

DATE: October 6th 2022
BY: Marc Tegen

Attention:

Erin Doherty
Landmarks Coordinator

PART 1 – PROJECT NARRATIVE

1.1. Nathan Eckstein Middle School description

This project is a building envelope upgrade and repair of the historic 1950 school building, including; replacement of the schools original steel framed windows, replacement of broken glass block, refurbishment of wood doors and frames, repairs to brick and glass block masonry mortar joints, and a roof recoating/replacement project of existing multi-ply bituminous roofing. The character of the original 1950 school exterior has remained largely unmodified during its 72 year history with the only modifications relating to glass block repairs, mortar repointing, replacement of select steel windows with aluminum models, painting of exterior wood doors and steel windows, installation of sheet metal clad parapets to prevent access to roof top areas near the gymnasium, and the recent 2019 installation of aluminum sunshades on select south facing elevations. The school also received a major seismic upgrade in 2019 which was limited to the buildings interiors/.

Nathan Eckstein Middle School was designated a Seattle landmark in 1981, as a Modern- International Style work of architecture. The School also appears to retain some hints of Art Moderne “streamline” styling, with the symmetrically curving main entry façade, curves at projecting entry/stair vestibules, which are fully glazed, a reeded parapet cap/fascia at the roof, and the symmetrical gymnasium main facade. The existing building is a mixture of roman style brick veneer, with long linear rows of steel windows and expansive glass block transom walls above the strip windows. The two-story primary facades are dominated by rows of glass-block over steel sash windows. The entry doors have minor ornamental details with hexagonal windows.

The schools existing skylights & clerestories were steel framed incorporated into large sloping saw tooth roofs. Of the schools original steel framed skylights, the majority are no longer operable, have been painted over to reduce heat gain into the school, or have been replaced with aluminum framed insulated glazed versions.

1.2. Brief Scope of work description

1.2.1 Replacement of Historic Steel Framed, Single Glazed Windows:

Window replacement at Nathan Eckstein Middle School is being proposed as part of a larger exterior renewal project with the expressed purpose of bringing this school to a like new exterior condition and ensure its continued use through the foreseeable future. Window replacement is being undertaken in response to maintenance concerns, cost, feasibility, and impacts of school wide window refurbishment, but also in response to concerns brought forth by Teachers and Staff of Nathan Eckstein Middle School regarding the impacts to the learning environment due to the thermal, air barrier, and acoustical performance of the Historic Steel Framed windows, support frames, and rough openings.

This portion of the overall exterior revitalization project seeks to replace the existing steel framed, single glazed windows with new steel framed thermally insulated models. Although thermally broken/insulated glazed windows cannot by their inherent nature provide an exact match for the

historic windows, the models proposed seek to maintain the historic windows painted steel material, replicate the existing painted glazing putty via painted steel profile, maintain operable window locations and types, and to the greatest extent possible provide either an exact or a near match to the historic window site lines, visible exterior profiles, areas of visible glass and a consistent glass color in-kind with the schools original construction.

1.2.1.1 Characteristics of Historic Steel Framed Windows and Single Pane Glazing:

Although there are eleven (11) unique steel framed window types ranging from fixed, to a combination of fixed and operable units, the existing steel framed windows utilize a series of standard profiles (steel extrusions) for head, jamb, sill, mullion, and operable sash conditions. In general, the frames are secured by ~1/16-inch thick roll formed steel plates (attached to brackets) embedded into concrete at the head & sills) or by having the steel frame flanges cast (cemented into) the buildings concrete structure. The original windows are also secured to the building by a variety of painted steel plates and angles at head and jamb conditions, but these conditions are less common. The existing glazing is secured into the steel window frames & sashes with either a glazing putty, or where repaired, with a paintable silicone or urethane sealant. *Note: Previous Good Faith Hazardous material Inspections indicate that the glazing putty and sealant original around window openings contains between 2-10% Chrysotile Asbestos. The varying range of Chrysotile Asbestos is likely due to replacement of broken glazing that occurred before asbestos free glazing putty was available. Asbestos in the existing glazing putty is also one of the biggest hurdles encountered by Seattle Public Schools when glazing breakage occurs and typically requires engagement/coordination with an abatement company before any glazing can be replaced.*

Photo-1 below depicts a series of original windows consisting of fixed, operable hoppers (red arrow), and awnings (blue arrow). Red dashed area below depicts the location of photo-4





Photo-2 above is an up close view at the intersection between lower operable awnings and the fixed portion of the window.

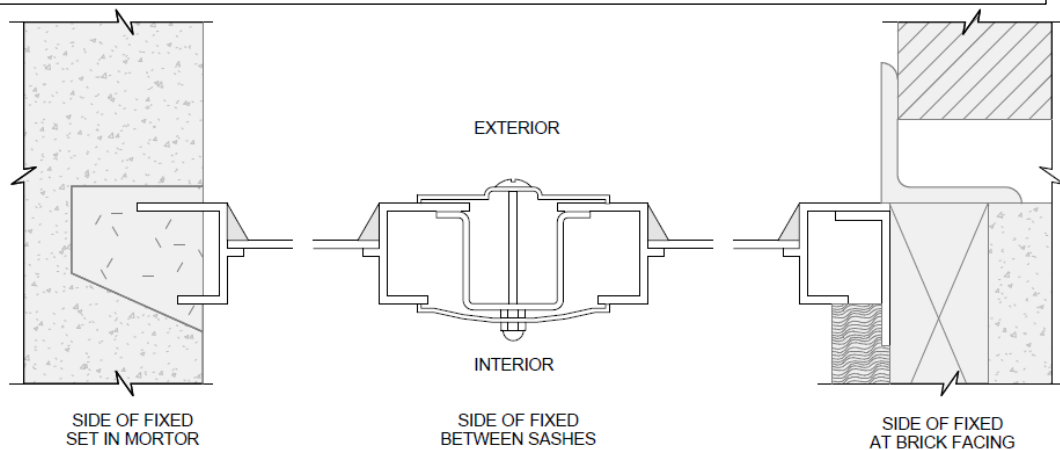


Photo-3 above depicts the concealed brackets used to connect the steel windows at the base of the existing jambs. Note: The brackets are secured to the building structure (embedded in concrete) at only the head and sill of the windows. Intermediate brackets between windows are also located every 16-to-20-inches running vertically between the windows.

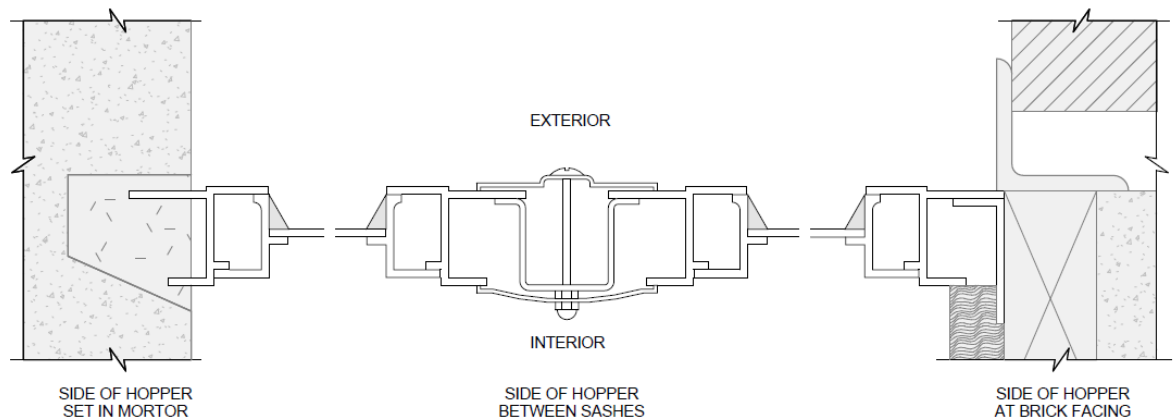


Photo-4, Red arrow above points to a painted steel plate used to secure the flange at the jamb of an original window. Blue arrow points to asbestos containing sealant. This photo also shows an example of how the original glazing has been replaced in many locations with reinforced fiberglass panels

Sketch-1 below depicts the historic fixed window profiles at the two most common rough opening conditions at the window jambs.

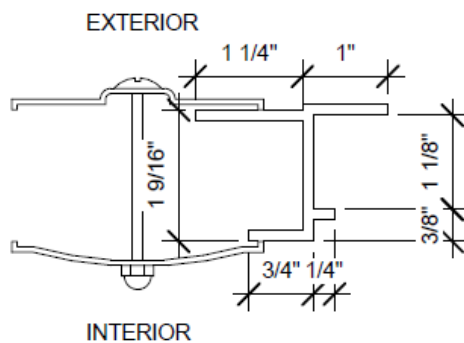


Sketch-2 below depicts the most common type of operable historic window profiles (in-swing hopper) at the two most common rough opening conditions at the window jambs.

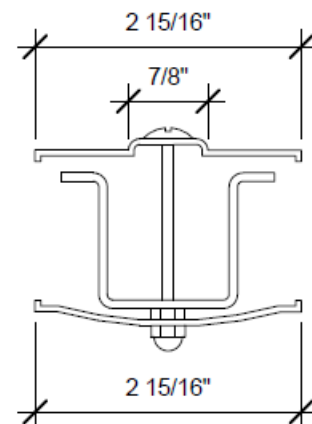


Sketch-3 below provides the field measurements of a historic window frame at an operable sash.

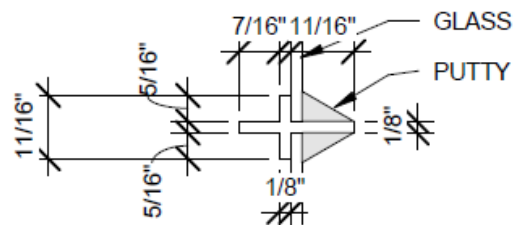
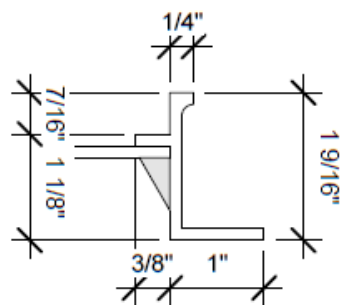
Sketch-4 below provides the field measurements of the historic interior and exterior 1/-16-inch thick steel plates used as the typical means of securement at window jambs.



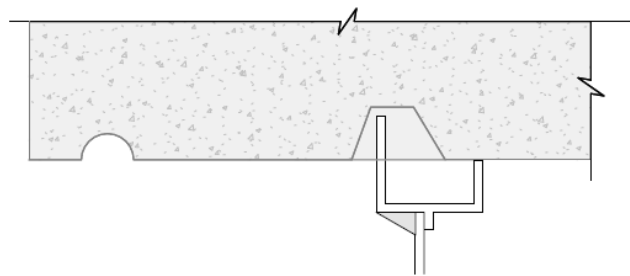
Sketch-5 below provides the field measurements of the historic fixed window frame.



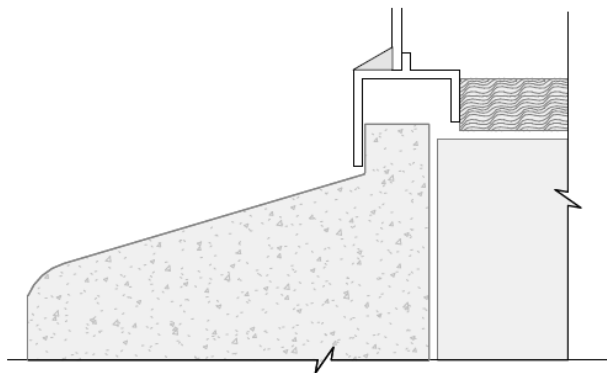
Sketch-6 below provides the field measurements of the historic muntins that existing on both fixed and operable windows.



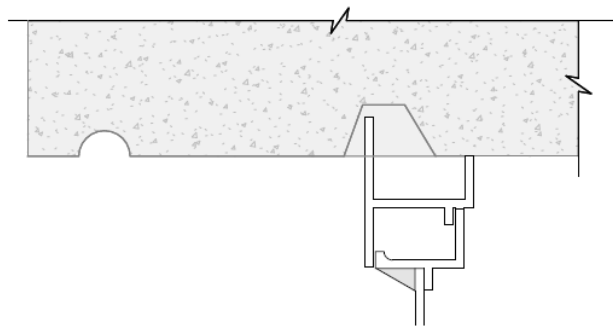
Sketch-7 below depicts the historic fixed window profiles at the two most common head/sill rough opening conditions.



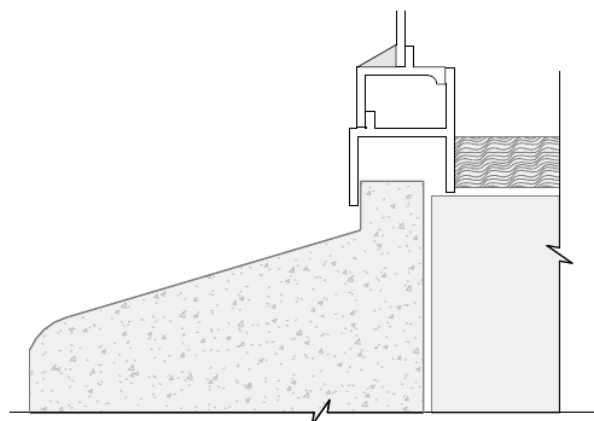
CONCRETE HEAD AT FIXED



Sketch-8 below depicts the historic operable window profiles at the two most common head/sill rough opening conditions.



CONCRETE HEAD AT HOPPER



CONCRETE SILL AT HOPPER

1.2.1.2 Steel Frame & Sash Color:

The exterior of the existing frames and glazing putty are currently painted in a color exactly matching Sherwin William SW 6388 (a yellowish cream color) in a semi-gloss or faded glossy finish. The current window paint is not original as evidenced by the haphazard painting that was previously performed. The original paint appears to have consisted of two distinct underlying paint layers/colors, an outermost tan colored paint (believed to be the original color, and a green paint layer installed directly over the bare steel (believed to be the original primer). *Note: Both layers of paint on the original/historic windows beneath the current outermost exterior paint coating were found to contain lead.*



Photo-5 above was taken within the sill of an operable window sash where the current top paint coating (non-historic, see red arrow), can be seen dripping over an underlying tan colored coating (presumed historic top coat, see blue arrow) that is currently peeling off an underlying green colored coating (presumed primer, see green arrow).



Photo-6 above depicts the back (concealed) side of the 1/16-inch thick formed steel plates that are the typical method of securing the jambs of the original steel windows. The lighter “tan” paint visible on the backside appears to have been the original paint color and appears to be factory/shop applied.

Photo-7 below depicts the typical “blue” color found on the interior portions of the original steel framed windows/operable sashes. Red arrow points to the 1/16-inch thick formed steel plates that are also used to secure the window jambs on the interior side of the windows.



1.2.1.3 Condition of Steel Window Frames & Sashes:

In general, the condition of the original steel window frames and operable sashes is difficult to fully determine due to the rough finish of the heavy top coat of paint applied to the exterior portions of the window profiles. The greatest amount of corrosion appears to be occurring on south and east facing windows. Rust scaling and pitting can be observed along the inside corners of operable sashes and is heaviest at the sill of the window frames directly behind the lowermost operable sashes. A limited amount of the original welds at the corners of operable sashes also appear to be failing. Corrosion on the windows interior appears to be typical along the lower portions of the frames and sashes in areas where condensation collects on the skyward facing surface of horizontal elements. All of the operable sashes on the historic windows and their pivot arms are in some need of repair as they are very difficult to operate, frequently become stuck, and in some instances cannot be opened at all. *Note: Beyond the obvious difficulties that would expected in operating 72-year old windows, the heavy amount of paint build-up around the sashes is compounding the difficulty in the windows operation.*

As was typical of the time period, the original windows were installed without perimeter weatherproofing or air barrier sealants and relied completely on the embedment of window flanges in cement or other components and the tight fitting installation of window perimeters and between window components. Previous attempts to install weather barrier sealants around window perimeters are in most cases currently failing and in need of repair/replacement to prevent moisture from entering the wall cavities around the window rough openings. *Note: Some of the currently failing sealants were found to contain hazardous materials such as PCB's and asbestos.* The original windows did not include any form of weatherstripping around operable sashes as there is not

sufficient space to install weatherstripping without replacement, modification, or adjustment of the pivot arms or other hardware included on the operable sashes.

Photo-8 below depicts the common form of corrosion found at the lower corners of in-swing hopper windows.



Photo-9 below depicts the sill of a window frame that is corroding due to moisture leaks at the lower corner of an in-swing hopper window.



Photo-11 below depicts a close up view of the corrosion found at the lower corners of in-swing hopper windows.



Photo-12 below depicts corrosion on the interior side of a fixed window.



1.2.1.4 Historic Single-pane Glazing: The buildings glazing is 1/8-inch thick and has an appearance similar to modern glass containing a low amount of iron-oxide. Since the original building was completed in 1950, the original glazing was likely annealed plate or float glass and is only described in the original drawings as “Clear”.

1.2.1.5 Condition of Historic/Existing Single Pane Glazing:

Seattle Public Schools reports that an unknown but not insignificant amount of the schools original glazing was broken or has been replaced over the years. Different eras of replacement glazing appear to be somewhat similar and are only distinguishable in locations where the schools white interior window shades are in the closed position. In select locations the original glazing has also been replaced with fiberglass/expanded steel mesh panels in locations where frequent glass breakage occurs and to provide additional building security on areas of the school that are more secluded. Some original glass has also been infilled with metal panels used to support various venting or HVAC components that penetrate the windows. Exterior painted steel screens (that are currently corroding) were also added sometime in the past and can also be found mounted to various individual or sections of windows. *Note: Teachers and other staff at Nathan Eckstein MS have reported that unintentional breakage of glazing has occurred due to the force required and difficulty in opening and closing some of the operable windows. At least one report included a teacher punching her hand through the glazing after her hand slipped.*



Photo-13 above depicts three distinct glazing colors over a series of adjacent windows as well as an example of a glazing panel that was infilled for an exhaust vent.



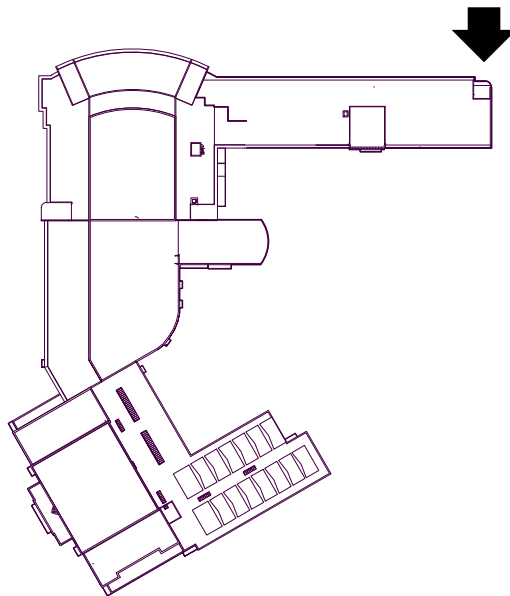
Photo-14 above depicts window glazing that has been replaced with fiberglass/expanded steel mesh panels.



Photo-15 above depicts window glazing that has been replaced with fiberglass/expanded steel mesh panels (red arrow), where the glazing of a lower in-swing hopper has been replaced with a painted sheet metal panel (green arrow), and where a painted steel screen is installed over a section of windows (blue arrow).

PART 2 – PHOTOS OF EXISTING CONDITIONS

- 2.1. The photos included on the following pages were taken between 11:00 a.m. and 3:00 p.m. on June 30th 2022. Photos start at the northeast corner of the school and proceed counterclockwise around the entire exterior of Nathan Eckstein Middle School



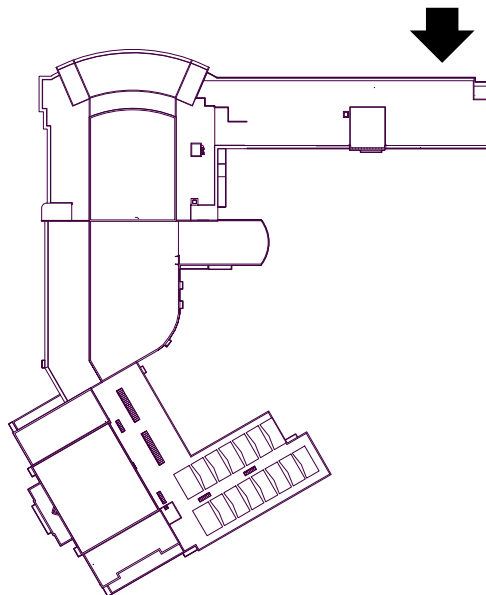
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.0



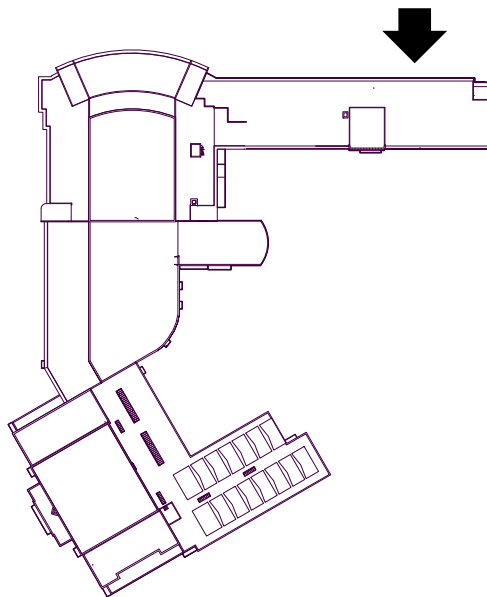
LOWER WALL



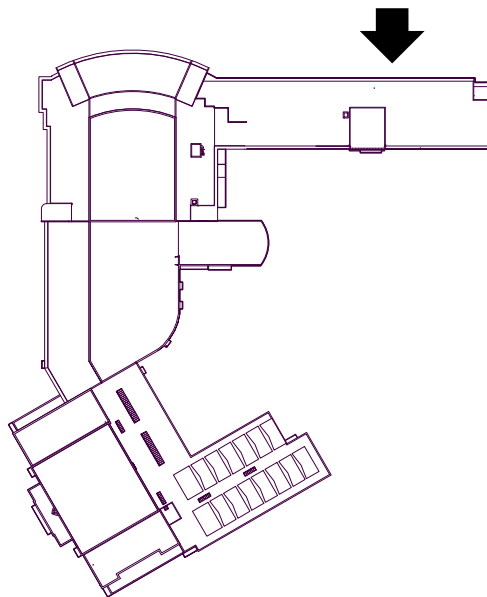
UPPER WALL



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.1



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.2



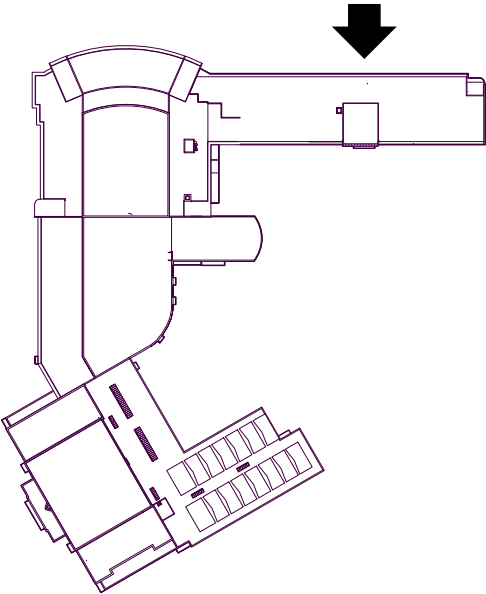
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

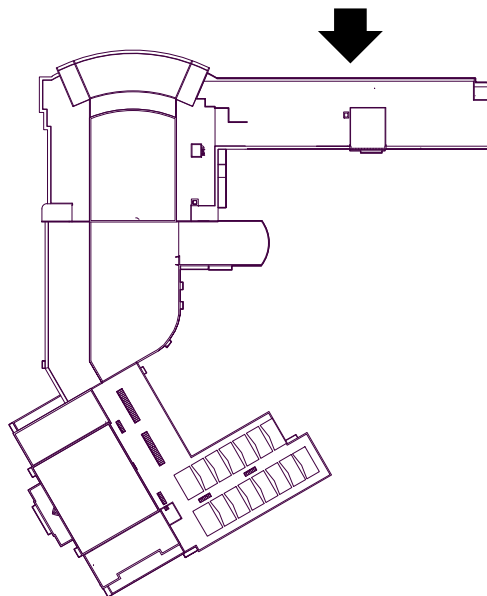
PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.3





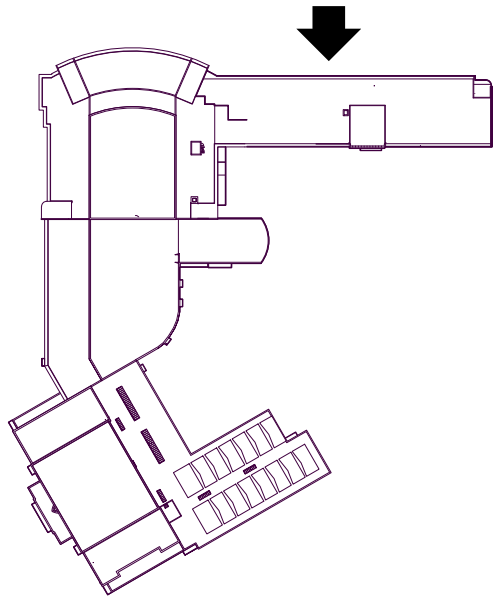
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.5

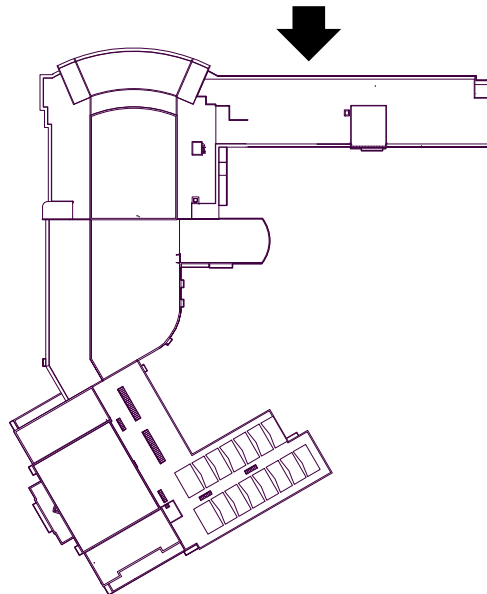




LOWER WALL



UPPER WALL



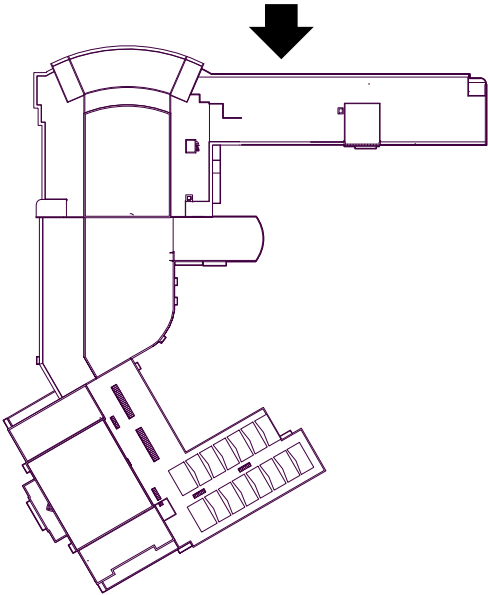
PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.7
DRW SDL	



LOWER WALL



UPPER WALL



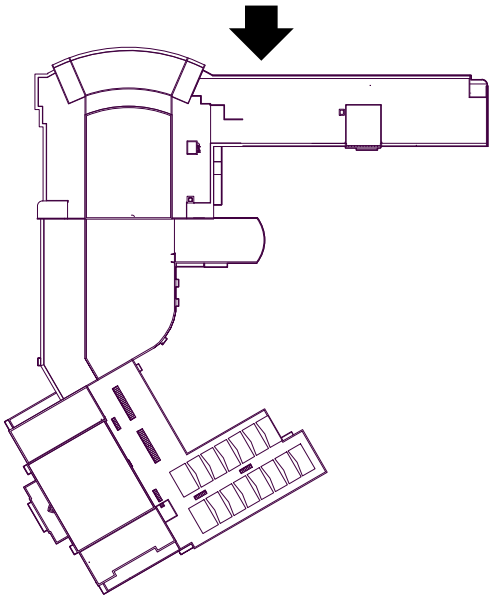
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.8



LOWER WALL



UPPER WALL



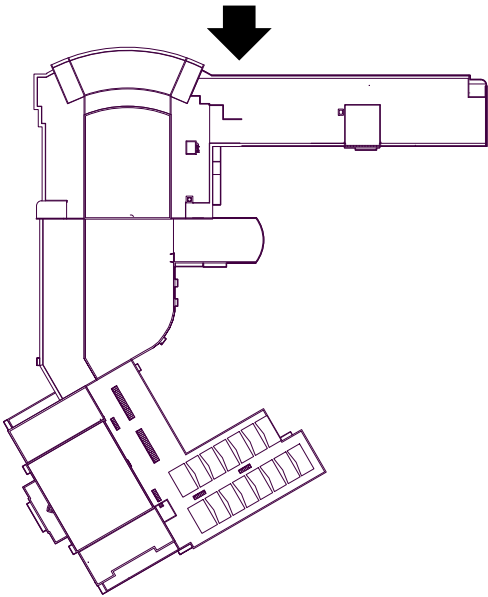
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.9



LOWER WALL



UPPER WALL



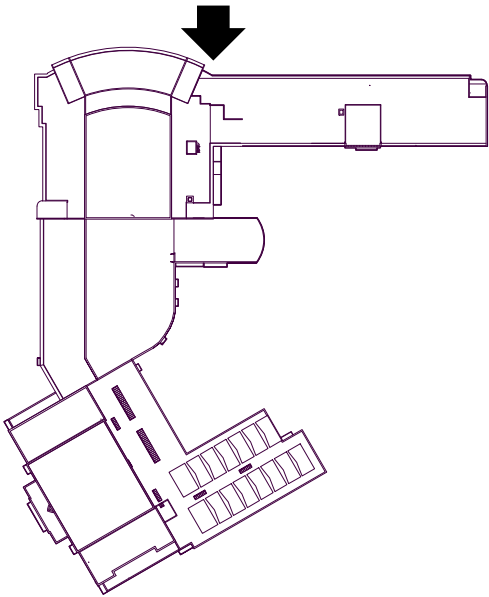
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.10



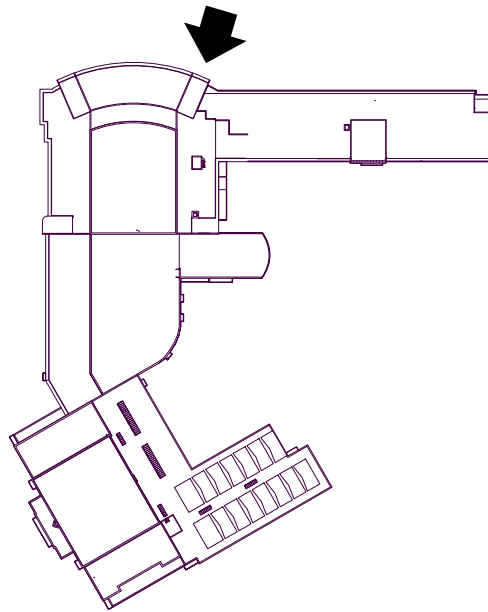
LOWER WALL



UPPER WALL



PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.11
DRW SDL	



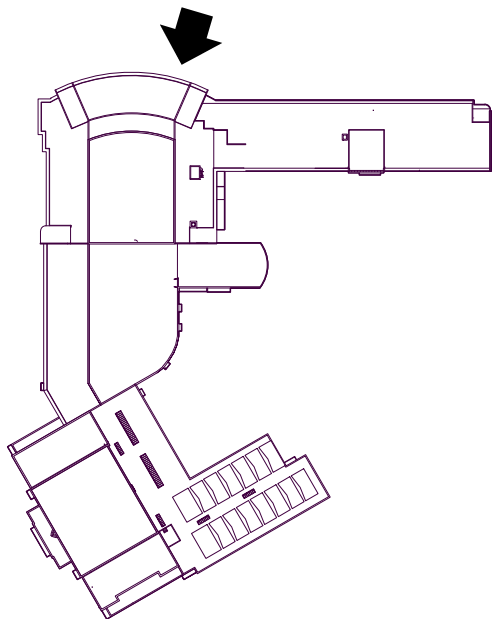
PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.12
DRW SDL	



LOWER WALL



UPPER WALL



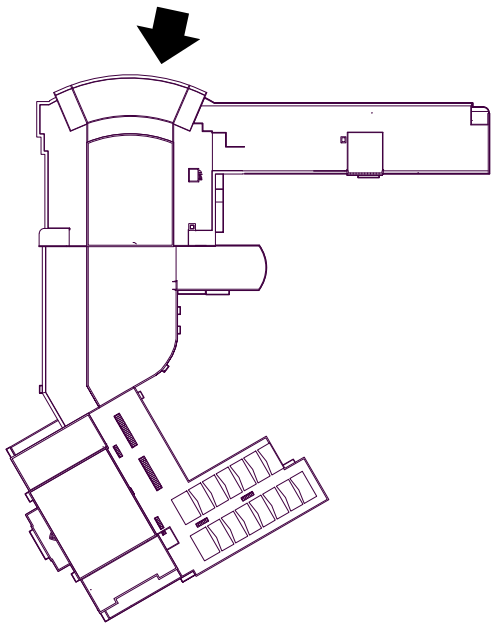
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.13



LOWER WALL



UPPER WALL



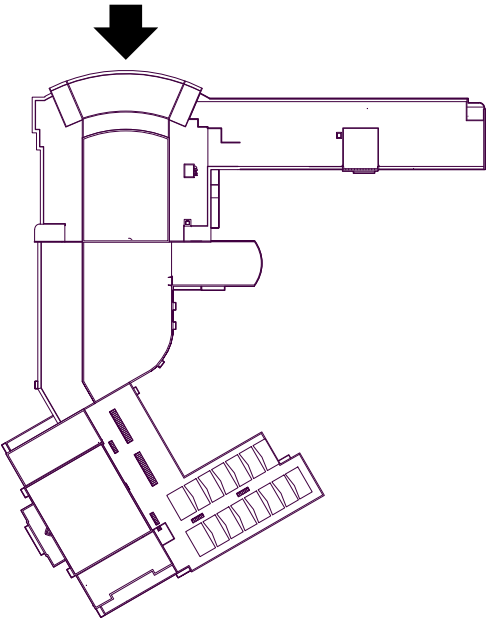
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.14



