1CG / Enclosure Systems

EFCO / Wausau basis

University of South Carolina

USC

Neurological Hospital & Rehabilitation Center

ERP-02 Design-Assist · Package 08A Exterior Curtainwall, Glass & Glazing

Columbia, South Carolina

Design assist through installation

What 08A covers now

One 1CG glazing package across the hospital, the parking deck and the central utility plant, from design assist into installation.

Hospital · unitized, Levels 4–8

57,400 SF

Parking deck · stick, Levels 1–4

2,890 SF

Hospital · stick, Levels 1–3

21,959 SF

CUP · mechanical louvers

605 SF

Hospital · mechanical louvers

4,855 SF

CUP · roof screen wall

166 LF

Hospital

Unitized curtain wall with perforated metal fins and projecting feature frames, intake and relief louvers, and the Level 1–2 curtain wall framing and entrances.

Parking deck

Corner curtain wall at Stairs 1 and 2 with glass, laser-cut metal panels and open bays, and storefront at the elevator lobby on each level.

Central utility plant

Aluminum louver panels to the chiller, boiler and generator rooms, and 166 LF of louvered screen wall on the roof.

ERP-02 Design-Assist · 100% SD set, 23 Oct 2026, progressing into DD · RodgersThompsonTurner · HDR with LS3P

What changed since our October price

We priced the August design: fins over glass on a stone base. The October set puts the fin wall inside a brick and Swisspearl frame and opens the base to two stories of glass.



AUGUST SD PACKAGE · OUR OCTOBER PRICE



OCTOBER SD SET · CURRENT BASIS

What we priced

Fins over glass on the upper floors, a glass band above a stone base with punched windows, and a glazed corner box.

Now

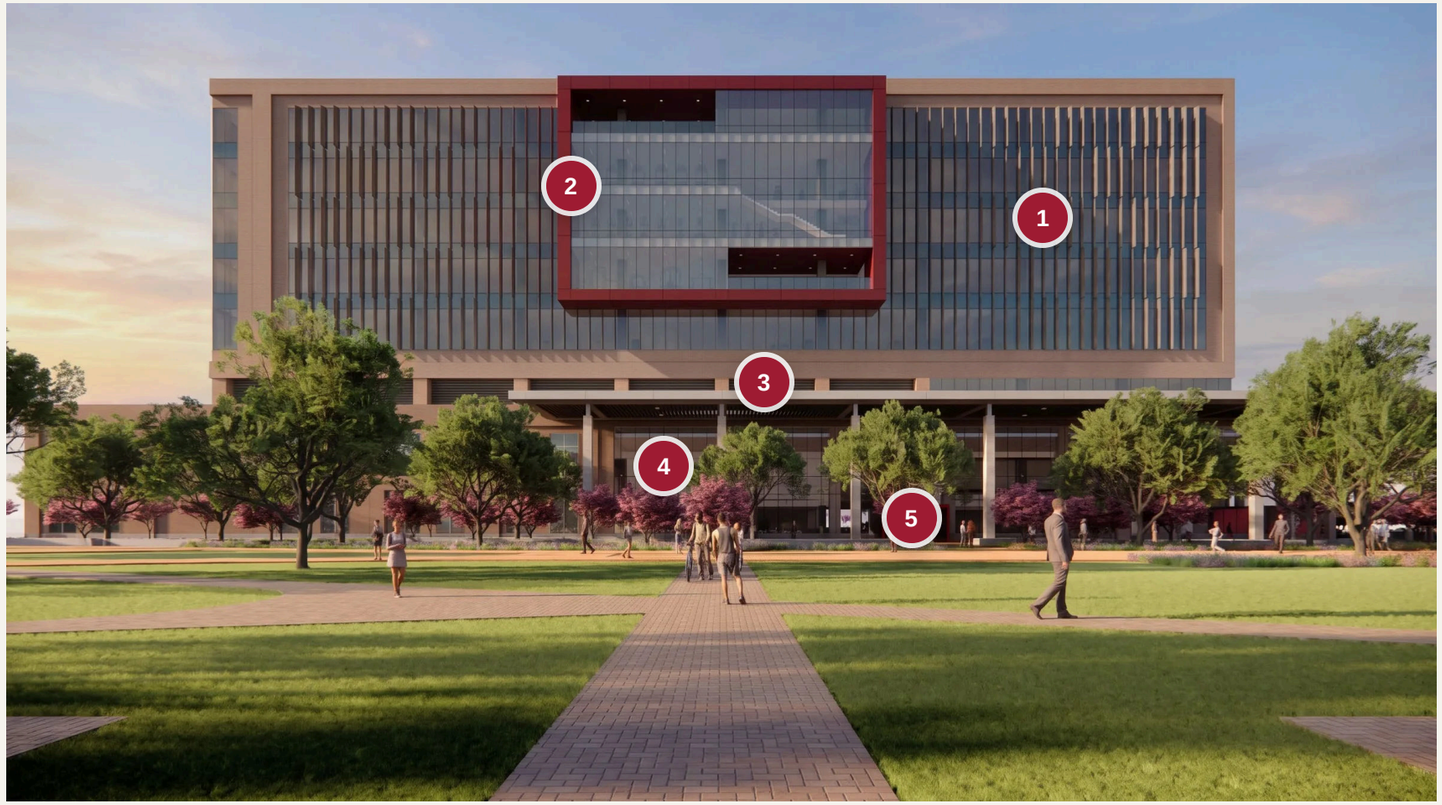
A fin wall from Level 04 up inside a brick and Swisspearl frame, projecting feature frames, a 22′ louvered mechanical band and two stories of curtain wall at the base.

What moves for o8A

The base becomes stick curtain wall and entrances, the frames add feature glazing, and the parking towers and CUP join the package.

Five systems carry the hospital

Seen from the quad: the fin wall, a feature frame, the mechanical band, and the Level 1–2 curtain wall and entrances.



Western (quad) facade · Basis of Design p.93

1 Fin wall

Unitized curtain wall with perforated metal fin assemblies, Level 04 to the roof.

2 Feature frame

Glazing inside a projecting frame; vision and spandrel glass with frit pattern / silkscreen.

3 Mechanical band

The 22′ band at Levels 03–04: intake and relief louvers within metal cladding.

4 Level 1–2 curtain wall

Two stories of stick curtain wall framing at the base.

5 Entrances

Vestibule entrances; automatic sliders on an Assa Abloy basis.



Hospital

The fin wall

Unitized curtain wall with perforated metal fins carries every face of the tower from Level 04 to the roof.

TYPICAL FLOOR TO FLOOR

16′–0″

Levels 05 to 08. Level 04 to 05 is 18′-0″; the roof is at 140′.

Fins	Perforated metal fins on the curtain wall face (BOD callout 1). Depth, spacing, perforation and the fin anchor are set in design assist.
Units	Factory-glazed units one floor tall, stack joint at each slab edge, set from the floor above.
Glass	Vision and spandrel glass, plus vision and spandrel with a frit pattern / silkscreen (BOD callout 2).

Southwest corner and drop-off · Basis of Design p.100

Hospital

The feature frames

Projecting frames outline the feature glazing. The largest spans Level 05 to the roof on the quad.

QUAD FRAME

L05 – roof

Centered on the west (quad) face, H A2-002. A narrower frame marks Harden Street.

System	Unitized curtain wall inside the frame, built from the same units as the fin wall.
Glass	Vision and spandrel glass with a frit pattern / silkscreen (BOD callout 2), approved on the visual mock-up.

Northern quad · Basis of Design p.106



The mechanical band

Between Levels 03 and 04 a 22-foot band fronts the mechanical level. The louvers that feed it sit in our package.



Levels 03–04 on the quad facade · Basis of Design p.93

LEVELS 03 – 04

22′–0″

The tallest floor on the building (36′ to 58′), drawn as metal cladding with a run of fritted vision glass.

Louver basis

Ruskin EME720 (BOD 21H): 7″ deep extruded aluminum, sightproof drainable blades, 55% free area, AMCA 500-L Class A wind-driven rain.

Louver area

4,855 SF of mechanical louvers on the hospital.

Joints

Louver-to-cladding and louver-to-curtain-wall joints are ours to detail.



Hospital

Level 1–2 curtain wall framing and entrances

Two stories of stick curtain wall and the main entrances at the base of the hospital.

LEVEL 01 TO LEVEL 03

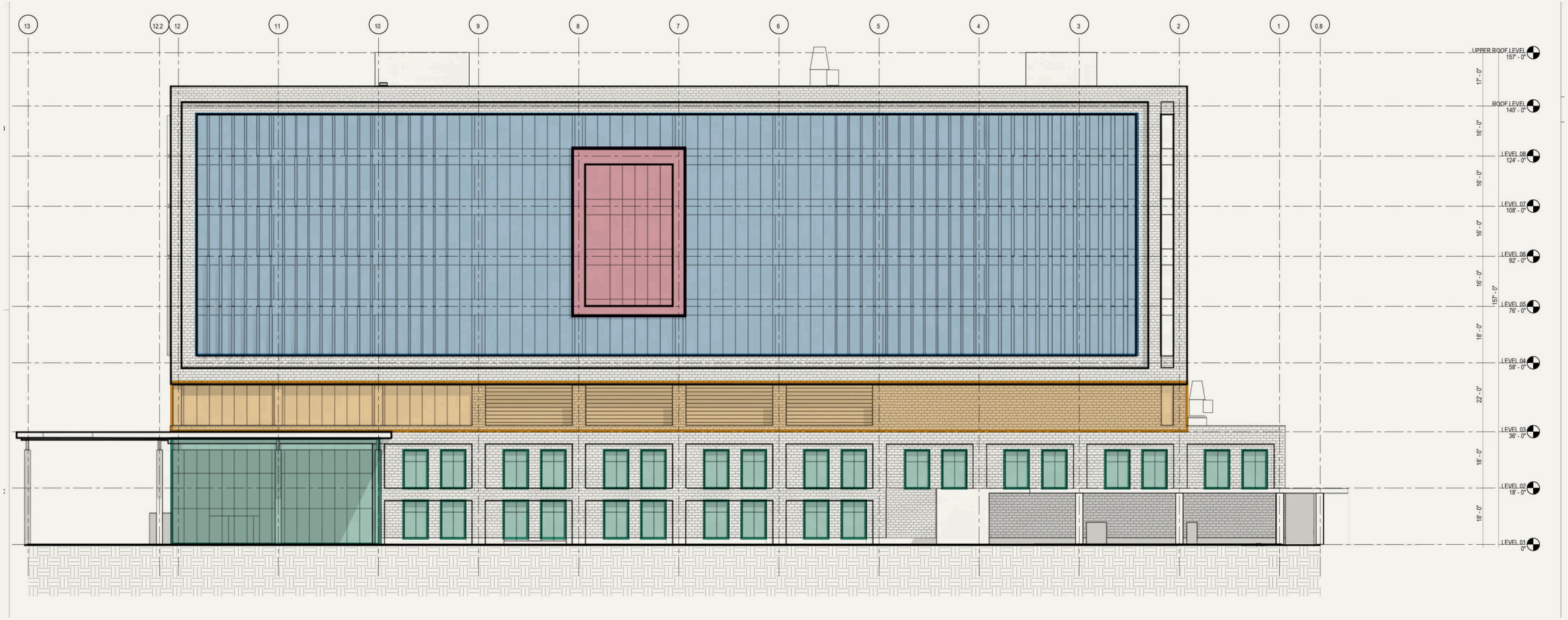
36′–0″ Grade to Level 03, with a floor line at Level 02 (18′).

System	Stick curtain wall framing from grade to Level 03. HDR's callout reads storefront; at two stories we carry it as curtain wall.
Entrances	Automatic sliding entrances on an Assa Abloy basis (BOD 13C). We frame the openings and carry the headers.

Under the canopy, looking north · Basis of Design p.101

East elevation · Harden Street

The fin wall reads as one field in its frame, with a narrow feature frame at the center. At the base, the Level 1–2 curtain wall at the drop-off and 28 punched curtain wall openings in the brick.



