

University of South Carolina



Neurological Hospital & Rehabilitation Center

ES bid coordination package

The delivery strategy

ES Windows manufactures the unitized and stick curtain-wall systems proposed for the USC enclosure.

Curtain wall

Unitized

Systems manufacturer

ES Windows

Delivery model

Design assist → operations

Installation

ES installation proceeds floor by floor, each level released as a complete workfront.

Supply chain

Fabrication, shipping and receiving follow the installation sequence.

Complete enclosure

Glazing, cladding and screening share coordinated interfaces.

Unitized: factory work, field setting

The delivery advantage comes from moving repeated assembly operations into a controlled factory process.

	Stick curtain wall	Unitized curtain wall
Assembly	Framing and glazing at the workfront	Factory-assembled and glazed units
Field work	Multiple operations in each zone	Panel setting, joints and perimeters
Delivery	Components distributed to the floor	Protected units in erection sequence
Quality	Field assembly and seal checks	Factory checks plus field interfaces

Field-labor benchmark: 30–50% fewer installation hours. Calendar duration remains a separate schedule calculation.

What releases a floor

Floor release conditions for installation.



Floor starts, crew resources and overlap are established with the GC.

Factory to workfront

Material route from factory to workfront.

01 FACTORY RELEASE

Built for the project.

Fabrication & inspection

Project-specific cutting, assembly and quality release.

Packing by workfront

Protected panels identified by floor and installation zone.

02 SUPPLY ROUTE

International supply

Export → Ocean transport → Import & customs

Shipment tracking and clearance before inland release.

Domestic supply

Factory release connects directly to inland delivery.

Domestic transport —————→

03 SITE RELEASE

Delivered to the workfront.

Inland delivery & staging

Protected storage and booked site arrivals.

Receiving & installation

Condition checks, handling access and a ready workfront.

Supplier lead times, transit and release dates follow the selected supply route and GC schedule.

ES technical basis

1CG proposed systems for the USC enclosure.

Systems proposed

Four

Glass basis

Solarban 70

Performance

Published structural, air, water, thermal, acoustic and safety criteria establish the ES basis.

Appearance

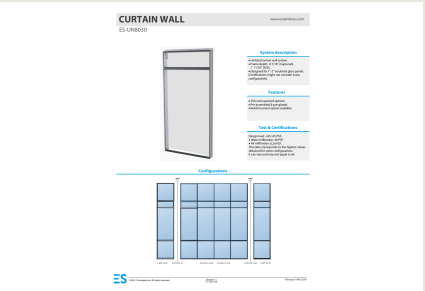
Sightlines, glass and spandrel relationships, finishes and samples carry through the enclosure.

Deliverability

Project-specific fabrication, shipping, receiving and installation follow the ES delivery sequence.

ES systems

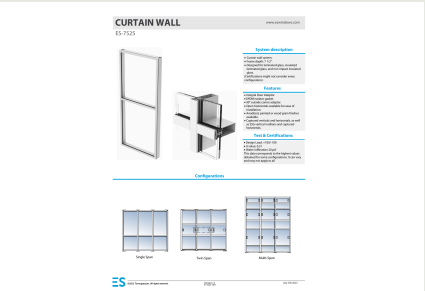
ES systems that carry the enclosure proposal.



ES-UN8030

Unitized curtain wall

8 7/16" captured or 7 11/16" SSG frame depth · 1"–2" insulated glass · +65/–65 psf design load · pre-assembled and pre-glazed units



ES-7525

Curtain wall

7 1/2" frame depth · laminated, insulated laminated and non-impact insulated glass · +100/–100 psf design load · U-value 0.31



ES-50T

Thermal door system

4 1/2" frame depth · 2" sightline · insulated glass · ±50 psf single door / ±30 psf double door · pre-assembled leaf



ES-RL3060

Railing system

3 5/8" frame depth · 5 5/8" bottom rail · 13/16" laminated glass · postless and base-shoe configurations

ES technical basis · Published system dimensions, configurations and performance data.

ES proposal drawings: ES-UN8030-7

ESWindows issued the unitized curtain-wall proposal set for the upper-floor enclosure.

System

ES-UN8030-7

Glazing

GL-1

Typical module

4'-0"

Floor to floor

16'-0"

The set

Six sheets: general notes and the glazing legend, a partial elevation with plans and sections at Levels 06–08, two section details and two plan details.

