ACM PANEL SYSTEM

ARCHITECT'S SPECIFICATION

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: Reynobond, 4mm FR; at ACM-1.

B. Basis of Design: Reynobond, 1 inch thick; insulating panel; at ACM-2.
1. Substitutions not allowed.

C. Certified Installers
1. Contact Reynobond for certified Installers.

2.02 WALL PANEL SYSTEM

A. Wall Panel System: Metal panels, fasteners, and anchors designed to be supported by framing or other substrate provided by others; provide installed panel system capable of maintaining specified performance without defects, damage or failure.
1. Provide structural design by or under direct supervision of a Structural Engineer licensed in Virginia.
2. Provide panel jointing and weatherseal using reveal joints and gaskets but no sealant.
3. Anchor panels to supporting framing without exposed fasteners.

B. COMPOSITE METAL PANELS
1. ACM-1: Composite Metal Panels: Factory-formed, aluminum-faced composite panels fabricated from two sheets of 0.020 inch (0.51) thick aluminum facing sheets with metal facings bonded to thermoplastic core, and rout and return joinery.
   a. Thickness: 4 mm nominal.
   b. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches in any direction.
   c. Panel Core: Fire retardant.
   d. Stiffeners: Manufacturer's standard stiffener as required to meet performance requirements.
   e. Face Sheet Surface: Smooth.
   f. Face Sheet Coil-Coated Finish:
      1) Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5 mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
         (a) Colorweld 500.
      2) Color:
         (a) Classic Bronze.
      3) Unexposed Interior Finish: Manufacturer's standard primer.
      4) Exposed Trim and Fastener Finish: Match panel finish.
2. ACM-2: Insulating Composite Metal Panels: Factory-formed, aluminum-faced composite panels fabricated from two sheets of 0.020 inch (0.51) thick aluminum facing sheets with metal facings bonded to rigid insulating core.
   a. Thickness: 1 inch total thickness.
   b. Panel Flatness: Maximum allowable distortion: 1/32 inch in 24 inches in any direction.
   c. Panel Core: Fire retardant.
   d. Face Sheet Surface: Smooth.
   e. Face Sheet Coil-Coated Finish:
      1) Fluoropolymer Three-Coat Metallic System: 0.2 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat containing metal flakes, and a 0.5 mil 70 percent PVDF fluoropolymer clear coat, AAMA 620.
         (a) Colorweld 500.
      2) Color:
         (a) Classic Bronze at
      3) Exposed Trim and Fastener Finish: Match panel finish.

C. SECONDARY METAL FRAMING
1. Miscellaneous Framing Components, General: Cold-formed metallic-coated steel sheet, ASTM C 645, Grade 50, with ASTM A 653/A 653M, G90 (Z180) hot-dip galvanized zinc coating.
   a. Hat Channels: 0.053 inch/16 ga. (1.34 mm) minimum.
   b. Sill Channels: 0.053 inch/16 ga. (1.34 mm) minimum.

D. ACCESSORIES
1. Provide manufacturer's factory-formed clips, shims, flashings, sealants, and tapes for a complete installation.
2. Extruded Trim: Aluminum, minimum thickness 0.060 inch (1.59 mm) for trim and 0.90 inch (2.38 mm) for structural units. Include manufacturer-provided extruded trim for the following locations and as indicated on Drawings:
   a. Base trim.
   b. Coping.
   c. Panel installation perimeter.
   d. Opening perimeters.
3. Splines: Match panel material and finish.
4. Sealants: Type recommended by composite wall panel system manufacturer for application, meeting requirements of Division 07 Section "Joint Sealants."
   a. Dow Corning #795 Silicone sealant. Color to be selected by Architect.
5. Flashing Tape: 4 inch (102 mm) wide self-adhering butyl flashing tape.

E. FABRICATION
1. General: Fabricate composite wall panels and accessories at factory identical to tested units using manufacturer's standard procedures and processes necessary to meet performance requirements.
   a. Provide components of composite wall panel system that are products of one manufacturer, including composite panels, gaskets, head and sill trim, bottom weep, base extrusion, and metal copings.
2. Composite Panels: Fabricate composite wall panels with extruded aluminum stiffeners requiring no further fabrication or modification in field.
   a. Horizontal Joints: Dry seal, drained and back ventilated.
   b. Vertical Joints: Pre-formed returns with metal spline and aluminum extrusion receptors and extruded drain channels.
   c. Reveals: 0.50 inch (12 mm).
   d. Formed Panel Thickness: 1.0 inch (63.5 mm).
   e. System Thickness: 2.0 inch, including extrusions and excluding shims.

MANUFACTURER DATA SHEETS

REYNOBOND®
Technical Data Sheet

WIDTH	-1/32" + 1/16"
LENGTH	-0 + 1/4"
PANEL SQUARE	+ 1/8"
PANEL GAUGE	+/- 8/1000"
BOW	+ 1/8"
PEEL STRENGTH (ASTM D1781)	> 22 pli/4 lb/in

Standard Panel Size and Color Options

Refer to the Reynobond® Stocking List at www.reynobond.com to review our finished goods stocking colors and sizes or you may contact a sales representative or customer service representative at our toll free number, 800-841-7774.

AVAILABLE WIDTHS :	39.37" (1m)	48" (1.2m)	50" (1.3m)	62" (1.6m)
AVAILABLE LENGTHS :	48" (1.2m) - 243" (6.2m)	>243" (6.2m)*		

*additional charges and extended lead times apply.

Product Performance

Please reference our engineering properties document at www.reynobond.com for a list of the product's performance to various standards and consult AAP's technical department for additional information. Reynobond® sheets come with a 10-year bond warranty and a 30-year finish warranty for standard architectural finishes. Consult AAP LLC sales for applicable warranties for specific finish systems.

Disclaimer:

Laws and building and safety codes governing the design and use of AAP's products, and specifically aluminum composite materials, vary widely. It is the responsibility of the owner, the architect, the general contractor, the installer and the fabricator/transformer, consistent with their roles, to determine the appropriate materials for a project in strict conformity to all applicable national, regional and local building codes and regulations. REYNOBOND® FR AND Alcpoob® HAVE SUCCESSFULLY PASSED US NFPA 285, EN4 AND CANADA S134 TESTS AS A PART OF AN ASSEMBLY. ENSURE THE PRODUCT IS USED IN A SYSTEM THAT COMPLIES WITH ALL APPLICABLE REGULATIONS. REYNOBOND® PE IS COMBUSTIBLE; IT COULD CATCH FIRE AND BURN. ANY LABORATORY TESTING INFORMATION PROVIDED BY AAP LLC APPLIES ONLY TO THE PARTICULAR PRODUCT OR ASSEMBLY TESTED AND DOES NOT NECESSARILY REPRESENT HOW PRODUCTS WILL ACTUALLY PERFORM IN USE. REPORTS AND TEST DATA CORRESPONDING TO A PARTICULAR TESTED PRODUCT SAMPLE OR ASSEMBLY ARE NOT A GUARANTEE THAT THE SAME PRODUCT OR ASSEMBLY WOULD ALWAYS ACHIEVE THE SAME TEST RESULT.

ARCONIC

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Eastman, GA 31023-2129
Tel. 800 841 7774
www.reynobond.com
EC 99603-009

REYNOBOND®
Technical Bulletin

COLOR CONSISTENCY
TECHNICAL BULLETIN

Color Consistency

Arconic Architectural Products LLC (AAP) is aware that finish performance and color consistency are of utmost importance to its customers. Painted Reynobond® and Reynolux® panels are coated in a coilcoating process with the most durable coatings available for the building and construction industry. Coilcoating offers excellent coverage, uniformity and durability in a coating. Yet, due to this process and to the composition of some of our finishes, variances in color can and do occur and are visible to the human eye. Moreover, industry tolerances for the coil coating help ensure minimal variations within a specific color finish.

Color Families

Some time ago, AAP internally implemented a color family process for all of its Colorweld® 500 finishes for Reynobond® panels. AAP's Quality Control department reviews each painted coil by color and establishes which color family it matches, or creates a new color family for it if needed. This process has greatly improved AAP's ability to match new orders with previous orders as well as with orders containing multiple widths.

Directionality

General Rule – Install panels with directional arrows pointing in the same direction.
Explanation – Paint is applied to Reynobond® and Reynolux® panels by a reverse-roll coating process. As the coil of aluminum is unwound through the line, the roller applies the colored coating across its width. Due to the movement of the metal across the roller, coatings may display some directionality. Directionality is most noticeable in mica and metallic finishes. Mica and metallic flake paint systems have properties that reflect, refract and absorb light. The angle that light strikes the surface of the Reynobond® panel versus the visual angle strongly influences the viewer's perceived color. Mica paints refract light, and the highest refraction occurs when the light is near 90° to the panel surface. Metallic paints reflect light, and contain metallic flakes which all settle in a preferred direction based upon the coil-coating process. The perceived reflectance is least when the light strikes closet to 90° from the panel surface. Paints containing both mica and metallic flakes can appear to change color and lose brightness depending on the light source's incident angle.
Best Practice – It is always necessary to install panels in the same direction on a building's surface.