Fin wall · unitized curtain wall

Feature frame · glazing

Mechanical band · Levels 03–04

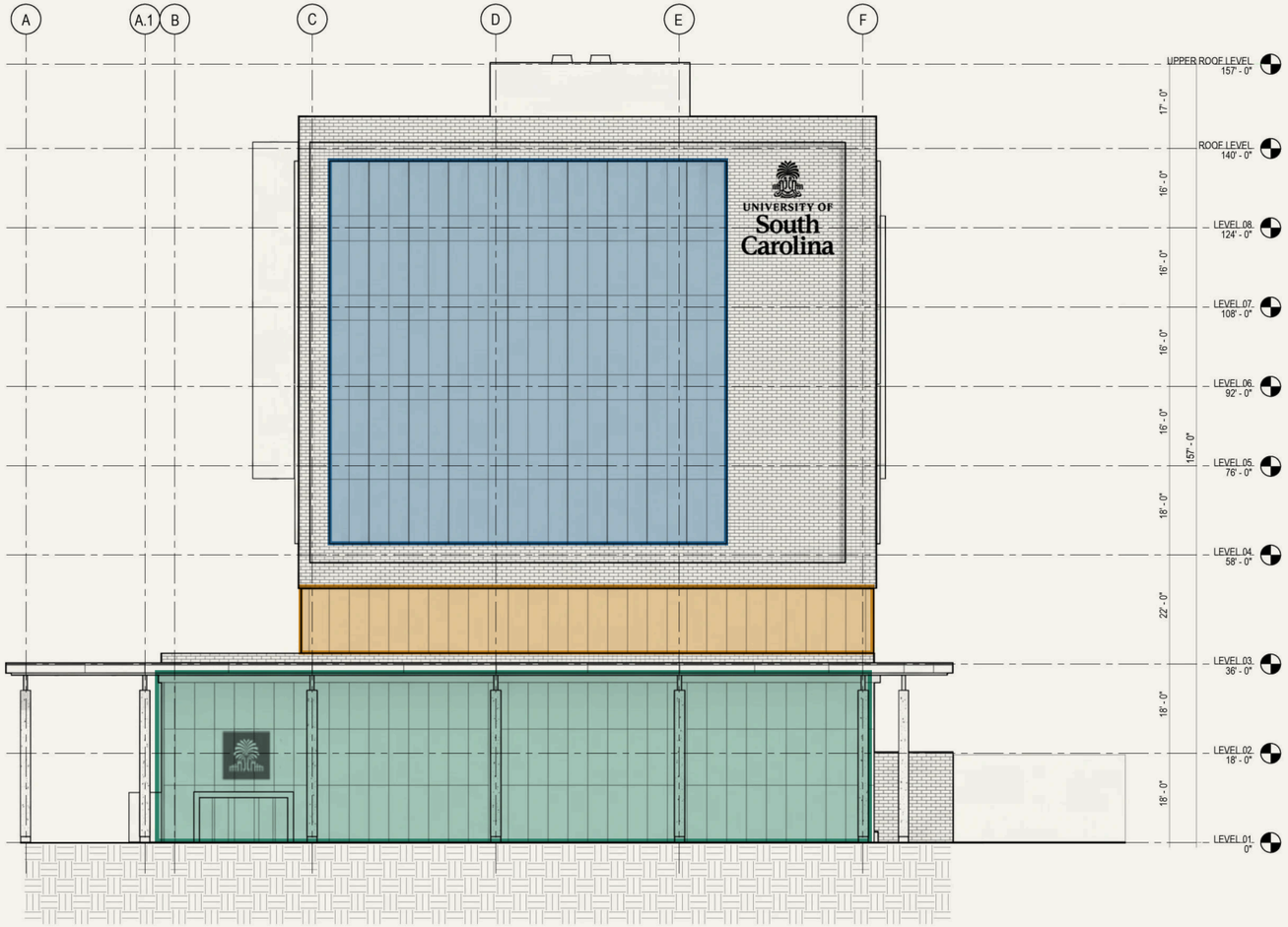
Level 1–2 curtain wall · stick

Punched openings · stick curtain wall

H A2-001 · East elevation · SD set 23 October 2026

South elevation

The short face carries the USC mark, a full-height fin wall and the Level 1–2 curtain wall at grade.



Fin wall · unitized curtain wall

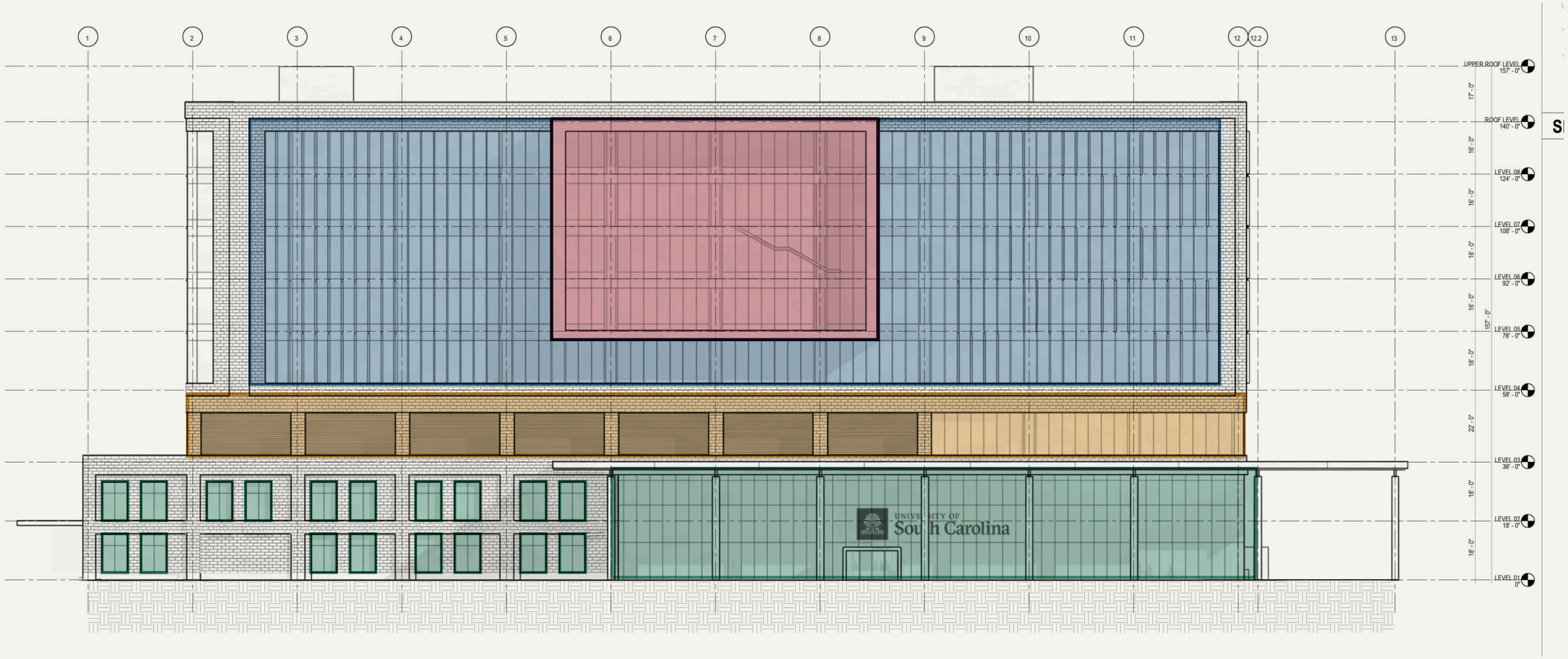
Mechanical band · Levels 03–04

Level 1–2 curtain wall · stick

H A2-001 · South elevation · SD set 23 October 2026

West elevation · the quad

The largest feature frame spans Level 05 to the roof. The Level 1–2 curtain wall and the main entrance run along the base, with 18 punched curtain wall openings beside them.



Fin wall · unitized curtain wall

Feature frame · glazing

Mechanical band · Levels 03–04

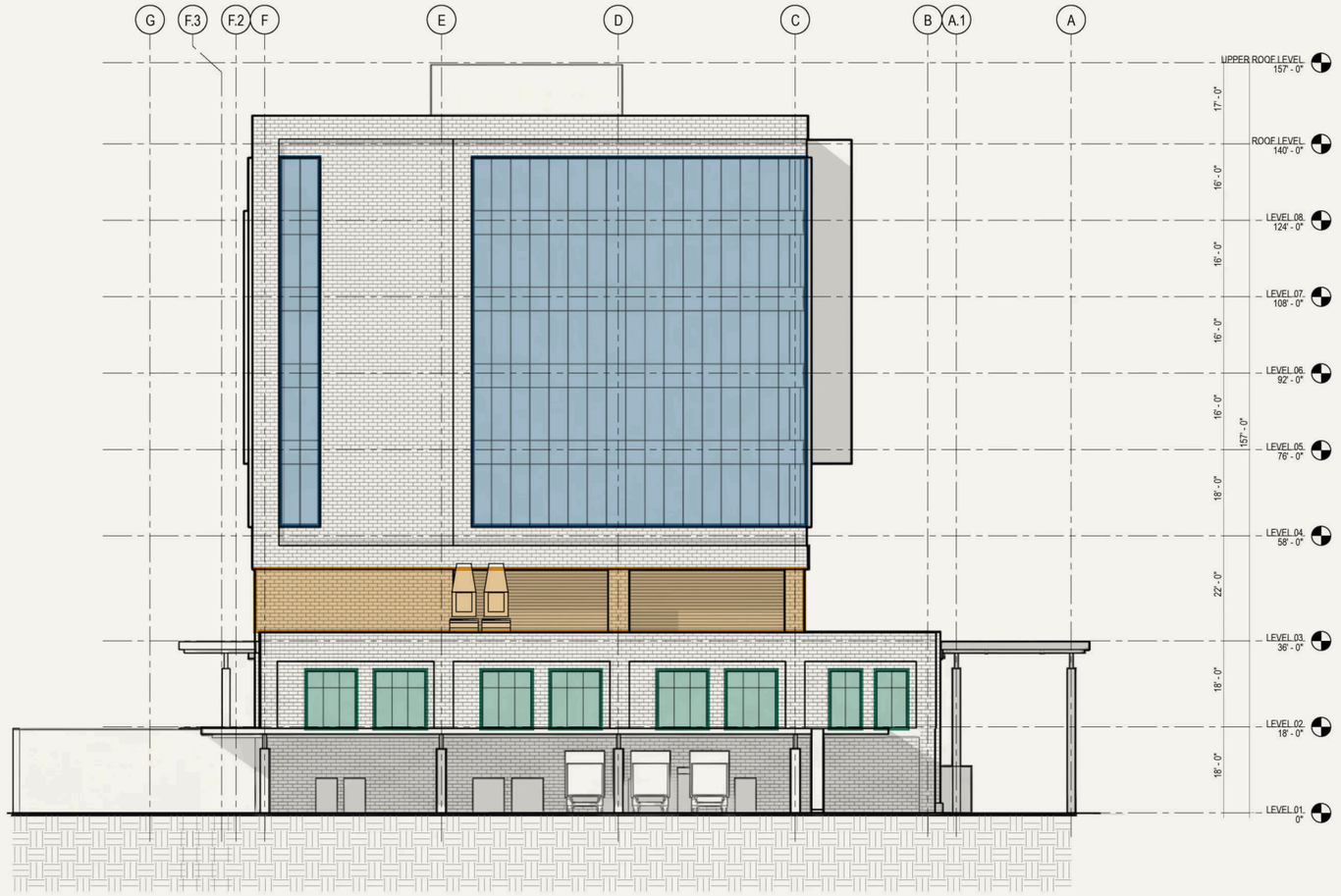
Level 1–2 curtain wall · stick

Punched openings · stick curtain wall

H A2-002 · West elevation · SD set 23 October 2026

North elevation

Fin wall and a full-height glazed strip above; eight punched curtain wall openings at Level 02 over service and loading at grade.



Fin wall · unitized curtain wall

Mechanical band · Levels 03–04

Punched openings · stick curtain wall

H A2-002 · North elevation · SD set 23 October 2026

Parking: two glass stair towers

Curtain wall wraps the corner at Stair 1, facing the hospital, and Stair 2, facing the quad.



P A2-001 · North conceptual elevation (hospital side), both glass stair towers lit

Laser-cut metal panel · P A2-002 material 3

STAIRS 1 AND 2

2 towers

Corner curtain wall rising above the 38′-8″ parapet of the four-level garage.

Infill

Glass, laser-cut metal panels and open bays share one curtain wall grid (BOD 06).

Laser-cut panel

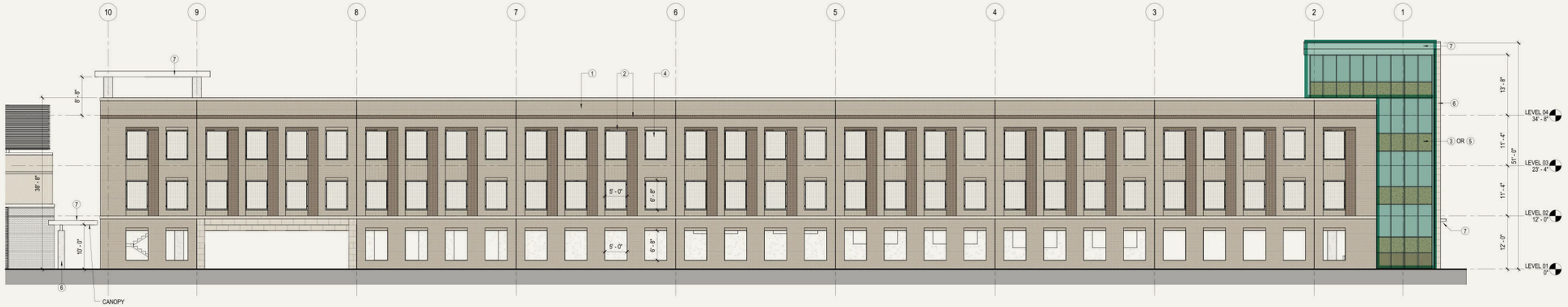
Pattern per HDR's material board. Panel thickness, open area and stiffening are set in design assist.