Glazing

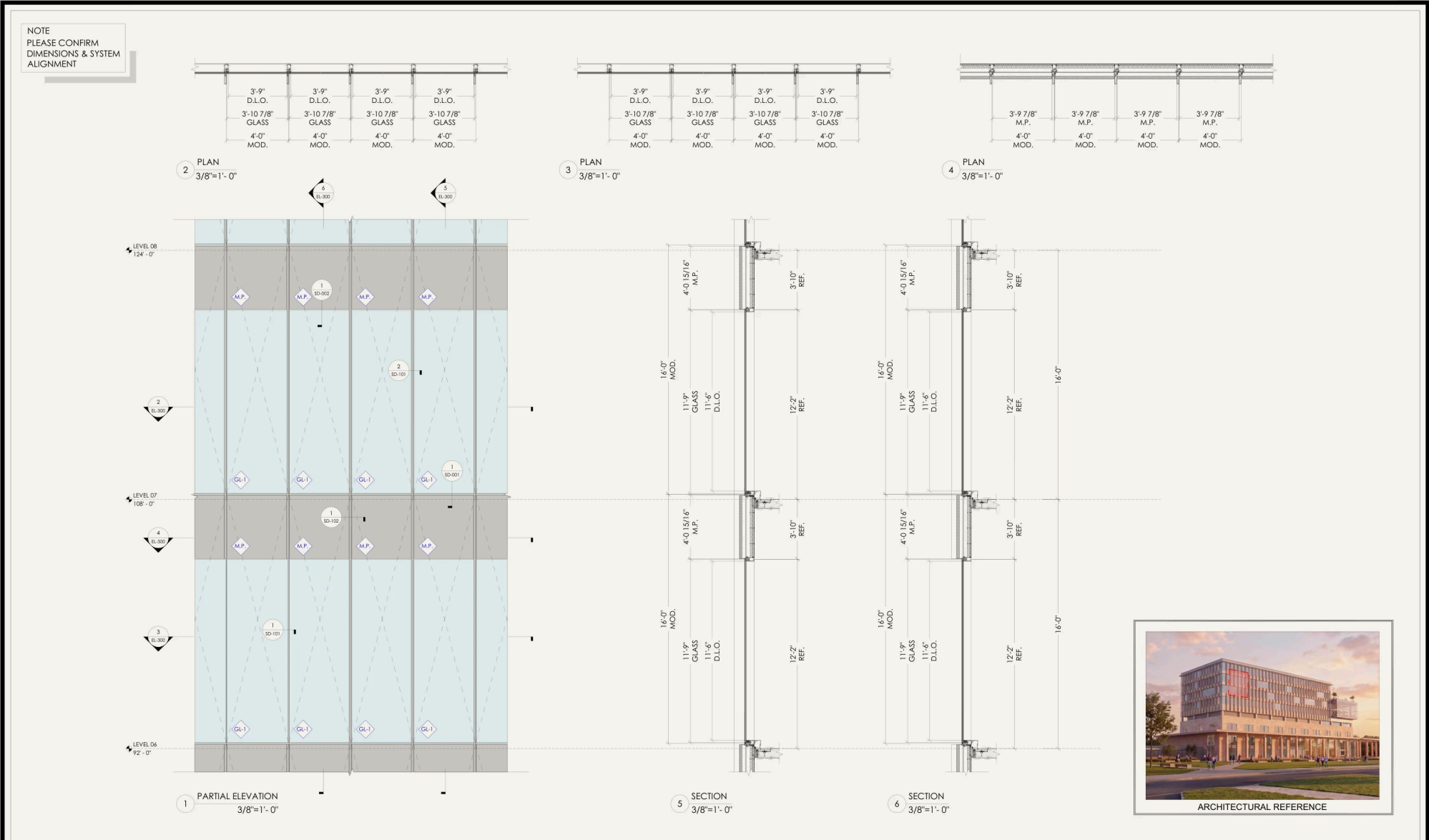
GL-1 is a 1 1/16" unit · 5/16" clear Solarban 70, a 1/2" argon spacer and 1/4" clear, set on a 15/16" glass bite.

Sealants

SSG 4600 black structural silicone and SCS2350 black weather sealant carry the unitized joints.

Levels o6–o8: the unitized bay

A four-module bay repeats between floors: vision glass over a metal-panel spandrel at every slab.



The detail set

Five sheets fix the unitized joint, the spandrel build-up and the sunshade.

6"

Mullion depth

1 1/16"

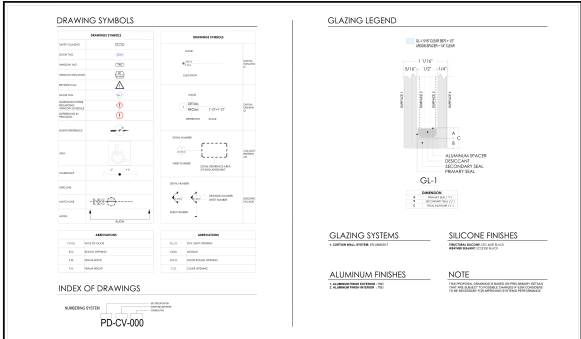
Insulating unit

3" + 2"

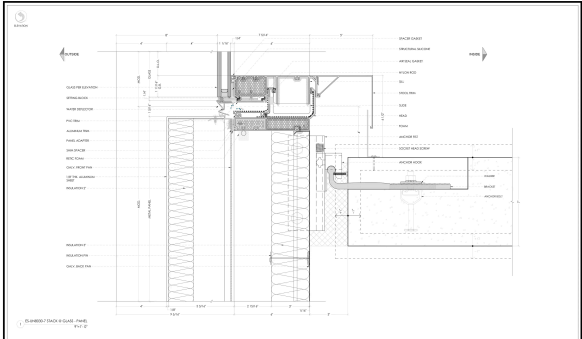
Spandrel insulation

1 3/8"