LOWER WALL



UPPER WALL



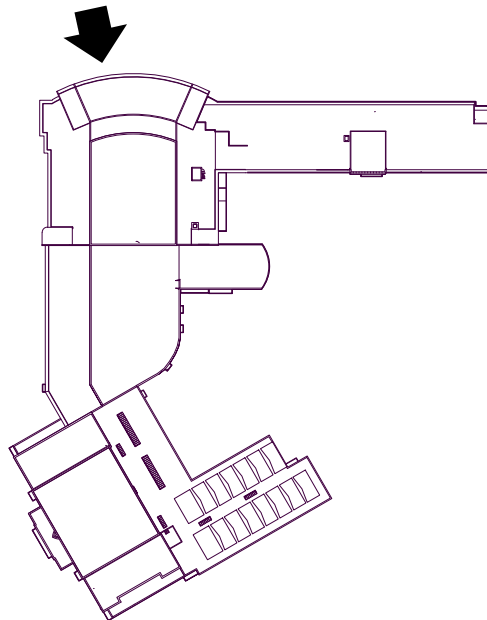
PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.15
DRW SDL	



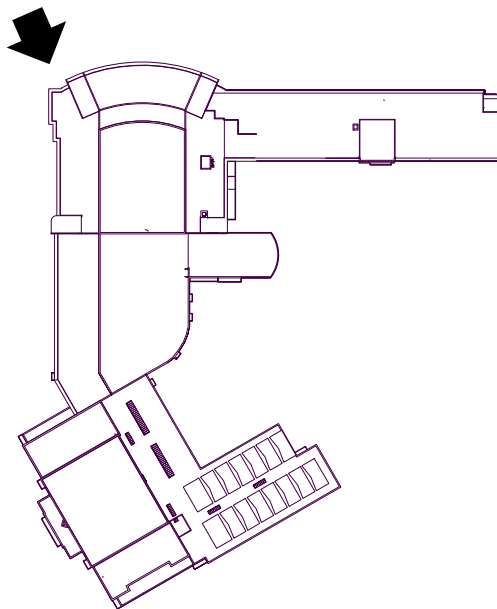
LOWER WALL

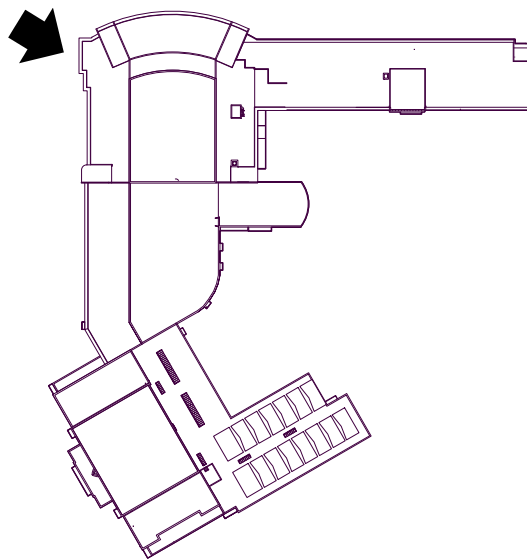


UPPER WALL

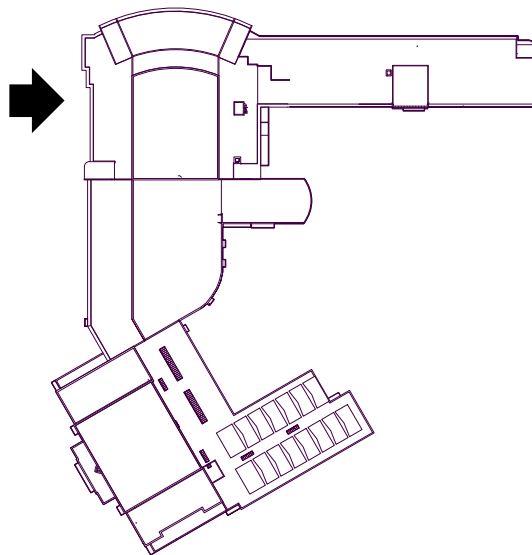


PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.16
DRW SDL	





PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.18



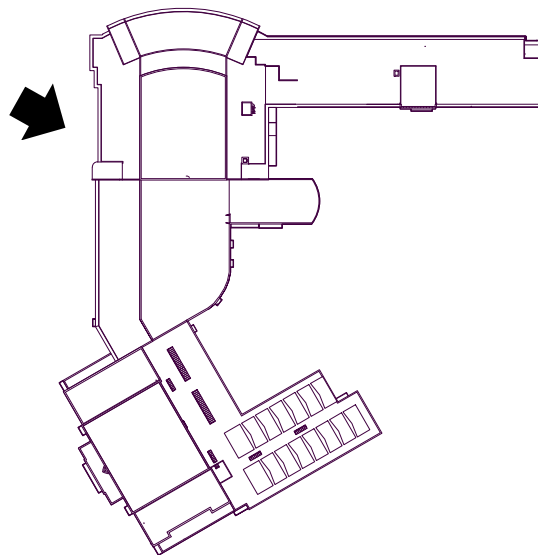
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELKEDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.19



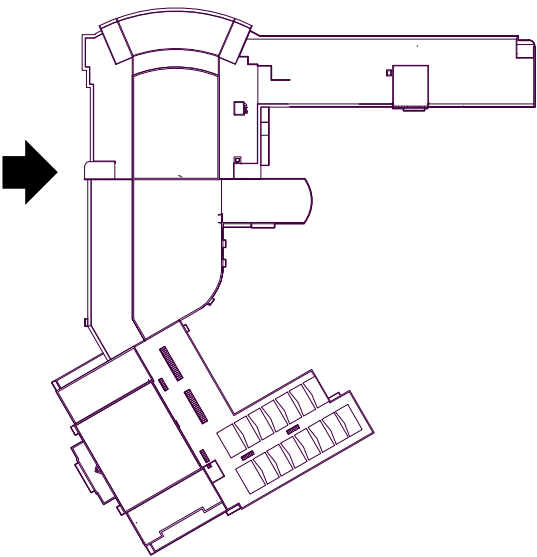
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.634.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

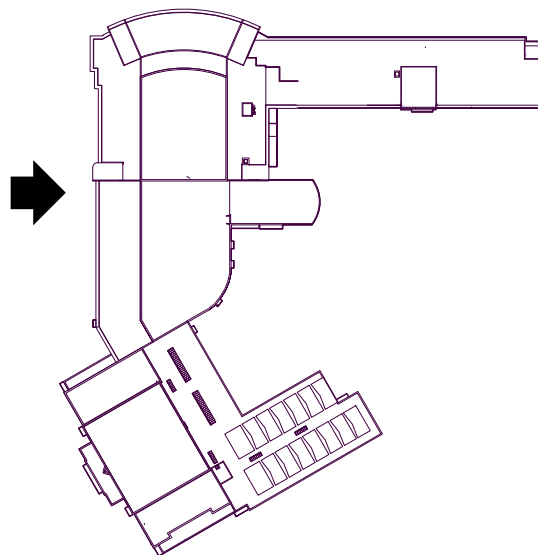
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

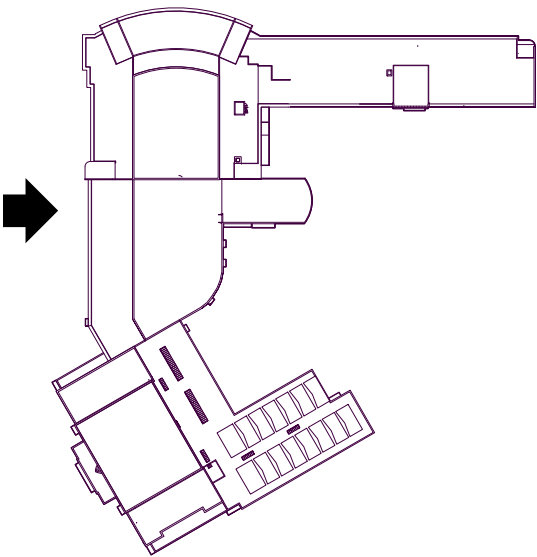
PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.20
DRW SDL	

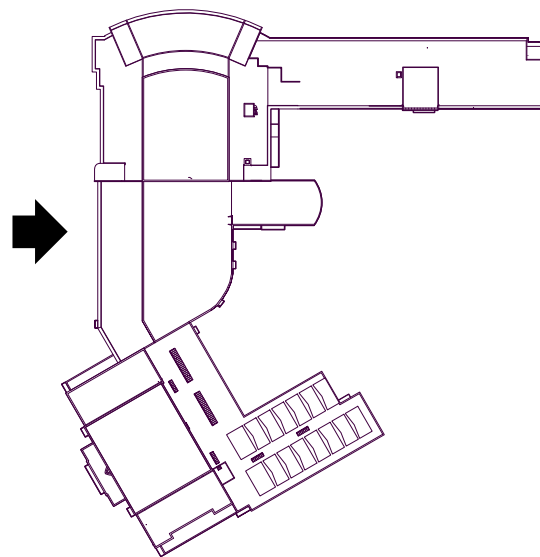


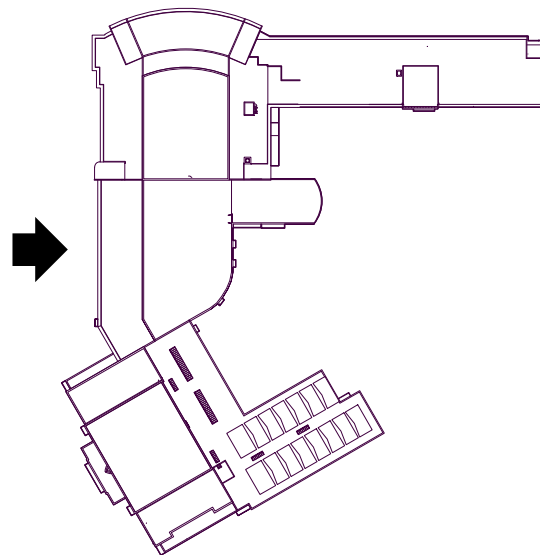
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.21



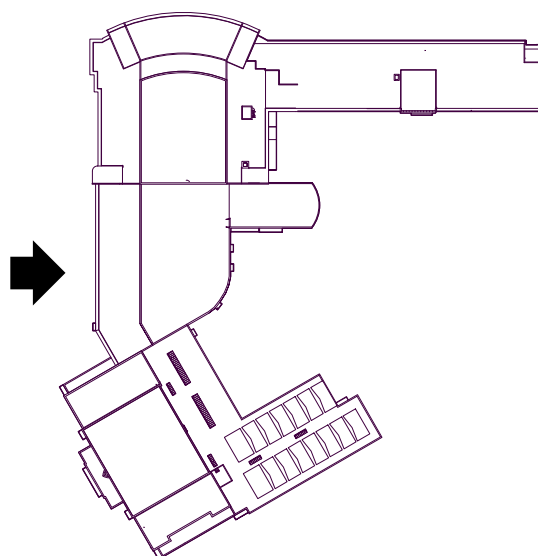
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.22



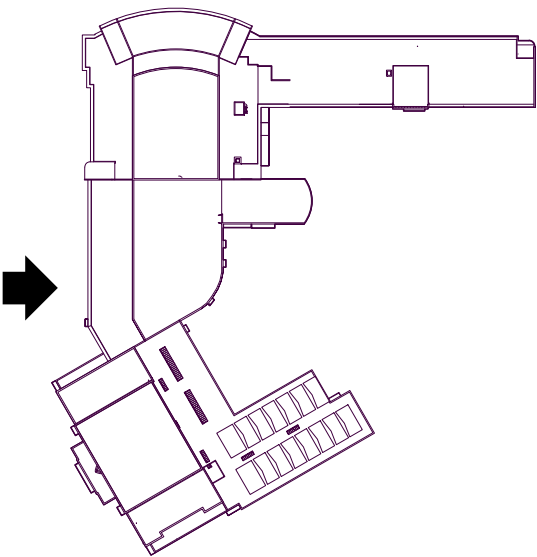


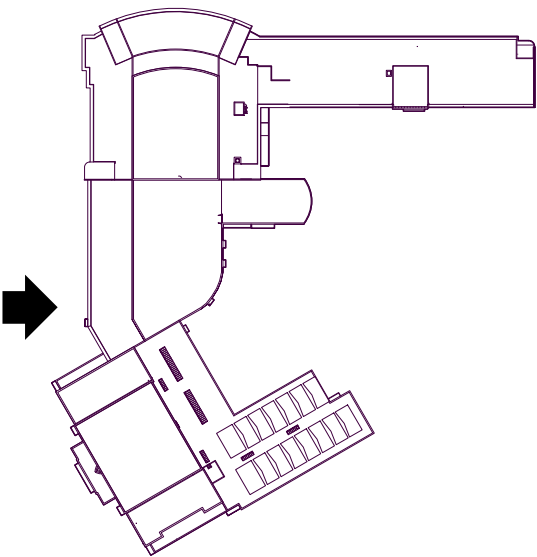


PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.25



PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.26
DRW SDL	





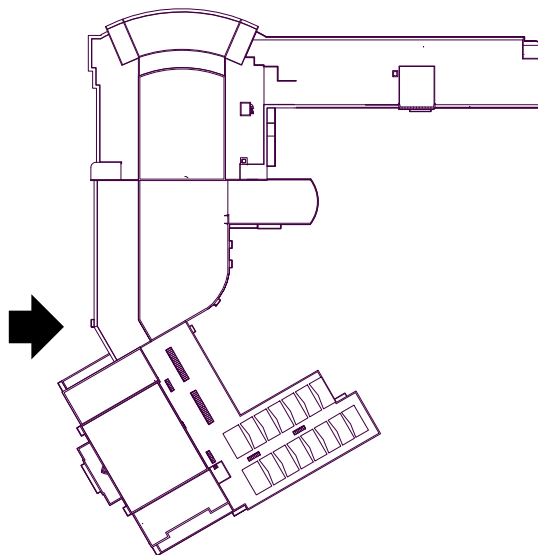
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
 4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

2 **KEY PLAN 29**
 PHOTOS OF EXISTING CONDITIONS
 1" = 200'-0"

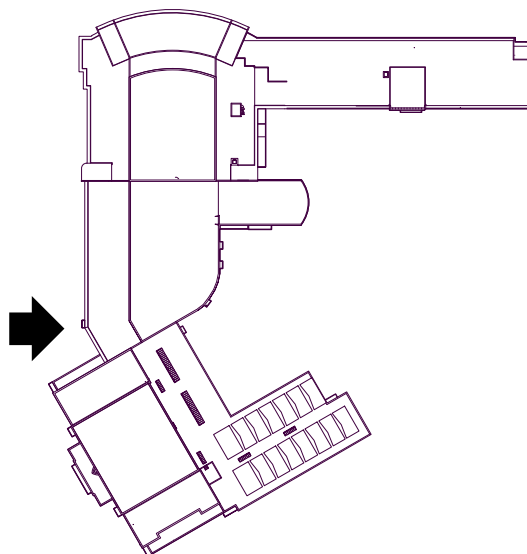
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.28



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.29



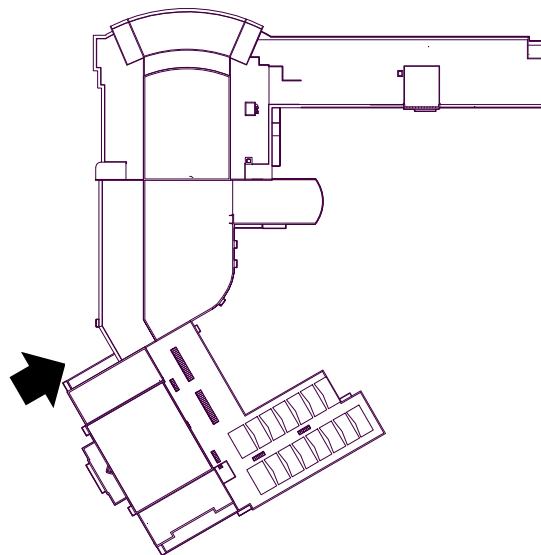
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

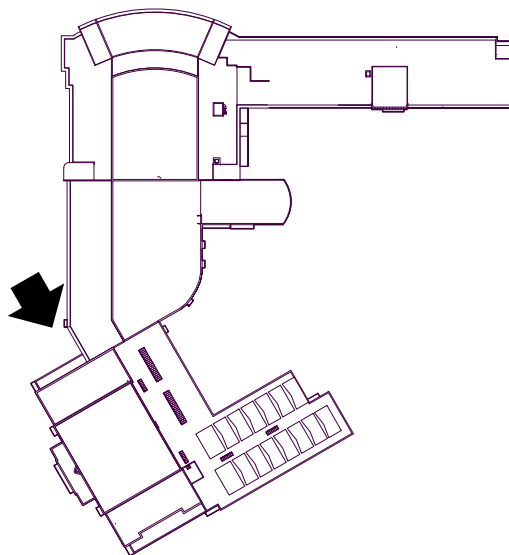
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.30



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.31



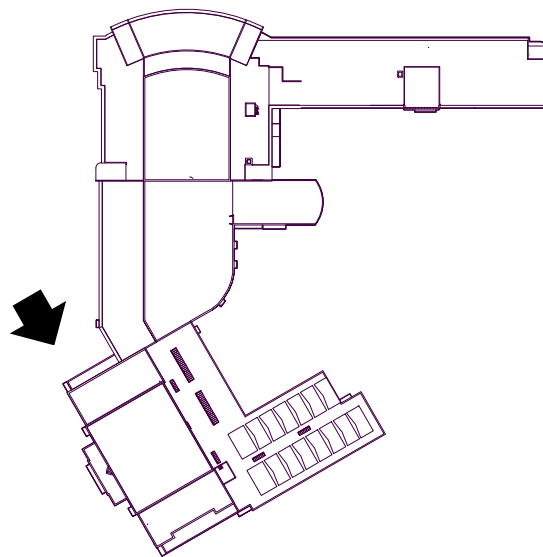
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELAWARE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

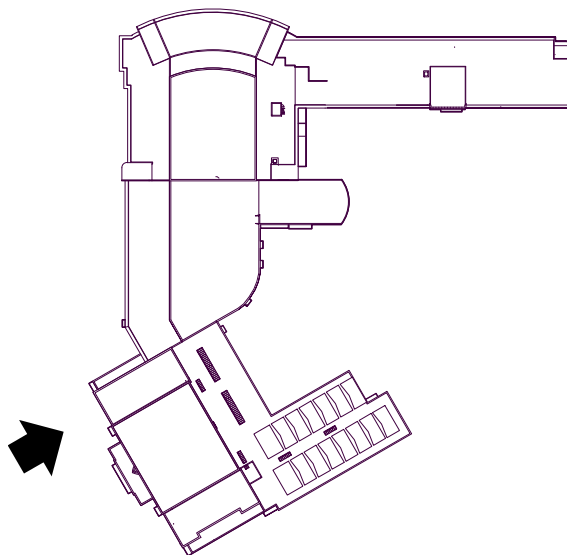
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.32



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.33



**STEMPER
AC**

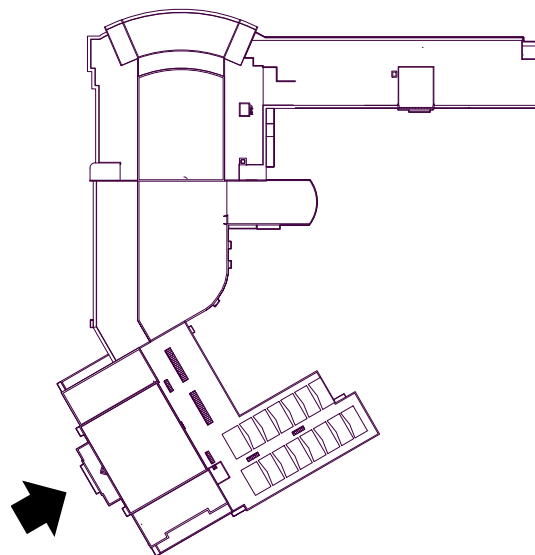
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELKIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

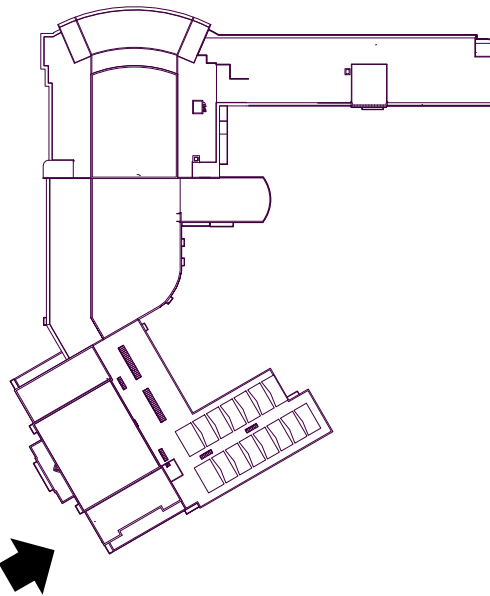
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

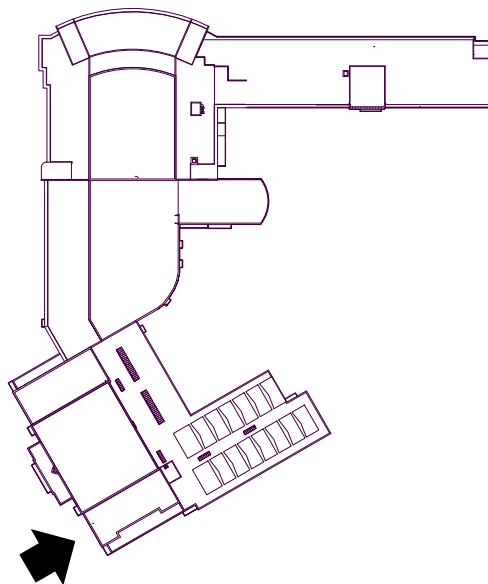
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.34



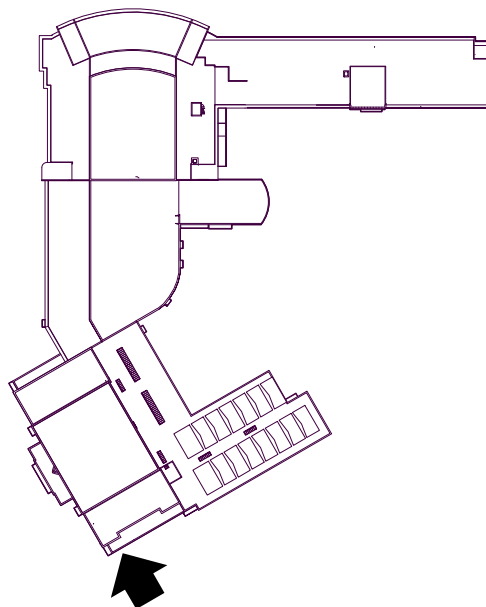
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.35



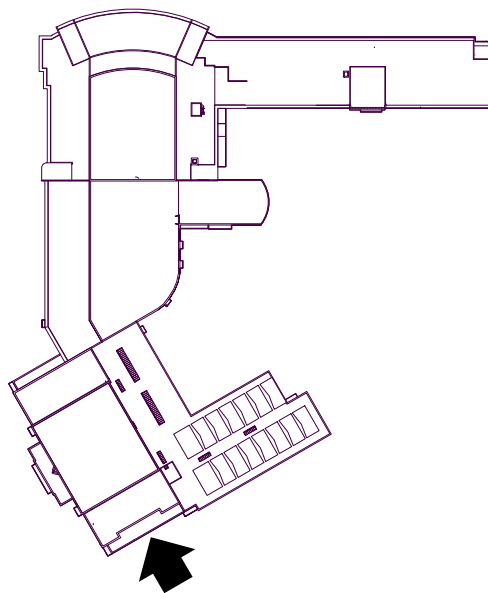
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.36



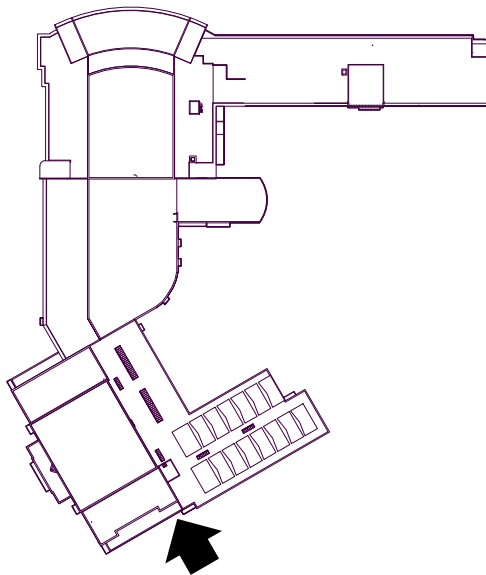
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.37



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.38



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.39



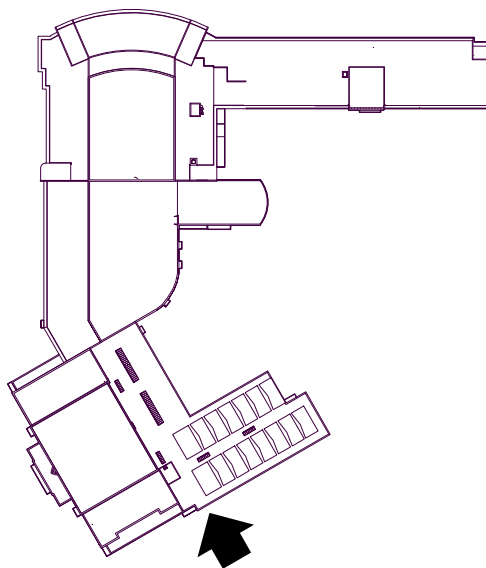
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

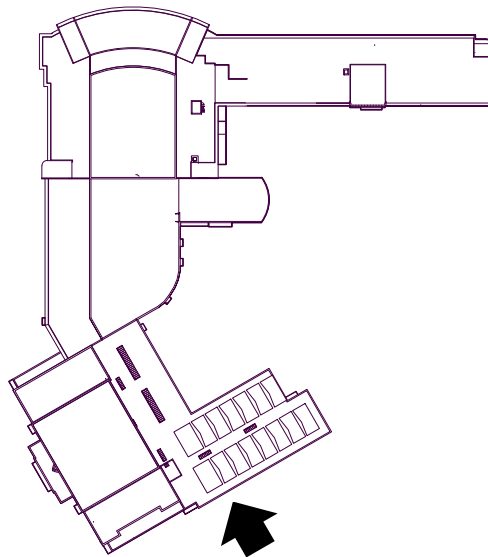
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

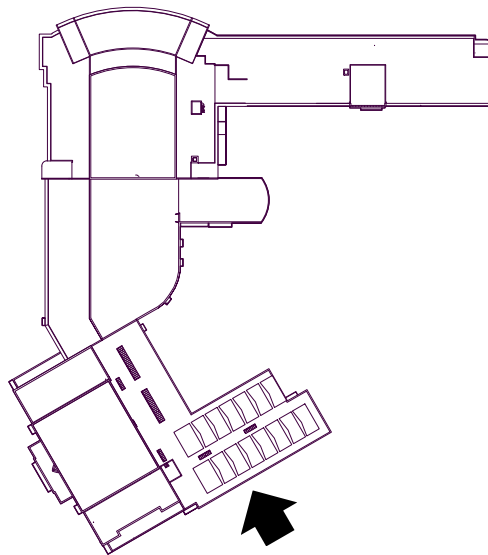
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.40



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.41



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.42



HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

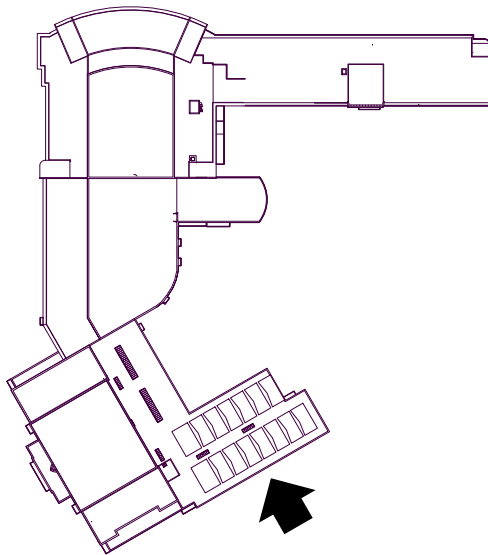
PA
SMS

PM
MT

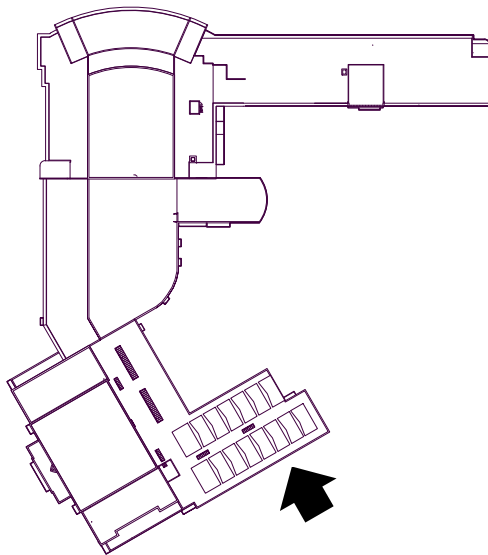
DRW
SDL

RELEASE DATE
10/6/22

B-2.43



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.44



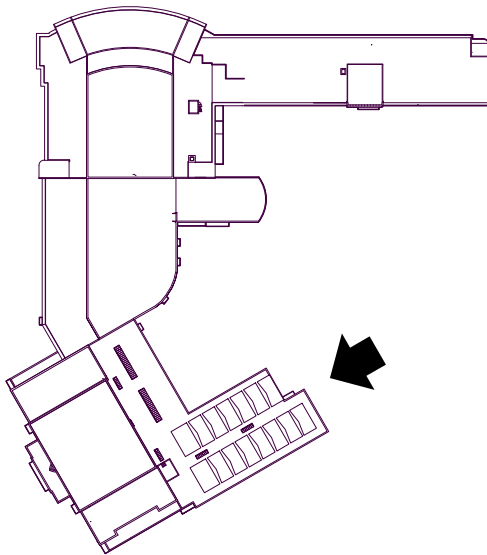
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELAWARE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.45



HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELAWARE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

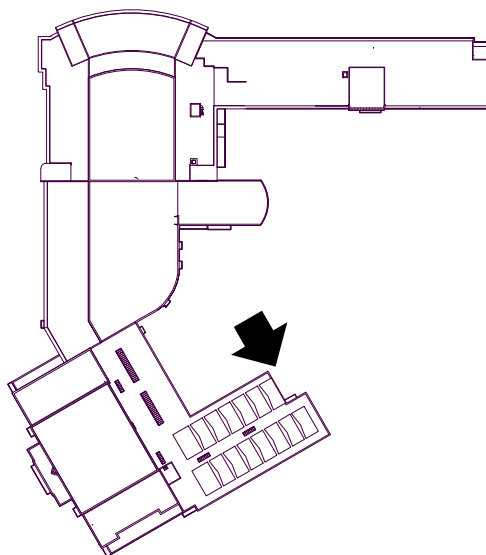
PA
SMS

PM
MT

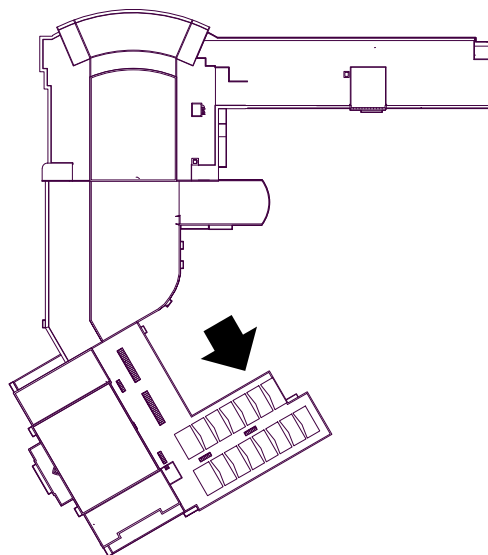
DRW
SDL

RELEASE DATE
10/6/22

B-2.46



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.47



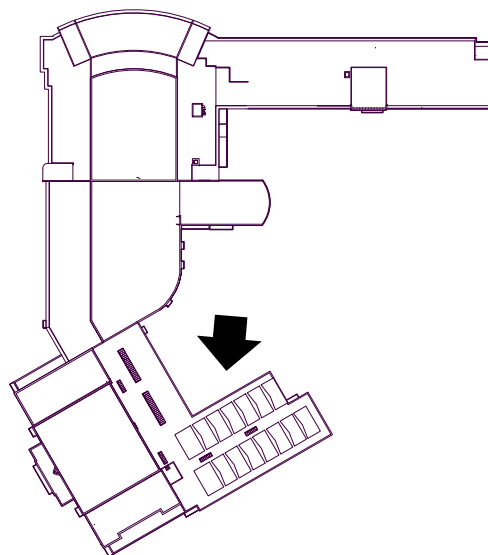
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

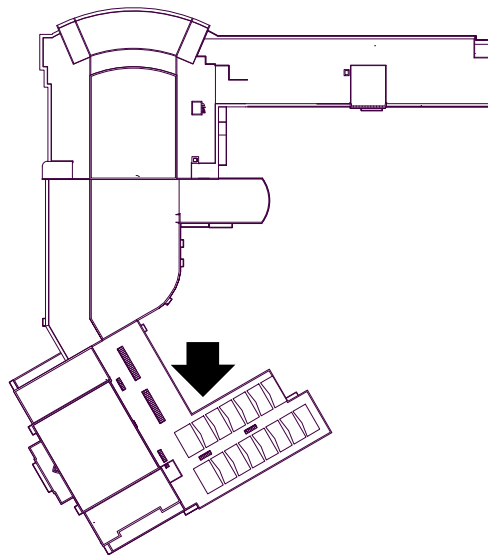
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.48



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.49



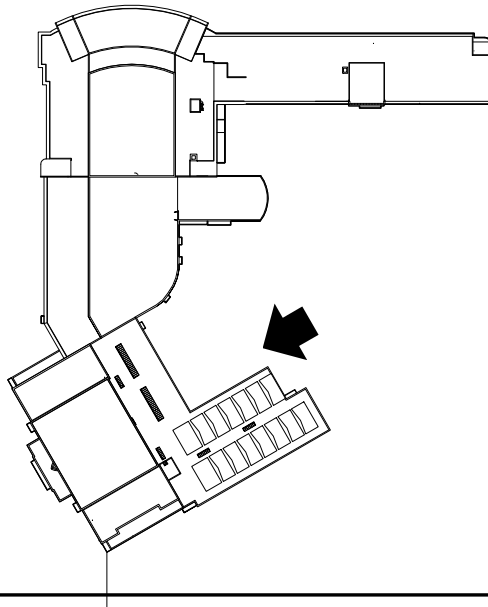
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