Elevator lobbies

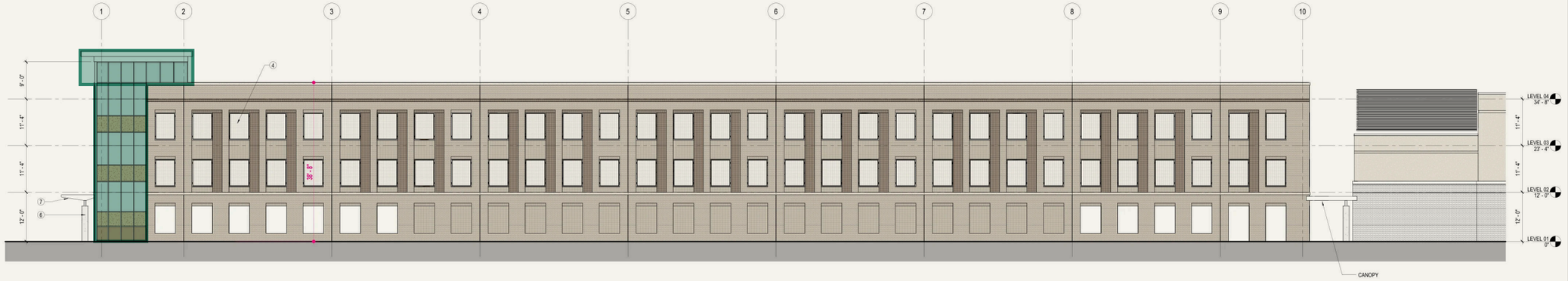
Aluminum storefront encloses the elevator lobby on each level (BOD 06).

Parking elevations

East on Harden Street and west on the quad: the glass stair towers stand at the ends of the deck.



C5 ELEVATION - EAST
3/32" = 1'-0"



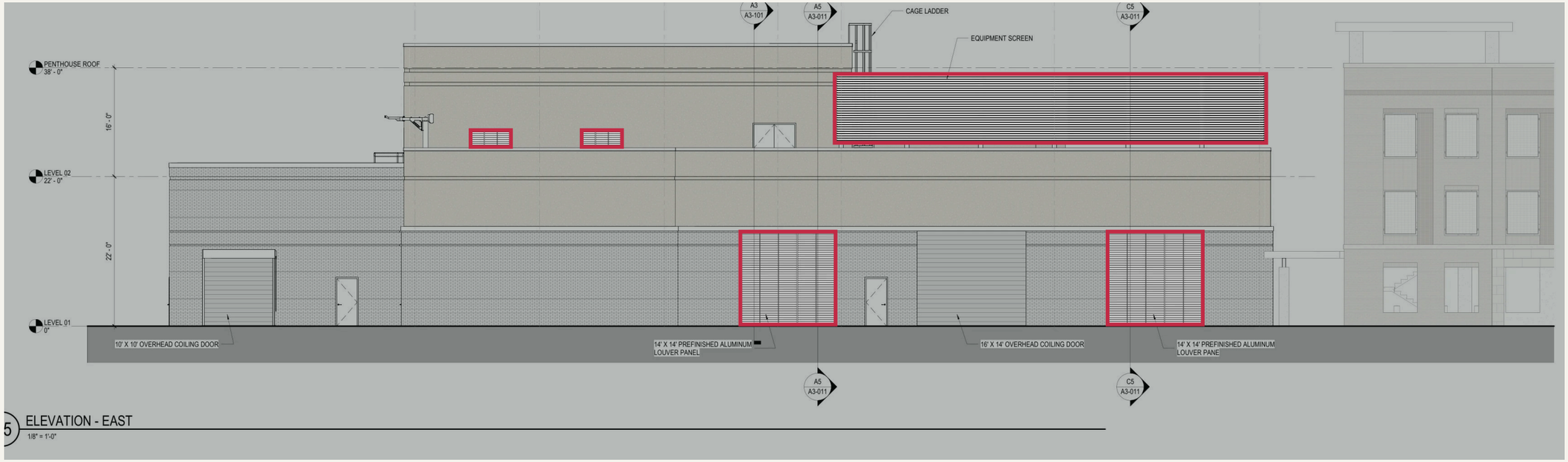
B5 ELEVATION - WEST
3/32" = 1'-0"

Stair towers · stick curtain wall with glass, laser-cut panel and open infill

P A2-002 · East and west elevations · SD set 23 October 2026

CUP: louvers and a roof screen

The central utility plant breathes through large aluminum louvers and hides its roof equipment behind a louvered screen.



C A2-001 · East elevation: the roof screen, two 14′ × 14′ louver panels and the penthouse louvers



Louver panels and equipment screens · C A2-001

ROOF SCREEN WALL

166 LF

Pottorff HJ-445, 10 ft tall in four runs: 10′-1″, 30′, 62′ and 64′. Bottom 5′-8″ above the roof.

Louvers

605 SF of Ruskin EME720, led by two 14′ × 14′ panels on the east face. A factory section tops out at 120″ × 90″, so each is field-assembled from four.

Screen

Pottorff HJ-445: 4″ deep extruded aluminum J-blades, 54% free area, mitered outside corners. 32 factory sections, about 4,800 lb.

Screen posts

Posts and bracing anchor to the roof structure through the single-ply roof. Post layout and flashing are split with 07A.

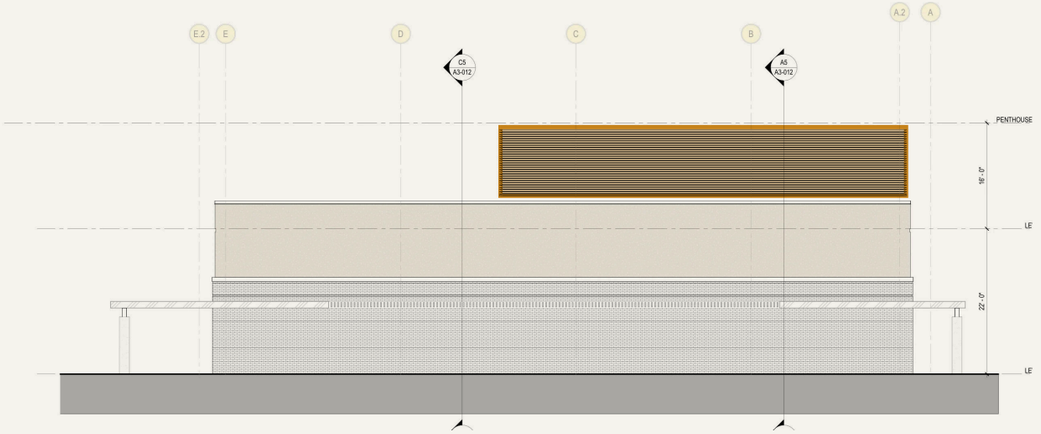
Wind

The screen is submitted at 30 psf design pressure. SC-licensed delegated engineering sizes the posts and anchors for the project wind load.

CUP elevations

South and north: roll-up doors and louvers at grade, the generator penthouse and the long run of roof screen.



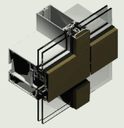


Generator penthouse louvers and the roof equipment screen

C A2-002 · South and north elevations · SD set 23 October 2026

The proposed systems

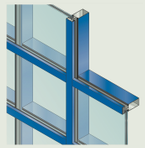
Wausau unitized, EFCO stick and entrances, Viracon glass, the BOD louver and the CUP screen wall.



Wausau · INvision 8250i-HRX

Unitized curtain wall

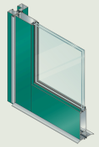
2-1/2″ face · 8-1/4″ frame depth · HRX polyamide thermal barrier · factory glazed



EFCO · System 5600

Stick curtain wall

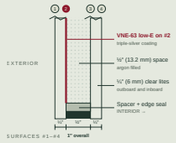
2-1/4″ face · 5″, 6″ or 7″ frame depth · screw spline or shear block



EFCO · D302 / D502

ThermaStile entrance doors

2″ thermally isolated door · 3-1/2″ medium or 5″ wide stile · welded corners



Viracon · VNE1-63

Vision glass

1″ insulating unit · VNE-63 low-E on surface 2



Viracon · V952 spandrel

Spandrel glass

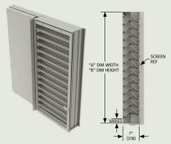
VNE1-63 with V952 Warm Gray ceramic enamel · conceals slab edges and structure



Viracon · V1093 silkscreen

Silkscreen glass

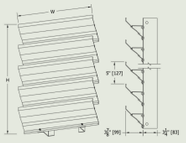
VNE1-63 with V1093 translucent frit · on vision or spandrel lites · pattern set on the visual mock-up



Ruskin · EME720

Wind-driven-rain louvers

7″ deep extruded aluminum frame · sightproof drainable blades · 55% free area · AMCA 500-L Class A



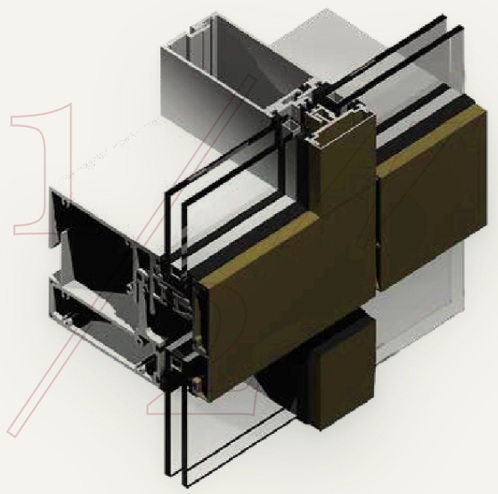
Pottorff · HJ-445

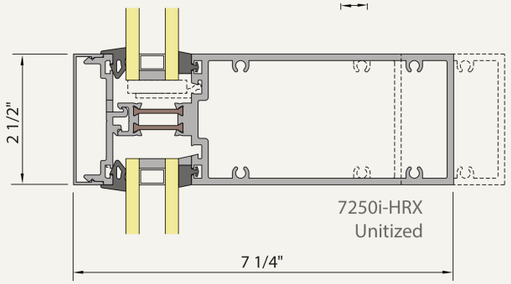
Equipment screen wall

4″ deep extruded aluminum · horizontal J-blade · 54% free area · 30 psf design pressure

Manufacturer technical basis · published frame profiles and glass make-ups. Project performance follows manufacturer testing and engineering.

Background · manufacturer project image





INVISION HRX PROFILE SHOWN AT 7¼″ DEPTH · USC BASIS 8250I AT 8¼″

WAUSAU WINDOW AND WALL SYSTEMS EFCO / Wausau

INvision 8250i–HRX

8250 8¼″ frame depth · i continuous polyamide barrier · HRX 2½″ face · 24–32 mm barrier

Factory-glazed unitized curtain wall

2½″	8¼″	15 PSF
FACE WIDTH	FRAME DEPTH	WATER, STATIC + DYNAMIC

AIR	WATER	NFRC U-FACTOR	CRFF	STC	OITC
0.06 cfm/ft²	15 psf	0.29–0.63	73–77	31–39	25–33
at 6.24 psf	static + dynamic	BTU/hr·ft²·°F	frame	sound transmission	outdoor–indoor
		0 1	0 100	20 50	20 50

THERMAL BARRIER HR | HRX 24–32 mm polyamide barrier

HR 15–19 mm
HRX 24–32 mm
0 35 mm

ALSO IN THE SYSTEM



CLEARSTORY SUN SHADES
Exterior shading option



JACK-BOLT ANCHOR
Three-way adjustable

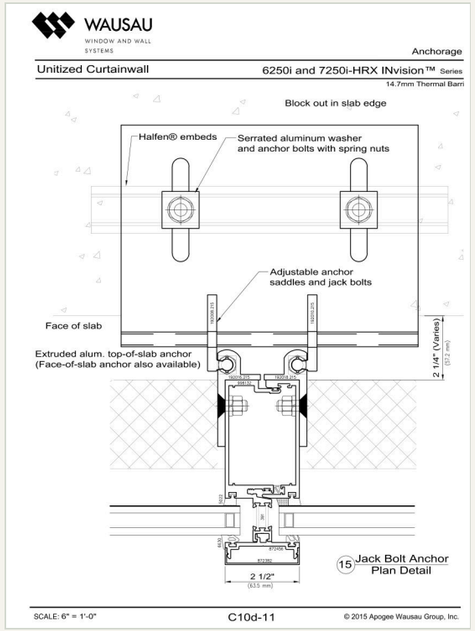
AT USC: Fin wall · Level 04 to roof | Feature frame glazing | HRX basis · 24–32 mm barrier

INvision family results; test results may vary. Project performance follows Wausau testing and engineering.