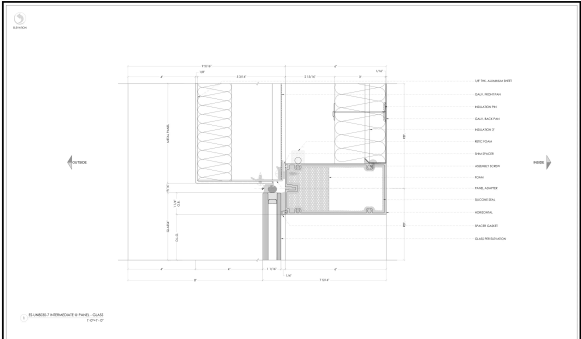
Sunshade bullnose



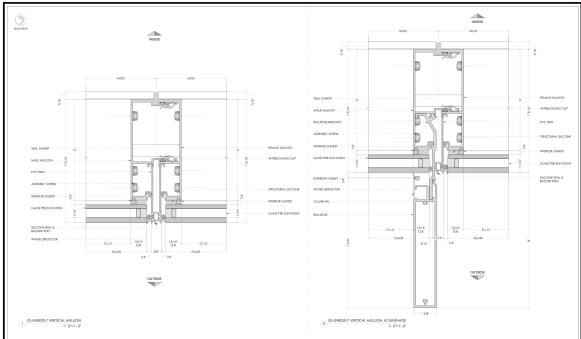
CV-001
Notes, symbols, glazing legend and sealant schedule



SD-001
Stack joint: anchor hook and bolt, panel adapter, shim spacer



SD-002
Intermediate: galvanized pans, 1/8" aluminum sheet, insulation



SD-101
Vertical mullion, and the same mullion at the sunshade

SD-102
Mullion at sunshade and metal panel, with cover fin

Split male and female mullions with an antibuckling clip carry the unitized joint; the sunshade hangs on a bullnose bracket off the same mullion.

ES glass basis

Solarban 70 establishes the ES glass basis for the USC enclosure package.



Comparison item	Review basis
Specified	Viracon VNE family, reconciled through the project glass schedule
ES bid glass basis	Solarban 70 with clear or mid-iron substrate options
Proposal make-up (GL-1)	5/16" clear Solarban 70, 1/2" argon spacer and 1/4" clear, 1 1/16" overall
Performance	Visible light, reflectance, solar heat gain and U-factor from the published Solarban 70 data
Appearance	Neutral appearance with mid-iron and vision/spandrel coordination
Assembly	Safety treatment, coatings, compatibility and warranty

ACM: columns, soffits & overhangs

ES cladding scope presents ACM columns, soffits and overhangs as one coordinated package.



Aragonite Metallic finish reference

ACM applications

Column wraps, soffits, overhangs and selected base zones carry the cladding package.

Finish direction

Aragonite Metallic establishes the metallic finish reference for coordinated joints and samples.

Panel approach

Lukabond ACM supports a clean panel language across the enclosure and coordinates with the glazing package.

ES bid basis · Division 07 and Division 08 presented as one enclosure package.