Batch Variances

General Rule – Notify AAP when ordering panels to match to a previous order.
Explanation – Although there are tolerances in place for the range of color variation within a specific color, these tolerances allow for variations that are noticeable to the human eye. AAP has implemented a color family inventory system (see below) to identify matching panels within a specific color. It is important that customers notify AAP when their order is to be used on the same building as a previous order.
Best Practice – Order all panels at the same time for each project.

Multiple Widths

General Rule – Verify colors match when ordering different widths for the same project.
Explanation – Different width coils will likely be painted at different times, and may utilize different batches of paint. AAP classifies its color finishes by color family in an attempt to provide the closest visual match possible. AAP will do its best to ensure that colors of different widths come from the same color family, when both widths are to be used on the same building surface.
Best Practice – Order the same color in the same width for each project.

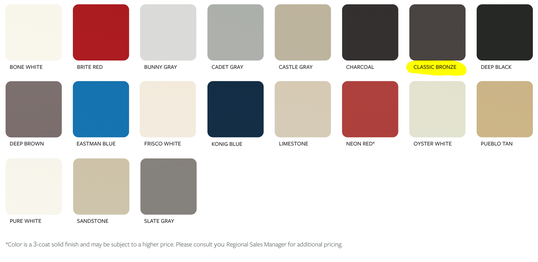
ARCONIC

PROPOSED COLORS

(LIST OF SAMPLES REQUESTED FOR FINAL CONFIRMATION; COLORS MAY VARY BY MANUFACTURER)

Colorweld® 500

Series One | 2-Coat Solid Finishes | 30-year warranty | AAMA 2605



*Color is a 3-coat solid finish and may be subject to a higher price. Please consult you Regional Sales Manager for additional pricing.

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE LEFT).

BRICK VENEER

ARCHITECT'S SPECIFICATION

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

A. Concrete Block: Refer to the structural drawings and Section 04 20 00 specifications for materials.

2.02 BRICK UNITS

A. Manufacturers:
1. Belden Brick Company, Canton, OH.
   a. Modular Sienna Bld Velour
   b. Made at Sugarcreek Plant 6.
2. Rectangular Facing Brick: ASTM C 216, Type FBX, Grade SW.
   a. Nominal Size: 8 inches by 4 inches by 2.25 inches.
   b. Special Shapes: Provide solid units where orientation would expose frog holes.
3. Substitutions: Not permitted.

2.03 MORTAR MATERIALS

A. Masonry Cement: ASTM C91/C91M _____.
1. Type N: For use above grade masonry veneer.
2. Type M: For below grade masonry veneer.
3. Colored Mortar: Premixed cement as required to match Architect's color sample.
   a. Color: Submit manufacturer's color selection kit for final selection by Architect.

B. Hydrated Lime: ASTM C207, Type S.

C. Mortar Aggregate: ASTM C144.

D. Grout Aggregate: ASTM C404.

E. Water: Clean and potable.

F. Accelerating Admixture: Nonchloride type for use in cold weather.

2.04 REINFORCEMENT AND ANCHORAGE

A. Joint Reinforcement: Truss type; ASTM A1064/A1064M steel wire, hot dip galvanized after fabrication to ASTM A153/A153M, Class B; 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not more than 1 inch and not less than 1/2 inch of mortar coverage on each exposure.
1. Manufacturers:
   a. Hohmann & Barnard, Inc (including Dur-O-Wal brand); ____: www.h-b.com/#sle.
   b. WIRE-BOND; 270 x 12" ladder and 270 x 8" ladder: www.wirebond.com/#sle.
   c. Substitutions: See Section 01 60 00 - Product Requirements. Manufacturers limited to Hohmann & Barnard, Wire-Bond and Dur-O-Wall.

B. Masonry Veneer Anchors: 2-piece surface mounted anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B.
1. Anchor plates and ties to be provided by under this section.
   a. Size of tie to be calculated by mason under this section.
   b. Anchor tie to be installed by mason during installation of brick.
2. Manufacturer:
   a. Hohmann & Barnard, Inc; _____: www.h-b.com/#sle.
      1) HB-5213-2.5, 523 Brass Expansion Bolt, Hot-Dip Galvanized, 2 1/2 inch Backplate, 14 Gauge, 3/16 inch by 5 inch Leg Hook Hot-Dip Galvanized.
      2) Spacing: 16 inches by 16 inches.

2.05 LINTELS:

A. Refer to also to the Structural Drawings.

B. Loose Lintels and Fixed Lintels to be hot-dip galvanized. Exposed portions of lintels to be field painted. Refer to Exterior Paint Schedule for paint types. Refer to the Drawings for Paint colors.

2.06 OTHER PRODUCTS

A. Stainless Steel/Polymer Fabric Flashing: ASTM A240/A240M; 2 mil type 304 stainless steel sheet bonded on one side to one sheet of polymer fabric.
1. Manufacturers:
   a. Hohmann & Barnard, Inc. Mighty-Flash SA, Self-Adhering Stainless Steel Composite Flashing, Roll Width 16 inches.

B. Factory-Fabricated Flashing Corners and Ends: Stainless steel.
1. Manufacturers:
   a. Hohmann & Barnard, Inc; ____: www.h-b.com/#sle.
      1) Stainless Steel Corners & End Dams; 26 Gauge/18 mil; Type 304.
2. Termination Bars: Stainless steel; compatible with membrane and adhesives.
   a. Manufacturers:
      1) Hohmann & Barnard, Inc; T1 Termination Bar: www.h-b.com/#sle.
         (a) Stainless Steel Type 304.
         (b) 1/8 inch by 1 inch wide.
3. Drip Edge: Stainless steel; compatible with membrane and adhesives.
   a. Manufacturers:
      1) Hohmann & Barnard, Inc; FTS Standard Drip Plate with Foam-Tite Seal; : www.h-b.com/#sle.
         (a) Provide Inside and Outside Corner Pieces.
         (b) Width: 2 1/2 inch.
4. Lap Sealants and Tapes: As recommended by flashing manufacturer; compatible with membrane and adhesives.
   a. Product to be compatible with air and moisture barrier at substrate coating as specified elsewhere.
5. Metal Copings: Refer to Section 07620 - Sheet Metal Flashing and Trim.

C. ACCESSORIES
1. Joint Filler: Closed cell polyvinyl chloride; oversized 50 percent to joint width; self expanding; in maximum lengths available.
   a. Manufacturers:
      1) Hohmann & Barnard, Inc; NS Closed Cell Neoprene Sponge: www.h-b.com/#sle.
         (a) For use at vertical brick to brick control joints.
         (b) For use at vertical brick to fixed structure joints.
         (c) For use at top horizontal brick course to underside of fixed steel lintels.
         (d) For use at top horizontal brick course joint to underside of fixed structural elements.
2. Cavity Drainage: Provide continuous mortar collection mesh bands.
   a. Manufacturer: Hohmann & Barnard, Inc.
      1) Product: Mortar Trap, 2 inch width.
   b. Install at all weep hole lines, bottoms of cavities, and over
3. Weeps: Molded PVC grilles, insect resistant. Hohmann & Barnar
   a. Manufacturer: Hohmann & Barnard, Inc.
      1) Product: QV Quadro Vent.
   b. Color(s): As selected by Architect from manufacturer's full range.
4. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials. Use recommended by manufacturer of masonry units.
   a. Vana Trol is an approved product.

D. MORTAR MIXES
1. Mortar for Unit Masonry: Cement-lime Mortars per ASTM C 270 or BIA M1-88, Proportion Specification.

E. METAL COPINGS and METAL COUNTERFLASHING
1. Sheetmetal carrier: For use at mid-span through wall flashings where no other support for the through wall flashing is provided by the assembly. 24 gauge, galvanized sheetmetal. Extend up cmu/sheathing 4 inches and anchor at 16 inch spacing. Angle across cavity at 1:1 slope. Extend into masonry minimum 2 inches. Provide in locations where cavity width is greater than 2 inches.
2. Refer to Section 07 62 00 - Sheet Metal Flashing and Trim.

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE LEFT).

MANUFACTURER DATA SHEETS

CLEMSON UNIVERSITY
THE BISHOP MATERIALS LABORATORY

TEST REPORT
100 Clemson Research Blvd.
Anderson, SC 29625
(864) 656-1094
Fax: (864) 656-1095
www.brickandtile.org

IAS ACCREDITED

Results of Tests on brick Conducted in accordance with C67/C67M - 23 Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile

08/25/2023

Name:	The Belden Brick Company P. O. Box 430 Sugarcreek, OH 44681	Plant:	Sugarcreek
		Sampled Date:	8/8/2023
		Received Date:	8/8/2023
Phone:	330-456-0031	Fired Date:	8/8/2023
Fax:	330-456-2694	Product Code:	
Report Number:	11935-29718	Lot Number:	

Description: **PLT 6 FIRECLAY & SHALE W/ADDITIVE (FACE)**

Absorption	**1**	**2**	**3**	**4**	**5**	**Average**	**Test Date**
24 Hour Cold Water (%)	4.7	4.7	5.2	5.0	5.1	4.9	8/10/2023
5 Hour Boiling Water (%)	6.4	6.3	6.8	6.5	6.5	6.5	
Saturation Coefficient	0.74	0.74	0.77	0.76	0.78	0.76	
Compressive Strength	**1**	**2**	**3**	**4**	**5**	**Average**	**Test Date**
psi	14,960	14,210	14,700	15,010	14,010	14,580	8/10/2023
IRA (Oven Dried Method)	**6**	**7**	**8**	**9**	**10**	**Average**	**Test Date**
g/min/30 in.²	10.6	12.3	10.0	10.9	11.0	10.9	8/21/2023
Efflorescence	**11**	**12**	**13**	**14**	**15**		**Test Date**
Efflorescence Detection	Not Efflorescesed	Not Efflorescesed	Not Efflorescesed	Not Efflorescesed	Not Efflorescesed		8/21/2023