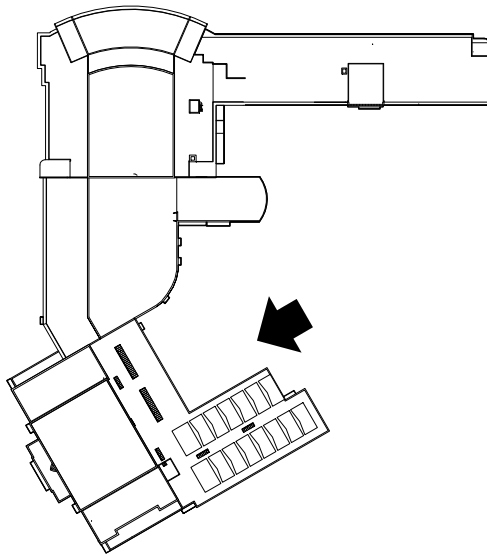
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.50



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.51



HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELKEDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

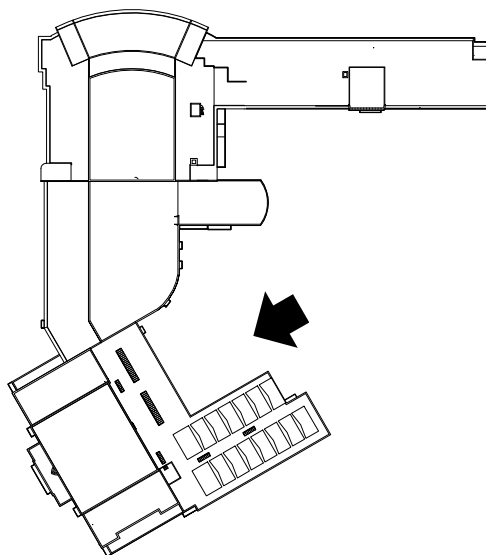
PA
SMS

PM
MT

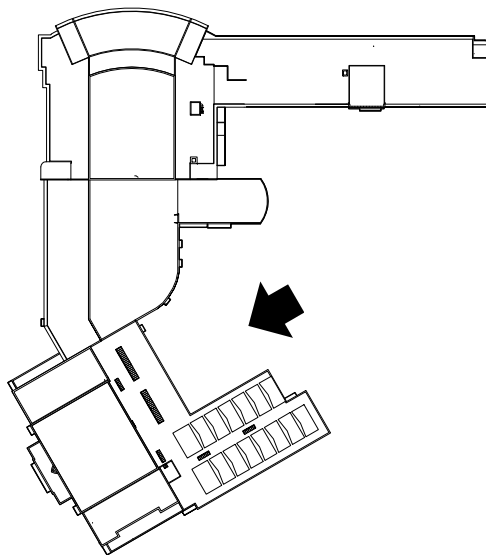
DRW
SDL

RELEASE DATE
10/6/22

B-2.52



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.53



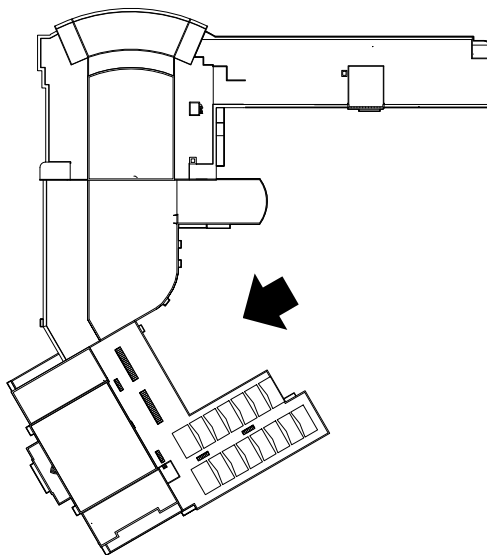
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.54



HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

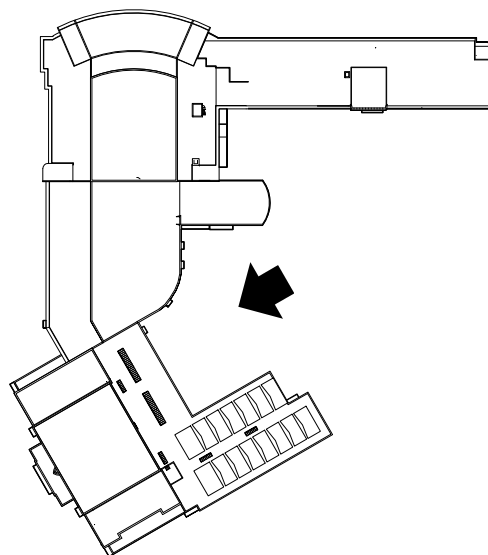
PA
SMS

PM
MT

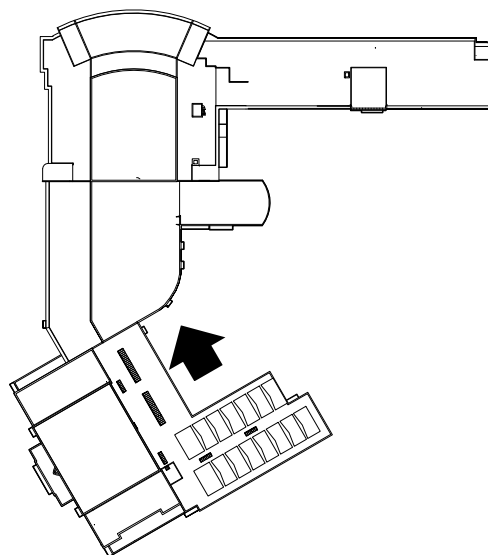
DRW
SDL

RELEASE DATE
10/6/22

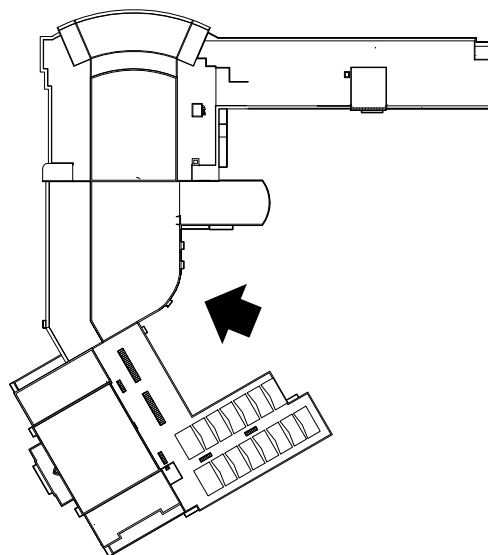
B-2.55



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.56



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.57



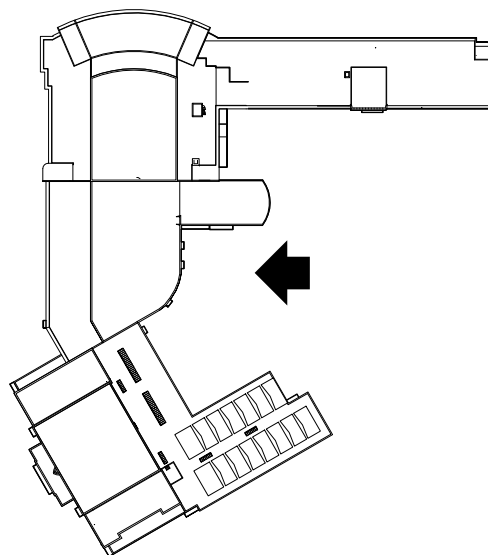
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELKEDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

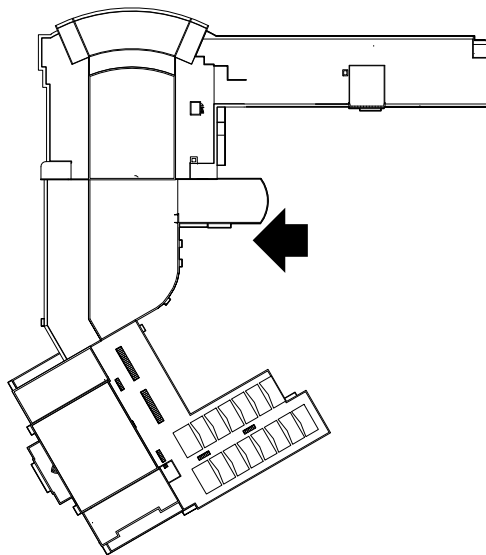
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.58



PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.59
DRW SDL	



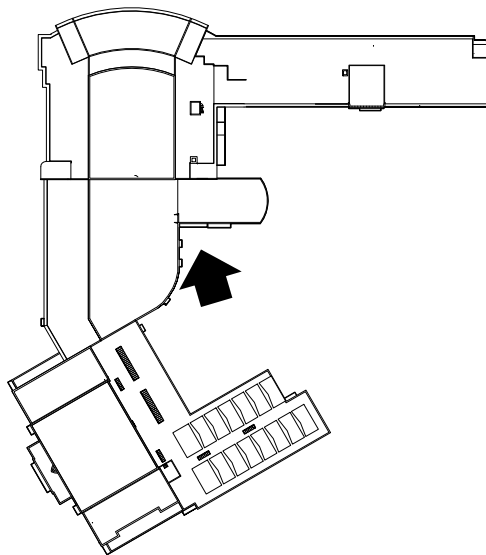
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

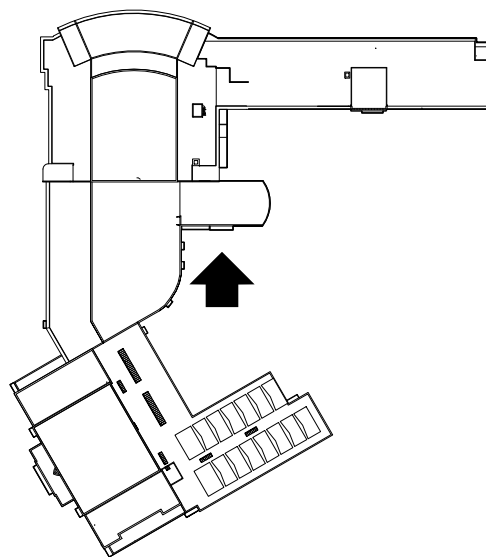
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

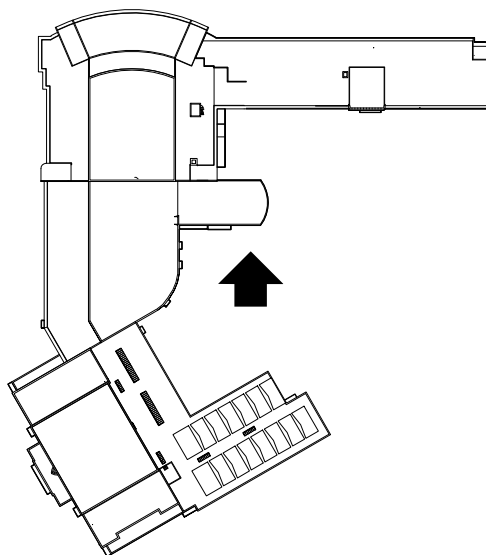
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.60



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.61



PA SMS	RELEASE DATE 10/6/22
PM MT	B-2.62
DRW SDL	



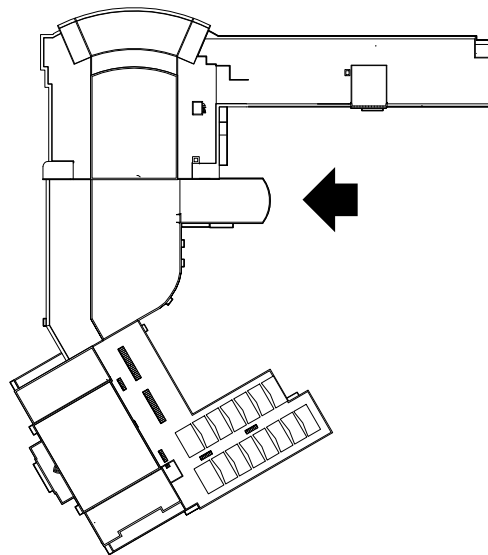
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELAWARE WAY SW | SUITE 200 | SEATTLE, WA 98106

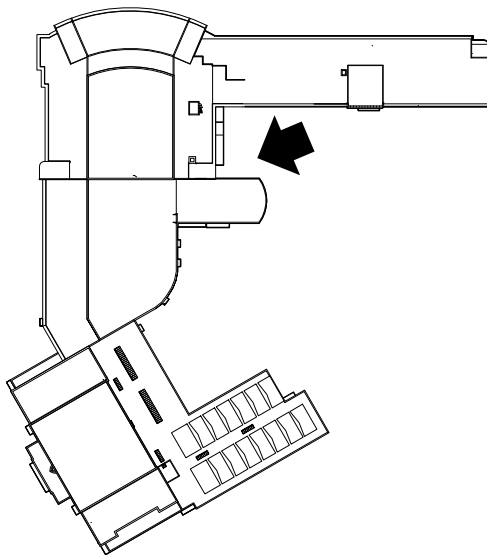
PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

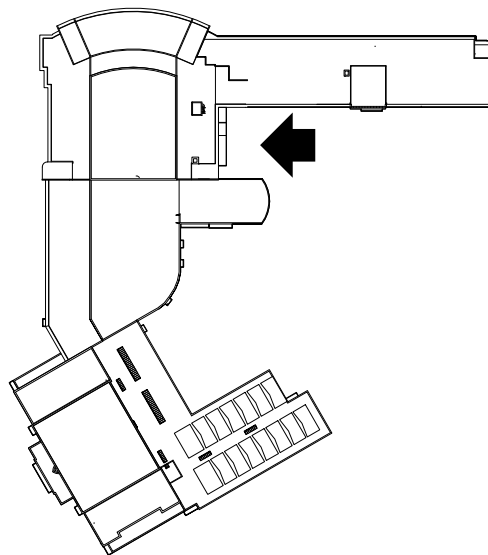
3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.63

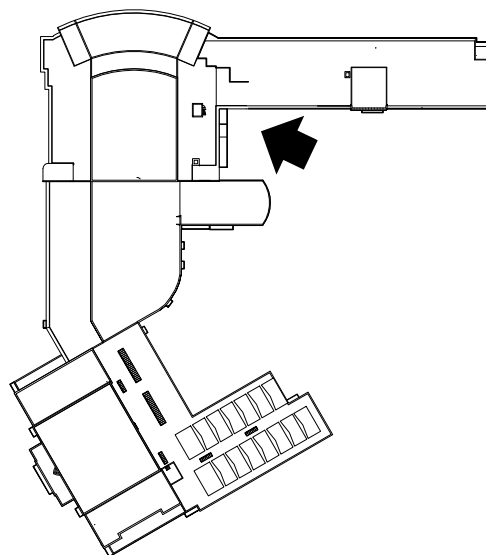




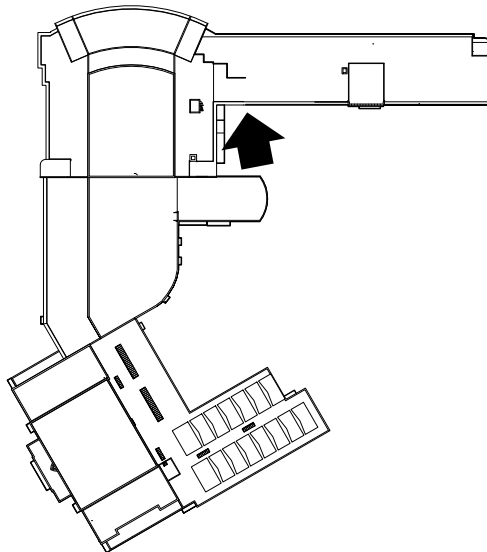
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.65

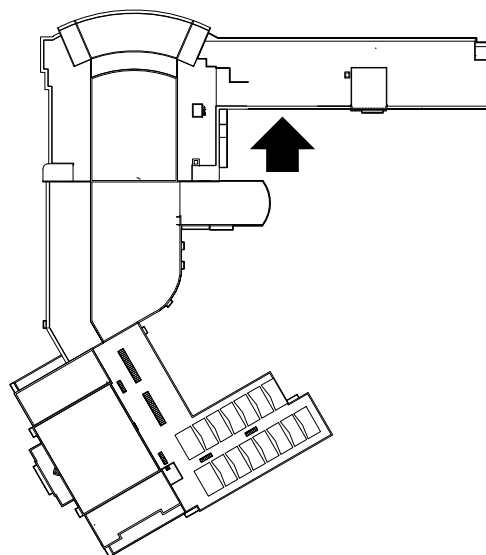


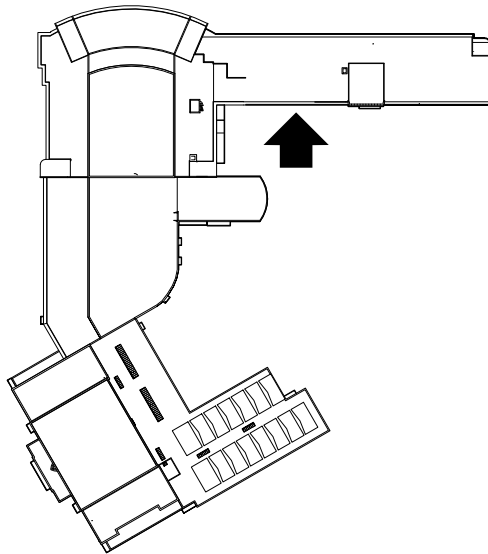
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.66



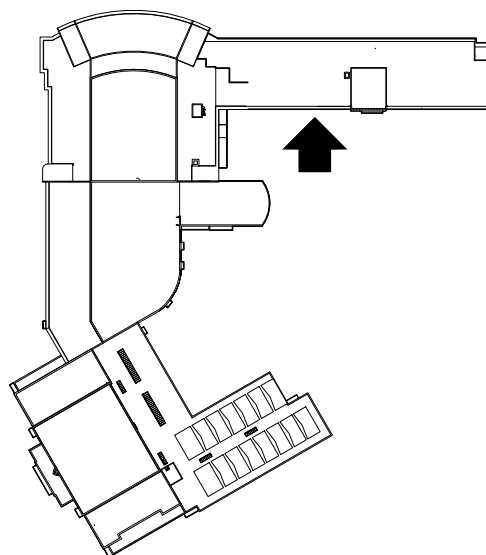
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.67







PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.70



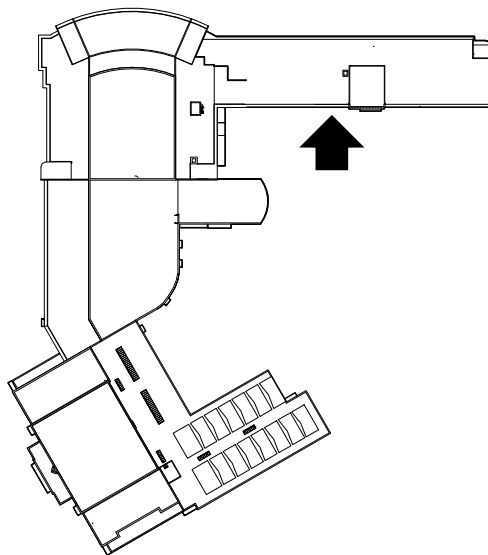
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELKEDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.71



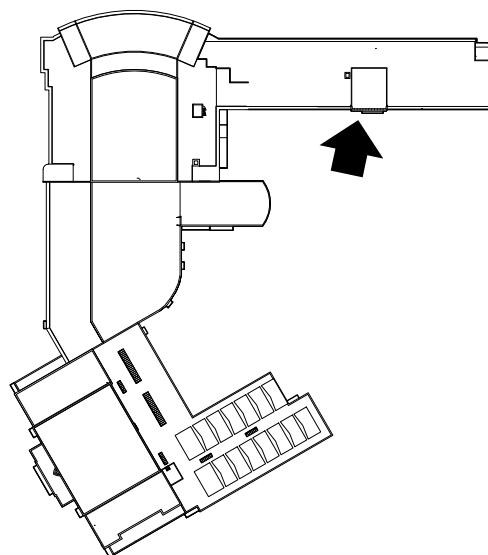
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

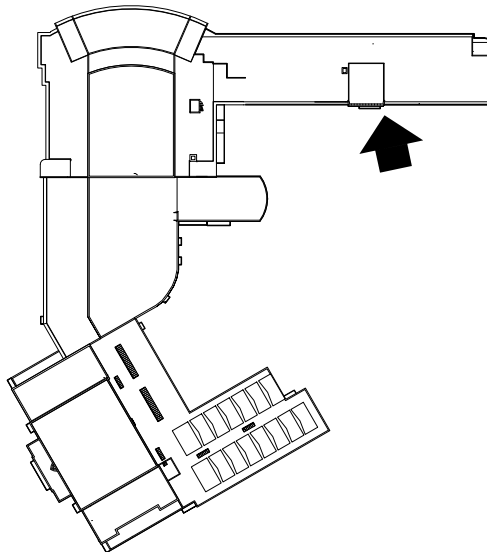
PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.72





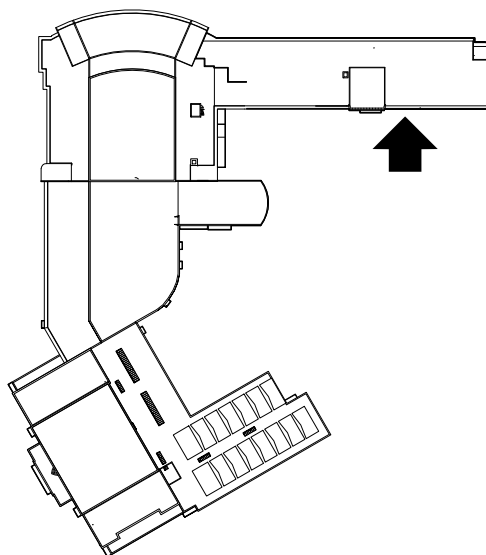
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.74



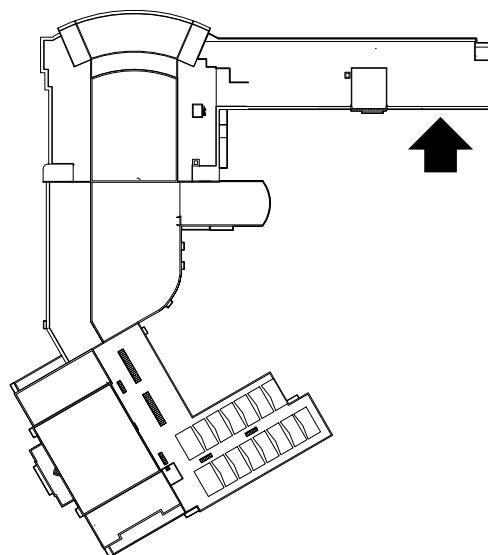
HWB | DBE | SBE | WWW.STEMPERAC.COM | 206.624.2777
4000 DELRIDGE WAY SW | SUITE 200 | SEATTLE, WA 98106

PHOTOS OF EXISTING CONDITIONS

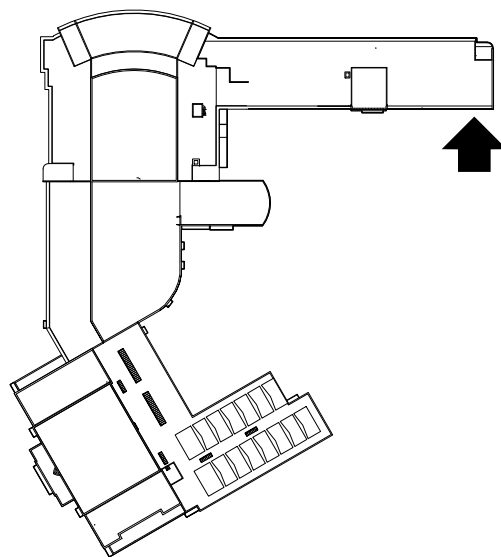
ECKSTEIN MIDDLE SCHOOL

3003 NE 75TH ST, SEATTLE, WA 98115

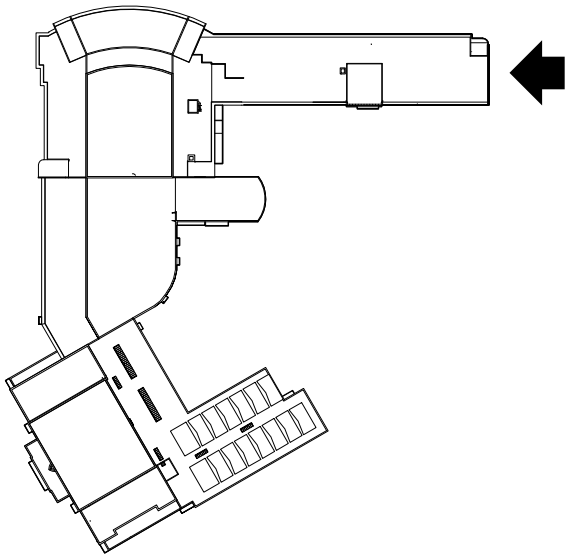
PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.75



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.76



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.77



PA	SMS	RELEASE DATE
PM	MT	10/6/22
DRW	SDL	B-2.78

PART 3 – SAMPLES

3.1. Proposed Replacement Windows

3.1.0. Summary of design intent:

The design intent of this window replacement is to provide new thermally broken steel windows with insulated glazing meeting the following aesthetic requirements;

3.1.0.1 Windows shall be profiled, sized, and factory painted to provide an exact or near match to the original steel windows, site lines, operable locations, areas/amount of visible glass, and glass color.

3.1.1 Basis of Design Product:

Hope's Landmark 175 Series with Thermal Evolution Technology

Hope's Windows, Inc., Jamestown, NY; Tel: (716) 665-5124; Web: www.hopeswindows.com

3.1.2. Materials:

Profiles made from steel with flanges rolled integrally at the mill with composite frame and triple weatherstripping.

3.1.3. Frame & Sash Profiles:

All steel profiles a minimum of 1-3/4" in depth.

3.1.4. Exterior Muntins (simulated divided lite):

Hot-rolled exterior muntins, #84H profile shall be solid hot-rolled from stainless steel with tapers rolled integral at the mill. #84H muntins shall be solidly welded to perimeter framing and dressed smooth.

Or

Exterior applied muntins, profile precut to meet perimeter frame. Intersections milled to the extrusion profile. Muntin components applied to face of glass with 0.045" VHB™ double adhesive tape after glazing.

3.1.5. Operable Hardware:

Inswing Ventilators hung on non-ferrous heavy-duty stainless steel four bar hinges, having friction maintained by sliding brass shoe with screw adjustment.

3.1.6. Finishing:

Three-coat finish consisting of a first coat Epoxy E-Coat primer, second coat Epoxy powder primer, and Ultrathane polyurethane top coat custom colored to match historic tan color

3.1.7. Fasteners:

All screws that are furnished by Hope's for hardware, trim, covers, anchoring, weatherbars, water dams, screens, etc. shall be non-ferrous brass or stainless steel. Glazing bead retainer screws are plated steel.

3.1.8. Glazing:

The design intent is provide new glazing meeting the following requirements;

3.1.8.1 Clear glass, thickness to meet minimum Seattle Energy Code U-value.

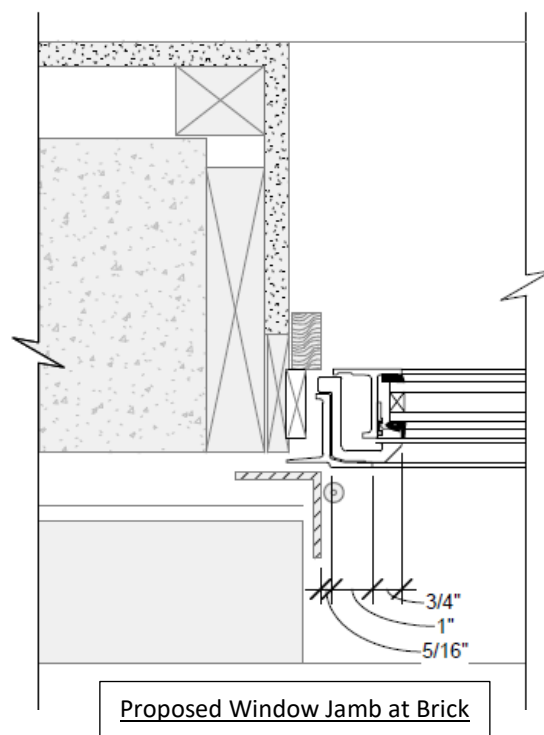
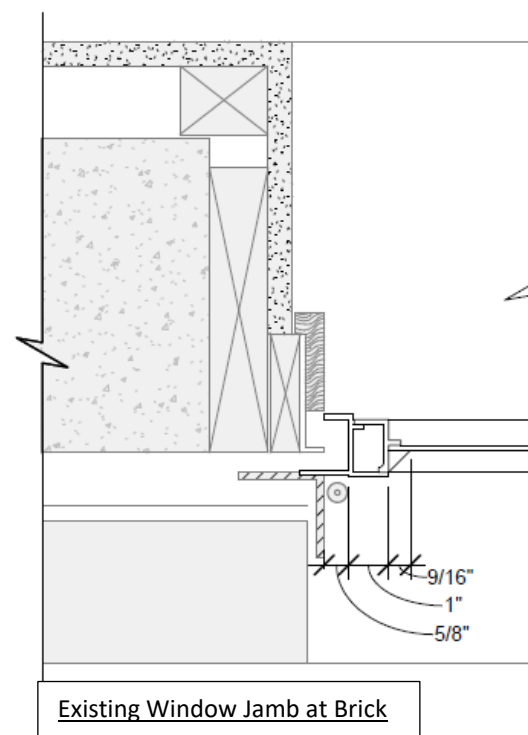
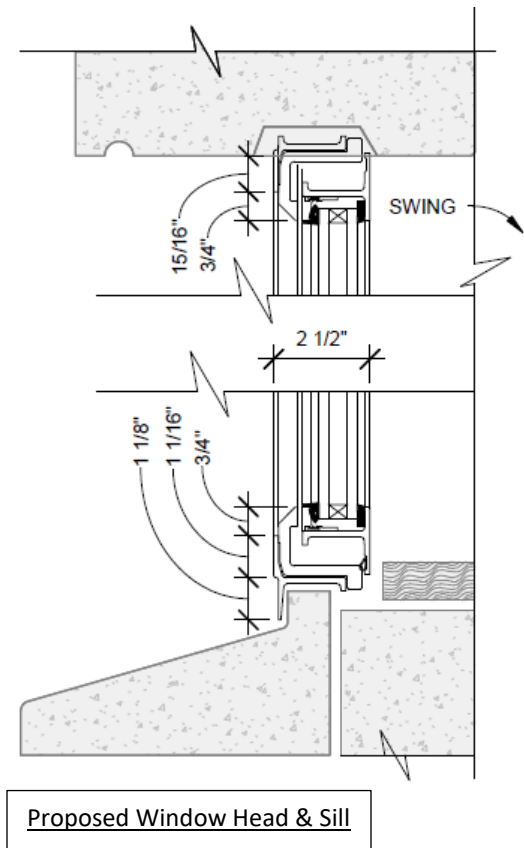
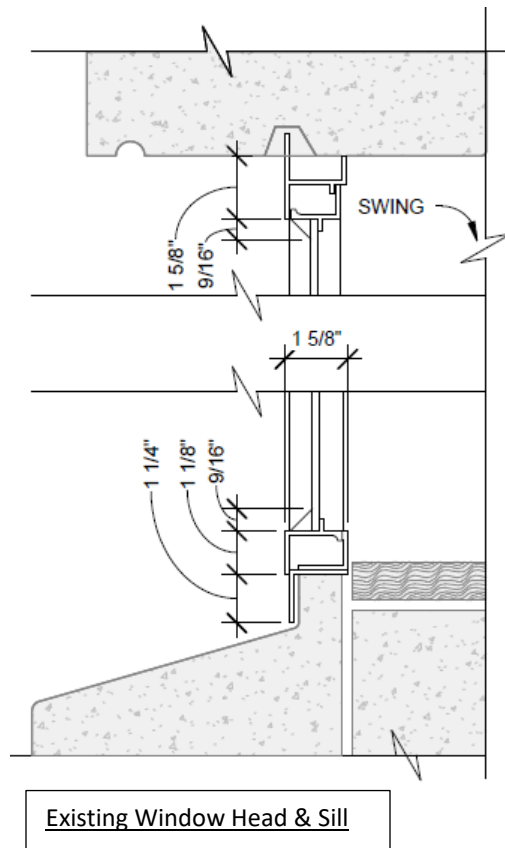
3.1.8.2 Coatings on glass faces only as required to meet Seattle Energy Code SHGC depending on building elevation.

