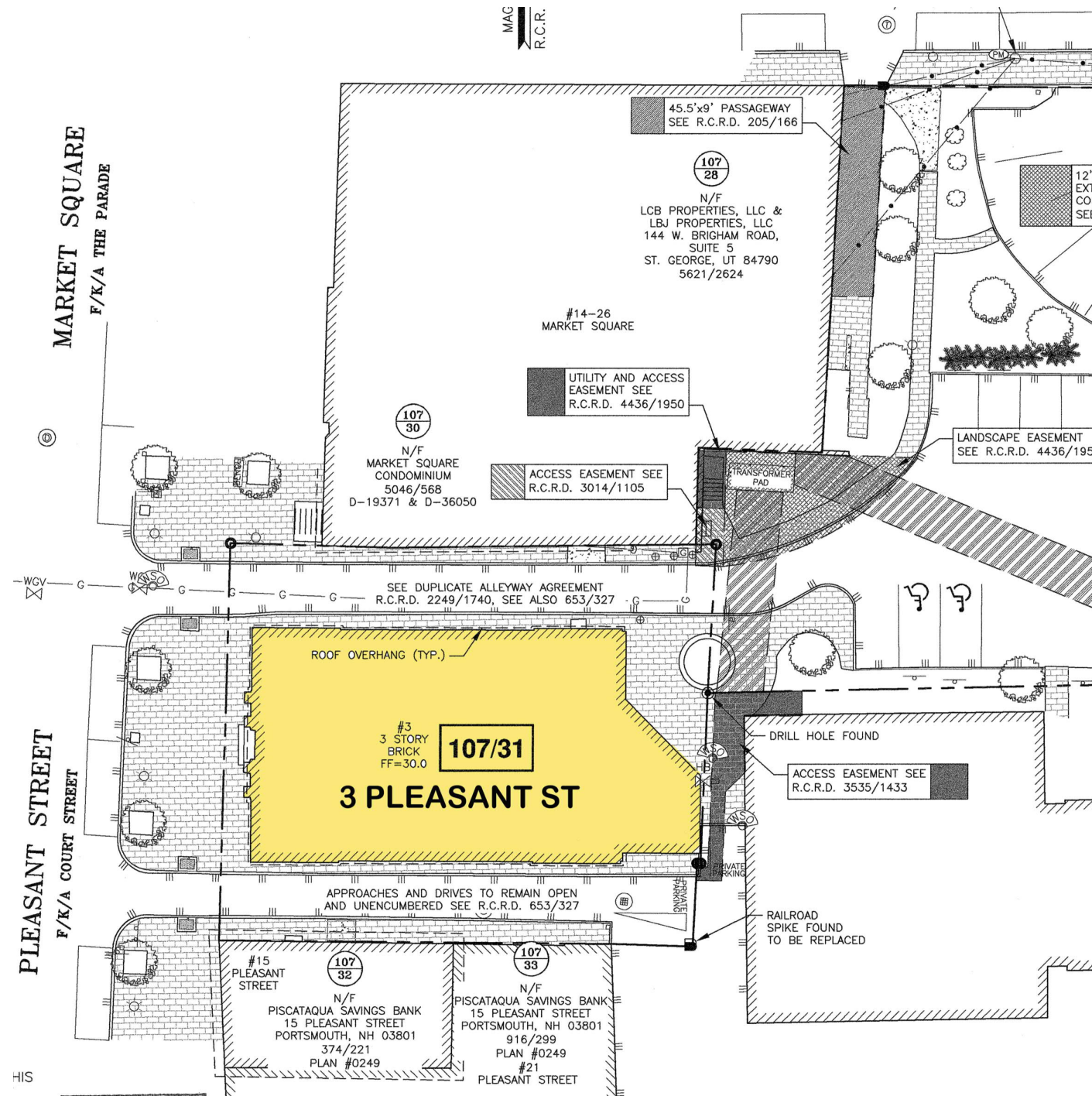


P1.2 LOCUS MAP & OBJECTIVES
BRICK MARKET

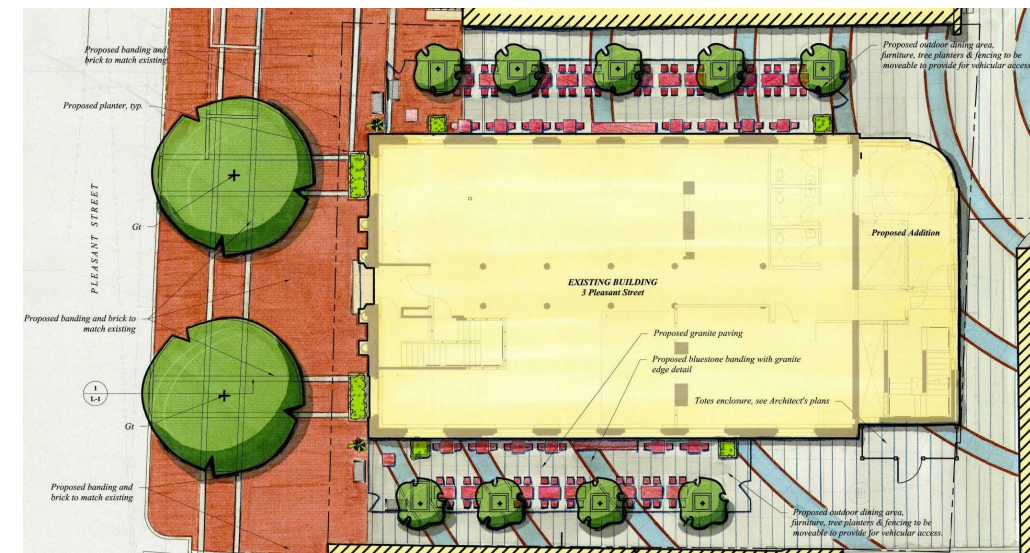
SCALE: As indicated
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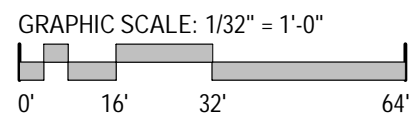
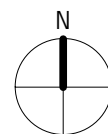




EXISTING



PROPOSED

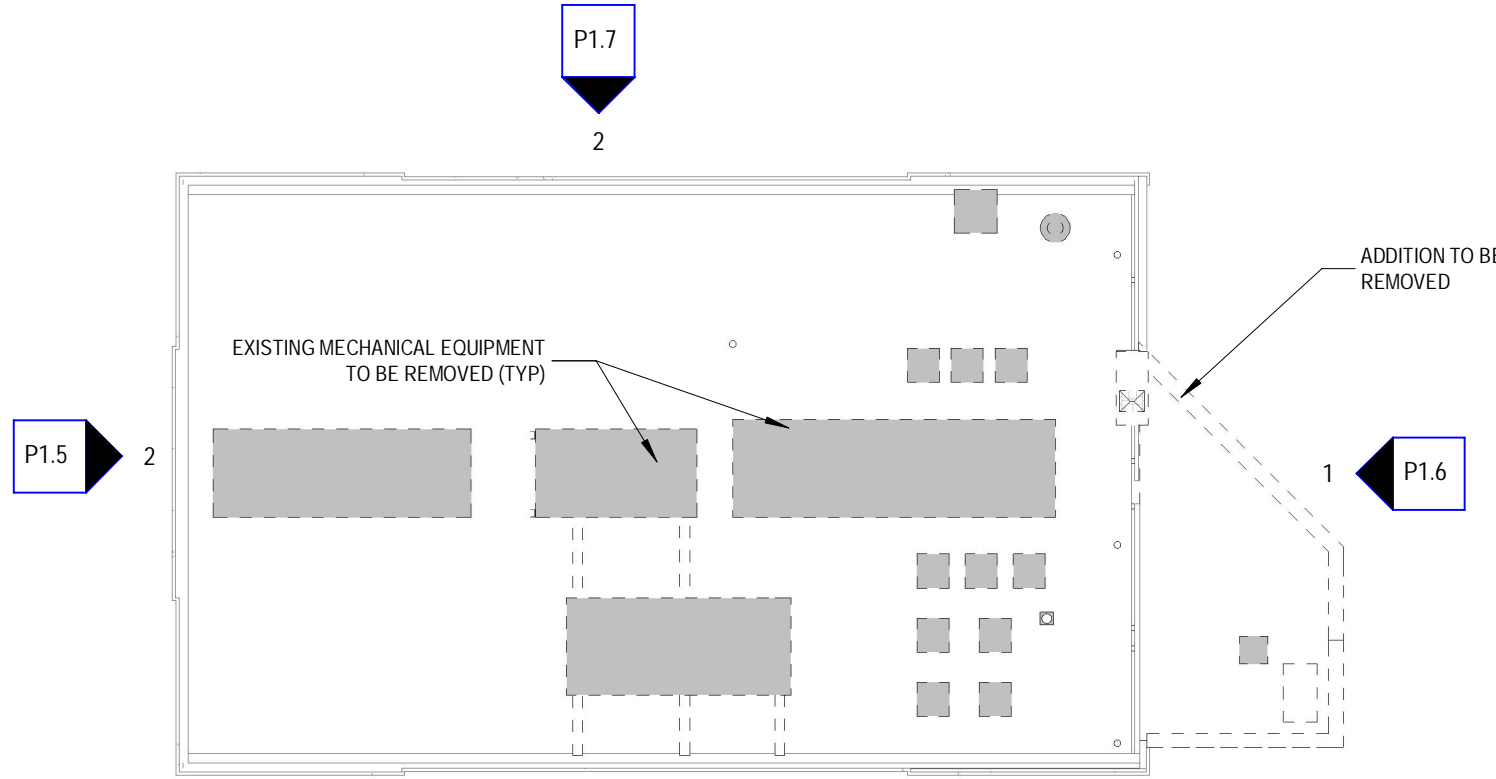


P1.3 **SITE PLANS**
3 PLEASANT STREET at BRICK MARKET

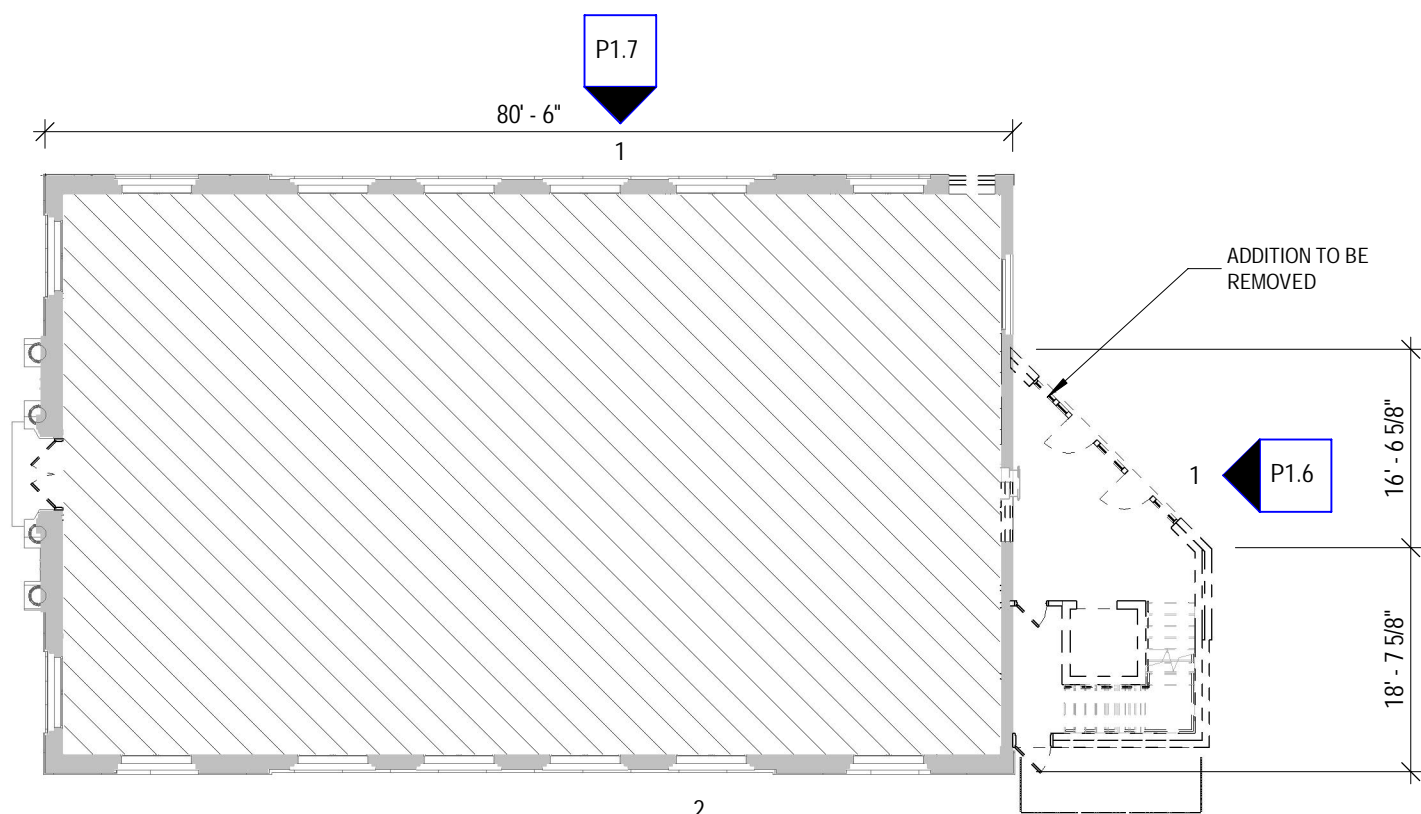
SCALE: 1/32" = 1"
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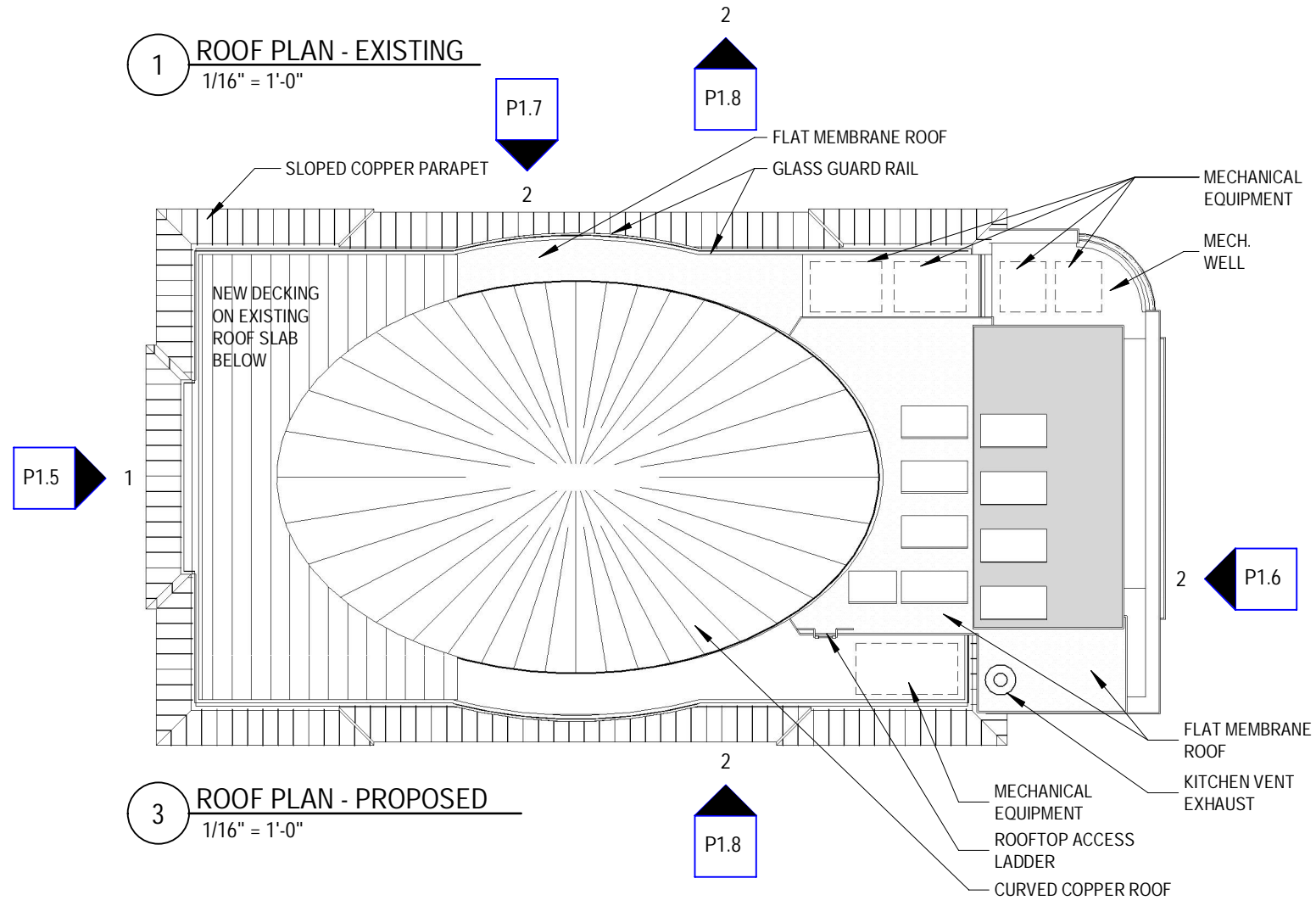




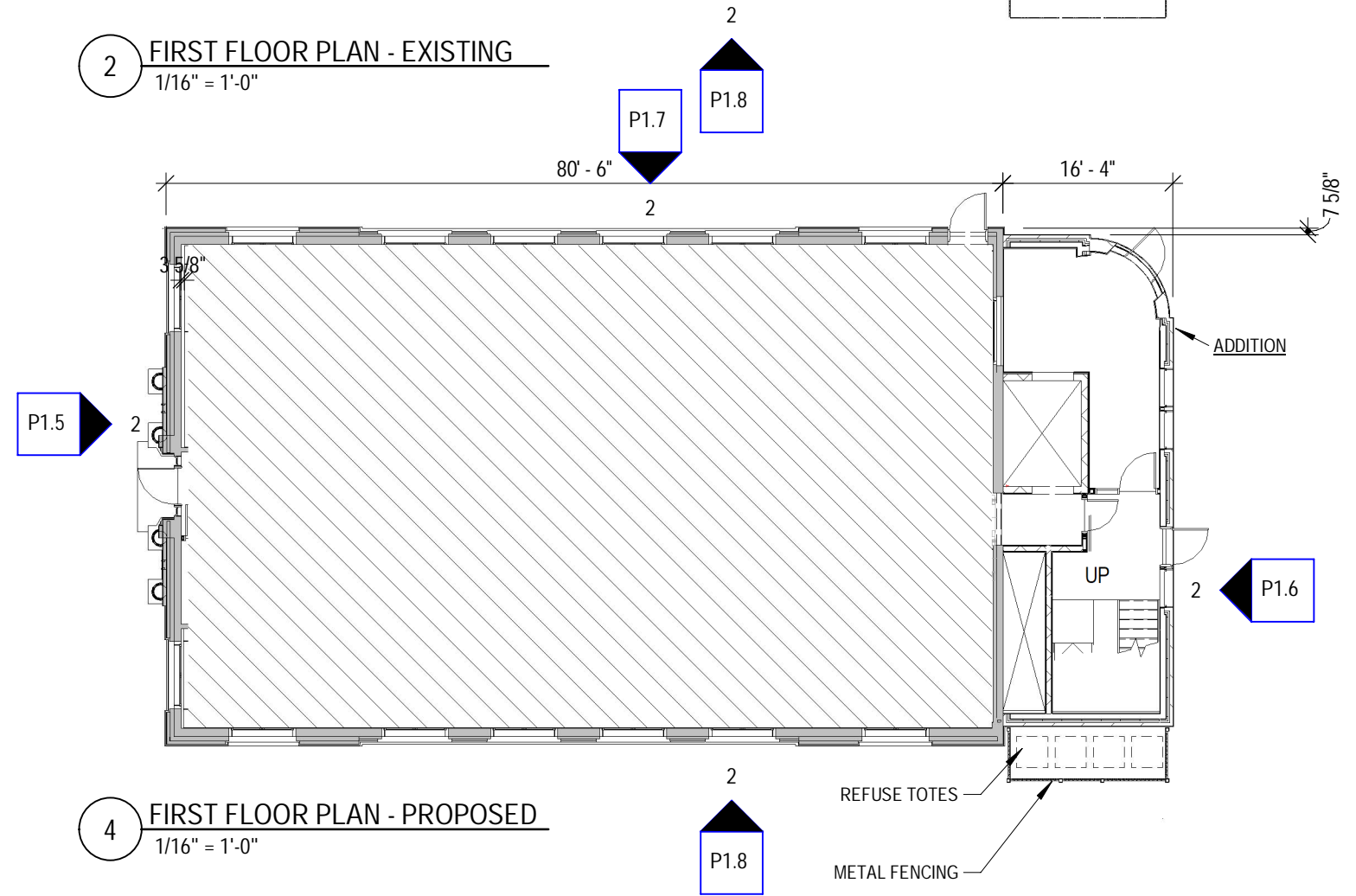
1 ROOF PLAN - EXISTING
1/16" = 1'-0"



2 FIRST FLOOR PLAN - EXISTING
1/16" = 1'-0"



3 ROOF PLAN - PROPOSED
1/16" = 1'-0"



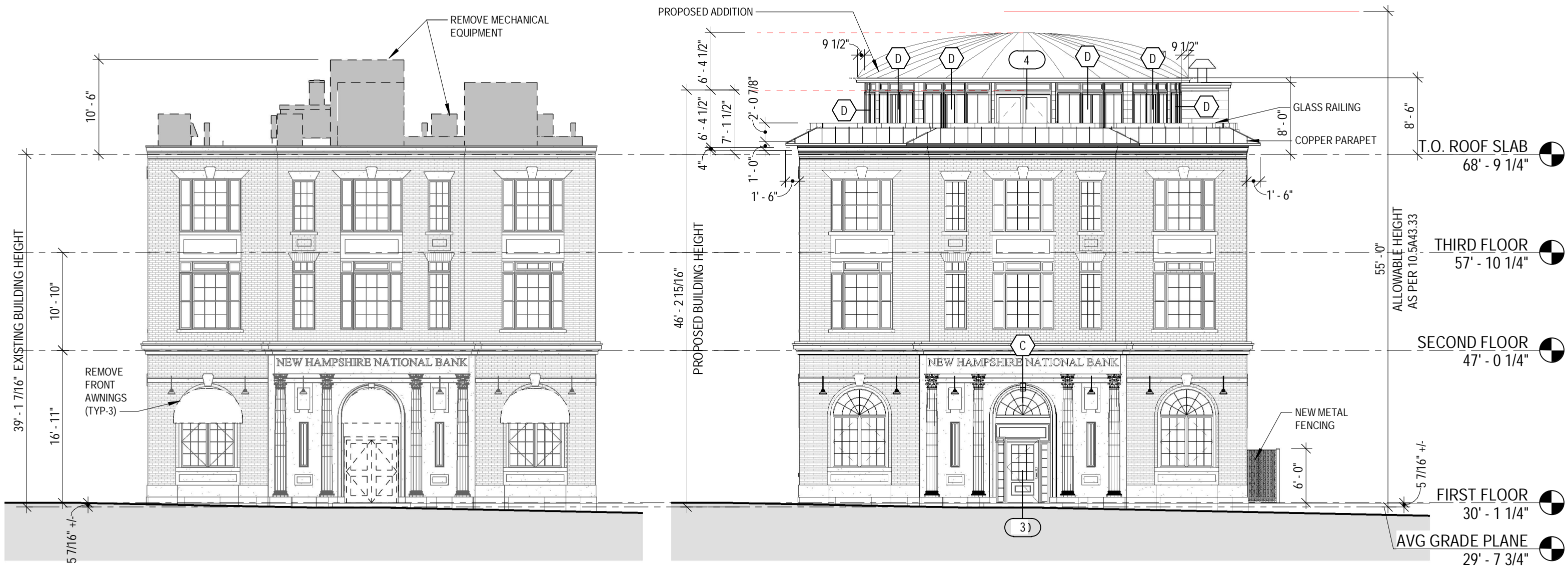
4 FIRST FLOOR PLAN - PROPOSED
1/16" = 1'-0"

P1.4 FLOOR PLANS
3 PLEASANT STREET at BRICK MARKET

SCALE: 1/16" = 1'-0"
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2 FRONT (WEST) ELEVATION - EXISTING/DEMOLITION
 3/32" = 1'-0"

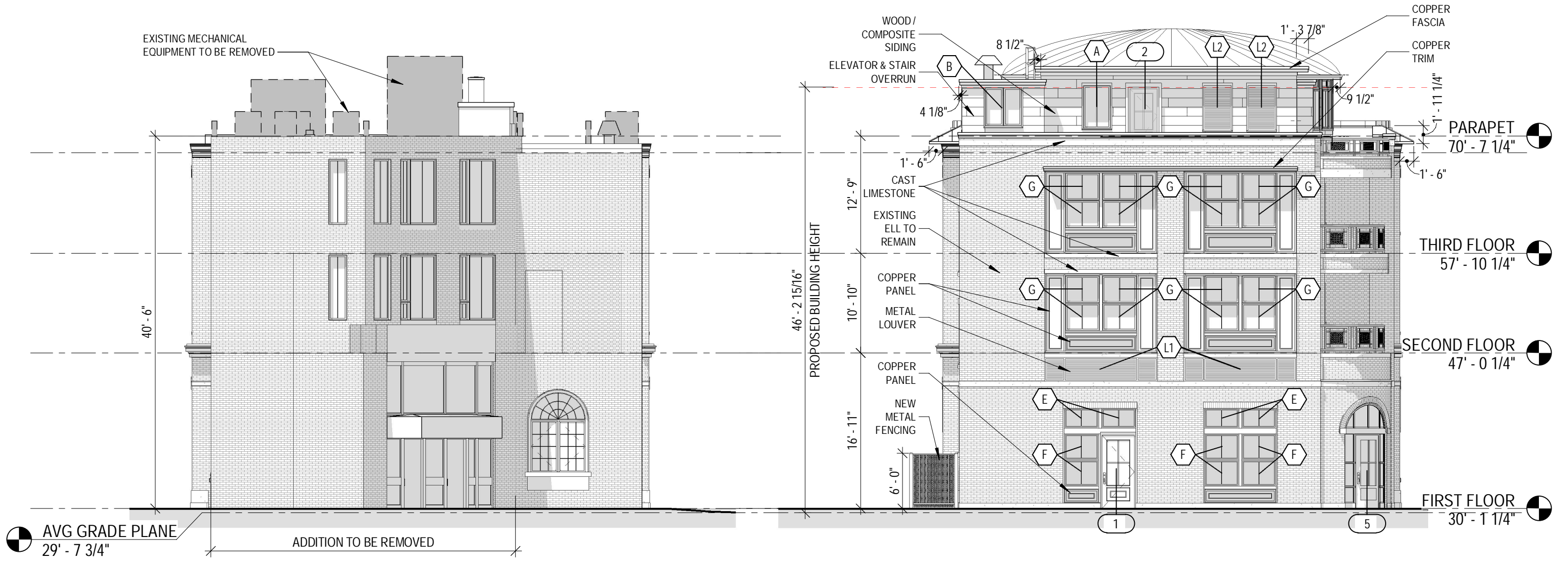
1 FRONT (WEST) ELEVATION - PROPOSED
 3/32" = 1'-0"

P1.5 EXTERIOR ELEVATIONS - WEST
 3 PLEASANT STREET at BRICK MARKET

SCALE: 3/32" = 1'-0"
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1 EAST ELEVATION - EXISTING
3/32" = 1'-0"

2 EAST ELEVATION - PROPOSED
3/32" = 1'-0"

P1.6 EXTERIOR ELEVATIONS - EAST
3 PLEASANT STREET at BRICK MARKET

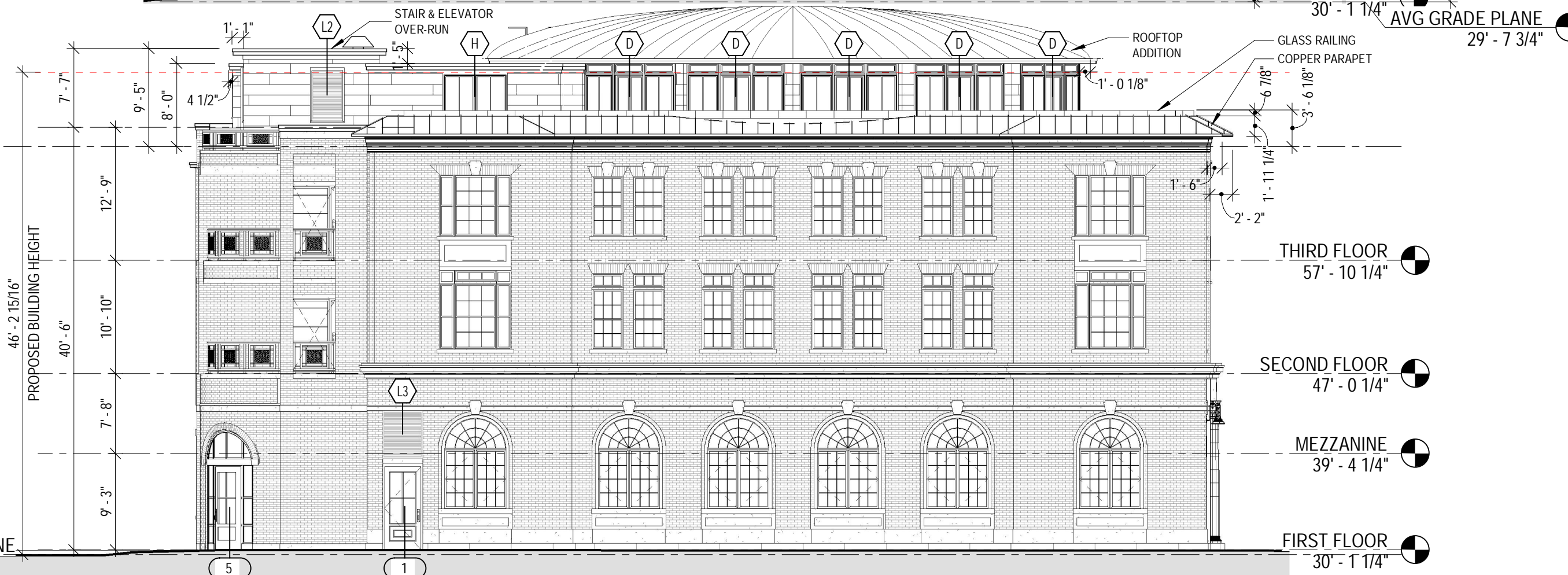
SCALE: 3/32" = 1'-0"
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1 NORTH ELEVATION - EXISTING
3/32" = 1'-0"



2 NORTH ELEVATION - PROPOSED
3/32" = 1'-0"

P1.7 EXTERIOR ELEVATIONS - NORTH
3 PLEASANT STREET at BRICK MARKET

SCALE: 3/32" = 1'-0"
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1 SOUTH ELEVATION - EXISTING
3/32" = 1'-0"