Perforated aluminum garage screening

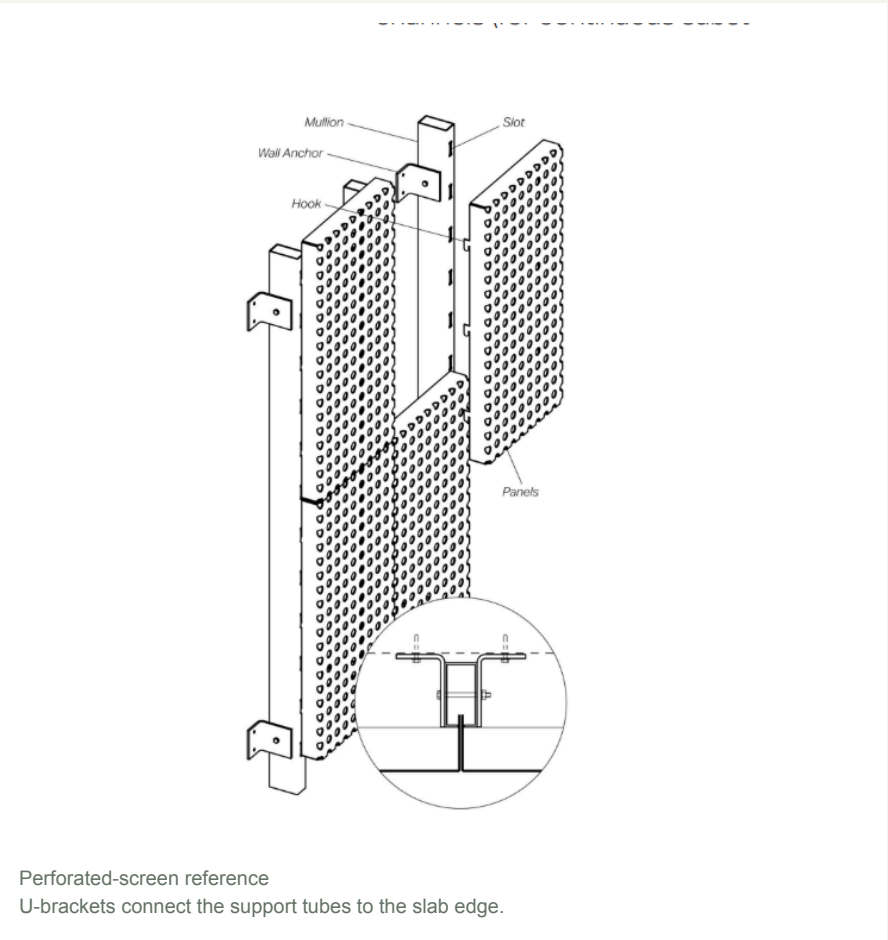
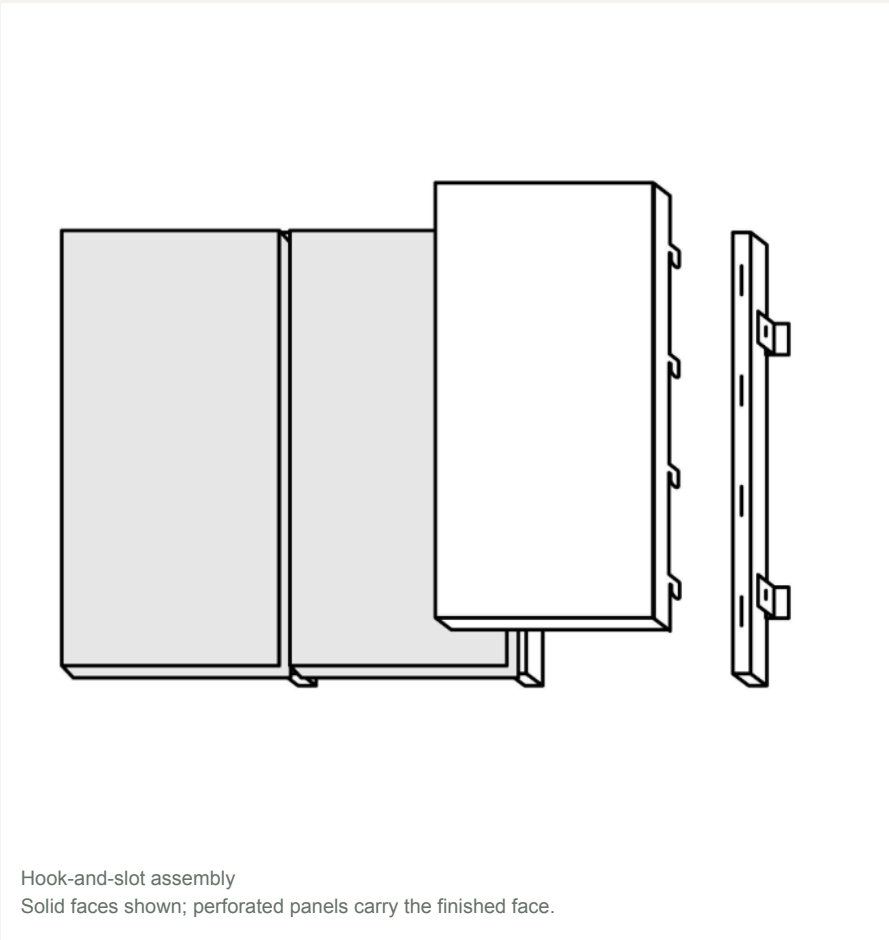
Perforated aluminum panels hook into slotted support tubes behind the finished face.

1/8"
3003 aluminum plate

≤ 40%
open area

3'-6"
maximum panel width

Powder coated
both panel faces + support tubes



Concealed support

Rear hooks seat into slotted tubes behind the panel face.

Slab-edge connection

U-brackets receive the tubes and attach to the slab face.

Tubes remain uncapped. No stiffeners are included in this ES bid basis.

ES bid basis: concealed hooks, slotted tubes and U-brackets carry the perforated aluminum screen.

One package across Divisions 7 + 8

A coordinated 1CG enclosure package across Divisions 07 and 08.

07

Cladding

ACM, opaque panels and garage screening.

08

Glazing

Curtain wall, entrances, feature glass and windscreen.

Shared interfaces

Substrates, anchors, movement and weathering.

Shared delivery

Package identification, floor releases and access.

Shared completion

Inspections, closure and handover records.