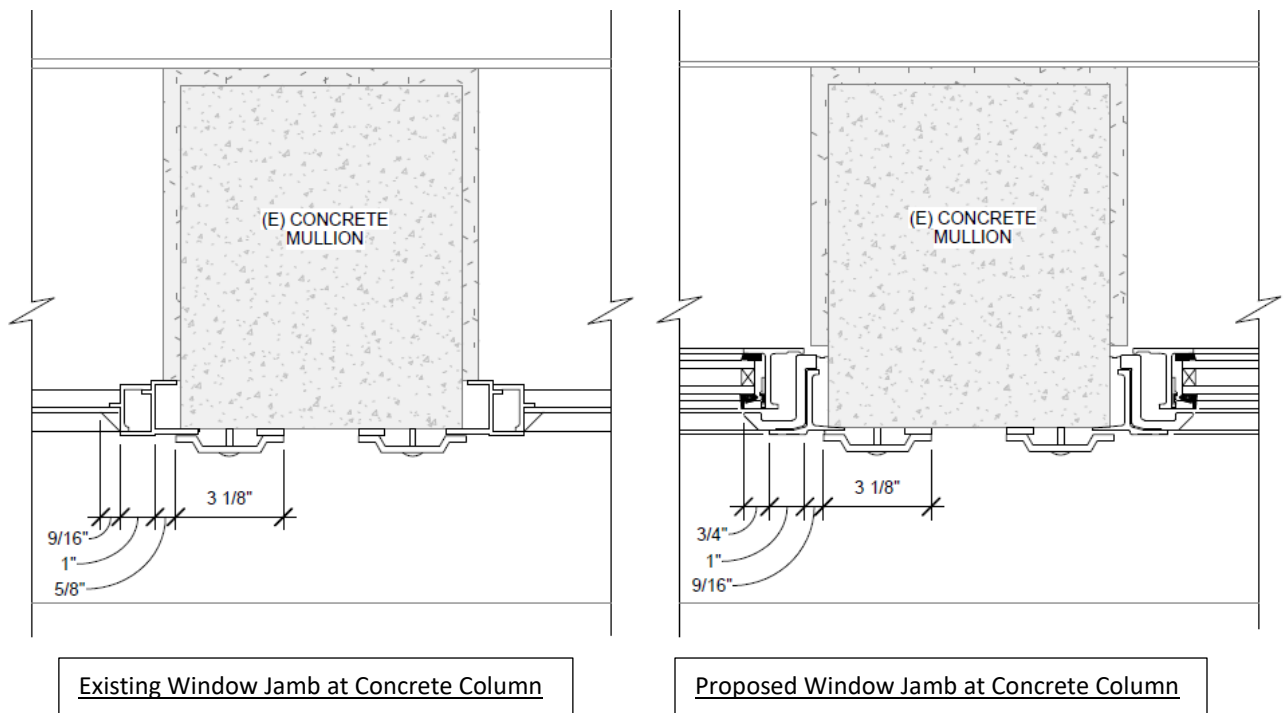
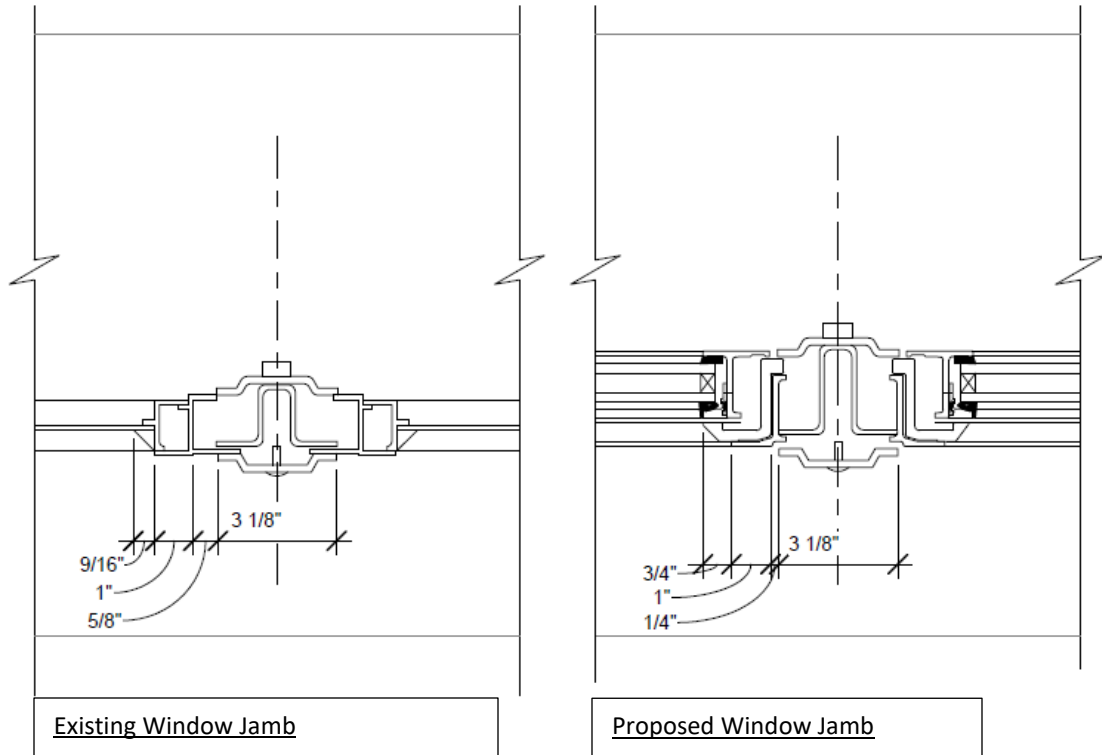
3.1.8.3 Tempered glass as required by code.

3.1.8.4 Laminated glass for skylights/clerestory windows.

3.2. Window Profile Comparison

For the sake of this brief, the images below are not intended to provide a comprehensive comparison of all existing/new window conditions but represent the most common or typical conditions at Nathan Eckstein Middle School.





3.3. Photo Comparison



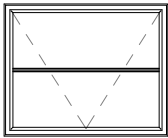
Photos above depict a Hope's Window sample, Landmarked 175 Series, inswing hopper next to the original historic steel frame/sashed windows. *Note: This sample lacks the 1-inch flange that would be specified as part of project and allow for securement behind the profiles steel bracket (red arrow).*

PART 4 –Drawings & Details

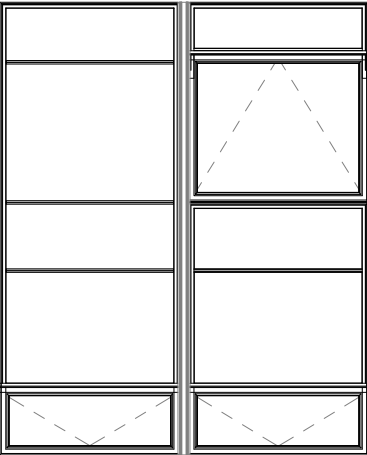
- 4.1. The drawings and detail on the following pages include a schedule the typical windows, followed by sheets showing the location of each window types, existing head, jamb & sill detailing, and the head, jamb & sill details for the new proposed Landmarked 175 steel windows.

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt
10/6/2022 11:51:32 AM

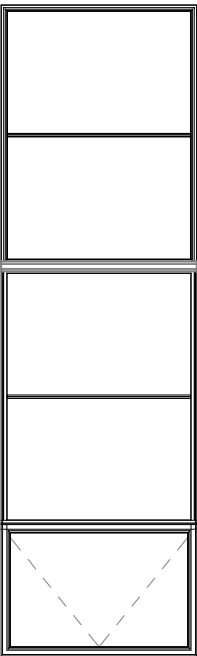
NEW LANDMARK 175



CLASSROOM SWING IN HOPPER

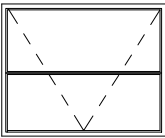


OFFICE COMBINATION WDW

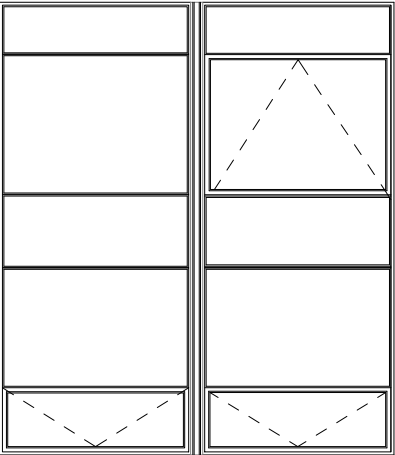


LIBRARY WDW

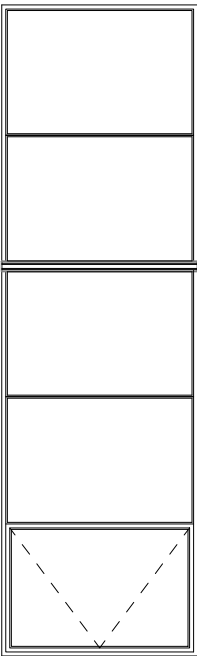
(E) WINDOW



CLASSROOM SWING IN HOPPER

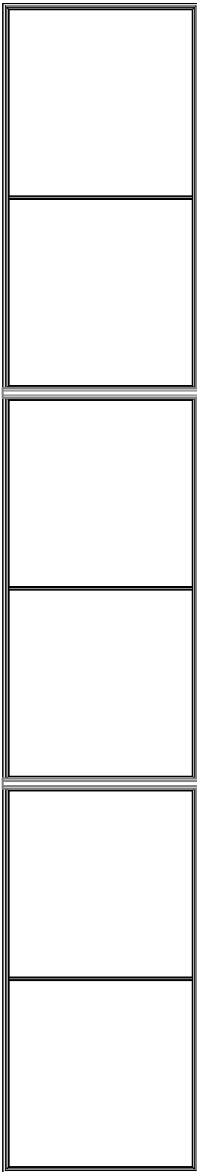


OFFICE COMBINATION WDW

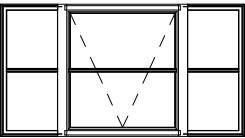


LIBRARY WDW

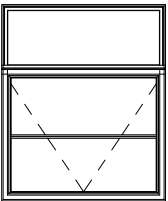
NEW LANDMARK 175



STAIRWELL WDW

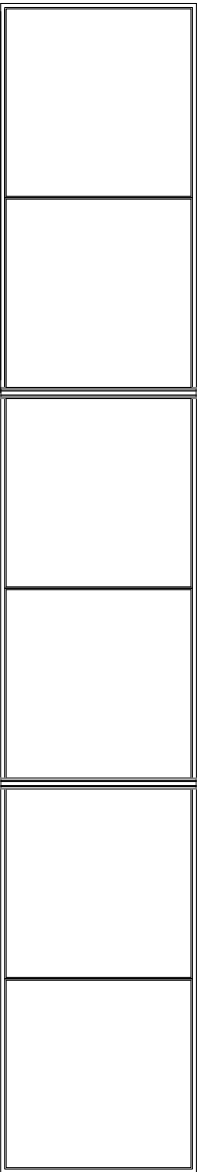


CLASSROOM SWING IN
HOPPER W/ FIXED SIDES

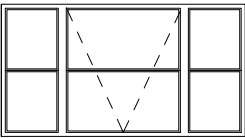


TOILET/ STORAGE SWING IN
HOPPER W/ FIXED TOP

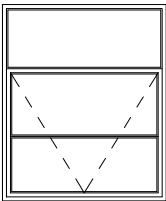
(E) WINDOW



STAIRWELL WDW



CLASSROOM SWING IN
HOPPER W/ FIXED SIDES

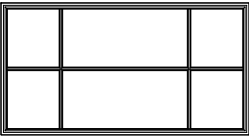


TOILET/ STORAGE SWING IN
HOPPER W/ FIXED TOP

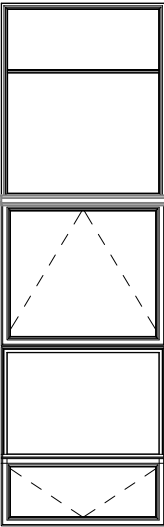
NEW LANDMARK 175



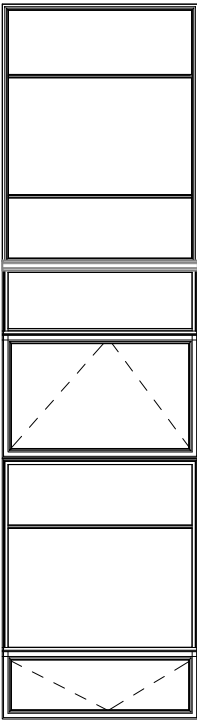
FIXED



GYM FIXED W/ MUTINS



SHOP WDW

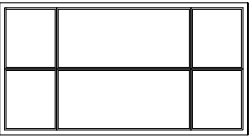


CAFETERIA WDW

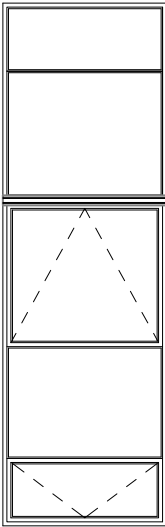
(E) WINDOW



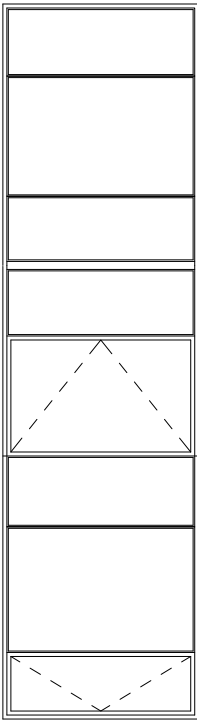
FIXED



GYM FIXED W/ MUTINS

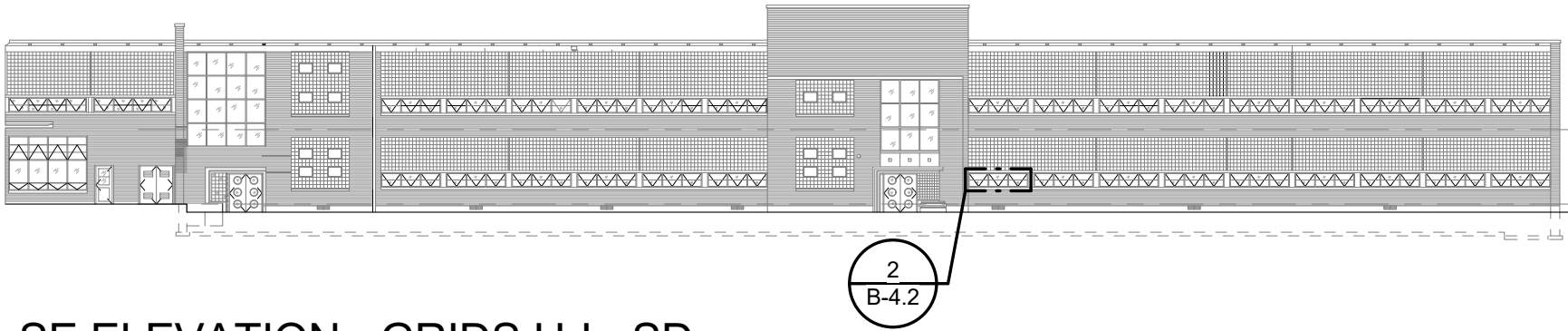


SHOP WDW

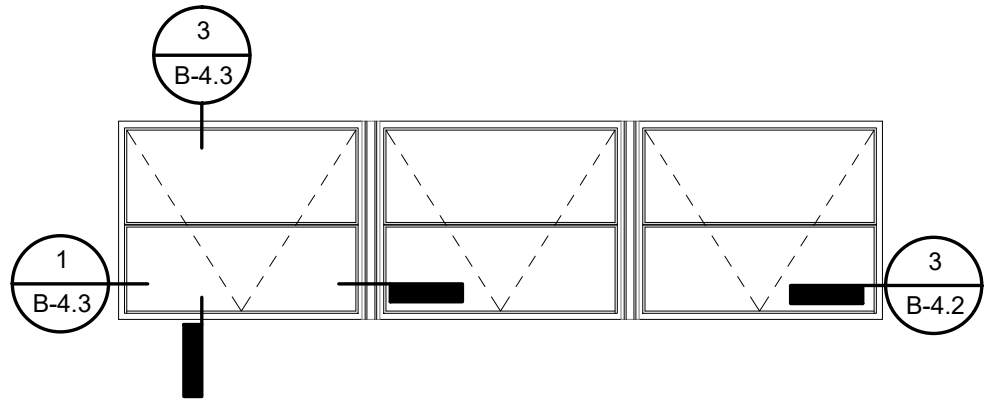


CAFETERIA WDW

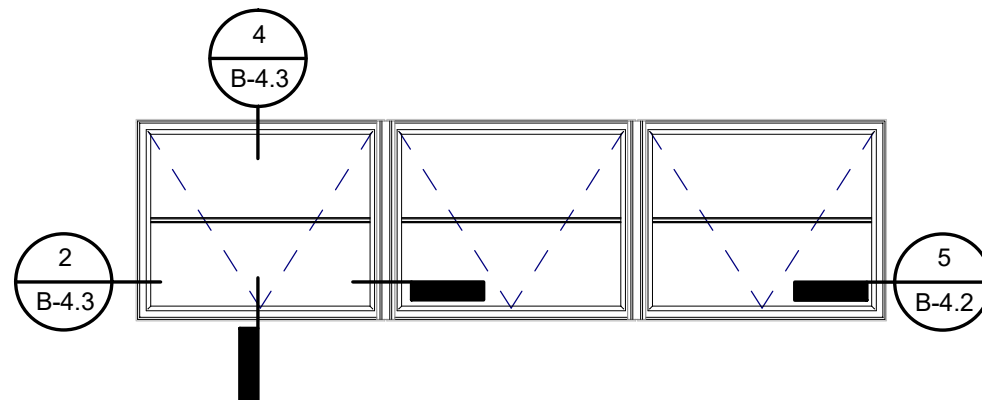
TYPICAL WINDOW ELEVATIONS



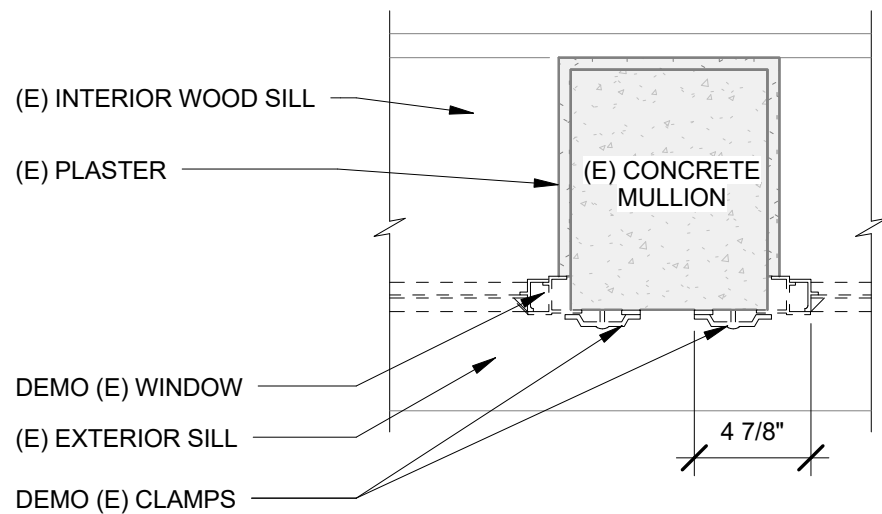
1 SE ELEVATION - GRIDS U-I - SD
1/32" = 1'-0"



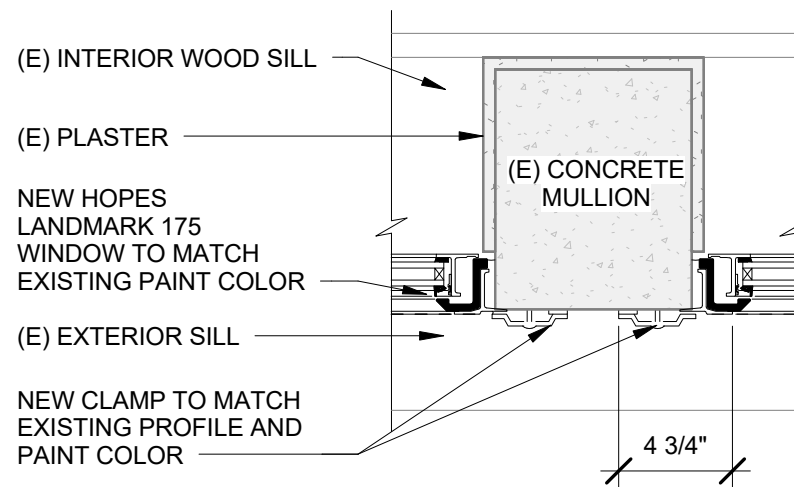
2 (E) SWING IN HOPPER ELEV
3/8" = 1'-0"



4 NEW SWING IN HOPPER ELEV
3/8" = 1'-0"



3 (E) PLAN SECT. AT CONC. MULLIONS
1 1/2" = 1'-0"



5 PLAN SECT. AT CONC. MULLIONS - NEW
1 1/2" = 1'-0"

CLASSROOM SWING IN HOPPER ELEVATION & DETAILS

ECKSTEIN MS BLDG ENVELOPE UPGRADE

3003 NE 75TH ST, SEATTLE, WA 98115

LPB BRIEFING
10/06/2022

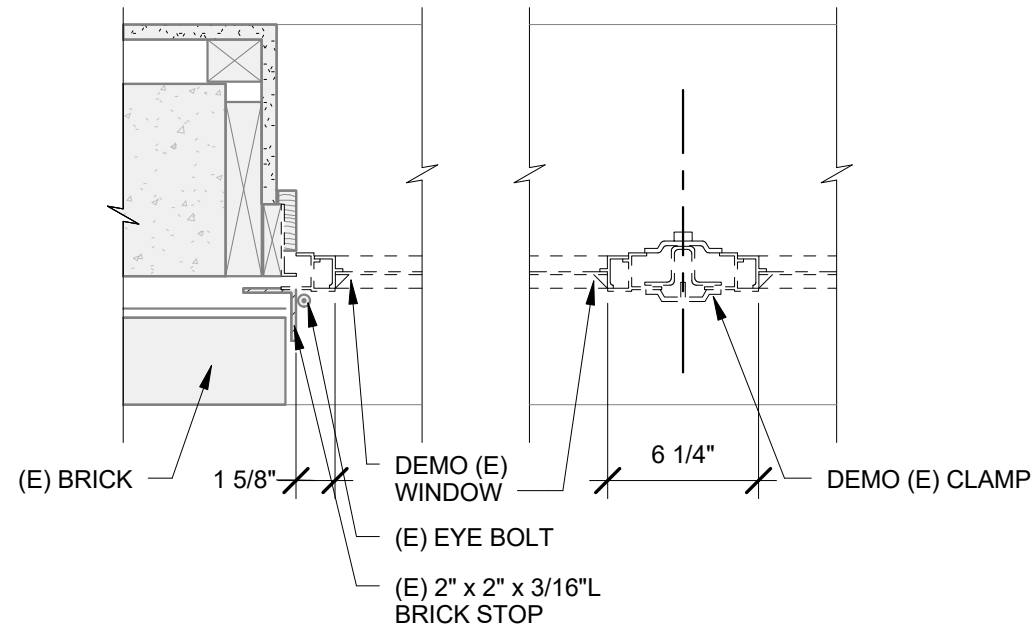
PIC
SMS

PM
M.T.

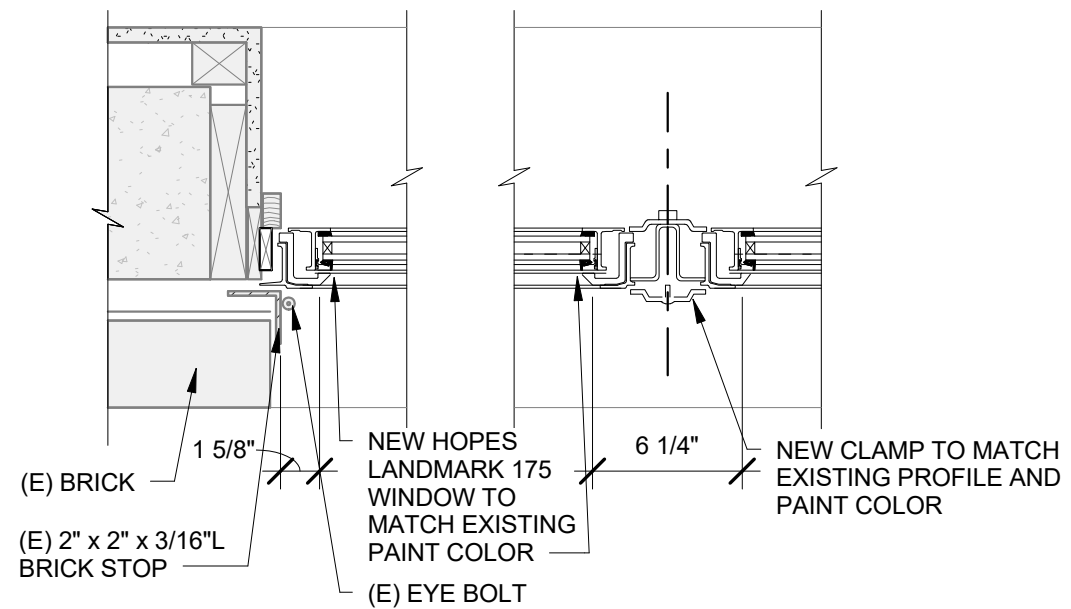
DRW
R.S.

B-4.2

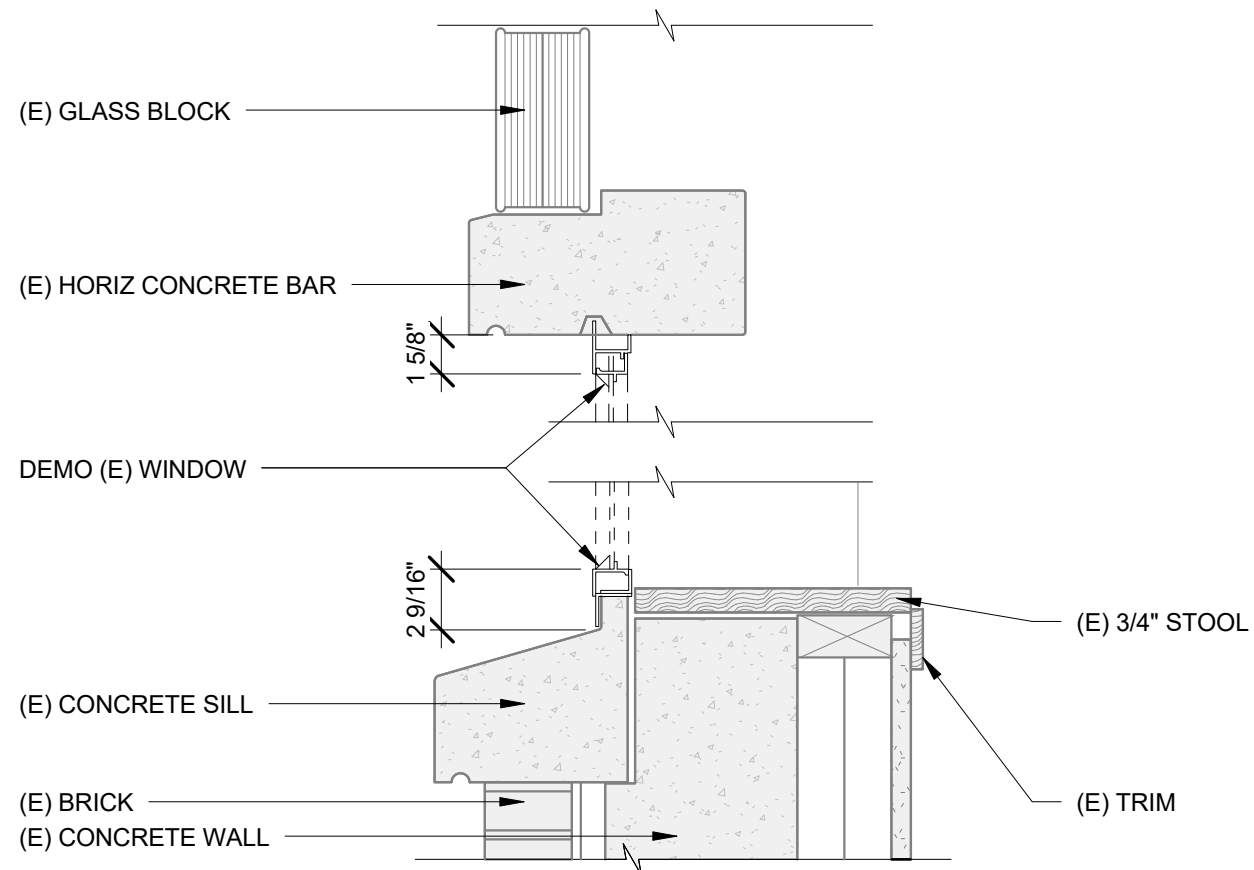
proj. no.



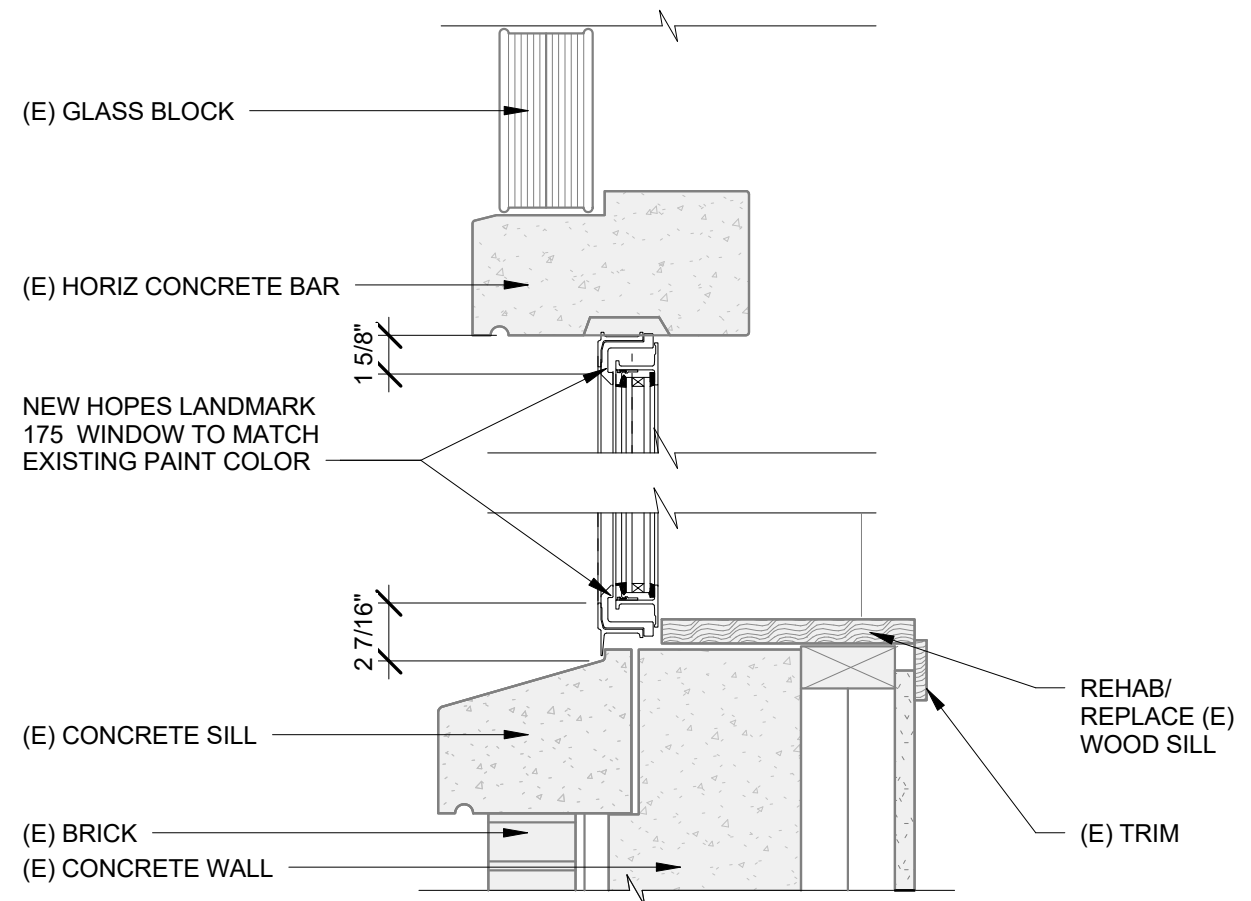
1 (E) JAMB/ VERTICAL MULLION
1 1/2" = 1'-0"



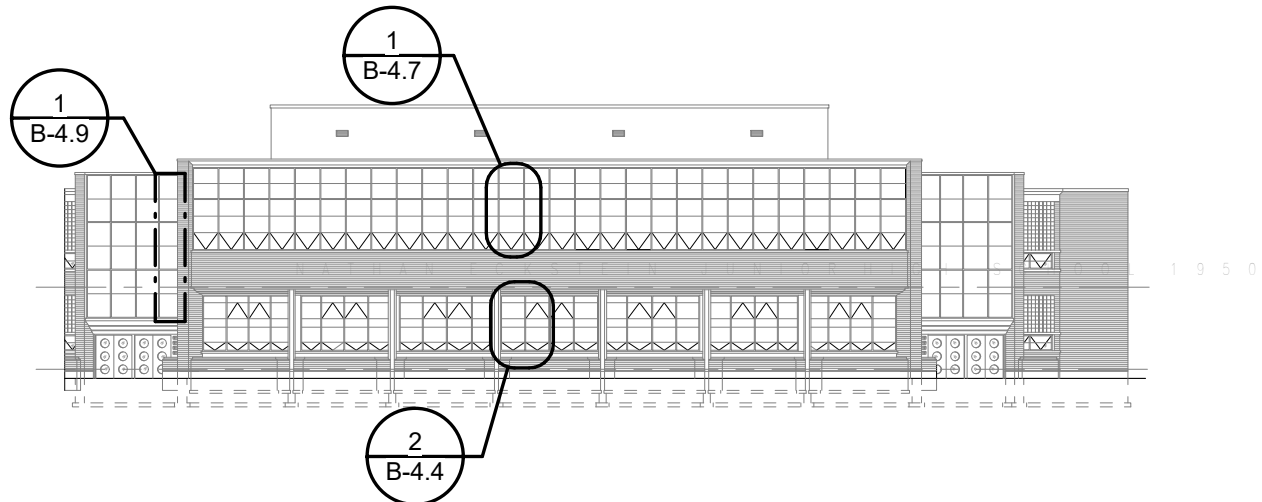
2 JAMB/ VERTICAL MULLION - NEW
1 1/2" = 1'-0"



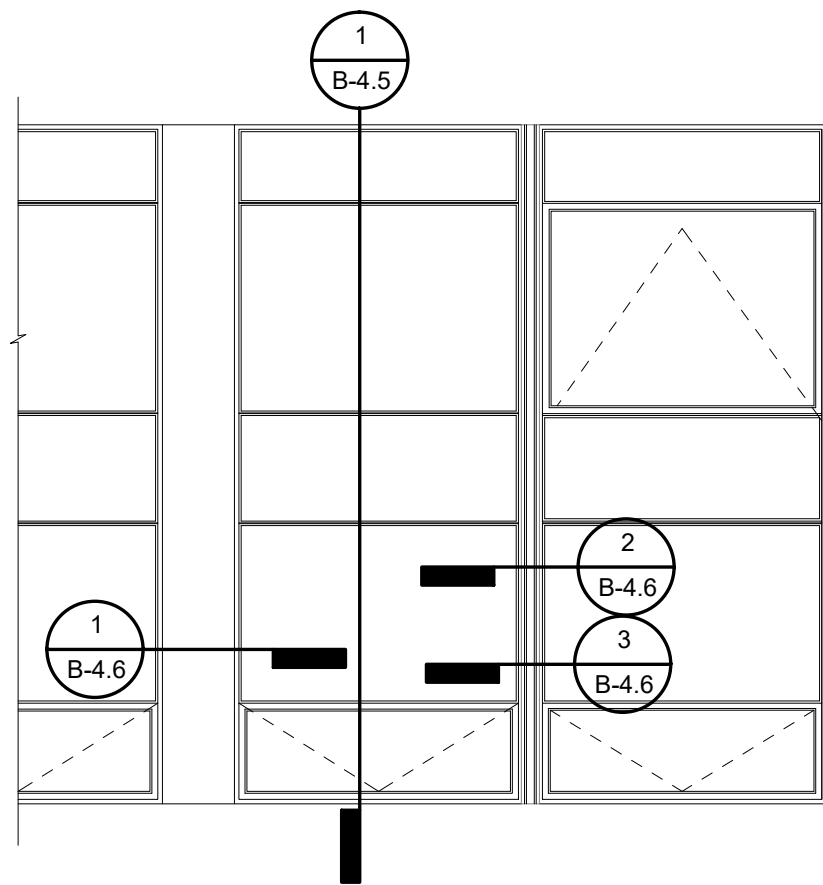
3 (E) WDW SECTION W. CONCRETE HEAD & SILL
1 1/2" = 1'-0"