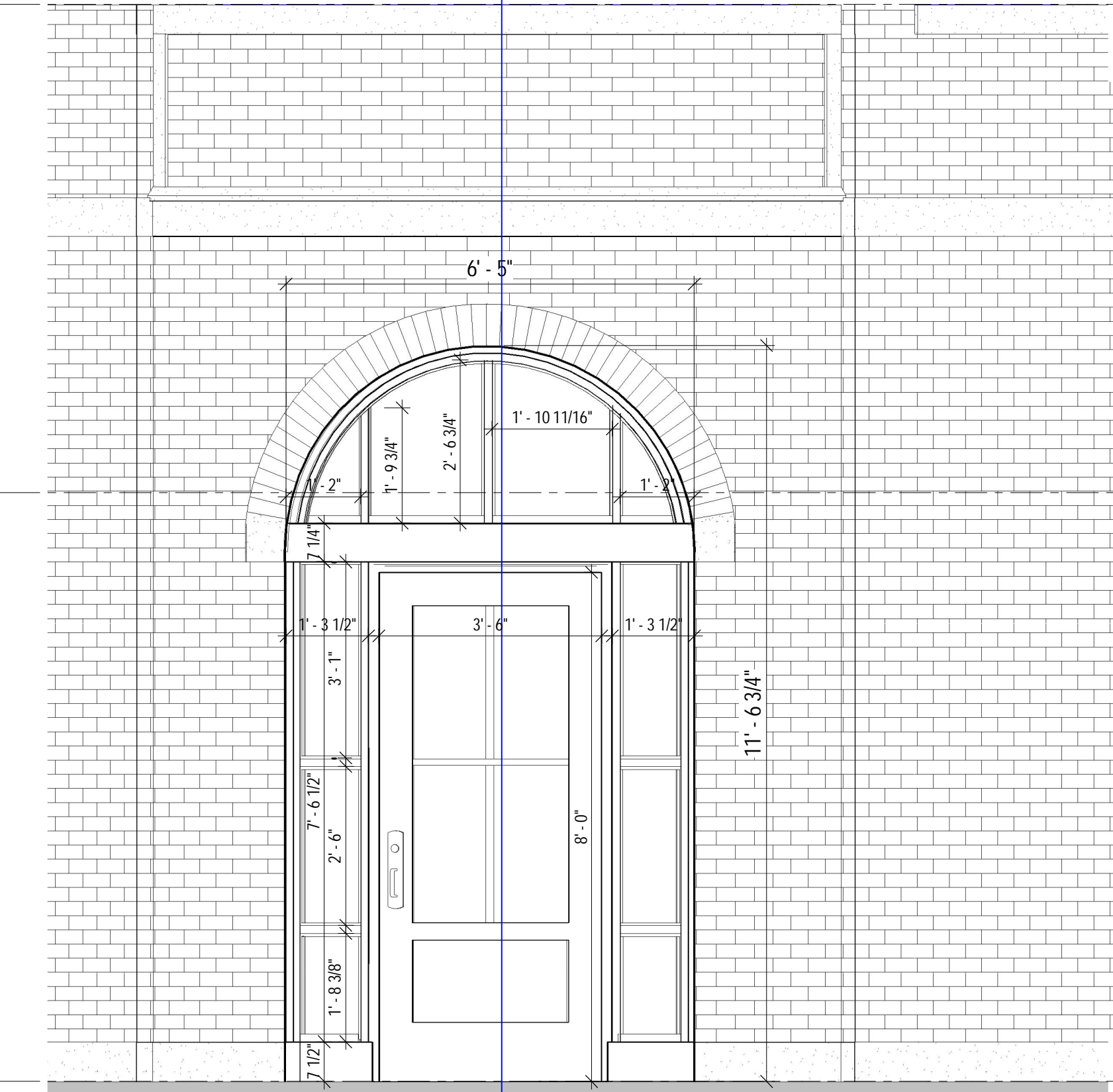
2 SOUTH ELEVATION - PROPOSED
3/32" = 1'-0"

P1.8 EXTERIOR ELEVATIONS - SOUTH
3 PLEASANT STREET at BRICK MARKET

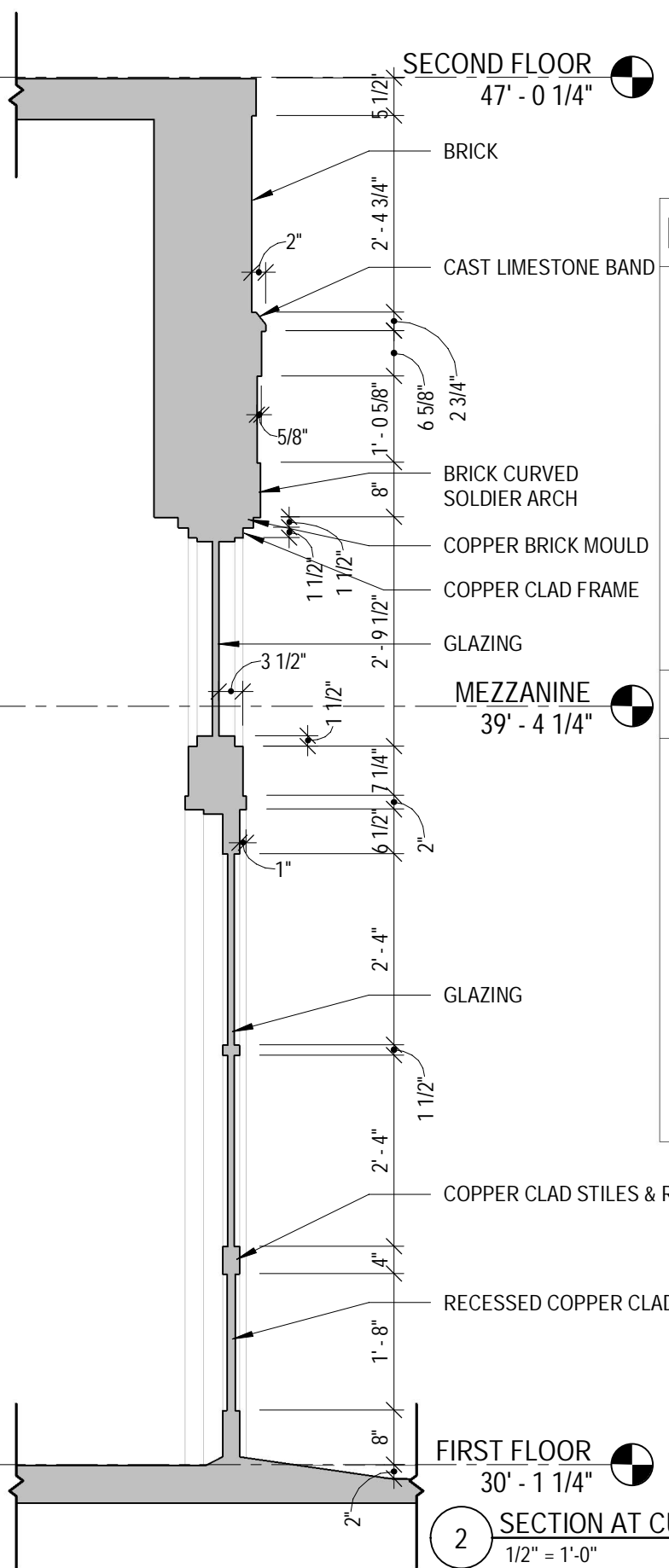
SCALE: 3/32" = 1'-0" REVISION 1
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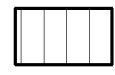
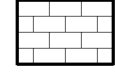
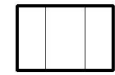
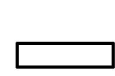

2
P1.9



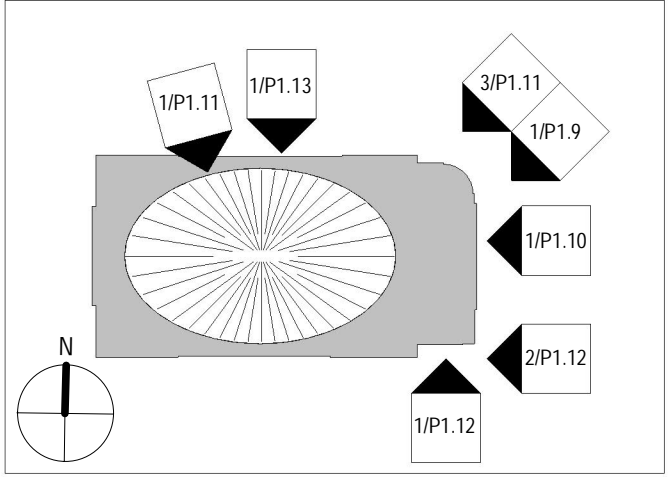
1 PARTIAL EXTERIOR ELEVATION - 01
1/2" = 1'-0"



ELEVATION MATERIAL LEGEND

-  1. METAL ROOF
-  2. BRICK VENEER
-  3. WOOD COMPOSITE VERTICAL SIDING
-  4. COPPER TRIM
-  5. CAST LIMESTONE BAND

ELEVATION KEY PLAN



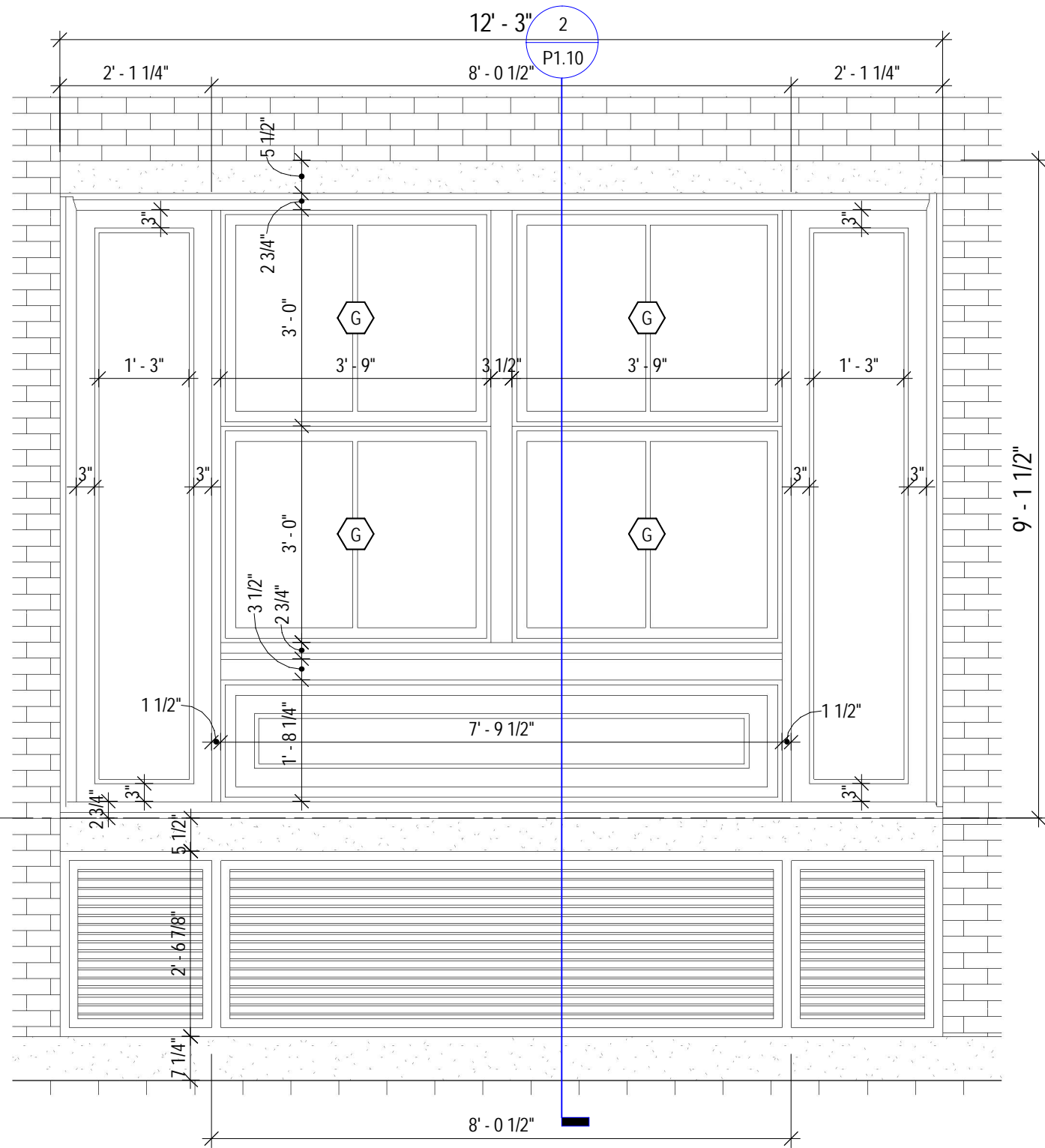
2 SECTION AT CURVED DOOR
1/2" = 1'-0"

P1.9 PARTIAL EXTERIOR ELEVATION
3 PLEASANT STREET at BRICK MARKET

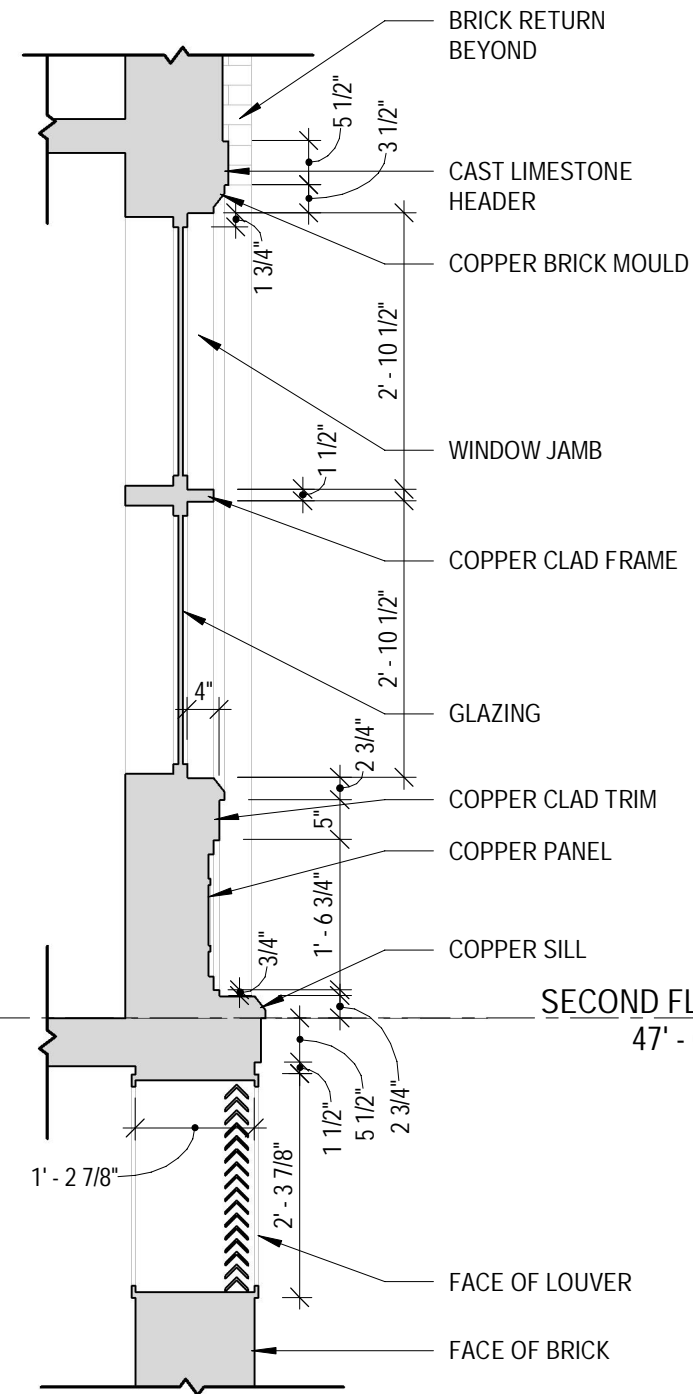
SCALE: As indicated
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





1 PARTIAL EXTERIOR ELEVATION - 02
1/2" = 1'-0"

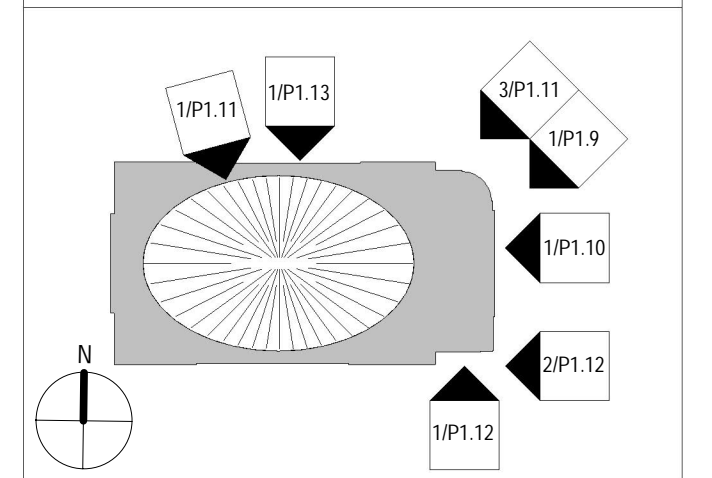


2 WINDOW SYSTEM PROFILE SECTION
1/2" = 1'-0"

ELEVATION MATERIAL LEGEND

-  1. METAL ROOF
-  2. BRICK VENEER
-  3. WOOD COMPOSITE VERTICAL SIDING
-  4. COPPER TRIM
-  5. CAST LIMESTONE BAND

ELEVATION KEY PLAN

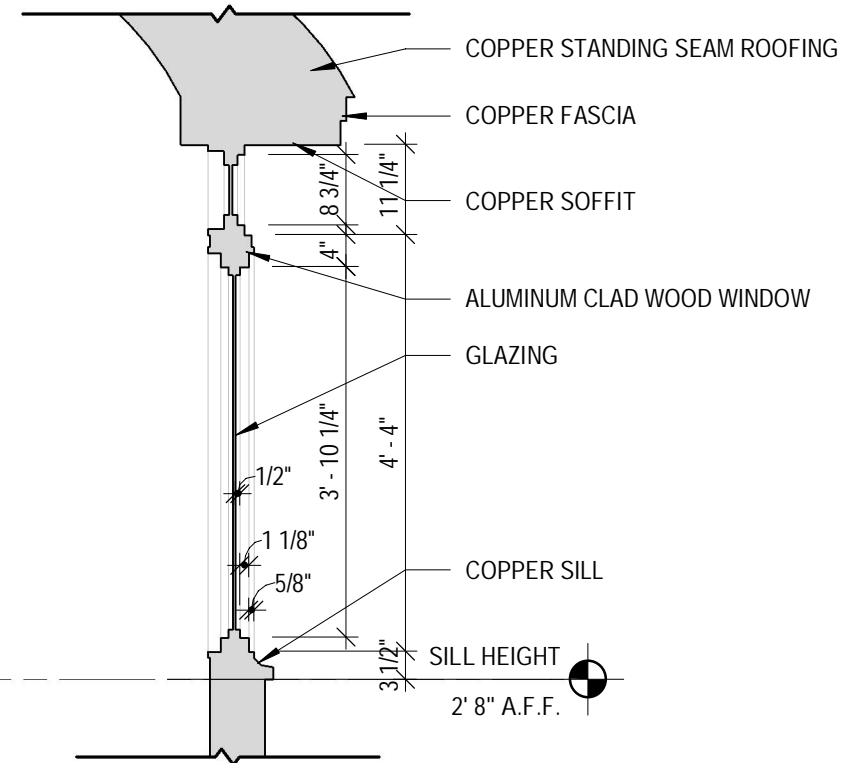
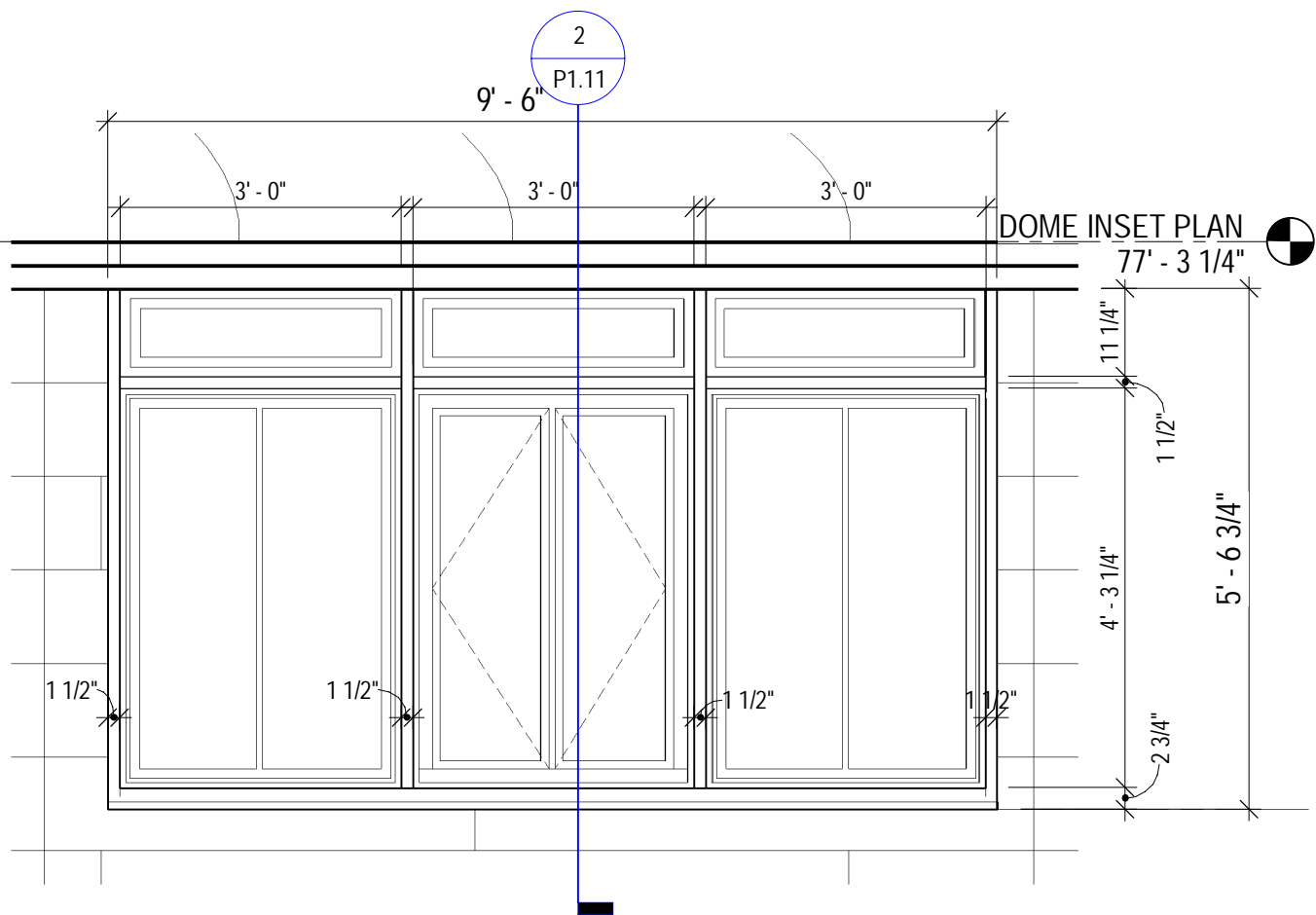


P1.10 PARTIAL EXTERIOR ELEVATION 3 PLEASANT STREET at BRICK MARKET

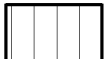
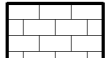
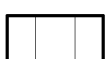

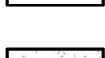
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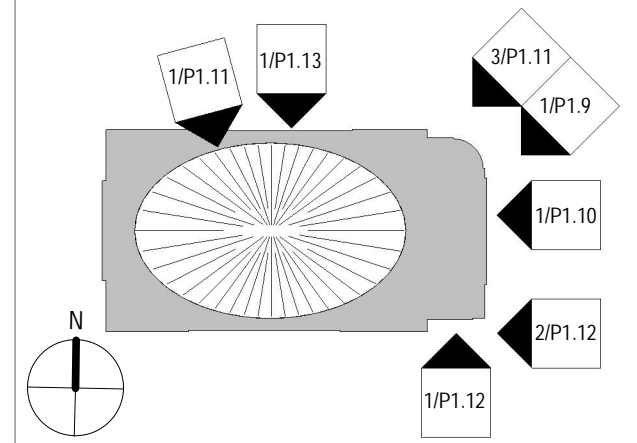




ELEVATION MATERIAL LEGEND

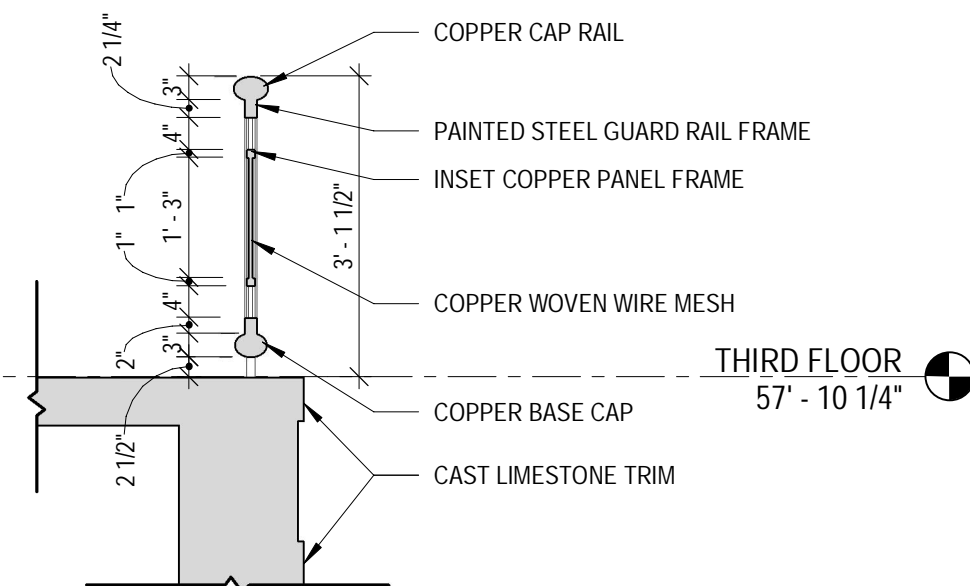
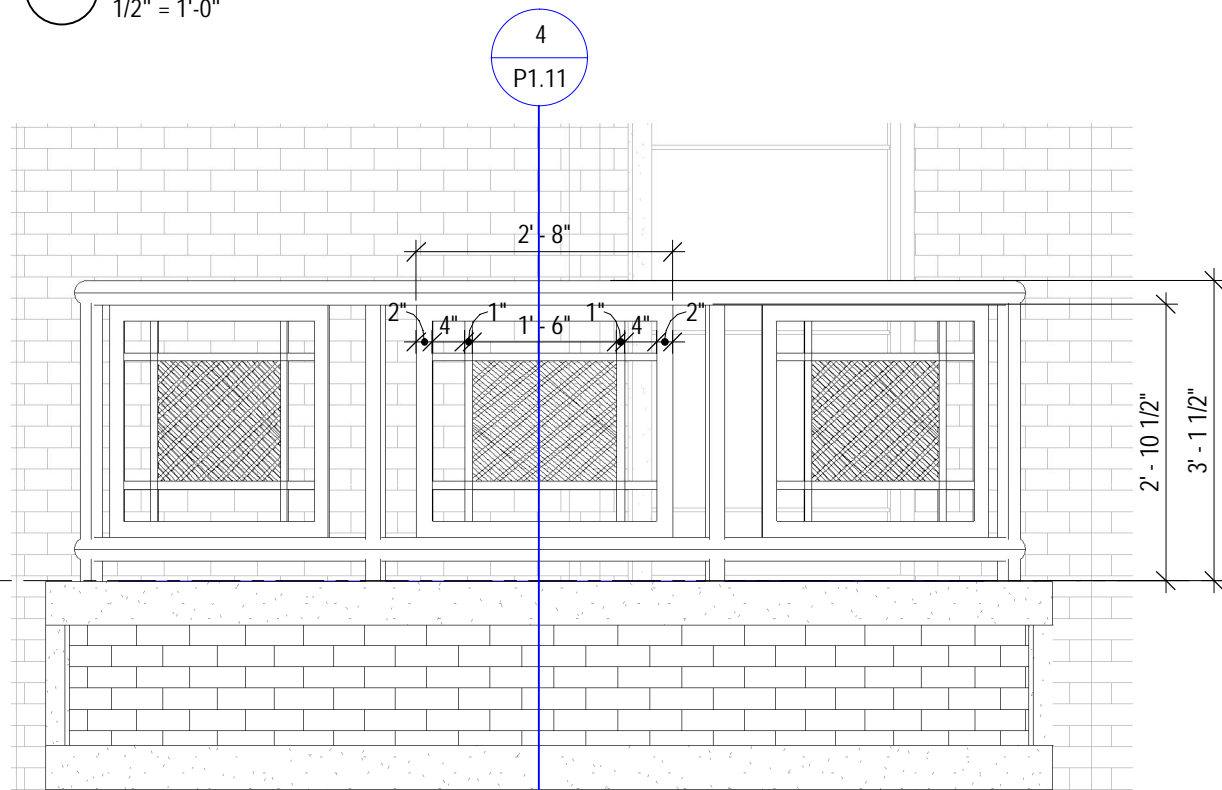
-  1. METAL ROOF
-  2. BRICK VENEER
-  3. WOOD COMPOSITE VERTICAL SIDING
-  4. COPPER TRIM
-  5. CAST LIMESTONE BAND

ELEVATION KEY PLAN



1 PARTIAL EXTERIOR ELEVATION - 03
1/2" = 1'-0"

2 PENTHOUSE WINDOW SYSTEM PROFILE SECTION
1/2" = 1'-0"



3 PARTIAL EXTERIOR ELEVATION - 04
1/2" = 1'-0"

4 DECK RAILING SYSTEM PROFILE SECTION
1/2" = 1'-0"

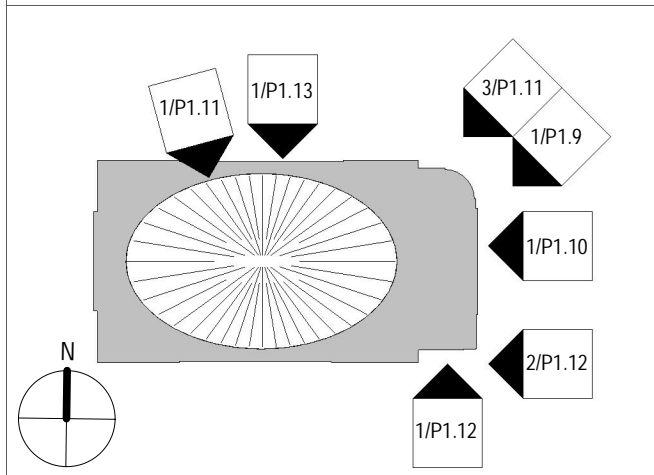
P1.11 PARTIAL EXTERIOR ELEVATIONS
3 PLEASANT STREET at BRICK MARKET

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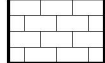
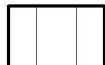
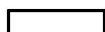