The brick represented by the test results shown here comply with the physical property requirements of the standards listed below:

ASTM C216 - 22 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale)
Grade: SW, MW

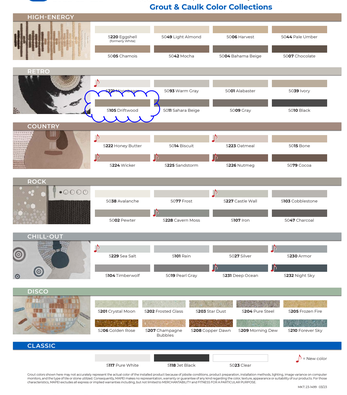
PROPOSED COLORS

(LIST OF SAMPLES REQUESTED FOR FINAL CONFIRMATION; COLORS MAY VARY BY MANUFACTURER)

PROPOSED BRICK AND EXISTING BUILDING

PROPOSED GROUT

MAPEI®
The sound of **color**
MAPEI's refreshed palette: Colors that you can feel
Grout & Caulk Color Collections



Cloud colors shown here may not accurately represent the actual color of the installed product because of jobsite conditions, product preparation, installation methods, lighting, image variance on computer monitors, and the type of tile or stone utilized. Consequently, MAPEI makes no representation, warranty or guarantee of any kind regarding the color, texture, appearance or suitability of our products. For these characteristics, MAPEI disclaims all express or implied warranties including, but not limited to, MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE.

MAP 12-24-MK 0823

GNT-1: GRANITE VENEER (TO MATCH EXISTING)

REFERENCE IMAGES
(THE IMAGES BELOW ARE OF THE EXISTING MATERIAL ON SITE)

REGARDING SAMPLES
BECAUSE EXISTING MATERIAL IS BEING REPURPOSED FOR THE PROPOSED CONSTRUCTION, PROCURING SAMPLES IS IMPRACTICAL. THE PHOTO ABOVE WAS TAKEN OF THE EXISTING MATERIAL WHICH IS TO BE REUSED ON SITE. IF ANY NEW MATERIAL IS NEEDED TO COMPLETE THE PROPOSED CONSTRUCTION, SAMPLES WILL BE SUBMITTED TO THE ARCHITECT (AND SUBSEQUENTLY THE BAR) FOR APPROVAL.

CONCRETE SIDEWALK

REFERENCE IMAGES
(THE IMAGE BELOW IS AN EXAMPLE OF THE PROPOSED MATERIAL)

REGARDING SAMPLES
BECAUSE THE PROPOSED CONSTRUCTION IS REQUIRED TO MATCH EXISTING AND ADJACENT MATERIAL, PROCURING SAMPLES IS IMPRACTICAL. AS NOTED IN THE ARCHITECT'S SPECIFICATIONS, SAMPLES ARE REQUIRED PRIOR TO FINAL CONSTRUCTION; THESE SAMPLES CAN BE SUBMITTED TO THE BAR, IF NEEDED, ONCE THEY RECEIVE ARCHITECT APPROVAL.

DECORATIVE METAL RAILING

ARCHITECT'S SPECIFICATIONS

Navy Federal Credit Union — Decorative Metal Railings
HQ1 Auditorium Addition and Interior Renovations — 05 73 00

SECTION 05 73 00
DECORATIVE METAL RAILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Stainless Steel railing systems.

B. Concealed concrete footings for railing posts below porous paving.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Placement of anchors in concrete.

1.03 REFERENCE STANDARDS

A. ASTM A276/A276M - Standard Specification for Stainless Steel Bars and Shapes; 2016.

B. ASTM A554 - Standard Specification for Welded Stainless Steel Mechanical Tubing; 2015.

C. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

D. ASTM E935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2013.

E. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.

F. AWS D1.6/D1.6M - Structural Welding Code - Stainless Steel; 2007.

G. NAAMM AMP 500-06 - Metal Finishes Manual; 2006.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene preinstallation meeting one week before starting work of this section. Attendees include:
   1. Contractor.
   2. Architect.
   3. Owner's representative.
   4. Other subcontractors of adjacent work.

1.05 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Submit manufacturer's product data, including description of materials, components, finishes, fabrication details, glass, anchors, and accessories.

C. Shop Drawings: Indicate railing system elevations and sections, details of profile, dimensions, sizes, connection attachments, anchorage, size and type of fasteners, and accessories. Indicate anchor and joint locations, brazed connections, transitions, and terminations.
   1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
   2. Include design engineer's seal and signature on each sheet of shop drawings.

D. Shop Drawings: Concrete footing details for railings located over porous pavers with granular subbase.

E. Samples: Submit twoof each item below for each type and condition shown.
   1. Railing: 12-inch long section of each railing member, including top rails and posts; show color, finish, and connection details. Show welded connection of intermediate post to main railing, finished.

F. Test Reports: Submit test reports from independent testing agency showing compliance with specified design and performance requirements.

G. Manufacturer's Instructions: Indicate installation.

H. Designer's qualification statement.

I. Fabricator's qualification statement.

J. Installer's qualification statement.

K. Specimen warranty.

L. Executed warranty.

1.06 QUALITY ASSURANCE

A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in Virginia or personnel under direct supervision of engineer.

1.07 MOCK-UPS

A. See Section 01 40 00 - Quality Requirements for additional requirements.

B. Provide mock-up of railing system, freestanding center rail, and guardrail, 4 feet long by 4 feet wide, indicating each type of material, cladding, and finish. Illustrate finished bends and welded connections.

C. Locate where directed.

D. Mock-up may not remain as part of work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in factory-provided protective coverings and packaging.

B. Protect materials against damage during transit, delivery, storage, and installation at site.

C. Inspect materials upon delivery for damage. Replace damaged items.

D. Prior to installation, store materials and components under cover in dry location.

1.09 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard 3-year warranty against defects in materials, fabrication, finishes, and installation commencing on Date of Substantial Completion; complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 RAILING SYSTEMS

A. General: Factory- or shop-fabricated to suit project conditions, for proper connection to building structure, and in largest sizes practical for delivery to site.

B. Performance Requirements: Applying loads simultaneously not required; design and fabricate railings and anchorages to resist loads without failure, damage, or permanent set, including:
   1. Lateral Force: 75 lb minimum, when tested in accordance with ASTM E935.
   2. Distributed Load: 50 lbf/ft minimum, applied vertically and horizontally at top of handrail, when tested in accordance with ASTM E935.
   3. Concentrated Loads: 200 lb minimum, applied to handrail horizontally and vertically, in accordance with ASTM E935.

C. Joints: Fully welded, ground smooth, and with finish resurfaced.

D. Metal Railing: Engineered, post-supported railing system with metal infill.
   1. Configuration: Guardrail only and handrail only..
   2. Top Rail: 1-1/2-inch IPS / 1.9-inch OD diameter stainless steel pipe or tube.
   3. Grip Rail: Round, stainless steel, 1-1/2-inch diameter.
   4. Decorative Stainless Steel Flanges for Embedded Posts: Circular, collared cover plate without screw holes.

2.02 MATERIALS

A. Stainless Steel Components: ASTM A666, Type 304.
   1. Stainless Steel Tubing: ASTM A554, Type 304, 16-gauge, 0.0625-inch minimum metal thickness, 1-1/2-inch diameter.

2.03 FABRICATION

A. Welded and Brazed Joints: Make visible joints butt tight, flush, and hairline; use methods that avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.
   1. Ease exposed edges to small uniform radius.
   2. Welded Joints:
      a. Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M.

2.04 FINISHES

A. General: Comply with NAAMM AMP 500-06.
   1. Complete mechanical finishes before fabrication. After fabrication, finish joints, bends, abrasions, and surface blemishes to match sheet or tube.
   2. Protect mechanical finishes on exposed surfaces from damage.
   3. Appearance: Limit variations in appearance of adjacent pieces to one-half of range represented in approved samples. Noticeable variations in same piece are not acceptable. Install components within range of approved samples to minimize contrast.

B. Stainless Steel Finishes:
   1. Remove tool marks, die marks, and stretch lines before finishing.
   2. Directional Satin: No.4.

2.05 ACCESSORIES

A. Eschucheon Plates: Nonweld Mechanical Fittings for Stainless Steel Railings: Slip-on, galvanized malleable iron castings, for Schedule 40 pipe, with flush setscrews for tightening by standard hex wrench, no bolts or screw fasteners.
   1. Eschucheon Plates at base of newels to match: FHC PR19CV in style and shape; stainless steel.

B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; joints and seams ground smooth.

C. Anchors and Fasteners: Provide anchors, fasteners, and other attachment devices required to attach to structure.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate and site conditions are acceptable and ready to receive work.