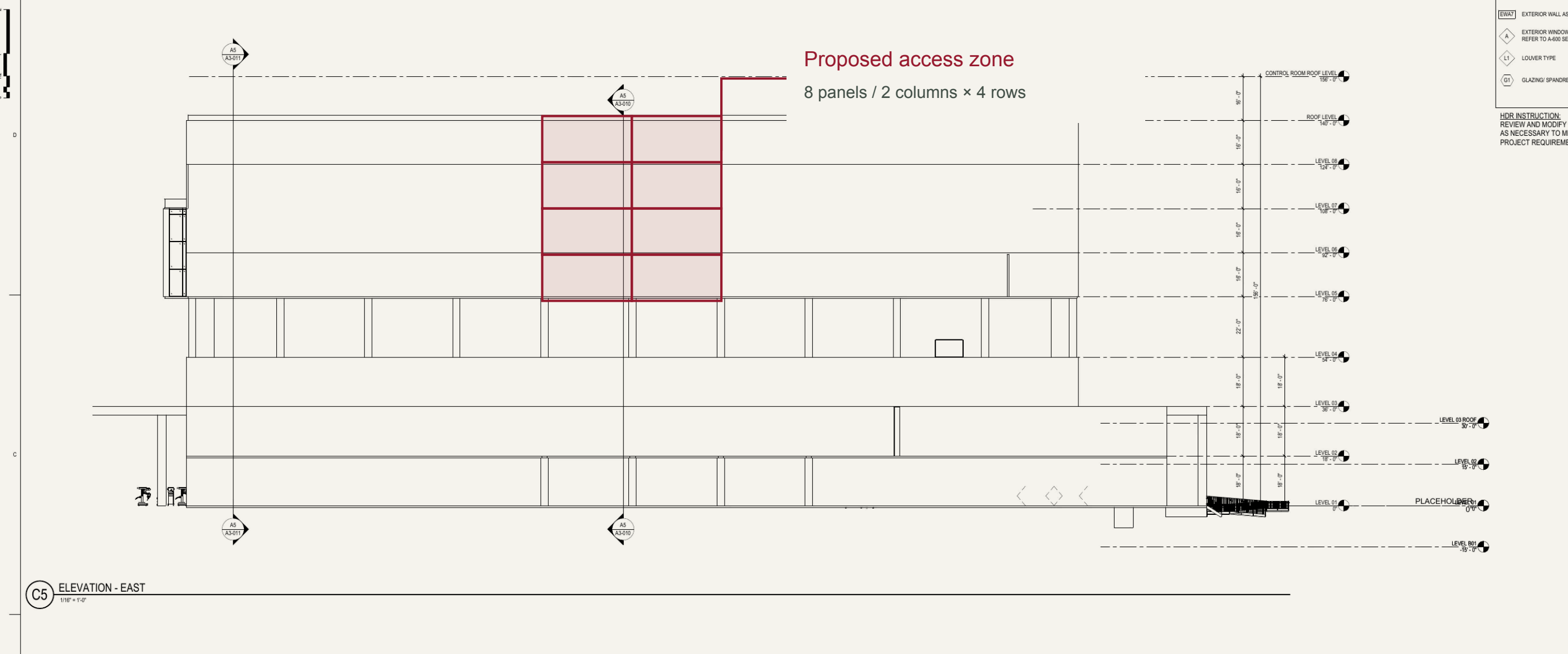
Where each system sits

System locations from the public entrance to the roofline.

Roof / cornice	Glazing extension, support and weathering
Levels 05–08	Unitized vision and spandrel glazing
Level 04	Mechanical louvers and office curtain wall
Levels 02–03	Glazing and opaque base transitions
Level 01	Lobby curtain wall and entrances
Parking garage	Perforated aluminum screen and tower interfaces

East elevation: system relationships

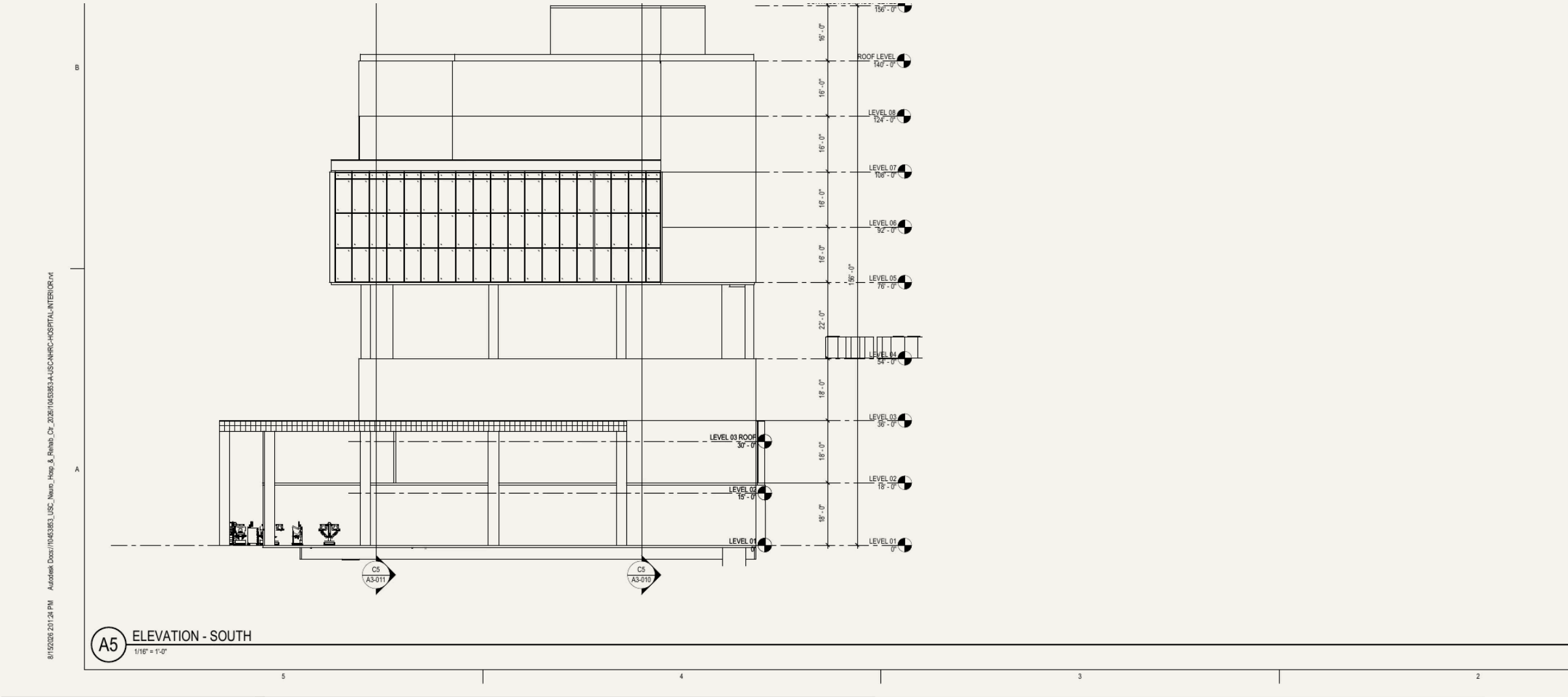
The long east face carries the repeating unitized bays, and the proposed construction access zone sits within them.