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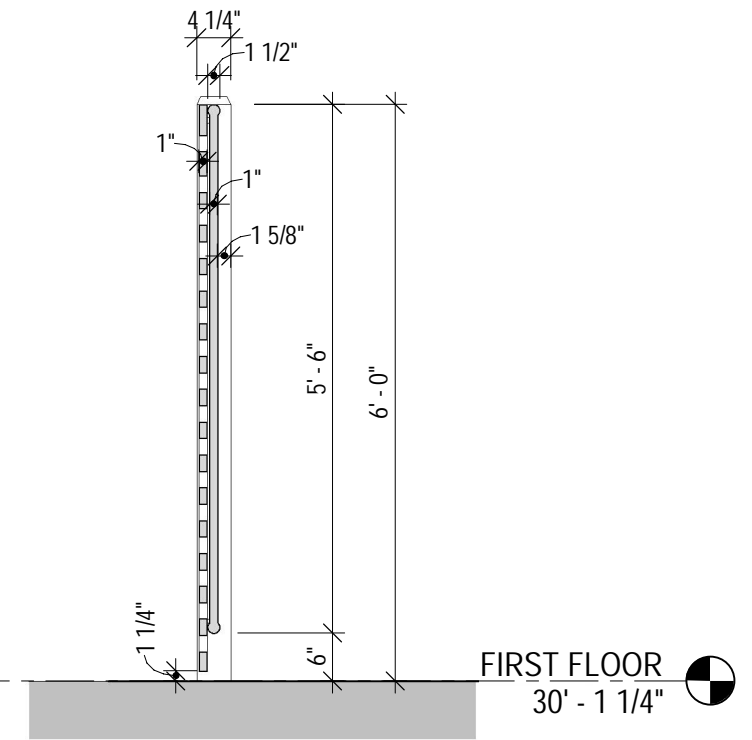
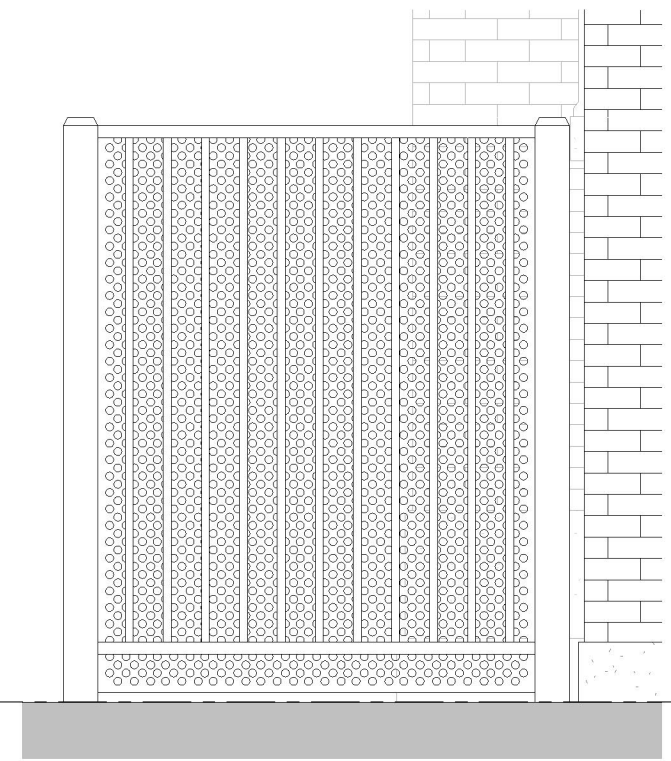
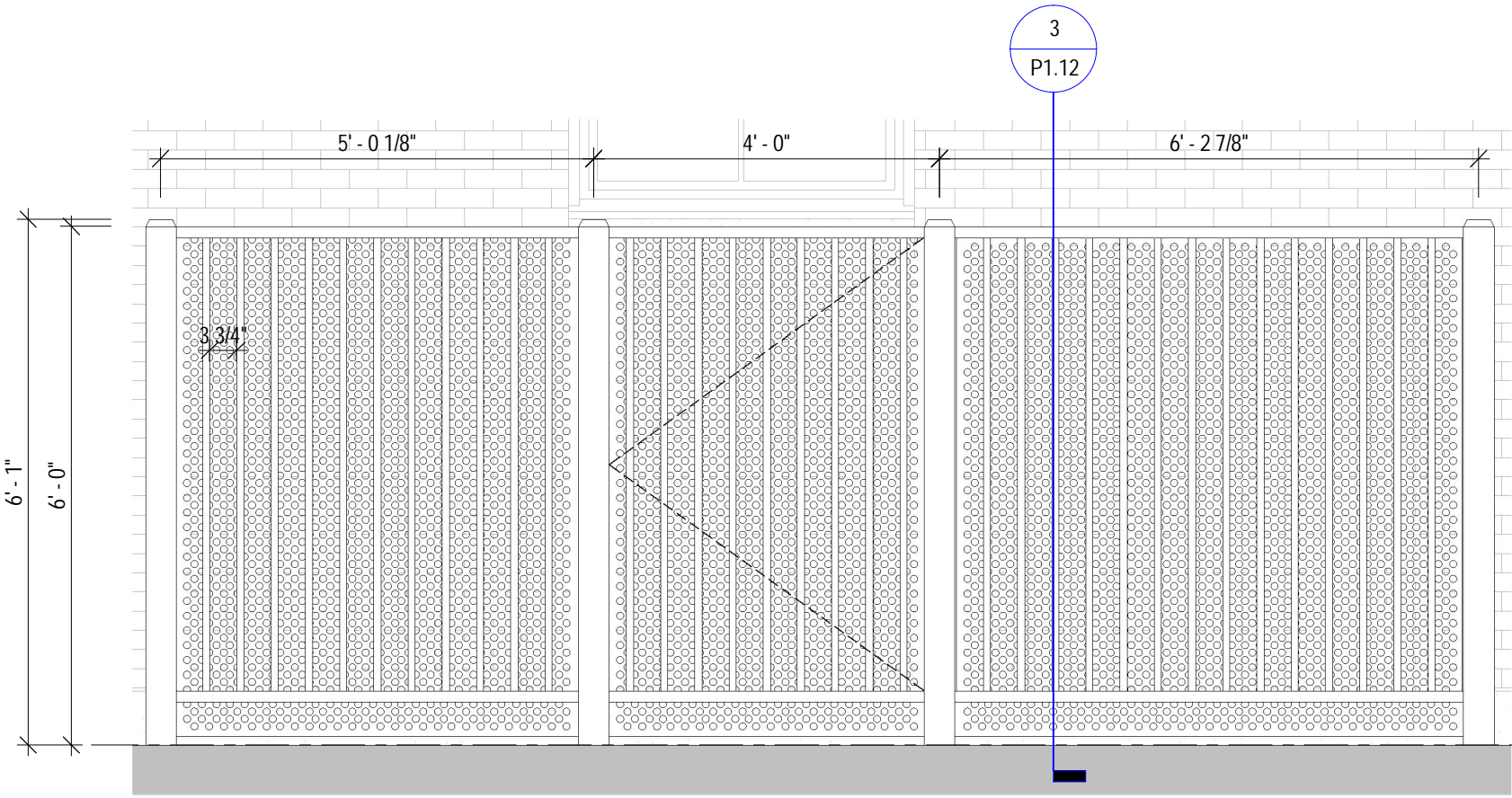


ELEVATION KEY PLAN



ELEVATION MATERIAL LEGEND

-  1. METAL ROOF
-  2. BRICK VENEER
-  3. WOOD COMPOSITE VERTICAL SIDING
-  4. COPPER TRIM
-  5. CAST LIMESTONE BAND



1 PARTIAL EXTERIOR ELEVATION - 05
1/2" = 1'-0"

2 PARTIAL EXTERIOR ELEVATION - 06
1/2" = 1'-0"

3 TRASH ENCLOSURE FENCING PROFILE
1/2" = 1'-0"


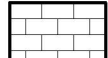

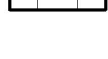
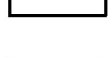
P1.12 PARTIAL EXTERIOR ELEVATION 3 PLEASANT STREET at BRICK MARKET

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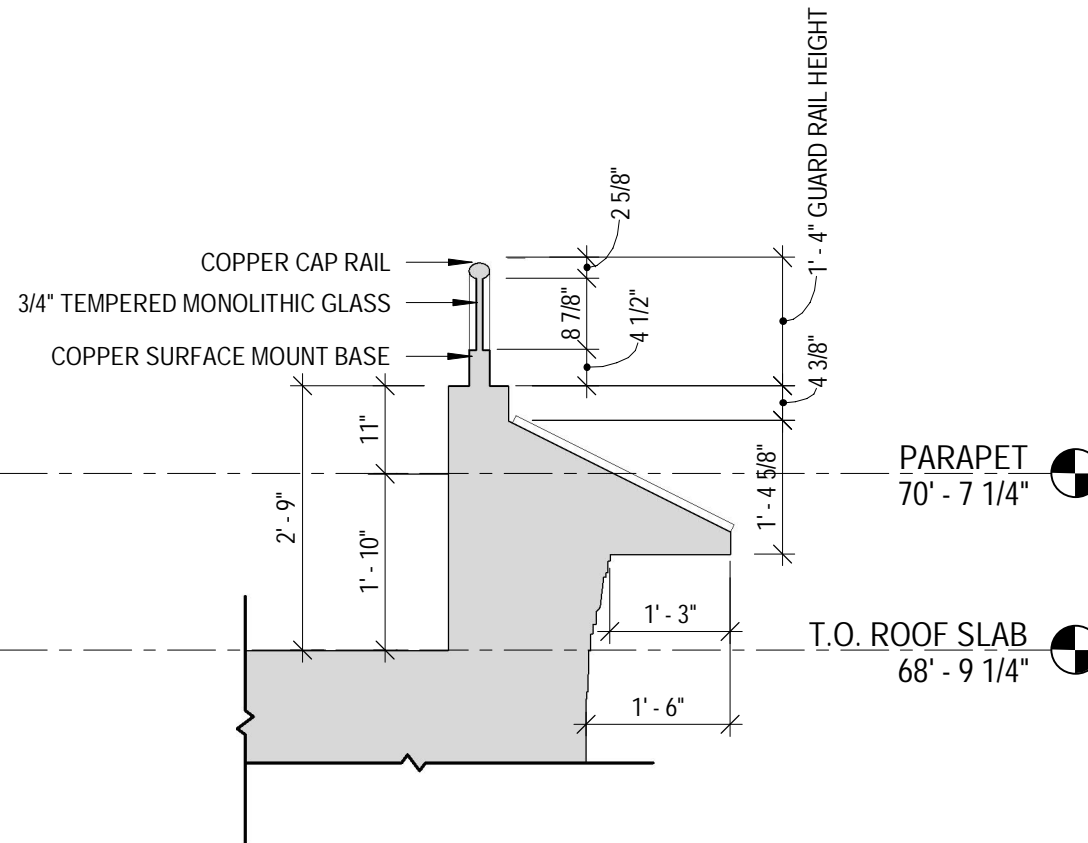
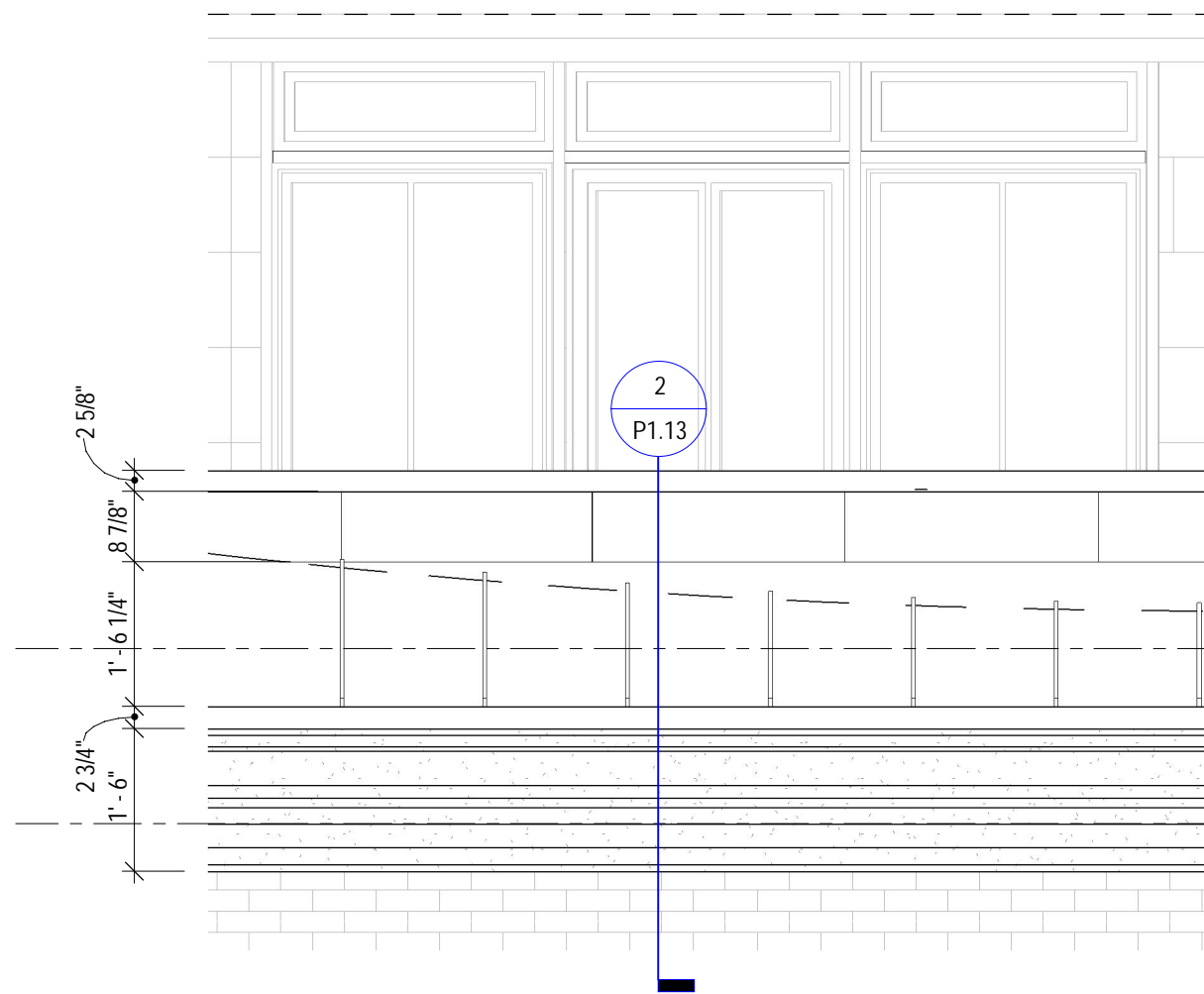
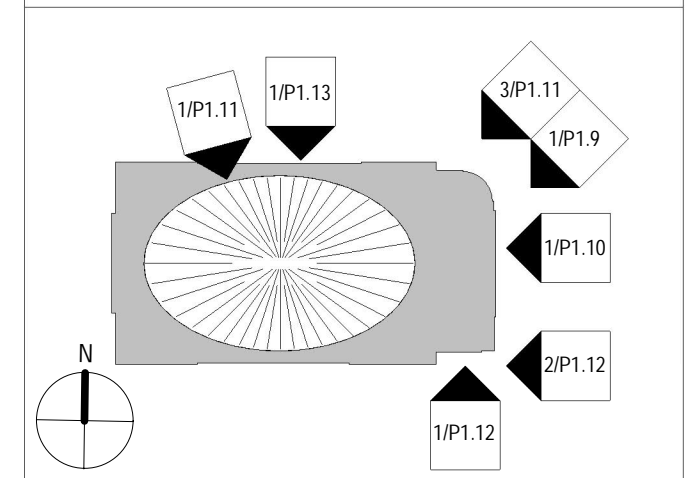
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ELEVATION MATERIAL LEGEND

-  1. METAL ROOF
-  2. BRICK VENEER
-  3. WOOD COMPOSITE VERTICAL SIDING
-  4. COPPER TRIM
-  5. CAST LIMESTONE BAND

ELEVATION KEY PLAN



1 PARTIAL EXTERIOR ELEVATION - 07
1/2" = 1'-0"

2 PARAPET GLASS RAILING SYSTEM PROFILE SECTION
1/2" = 1'-0"

P1.13 PARTIAL EXTERIOR ELEVATION
3 PLEASANT STREET at BRICK MARKET

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1 FRONT NW PERSPECTIVE - FROM NORTH CHURCH

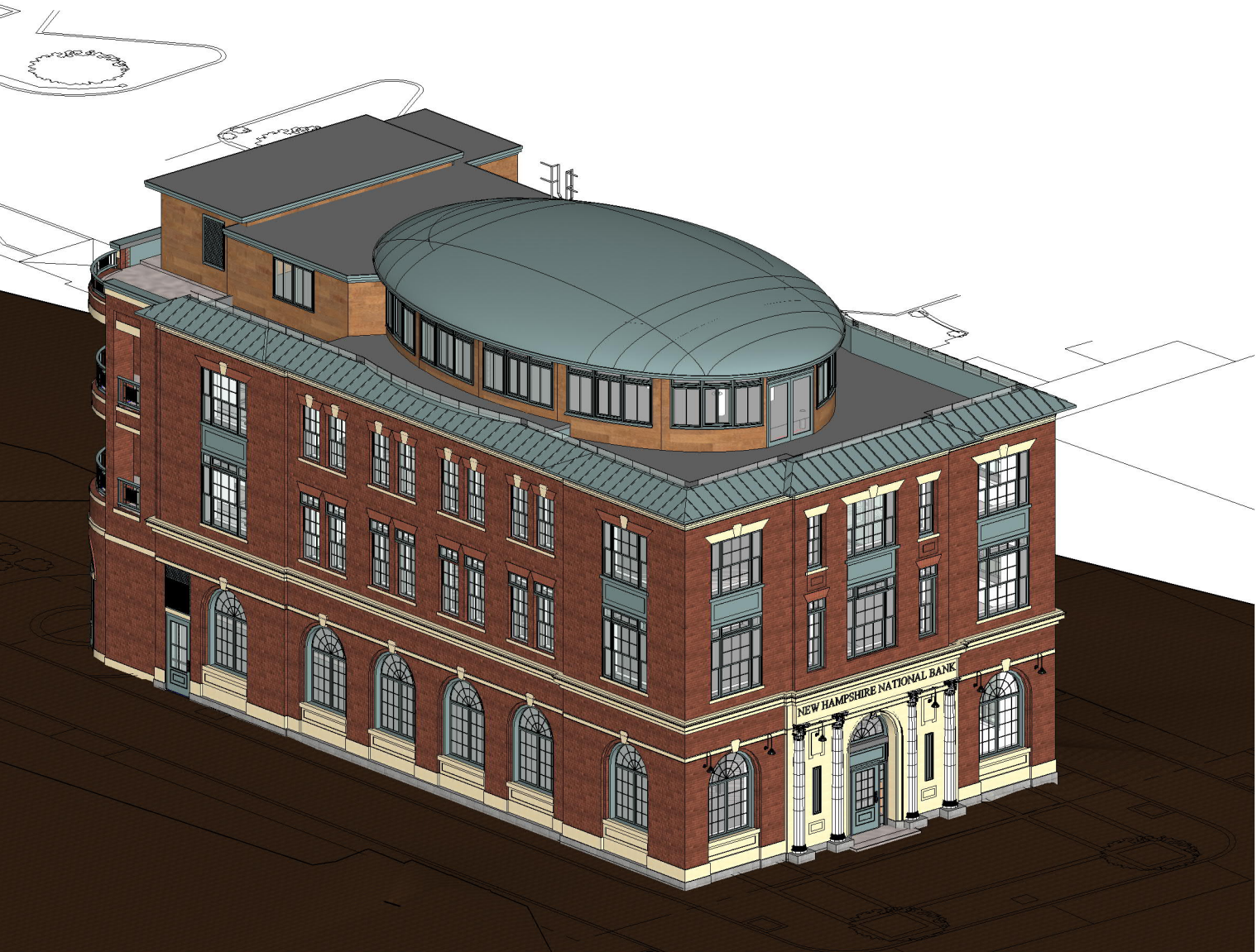


2 REAR NE PERSPECTIVE - FROM PROPOSED REAR COURTYARD

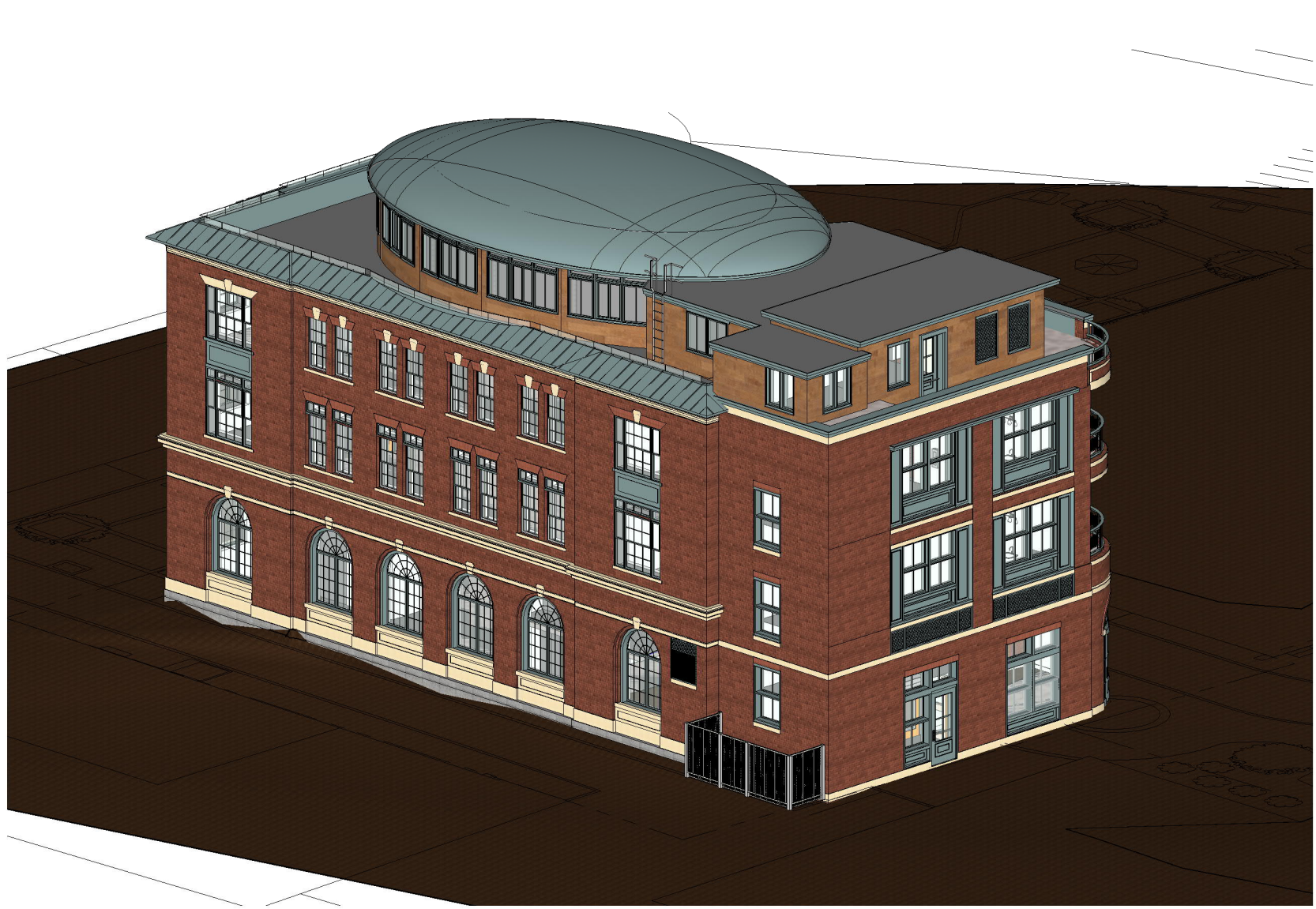
P1.14 PERSPECTIVE VIEWS
 3 PLEASANT STREET at BRICK MARKET

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1 FRONT NW AXONOMETRIC

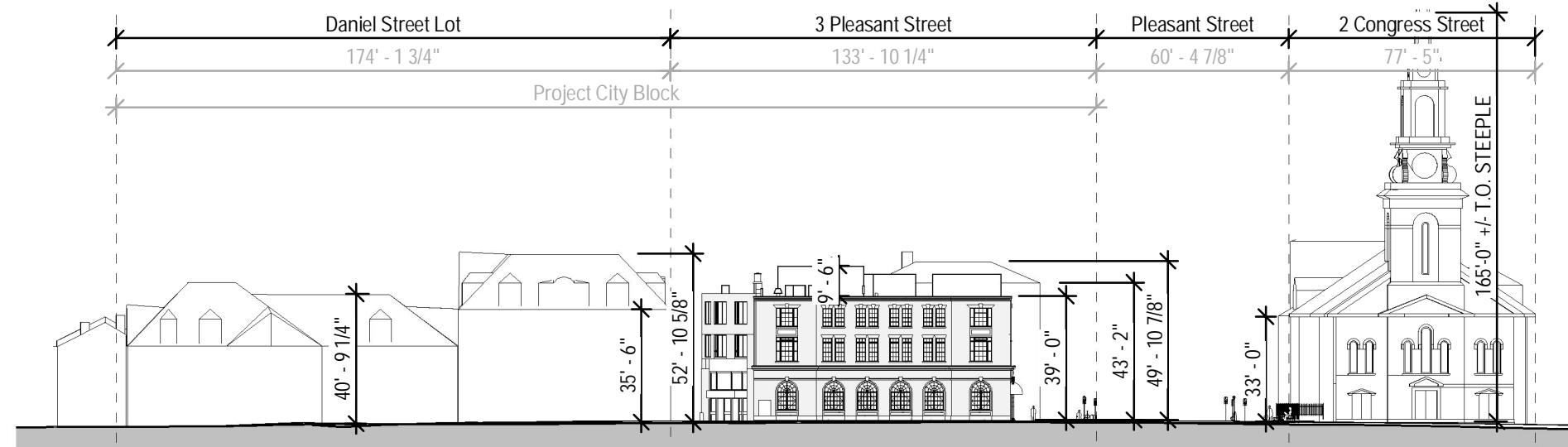


2 REAR SE AXONOMETRIC

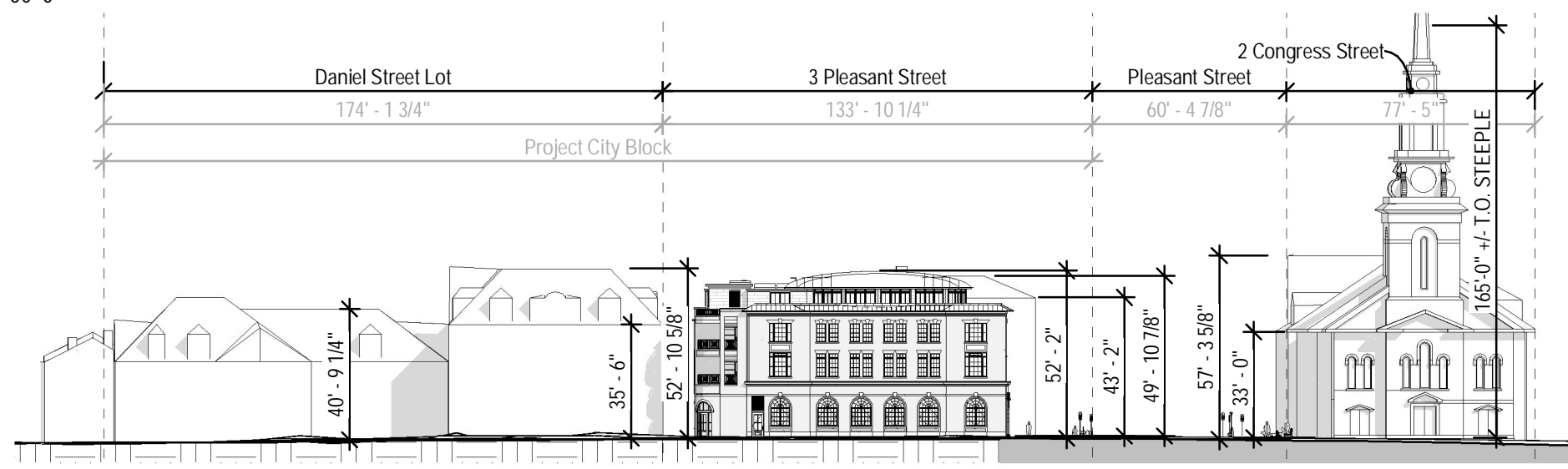
P1.15 AXONOMETRIC VIEWS
 3 PLEASANT STREET at BRICK MARKET

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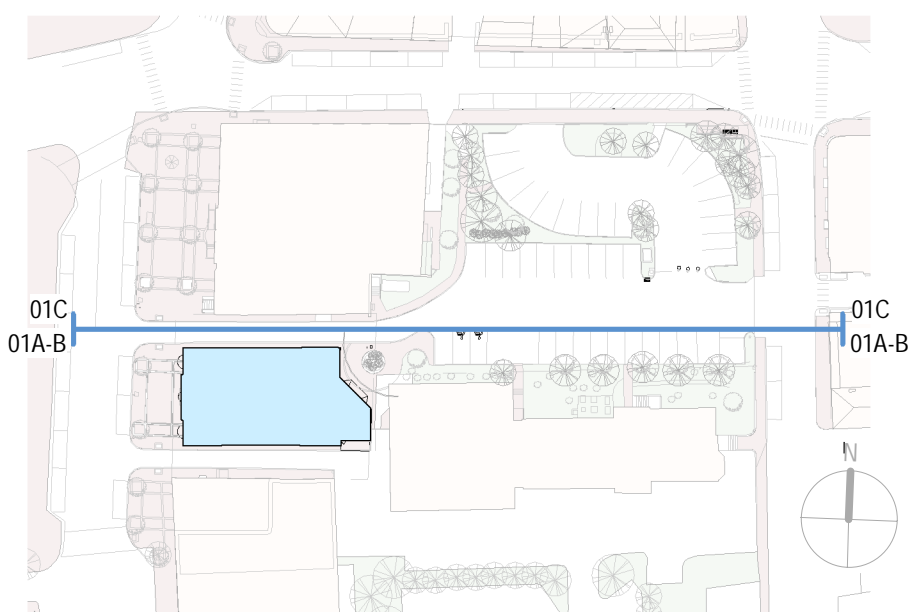




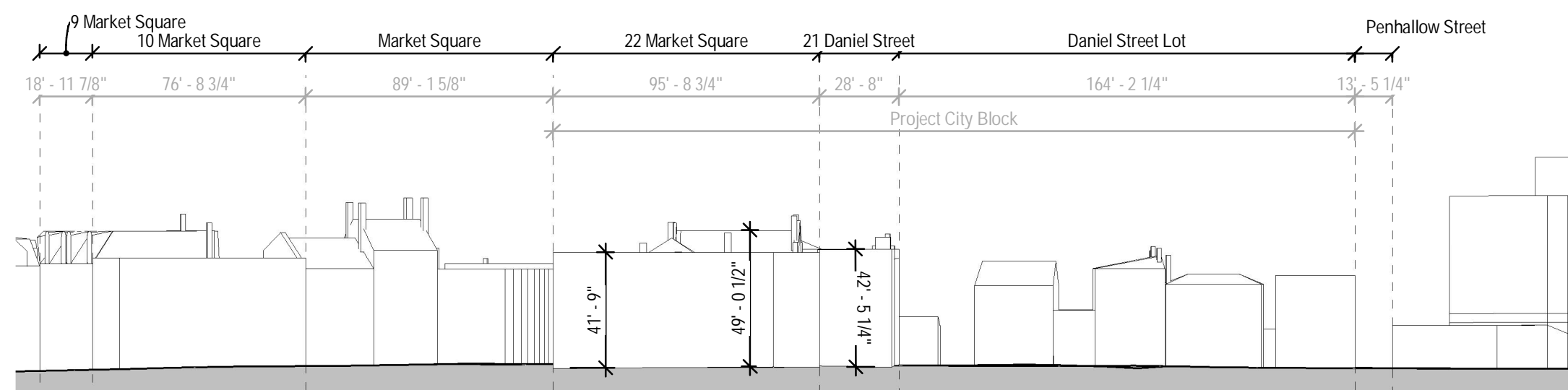
Street Section 01A - Pedestrian Way (Existing Building North Side) Looking South Existing
1" = 50'-0"



Street Section 01B - Pedestrian Way (Existing Building North Side) Looking South Proposed
1" = 50'-0"



Street Section Key Plan
1" = 100'-0"

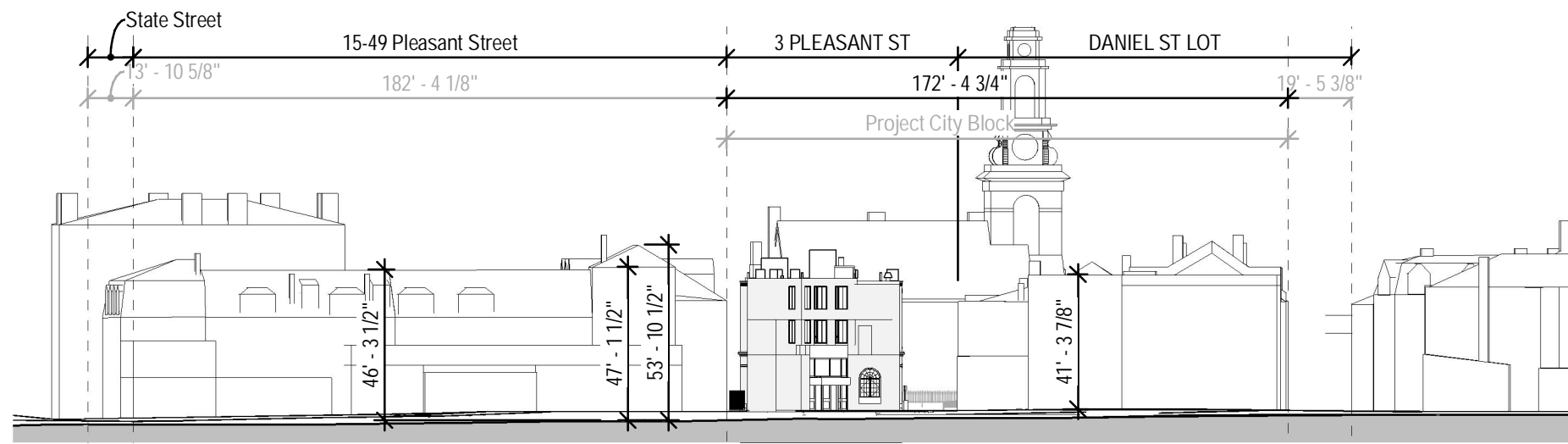


Street Section 01C - Pedestrian Way (Existing Building North Side) Looking North Existing
1" = 50'-0"