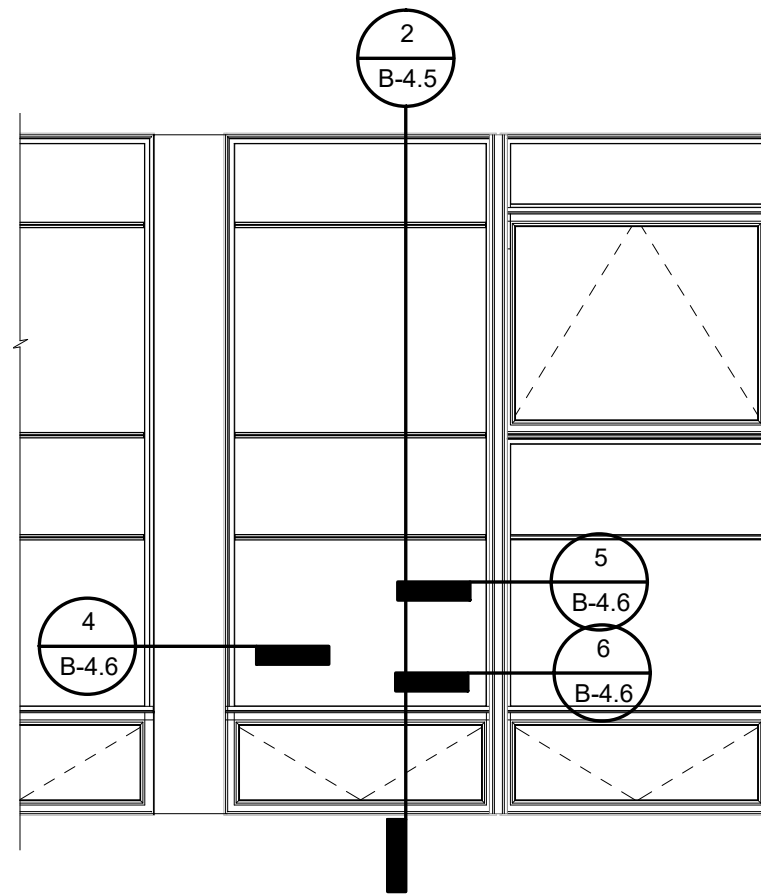
4 NEW WDW SECTION W. CONCRETE HEAD & SILL
1 1/2" = 1'-0"



1 NW ELEVATION - GRIDS I-A - SD
1/32" = 1'-0"



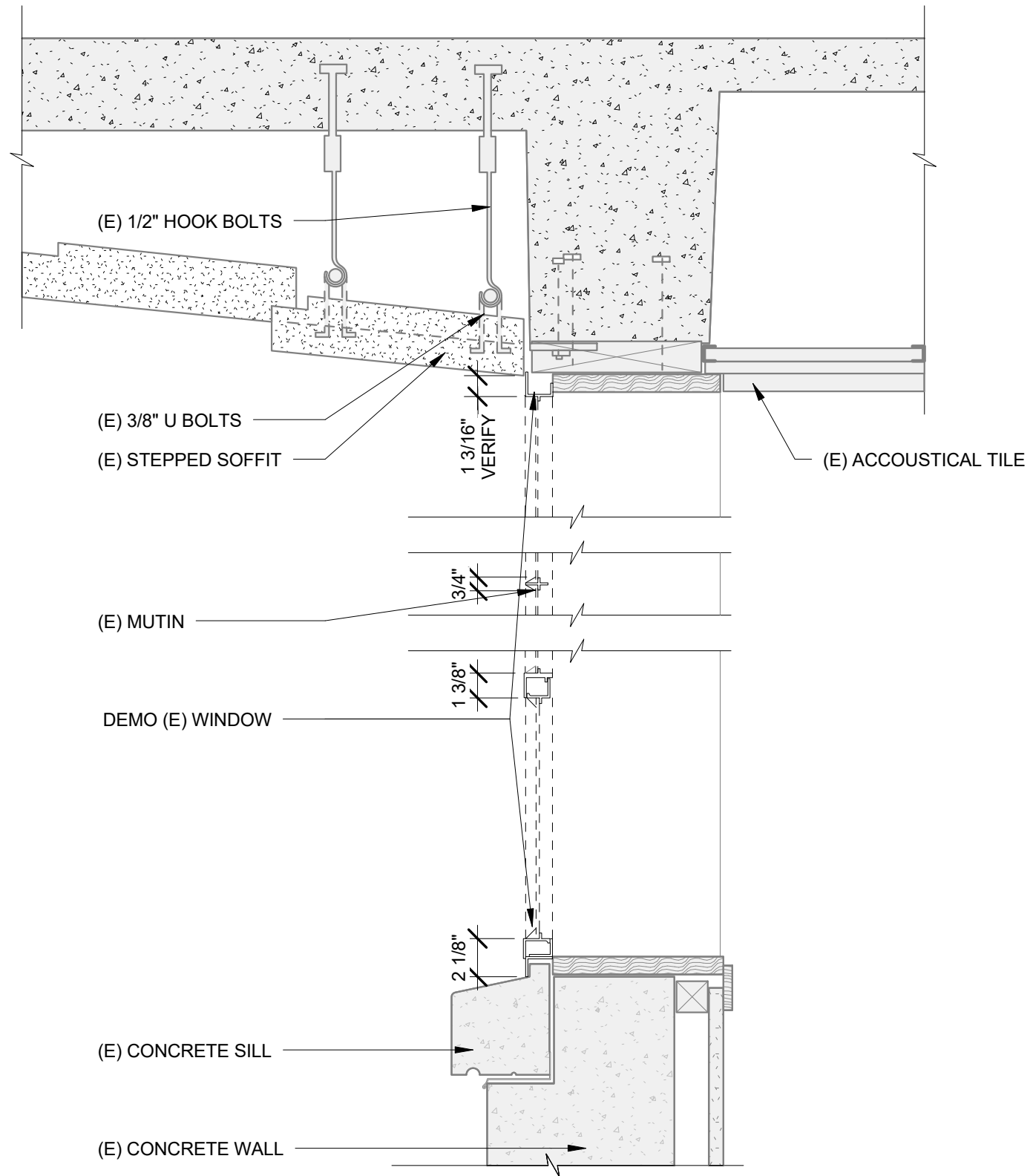
2 (E) COMBINATION WDW ELEV
3/8" = 1'-0"



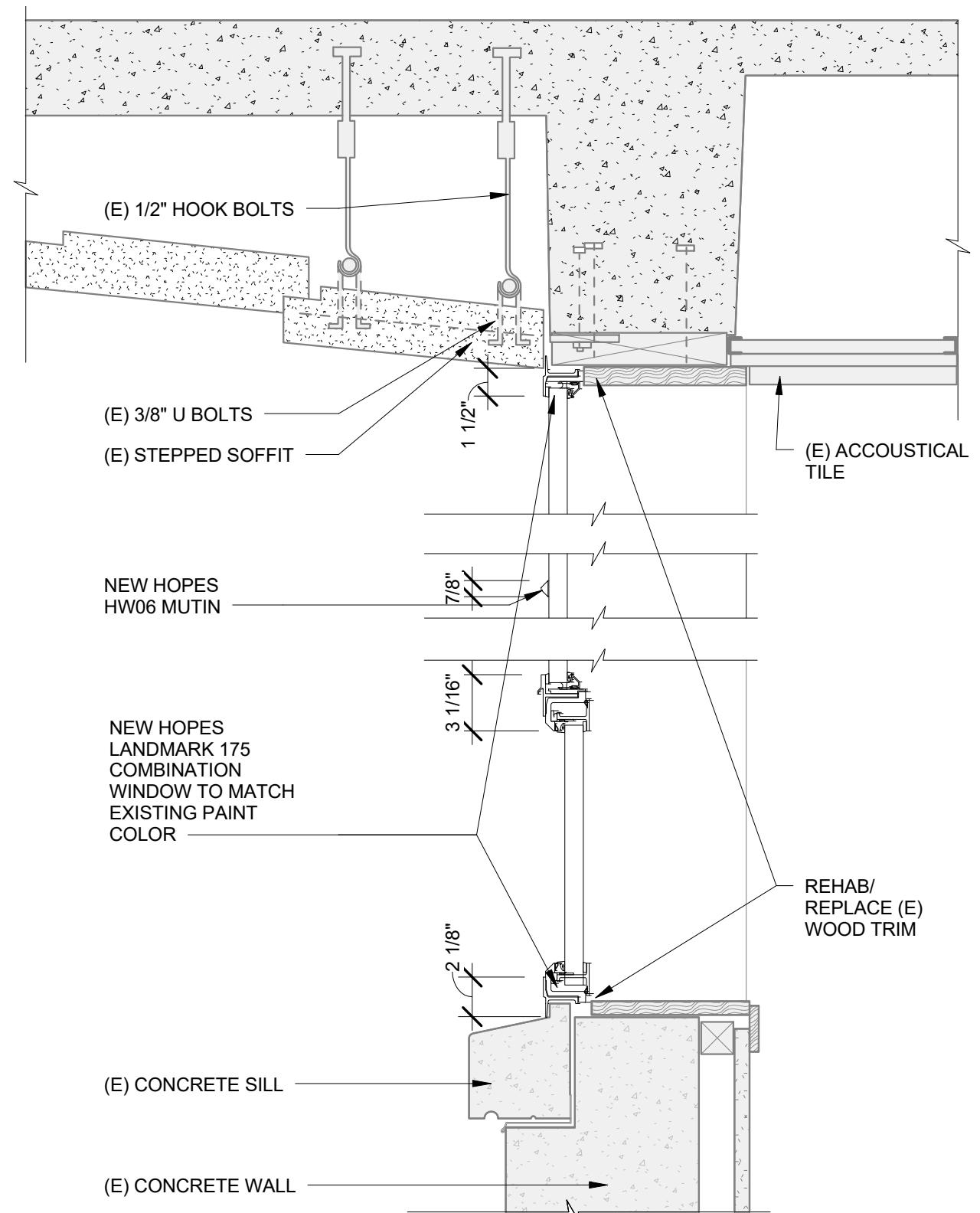
3 NEW COMBINATION WINDOW
3/8" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

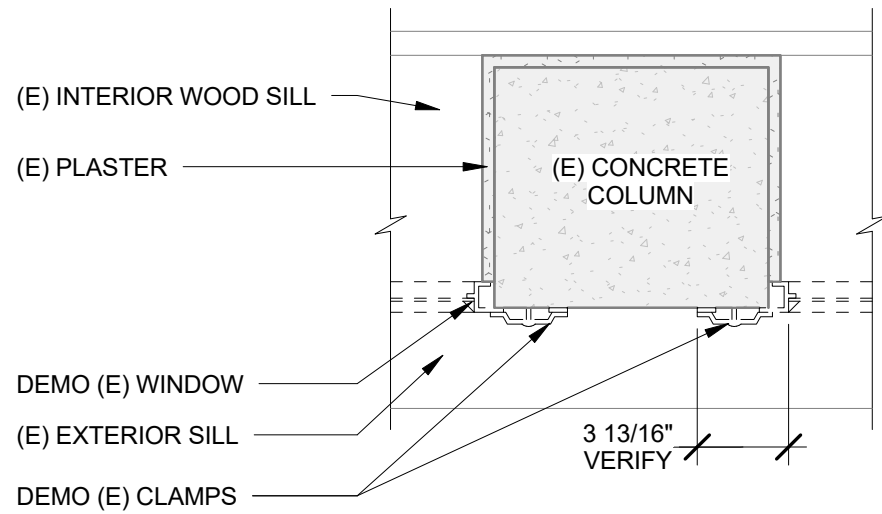
10/6/2022 11:51:36 AM



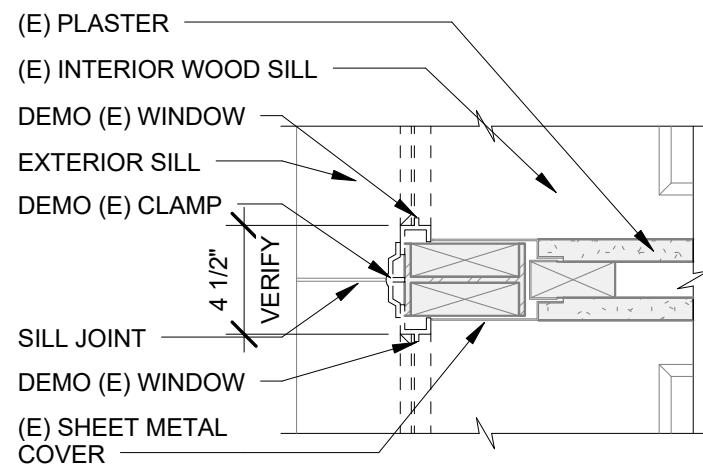
1 (E) SECTION THRU STEPPED SOFFIT WINDOW
1 1/2" = 1'-0"



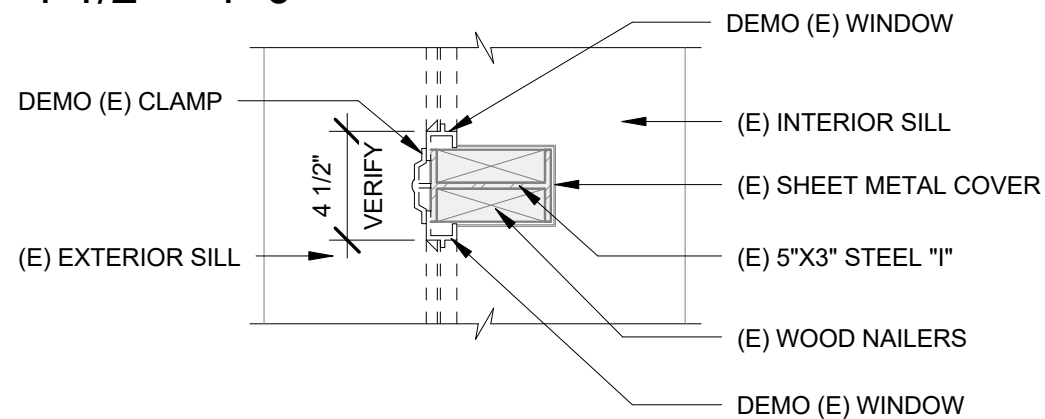
2 SECTION THRU STEPPED SOFFIT WINDOW - NEW
1 1/2" = 1'-0"



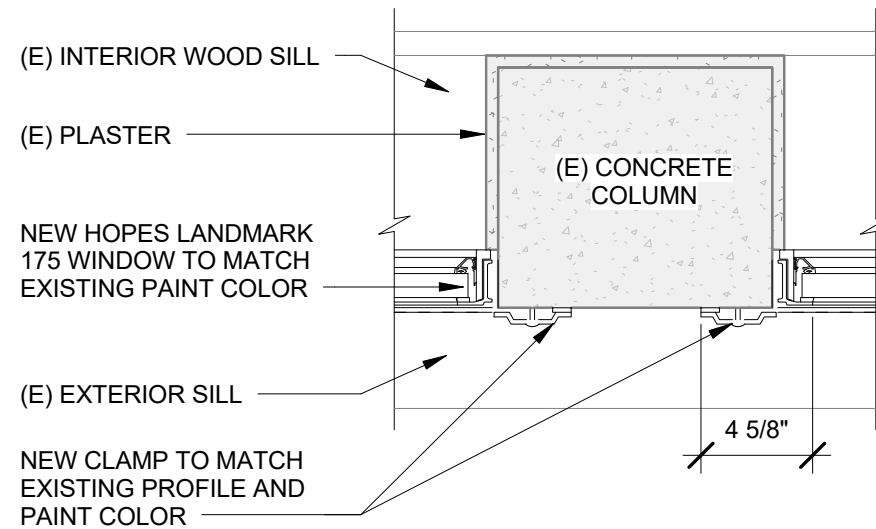
1 (E) PLAN SECT. AT CONC. COLUMN
1 1/2" = 1'-0"



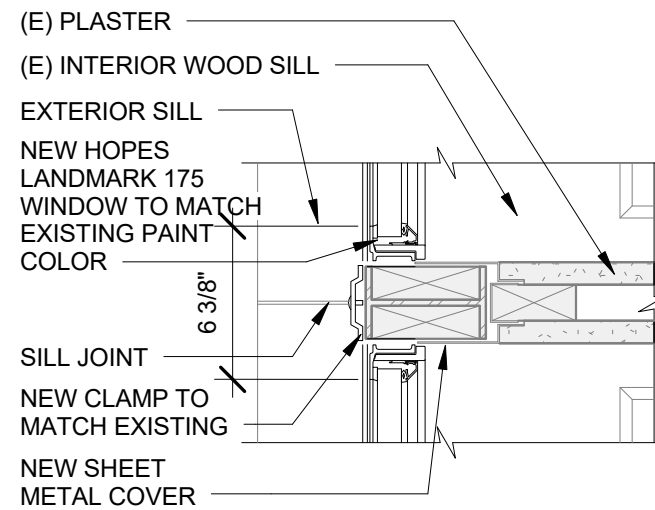
2 VERT. MULLION AT PARTITION
1 1/2" = 1'-0"



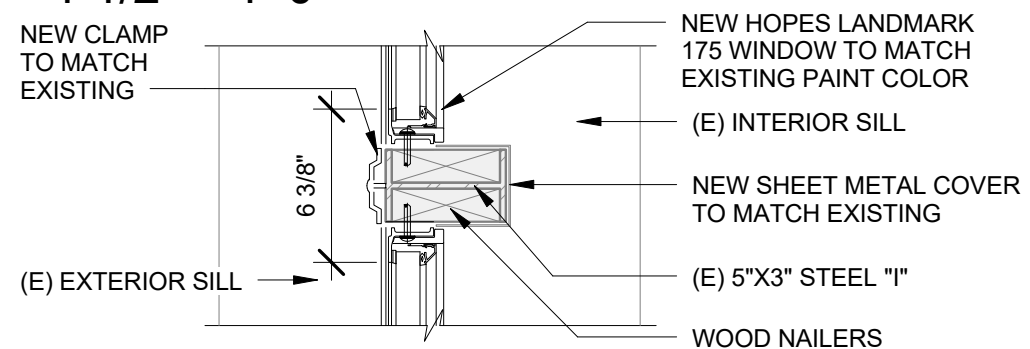
3 PLAN SECT. THRU VERT. MULLION
1 1/2" = 1'-0"



4 PLAN SECT. AT CONC. COLUMN - NEW
1 1/2" = 1'-0"



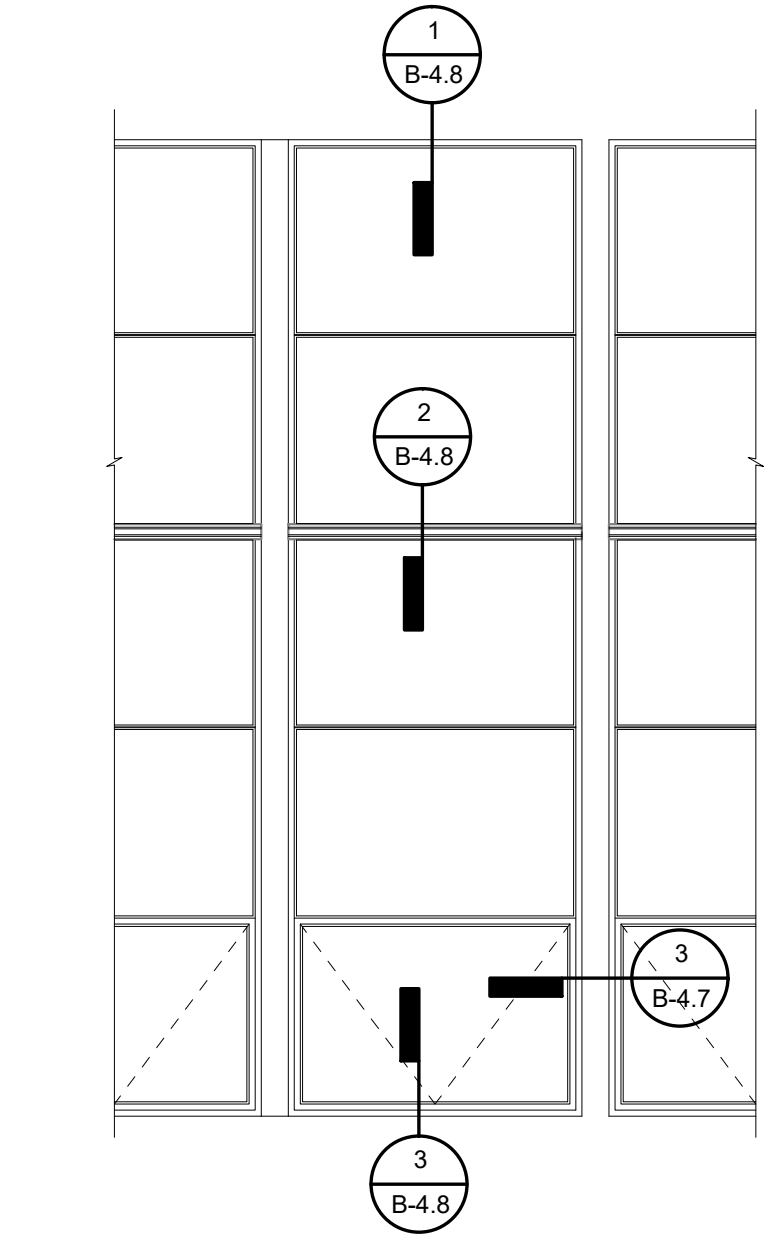
5 VERT. MULLION AT PARTITION - NEW
1 1/2" = 1'-0"



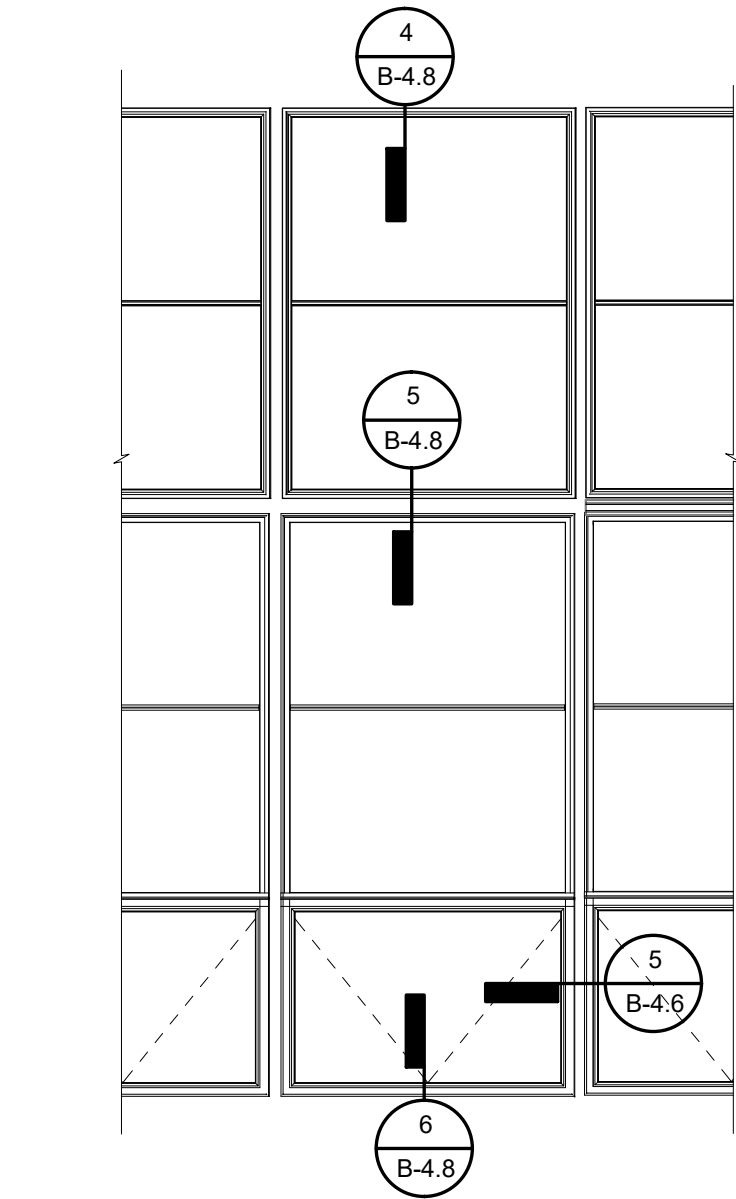
6 PLAN SECT. THRU VERT. MULLION - NEW
1 1/2" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

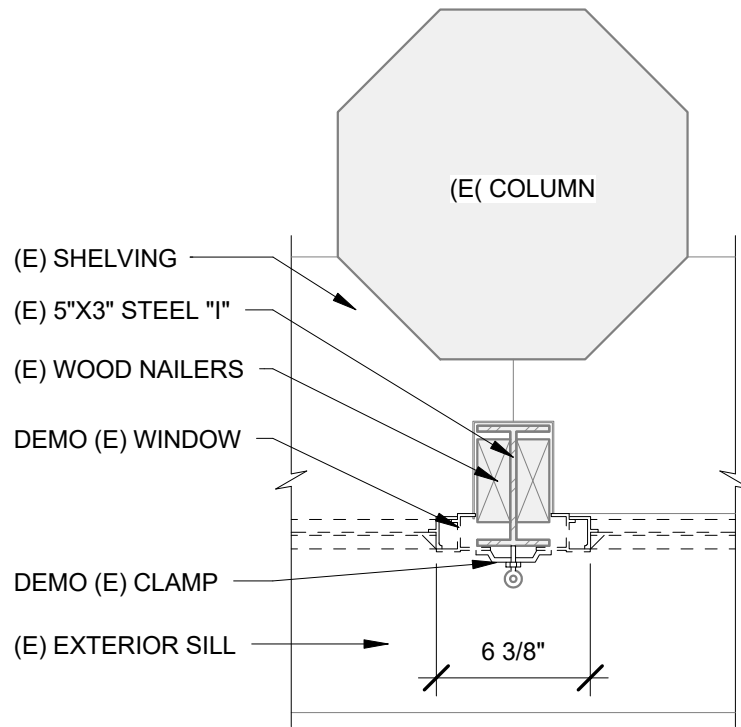
10/6/2022 11:51:37 AM



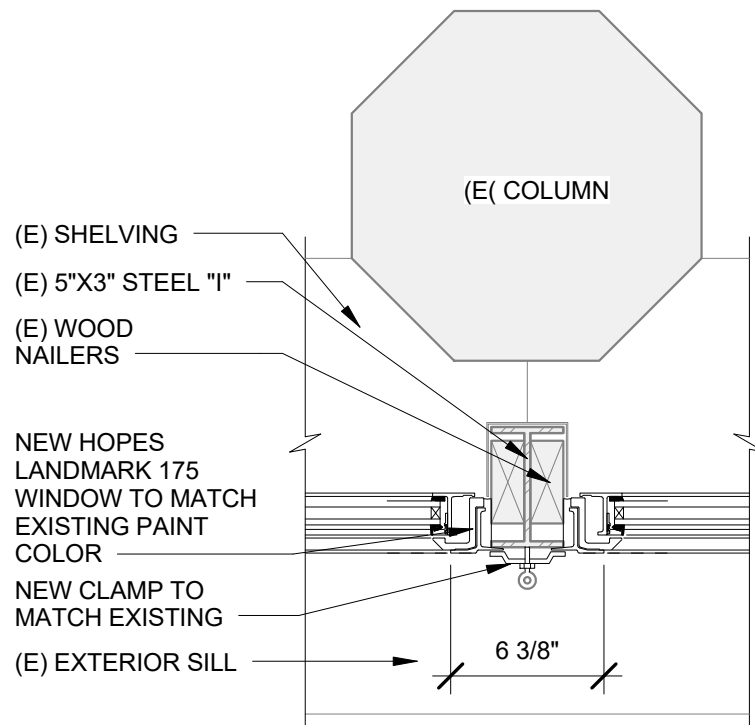
1 (E) LIBRARY WINDOW ELEV
3/8" = 1'-0"



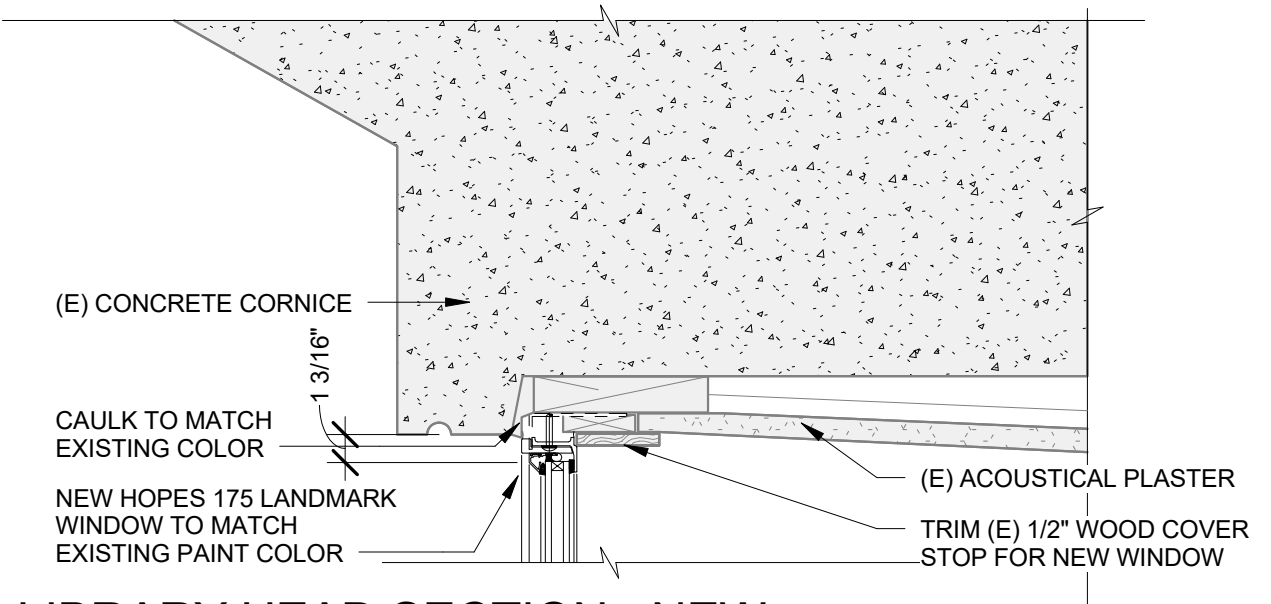
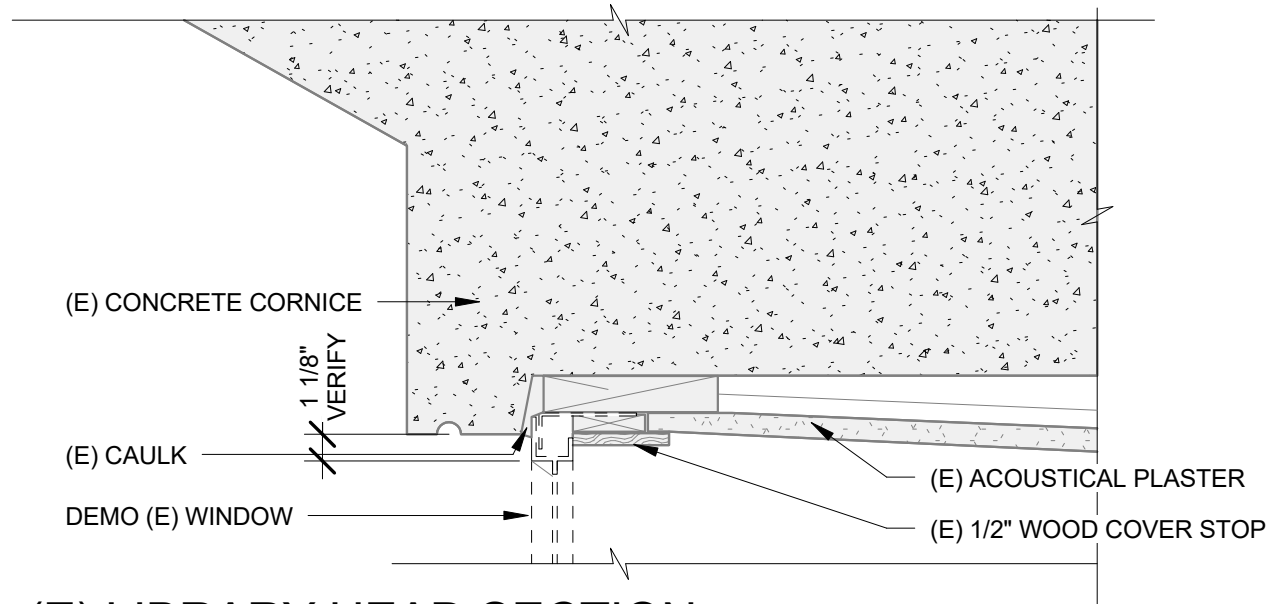
2 NEW LIBRARY WINDOW ELEV
3/8" = 1'-0"



3 (E) LIBRARY VERT. MULLION SECT.
1 1/2" = 1'-0"

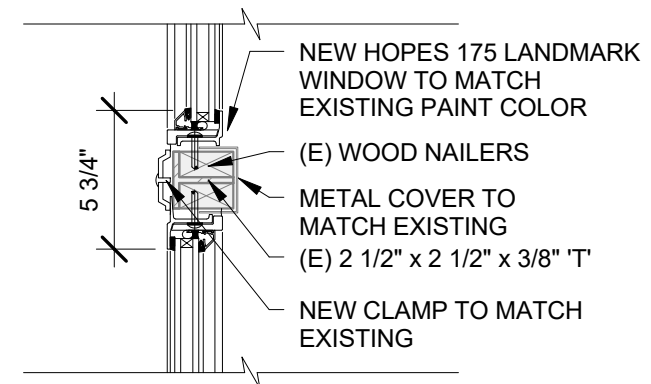
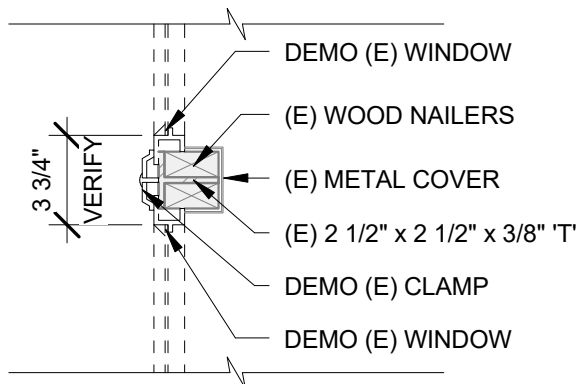