B. Verify field dimensions of locations and areas to receive work.

C. Notify Architect immediately of conditions that would prevent satisfactory installation.

D. Do not proceed with work until detrimental conditions are corrected.

3.02 INSTALLATION

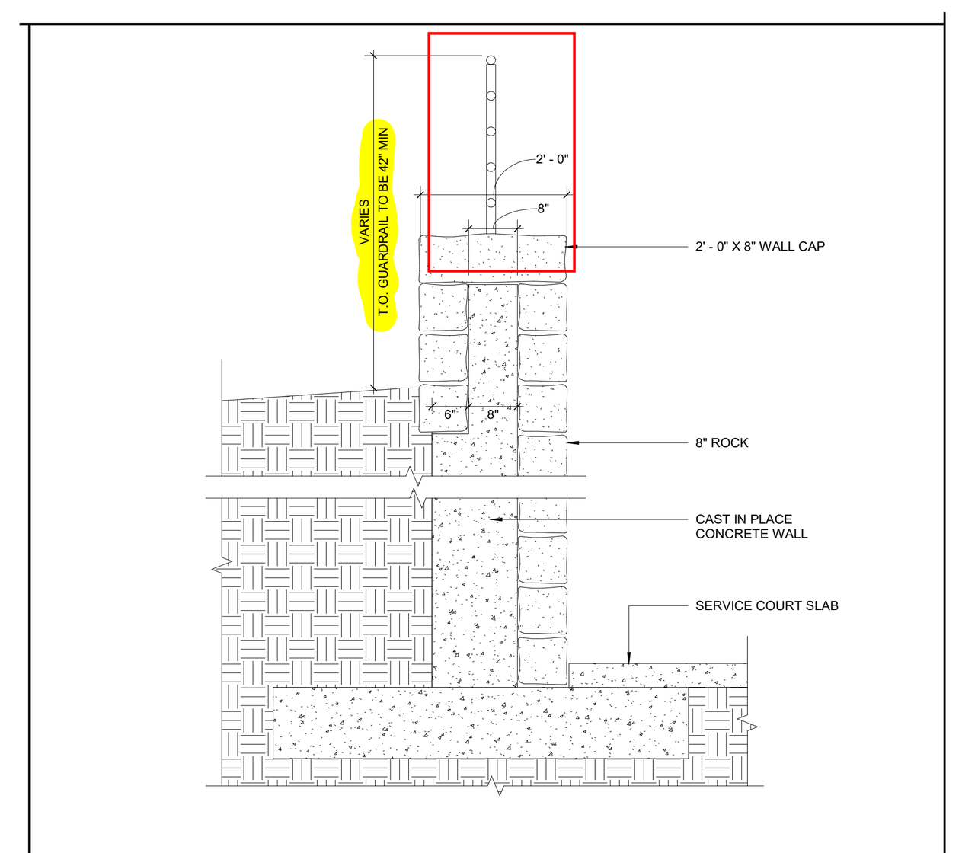
A. Install in accordance with manufacturer's instructions.

B. Install components plumb and level, accurately fitted, free from distortion or defects, and with tight joints, except where necessary for expansion.

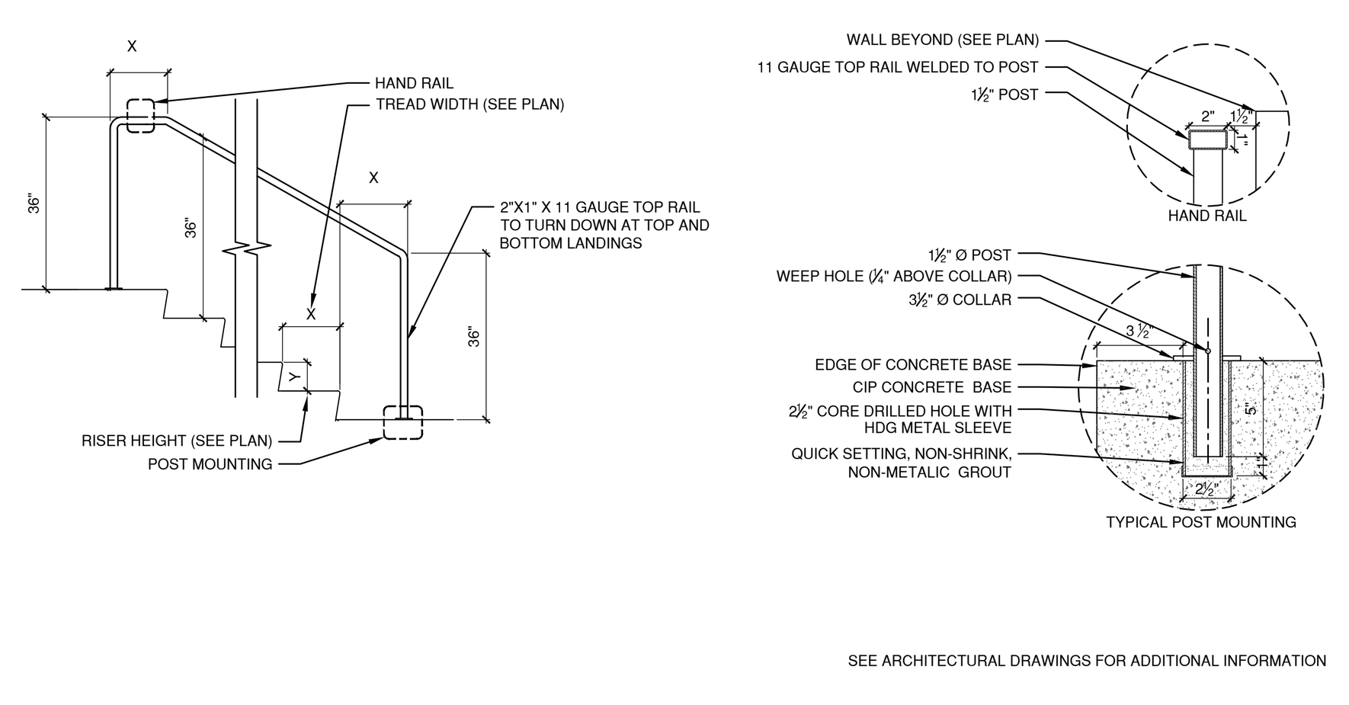
C. Anchor securely to structure.

D. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.