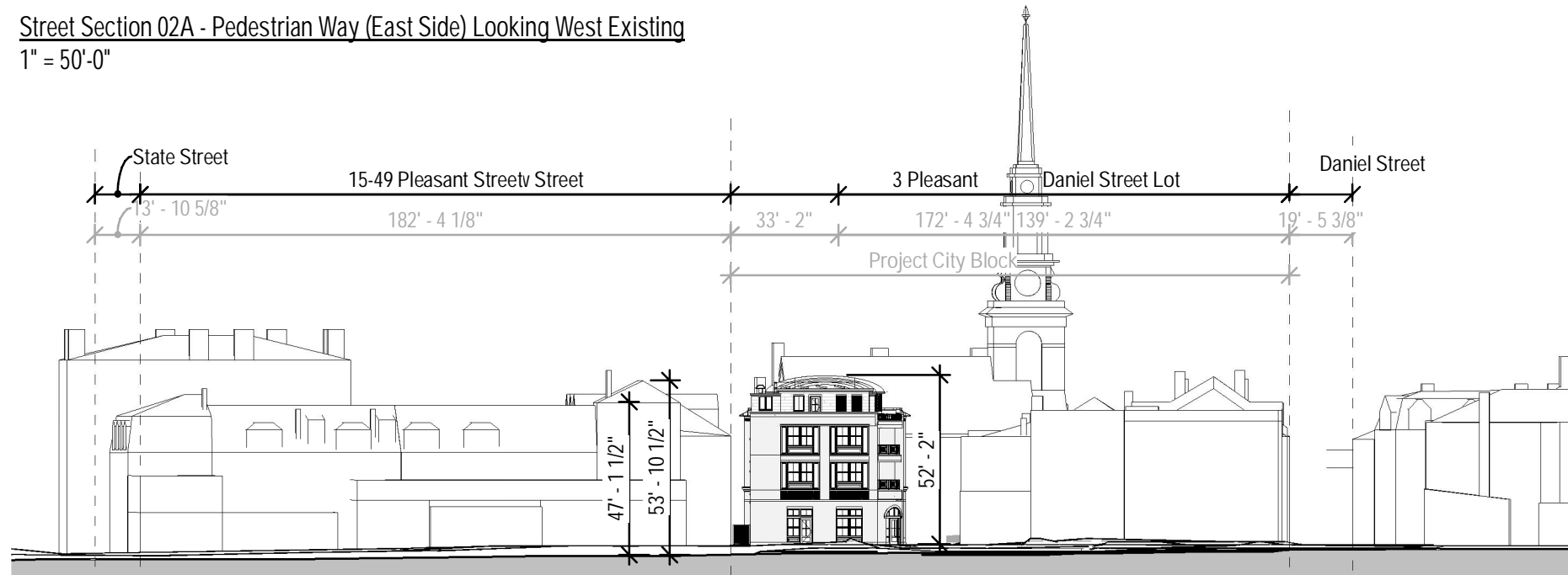
P1.16 STREET SECTIONS
BRICK MARKET

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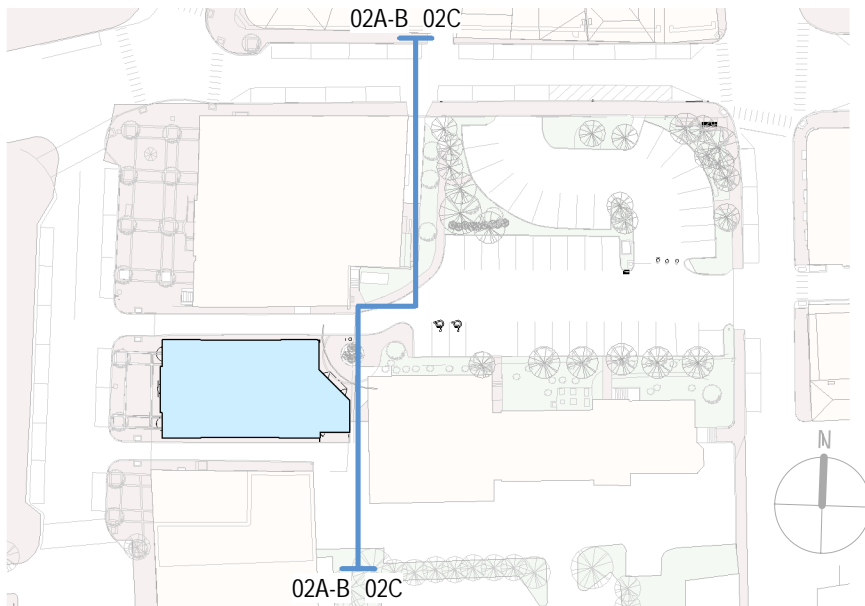




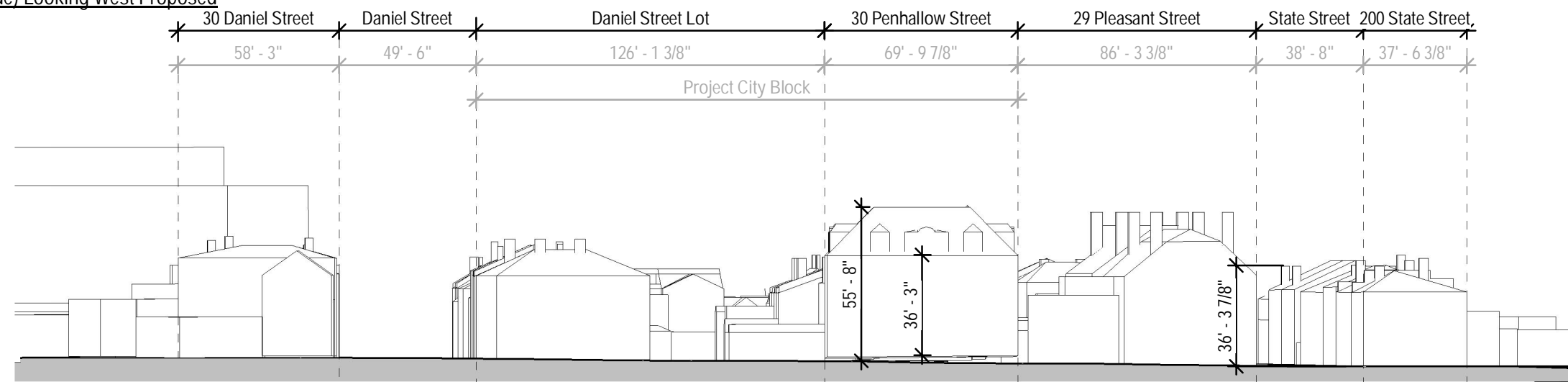
Street Section 02A - Pedestrian Way (East Side) Looking West Existing
1" = 50'-0"



Street Section 02B - Pedestrian Way (East Side) Looking West Proposed
1" = 50'-0"



Street Section Key Plan
1" = 100'-0"



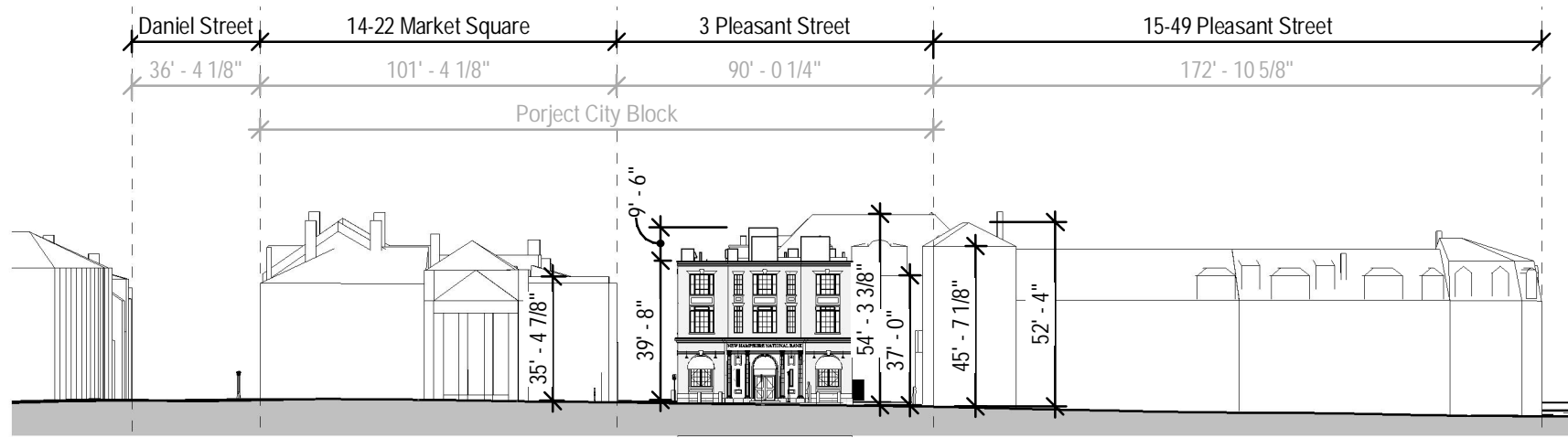
Street Section 02C - Pedestrian Way (East Side) Looking East Existing
1" = 50'-0"

P1.17 STREET SECTIONS
BRICK MARKET

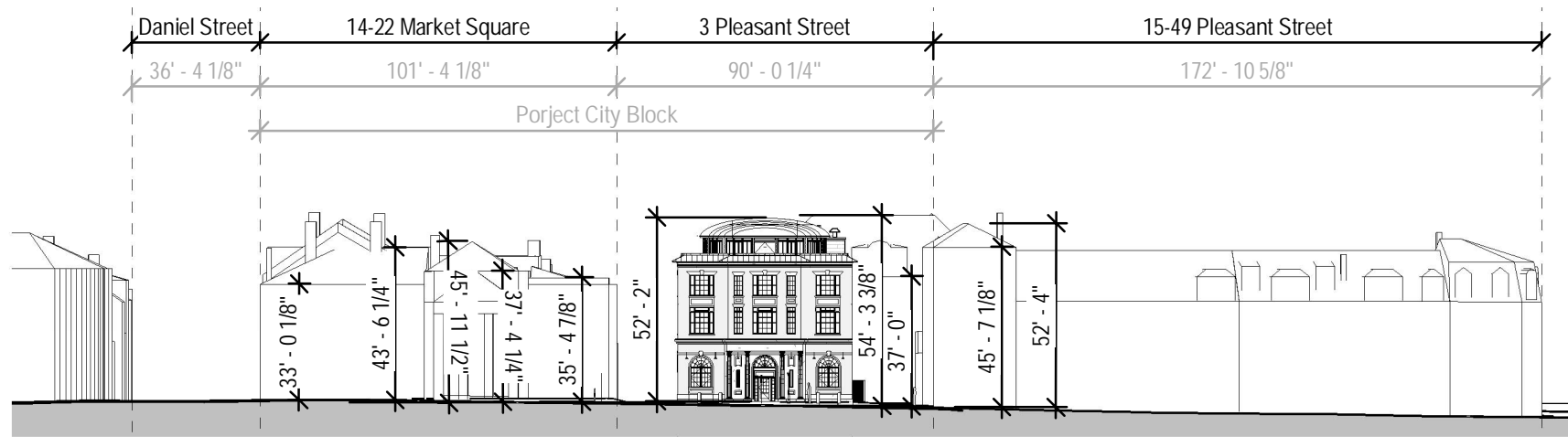
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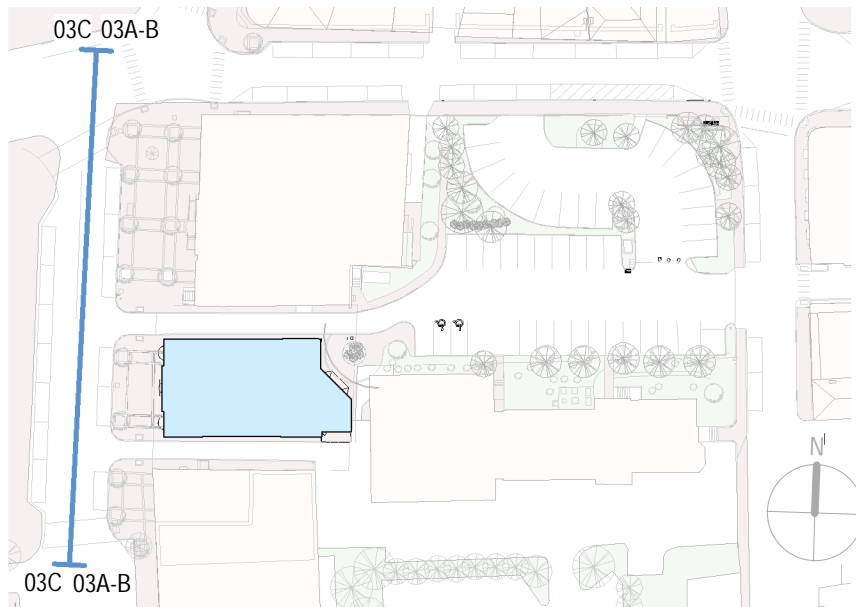




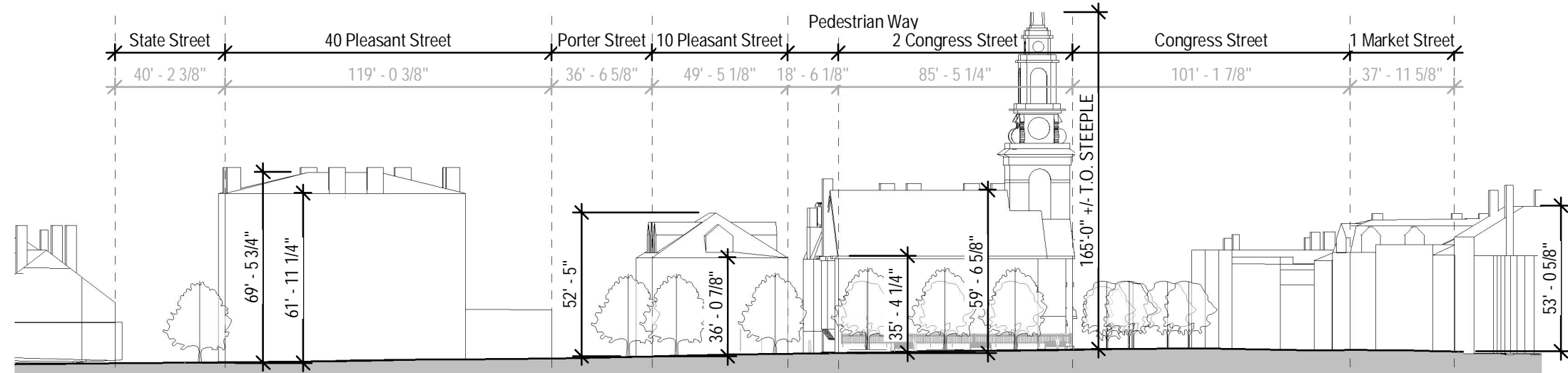
Street Section 03A - Pleasant Street Looking East Existing
1" = 50'-0"



Street Section 03B - Pleasant Street Looking East Proposed
1" = 50'-0"



Street Section Key Plan
1" = 100'-0"

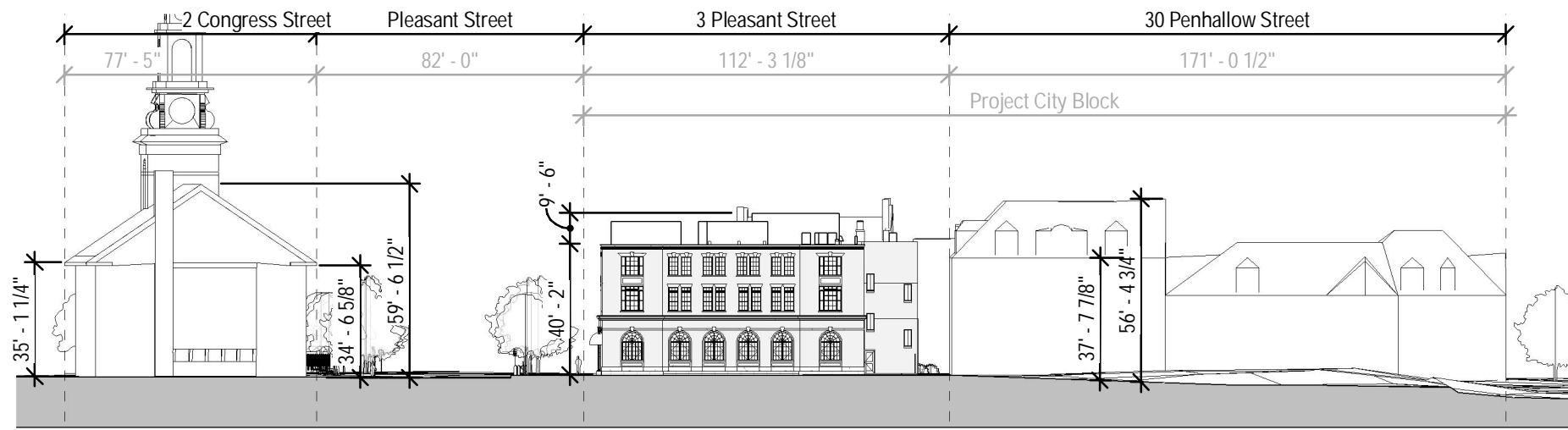


Street Section 03C - Pleasant Street Looking West Existing
1" = 50'-0"

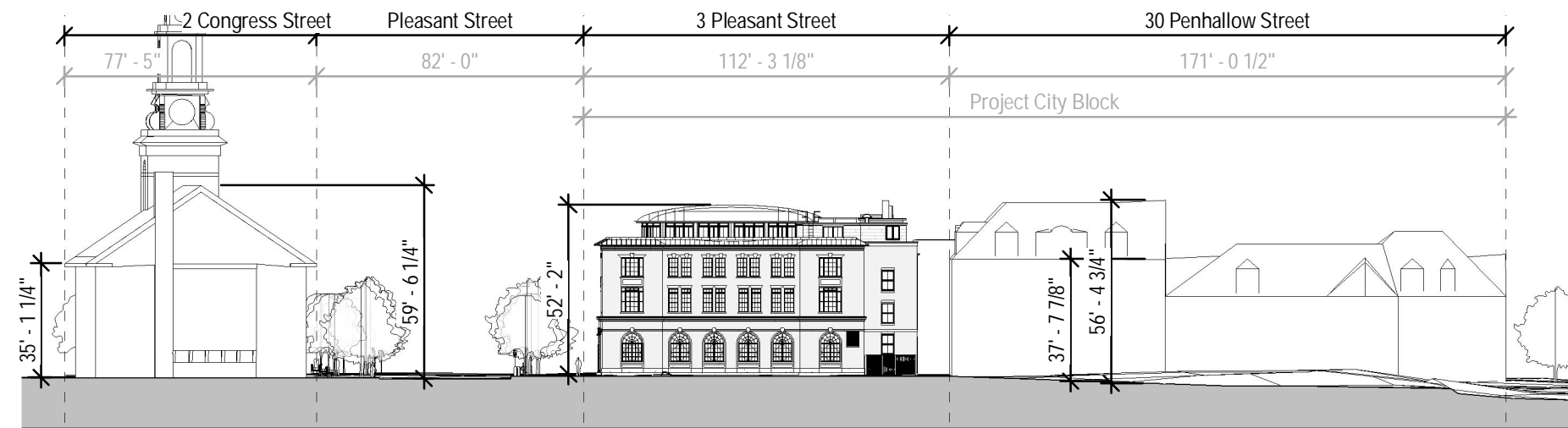
P1.18 STREET SECTIONS
BRICK MARKET

SCALE: As indicated
HDC WORK SESSION 3 / PUBLIC HEARING
REVISION 1
AUGUST 7, 2019 COPYRIGHT © 2019

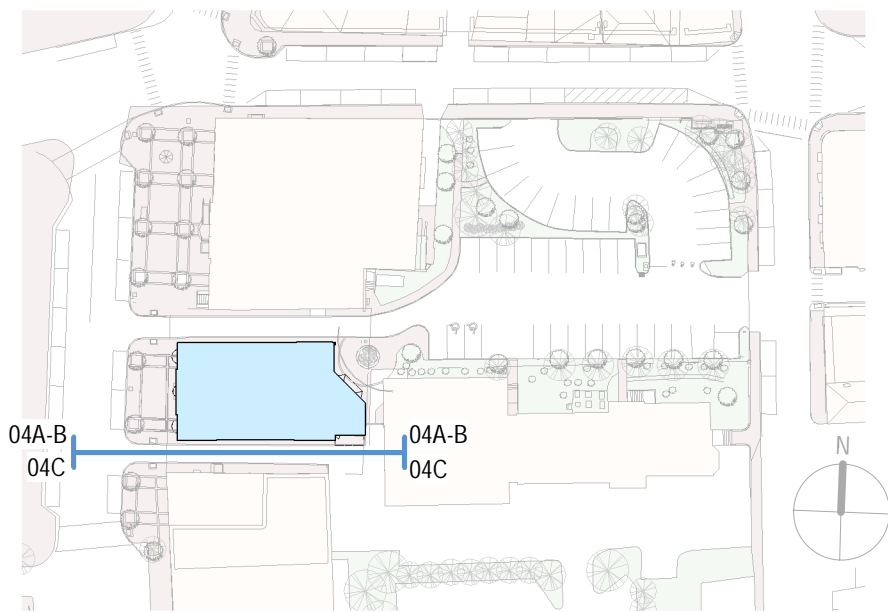




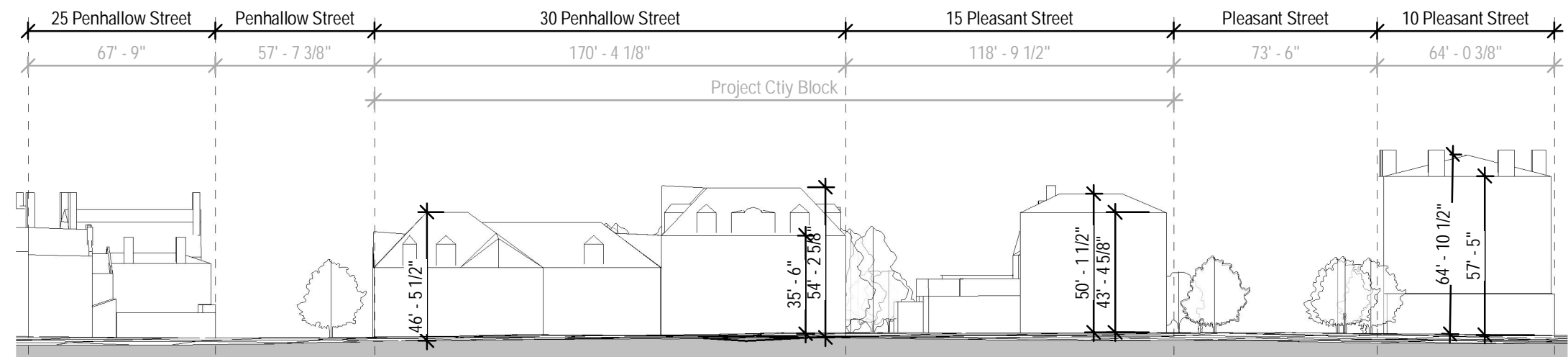
Street Section 04A - Pedestrian Way (Existing Building South Side) Looking North Existing
1" = 50'-0"



Street Section 04B - Pedestrian Way (Existing Building South Side) Looking North Proposed
1" = 50'-0"



Street Section Key Plan
1" = 100'-0"



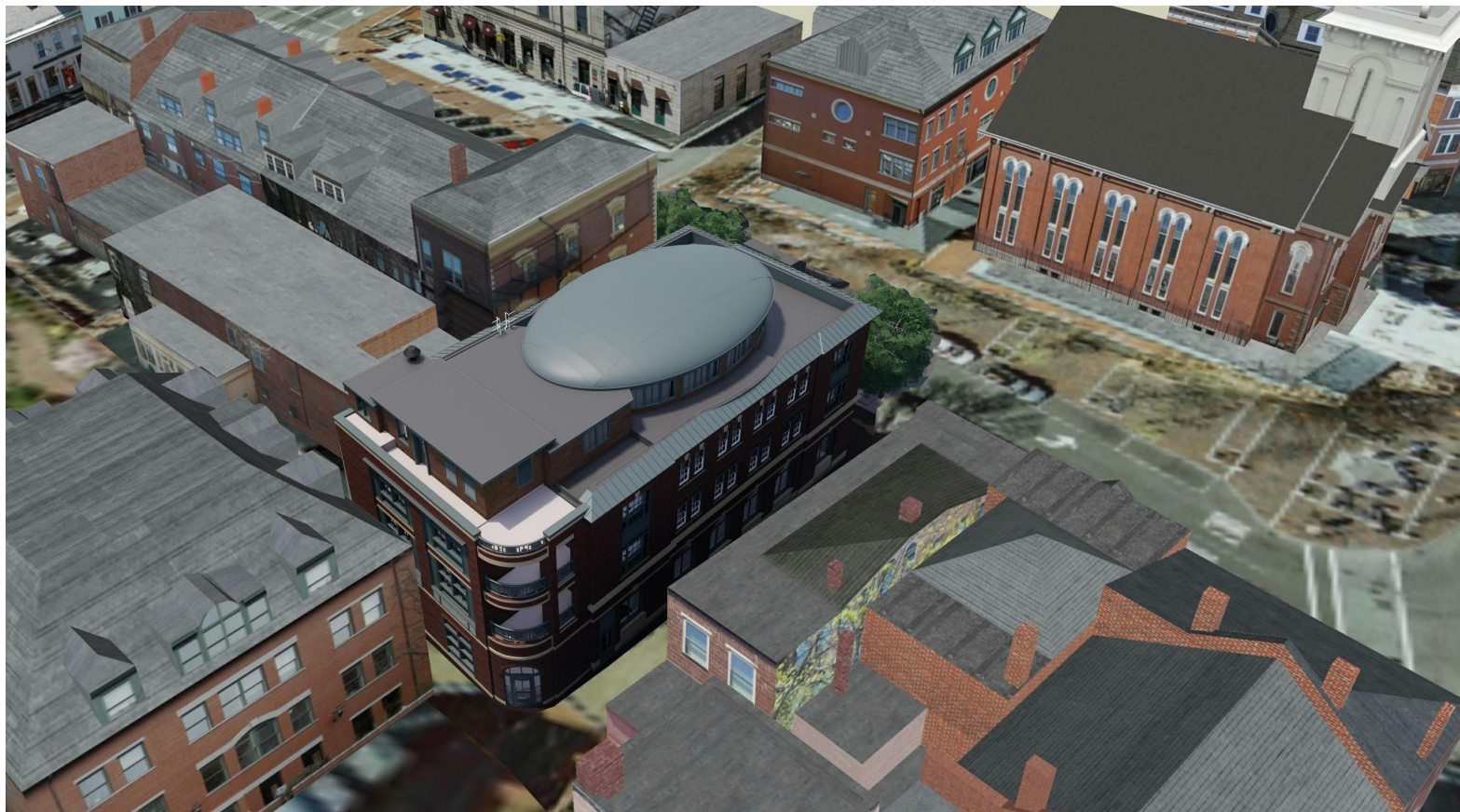
Street Section 04C - Pedestrian Way (Existing Building South Side) Looking South Existing
1" = 50'-0"

P1.19 STREET SECTIONS
BRICK MARKET

SCALE: As indicated
HDC WORK SESSION 3 / PUBLIC HEARING

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① NE BIRDS-EYE VIEW



② NE REAR PERSPECTIVE



③ NE REAR PERSPECTIVE



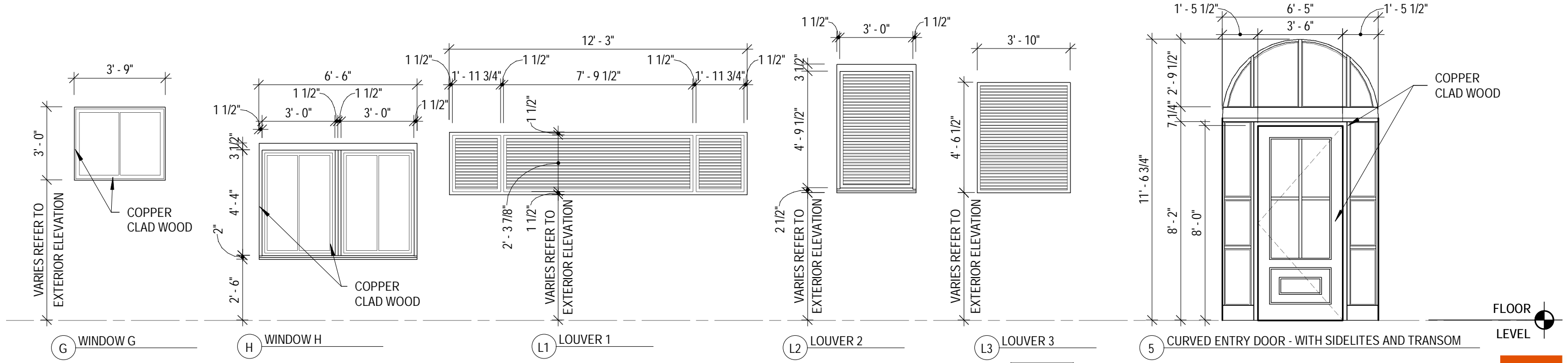
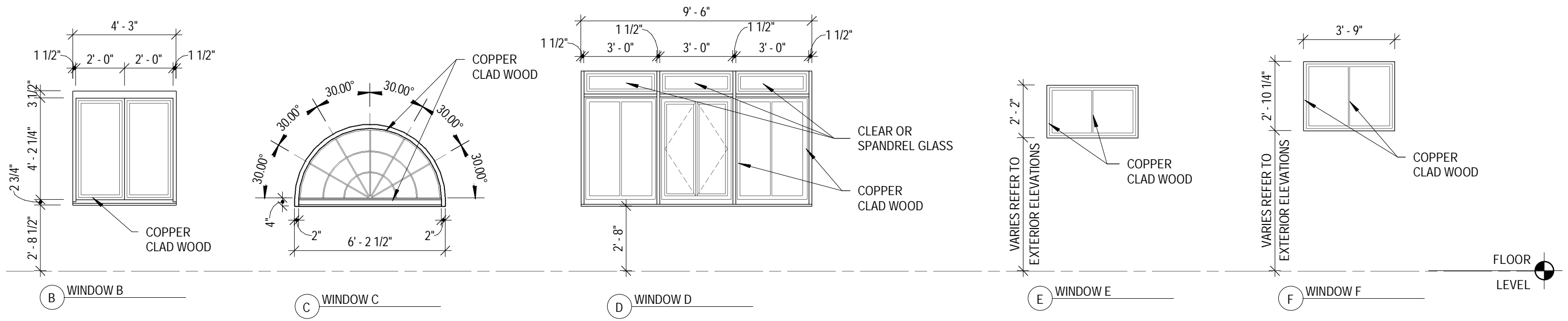
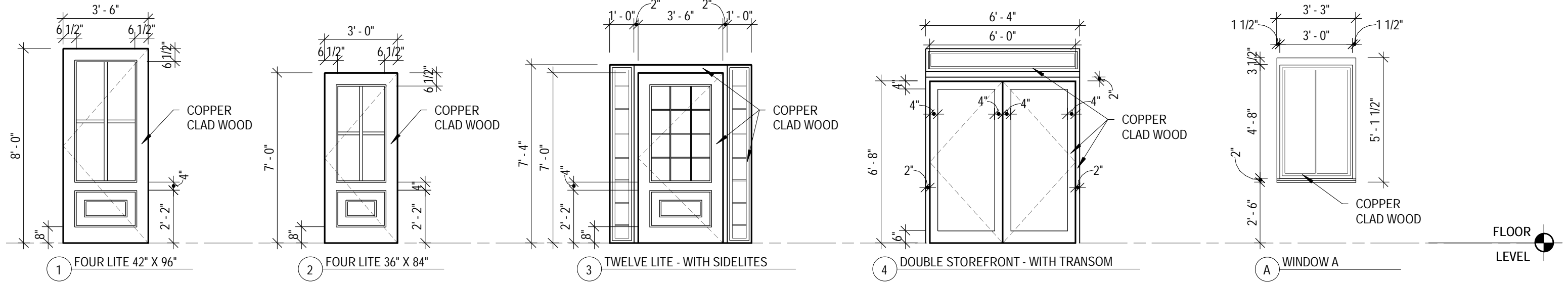
④ WEST FRONT PERSPECTIVE