A2-001 · East elevation extract · ES access zone · 8 panels / 2 columns × 4 rows

South elevation: system relationships

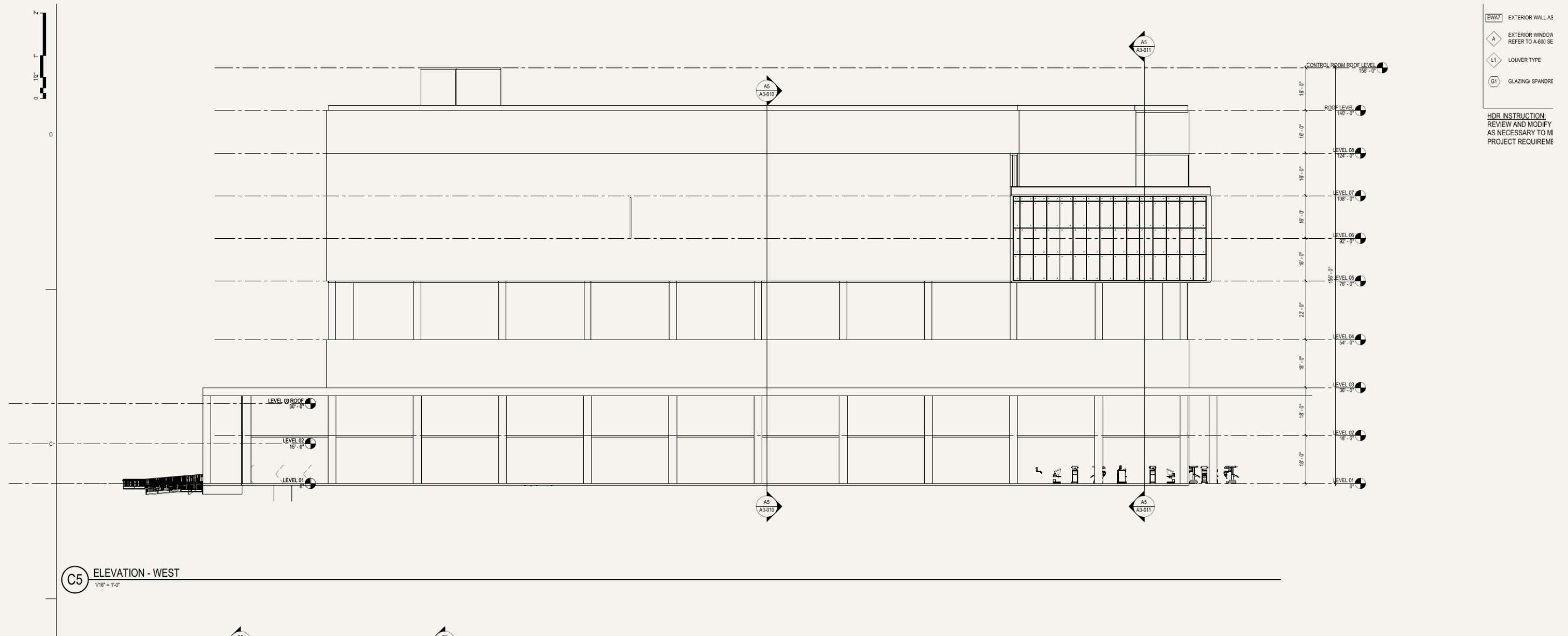
The south face steps from the upper enclosure down to the base, with the glazed grid at the mid-levels.