ARCHITECT'S DETAILS

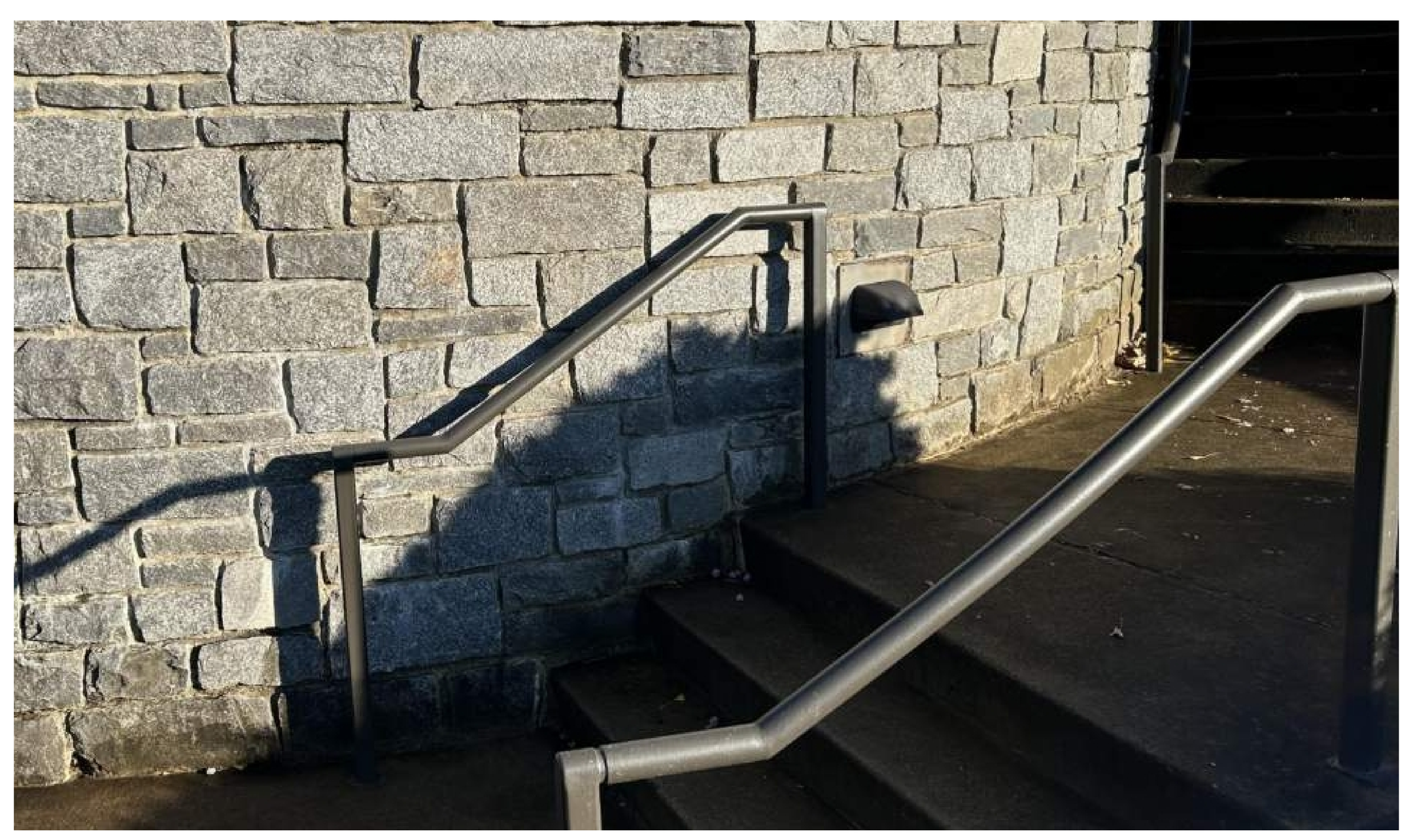


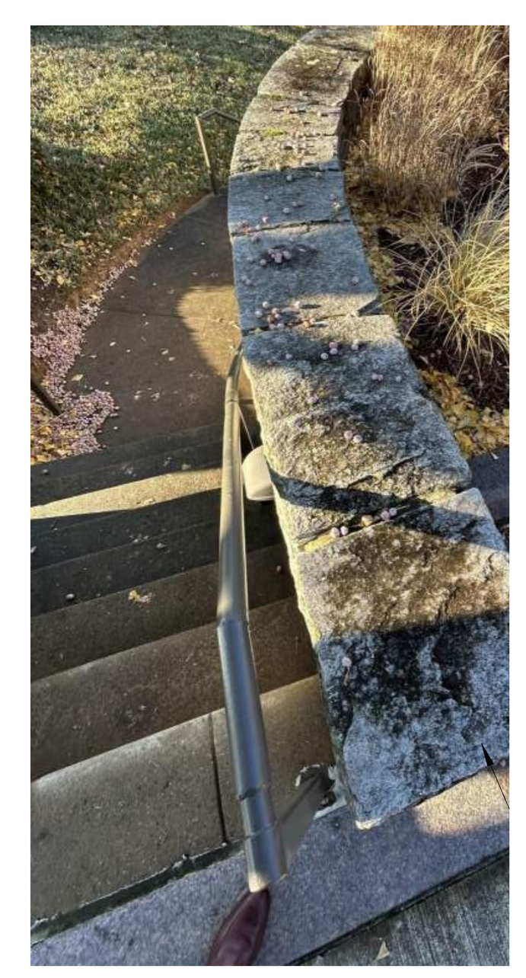
1 DETAIL AT SERVICE COURT WALL 3/4" = 1'-0"



7 HANDRAIL
Scale: 1/2" = 1'-0"

REFERENCE IMAGES
(THE IMAGES BELOW ARE SIMILAR IN COLOR/STYLE/SPECIFICATION)





REGARDING SAMPLES

BECAUSE THE PROPOSED HANDRAILS ARE CUSTOM-DESIGNED AND FABRICATED, SAMPLES CANNOT BE PROVIDED UNTIL THE HANDRAIL HAS BEEN ENGINEERED BY THE SELECTED SUBCONTRACTOR. IF NEEDED, THE REQUIRED HANDRAIL SAMPLES CAN BE SUBMITTED TO THE BAR UPON RECEIPT AND ARCHITECT'S APPROVAL.

CURTAIN WALL & LOUVER

ARCHITECT'S SPECIFICATIONS

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: See below under description of products.

B. Acceptable Manufacturers:
   1. YKK AP America Inc; Product YCW 750 OG: www.ykkap.com.
      a. Locations: West curtain wall and entrance; Courtyard curtain wall and entrance.
   2. YKK AP America Inc; Product YCW 750 SSG: www.ykkap.com.
      a. Locations: South curtain wall with sunscreens.

2.02 CURTAIN WALL

A. Aluminum-Framed Curtain Wall: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
   1. Exterior Component Finish of exterior exposed to weather system: High performance organic coating.
      a. Factory finish surfaces that will be exposed in completed assemblies.
      b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
      c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
   2. Exterior Interior Component Finish: Kynar 500, 70% coating.
      a. Color: Custom color to match coating type, color and finish of Composite Wall Panels.
   3. Provide flush joints and corners, weathersealed, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for imposed loads.
   4. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
   5. Maintain continuous air barrier and/or vapor retarder seal throughout assembly, primarily in line with inside pane of glazing and inner sheet of infill panel and heel bead of glazing compound.

B. Water Penetration Resistance: No uncontrolled water on indoor face when tested in accordance with ASTM-E-381 utilizing the following differential test pressure: 15 lbf/sq ft.

C. Acoustical Performance Requirements:
   1. Sound Attenuation: STC shall not be less than 29, minimum, from exterior to interior.
   2. Test Method: ASTM E90, with calculation in accordance with ASTM E413.

2.03 ENTRY DOORS

A. Aluminum framed system; 6063-T6 alloy.

B. Product; YKK; Medium style doors. Stile size to be confirmed by the hardware to be incorporated on the door.
   1. Finish: Exterior doors to match curtainwall framing.

C. Stile and Rail Aluminum-Framed Glass Entrances:
   1. Door size: As indicated.
   2. Stile dimensions: 3.5 inches.
   3. Top rail dimensions: 3.5 inches.
   4. Muntin dimension: 2 5/16 inched as indicated at intermediate rails.
   5. Bottom rail dimension: 6.5 inches.
   6. Glazing provisions: Flush stops with EPDM glazing gaskets, interior glazed.
      a. Thickness: 1 inch insulating glass panel to match adjacent curtain wall glazing.
   7. Mullions: Types, configurations, and dimensions as indicated on the drawings.
   8. Door Hardware: Refer to Section 08 71 00 and associated schedules.
   9. Glazing: Refer to Section 08 80 00.
   10. Closer head types:
      a. Fully concealed closer where indicated.
      b. Fully concealed auto operator in custom head box frame where indicated. Head box by curtainwall manufacturer. Width to match door frame. Finish to match custom color of curtainwall.
         1) Width of head box: Match overall width of door jamb.
         2) Height of head box: 6 inches.
   11. Continuous Hinges at entrance doors:
      a. Finish:
         1) To match curtainwall.

2.04 COMPONENTS

A. Outside glazed, with pressure plate and mullion cover, where indicated. Provide System that will permit exterior or interior glazing.

B. Aluminum Framing Members: Tubular aluminum section, 6063-T6 alloy, drainage holes and internal weep drainage system.
   1. Cross-Section: 2 1/2 x 7 1/2 inch nominal dimension. Refer to drawings for locations of each type.
   2. Structurally Reinforced Members: Extruded aluminum with internal reinforcement of structural steel member where required.
   3. Design of system depth and reinforcing to be provided by a structural engineer licensed in the Commonwealth of Virginia.
   4. Thickness: All vertical and horizontal extrusion to have a Minimum thickness of: 0.093 inches.

C. Exterior Mullion-Mounted Sunscreen System:
   1. YKK AP ThermaShade Aluminum Sun Shade System.
      a. All structural components and attachment hardware shall be concealed.
      b. Sunshade anchor must provide a continuous thermal barrier by means of a poured and debridged pocket consisting of a two-part, chemically curing high density polyurethane which is bonded to the aluminum YKK AP ThermaBond Plus. Anchors employing non-structural thermal barriers are not acceptable.
      c. Finish: High Performance Organic Coating. Fluoropolymer Type, Factory applied two-coat 70% Kynar resin by Arkema, fluoropolymer based coating system.
      d. Color: Custom coating color to match curtainwall system.
      e. Size: 24 inch deep by 5 inch high.
      f. Airfoil: 3-1/2 inch.
      g. Outrigger: Rounded type.

D. Infill Panels: Insulated, aluminum sheet face and back, with edges formed to fit glazing channel and sealed.
   1. Refer to Section 07 42 43 - Composite Wall Panels for Face Sheets.
   2. Core: Glass fiber insulation core with R-value of ____.
   3. Thickness: 1 inch total.

2.05 MATERIALS

A. Extruded Aluminum: ASTM B221 (ASTM B221M).

B. Sheet Aluminum: ASTM B209/B209M.

C. Structural Supporting Anchors Attached to Structural Steel: Design for bolted or welded attachment as required by project conditions.

D. Structural Supporting Anchors Attached to Reinforced Concrete Members: Design for welded attachment to weld plates embedded in concrete.