P1.20 RENDERINGS
BRICK MARKET

SCALE:
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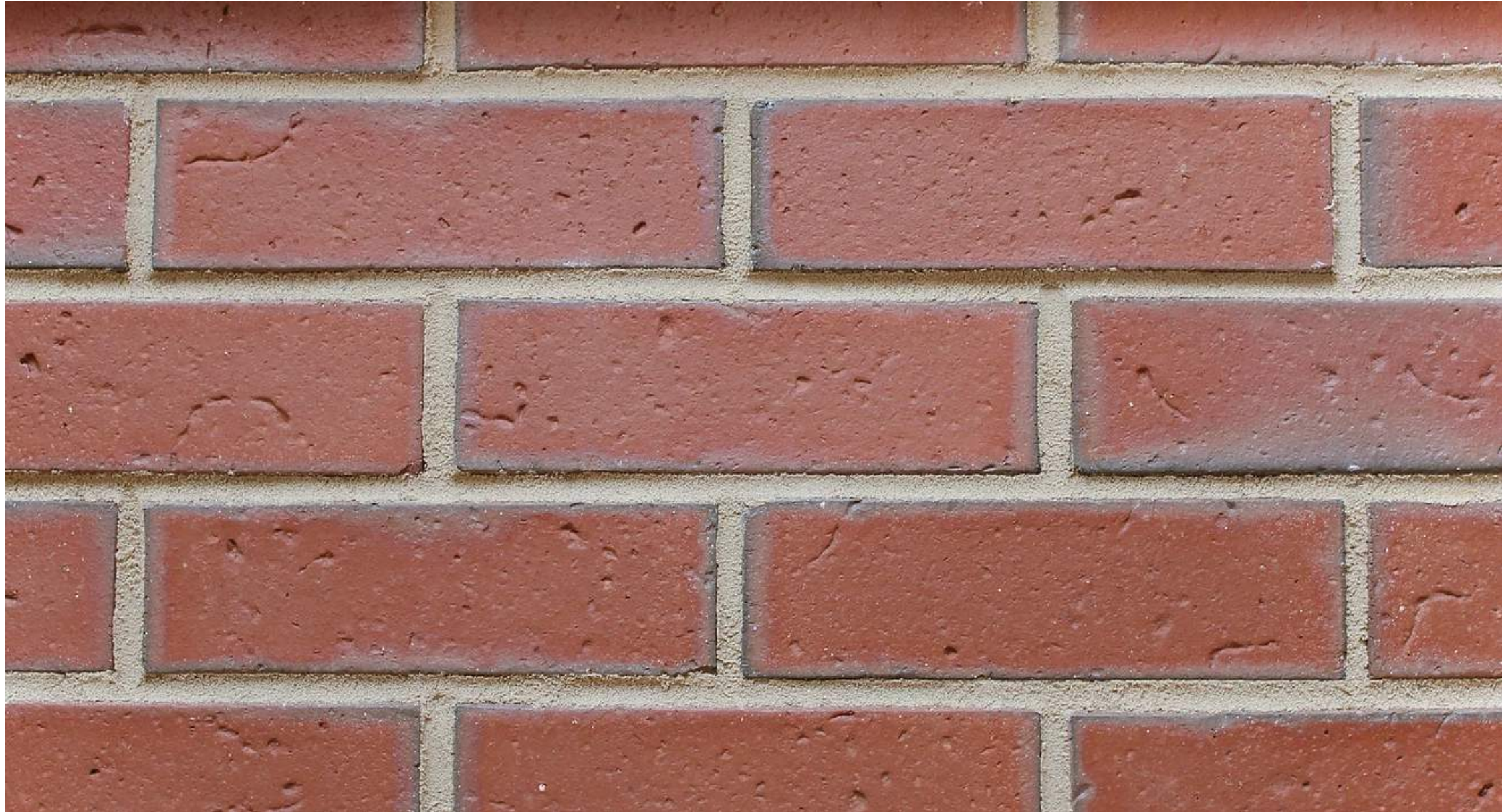
MATERIALS PRODUCT DATA

PUBLIC HEARING - AUGUST 2019

INDEX

- 1. BRICK MASONRY
- 2. CAST LIMESTONE UNITS
- 3. COPPER SIDING-Continental Bronze
- 4. WINDOWS
- 5. WOOD SIDING
- 6. METAL MESH RAILINGS

 <p>ARCHITECTS INTERIORS PLANNERS</p>	Project:	3 Pleasant Street	Project 081	Reference Drawing	
	Title:	MATERIALS PRODUCT DATA		Scale:	
		273 Corporate Drive	Portsmouth, NH 03801	Drawn By	Reference:
		www.jsainc.com	T 603.436.2551	F 603.436.6973	Sketch No:
			Date:	4.5	



Old Port Blend Narrow Flashed Range

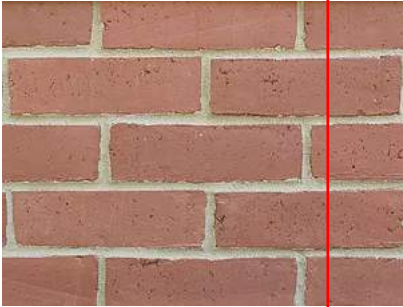
Waterstruck Brick

Water-struck Brick has become symbolic of the mindset and cultural fabric of New England: hard, somewhat irregular in appearance, steadfast but unpredictable, and stubbornly able to withstand adversity and thrive in a hostile physical climate. First fired in the 17th century in Medford, Massachusetts, from clay from the Mystic River flats, water-struck brick was the essential building block of Georgian New England and remains the choice for institutions and individuals seeking links to the great tradition of building in that part of the world.

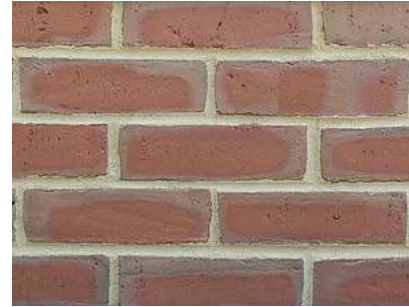
- David N. Fixler, AIA, LEED

Modular Size Waterstruck

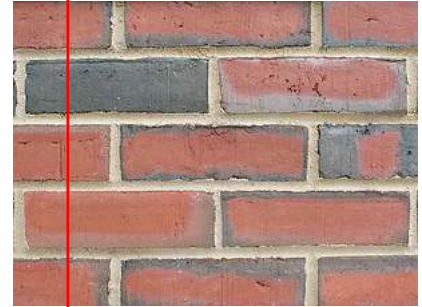
(3% x 2 1/4 x 7 5/8") & (3% x 2 1/2 x 7 5/8")



Colony Red Waterstruck



Light Flash Waterstruck



College Blend Waterstruck



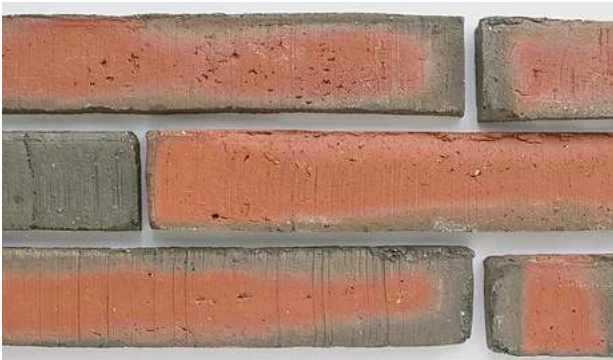
Blackstone Range Waterstruck



Brownstone Blend Waterstruck

Norman Size Waterstruck

3 5/8 x 2 1/4 x 11 5/8



Norman Full Range

Additional Ranges Coming Soon

Roman Size Waterstruck

3 5/8 x 1 5/8 x 11 5/8

Additional Ranges Coming Soon

Design with freedom.



Natural Edge® 

Selection

Solutions

Education

Innovation

Renaissance® Collection

 **Arriscraft**
Building Stone · Brick · Limestone

Why Renaissance®?



Robert D. Love Downtown YMCA - Wichita, KS | Schaefer Johnson Cox Frey Architecture | Sandrift Sandblasted

“ Arriscraft stone brings timeless elegance to our modern design. The best products, the best service, the best results.

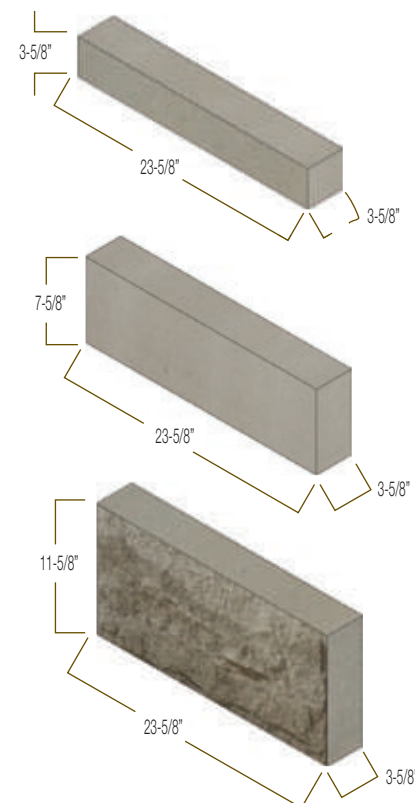
MILAN MALINOVIC, PRINCIPAL
Design Cooperative, LLC



Arriscraft Renaissance® Masonry Units offer architects, builders and property owners a premium stone with exceptional performance, beauty and flexibility. Our unique Natural Process technology mimics how stone is created in the earth – yielding cement-free stone products with the aesthetic, strength and durability benefits of quarried stone, plus cost effective installation.

Renaissance® units are offered in standard sizes and colors, yet offer tremendous flexibility through custom colors, blends, shapes and sizes - in rocked, smooth, satin, or sandblasted finishes. Discover the unparalleled beauty and design opportunities of Renaissance® Masonry Units, backed by an industry-unique lifetime product warranty.

Standard Masonry Units



NATURAL EDGE®

Our Natural Process technology replicates how stone is formed in the earth and creates products with the aesthetics and durability of quarried stone, plus the benefits of standard installation and unlimited supply.



SELECTION

Our comprehensive product range includes: the classic Renaissance® stone, a robust Building Stone collection, three versatile thin-clad options, various brick styles (including our long, contemporary option), Adair® limestone, and a full offering of cast accessories.



SOLUTIONS

We lead the industry in premier product support, including an extensive technical library, complimentary Masonry Envelope Review services, personal technical support, and renowned custom color and blend development. Our on-site technical services can provide historical matching, unique colors and custom blends, as required.



INNOVATION

Product innovation at Arriscraft continues to meet market demands for modern stone designs and lightweight, thin stone solutions, as well as matching processes to replicate historical stone as quarries close after decades of use. We also continuously improve our manufacturing process to lead the industry in green and sustainability initiatives.



EDUCATION

We educate daily through our technical support, AIA credit courses, and an ever-broadening information base. Our website offers high-res color sheets, data sheets, seamless texture images, a Building Stone Calculator, plus our growing blog of articles and tips. For decades we've provided complimentary mason training and student tours, and sponsored the University of Waterloo Architecture Lecture Series.

Color Selection

Renaissance® Masonry Units are available in a stunning range of natural standard colors. Arriscraft offers custom color development and also allows customers to create custom blends using different standard colors. With so much creative flexibility, Arriscraft can bring any design to life.

Because all Arriscraft products are manufactured to have through-body color, units can be cut, chiseled and dressed on-site. In addition, designers can order custom shapes and sizes to create truly unique projects.

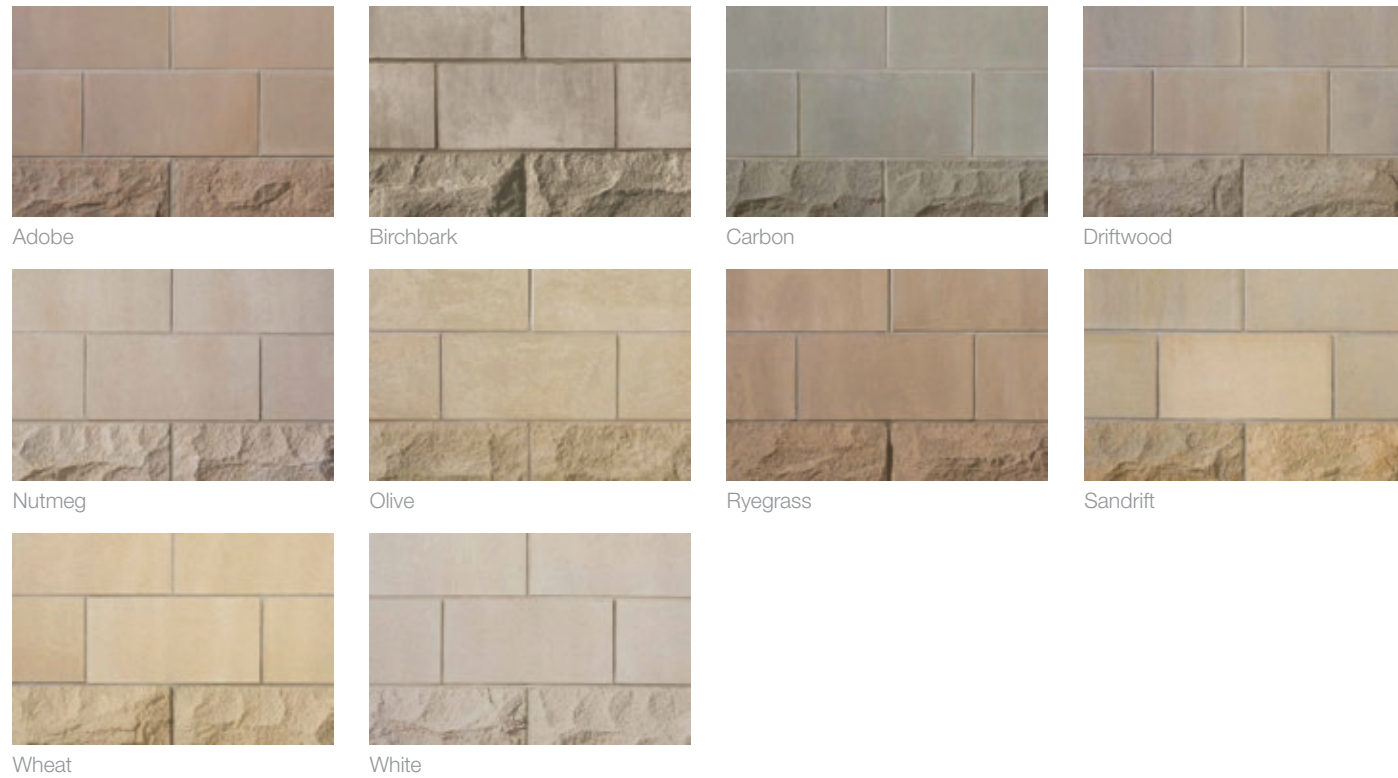


Rappahannock River Hall, CNU | Newport News, VA | Glave & Holmes Architecture | Wheat Rocked and Sandblasted

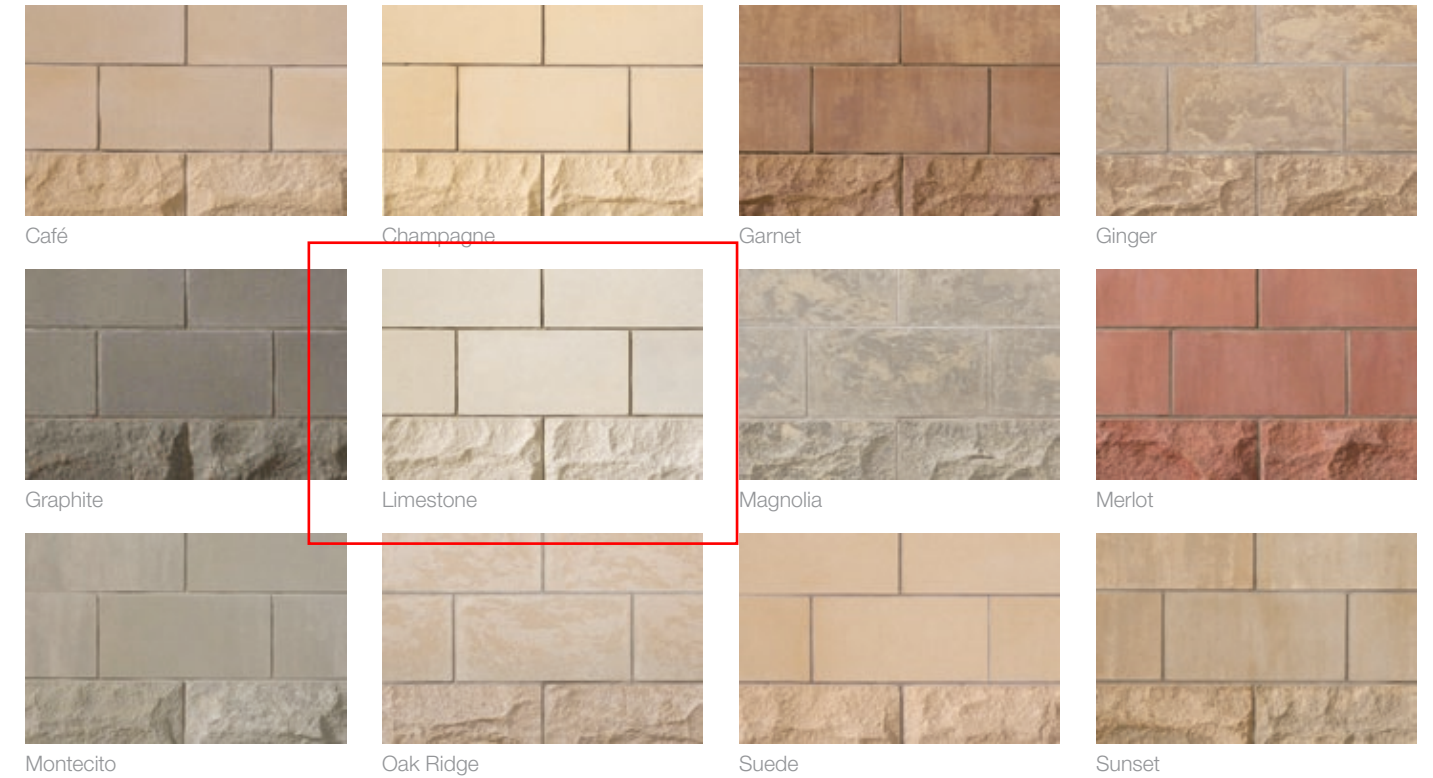


Upson County Regional Medical Center - Barnesville, GA | David A. Tyler | Café Smooth, Ginger Rocked

Cambridge ON Canada Colors



Fort Valley GA USA Colors



Renaissance[®]

Masonry Units



ZAHNER®

STAR BLUE™

PATINATED COPPER



STAR BLUE™



A Prestige Metal Material from Zahner

Star Blue copper is a lead-free material with custom patina on copper-alloy sheet metal. The sophisticated material is part of Zahner's line of raw patinated materials which are designed to age like tanned leather and vintage wine. The result is a look that can function both for contemporary as well as historic aesthetics.

Designed to Age and Endure

An iridescent surface, the Star Blue copper appearance benefits from a microfilm which develops on the exterior layer of the material. The oxidized layer is like a living protecting barrier which grows and evolves as it further oxidizes.

For exteriors, this appearance will change over time. If sealed and maintained, it is possible for a custom copper patina such as Star Blue to maintain its iridescent luster. As an interior surface, the Star Blue copper's unique finish can last indefinitely, especially if the material is sealed.



Meeting EPA Standards for Patinated Copper

Star Blue copper is produced in Zahner's award-winning, EPA compliant facility. Patina effluent is properly captured and disposed of in compliance with local, state, and federal regulations. This ensures the health and safety for the families who work at Zahner, as well as the community at large in which it is made.



Patina vs. Paint

Surface patina should not be confused with paint. Patina is a mineralized oxide on metal that is self-limiting (rust, for instance, is not self-limiting because it will continue to eat through a surface). It is a reaction to the elements that in turn provides a protective barrier from the elements. While paints will have a short lifespan, deteriorating over time, a patina on metal can last for generations.



Exterior and Interior Applications

Star Blue copper can be used on interior and exterior applications. The patina will not rub off. However, over time, the patina appearance will continue to change. As the mineralized patina reacts with the atmosphere, it will continue to change in tone and contrast as it further oxidizes.

REVERE. THE WORLD'S COPPER LEADER FOR OVER TWO HUNDRED YEARS.



Continental Bronze®

Revere's Newest Architectural Copper

A "pre-aged" natural
oxide finish provides
subtle beauty.



Inside:

- Technical Details
- Installation
- Handling
- Specifications



ContinentalBronze®

ContinentalBronze – Is premier architectural copper produced to ASTM B370 that has been “pre-aged” to a natural brown/bronze oxide finish under controlled conditions – without chemicals. The oxide is essentially the same as the one that forms on plain, “red” copper within two to five years after it is exposed to the local micro-environment. It is not a paint or resin-based coating applied to aluminum or steel, nor is it an alloy (does not contain tin).

The aesthetics of **ContinentalBronze** are similar to those of plain copper that has been exposed to the atmosphere for several years. **ContinentalBronze** will not appear as a uniform, monochromatic surface but rather “alive” and vivid with variations of shade or hue within and between sheets or coils. In essence, what we have done is to “leap ahead” in time.

The oxide is not a permanent finish; rather, it is an advancement of natural weathering. As it is exposed to the elements, **ContinentalBronze** will continue to age and eventually assume a mature, green patina. The time required for this to occur cannot be predicted as the process depends on local (micro) environmental conditions and severity of exposure. In most cases, 10 or more years will be required for the oxide to convert to a green (sulfate) patina, although the time required will vary.



Why Use ContinentalBronze?

This “leap in time” can be especially appealing for wall claddings (which typically age slowly), soffits (which age slower still), interior applications (which may not age at all), and locations where the reflectivity of new, bare copper is prohibited by codes or might be aesthetically objectionable.



ContinentalBronze shown in contrast to a naturally aged copper wall with 4+ years of exposure.

Given sufficient time and continued weathering, all copper will develop a more or less uniform brown/bronze coloration. However, in some cases the time frame is too long and/or the transitional appearance is unacceptable.



As experienced in this photo above, bare copper installations can produce some natural, but alarming aesthetics.

ContinentalBronze can be used to accentuate entranceways as well as interior applications.

Environmentally Sound

As with all Revere architectural coppers, **ContinentalBronze** is very environmentally friendly. It is made from 90% to 95% recycled copper that has been harvested from within 500 miles of our facility in Rome, NY. It is an ideal material for roofing, wall cladding, rain-water goods, and similar applications. For LEED projects you gain the durability, sustainability, beauty, and recyclability of copper.



90-95% of the time, we are able to use recycled scrap and avoid mining and smelting operations.

ContinentalBronze is made from mainly “number 1, bare-bright” scrap. Coated wire and/or other materials that emit VOCs or similar compounds are not used during melting or fabrication (rolling).

Market conditions dictate when and where recyclable copper is available. Nevertheless, well over 75% of this material is obtained from sources within 500 miles of our plant. Due to the competitive nature of the scrap copper market we cannot disclose individual locations (or cities) from which we obtain copper.

Depending upon market conditions the exact percentage of recycled copper and mix of post-consumer and post-industrial material will vary. Since market conditions change constantly Revere cannot accurately identify the ratio of post-consumer to post-industrial copper in a given order. Therefore, Revere uses the conservative position that its copper contains only post-industrial material.

All of Revere’s architectural sheet copper is made in Rome, NY – approximately 95 miles west of Albany, NY.

Durability/Weathering of Oxide

ContinentalBronze maintains all the positive features of working with bare copper – ease of forming, bending, and general installation practices.

To ensure the most aesthetically pleasing application, Revere suggests standard industry sheet metal practices, such as those presented in the Eighth Edition of *Copper and Common Sense*, be applied. This includes, but is not limited to: the use of clean gloves during forming and installation of copper, minimizing traffic on installed copper, soldering techniques, and more.

The oxide is a hard and durable surface, and is able to withstand most normal forming, bending, and installation practices. Nevertheless, bending or brake forming can result in loss of oxide crystals and produce “pencil lines” of bare copper. The oxide may be scratched if subjected to a combination of pressure and abrasion, and may exhibit fingerprints.



As installed



10 months exposure in a Northeastern coastal environment



Maintaining a Statuary Brown Color

There are a number of methods and products used to protect statuary finishes. In Revere’s experience, periodic oiling is usually the easiest and least expensive.

Oiling does **not** create or hasten the development of a statuary color. Rather, it may improve the uniformity of the oxide film and impart richness and depth of color that could not be produced by natural weathering alone.

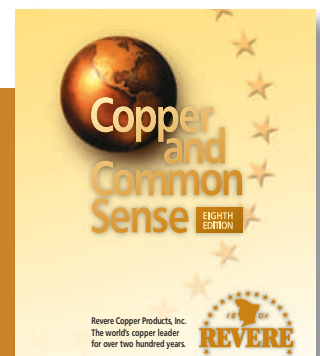
Oils used for this purpose are many and varied. They include linseed oil (raw or boiled); lemon oil; lemon-grass oil; paraffin oil; castor oil; and sometimes vegetable oil. Our experience indicates that either raw or boiled linseed oil is as good as any, and has the added advantages of low cost and ample supply. Boiled linseed oil dries more quickly upon application than the raw type of oil. Because it is less prone to pick up dust particles from the air, boiled linseed oil seems to be used more often than raw oil.

Under ordinary circumstances it is not necessary to clean the metal, either chemically or mechanically, prior to oiling.

The oiling procedure is not at all complicated. It consists of applying a liberal coating of oil to the metal surface with a brush or rag and then wiping off the excess oil with a clean, dry rag to leave a thin, even film. Local atmospheric conditions tend to influence the durability of the coating or the number of coatings required to produce the desired effect. There are reports of installations varying in age from one to almost 20 years that are still giving satisfactory performance with only one application of oil. For the average installation we suggest two coats be used initially.

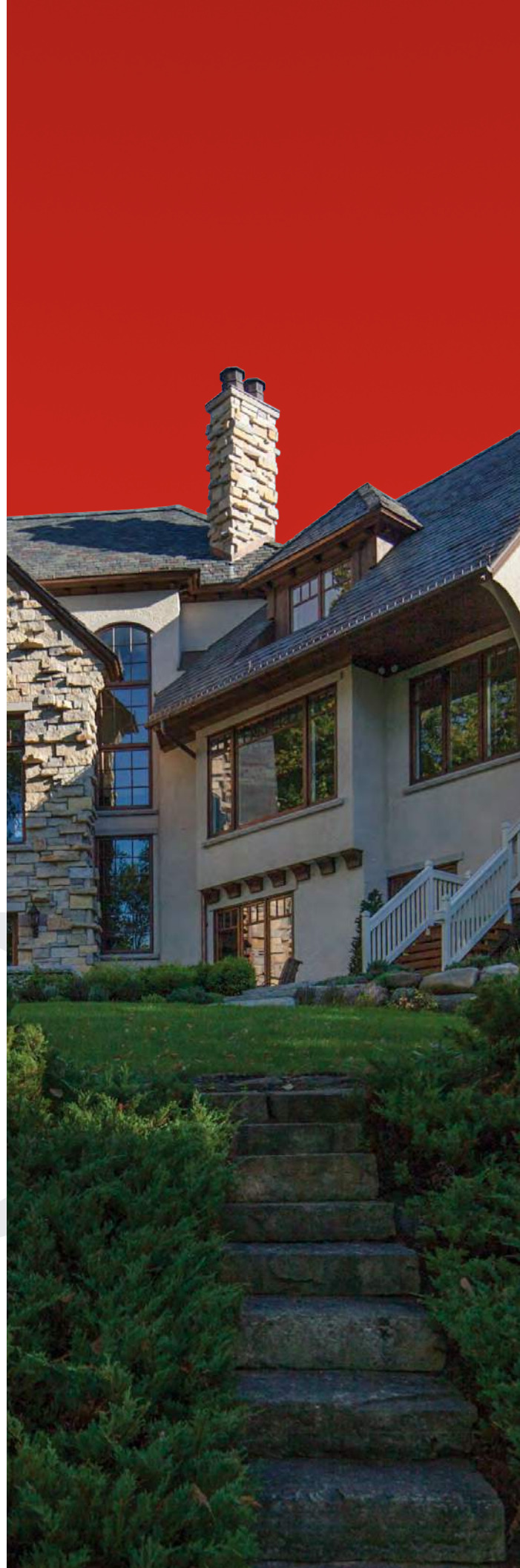
Periodic oiling is the method that has been (and still is) used to maintain the statuary color of the Seagram’s Building in New York City for over 50 years.

Since 1945, Revere has published *Copper and Common Sense*, which is now the industry’s most widely referenced sheet-copper design manual. To learn how to obtain the latest edition visit us at www.reverecopper.com.



Technical Guide P

Cyprium Collection



CYPRIMUM



The Cyprimum Collection features copper and bronze clad windows and doors unique in design and construction.

These hand-wrought living surfaces develop distinctive patinas that adopt and define the individual aesthetic character of the homes to which they belong.

The Cyprimum Collection is available in Casement, Awning, Picture/Direct Set, Specialty Windows, Terrace Doors and LiftSlide Doors.

Copper natura patina Casement window with 7/8" (22 mm) Simulated Divided Lites (SDL).

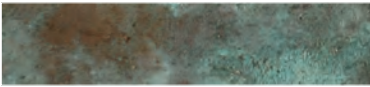
Bronze Palette



Bronze Natura



Bronze Umbra



Bronze Verdigris

Copper Palette



Copper Natura



Copper Umbra



Copper Verdigris

Patinas, the living finishes that cloak copper and bronze, are as unique as their location. Environmental factors such as humidity and salinity work together with time to coat the surfaces with a signature patina. Treasured as a mark of lasting value, each patina is distinct and ever-changing.

Patinas typically progress from their natural state, through earthy browns and finally settle into a distinctive verdigris green.

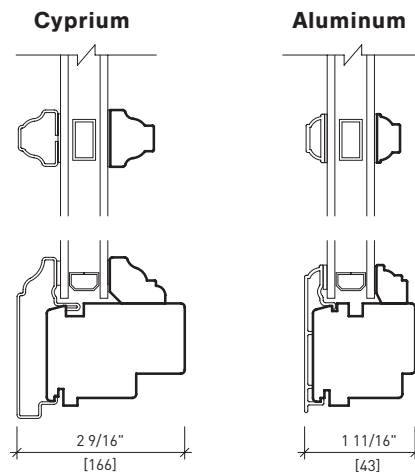
As the patina ages, residue may wash down and be visible on surfaces beneath the cladding. This is natural and adds to the classic appeal of Cyprimum windows and doors.

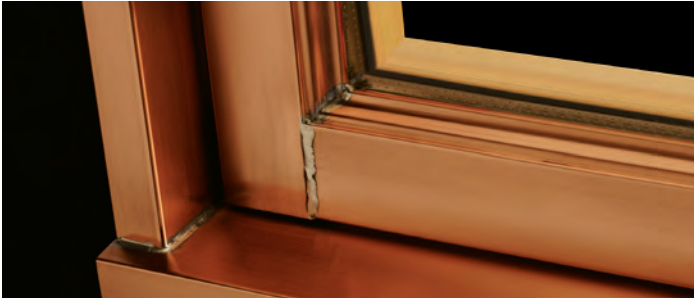
Note: Colors may not be exactly as shown.

Deep Interior & Exterior Profiles

As the illustration shows, Cyprimum Collection profiles – and their matching interior wood muntins and glass stops feature a deep relief profile. Nominal .040" Copper and Bronze cladding is used to craft a rich, architecturally balanced appearance.

Cyprimum SDL are also available in 7/8" (22 mm) as shown, 1 1/4" (32 mm) or 2" (51 mm).





Triple Sash

Cyprium windows are built with a triple laminated sash that accommodates deeper cladding and glazing stop profiles.



Profile Depth

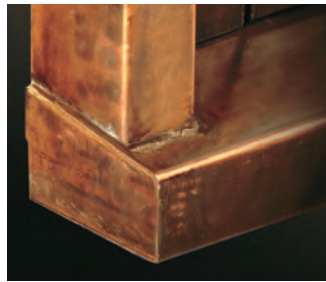
Loewen's ensured fit and finish, superior design and guarantee of fine material make Cyprium a lifetime design investment.