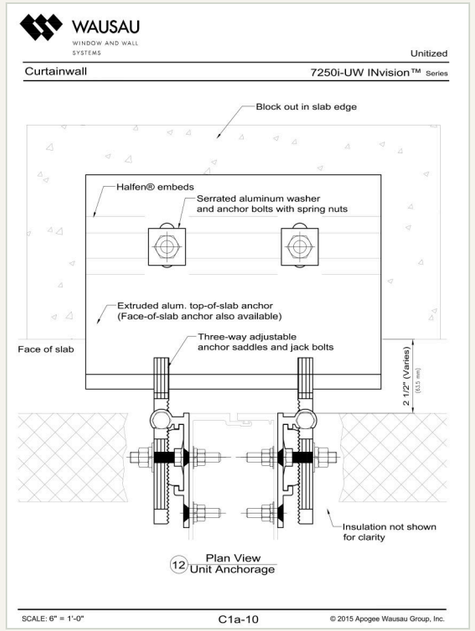
Wausau unit anchorage

Each unit hangs from an aluminum anchor on top of the slab, bolted to an embed cast into the slab edge and set with jack bolts.

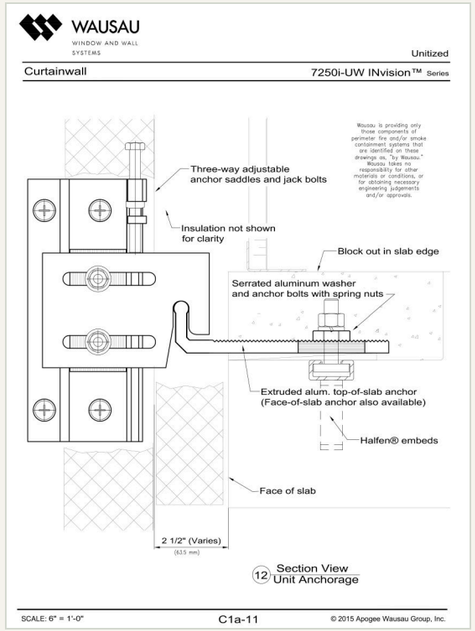
C10D-11 · JACK-BOLT ANCHOR, PLAN



C1A-10 · UNIT ANCHORAGE, PLAN



C1A-11 · UNIT ANCHORAGE, SECTION



Embed

A Halfen channel cast into the slab edge, in a block-out. We settle the embed layout in design assist, ahead of the slab pours.

Anchor

Extruded aluminum top-of-slab anchor. A face-of-slab anchor is also available where the slab edge calls for it.

Adjustment

Three-way adjustable saddles and jack bolts set each unit in and out, side to side and up and down.

Fastening

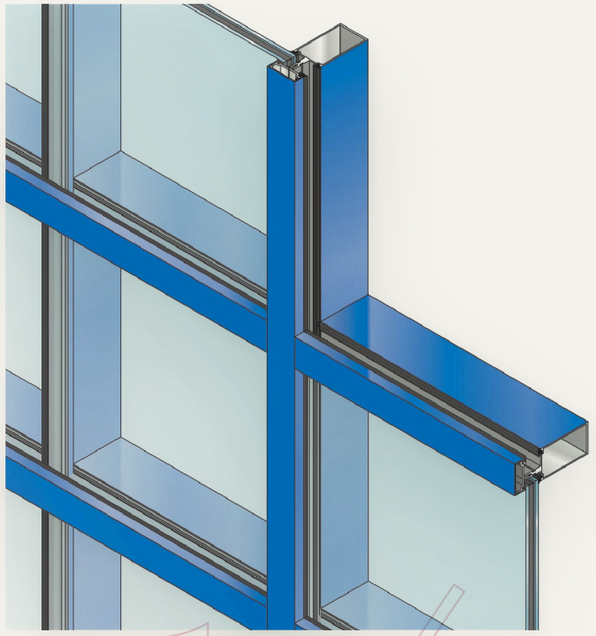
Anchor bolts with serrated aluminum washers and spring nuts lock the anchor to the embed.

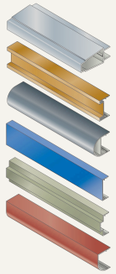
Slab gap

2¼″ to 2½″ from the face of slab to the back of the unit, varying with the slab edge.

Wausau INvision unitized curtainwall anchorage details, 6″ = 1′-0″. Anchor size and spacing follow Wausau's project engineering.

Background · manufacturer project image





SNAP-ON FACE COVERS

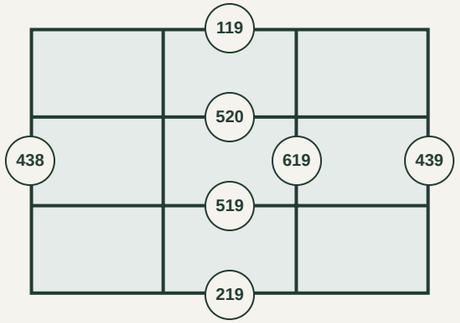
EFCO / Wausau

System 5600

2¼″ pressure-glazed stick curtain wall

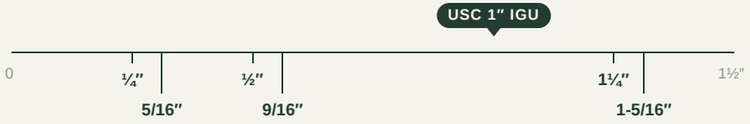
2¼″	5 · 6 · 7″	1–5/16″
FACE WIDTH	FRAME DEPTHS	MAXIMUM GLAZING

AIR	WATER	U-FACTOR	CRF	STC	OITC
< 0.06 cfm/ft²	15 psf	0.37–0.58	67	33–46	29–38
ASTM E283	ASTM E331	NFRC 100/200	AAMA 1503	ASTM E90 & E413	ASTM E90 & E413
		0 – 1	0 – 100	20 – 50	20 – 50



CENTER-TONGUE FRAMING

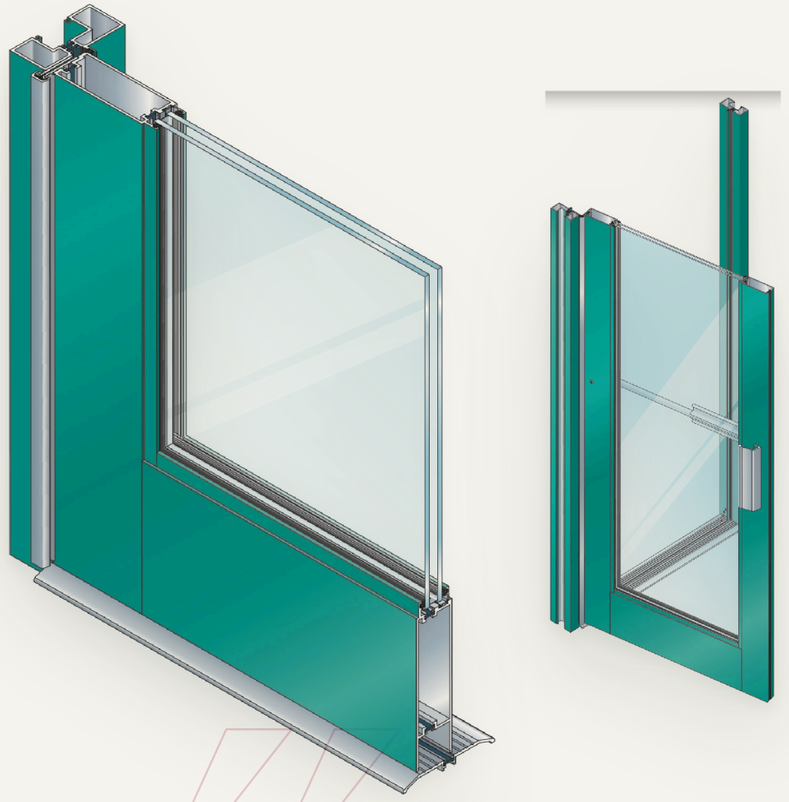
GLAZING ADAPTORS



AT USC Hospital Level 1–2 curtain wall · Parking Stairs 1 + 2 · Laser-cut panel infill

Aluminum pressure plate values; performance depends on glass selection. Structural load per EFCO project engineering.

Background · manufacturer project image



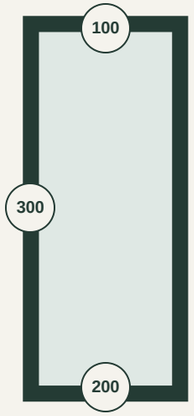
EFCO / Wausau

D302 / D502 ThermaStile

2″ ThermaStile swing entrance doors

2″	3½ · 5″	Welded
DOOR DEPTH	MEDIUM · WIDE STILE	PLUG-WELDED CORNERS

AIR, SINGLE DOOR	AIR, D302 PAIR	CRF, D502 SINGLE
< 0.3 cfm/ft²	< 0.6 cfm/ft²	46
ASTM E283	ASTM E283	AAMA 1503
		0 — 100



DOOR DETAILS

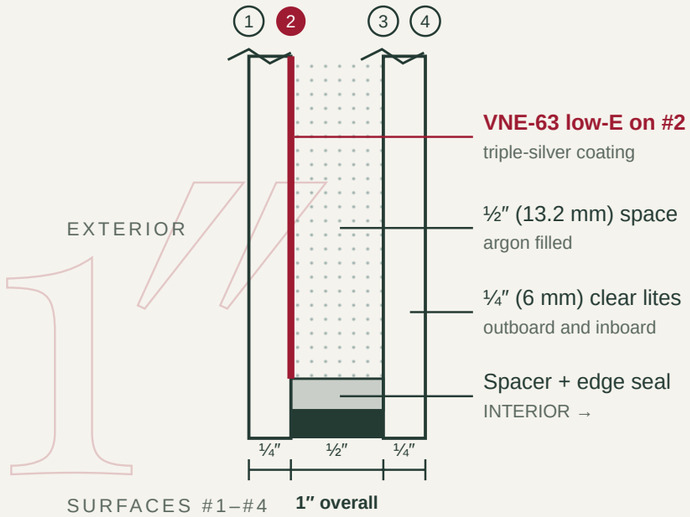
STILE — Medium 3½″ | Wide 5″

GLAZING — 1″ IGU · Viracon VNE1-63

HARDWARE — Most major locks · Panic devices · Rixson HD pivots · Continuous hinges · Overhead or floor closers

AT USC — Hospital swing entrances · Parking elevator lobbies · Auto sliders: Assa Abloy (BOD 13C)

EFCO lists water, STC and OITC as N/A and U-factor by request. Performance depends on glass selection.





VISION · 1″ IGU VNE1-63 · REPRESENTATIVE

VIRACON EFCO / Wausau

VNE1-63

Triple-silver low-E · 1″ insulating glass

1″	60%	0.28
OVERALL UNIT	VISIBLE LIGHT	SHGC

VISIBLE LIGHT	REFLECTANCE	U, WINTER	U, SUMMER	SHGC	SHADING COEFF.
60%	**10%**	**0.25**	**0.21**	**0.28**	**0.32**
transmittance	exterior visible	NFRC · center of glass	NFRC · center of glass	solar heat gain	SC
0 100	0 100	0 1	0 1	0 1	0 1

GLASS TYPE: **Vision** | Spandrel | Silkscreen — 60% visible light

Triple-silver VNE-63 low-E on surface #2 of a 1″ argon-filled unit: high visible light with a neutral, low-reflectance exterior.

MAKE-UP: ¼″ clear · VNE-63 on #2 · ½″ argon · ¼″ clear

GLAZED INTO: Wausau 8250i-HRX · EFCO 5600 · D302 / D502 doors

AT USC: Vision · all systems · Silkscreen frit · V1093 · Spandrel · V952 Warm Gray

Viracon published data, center of glass, 1″ overall. Swatches are representative; approve physical samples.

Cladding in our scope

Alongside the glazing, 1CG carries the metal, mesh and fiber cement cladding on the hospital, the parking garage and the walkway canopy to the CUP.

FC

Fiber cement panels

HOSPITAL

Cemfort HD panels in garnet on the feature frames, plus the accent panels and entry portals at grade.