E. Fasteners: Stainless steel; concealed type as required or recommended by curtain wall manufacturer.

F. Exposed Flashings: 0.032 inch thick aluminum sheet; finish to match framing members.

G. Concealed Flashings: 0.018 inch thick galvanized steel.

H. Firestopping: See Section 07 84 00.

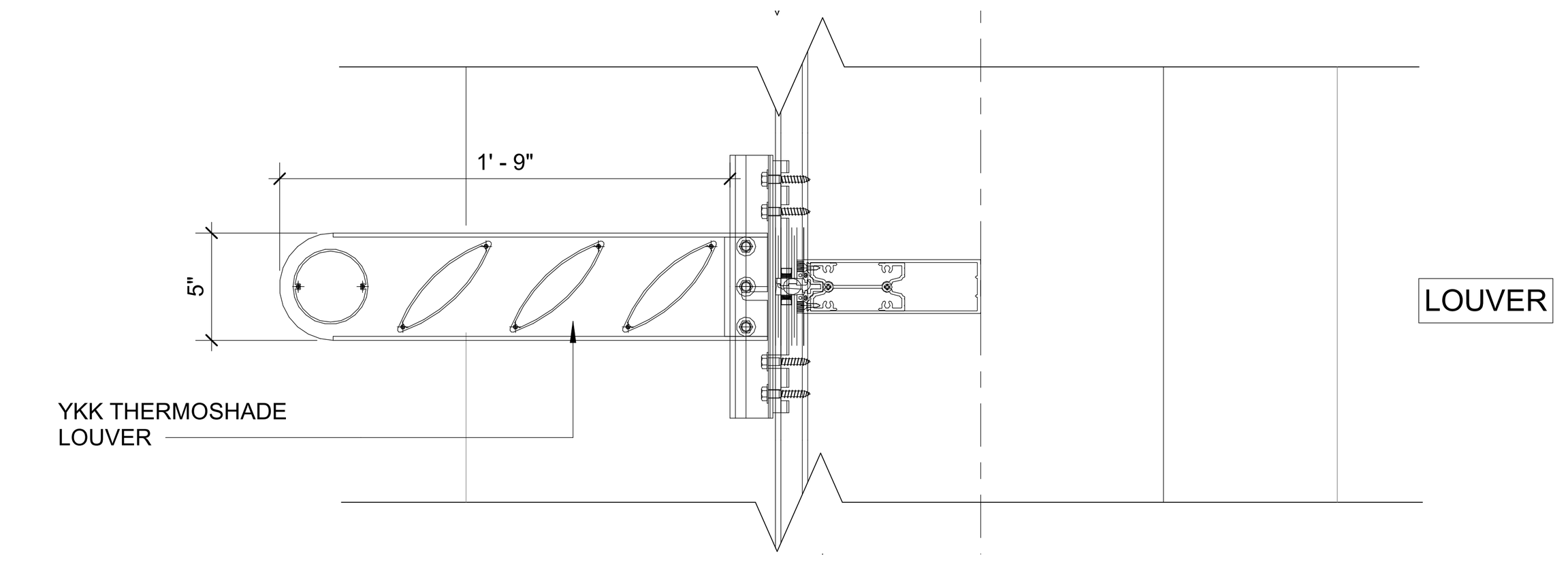
I. Perimeter Sealant: Type 1 specified in Section 07 90 05.

J. Special Extrusions:

REGARDING SAMPLES