4 LIBRARY VERT. MULLION SECT. - NEW
1 1/2" = 1'-0"



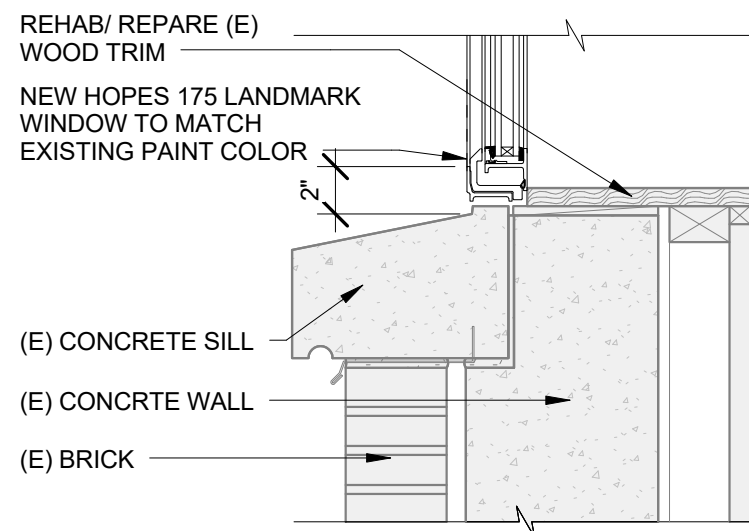
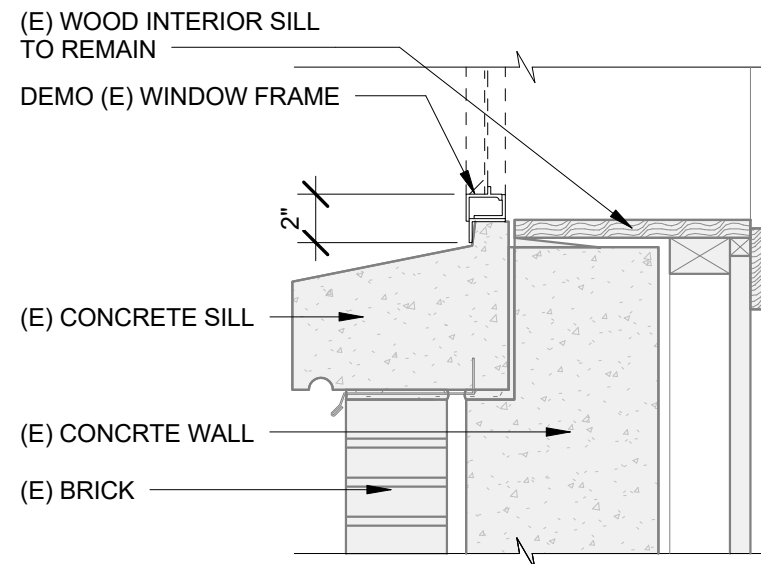
1 (E) LIBRARY HEAD SECTION
1 1/2" = 1'-0"

4 LIBRARY HEAD SECTION - NEW
1 1/2" = 1'-0"



2 (E) LIBRARY HORIZ. MULLION
1 1/2" = 1'-0"

5 LIBRARY HORIZ. MULLION - NEW
1 1/2" = 1'-0"

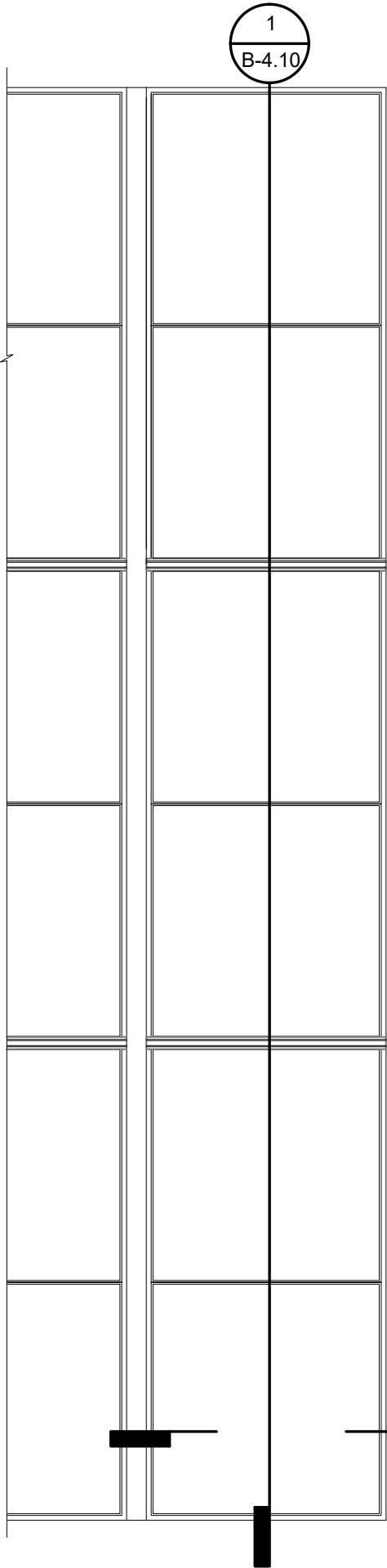


3 (E) LIBRARY SILL SECTION
1 1/2" = 1'-0"

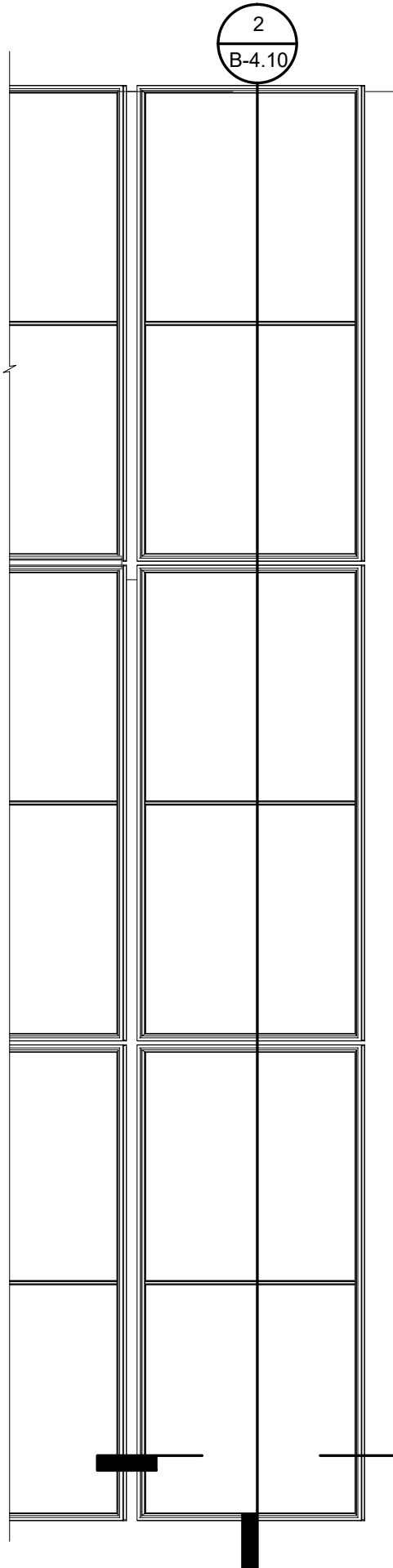
6 LIBRARY SILL SECTION - NEW
1 1/2" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

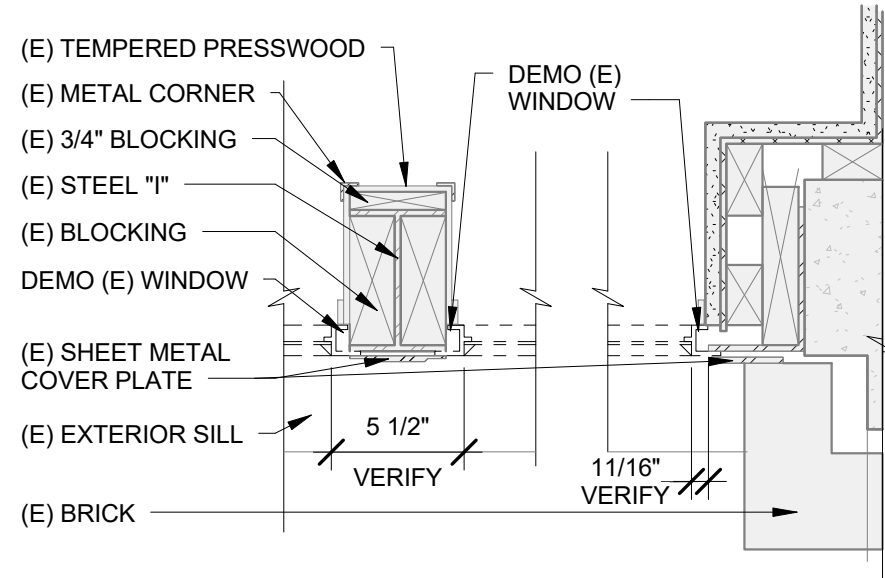
10/6/2022 11:51:38 AM



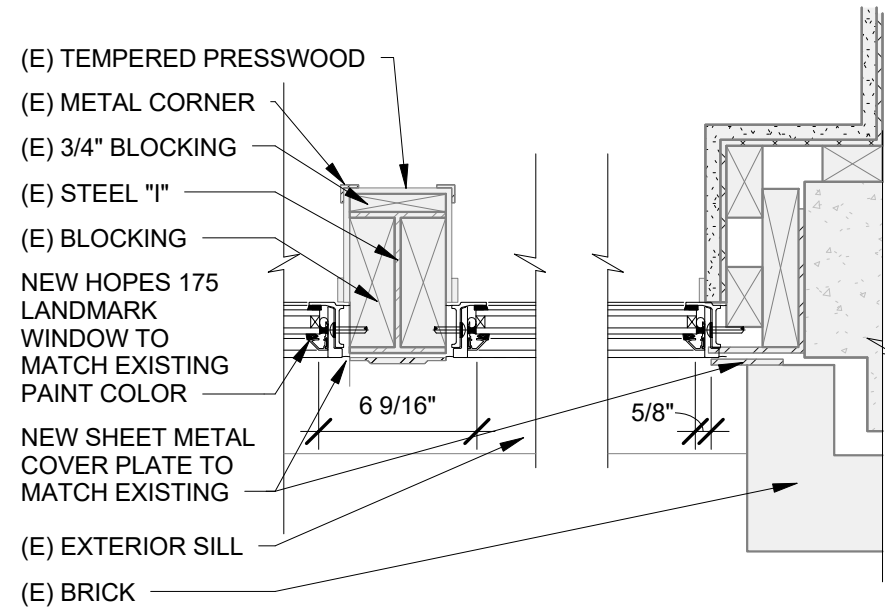
1 (E) STAIRWELL WINDOW ELEV
3/8" = 1'-0"



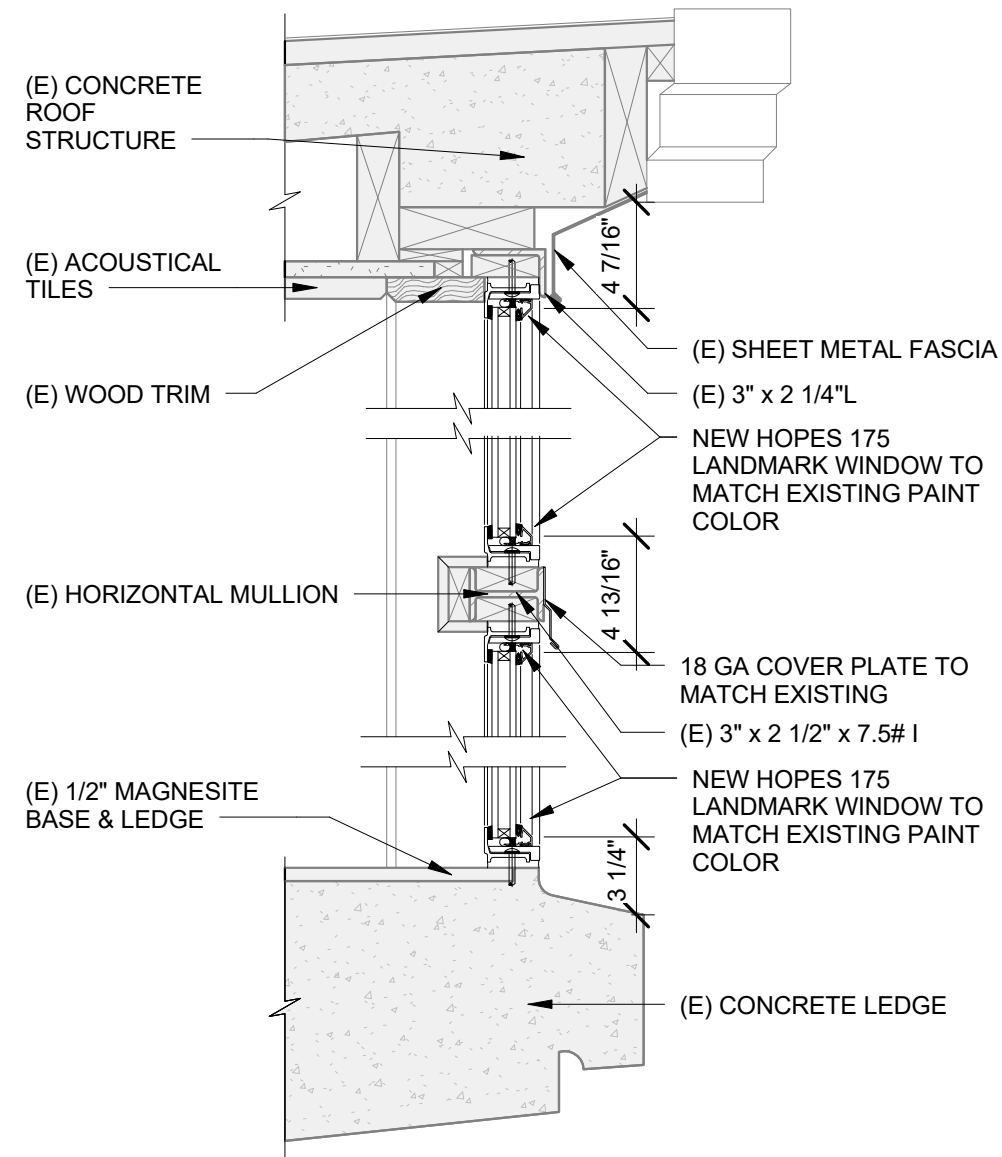
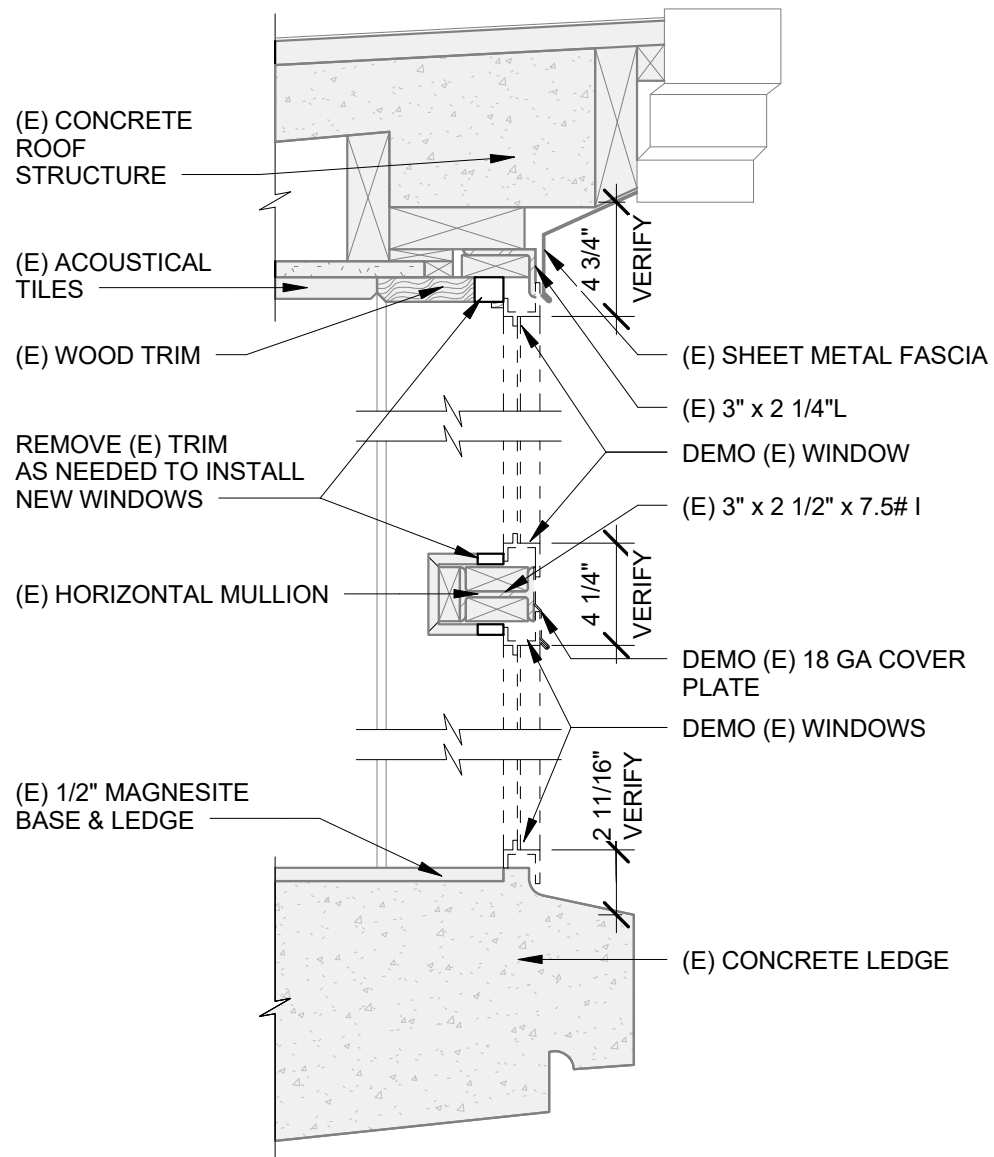
2 NEW STAIRWELL WINDOW ELEV
3/8" = 1'-0"



3 (E) STAIR WELL JAMB & MULLION
1 1/2" = 1'-0"

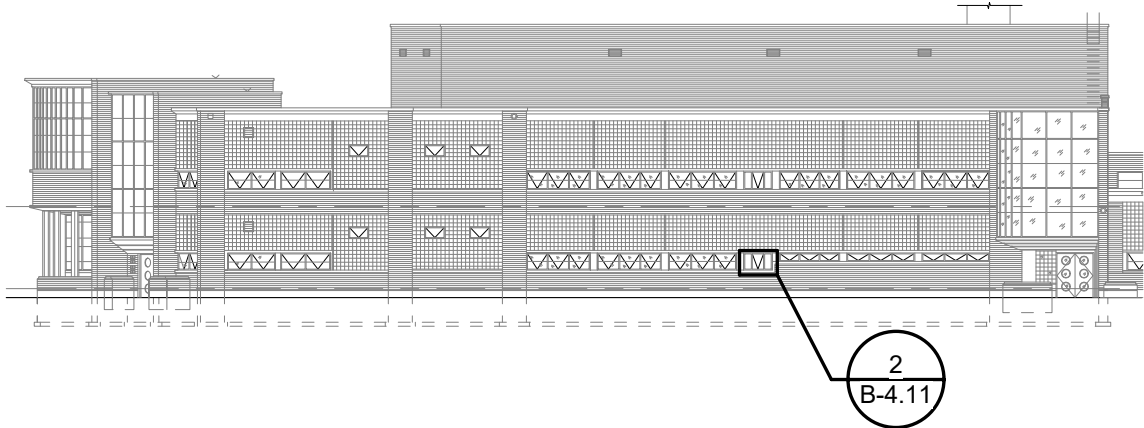


4 STAIR WELL JAMB & MULLION - NEW
1 1/2" = 1'-0"

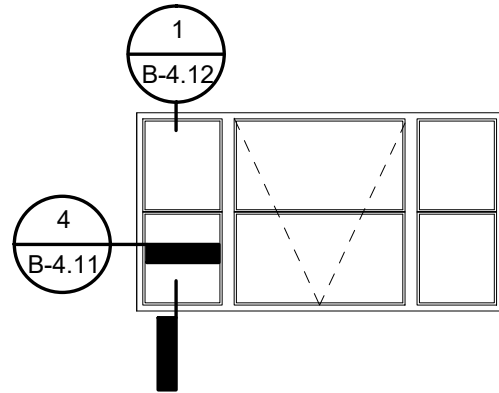


1 (E) SECTION OF LEDGE AT LANDING
1 1/2" = 1'-0"

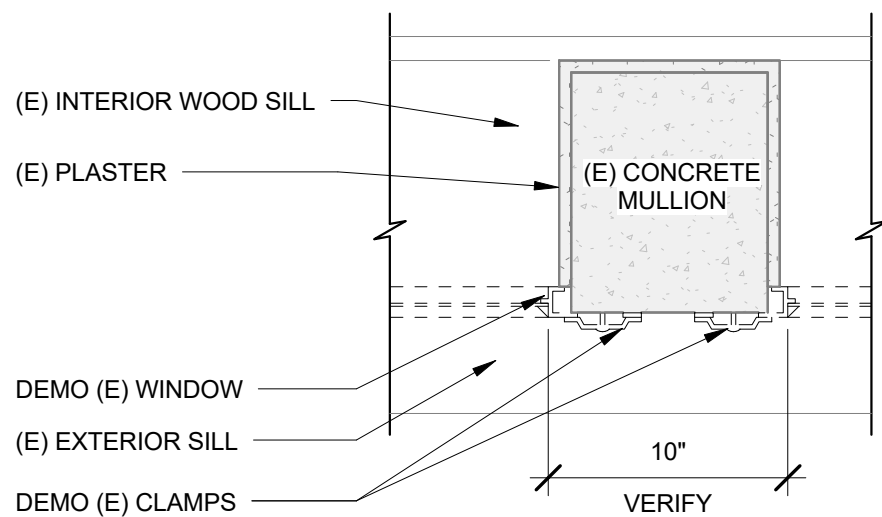
2 SECTION OF LEDGE AT LANDING - NEW
1 1/2" = 1'-0"



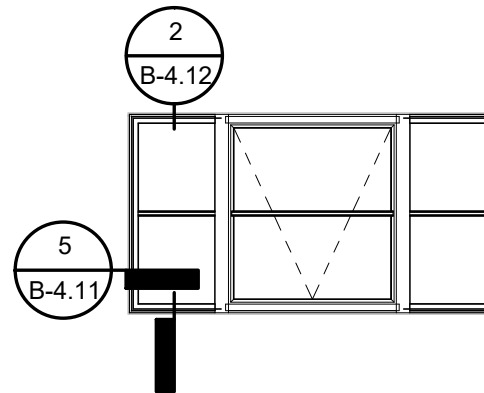
1 WEST ELEVATION - GRIDS 1'-9' - SD
1/32" = 1'-0"



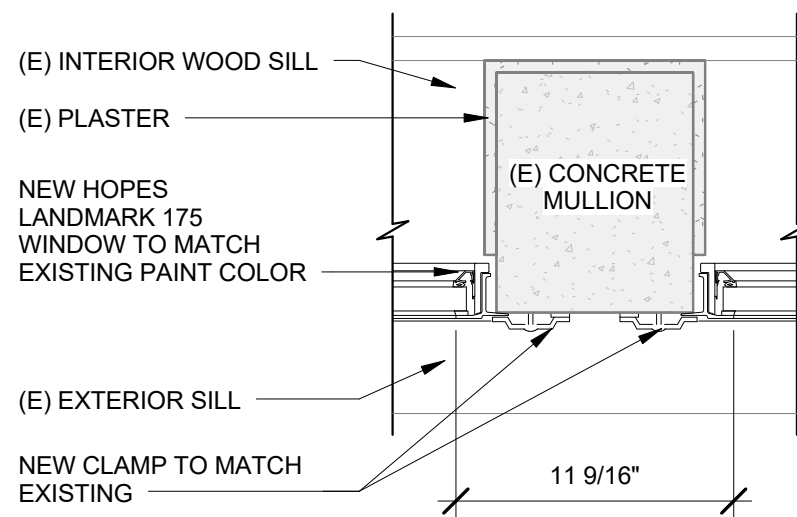
2 (E) SWING IN HOPPER W/ FIXED SIDE WDW ELEV
3/8" = 1'-0"



4 (E) UNIT B PLAN SECT. AT CONC. MULLIONS
1 1/2" = 1'-0"



3 NEW SWING IN HOPPER W/ FIXED SIDE WDW ELEV
3/8" = 1'-0"



5 UNIT B PLAN SECT. AT CONC. MULLIONS - NEW
1 1/2" = 1'-0"

CLASSROOM SWING IN HOPPER W/ FIXED SIDE WDW

ECKSTEIN MS BLDG ENVELOPE UPGRADE

3003 NE 75TH ST, SEATTLE, WA 98115

LPB BRIEFING
10/06/2022

PIC
SMS

PM
M.T.

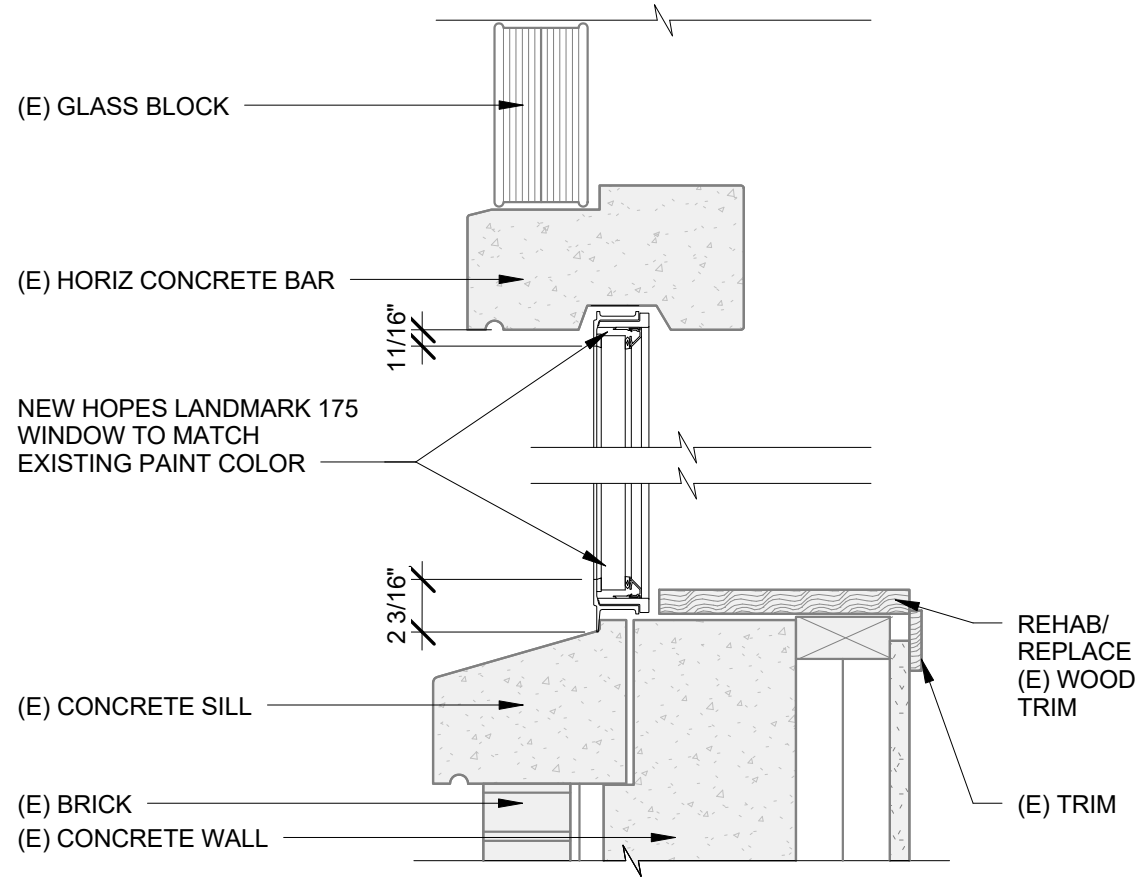
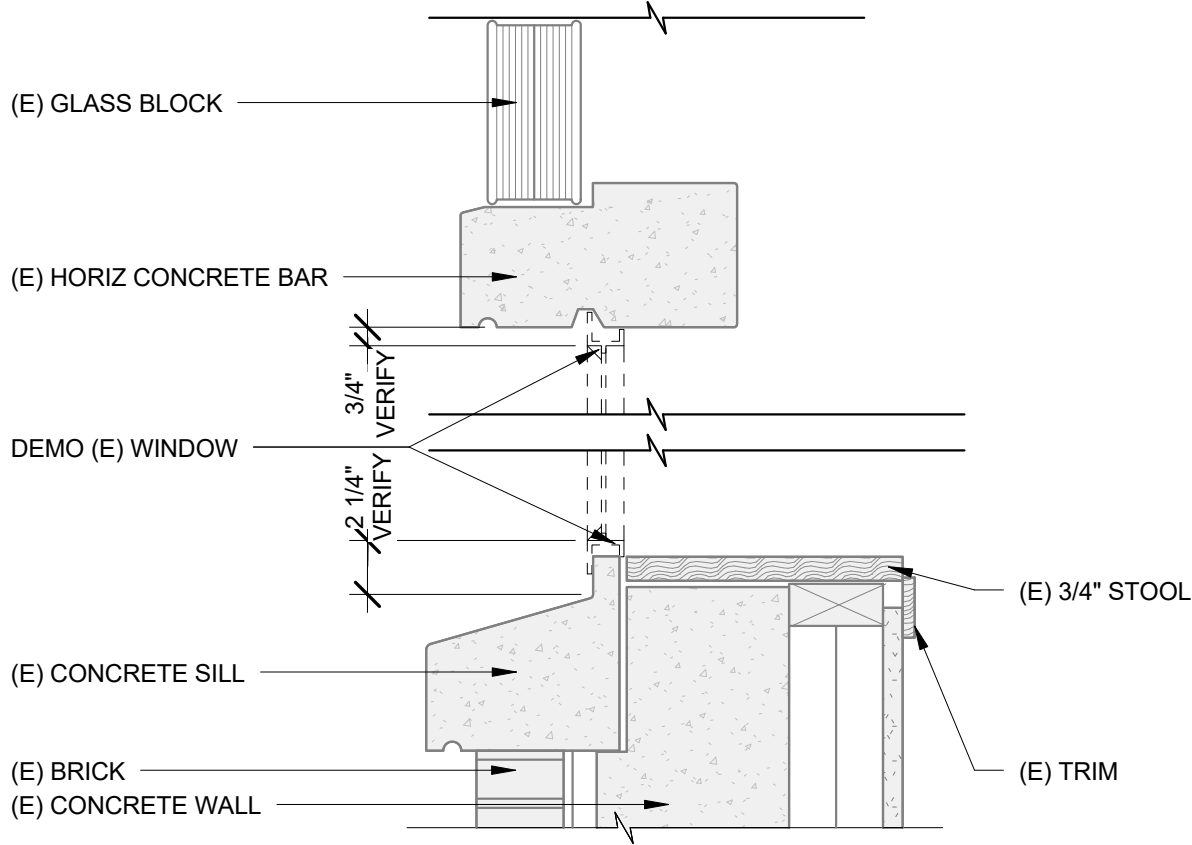
DRW
R.S.

B-4.11

proj. no.