CM

Corrugated metal

HOSPITAL

7/8″ corrugated metal panels in the mechanical band between Levels 03 and 04, set between the masonry piers.

ACM

ACM canopy fascia, soffits and beam wraps

HOSPITAL · GARAGE · WALKWAY

Every canopy edge, soffit and beam wrap. The garage and walkway canopies, drawn as smooth metal, are carried as ACM.

AB

Aluminum battens

HOSPITAL · WALKWAY

4″ × 8″ wood-tone aluminum battens under the west (quad) and south drop-off canopies, and a batten band along the walkway canopy.

WM

Stainless steel mesh inserts

GARAGE

Woven stainless steel mesh in flat bar frames at the 164 typical garage openings, on all four elevations.

AF

Vertical tube screen

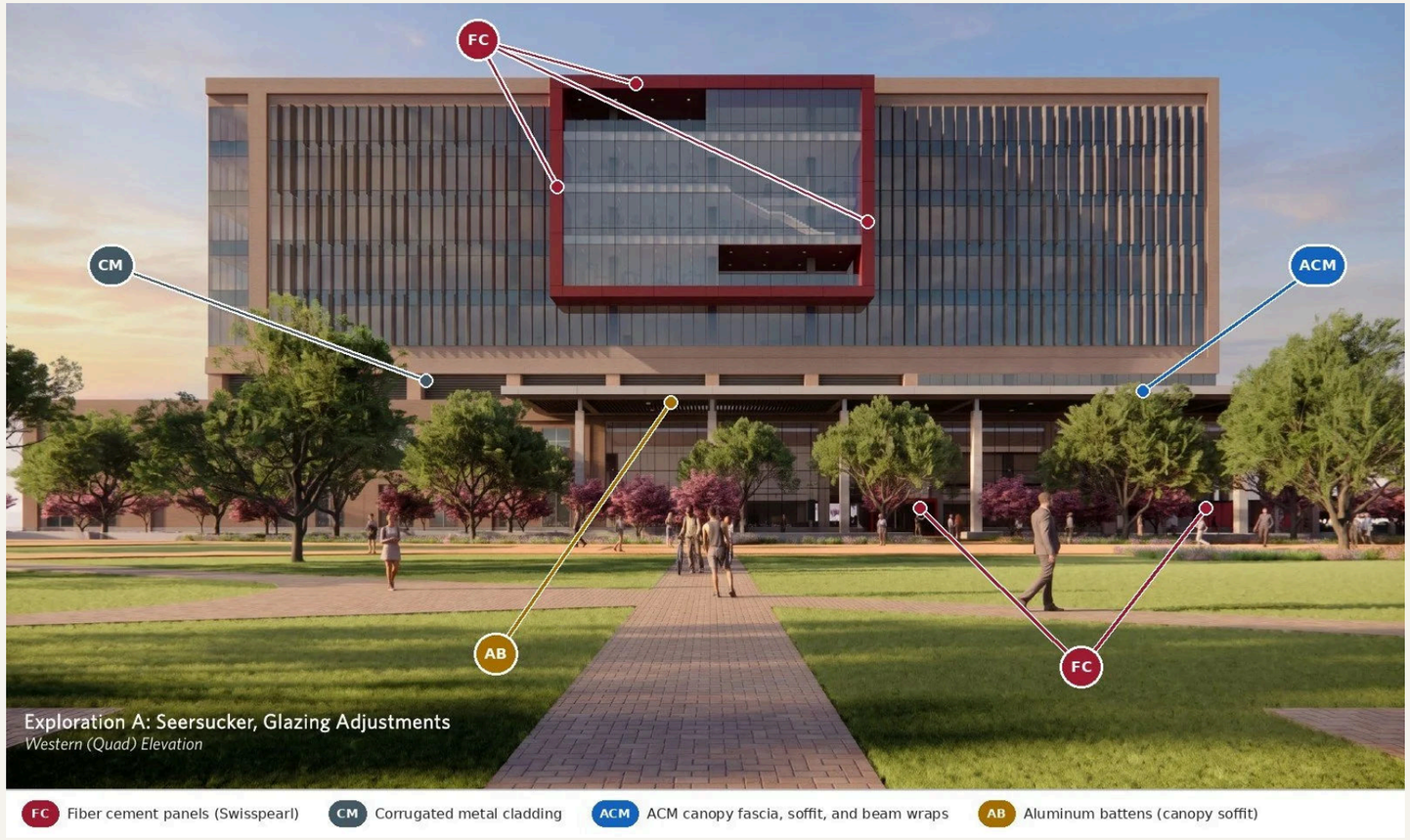
GARAGE · ALTERNATE

Round aluminum tubes as one continuous screen over the garage, carried as an alternate to the woven wire mesh.

The BOD names Swisspearl fiber cement; we propose Cemfort HD as an equal. The other materials are described generically, so products, profiles and finishes are set in design assist.

Hospital cladding

Fiber cement on the garnet frames, corrugated metal in the mechanical band, and ACM with aluminum battens at the canopies.



West (quad) elevation · BOD p.95 · tags mark 1CG cladding scope

FC Garnet frames

West frame with returns, head soffit, sill and reveal panels; east frame face and returns; north and south side returns; accent panels and entry portals at grade.

CM Mechanical band

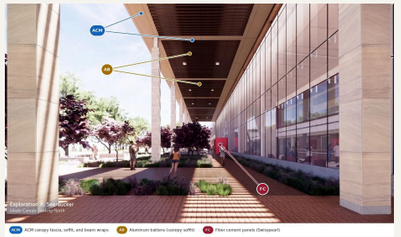
Level 03 (36′-0″) to Level 04 (58′-0″), between the masonry piers on the west, east and north faces.

ACM Canopies

Fascia, edges and beam wraps at the west (quad), south drop-off, north and east ambulance canopies.

AB Canopy soffits

Under the two-story west canopy, between the ACM beam wraps, and under the south drop-off canopy.



Under the west canopy



South drop-off

Fiber cement panels

Cemfort HD fiber cement clads the garnet feature frames, finished in any color so the frames can match USC garnet.

10 mm
PANEL THICKNESS (3/8″)

Any color
MATCHED TO USC GARNET

Non-combustible
ASTM E136

4′ × 10′
LARGEST STANDARD SHEET



WHERE · THE GARNET FRAMES



EXAMPLE · CEMFORT IN RED

Rendering: Basis of Design p.106, northern quad. Example photo is another building, from Cemfort's product guide.

FC The panel

Autoclaved high-density cement panel with synthetic fibers, about 3.2 lb/SF, meeting ASTM C1186. Cut to any module from 4′ × 8′ or 4′ × 10′ sheets.

Finish and fixing

Factory enamel in any color with painted edges. Face screws, perimeter trims or concealed anchors, chosen with the architect in design assist.

Against the BOD

Swisspearl: 8 mm, 25 standard colors, edges unpainted. Both are non-combustible fiber cement, wind-load tested to ASTM E330.

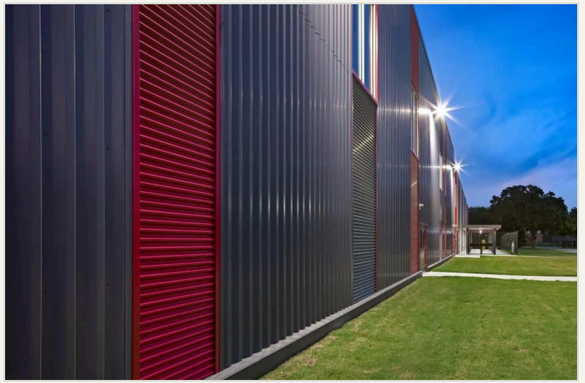
Corrugated metal panels

7/8″ corrugated metal panels fill the hospital's mechanical band between the masonry piers.

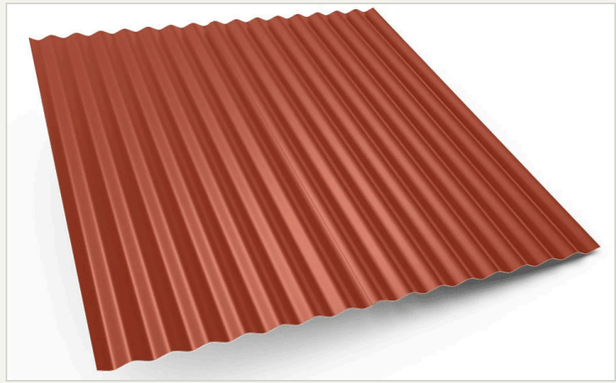
≈ 4,200 SF	7/8″	2.67″	70% PVDF
MECHANICAL BAND	CORRUGATION DEPTH	RIB SPACING	FINISH



WHERE · THE MECHANICAL BAND



EXAMPLE INSTALLATION



PAC-CLAD 7/8″ CORRUGATED

Example photo is another building, shown for the look of corrugated metal panels.

CM The panel

PAC-CLAD 7/8″ Corrugated by Petersen: an exposed-fastener wall panel in 24 or 22 gauge steel, or .032 or .040 aluminum.

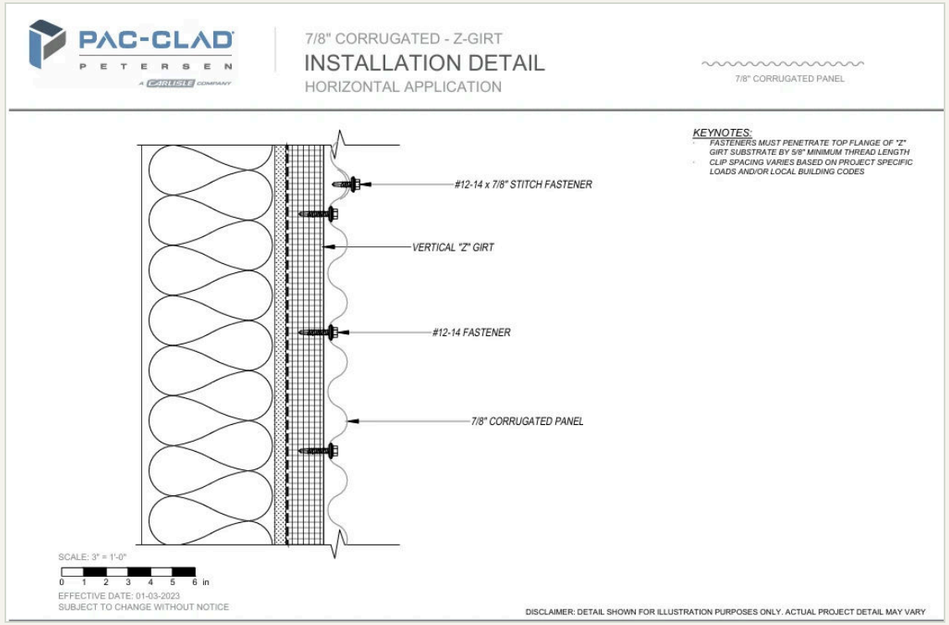
Where

Level 03 (36′-0″) to Level 04 (58′-0″), between the masonry piers on the west, east and north faces.

Corrugated panels: attachment, testing and finish

Panels run horizontally on vertical Z girts, carry tested air, water and wind performance, and come in a 70% PVDF finish.

Z-GIRT DETAIL · HORIZONTAL APPLICATION



PAC-CLAD STANDARD COLORS



Attachment

Vertical Z girts over the insulation. #12-14 screws fasten each panel to the girt, at least 5/8″ of thread through its flange; #12-14 × 7/8″ stitch screws close the side laps.

Spacing

Girt and fastener spacing follow the project wind loads and code, set by engineering in design assist.

Tested

ASTM E1592 wind load (24 ga steel and .032 aluminum); ASTM E1680 and E1646, and E283 and E331, for air leakage and water penetration.

Finish

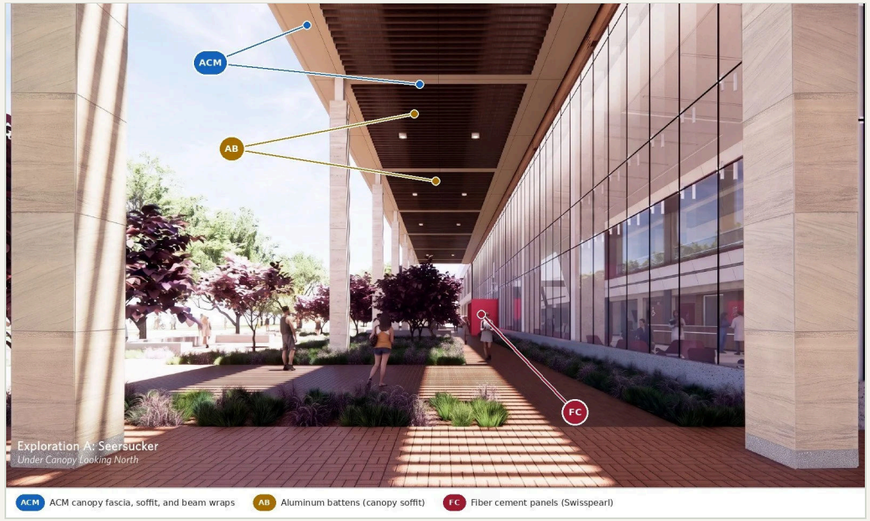
70% PVDF, in standard, metallic and wood-grain colors. Rated for 20 years of South Florida exposure at no more than 5 ΔE color change.