THE SAMPLES PROVIDED FOR BAR REVIEW ARE REPRESENTATIVE OF THE BASIS OF DESIGN PRODUCT. THE GENERAL CONTRACTOR (TBD) MAY ELECT TO PROCURE A DIFFERENT, BUT COMPARABLE, PRODUCT THAT MEETS THE DETAILS OF THE ARCHITECT'S SPECIFICATIONS (SEE ABOVE).

ARCHITECT'S DETAILS



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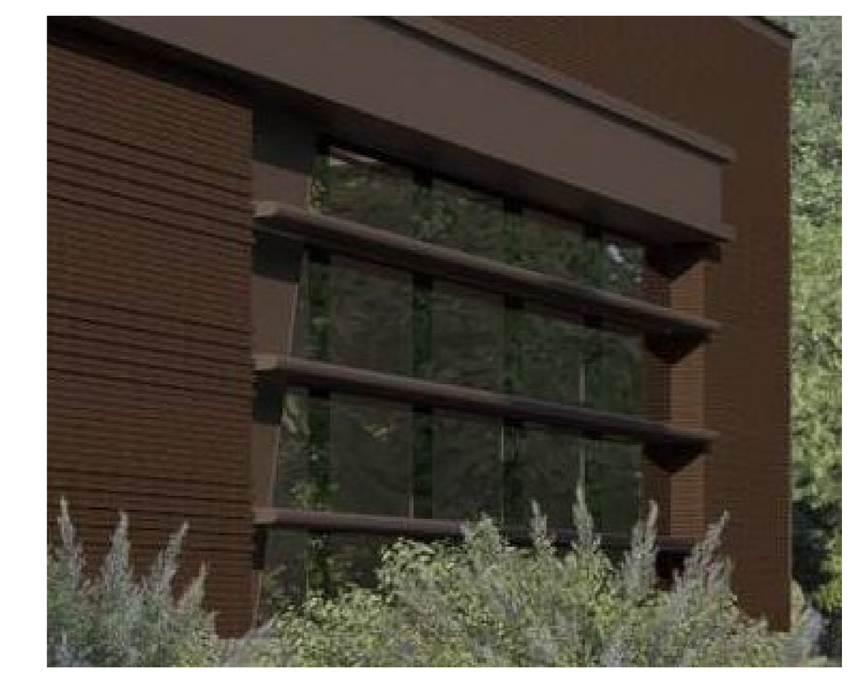
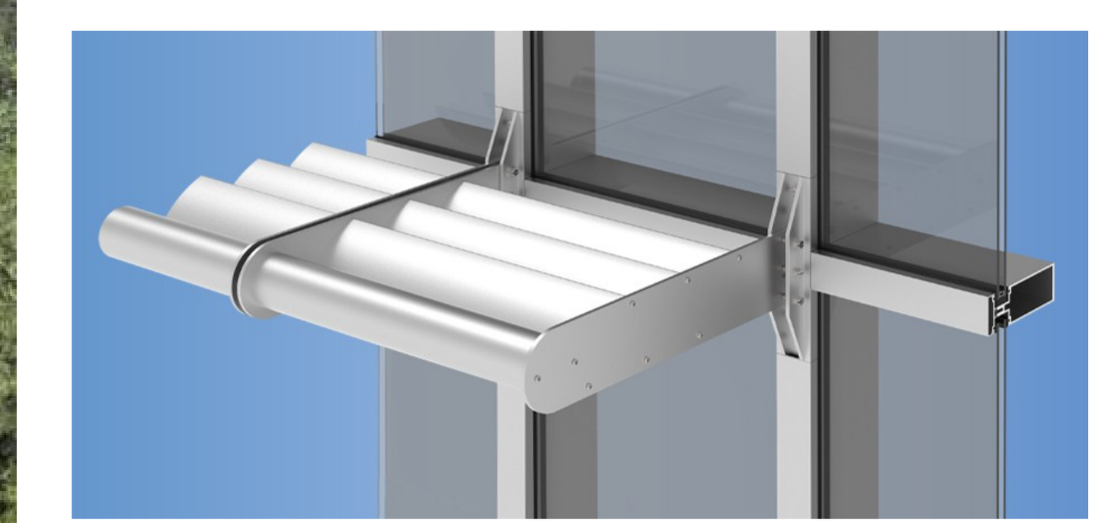
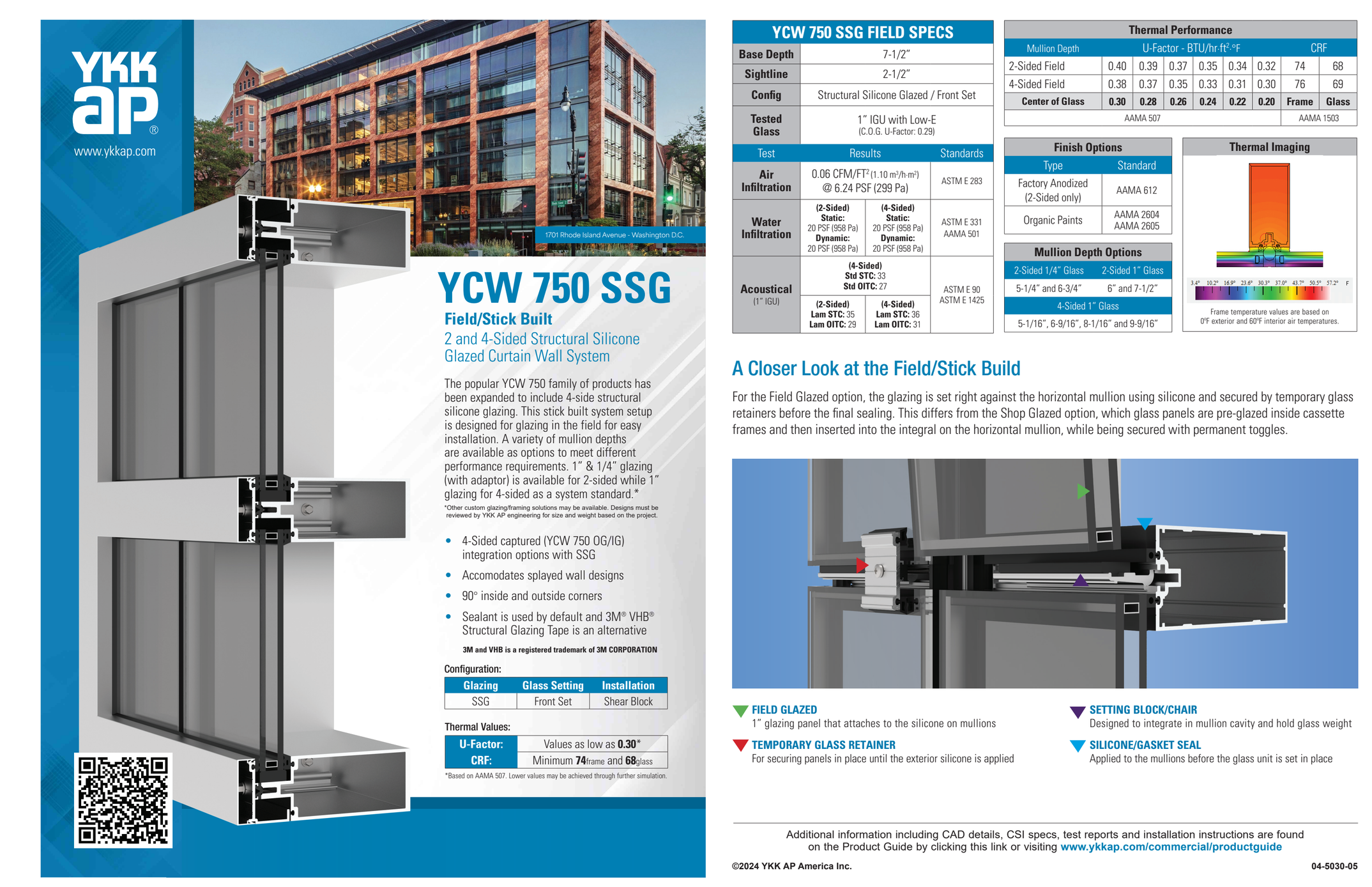
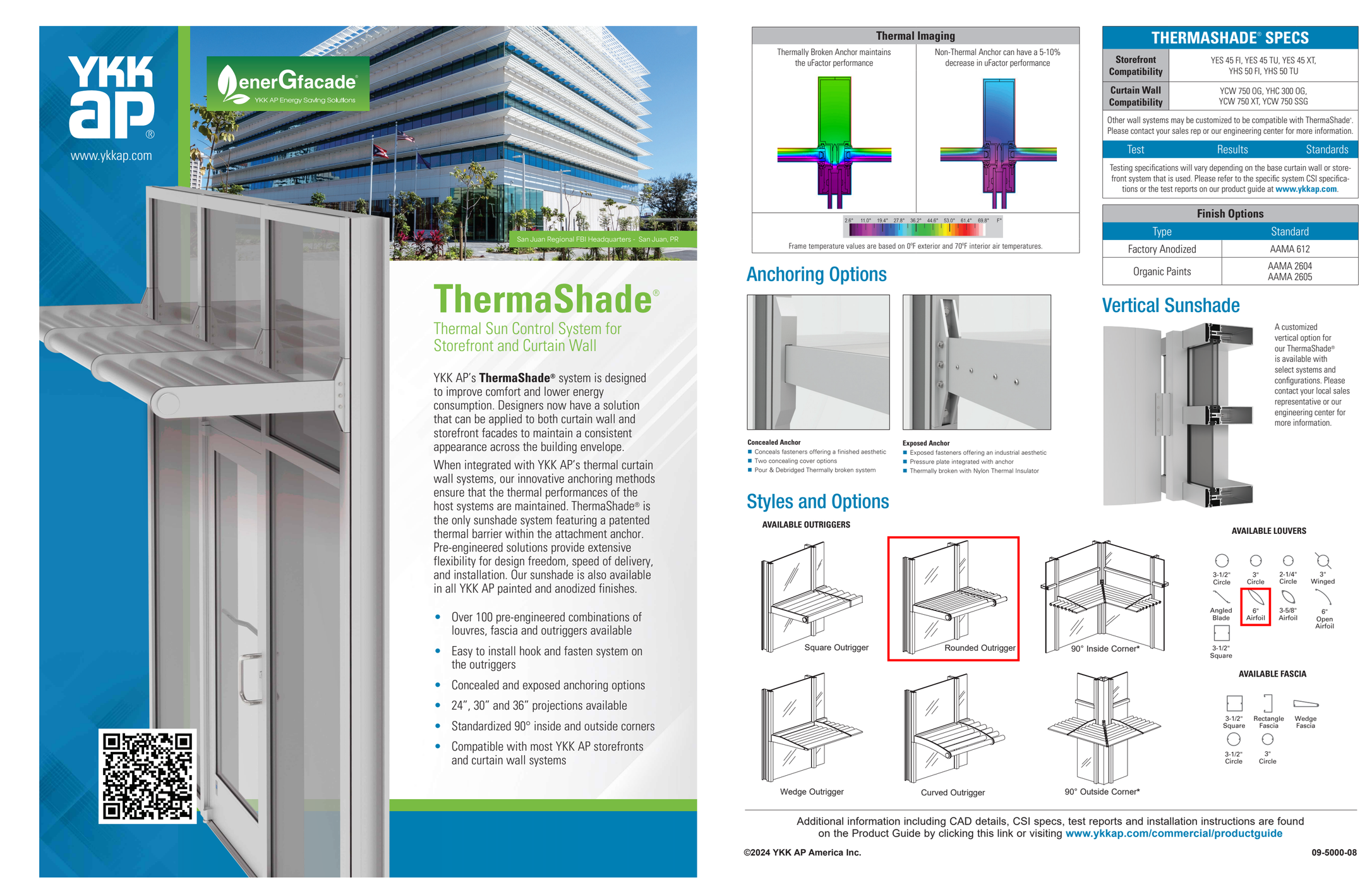