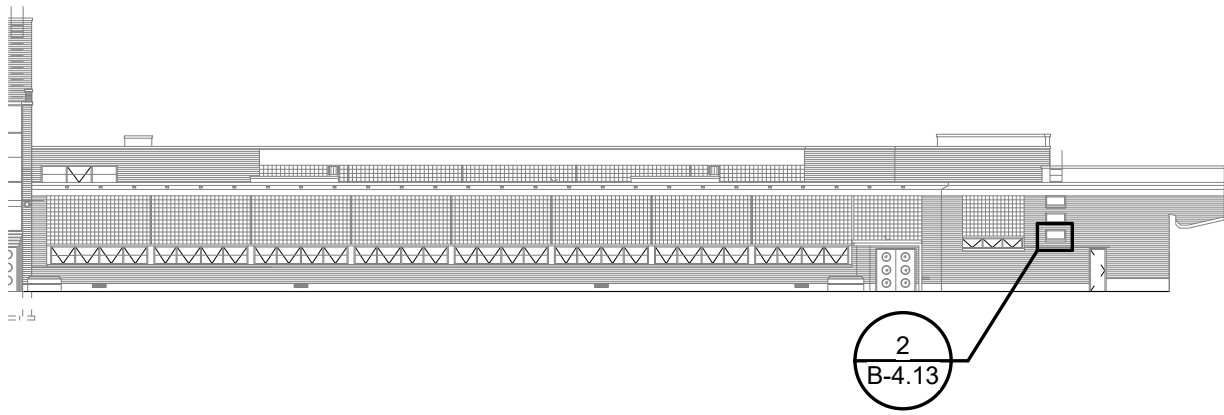
C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

10/6/2022 11:51:40 AM

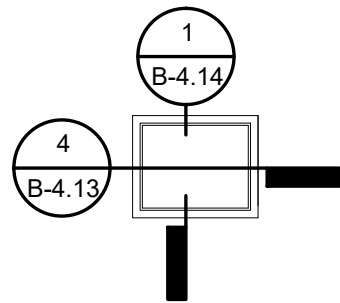


1 (E) UNIT B CONCRETE HEAD & SILL WDW SECT
1 1/2" = 1'-0"

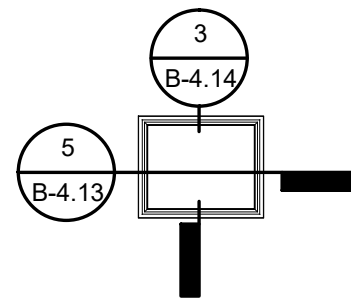
2 NEW UNIT B CONCRETE HEAD & SILL WDW SECT.
1 1/2" = 1'-0"



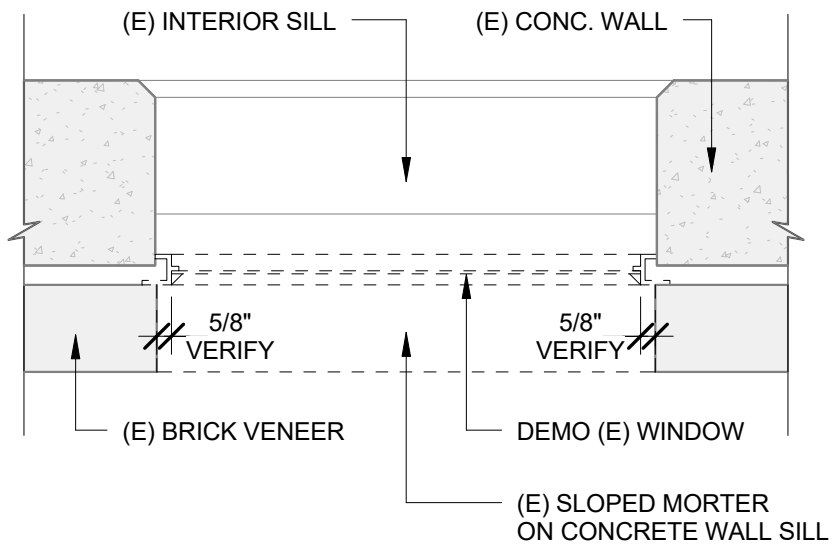
1 WEST ELEVATION - GRIDS 9-16 - SD
1/32" = 1'-0"



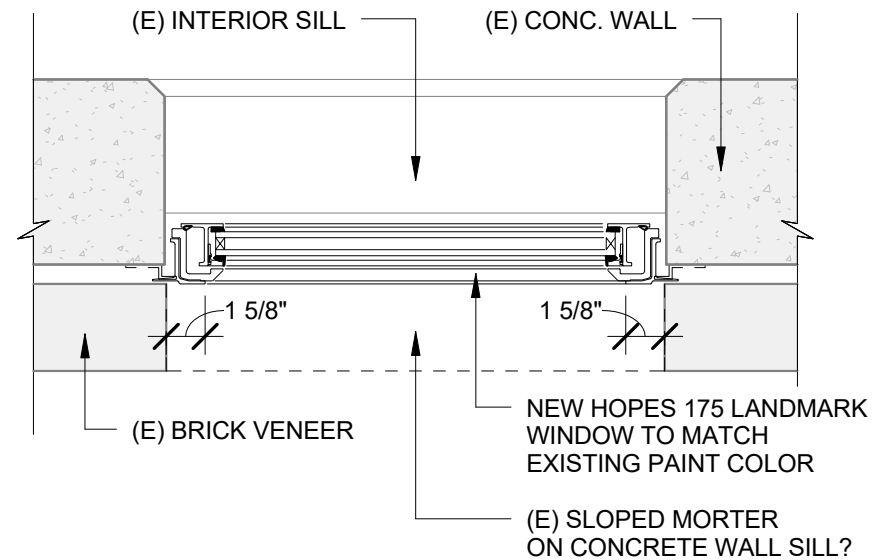
2 (E) FIXED WINDOW ELEV
3/8" = 1'-0"



3 NEW FIXED WDW ELEV
3/8" = 1'-0"



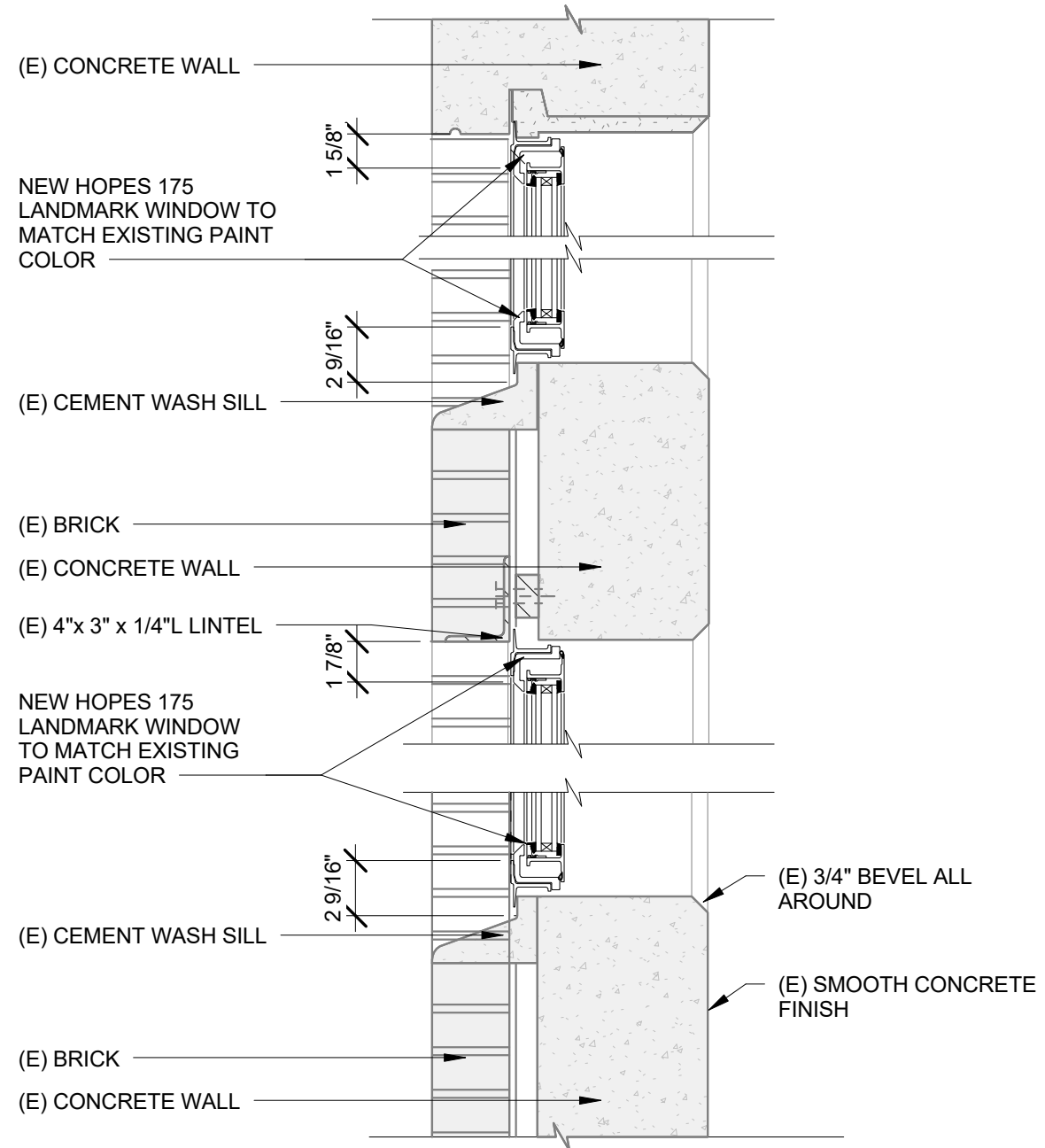
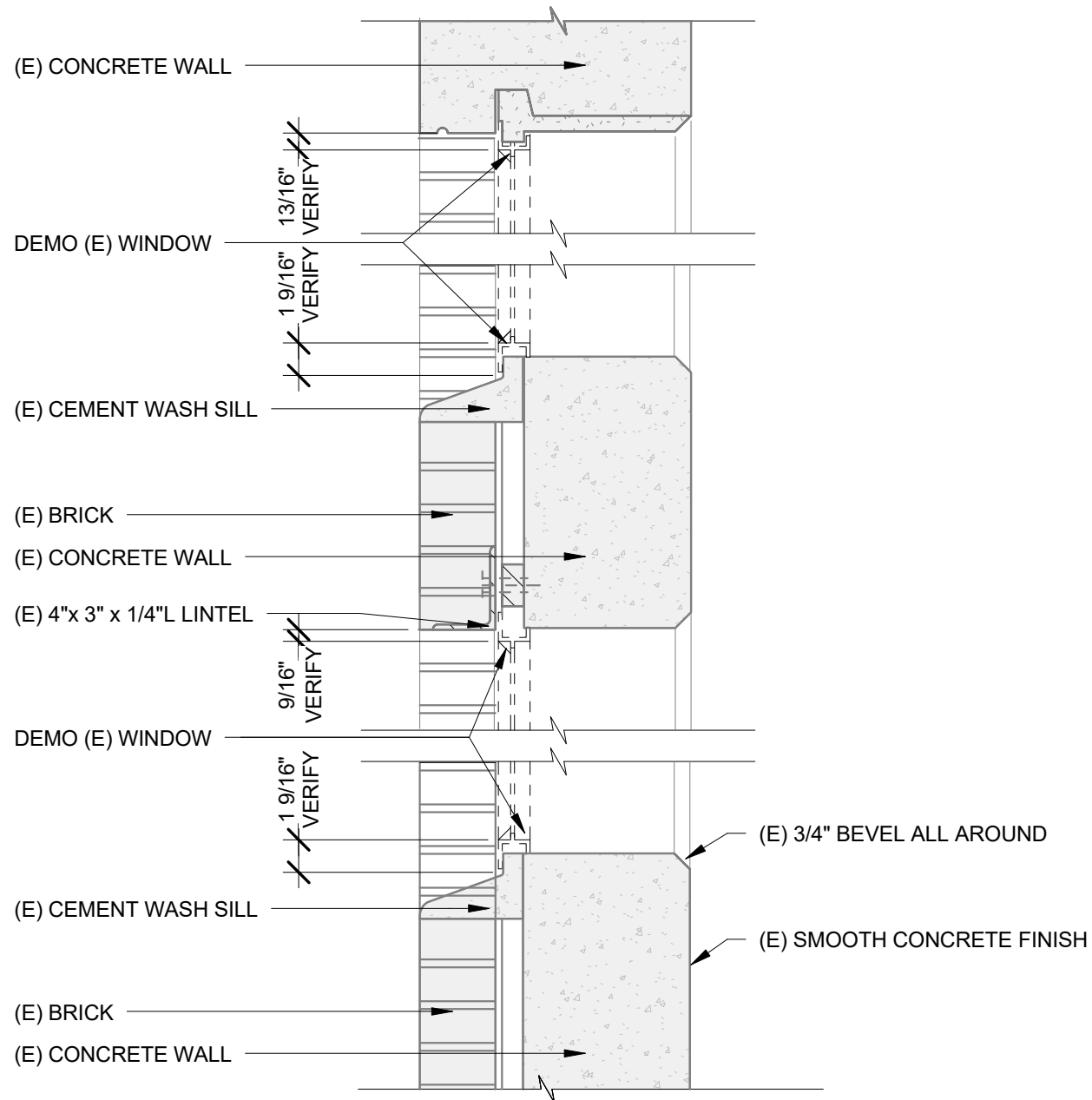
4 (E) GARDNER'S TOOL ROOM WINDOWS
1 1/2" = 1'-0"



5 GARDNER'S TOOL ROOM WINDOWS - NEW
1 1/2" = 1'-0"

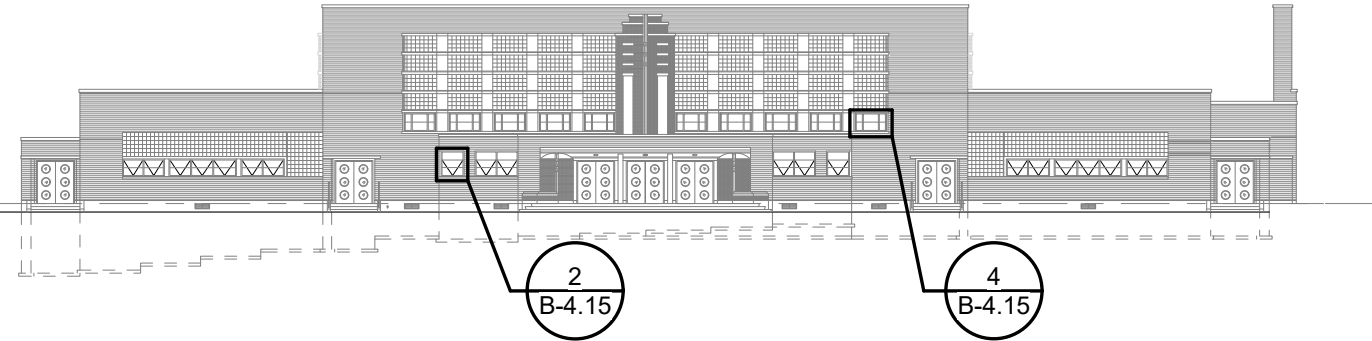
C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

10/6/2022 11:51:40 AM

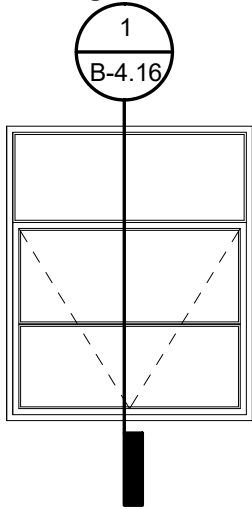


1 (E) GARDENER'S TOOL ROOM WINDOW SECTION
1 1/2" = 1'-0"

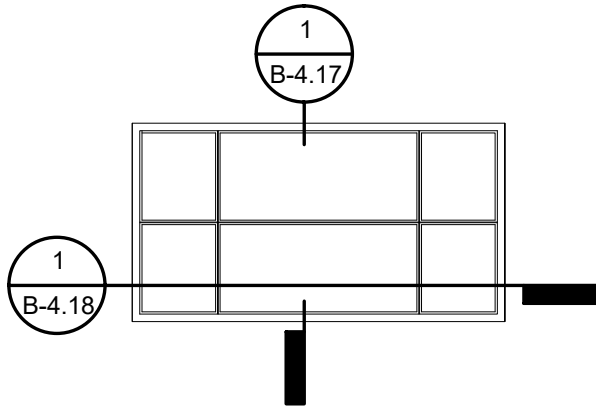
3 GARDENER'S TOOL ROOM WINDOW SECTION - NEW
1 1/2" = 1'-0"



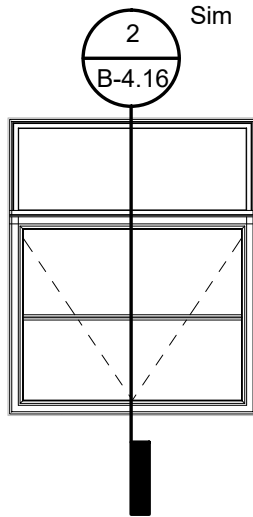
1 WEST ELEVATION - GRIDS 17-31 - SD
1/32" = 1'-0"



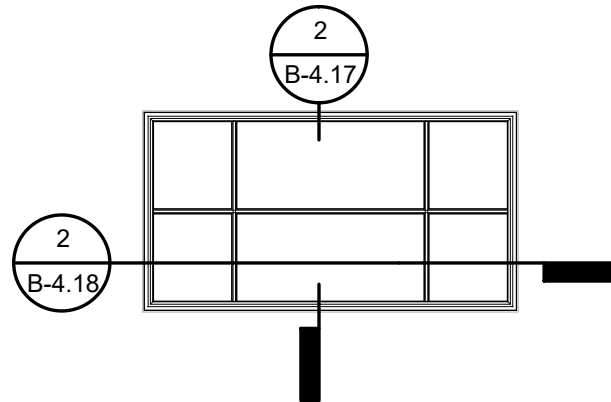
2 (E) SWING IN W FIXED TOP ELEV
3/8" = 1'-0"



4 (E) FIXED WDW W/ MUTINS
3/8" = 1'-0"



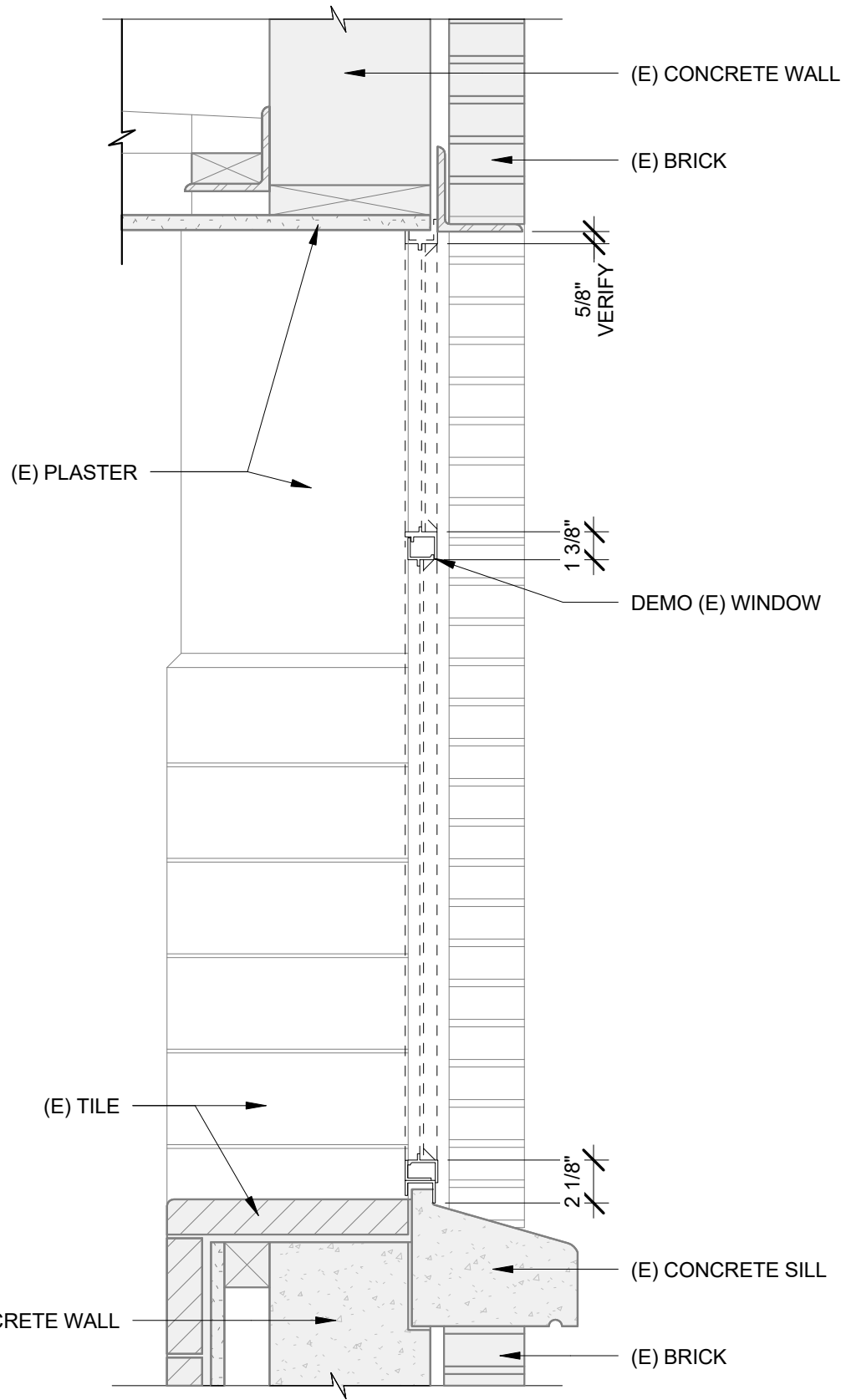
3 NEW SWING IN W/ FIXED TOP ELEV
3/8" = 1'-0"



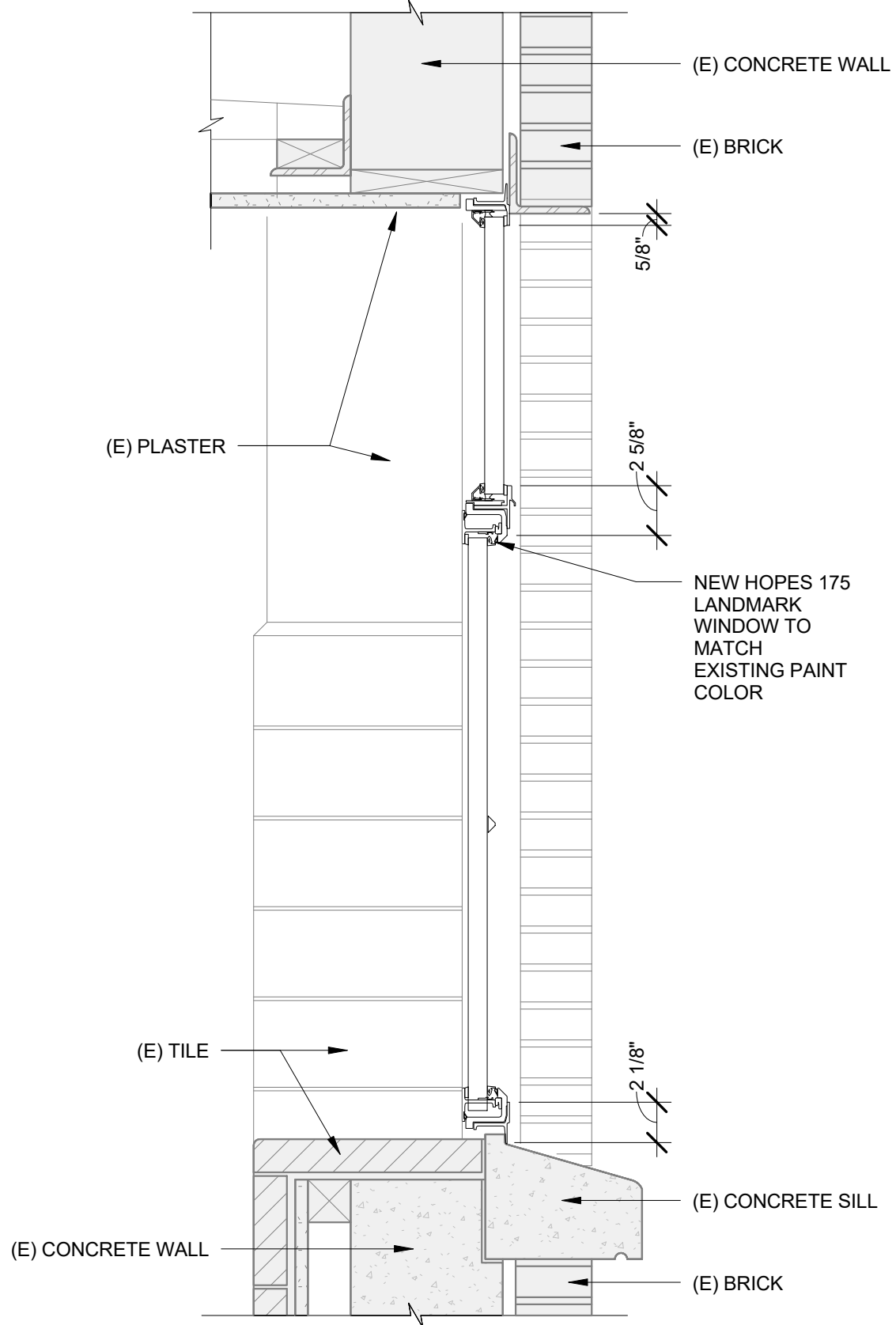
5 NEW FIXED WINDOW W/ MUTINS
3/8" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

10/6/2022 11:51:42 AM



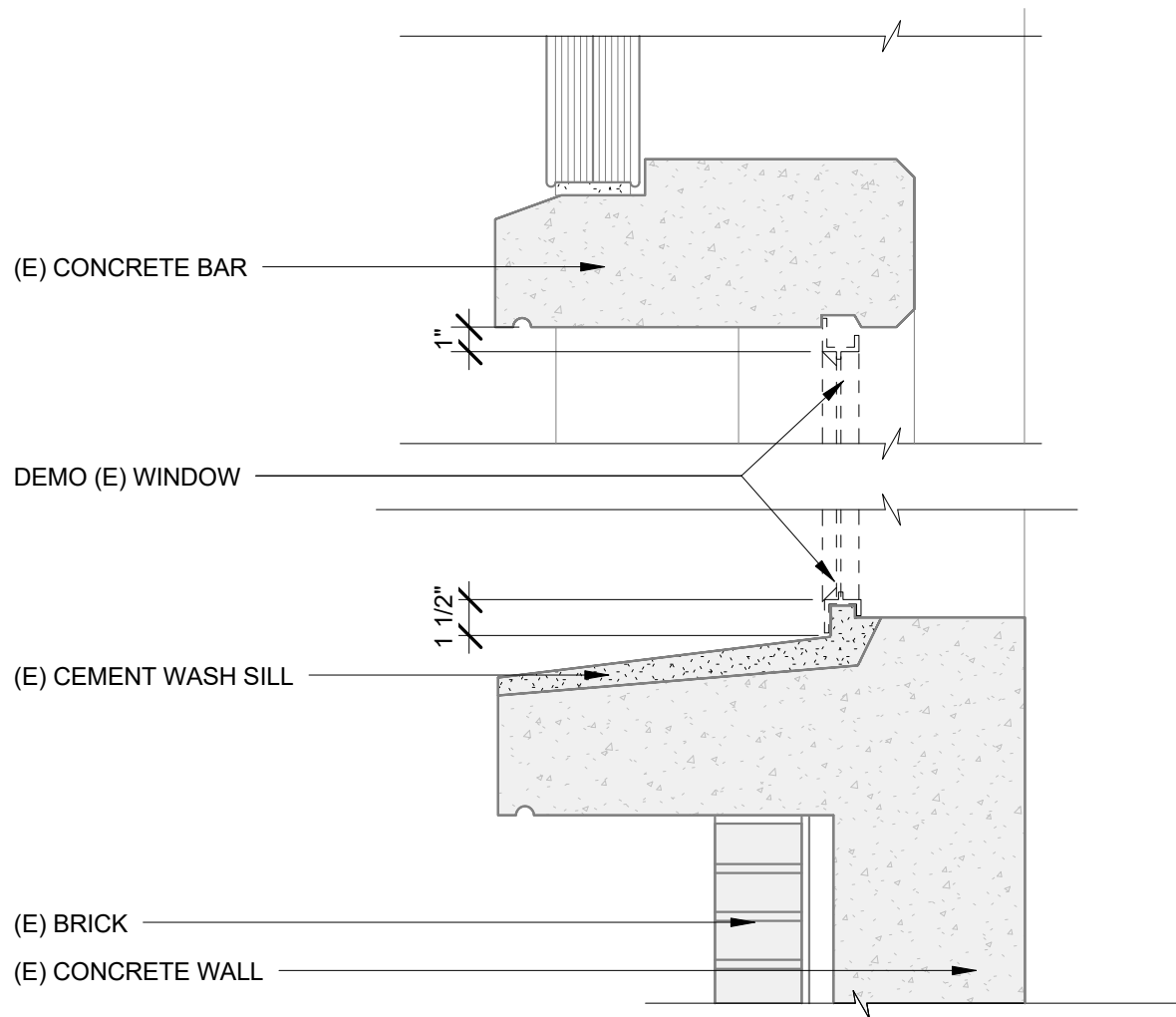
1 (E) WDW SECTION AT GYM
1 1/2" = 1'-0"



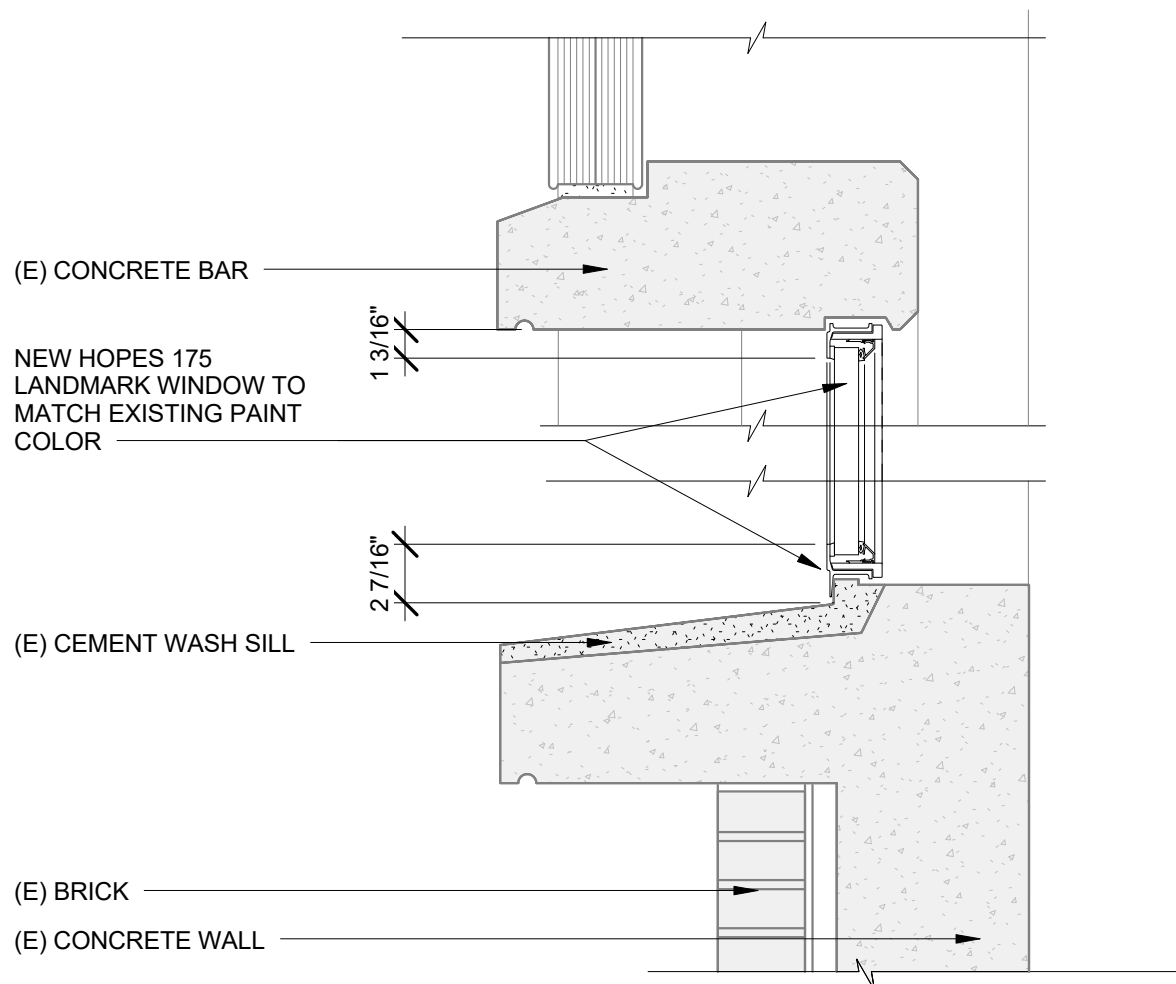
2 NEW WDW SECTION @ GYM
1 1/2" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

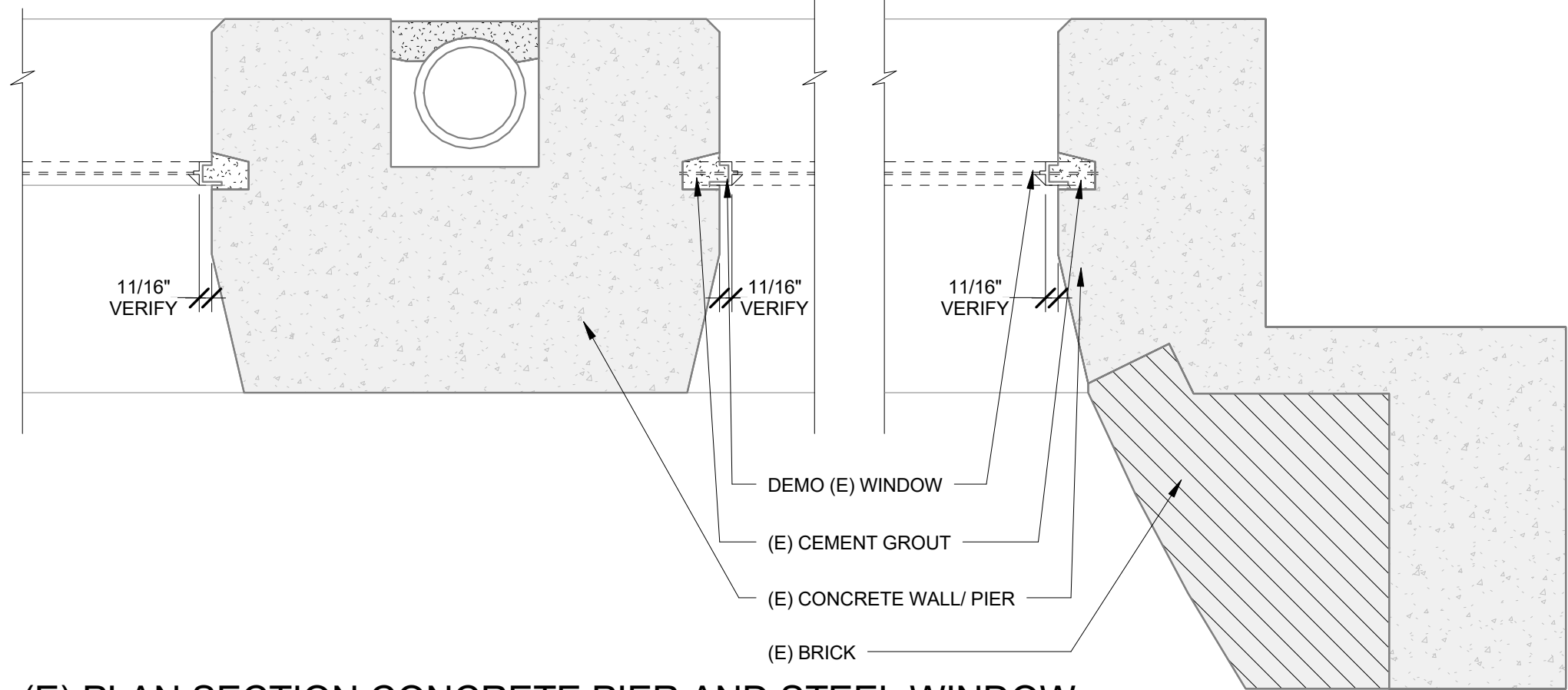
10/6/2022 11:51:42 AM



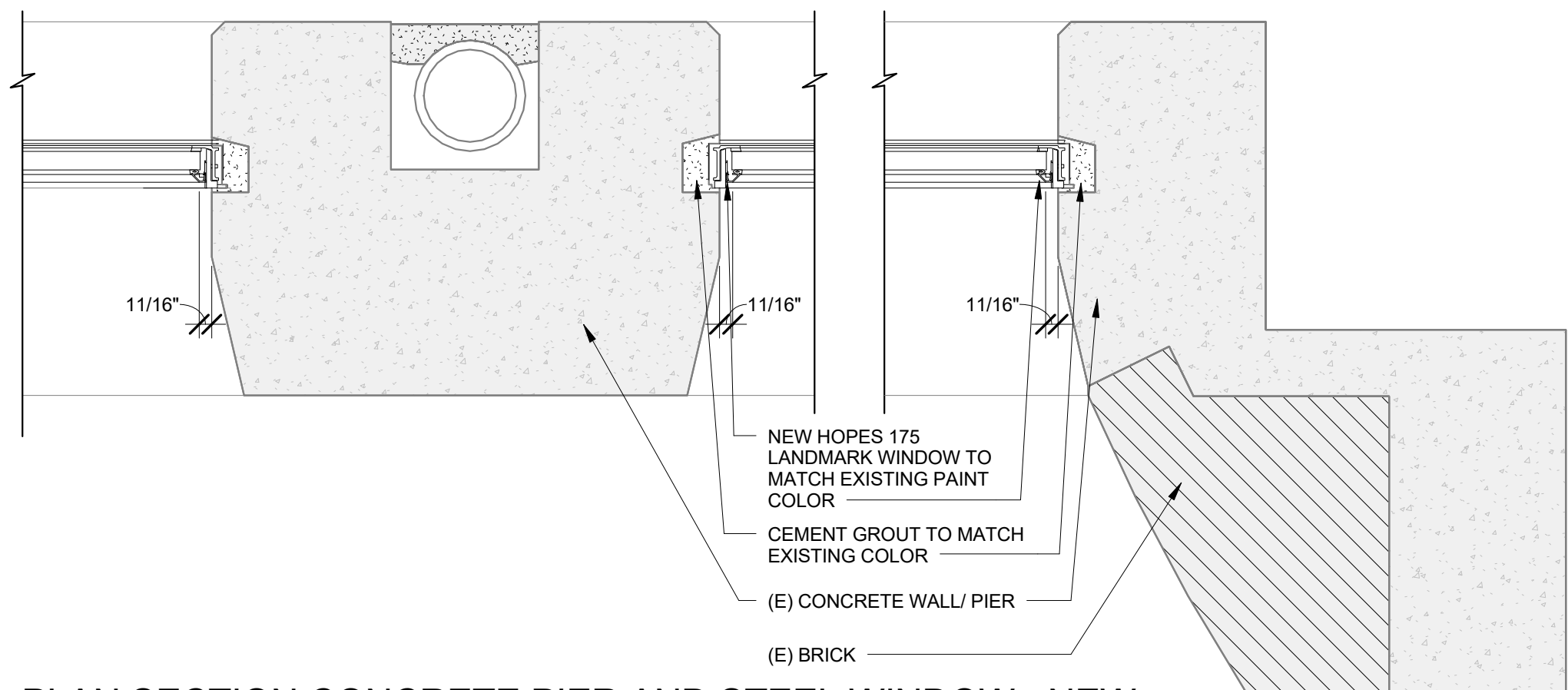
1 (E) GLASS BLOCK TO CONCRETE PIERS SECTION
1 1/2" = 1'-0"