PAC-CLAD 7/8″ Corrugated installation detail, 3″ = 1′-0″, and the PAC-CLAD 2025 color guide.

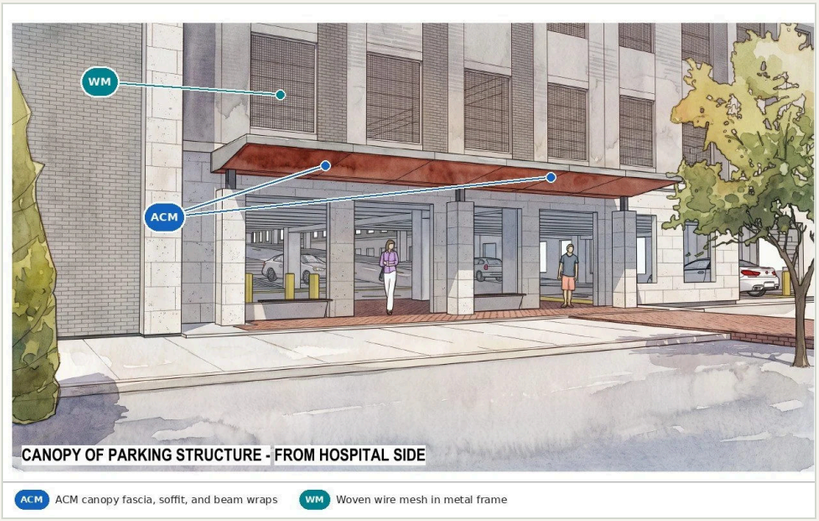
ACM canopies

Fire-resistant metal composite panels wrap the canopy edges, soffits and beams on all three structures.

≈ 30,000 SF	4 mm	FR core	30-year
EARLY ESTIMATE, ALL CANOPIES	PANEL THICKNESS	NFPA 285 TESTED	FINISH WARRANTY



HOSPITAL · WEST CANOPY



GARAGE · ENTRY CANOPY



ALFREX FR · PANEL MAKE-UP

ACM The panel

Alfrex FR: two 0.020″ aluminum skins on a mineral-filled fire-resistant core, 70% PVDF finish. Tested to NFPA 285 and ASTM E84.

Where

Hospital west, south drop-off, north and east ambulance canopies; the garage entry and stair canopies; and the walkway canopy to the CUP.

Aluminum battens

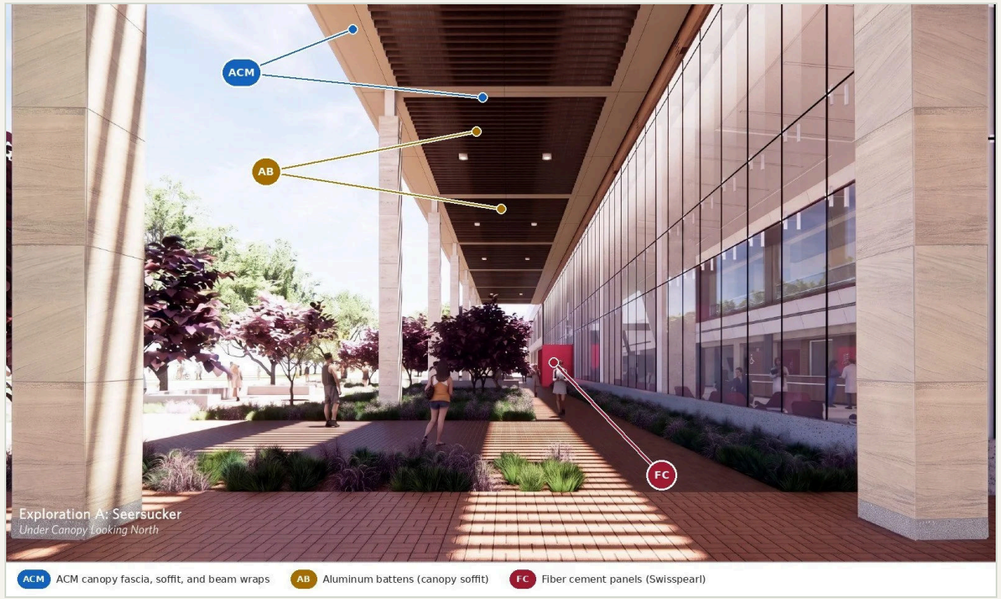
Wood-look aluminum battens line the canopy soffits, with the fasteners hidden inside each batten.

4″ × 8″
BATTEN SIZE

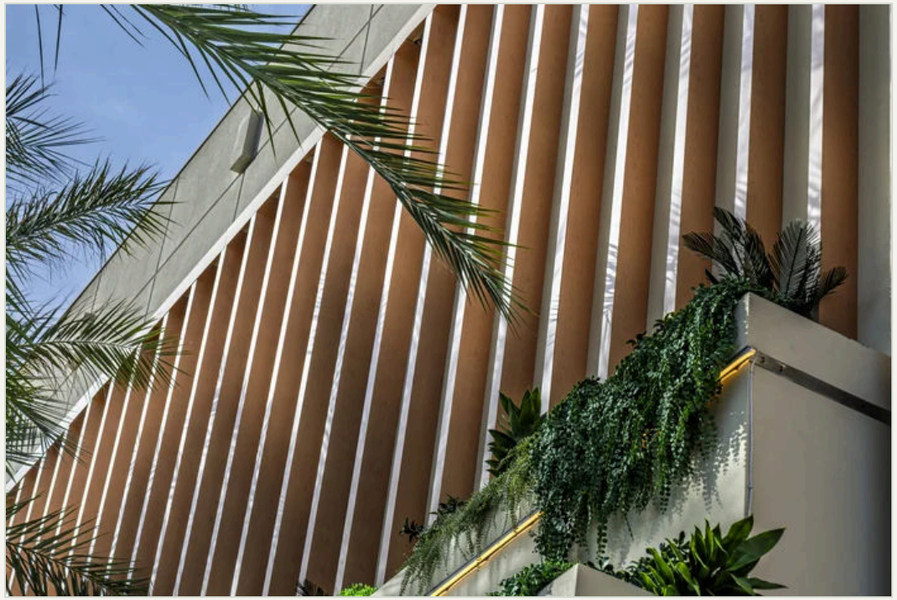
≈ 11,500 LF
INSTALLED, HOSPITAL AND WALKWAY

To 24′
BATTEN LENGTHS

Class A
FIRE RATING · ASTM E84



WHERE · THE WEST CANOPY SOFFIT



EXAMPLE · 4″ × 8″ MOSAIC BATTENS



L-CONNECT BATTEN

Rendering: Basis of Design p.101, under the west canopy. Example: Elephante, Scottsdale, Lumabuilt Mosaic battens.

AB The batten

Lumabuilt Mosaic 4″ × 8″ L-Connect: 6063-T6 extruded aluminum in lengths to 24′, about 3.2 lb/ft. Two halves interlock over the fasteners, so none show.

Finish

Woodgrain sublimated onto the aluminum to match the renderings' wood tone, with matching end caps. AAMA 2605 paint; 15-year woodgrain warranty.

Where

Soffits of the west (quad) and south drop-off canopies, and the batten band along the walkway canopy to the CUP.

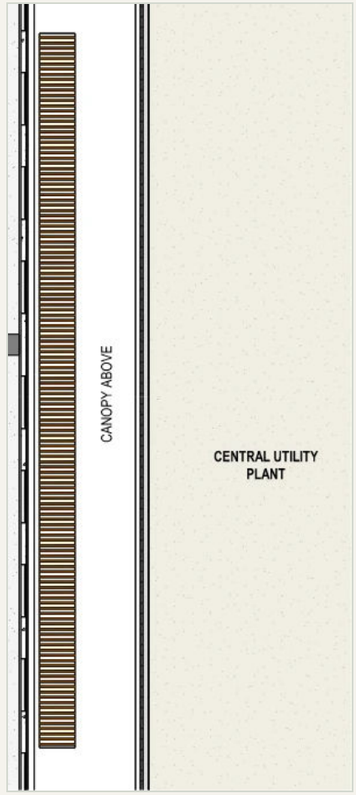
Batten layout

The hospital canopy battens are laid out bay by bay on the column grid, with a single band under the walkway canopy beside the CUP.

HOSPITAL CANOPY · LUMABUILT CONCEPTUAL LAYOUT



WALKWAY · BESIDE THE CUP



≈ 11,500 LF

INSTALLED, HOSPITAL AND WALKWAY

24′

TYPICAL BATTEN LENGTH

AB **Hospital canopy**

A 262′ run 24′ deep, a 190′-9″ leg 42′ wide and a 184′ run with a narrow band of short battens. 4″ × 8″ L-Connect battens fill each bay, broken at the column lines on the 32′ grid.

AB **Walkway canopy**

One band of the same battens under the canopy along the garage face, beside the CUP.

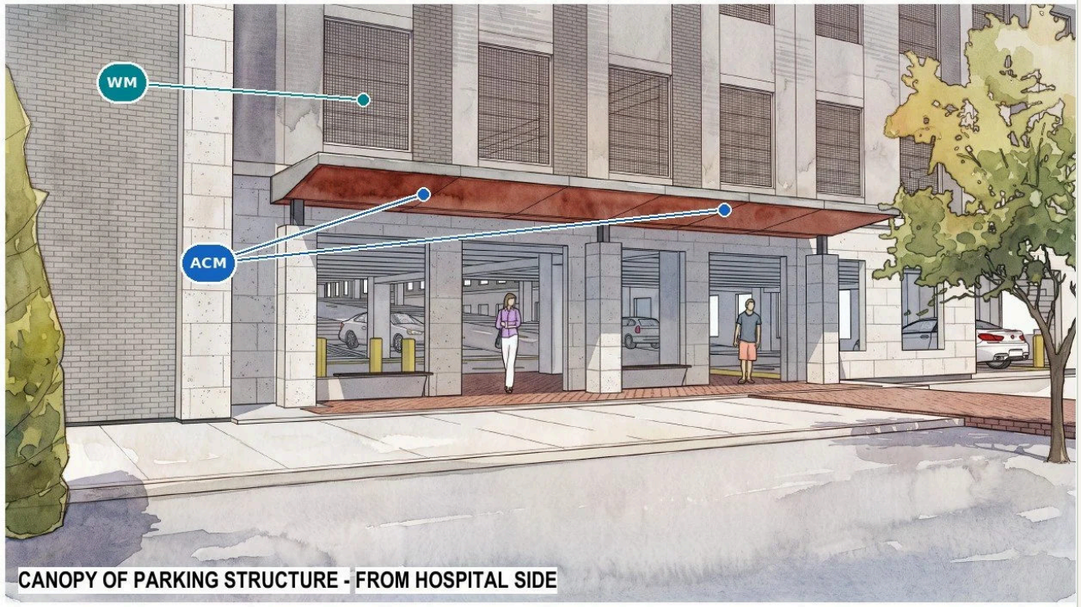
In design assist

Bay breaks, batten spacing and lengths are set with the canopy framing, so the layout and the count firm up together.

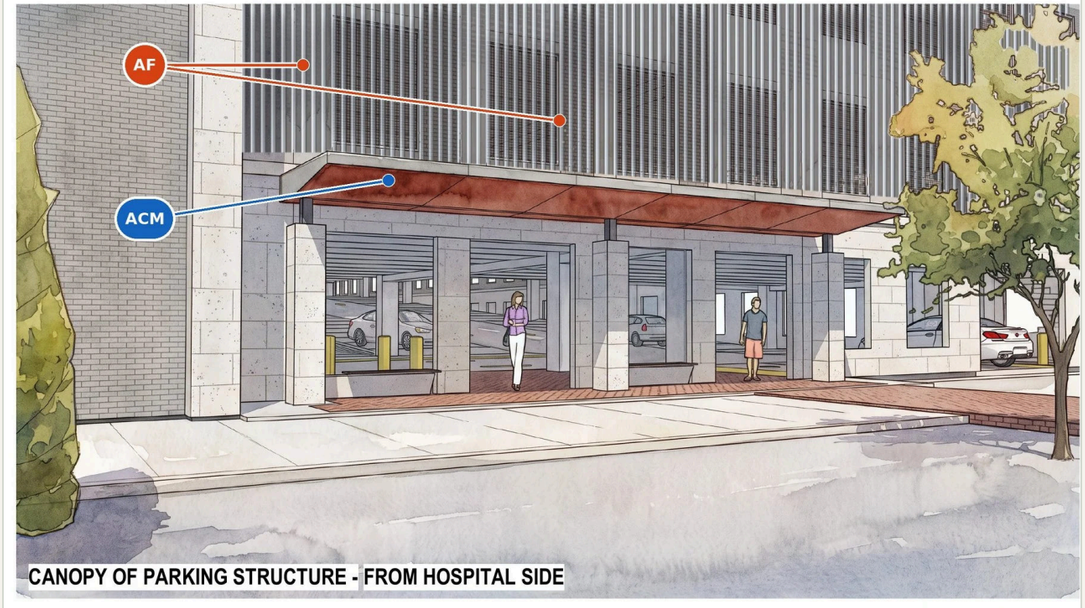
Hospital: Lumabuilt conceptual layout. Walkway: batten band under the canopy beside the CUP.