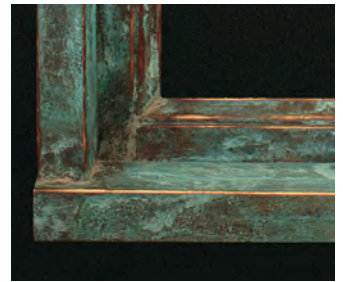
Copper Natura



Copper Natura



Bronze Umbra



Bronze Verdigris

Soldered Joints

Lead-free hand soldered joints render an authentic appearance that is both attractive and functional. Soldered joints create a cohesive, watertight body for frame and sash members resulting in a uniform reaction to temperature fluctuation.

Recessed Mullion

Recessed from the face of the sill and frame, this classical mullion detail adds visual harmony. Cyprium's deep sills are well suited to masonry wall construction.

Capped Sill End

Hand-fitted sill caps are soldered in place for structural integrity and a finished appearance.

Picture/Direct Set Profiles

Picture/Direct Set (fixed, non-sashed units) offer an even deeper offset from the face of sill, head and frame members to the vertical plane of the glass.

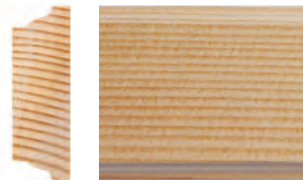
Cyprium Profiles

7/8" [22]

1 1/4" [32]

2" [51]

Wood (Interior)



Metal Clad (Exterior)



Window Hardware Finishes

Casement & Awning Hardware



Hannover Casement And Awning
Handle And Cover
(Oil Rubbed Bronze)



Provence Casement And Awning
Handle And Cover
(Oil Rubbed Bronze)



Tango Casement And Awning
Handle And Cover
(Bronze)

Solid Bronze Door Hardware



Churchill Handle
(Rustic Bronze)



Shropshire Handle
(Rustic Bronze)

Solid Brass Hardware



Meran Handle
(Oil Rubbed Bronze)



Verona Handle
(Oil Rubbed Bronze)



Rodos Handle
(Oil Rubbed Bronze)





Cyprium Terrace and French Terrace doors are available with flat or raised exterior panels and mid-rails.

Robust feel and superior security (left).
Raised exterior panel (above).



Cyprium Collection Doors

Loewen's full clad door panels combine rugged performance with architectural elegance.

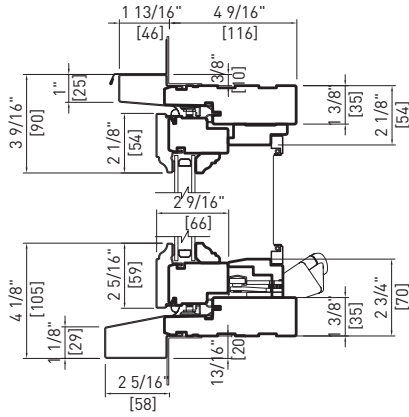
A fitting partner to legendary Loewen Douglas Fir (standard) or Mahogany (optional) construction, Cyprium doors offer robust security and timeless style with individuality derived from nature's "perfect imperfection" of a living patina.

Equipped with standard multi-point hardware – with stainless steel exposed components – Cyprium door and entryway systems are secure and reliable.

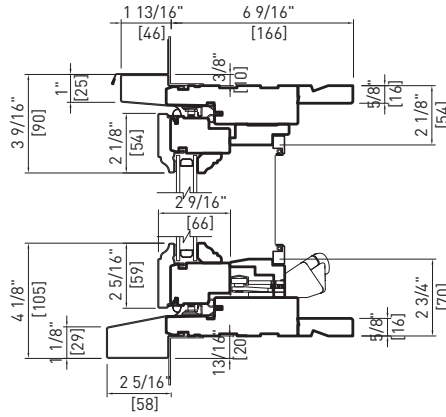
Bronze Umbra patina Terrace door featuring 7/8" Simulated Divided Lites (SDL).

Cyprium Casement Window Detail

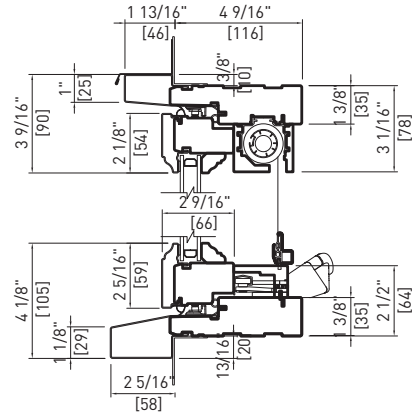
Head & Sill Detail



**CYPRIUM DOUBLE
4 9/16" (116 mm)
STANDARD SCREEN**

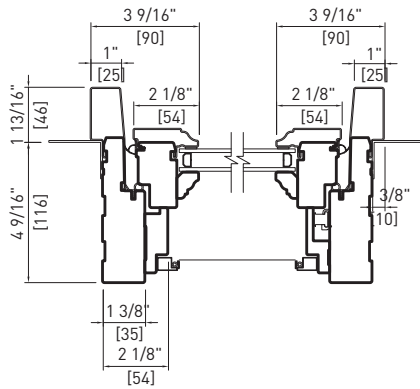


**CYPRIUM DOUBLE
6 9/16" (166 mm)
STANDARD SCREEN**

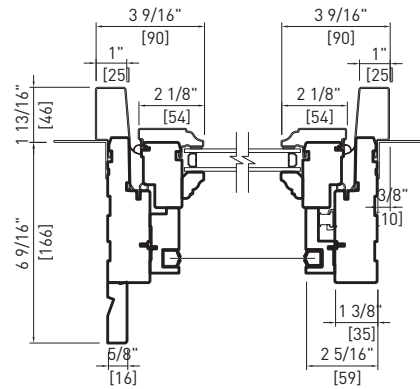


**CYPRIUM DOUBLE
4 9/16" (116 mm)
RETRACTABLE SCREEN**

Plan View



**CYPRIUM DOUBLE
4 9/16" (116 mm)
STANDARD SCREEN**



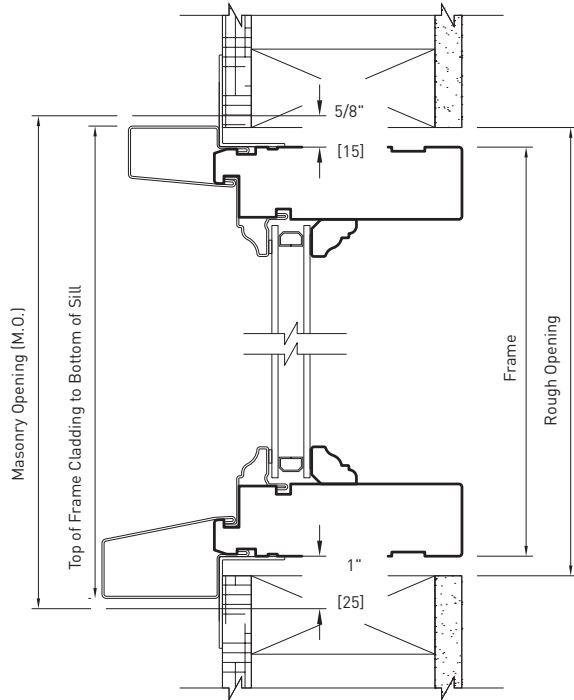
**CYPRIUM DOUBLE
4 9/16" (116 mm)
RETRACTABLE SCREEN**

Note:

- Other jamb widths available.
- All dimensions to have +/- 1/16" (2mm) tolerance.

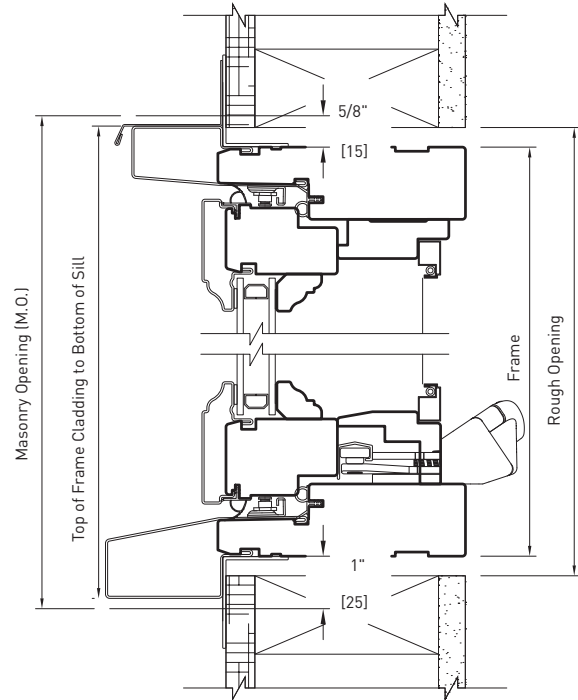
Masonry Opening Cyprium

Cyprium Frame Cladding.
Add 5/8" (15mm) to
Frame Dimensions at Head & Sides.



Cyprium Sill.
Add 1" (25 mm) to
Frame Dimension at Sill.

Cyprium Frame Cladding.
Add 5/8" (15mm) to
Frame Dimensions at Head & Sides.



Cyprium Sill.
Add 1" (25 mm) to
Frame Dimension at Sill.

EXAMPLE #1: PS1 2415, Frame dimensions, 94 1/2" (2400mm) x 59 1/16" (1500mm).
Masonry width = 94 1/2" (2400mm) + [5/8" (15mm) x 2] = 95 3/4" (2430mm)
Masonry height = 59 1/16" (1500mm) + 5/8" (15mm) + 1" (25mm) = 60 11/16" (1540mm)

EXAMPLE #2: CA1 0816, Frame dimensions, 31 1/2" (800mm) x 63" (1600mm).
Masonry width = 31 1/2" (800mm) + [5/8" (15mm) x 2] = 32 3/4" (830mm)
Masonry height = 63" (1600mm) + 5/8" (15mm) + 1" (25mm) = 64 5/8" (1640mm)



Ultra Series





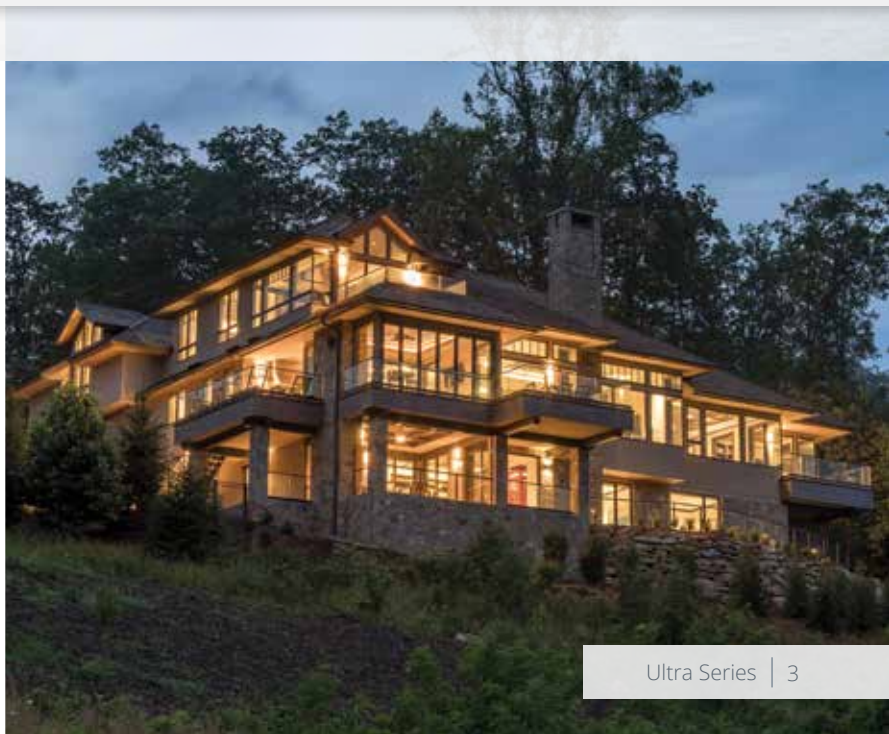


The Ultra Series

Kolbe's Ultra Series windows and doors can mimic the traditional style of wood windows and doors with a warm wood interior and intricate exterior trim details, or they can accommodate modern design needs. Choose from an extensive palette of exterior colors, interior wood species and finishes, divided lite profiles, and more.

The Ultra Series provides:

- Versatile styling, from traditional to modern architectural details
- Divided lite profiles & patterns; aesthetic & efficient glass choices
- Wood interior in familiar to exotic wood species
- Strong and durable extruded aluminum exterior
- A palette of 50+ exterior & 20 interior pre-finish choices



Residential Construction

Years of innovation at Kolbe have led to products with great design flexibility for residential construction. Whether it's renovation or new construction, we offer products that add your signature style into your home. Your design reflects not only an architectural style, but also your individualism – from colonial to contemporary, Kolbe has the products to help you express yourself.



Commercial Capabilities

Each of our windows and doors are built-to-order. Uniquely crafted to each project's specifications, Kolbe provides endless options and design solutions in configurations suitable for commercial projects. Our technical specialists can help provide support on various aspects of your commercial project.



Historical Renovation

Our reputation for producing custom-crafted windows and doors with attention to intricate details lends itself perfectly to historical renovation projects. Our products are designed to marry traditional design aesthetics with advanced technology and sustainability, and we offer many options to restore beauty to your project while maintaining historic character. In addition to providing aesthetics and efficiency, Kolbe can work with you to meet building codes and historical district requirements.



Energy Efficiency

Kolbe windows and doors are available with a wide variety of glass options to meet your energy needs in any climate. In fact, many Kolbe products meet or exceed ENERGY STAR® guidelines in most climate zones while reducing energy costs for home and business owners.



Sustainable Design

Due to our commitment to maintaining ecological sustainability, Kolbe sources most of the components used in our window and door products from within 500 miles of our factory. The wood species we use are renewable resources sourced from managed forests, while our standard glass contains 25-30% recycled content. In addition, we can provide The Forest Stewardship Council® (FSC®)-certified wood species for many of our window and door products (FSC® license code FSC-C019541).



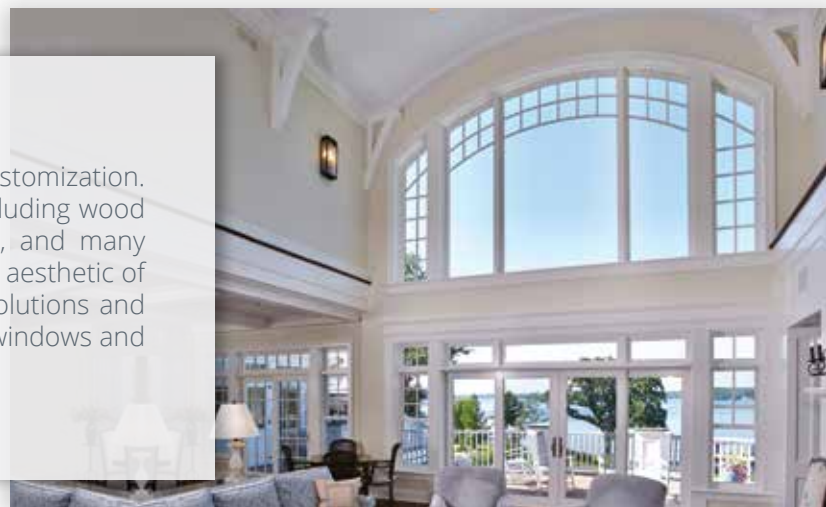
Impact Certification

Impact modifications are available on a number of Kolbe windows and doors. Our products are specially designed with the strength and durability to withstand hurricane force winds and flying debris, and are independently tested to meet or exceed strict building codes in coastal regions. There are no unsightly rods or extra locks to fasten, so Kolbe's impact-certified products offer the same beautiful appearance as non-impact products.



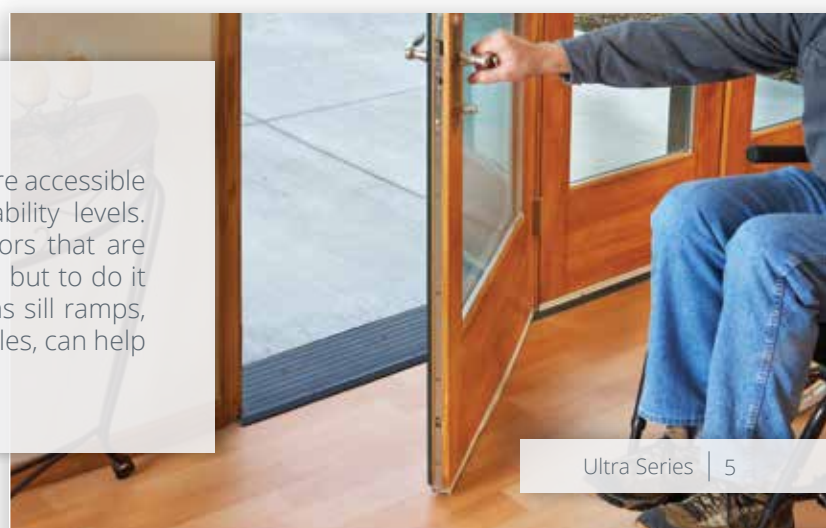
Design Options

For over 70 years, Kolbe products have been all about customization. We offer many options for our windows and doors, including wood species, custom divided lite patterns, unique shapes, and many interior and exterior finishes to complement the design aesthetic of any project. We're known worldwide for our custom solutions and have worked closely with architects to build distinctive windows and doors that help bring your most innovative ideas to life.



Universal Design

Universal design is the concept of creating spaces that are accessible and comfortable for individuals of diverse physical ability levels. Kolbe offers options for a variety of windows and doors that are not only designed to make independent living possible, but to do it with quality, style and flexibility. Kolbe's options, such as sill ramps, motorized operators, larger cranks and lever door handles, can help make independent living easier.





Casements

The design and performance of Ultra Series casements are the features that make these windows so popular. Most casements open from the side to a 90-degree angle, allowing for maximum ventilation. Multi-point locking levers offer a sleek, convenient way to tightly secure your windows from one locking location.

*Crank-Out Casements | Crank-Out XL Casements | Push-Out & Push-Out EP Casements | French Casements
Picture & Transom Units | Picture Combination Units | Bow & Bay Units | Segment Head & Half-Circle Top Units*



Crank-Out XL Casement

Kolbe's crank-out XL casements fill massive openings for generous views and ventilation. A simple cranking operation opens and closes the window easily, despite the large size, with a choice of handle styles that fold down to avoid interference with curtains or drapes.



Crank-Out XL Casement Standard Features

- ▶ 2-1/4" thick sash
- ▶ Overall jamb width is 4-9/16" (basic box width is 3-1/4" plus extensions)
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mull units
- ▶ Exterior wood parts are treated
- ▶ Extruded aluminum exterior finished with a 70% PVDF fluoropolymer coating (meets performance requirements of AAMA 2605)
- ▶ Accessory grooves are integral to the extruded frames for the easy addition of accessories
- ▶ Energy efficient, insulating Solar Low-E glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ Interior insect screen with Clay-colored aluminum frame and BetterVue® fiberglass mesh
- ▶ Clay-colored nesting handle and locking lever with multi-point locking system
- ▶ Corrosion resistant, dual-arm operators with concealed, adjustable hinges (On "W" series and wider. Dyad operators with concealed, adjustable hinges on units narrower than "W"; single-arm operators with Tri-Euro hinges for added support on segment head, half-circle top and impact units)
- ▶ Heavy vinyl nailing fins with head drip caps*

NOTE: All measurements are nominal.

* Standard only on units without brickmould.

Hardware

- ▶ Nesting handle and locking lever† provide a sleek look and are unobtrusive. Available in Clay, White, Beige, Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber, Oil-Rubbed** or Matte Black.
- ▶ Metal Ashlar handle with multi-point locking lever. Available in White, Rustic Umber, Satin Nickel or Matte Black.
- ▶ Nesting handle with custodial lock prohibits unauthorized operation. Available in White, Beige, Rustic Umber or Matte Black.
- ▶ Universal design casement handle and lock are larger and offer ease-of-use for people with physical limitations. Available in White or Clay.

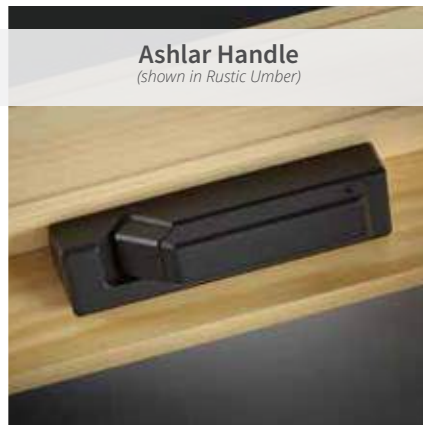
†Locking lever is not available on French casements.

**The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.

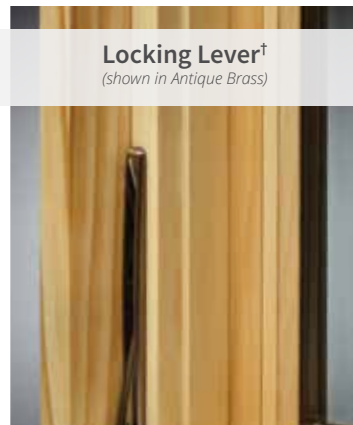
Nesting Handle
(shown in Satin Nickel)



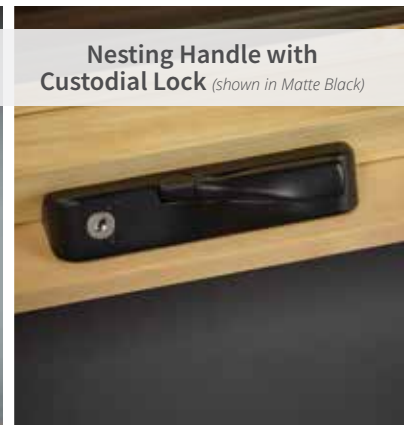
Ashlar Handle
(shown in Rustic Umber)



Locking Lever†
(shown in Antique Brass)



Nesting Handle with Custodial Lock
(shown in Matte Black)





Crank-Out XL Casement Options

Glass (pg. 200)

- ▶ Solar Gain Low-E
- ▶ Solar Advanced Control Low-E
- ▶ Solar Control Low-E
- ▶ ThermaPlus™ Low-E
- ▶ Neat®
- ▶ Triple pane
- ▶ Patterned-, bronze-, or gray-lite
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pg. 201)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 1-3/4", 2-1/4" or 4-1/2" bars
- ▶ Grilles-in-the-airspace

Insect Screens

- ▶ Insect screen with aluminum or UltraVue® fiberglass mesh; frame available in White, Beige, Dark Bronze anodized, Clear anodized, or Coal Black
- ▶ Retractable insect screen kit with beveled or square cover (pg. 204)
- ▶ Wood wrapped insect screen frame (not available on radius top units)
- ▶ Brass insect screen with Brass frame (not available on radius top units)

NOTE: All measurements are nominal.

Other Options (not all options are available on all casement types; custom options are also available)

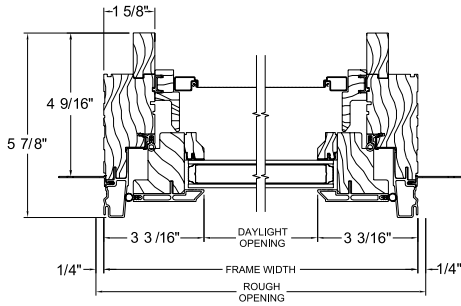
- ▶ French crank-out casements
- ▶ Other wood species and FSC®-certified wood (pg. 198)
- ▶ Interior prefinishing (pg. 198)
- ▶ Interior casing
- ▶ Ovolo or square profile glazing beads and interior divided lite bars (pg. 201)
- ▶ Prep for stool
- ▶ Extruded aluminum accessories applied to accessory grooves on the exterior frame (pgs. 206-212)
- ▶ Ashlar handle in Satin Nickel, White, Rustic Umber or Matte Black
- ▶ Single-arm operators with Euro hinges (meet emergency escape and rescue requirements on some "L" Series casements)
- ▶ Stainless steel exterior operator parts
- ▶ Extension jambs (up to 12" applied, over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips
- ▶ Factory-installed Window Opening Control Device (WOCD) (pg. 203)
- ▶ High performance or impact performance modifications (pg. 205)

Universal Design Handle (shown in Clay)

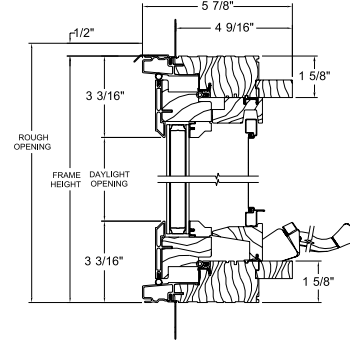


Crank-Out XL Casements | Double Pane

Horizontal Section

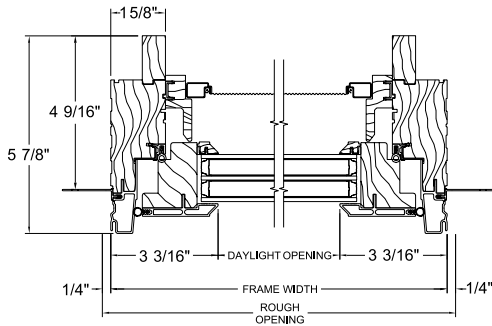


Vertical Section

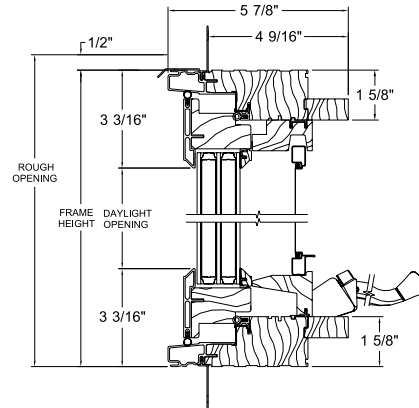


Crank-Out XL Casements with 4-9/16\" Jamb | Triple Pane

Horizontal Section



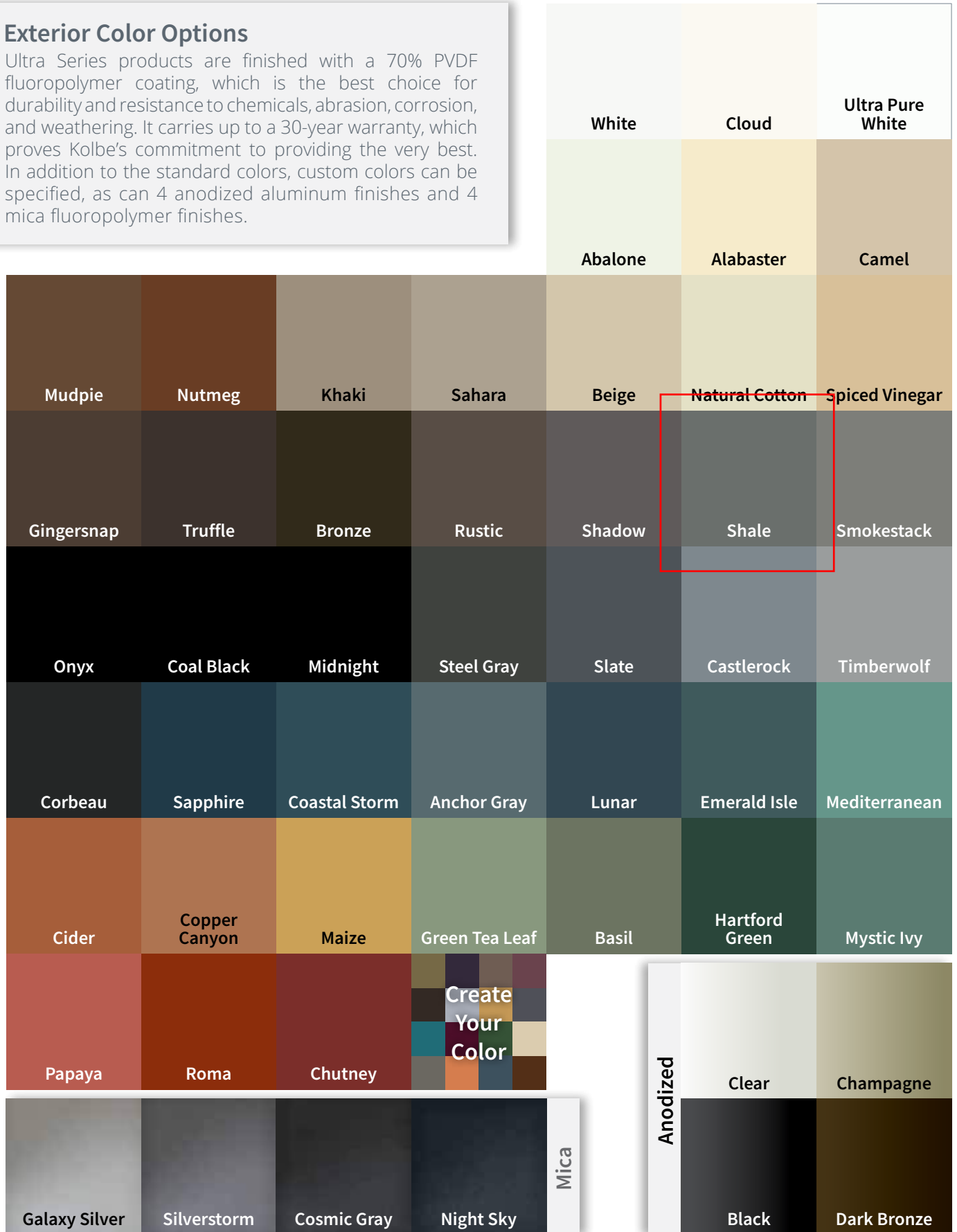
Vertical Section



NOTE: Drawings are not to scale. Brickmould is shown factory-applied. Brickmould may be shipped loose for field application. Some units are shown with optional drip cap or nailing fin. For Ultra accessory or application drawings, see pgs. 206-212. Additional and the most current drawings are available at www.kolbewindows.com.

Exterior Color Options

Ultra Series products are finished with a 70% PVDF fluoropolymer coating, which is the best choice for durability and resistance to chemicals, abrasion, corrosion, and weathering. It carries up to a 30-year warranty, which proves Kolbe's commitment to providing the very best. In addition to the standard colors, custom colors can be specified, as can 4 anodized aluminum finishes and 4 mica fluoropolymer finishes.



Some options for our products may have limited color offerings or may incur a nominal charge. Check with your Kolbe dealer for further details on pricing and availability. Printed images of exterior finishes may vary slightly from actual colors. Selections should be made based on actual color samples available from your Kolbe dealer. There is a "color range" with anodized colors. That is, there is an acceptable "light" to "dark" color range that can be experienced on any job. According to AAMA 611-98 specifications, Section 8.3, the range may be up to 5 Delta E's. We can provide from our anodized vendor color samples of this color range if requested. The color range is due to numerous variables which include (but are not limited to) the shape of the parts, alloy variations and time in the anodizing process. This could mean that a sash part may appear slightly different in color than a frame part. This is/will be acceptable. Even the samples that may be provided may vary from the final product due to the variables. You must be aware of this as this will be considered acceptable.

Glass Options

Glass

Kolbe offers glazing options to provide optimum energy efficiency for the geographic region in which you live. Low-E is a “smart” coating that reduces energy transfer through the insulating glass unit. The result is reduced heating and cooling costs throughout the year. Low-E coatings also reduce the potential for condensation, as well as provide protection against fading of furniture, fabrics and carpeting.

Kolbe offers the following Low-E glass options, as well as many specialized options.

Solar Low-E

Suitable for most climates and meets most energy zone requirements. Solar Low-E glass is designed to reflect room-side heat back into the room during winter months. In summer, visible sunlight is allowed in while blocking most of the sun’s infrared heat energy. Kolbe’s standard.

Solar Gain Low-E

When the weather turns frigid, Solar Gain Low-E glass is the perfect cold remedy. It keeps homes warmer and more comfortable by blocking heat loss to the outside and letting the sun’s heat stream in to increase solar heat gain.

Solar Advanced Control Low-E

A tinted glass recommended for warm climates that achieves solar control over a wide range of the spectrum, while also helping to reduce glare.

Solar Control Low-E

Offers an ideal balance of solar control and high visibility by blocking 95% of UV rays while maintaining the interior temperature.

ThermaPlus™ Low-E

An additional Low-E coating which helps to meet the strictest energy requirements by providing protection against heat loss and UV damage. Available with dual pane versions of Solar Low-E, Solar Control Low-E or Solar Advanced Control Low-E glass.

Triple Pane

Provides a greater energy performing window that keeps indoor air warm and comfortable, prevents heat loss and lowers your heating bills. It is constructed with three panes of glass, thermal spacer bars and is available in Solar Low-E, Solar Gain Low-E, Solar Control Low-E and Solar Advanced Control Low-E glass.