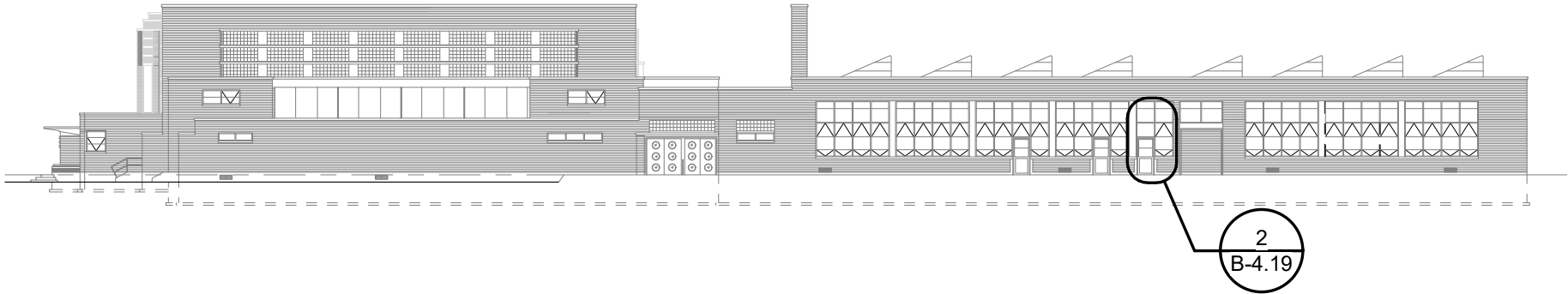
2 GLASS BLOCK TO CONCRETE PIERS SECTION - NEW
1 1/2" = 1'-0"



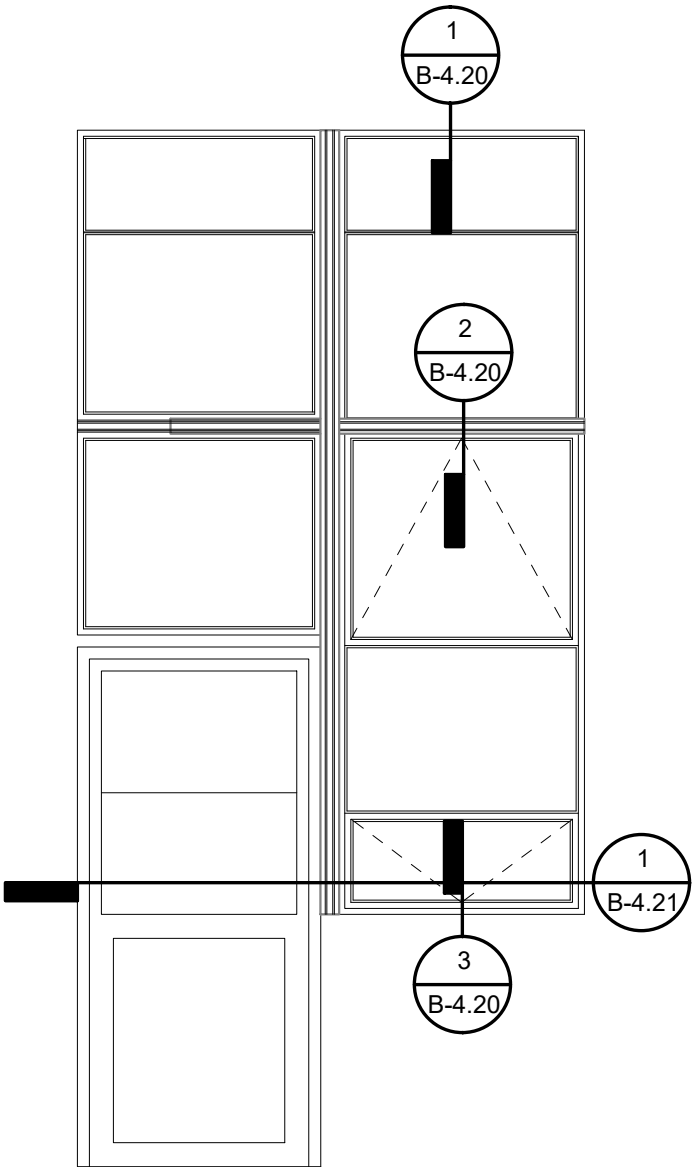
1 (E) PLAN SECTION CONCRETE PIER AND STEEL WINDOW
1 1/2" = 1'-0"



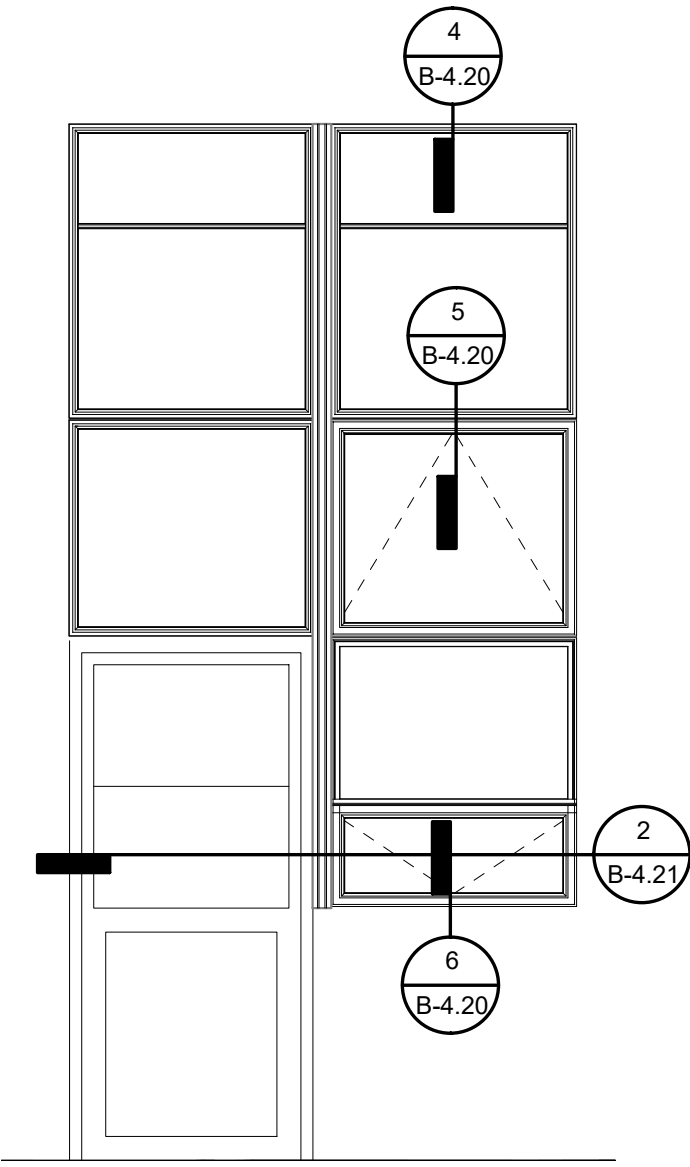
2 PLAN SECTION CONCRETE PIER AND STEEL WINDOW - NEW
1 1/2" = 1'-0"



1 SOUTH ELEVATION - GRIDS BB - PP - SD
1/32" = 1'-0"



2 (E) SHOP WINDOW ELEV
3/8" = 1'-0"



3 NEW SHOW WINDOW ELEV
3/8" = 1'-0"

SHOP WINDOW ELEVATION

ECKSTEIN MS BLDG ENVELOPE UPGRADE

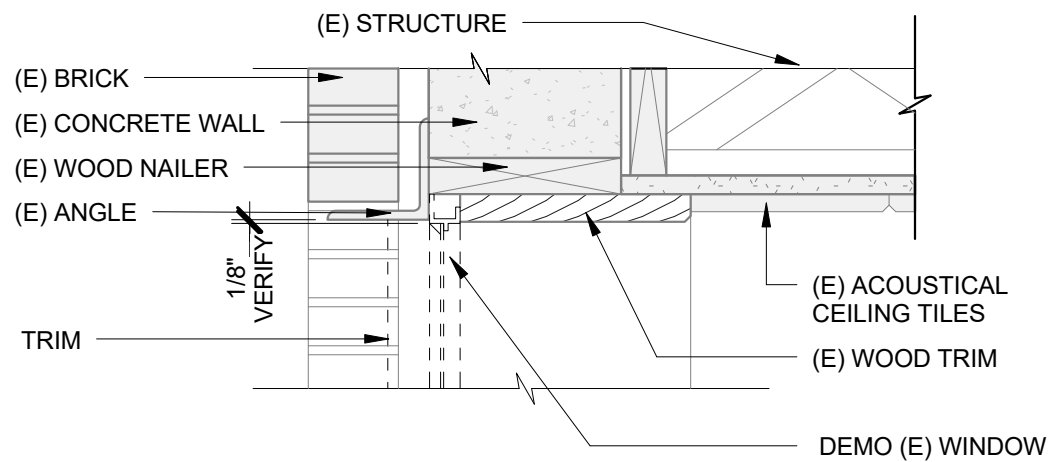
3003 NE 75TH ST, SEATTLE, WA 98115

LPB BRIEFING
10/06/2022

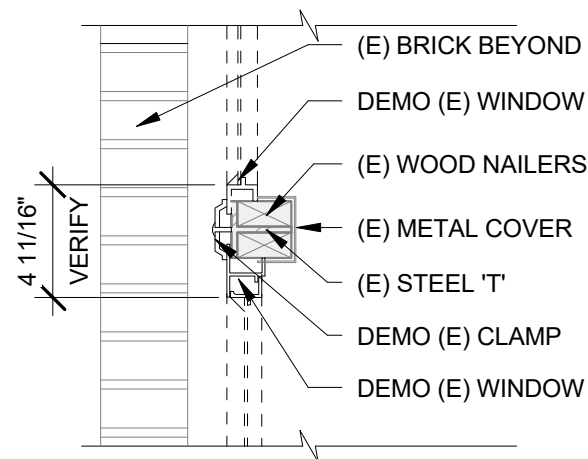
PIC	SMS
PM	M.T.
DRW	R.S.

B-4.19

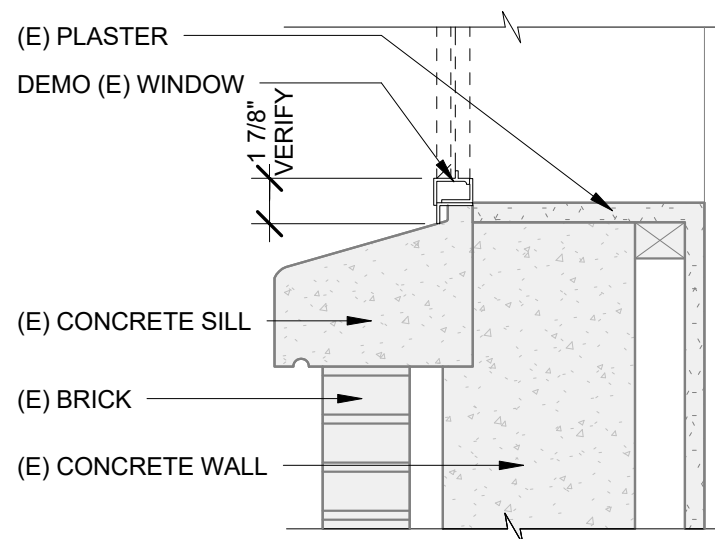
proj. no.



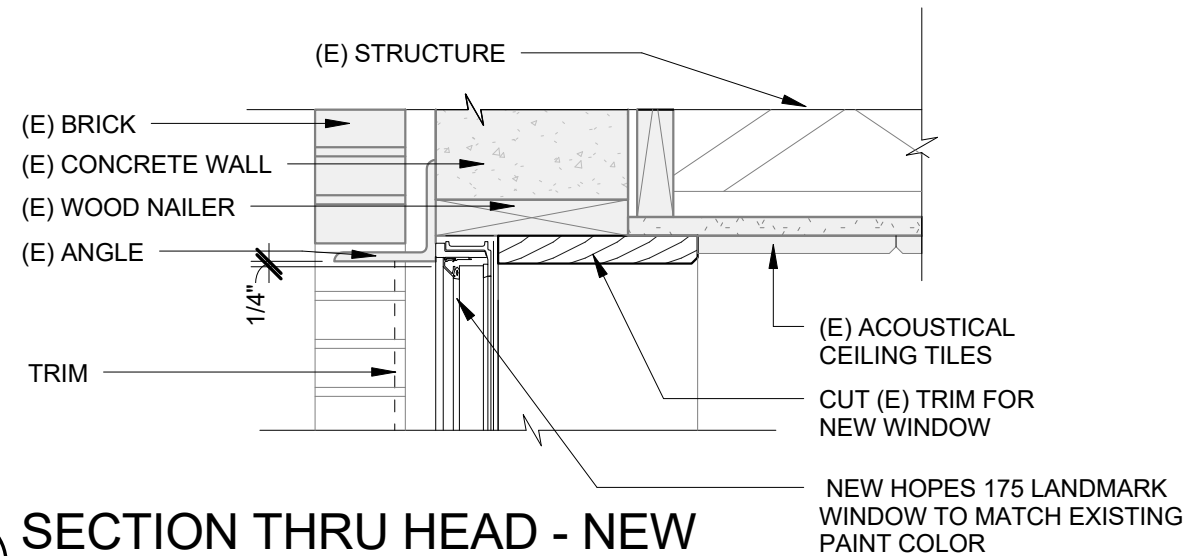
1 (E) SECTION THRU HEAD
1 1/2" = 1'-0"



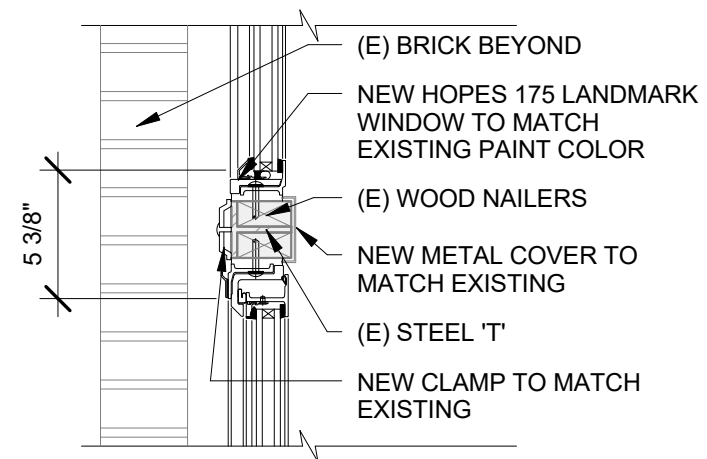
2 (E) SECTION THRU HORIZ. MULLION
1 1/2" = 1'-0"



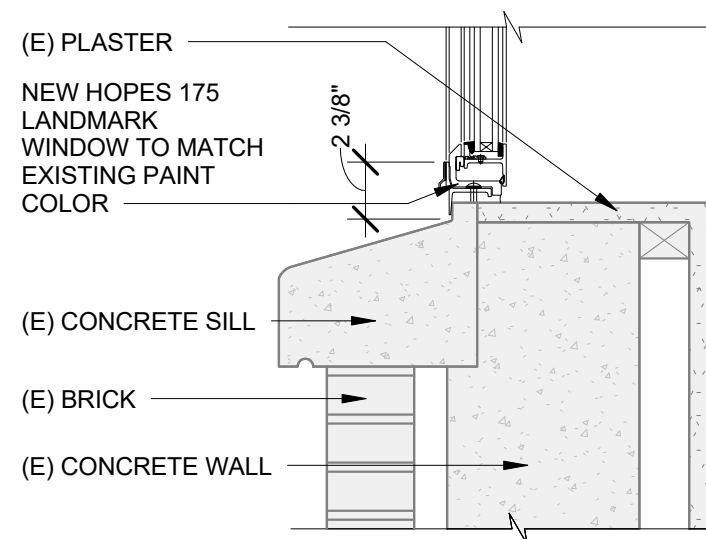
3 (E) SECTION THRU SILL
1 1/2" = 1'-0"



4 SECTION THRU HEAD - NEW
1 1/2" = 1'-0"



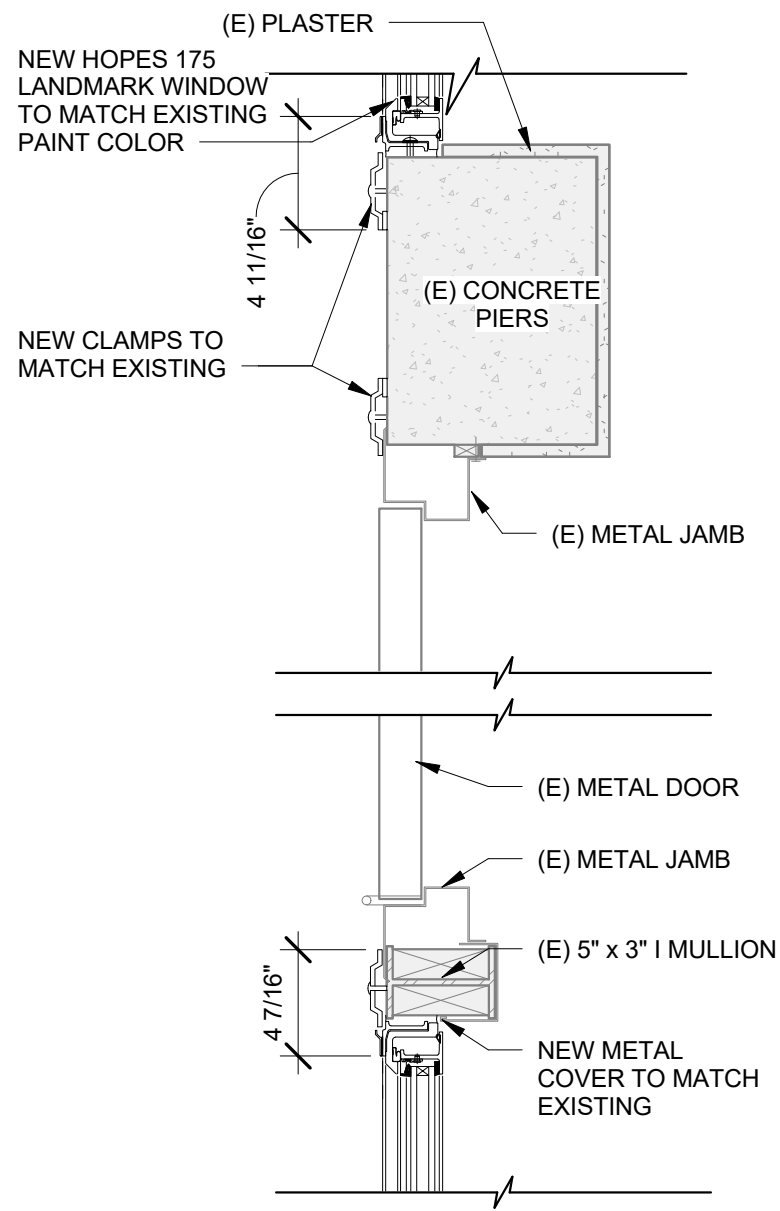
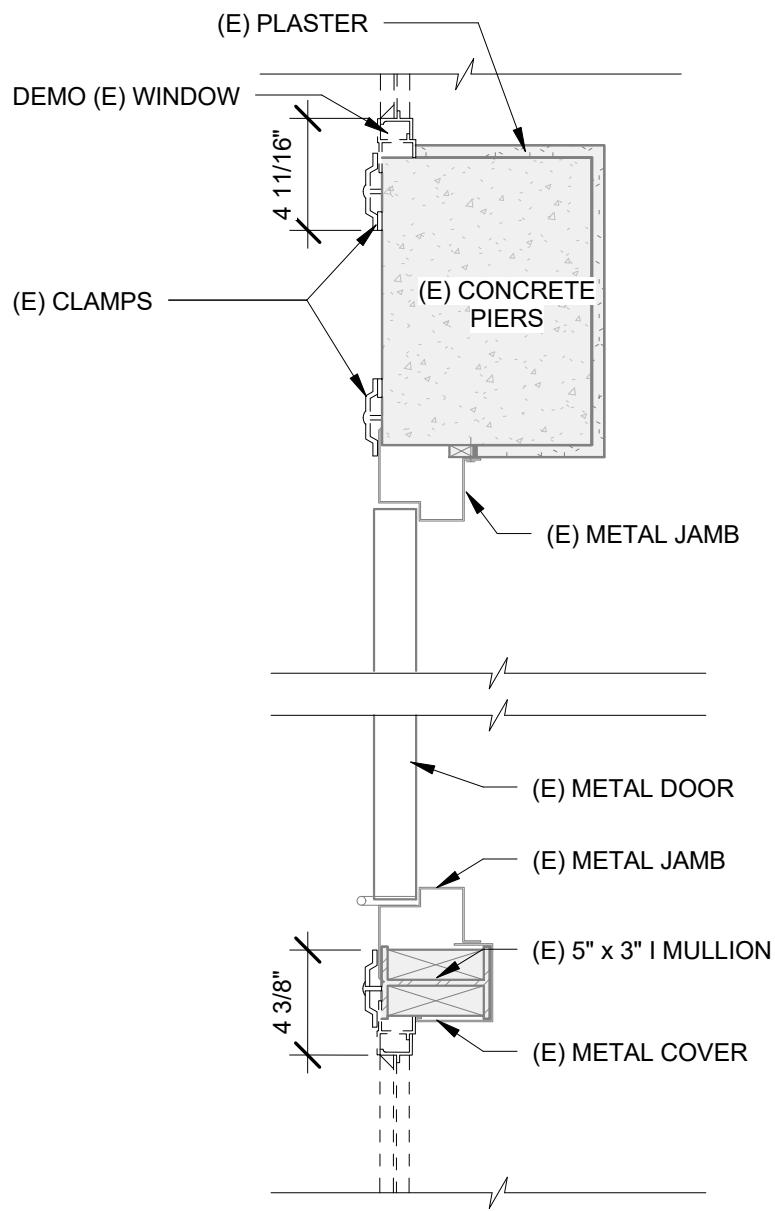
5 SECTION THRU HORIZ. MULLION - NEW
1 1/2" = 1'-0"



6 SECTION THRU SILL - NEW
1 1/2" = 1'-0"

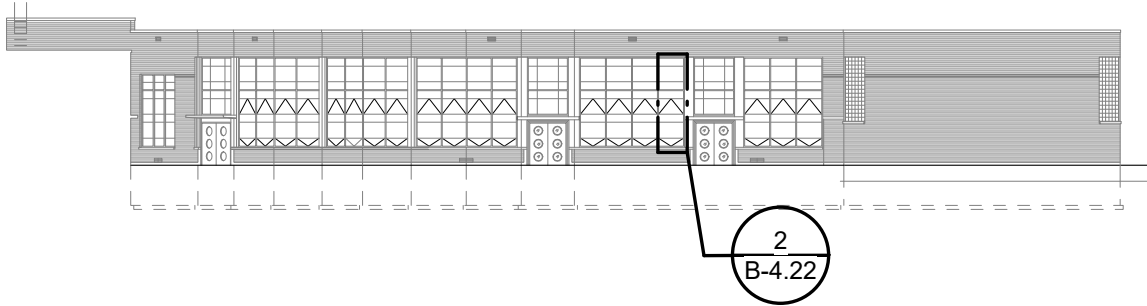
C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

10/6/2022 11:51:44 AM

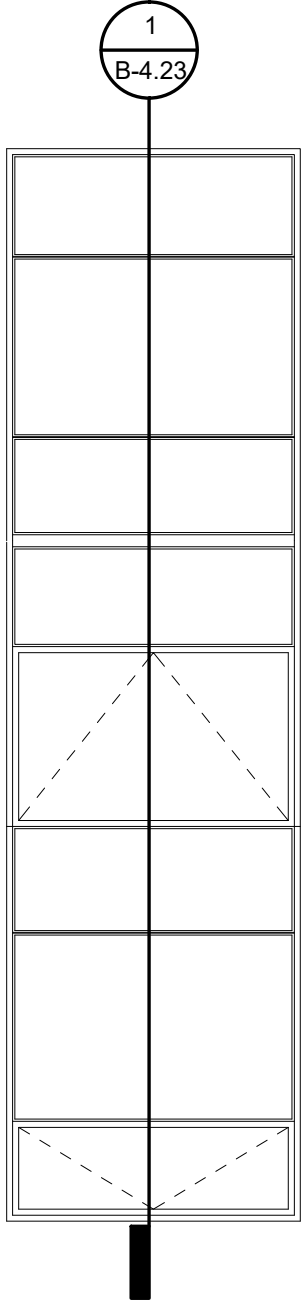


1 (E) SHOP DOOR & WINDOW JAMB
1 1/2" = 1'-0"

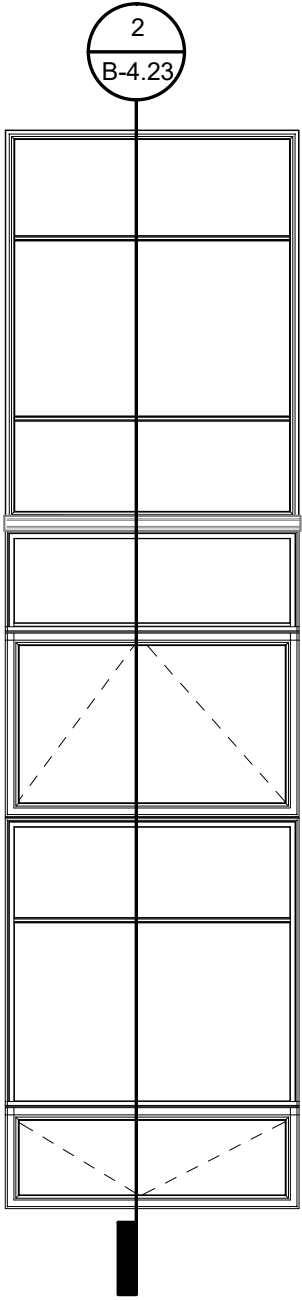
2 SHOP DOOR & NEW WINDOW JAMB
1 1/2" = 1'-0"



1 EAST ELEVATION - GRIDS 9-16 - SD
1/32" = 1'-0"



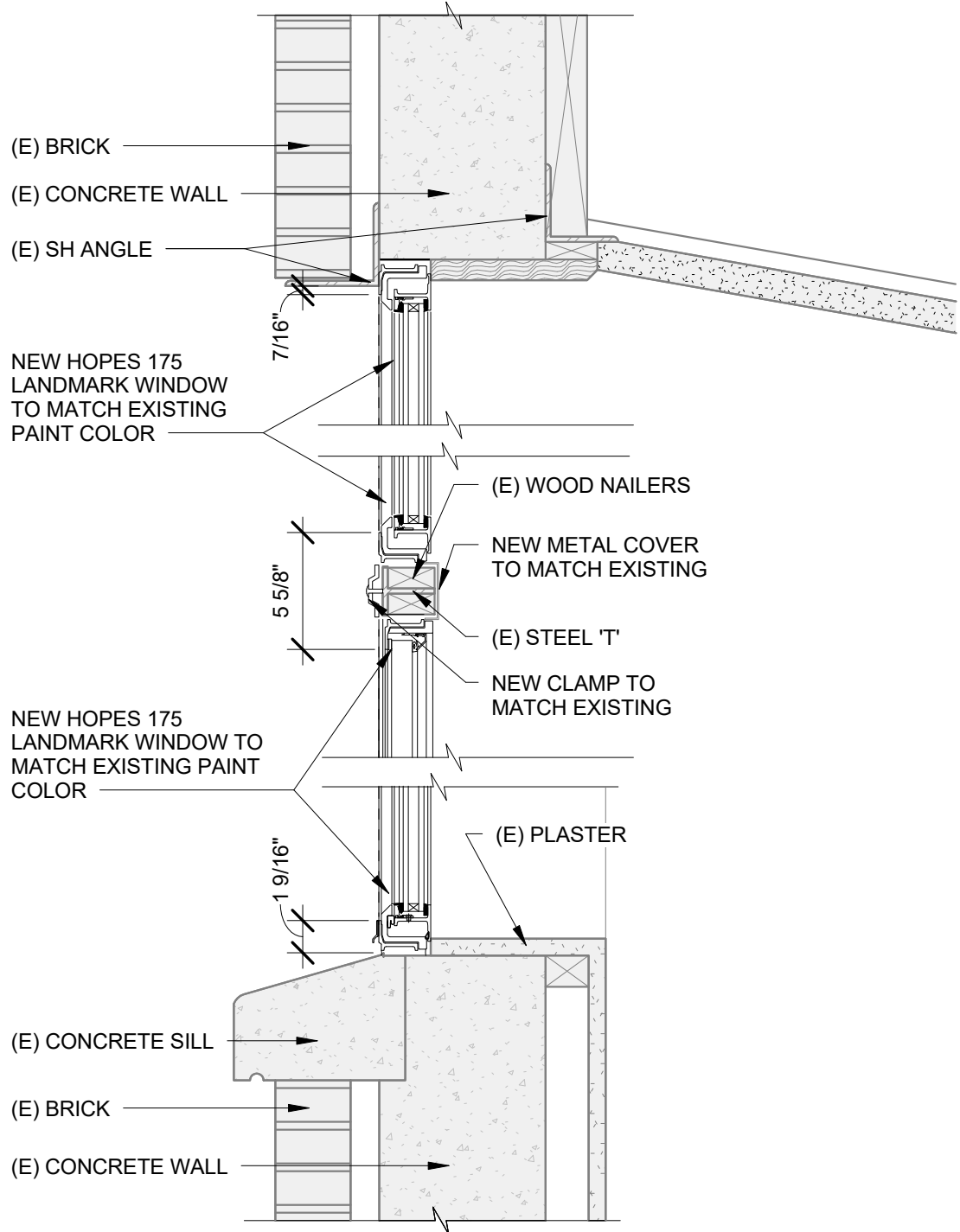
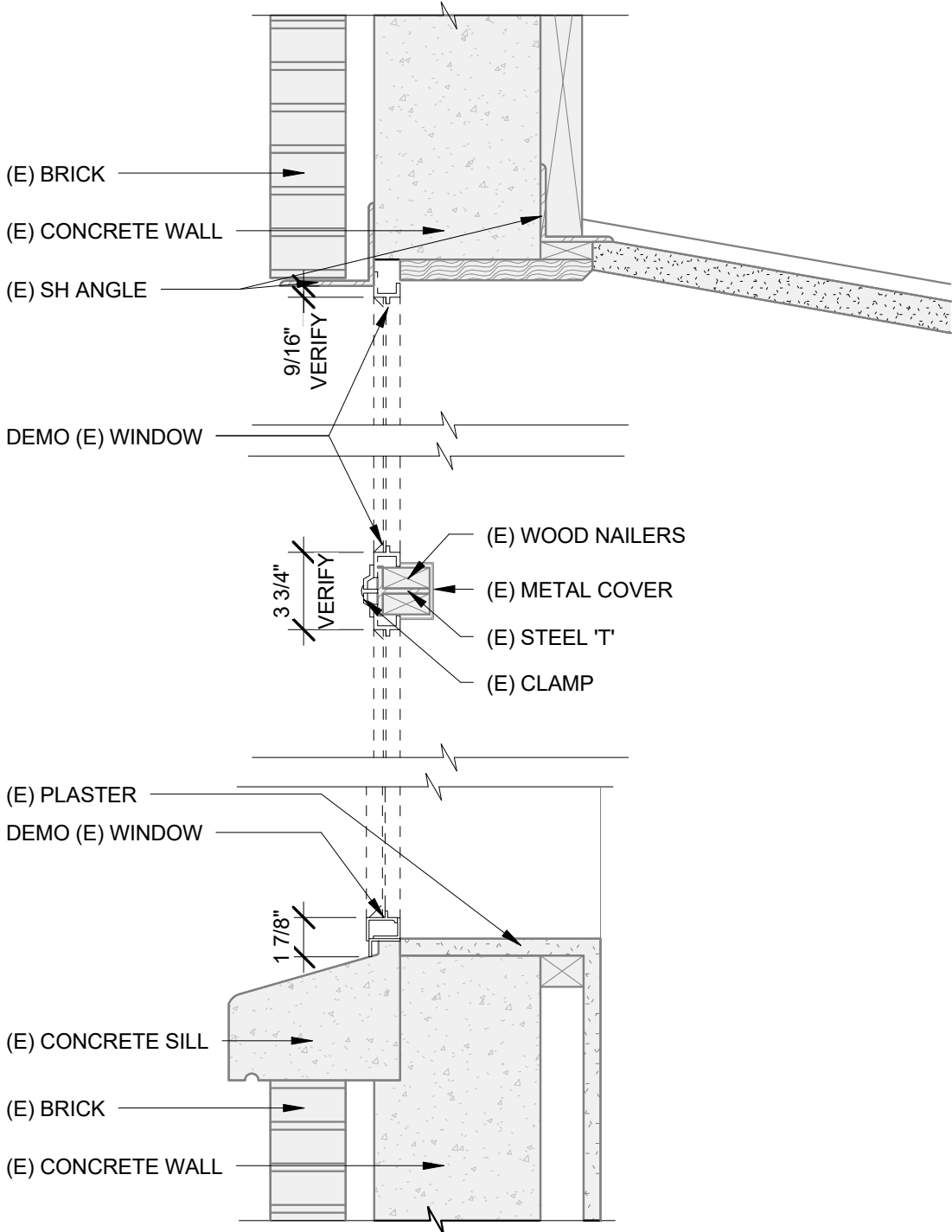
2 (E) CAFETERIA WINDOW ELEV
3/8" = 1'-0"



3 NEW CAFETERIA WINDOW ELEV
3/8" = 1'-0"

C:\Users\Reina\Documents\Eckstein MS Bldg Envelope Upgrades - Central Model_Reina.rvt

10/6/2022 11:51:45 AM



1 (E) CAFETERIA WINDOW SECTION
1 1/2" = 1'-0"

2 CAFETERIA NEW WINDOW SECTION
1 1/2" = 1'-0"