Parking garage: mesh, or a tube screen

The design fills the garage openings with woven wire mesh. A continuous aluminum tube screen over the whole facade is carried as the alternate.



BASE DESIGN · WOVEN WIRE MESH



ALTERNATE · VERTICAL TUBE SCREEN

Parking P A2-001 rendering, from the hospital side. The alternate view is modified to show the tube screen and is illustrative only.

WM Stainless steel mesh

Woven stainless steel mesh, about 77% open, in a flat bar frame at each of the 164 typical 5′-0″ × 6′-8″ openings, on every elevation.

AF Tube screen · alternate

Vertical round aluminum tubes from Level 2 to the top of the parapet, 26′-8″ high, on all four elevations, stopping at the stair towers.

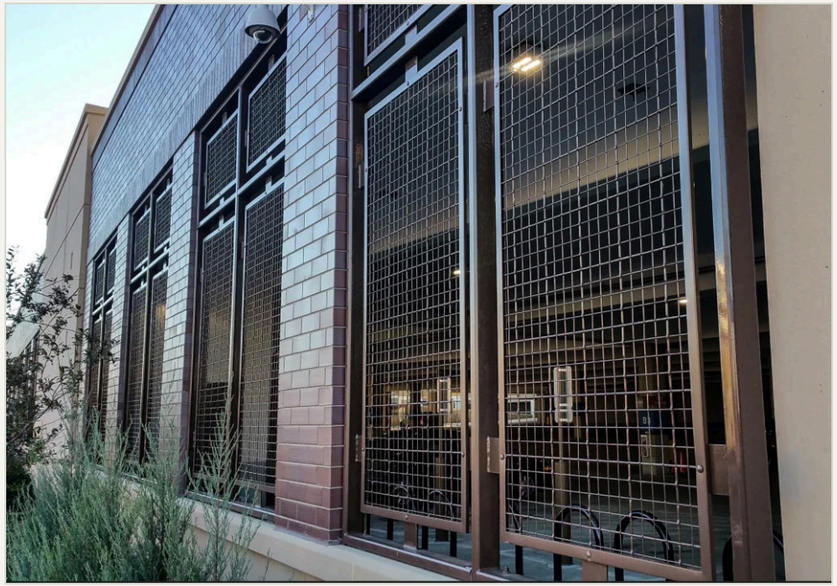
ACM Canopies

The 43′ × 8′ entry canopy on three limestone-clad columns (garnet finish), the roof canopies over Stairs 1–3 and the small canopy on the east face.

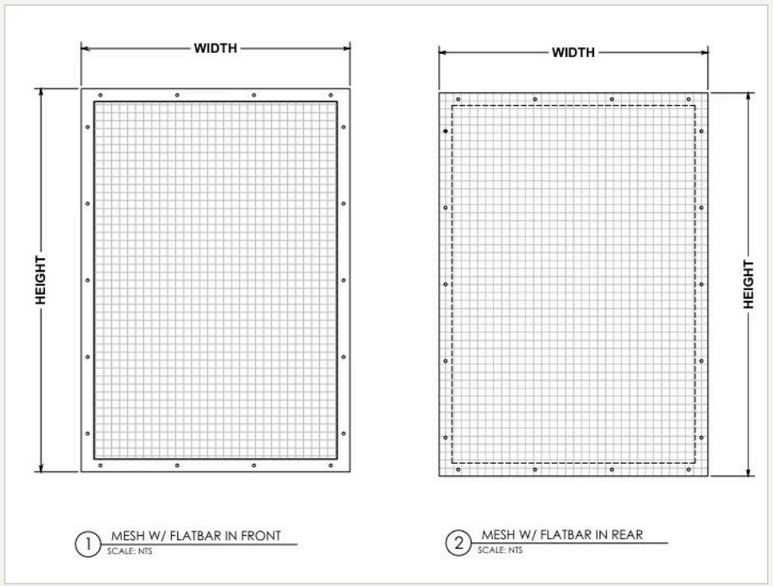
Garage mesh inserts

Rigid stainless steel mesh in a flat bar frame, set into each typical opening of the garage.

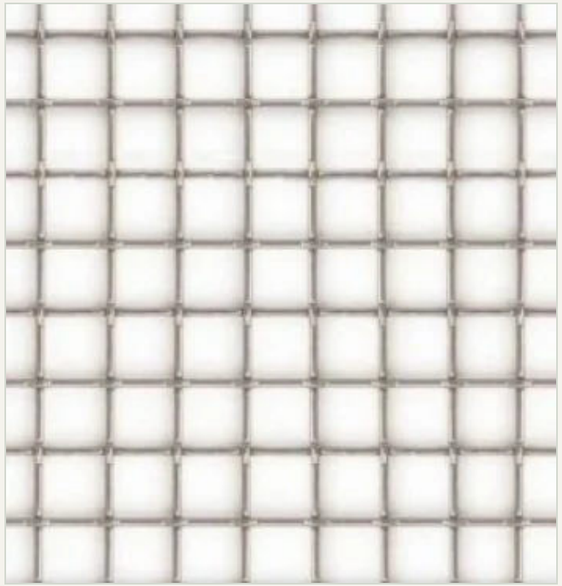
164	≈ 30 SF	4,920 SF	77%
INSERTS	EACH INSERT	TOTAL	OPEN AREA



EXAMPLE INSTALLATION



FLAT BAR IN FRONT OR BEHIND



CAMBRIDGE TARTAN · 77% OPEN

Example photo is another parking structure, shown for the look of framed mesh inserts. Framing details not to scale.

WM The mesh

Rigid woven stainless steel, 77% open to match the parking legend. Example: Cambridge Architectural Tartan, 0.240″ thick, about 1 lb/SF.

The frame

Flat bar in front of the mesh or behind it, fastened through the frame around the opening. Frame side and finish are set in design assist.

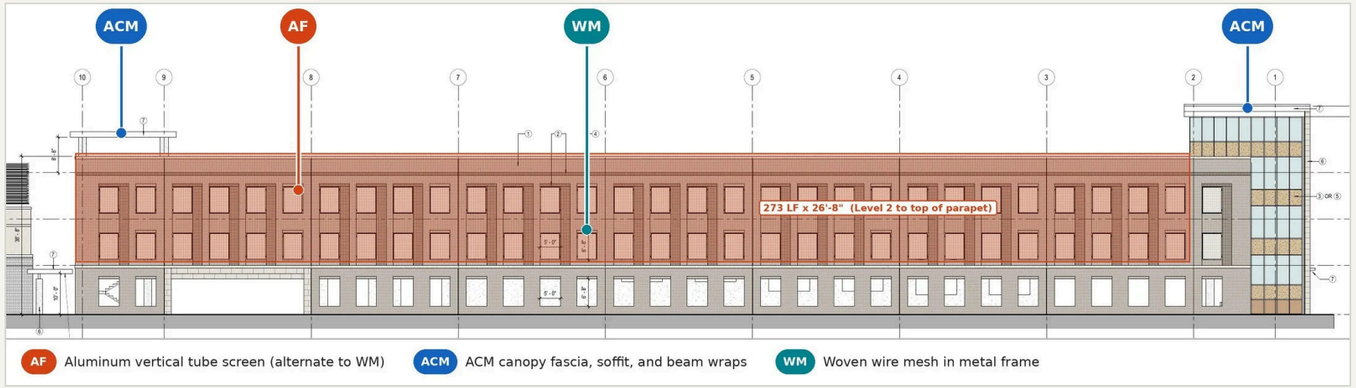
Tube screen alternate: the extent

The alternate wraps the garage from Level 2 to the top of the parapet on all four sides.

751 LF
SCREEN LENGTH, FOUR ELEVATIONS

26′-8″
LEVEL 2 TO TOP OF PARAPET

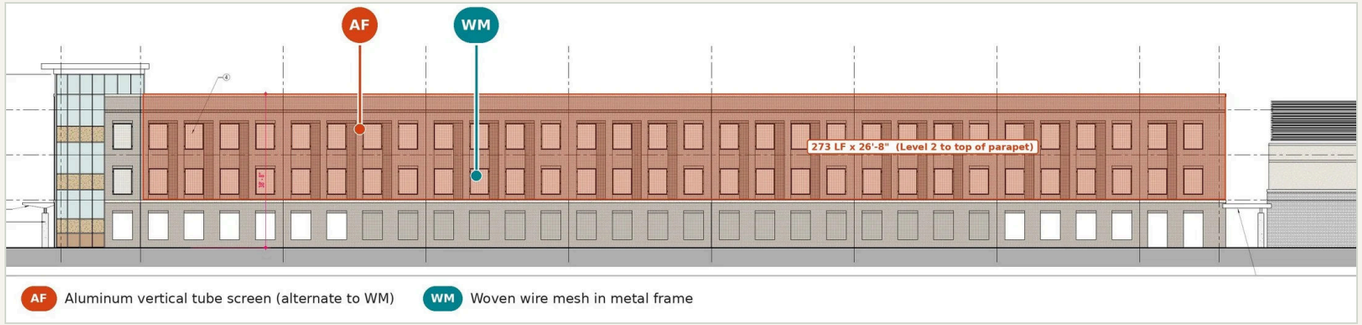
≈ 20,000 SF
GROSS, BEFORE OPENINGS



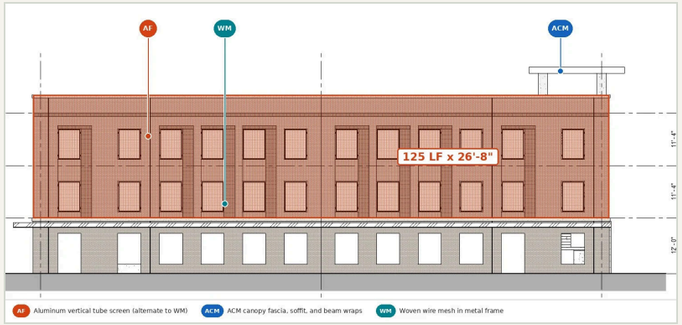
EAST · 273 LF



NORTH (HOSPITAL SIDE) · 80 LF



WEST · 273 LF



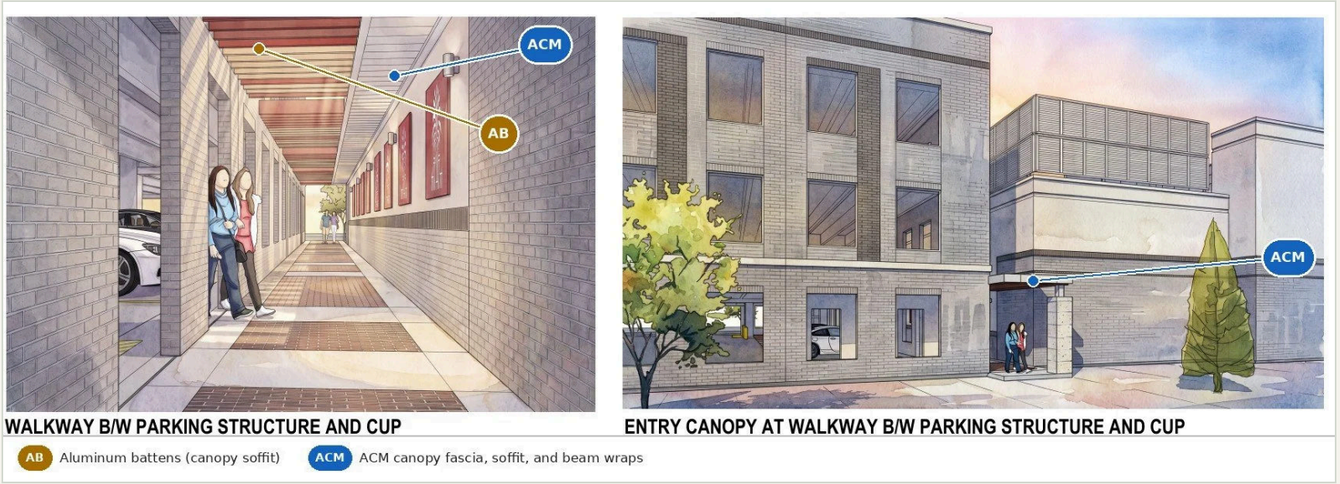
SOUTH · 125 LF

Shading shows the tube screen. Lengths scaled from the 3/32″ = 1′-0″ elevations, P A2-002 and P A2-003; the stair towers stay clear.