Preserve® Film

A protective film that protects the glass surfaces from scratches during transit and construction, as well as reducing the time involved in job site clean-up.

Tinted, Colored or Patterned

Provides shading, privacy or visual interest.

Tempered

Standard in Kolbe doors to address safety concerns. Also available in window units to meet specific building codes.

Laminated

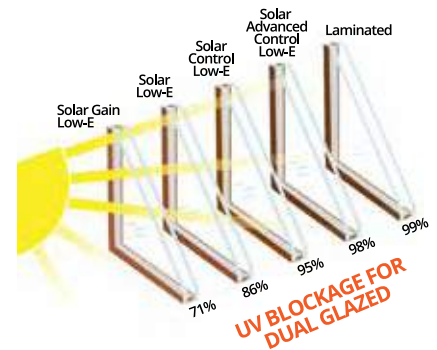
Benefits include safety, security, sound control and provides the ultimate in UV blockage.

Impact

Glazing utilized to withstand harsh environmental conditions, especially in coastal regions. Combined with an impact rated product, this glazing offers the highest level of security.

Neat®

Harnesses the sun’s UV rays to loosen dirt so water can rinse it away, leaving windows virtually spotless. A special sputter-coating process makes the glass ultra smooth, so the water “sheets off” more readily than it would on uncoated glass, allowing you to spend less time cleaning.



NOTE: Tested units include argon. The laminate has 1/4" inner pane. Based on Lawrence Berkeley Lab (LBL) Window 5.2 © 2003 analysis for classical UV transmission data.



Not all glass is available on all products. Please contact your Kolbe dealer for product specifics. Neat and Preserve are trademarks of Cardinal IG.

Low-E insulating glass with a stainless steel spacer bar carries a 20-year warranty. Not all glass options listed have the same glass warranty. Please contact your dealer for details.

Divided Lite Options

Expand the character of your home or project by adding one of our divided lite options to your windows and doors. Choose anything from a traditional, colonial-style pattern to a unique, custom design to accentuate the overall appearance of your project. Kolbe offers two types of divided lites for Ultra Series products: performance divided lites and grilles-in-the-airspace. As standard, wood bars have a beveled profile, however, an ovolo profile or a square profile is also available. Divided lite cross section drawings can be found on pg. 213.

Performance Divided Lites

Kolbe's performance divided lite (PDL) glazing system gives the appearance of true divided lites without sacrificing energy efficiency. Extruded aluminum bars are adhered to the exterior and pine bars are adhered to the interior of the single lite of insulating glass. Aesthetically pleasing spacer bars are installed within the insulating glass unit. Together, these bars create the illusion of true divided lites. PDL bars are available in 5/8", 7/8", 1-1/8", 1-3/8", 1-3/4", 2-1/4" or 4-1/2" bar widths. The exterior finish of the aluminum bars will match the exterior finish on the unit. Variations on the PDL option may include custom grille patterns, custom bar widths or no spacer bars. Some designs may have a composite material for the exterior PDL bar.



Beveled



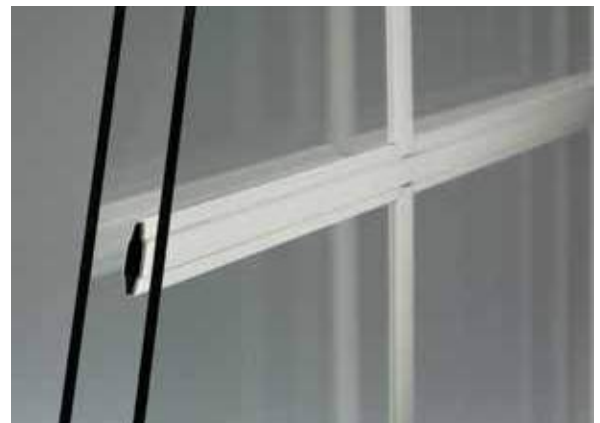
Ovolo



Square

Grilles-in-the-Airspace

Grilles-in-the-airspace are constructed with aluminum bars sealed between two panes of insulating glass, offering the look of divided panes while reducing cleaning time. For units with 7/8" insulating glass, contoured, 3/4" wide bars are standard in White, Beige, Sand, Rustic, Hartford Green and Chutney. Optional colors are light wood and dark wood faux finishes. Two-tone contour or flat grilles are available with either light or dark wood faux finishes to the interior and White to the exterior. Also available for 7/8" insulating glass are 5/16" wide Brass and Pewter pencil bars.



Glazing Beads & Muntin Bars

As standard, glazing beads have a beveled profile, but may also be ordered with an ovolo or square profile. Matching muntin bars are available on units with performance divided lites (PDL). Units will have beveled muntin bars on the exterior, regardless of which profile is chosen for the interior (See divided lite cross section drawings on pg. 213).



Beveled



Ovolo



Square

Options & Accessories

Exterior Trim Options

Ultra Series windows and doors are standard without brickmould. For a more distinctive look, numerous different extruded aluminum trim profiles are available. Various sill nosings can also be applied with brickmould to enhance the overall appearance and to create the perfect look. Custom brickmoulds and casings are available as well; talk to your local Kolbe dealer for more information.



1-15/16" brickmould



1-5/8" brickmould



2" flat casing



2" flat casing with backband



3-1/2" profiled brickmould



3-1/2" flat casing



3-1/2" flat casing with backband



Ogee casing



Bull nose casing



Historic brickmould



Pavilion brickmould



Stucco casing



Beaded casing



Beaded casing with backband



Chicago brickmould
(field applied only)

NOTE: Additional trim details are shown on pgs. 206-212.

Universal Design

To meet the needs of homeowners with physical limitations, Kolbe offers a variety of windows and doors that are designed to make independent living possible. From door sills that create a flush surface for easier passage between the interior and exterior, to window and door hardware that provides ease of operation, we have numerous options that will help make living at home far easier. Whether your project is new construction or you are adapting an existing residence for a special need, Kolbe's windows and doors with universal design options will give you the freedom and style you are seeking.

Casements



Longer crank handles with large knobs for casement windows make operating easier. Available in white or clay.



Larger levers for multi-point casement locks make locking of a casement window easy. Available in white or clay.



Motorized operators make opening and closing casement windows simple and effortless. Available in white or clay.

Double Hungs



A crank handle hardware kit for double hungs allows the bottom sash to be operated with minimal effort. Available in white.

Swinging Doors



Wider door sizes help provide additional space for those who use mobility aids.



ADA-compliant sills (thermal break and non-thermal break) for swinging doors create a flush surface for easy access to pass through.



Lever handles for swinging doors are available in a variety of styles and finishes and make operation easier than doors with knobs.

Sliding Doors



Aluminum sill ramp kits for Garden-Aire sliding patio doors allow smooth transitioning between the interior and exterior of the home.

Many of these options meet standards of the Americans with Disabilities Act. Other options, such as taller bottom rails on doors, are also available to meet these standards. Certain product limitations and modifications may apply. Please contact your local Kolbe dealer for more information.

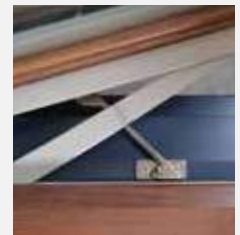
Window Opening Control Devices (WOCDs)

Kolbe offers Window Opening Control Devices (WOCDs) that restrict the size of the open window area to less than 4 inches, and feature a limit release mechanism to allow for emergency escape. These devices allow the window to latch into place at a predetermined position and automatically re-latch when closed. The WOCDs meet the ASTM F2090-13 requirements.

WOCDs can be factory applied to Ultra Series Sterling double hungs, XL Sterling double hungs, and Traditional double hungs, and are available in a Satin Nickel finish. WOCDs may also be field-applied to crank-out and push-out casements.



Double Hung with WOCD



Crank-out Casement with WOCD

NOTE: This device meets the stringent safety requirement of ASTM F2090-13 if applied per recommendations. Not all windows are available with Window Opening Control Devices. Please ask your local Kolbe dealer about availability.

A large, moss-covered tree trunk stands in a forest. The tree is the central focus, with its trunk covered in vibrant green moss. The background is a dense forest of trees and foliage, with sunlight filtering through the leaves. The overall scene is natural and serene.

NATURAL WOOD BEAUTY

EXTERIORS

Prodema

NATURAL WOOD BEAUTY

PRODEX

1 NATURAL WOOD
BRINGS YOUR
PROJECTS TO LIFE

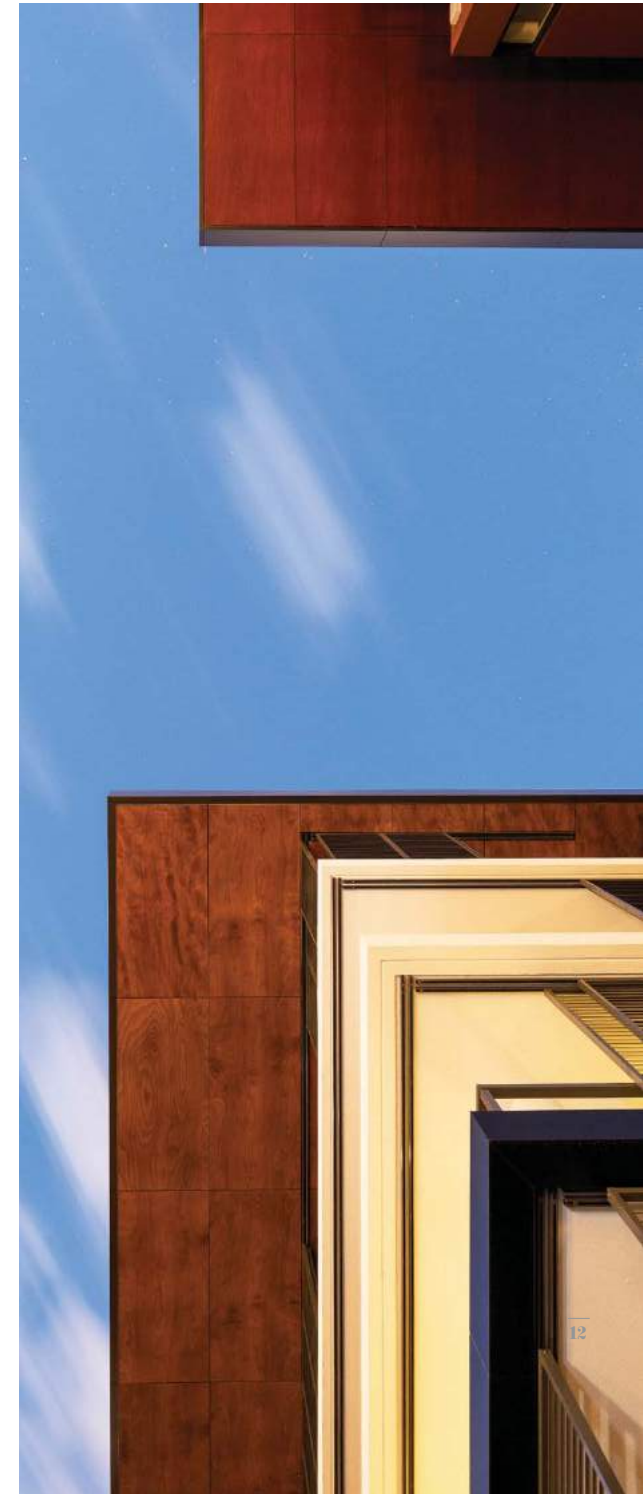




THE ELEGANCE OF NATURAL WOOD

Our objective is to provide the world of architecture with unique materials that help architects design warm, beautiful, comfortable spaces that improve the quality of life for all.

Energy efficient buildings with the elegance of natural wood.





2 BOUNDLESS CREATIVITY





PRODEX pushes the envelope in facade design as architects partner with Prodemá to create innovative designs never thought possible. A product that allows your vision become reality by offering versatility, warmth, elegance, and remarkable performance.

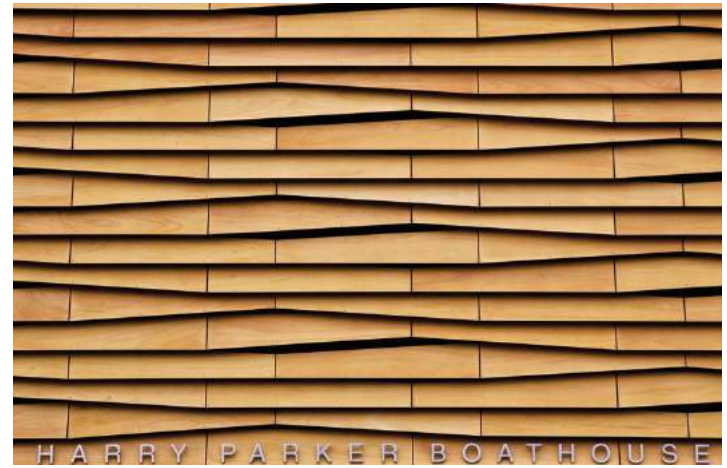
Here at Prodemá we work hard to be a source of inspiration for architects. This partnership has translated into prestigious architectural design awards, globally.





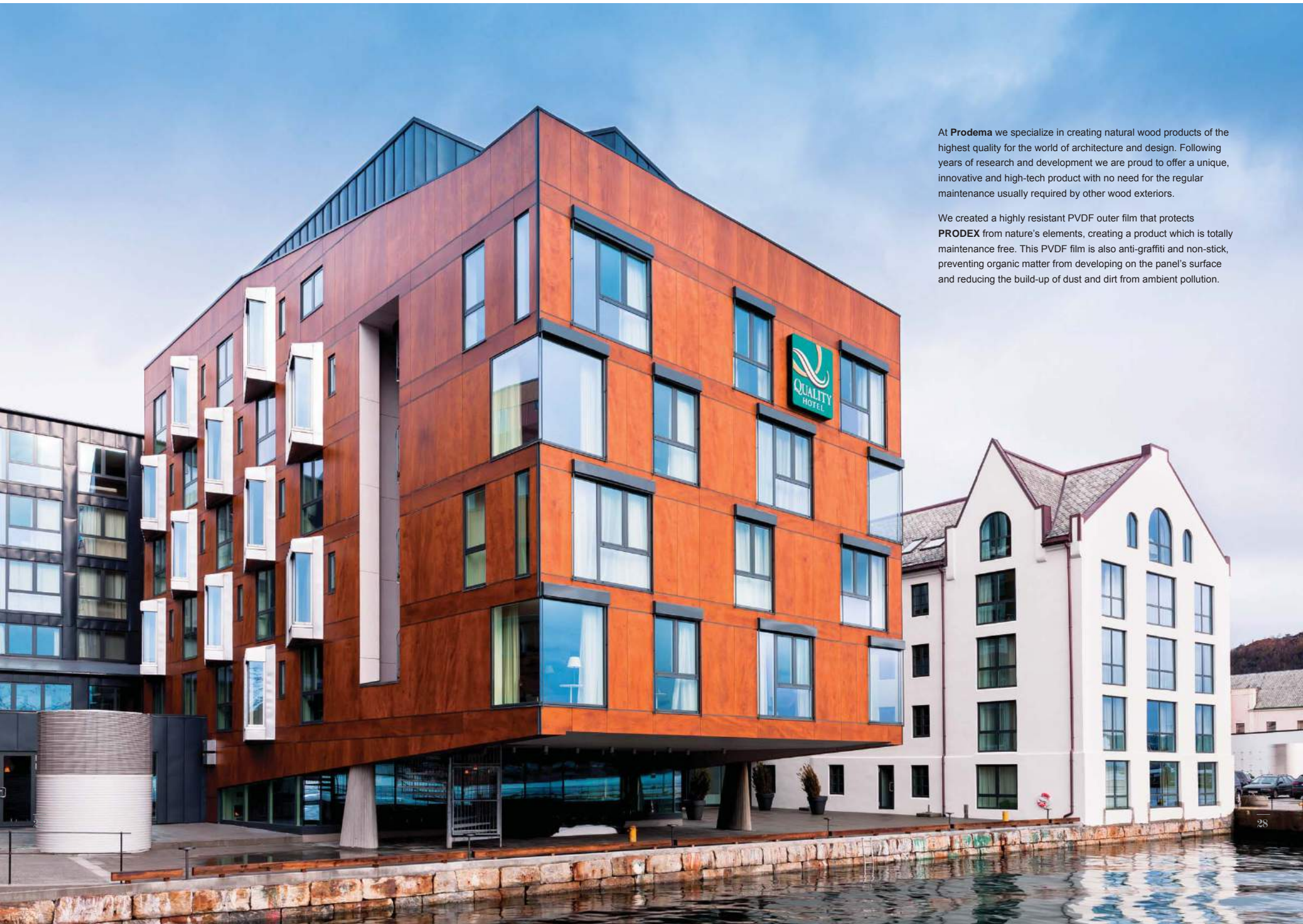
Harry Parker Boathouse, Boston

2014 AIA Institute Honor Awards for Architecture.
Chicago Athenaeum American Architecture Award 2008.



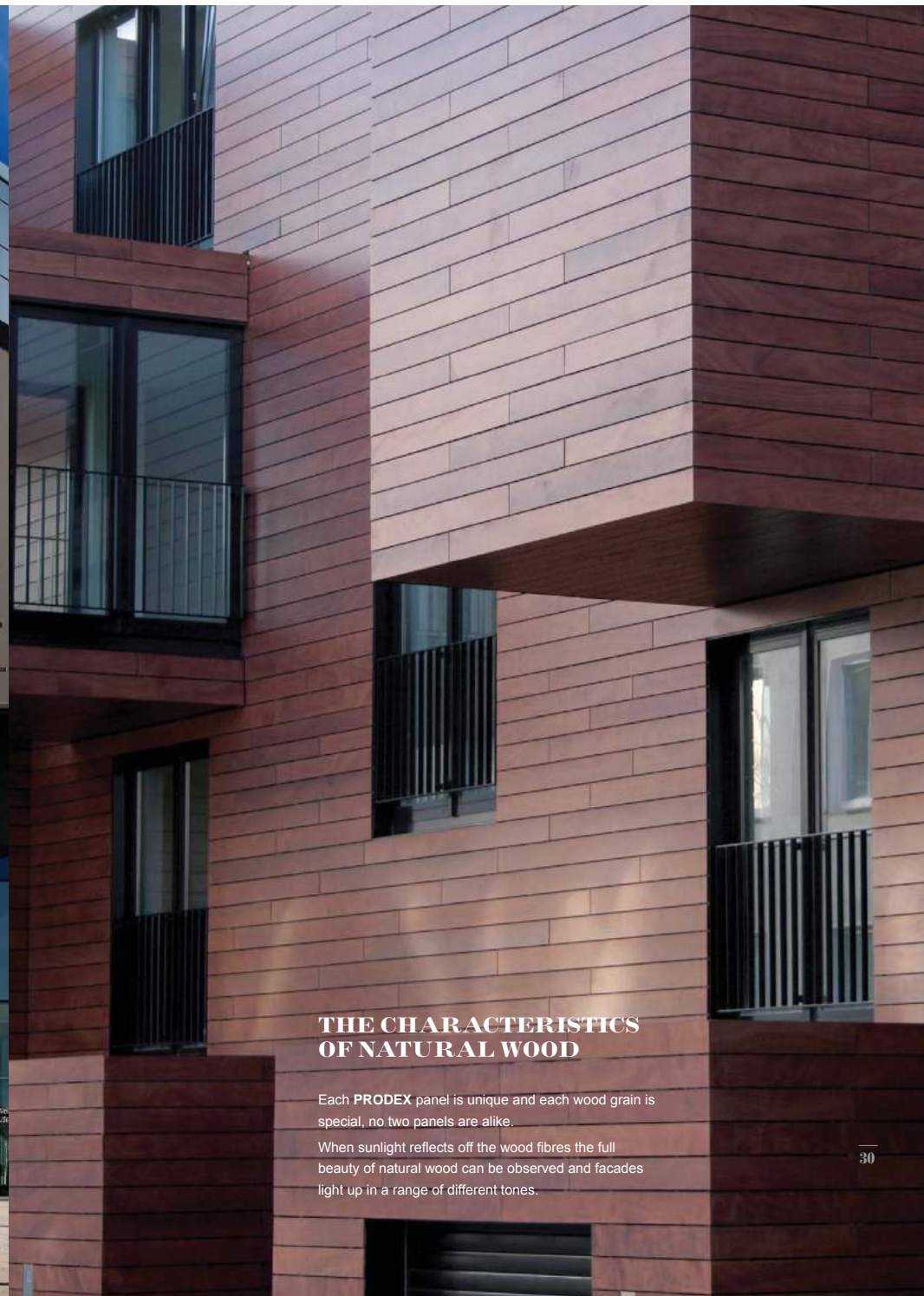
**3 MAINTENANCE FREE
NATURAL WOOD**





At **Prodema** we specialize in creating natural wood products of the highest quality for the world of architecture and design. Following years of research and development we are proud to offer a unique, innovative and high-tech product with no need for the regular maintenance usually required by other wood exteriors.

We created a highly resistant PVDF outer film that protects **PRODEX** from nature's elements, creating a product which is totally maintenance free. This PVDF film is also anti-graffiti and non-stick, preventing organic matter from developing on the panel's surface and reducing the build-up of dust and dirt from ambient pollution.



THE CHARACTERISTICS OF NATURAL WOOD

Each **PRODEX** panel is unique and each wood grain is special, no two panels are alike.

When sunlight reflects off the wood fibres the full beauty of natural wood can be observed and facades light up in a range of different tones.



**4 COMMITTED
TO NATURE**



At **Prodema** quality design and innovation are of upmost important to us. However, our respect for nature is even more important: being both our source of material and our inspiration. At **Prodema** we work to promote sustainable construction by maximizing wellbeing with environmental efficiency in building projects.

Using **Prodema** also provides **points in green building certification schemes such as LEED** (Leadership in Energy and Environmental Design) or **BREEAM** (Building Research Establishment Environmental Assessment Methodology).

Prodema also boasts **PEFC** certification, the guarantee that our products have been manufactured with raw forest materials managed in a socially and environmentally responsible way.





**5 PRODEX THE
PERFECT SKIN FOR
VENTILATED FACADES**



PRODEX in a ventilated facade is an excellent protective cladding as it prevents rainwater from entering walls and insulation leaving them humidity free thanks to the flow of air behind the panels.

Buildings with a ventilated facade system are well insulated and protected from rainwater throughout the year. They create more comfortable living conditions as temperature variations are reduced to a minimum and energy is saved.

In addition to this, its high quality, versatility, easy installation and minimum maintenance make **PRODEX** the perfect skin for buildings.

Please refer to the **PRODEX** technical catalogue for all information needed on installation.



MOUNTING SYSTEMS

Concealed:

The concealed fixing system is available for both walls and ceilings. The attachment system hides behind the panel for those projects requiring an aesthetically smooth facade, free of hardware.



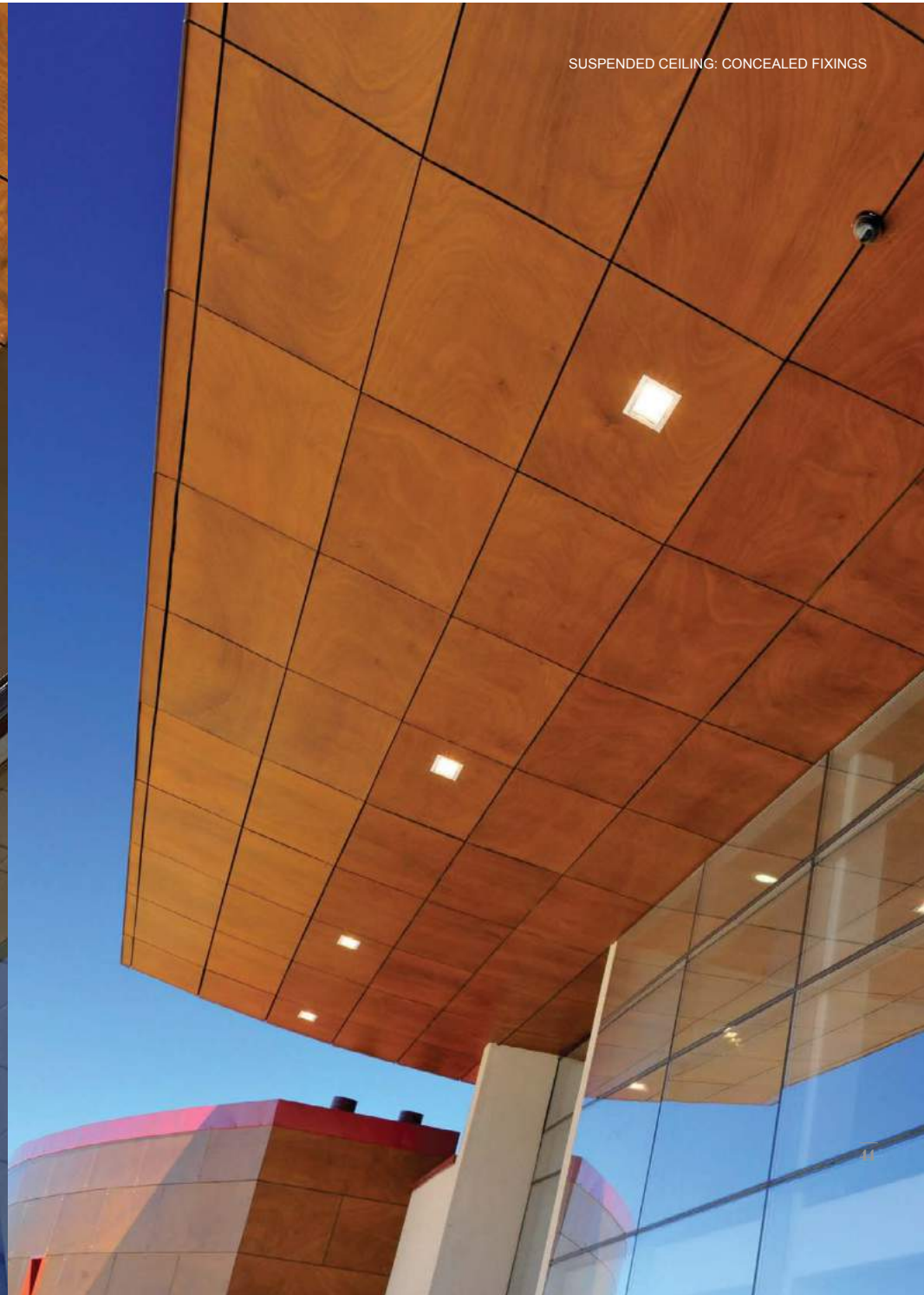
Exposed:

This is the most common mounting system employed with **PRODEX** panels: simple, strong and more cost-effective than other systems.

SUSPENDED CEILING: VISIBLE FIXINGS



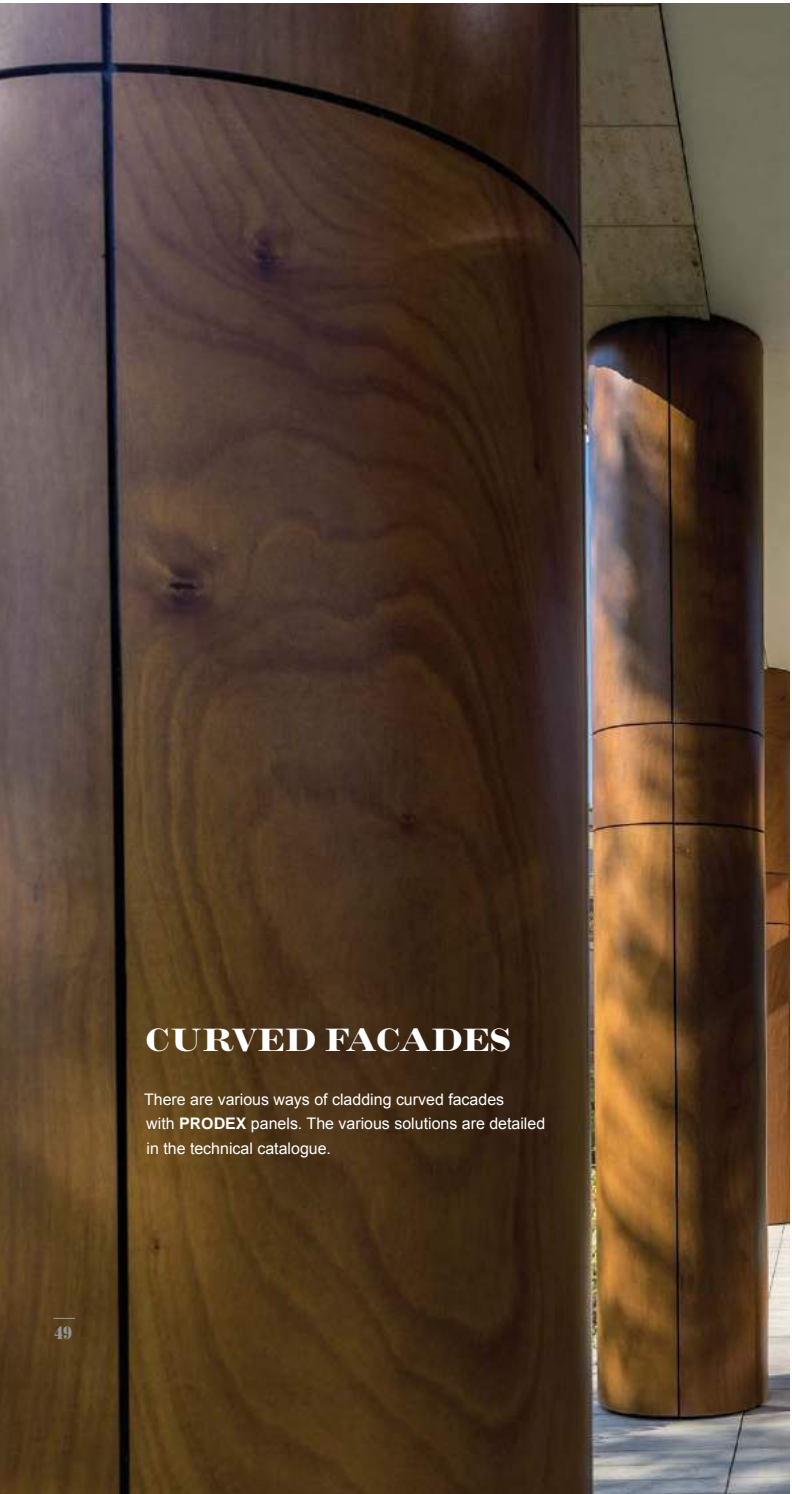
SUSPENDED CEILING: CONCEALED FIXINGS



CLAPBOARD FACADE

This mounting system transforms your facade into traditional clapboard siding with all the benefits of a ventilated facade.





CURVED FACADES

There are various ways of cladding curved facades with **PRODEX** panels. The various solutions are detailed in the technical catalogue.





6 PRODEX COLORS

IN THE **PRODEX** TECHNICAL CATALOGUE ALL THE TECHNICAL SPECIFICATIONS AND POSSIBLE USES FOR THE PRODUCT CAN BE FOUND

PANEL COMPOSITION:

PRODEX panels have a bakelite core covered with a natural wood veneer that is specially treated to ensure maximum resistance. We have developed an exterior PVDF film with non-stick qualities in order to achieve a maximum level of care for the wood, ensuring panels are protected from moisture, rain, sunlight, and even the build-up of dirt on the panels' surface.

MAINTENANCE-FREE:

PRODEX natural wood panels do not need the regular maintenance other woods for exterior require.

AESTHETIC:

PRODEX panels offer the design world the possibility to create natural, living facades with a wide range of tones and creative options available.

RESISTANCE AND DURABILITY:

PRODEX panels are the perfect material for cladding facades thanks to the panel's technical qualities. The panel's bakelite core means it is possible to adjust the panel's thickness and its subsequent technical qualities making **PRODEX** the ideal solution for all types of projects.

PRODEX panels are extremely hard, rendering them perfectly resistant to continuous exposure to sunlight and sharp changes in temperature and humidity.

They also offer a high level of durability against termite attacks and maximum resistance to vandalism.

PRODEX panels also offer excellent dimensional stability.

CLEANING:

The PVDF surface prevents dust and all kinds of dirt from sticking to the panel surface, ensuring ease of maintenance and cleaning.

ANTI-GRAFFITI RESISTENCE:

The outer chemical non-stick layer impregnated into **PRODEX** panels prevents aerosol paint from sticking permanently to the surface.