A2-001 · South elevation extract · Full east/south sheet opens in the canvas

West elevation: system relationships

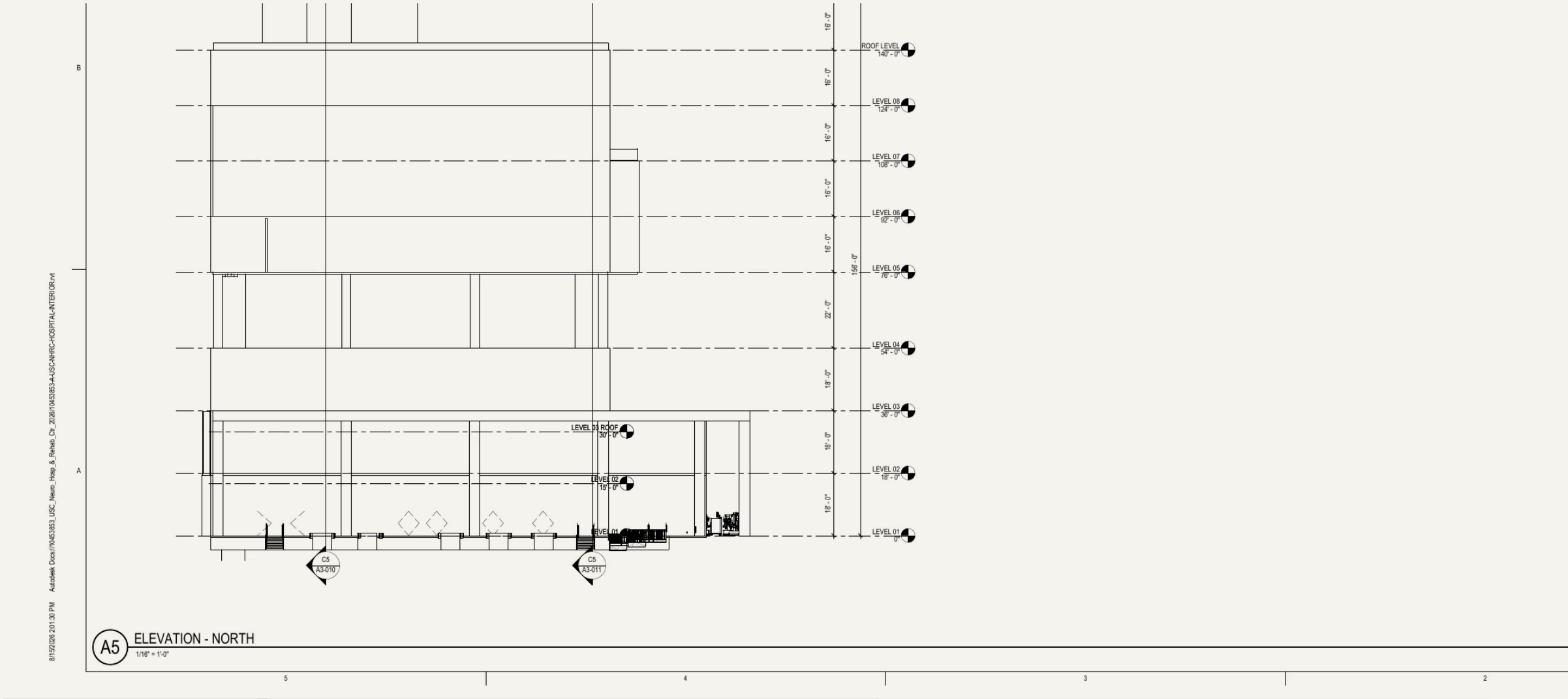
The west face runs the full length of the building, with the upper glazed grid set above a continuous base.



A2-002 · West elevation extract · Full west/north sheet opens in the canvas

North elevation: system relationships

The north end is the narrowest face, stacking each enclosure type from base to roofline in a single bay width.



Lobby glazing & entrances

A full-height glazed perimeter supports the public arrival experience.

Schematic design intent

Three sides

Full-height curtain wall at the lobby

Assembly

Curtain wall, entrances and their perimeter closures.

Principal interface

Thresholds, base cladding and adjacent waterproofing.

Installation consideration

Glass dimensions, handling access and the entrance completion sequence.

Level 04: louvers meet glazing

Mechanical and office spaces create a distinct transition within the enclosure.

Level 04

Two uses

Mechanical louvers + office curtain wall

Assembly

Louvered mechanical enclosure and full-height glazing at the office end.

Principal interface

Shared supports, head/sill weathering and service access.

Installation consideration

Louver readiness and adjoining curtain-wall releases.

POTTORFF®

VV-400

Extruded Aluminum Sight Screen

27 inches x 15 Blades

The VV-400 equipment screen incorporates a vertical sight, proof blade for total concealment. The VV-400 is available in a wide array of finishes including custom color matching.

Standard Construction

Material: Mill finish aluminum
Frame: 3-1/4" x 1-1/2" x 1/8" thick (83 x 38 x 3) zee support
Blades: 0.081" (2) thick vertical V-style
Mullion: Hidden
Minimum Size: 12" x 12" (305 x 305)
Maximum Size: Single section: 72" x 144" (1829 x 3658)
144" x 72" (3658 x 1829)
Multiple section: Unlimited
Shipping Weight (approximate): 4.5 lb/ft² (22.2 kg/m²)

Options

■ **Factory finish:**
• High-Performance Fluoropolymer • Prime Coat
• Baked Enamel • Clear Anodize • Integral Color Anodize
■ **Boxed corners**

Attributes

Free Area: 148" x 48" (1219 x 1219) unit; 5.7 ft² (0.53 m²) 35.8%
Design Load: 30 psf

VV-400 (Standard)

Horizontal Section (Standard)

Horizontal Mullion (Standard)

Vertical Mullion (Standard)

Side View

NOTE: Dimensions in parentheses () are millimeters.
Notations subject to design-related notice or obligation.