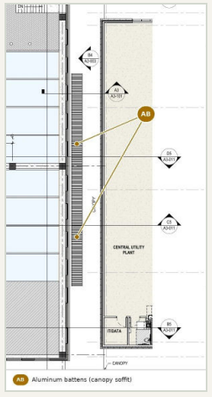
Walkway canopy to the CUP

One canopy runs between the garage and the CUP: an aluminum batten band along the garage face with ACM around it. It appears in both drawing sets and is counted once.

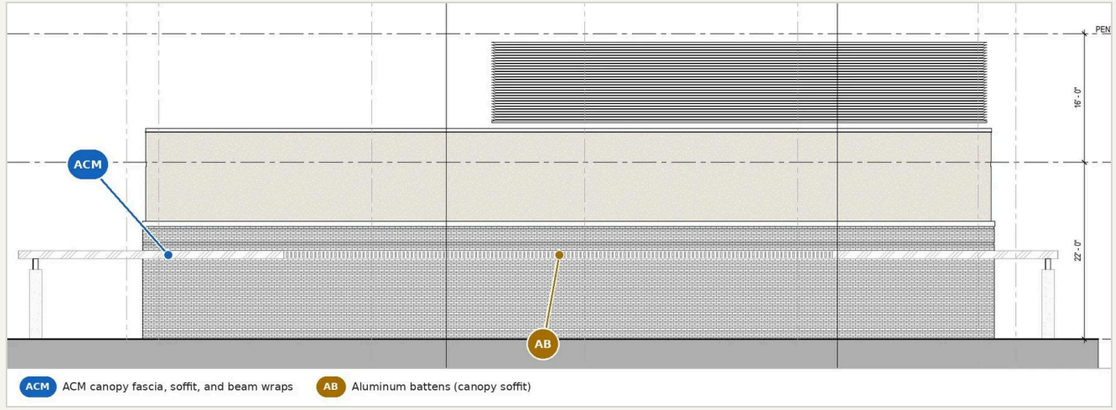
WALKWAY AND ENTRY CANOPY



BATTEN BAND · LEVEL 2 PLAN



CUP NORTH ELEVATION



AB **Batten band**

A band of 4″ × 8″ aluminum battens within the canopy footprint along the garage face, laid out per the Level 2 plan (P A1-102), matching the hospital canopy battens.

ACM **Fascia and soffit**

Smooth metal fascia and soffit outside the batten band, and the entry canopy at the walkway, carried as ACM.

Parking P A2-001 renderings, P A1-102 Level 2 plan (enlarged) and CUP C A2-002 elevation B5.

Design assist, phase by phase

Four phases, each ending in written decisions and an updated number the team can act on.

01

Concept and schematic design

System selection matched to performance and budget. Performance criteria checked so they are achievable and testable. Early budget and cost model. Long-lead items and procurement risks flagged.

EACH DESIGN MILESTONE

Written constructability and design review comments.

02

Design development

Written constructability reviews with alternates. Detail support: anchorage, slab edge and embeds, transitions, movement joints. Value engineering that protects intent and warranty. Mock-up plan. Coordination with the structural engineer of record.

SD · DD · CD

Budget updates.

03

Documents and preconstruction

Shop drawings and delegated-design calculations by a licensed engineer. BIM and clash coordination. Submittals, samples and test reports. Pricing refined at each milestone to a final number. Procurement and fabrication schedule.

THROUGHOUT

Value-engineering log, accepted and rejected items tracked.

04

Transition to construction

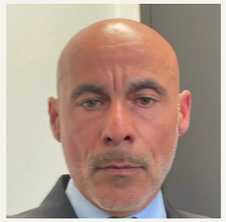
Installation sequence and logistics with the CM. Quality-control plan for the shop and the field, with field water testing where specified. One point of contact through closeout.

BEFORE CONSTRUCTION

Shop drawings, calculations, submittals, mock-up and test records, and the final scope, schedule and price.

Design assist, with continuity

Over 50 years of combined experience. Tony Dangelo and Tim Harwell stay on from design assist into installation.



Tony Dangelo

Design-assist manager · 30 years of experience

10.8M SF US 8.8M SF overseas

Unitized curtain wall, including three supertall towers. Selected work: Freedom Tower, Shanghai Tower and projects in the UAE.

System development

Basis-of-design review, details, product review and constructability.

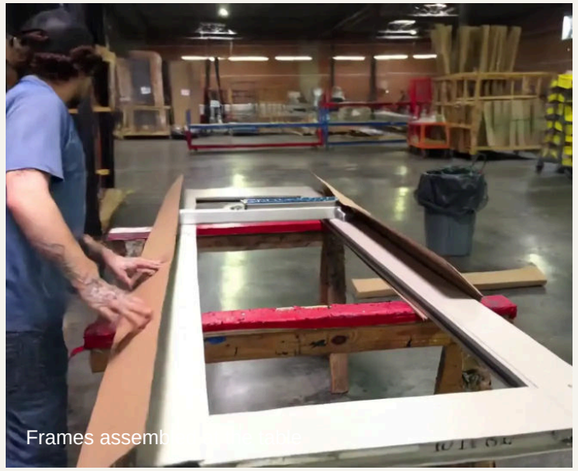


Tim Harwell

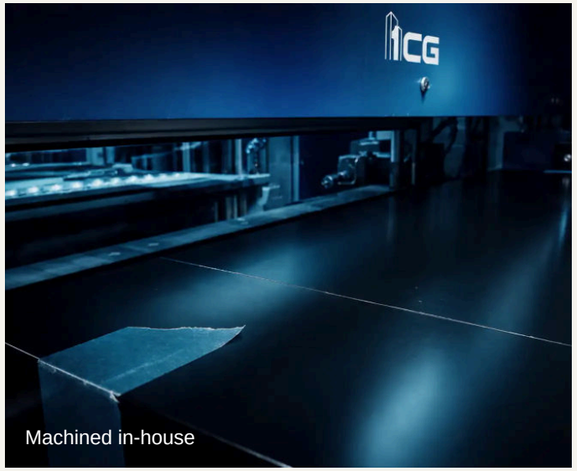
Design-assist team · 20 years of experience

Delivery coordination

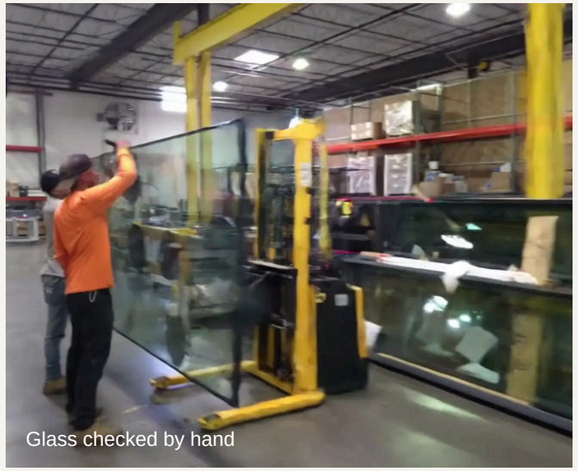
Releases, setting sequence, hoisting and the handoff to the field.



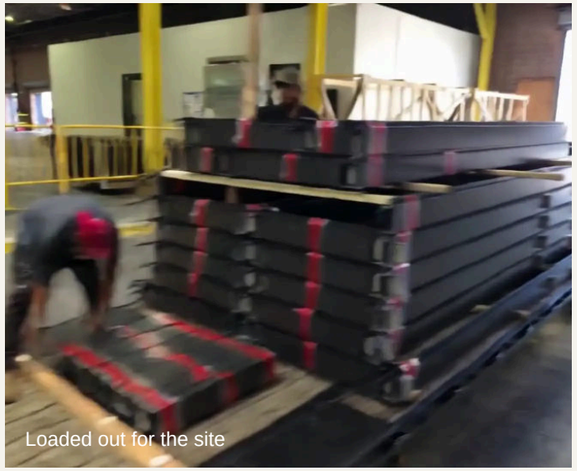
Frames assembled in-house



Machined in-house

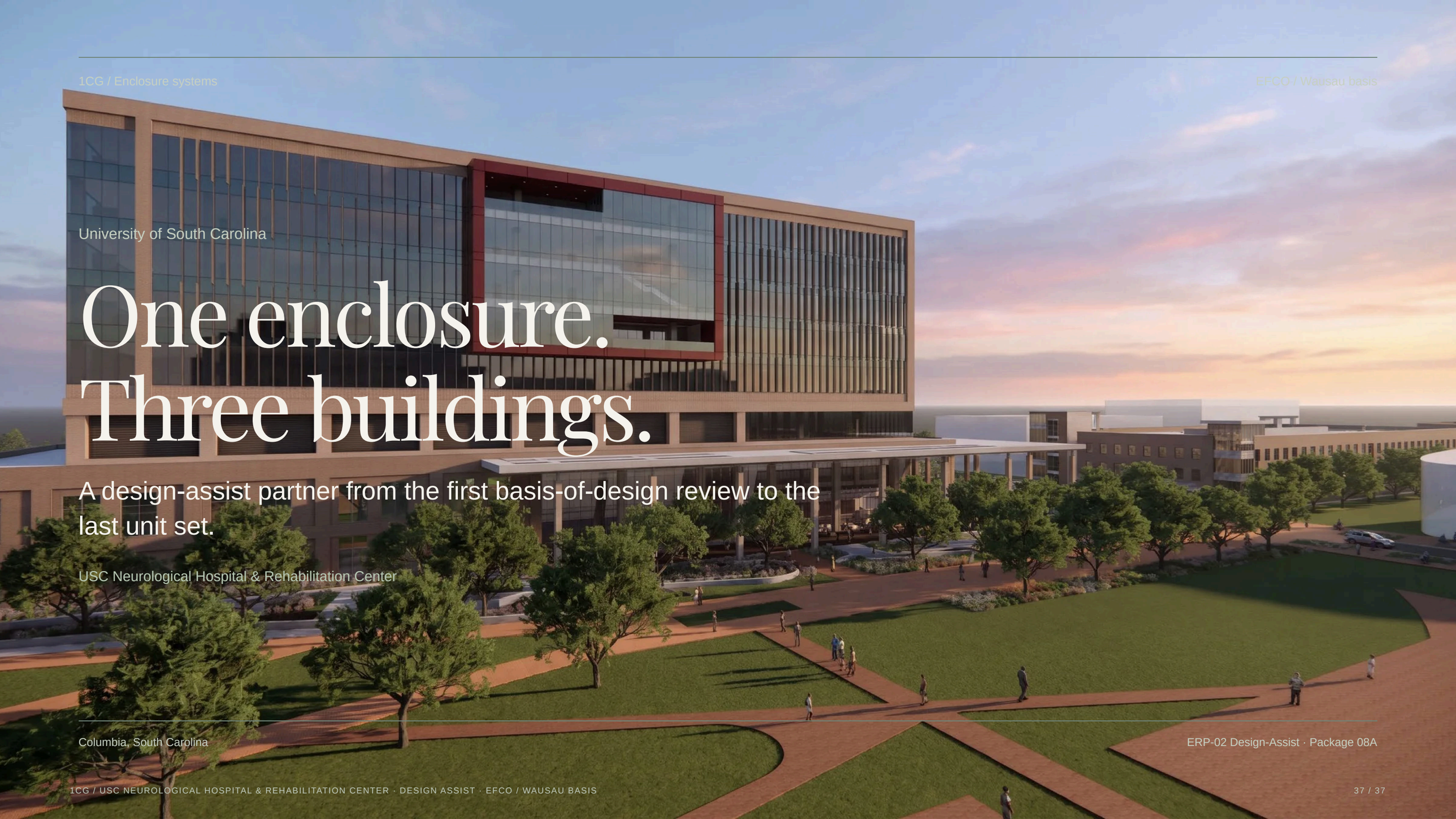


Glass checked by hand



Loaded out for the site

1st Choice Glass · 100,000 SF fabrication facility · Charlotte, NC



University of South Carolina

One enclosure. Three buildings.

A design-assist partner from the first basis-of-design review to the last unit set.

USC Neurological Hospital & Rehabilitation Center

Columbia, South Carolina

ERP-02 Design-Assist · Package 08A