PANEL DIMENSIONS:

Length x width: 2.440 mm x 1.220 mm. Thicknesses 6, 8, 10, 12, 14, 16, 18, 20, 22 mm.

FIRE RATING:

On request, panels may be supplied with different reactions to fire in line with standard EN 13501-1:

▼ **PRODEX C** - s1, d0

▼ **PRODEX IGN B** - s1, d0

▼ **PRODEX**: Class B for North America

▼ **PRODEX IGN**: Class A for North America

AYOUS VENEER



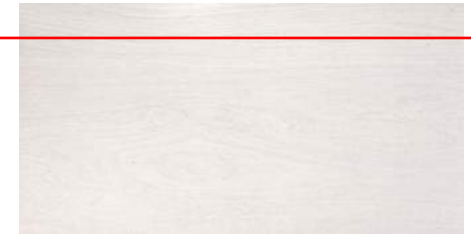
Dark Brown



Light Brown



Pale



Cream



Mocca



Mint

OKUME VENEER



Deep Brown



Rustik



Ice grey



Nux

The Architecture of Metal Fabrics



GKD Metal Fabrics are technologically advanced woven metal fabrics suitable to large or small scale applications, both interior and exterior. We provide a complete design-build solution, custom engineering and installing each project with proprietary attachments. Our metal fabrics are manufactured on four continents, adding drama and beauty to great architecture throughout the world.

A Design-Build Solution

A Turnkey Product

When you specify GKD metal fabrics, we will work with you on concept development, design, engineering, fabrication, delivery and on-site installation, including the hardware for attachment. Our team of professionals

is accustomed to working worldwide with the most demanding designs and programs, collaborating with your team to realize your vision — without compromise.

For the Long Haul GKD metal fabrics are the smart choice — environmentally friendly, durable and virtually maintenance-free. Our stainless steel is an energy efficient product to manufacture, made with recycled material as

well as being recyclable itself. Non-corrosive, GKD metal fabrics can be simply washed with water if it ever becomes necessary.



Façades

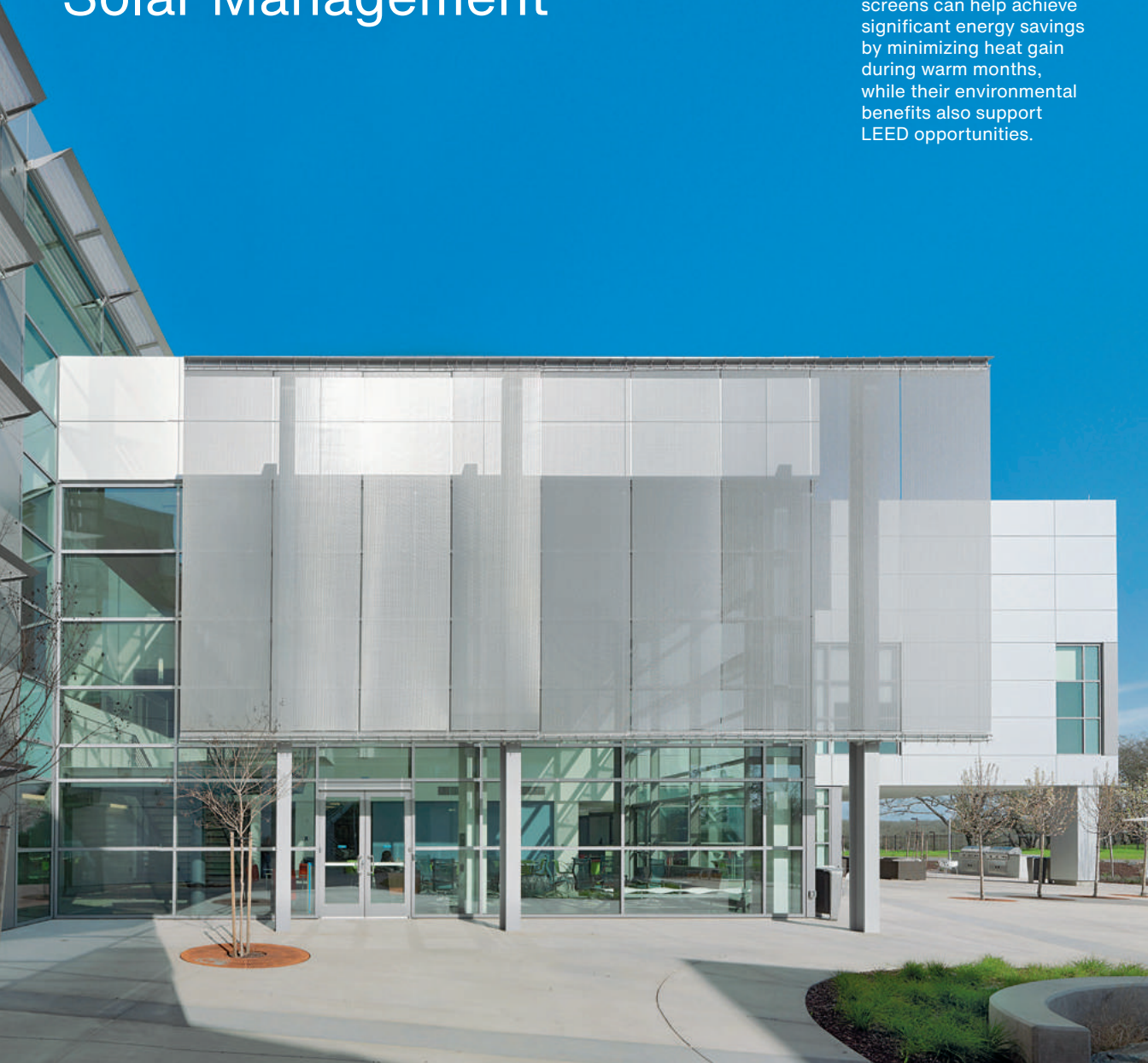
Woven metal façades provide both utility and beauty for any structure, from a parking lot to a museum. Around the world, residences, offices, factories, hospitals, schools and sports facilities are protected and enriched

by GKD metal fabrics. The open weaves offer transparency and functionality, enticing from the outside without obscuring views from within, allowing for air circulation while also providing the necessary security.



Solar Management

GKD metal fabric sun screens can help achieve significant energy savings by minimizing heat gain during warm months, while their environmental benefits also support LEED opportunities.



Safety and Security

GKD metal fabrics are an ideal solution for safety and security concerns. For railing or balustrade infill they provide security while retaining a light and graceful presence. The material flexibility also facilitates its use on more complex, organic designs.



Product Specifications

Flexible, two directions

Material	Bronze
Open Area	37%
Weight	0.50 lbs/sqft
Max. width	12'

System Components

Flat & angle
Flats with clevis
Flats, clevis & binding rod

Applications

Mesh Wall Coverings
Ceilings
Mesh Partitions

North American Headquarters

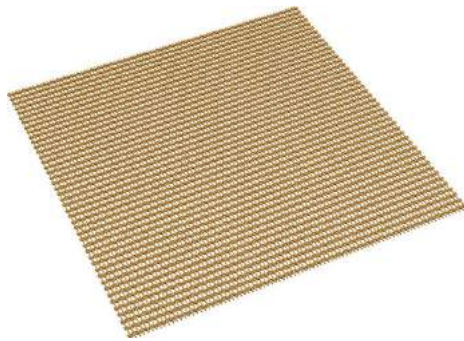
North America
GKD-USA, Inc.

825 Chesapeake Drive
Cambridge MD 21613
Direct: 410.901.8429 or
410.901.8428
Fax: 410-221-0544
metalfabrics@gkdusa.com

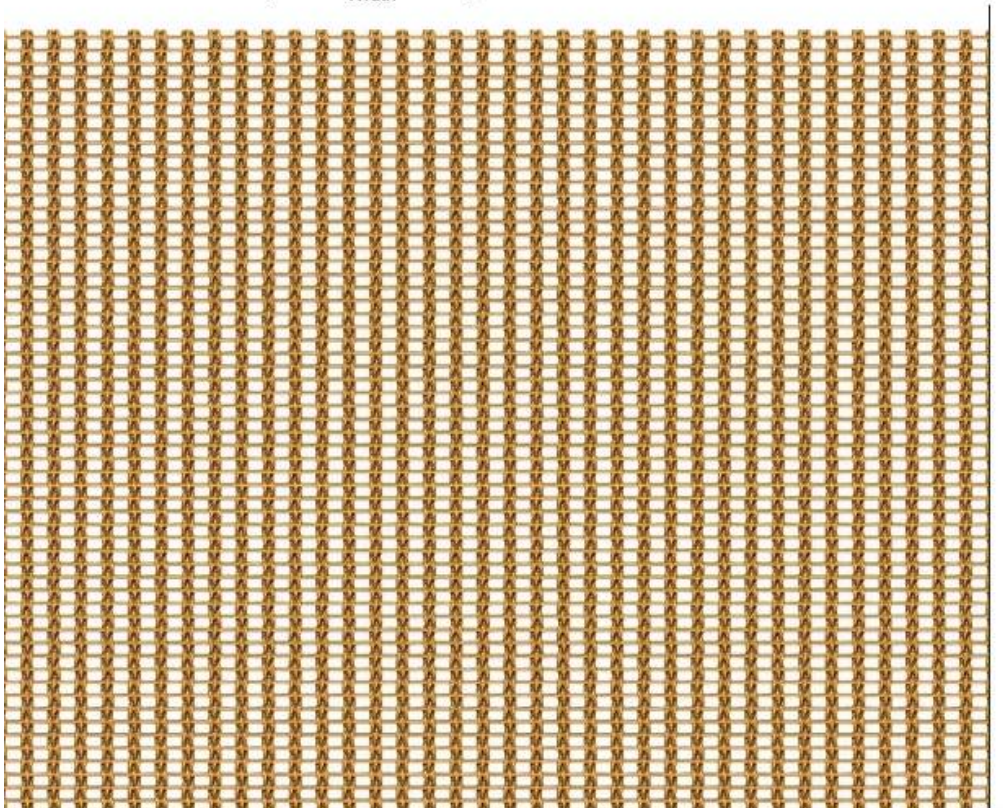


SUNSHADING

Please refer to
page 2 for Solar
Control Data



← Width →



Inches 0 .5 1



GKD-USA offers a complete sunshade technical program. Our engineering team works with you to provide an assessment and application analysis to your specific need or project. GKD Metal Fabric Sunshading Façades offer significant energy saving, comfort, and a pleasant work environment by filtering light and providing transparent views to the outside.

North American Headquarters

North America
GKD-USA, Inc.

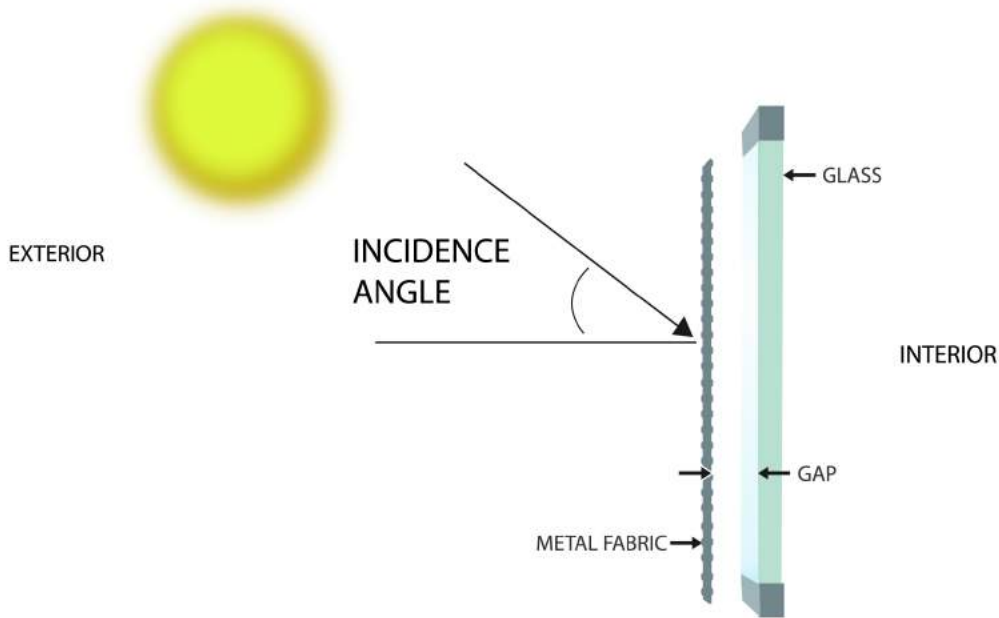
825 Chesapeake Drive
Cambridge MD 21613
Direct: 410.901.8429 or
410.901.8428
Fax: 410-221-0544
metalfabrics@gkdusa.com



Solar Control Data

Percentage of Visible Light Transmittance
Percentage of Visible Light Reflectance
Solar Gain Coefficient (SHGC)

Minimum 0.23, Maximum 0.41
Minimum 0.25, Maximum 0.33
Minimum 0.18, Maximum 0.30



SOLAR CONTROL DATA NOTES:

Test per EN 410 "Glass in building - Determination of luminous and solar characteristics of glazing"
SHGC per EN 13363-1 "Solar protection devices combined with glazing - calculation of solar and light transmittance"
Glazing system constants: $U_{glazing} = 1.2 \text{ W/m}^2\text{K}$, $g_{glazing} = 0.60$
TV_{tot} = Visible light transmittance
PV_{tot} = Visible light reflectance
gtot = Solar Heat Gain Coefficient (SHGC)

MATERIALS PRODUCT DATA

SUPPLEMENT - 8/16/2019

- 7. METAL RAILING SYSTEM (trash enclosure)
- 8. GLASS RAILING SYSTEM (roof parapet)

 <p>ARCHITECTS INTERIORS PLANNERS</p>	Project:	3 Pleasant Street	Project 081	Reference Drawing	
	Title:	MATERIALS PRODUCT DATA		Scale:	
		273 Corporate Drive	Portsmouth, NH 03801	Drawn By	Sketch No:
		www.jsainc.com	T 603.436.2551	F 603.436.6973	
			Date:		



PRODUCTS

BRANDS

CASE STUDIES

TECH DATA

SUPPORT

ABOUT



05 7300 FRAMELESS GLASS RAILING SYSTEMS, HANDRAILS, AND BALUSTRADES

[TAPER-LOC® Dry Glaze Monolithic System](#) | [TAPER-LOC® Dry Glaze Laminated System](#) | [GRS Wet Glaze System](#) | [Blumcraft® BGR Wet Glaze System](#) | [EGR Elevated System](#) | [SRS Standoff System](#) | [FSC Glass Clamp System](#) | [Blumcraft® Free Standing Gate](#) | [GRS Glass Gate System](#) | [GRS 1202 Series Glass Gate Systems](#)

05 7310 CRL GRS TAPER-LOC® Dry Glaze Glass Railing System

For 1/2" to 3/4" (12 to 19 mm) Monolithic Tempered Glass, Supports All Mounting Methods



- **First and Only ICC-Approved Base Shoe System** [ESR-3269](#)
- Reduces Installation Time by 50%
- Meets and Exceeds IBC Standards
- Easily Allows You to Remove, Adjust or Replace Glass Panels
- "Most Innovative Commercial Hardware Product" -Glass Magazine
- "Editor's Choice" -Architectural Record

With CRL's TAPER-LOC® Dry Glaze System, no longer is messy cement required. Our System not only self-centers the glass, but plumbs it as well, and is all done from the floor side of the railing. Designed for Interior and Exterior. A method of setting glass using taper sets in place of expansion cement, or using vinyl gasket material in place of silicone.

U.S. Patent Numbers 8,122,654 & 8,201,366 and Commonwealth of Australia Patent No. 2008207524



SPEC / DATA



CAD/PDF DETAILS



BIM OBJECTS



LEED® STATEMENT



RELATED PRODUCTS



PROJECT GALLERY



VIEW CATALOG



INFO REQUEST

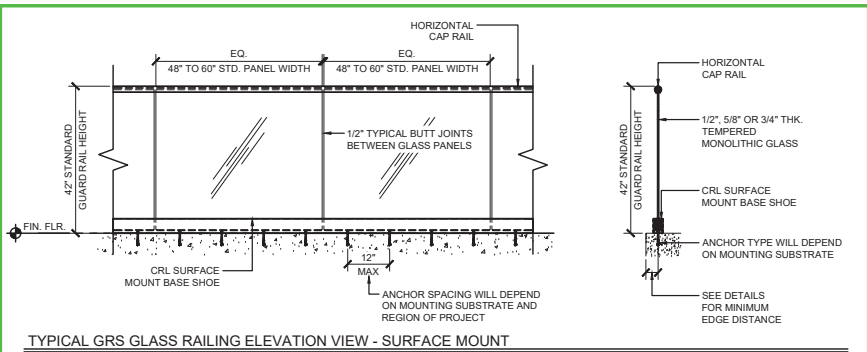


VIDEO



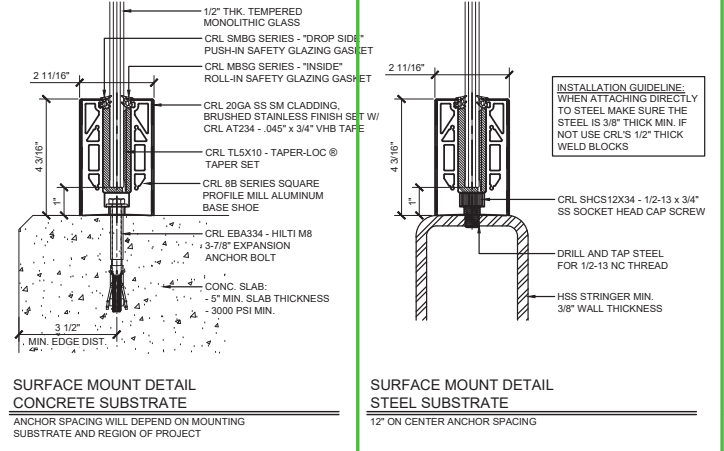
ICC-ES REPORT

SHARE >



TYPICAL GRS GLASS RAILING ELEVATION VIEW - SURFACE MOUNT

TYPICAL BASE SHOE ATTACHMENTS USING THE 8B SERIES BASE SHOE WITH TAPER-LOC® SYSTEM

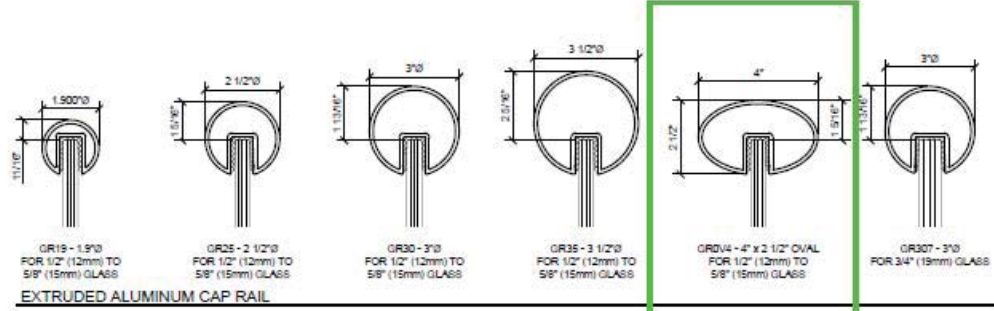


SURFACE MOUNT DETAIL
CONCRETE SUBSTRATE

ANCHOR SPACING WILL DEPEND ON MOUNTING
SUBSTRATE AND REGION OF PROJECT

SURFACE MOUNT DETAIL
STEEL SUBSTRATE

12\"/>



EXTRUDED ALUMINUM CAP RAIL

Revisions By:

△	-	-
△	06/05/18	VM
△	08/12/16	JG
△	02/08/16	JG

CRL ALUMINUM
C.B. LAURENCE CO. ARCHITECTURAL PRODUCTS
2025 E. UNIVERSITY AVENUE, LOS ANGELES, CA 90033-1907
PHONE: 310.414.1232 FAX: 310.414.1233 WWW: CRLALUMINUM.COM



GRS
GLASS RAILING SYSTEM
FOR TEMPERED MONOLITHIC
1/2", 5/8" & 3/4" THK. GLASS

ELEVATIONS AND DETAILS
SURFACE MOUNT AND
FASCIA MOUNT OPTIONS

Drawn By: JG
Date: 12/15/2015
Scale: AS NOTED
File Name:
CRL GRS Monolithic Glass Railing System.dwg
Sheet

Standard Finishes for Aluminum Railing and Windscreen System

Sky White	Beige Gray
Oyster White	Matte Bronze
Agate Gray	Matte Black
Silver Metallic	Mill Aluminum Pre-Treat

Finishes for CRL Base Shoe Cladding



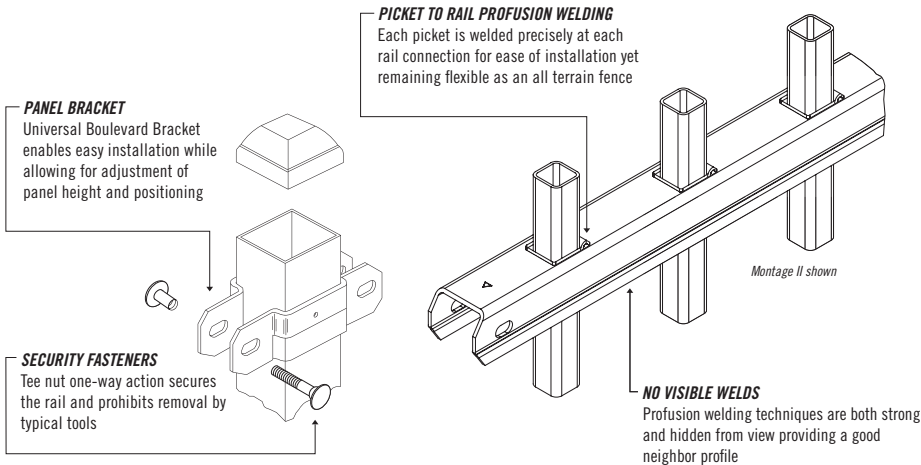
FINISHES FOR CRL Cap Rail, Handrail and Wood Products



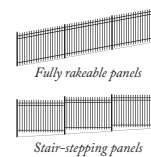
MONTAGE PRODUCTS

PROFUSION WELDED ORNAMENTAL STEEL FENCE

- **MONTAGE II®** | INDUSTRIAL ORNAMENTAL STEEL FENCE
- **MONTAGE COMMERCIAL®** | COMMERCIAL ORNAMENTAL STEEL FENCE
- **MONTAGE PLUS®** | ORNAMENTAL STEEL FENCE



Montage fence panels are fabricated through a **WELDING TECHNIQUE** that combines laser and fusion technology to create a virtually **INVISIBLE STRUCTURAL CONNECTION** at every picket to rail intersection. Montage welded steel construction is unmatched in strength and durability.



RAKEABLE VS STAIR-STEP

The ProFusion welded picket to rail connection is the method used to construct Montage panels, which allows a minimum biasability of **25%**, eliminating unsightly stair stepping of panels.



Ameristar's Montage fence systems are coated inside & out for maintenance free security



Ameristar's Montage fence systems are backed by over 30 years of excellence in the fencing industry



Ameristar products are manufactured domestically in Tulsa, Oklahoma

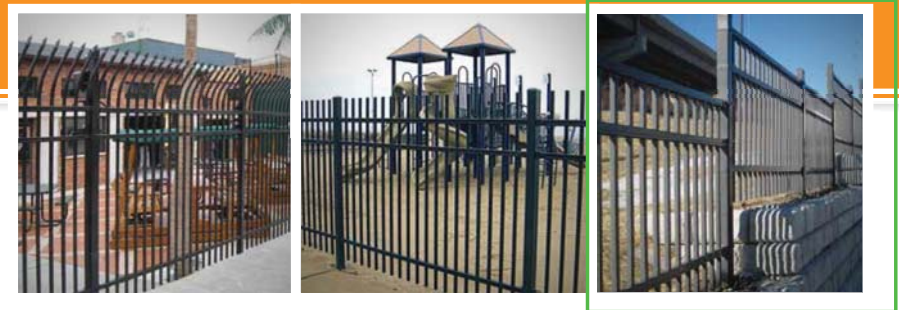
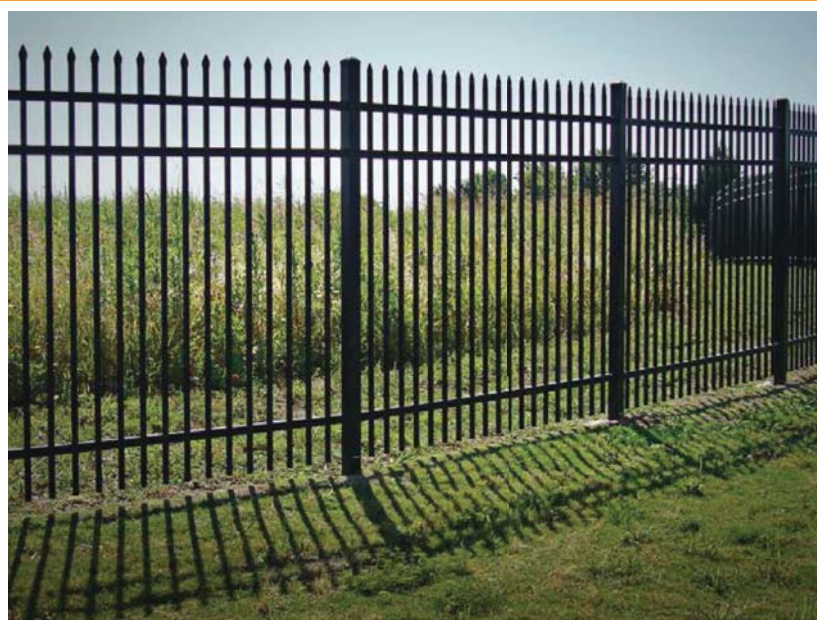


Manufactured from up to 96% recycled domestic steel, Montage products earn project LEED points

MONTAGE II®

INDUSTRIAL ORNAMENTAL STEEL FENCE

1"sq x 14ga PICKETS | 1.75" x 1.75" x 12ga RAILS | 2.5"sq x 12ga & 3"sq x 12ga POSTS
 AVAILABLE HEIGHTS: 3', 3½', 4', 4½', 5', 6', 7' & 8'



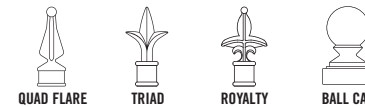
STYLE OPTIONS



COLOR OPTIONS



ADORNMENTS



Built for strength yet a penchant for beauty, Montage II is an industrial grade steel fence that delivers on both levels. Superior welding techniques create a profile that lends itself to landscaping design while maintaining a level of perimeter security that is unmatched.

PRIMARY APPLICATIONS

- State Facilities
- Government Facilities
- Airports
- Water Treatment & Storage
- Public Housing Authorities
- Parks & Recreation
- Stadiums & Event Centers
- Universities
- Hospitals
- K-12 Schools



Montage II gate options vary from *swing gates* for pedestrian or vehicle access to *sliding gates* for high functioning points of entry. Each of these gate systems are *individually constructed* to provide project specific performance.



E-COAT™

Major corrosion problems start from the inside. That's why all products in the Montage® family are **COATED INSIDE & OUT**. Our **GALVANIZED STEEL FRAMEWORK** is subjected to a **MULTI-STAGE PRE-TREATMENT/WASH** (with zinc phosphate), followed by a **DUPLEX CATHODIC ELECTROCOAT SYSTEM** consisting of an **EPOXY PRIMER**, which significantly increases corrosion protection, and an **ACRYLIC TOPCOAT**, which provides the protection necessary to **WITHSTAND ADVERSE WEATHERING EFFECTS**.



PRE-TREATMENT

ALKALINE SPRAY WASH
1

ALKALINE IMMERSION
2

WATER IMMERSION
3

SPRAY CONDITIONER
4

ZINC PHOSPHATE IMMERSION
5

WATER IMMERSION
6

NON-CHROMATE SPRAY SEAL
7

REVERSE OSMOSIS IMMERSION
8

REVERSE OSMOSIS HALO RINSE
9

Immersion processes coat & cleanse the inside of the fence components as thoroughly as the outside. This prevents corrosion giving Montage products the ability to withstand the elements & be maintenance free.

EPOXYPROCESS

ELECTRO COAT EPOXY PRIMER
10

PERMEATE SPRAY RINSE
11

PERMEATE IMMERSION
12

PERMEATE SPRAY RINSE
13

REVERSE OSMOSIS HALO RINSE
14

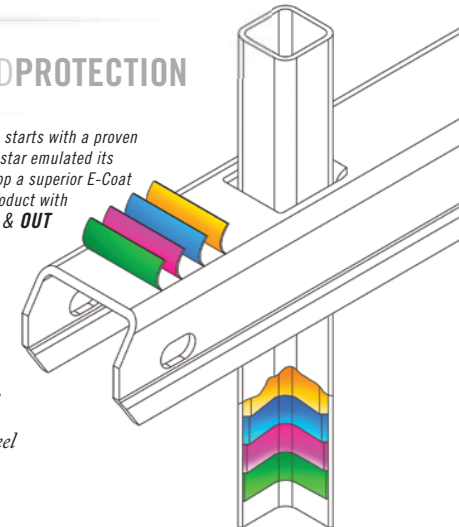
FINISH CURING OVEN
15

COOLING TUNNEL
16

LAYERED PROTECTION

Protection against corrosion starts with a proven process, which is why Ameristar emulated its PermaCoat method to develop a superior E-Coat process that protects the product with complete coverage **INSIDE & OUT**

- Acrylic Topcoat
- Epoxy Primer
- Zinc Phosphate
- Galvanized Steel



ACRYLICFINISH

ELECTRO COAT ACRYLIC PRIMER
17

PERMEATE SPRAY RINSE
18

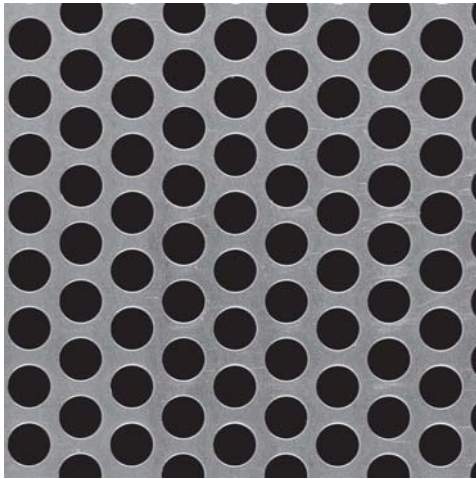
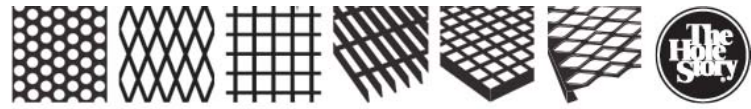
PERMEATE IMMERSION
19

PERMEATE SPRAY RINSE
20

REVERSE OSMOSIS HALO RINSE
21

FINISH CURING OVEN
22

COOLING TUNNEL
23



McNICHOLS® PERFORATED METAL

Round, Aluminum, Alloy 3003-H14, .1250" Thick (8 Gauge), 1/2" Round on 11/16" Staggered Centers, 48% Open Area

McNICHOLS® Perforated Metal, Round, Aluminum, Alloy 3003-H14, Mill Finish, .1250" Thick (8 Gauge), 1/2" Round on 11/16" Staggered Centers, 3/16" Bar Width, 2.44 Holes Per Square Inch (HPSI), Minimum Solid Margins Both Sides of Sheet Parallel to Length of Sheet, Holes Sheared Through Both Ends of Sheet Parallel to Width of Sheet, 48% Open Area

ITEM 1712611241 - 48" x 120"

ITEM SPECIFICATIONS

Item Number	1712611241
Product Line	Perforated Metal
Hole Type	Round
Primary Material	Aluminum (AL)
Alloy, Grade or Type	Alloy 3003-H14 (3003H14)
Material Finish	Mill Finish
Gauge/Thickness	.1250" Thick (8 Gauge)
Hole Pattern	1/2" Round on 11/16" Staggered Centers
Hole Size (Diameter)	1/2"
Hole Centers	11/16"
Bar Width	3/16"
Hole Arrangement	60° Staggered Centers
Holes Per Square Inch (HPSI)	2.44
Straight Rows Parallel to	Length of Sheet
Margins Parallel to Width	Sheared Through Both Ends
Margins Parallel to Length	Minimum Solid Both Sides
End Pattern	Sheared Through Both Ends



Percent Open Area	48%
Weight	0.93 Lbs./Square Foot
Product Form	Sheet
Sizes (Width x Length)	48" x 120"