POTTORFF® VV-400 1 of 2, May 2026

5 year warranty

pottorff.com

Pottorff VV-400 extruded aluminum sight screen — reference datasheet, May 2026

1CG / USC NEUROLOGICAL HOSPITAL & REHABILITATION CENTER

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Upper floors: repeatable unitized panels

Vision glass and spandrel areas form a coordinated family of factory-assembled units.

Levels 05–08

Unitized

4'-0" modules, 16'-0" floor to floor

Assembly	Vision and spandrel modules developed around the architecture.
Principal interface	Slab anchors, stack joints, corners and perimeter seals.
Installation consideration	Panel size, packed dimensions, lifting and replacement access.

Four details shape the system

The first manufacturer detail review centers on these project interfaces.

Projected panel

Panel geometry, support and the adjacent glazing edge.

Sunshade

Projection, integrated support, movement and drainage.

Curtain-wall fin

Fin profile, attachment, tolerances and imposed loads.

Parapet / cornice

Roof weathering, glazing extension and maintenance access.

Aquarium feature glazing

A dedicated installation scope with its own glass, steel and handling requirements.

Feature glass

Mid-iron

Final glass makeup and appearance remain part of the system review

Support

Intermediate steel by others; attachment and tolerances coordinated with the glazing.

Installation

Panel weight, lifting route, access and sequence determine the allowance.

VE alternate

Switchable glass evaluated separately; wiring by others.

Feature-glazing duration is established separately from the floor allowances.

Windscreen / glass handrail

The assembly above the aquarium is coordinated separately from the feature glazing below.

Above the aquarium

Separate scope

Glass, support and roof interface

Assembly

Glass makeup and supports follow the final guard and wind requirements.

Principal interface

Anchorage, roof waterproofing, drainage and movement.

Installation consideration

Handling, installation order and future maintenance access.

Five interfaces, one enclosure

Dependable enclosure interfaces across trades.

Interface	Coordination focus
Slab edge	Anchor loads, survey, tolerances and movement
Fire barrier	Applicable tested assembly and defined trade boundary
Perimeter seals	Compatible materials, joint geometry and inspection access
Louvers / cladding	Supports, drainage and adjacent air/water barriers
Roof / base	Weathering transitions and maintainable terminations

Access stays in the installation plan

Temporary openings and final closure are carried through the same release sequence.



The Phase 2 interface and temporary protection remain part of GC coordination.

Design assist, with continuity

Over 50 years of combined experience: Tony Dangelo and Tim Harwell remain involved through design assist and the transition to operations.

Tony Dangelo

Design-assist manager · 30 years of experience

System development

Project details, product review and constructability.

Tim Harwell

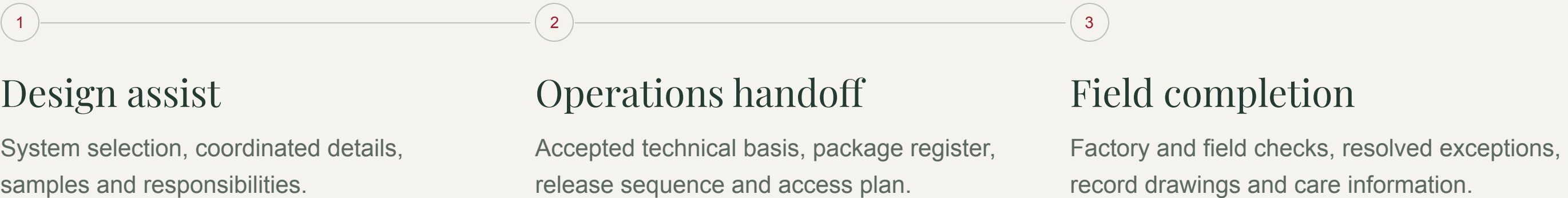
Design-assist team · 20 years of experience

Delivery coordination

Material releases, installation sequence and operational handoff.

The decisions travel with the work

Decisions carried from design assist into operations.



One record connects design intent, installation and closeout.

The next review: four decisions

The enclosure advances through a focused set of technical and delivery outcomes.

System + glass

ES-UN8030-7 and the GL-1 glass makeup are drawn; exterior and interior aluminum finishes close out the appearance basis.

Special-scope boundaries

Aquarium steel/wiring, windscreen, garage screen and ACM extents.

Priority details

Projected panel, fin, sunshade and parapet interfaces.

Schedule + supply

Validated floor allowances, manufacturer lead times and material delivery sequence.

Design-assist decisions form the release basis for fabrication and installation.

University of South Carolina

One enclosure. One coordinated delivery.

A dependable plan from design assist through installation.

USC Neurological Hospital & Rehabilitation Center