MANUFACTURER DATA SHEETS



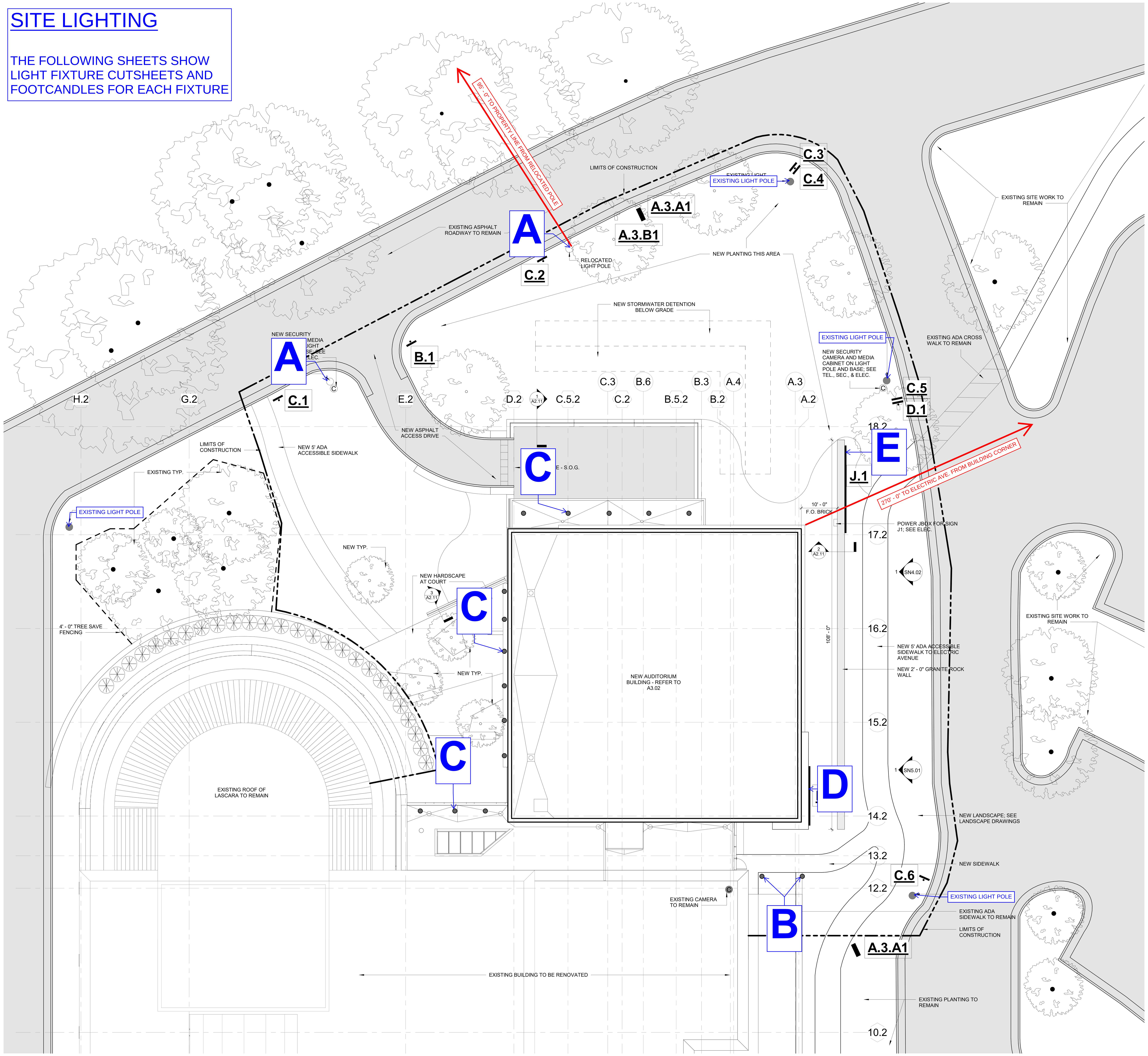


HQ1 AUDITORIUM — MATERIALS AND MANUFACTURERS SPECIFICATIONS — ASD | SKY

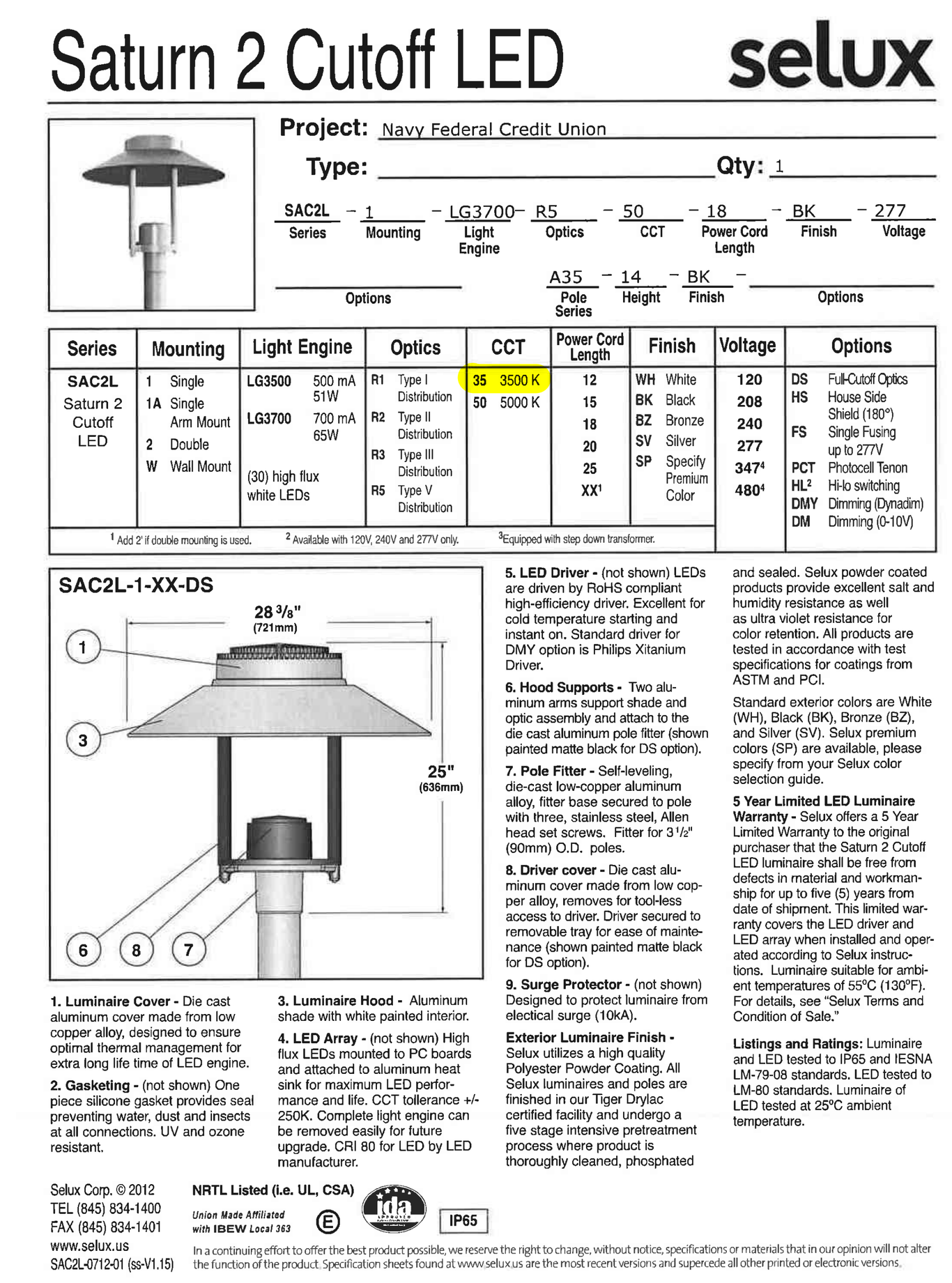
DATE: 7.29.25 SCALE:

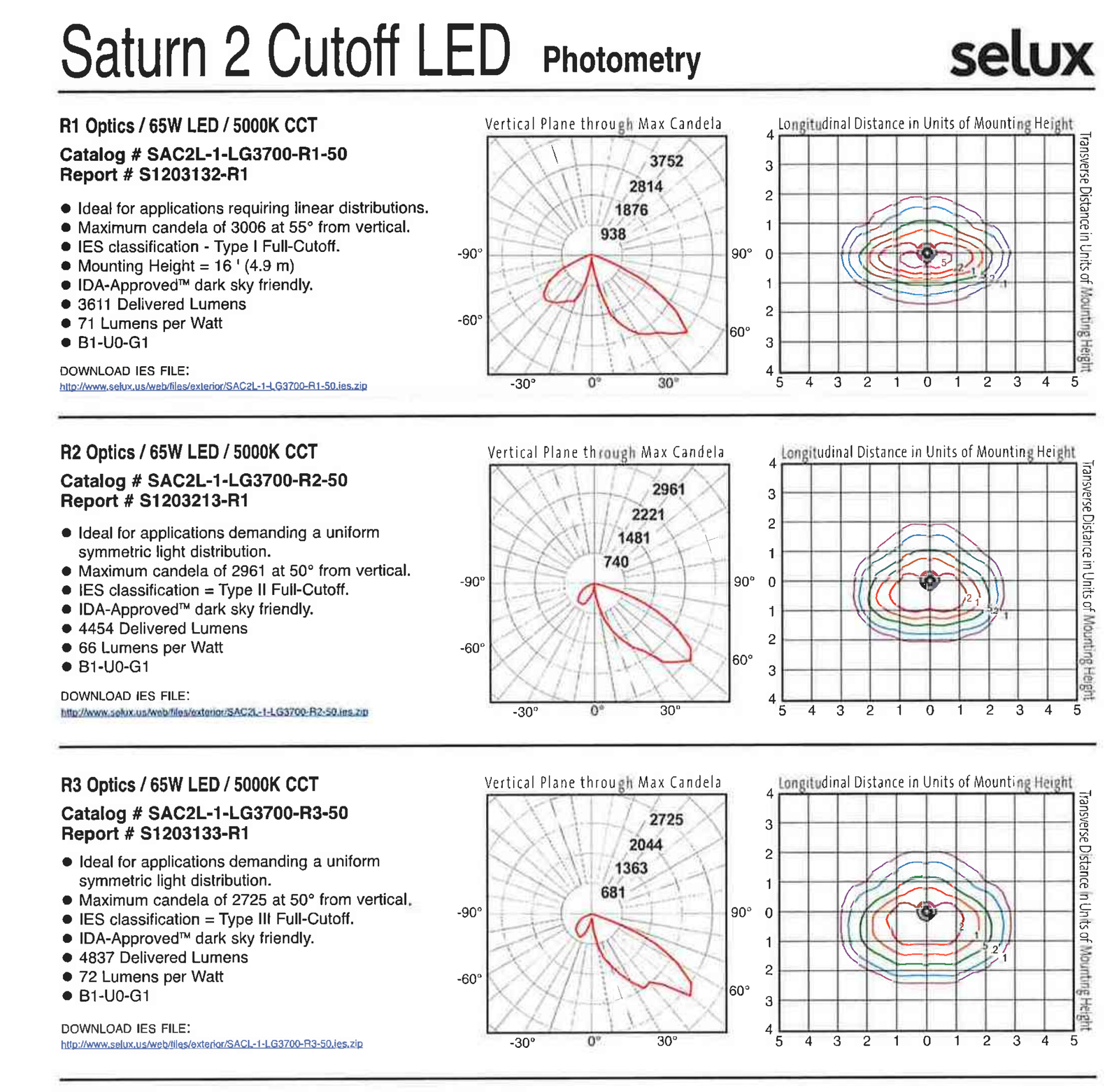
SITE LIGHTING

THE FOLLOWING SHEETS SHOW LIGHT FIXTURE CUTSHEETS AND FOOTCANDLES FOR EACH FIXTURE

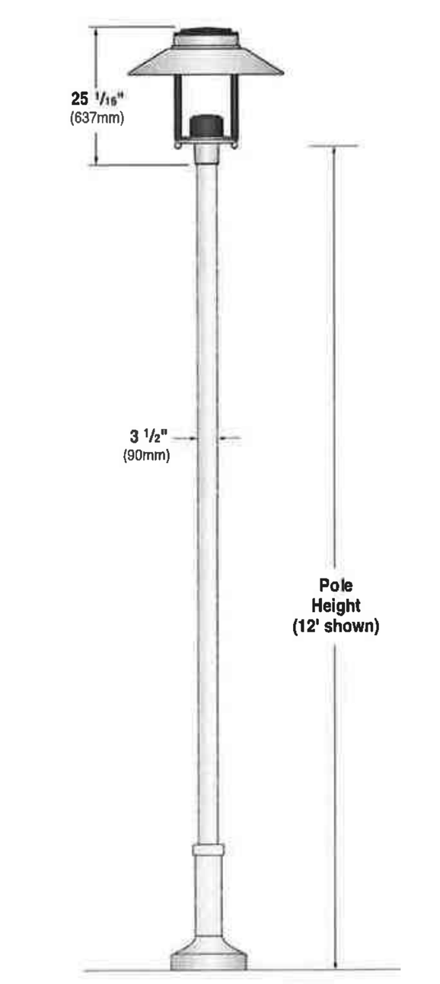


A ROADWAY POLE LIGHTING (RELOCATED)





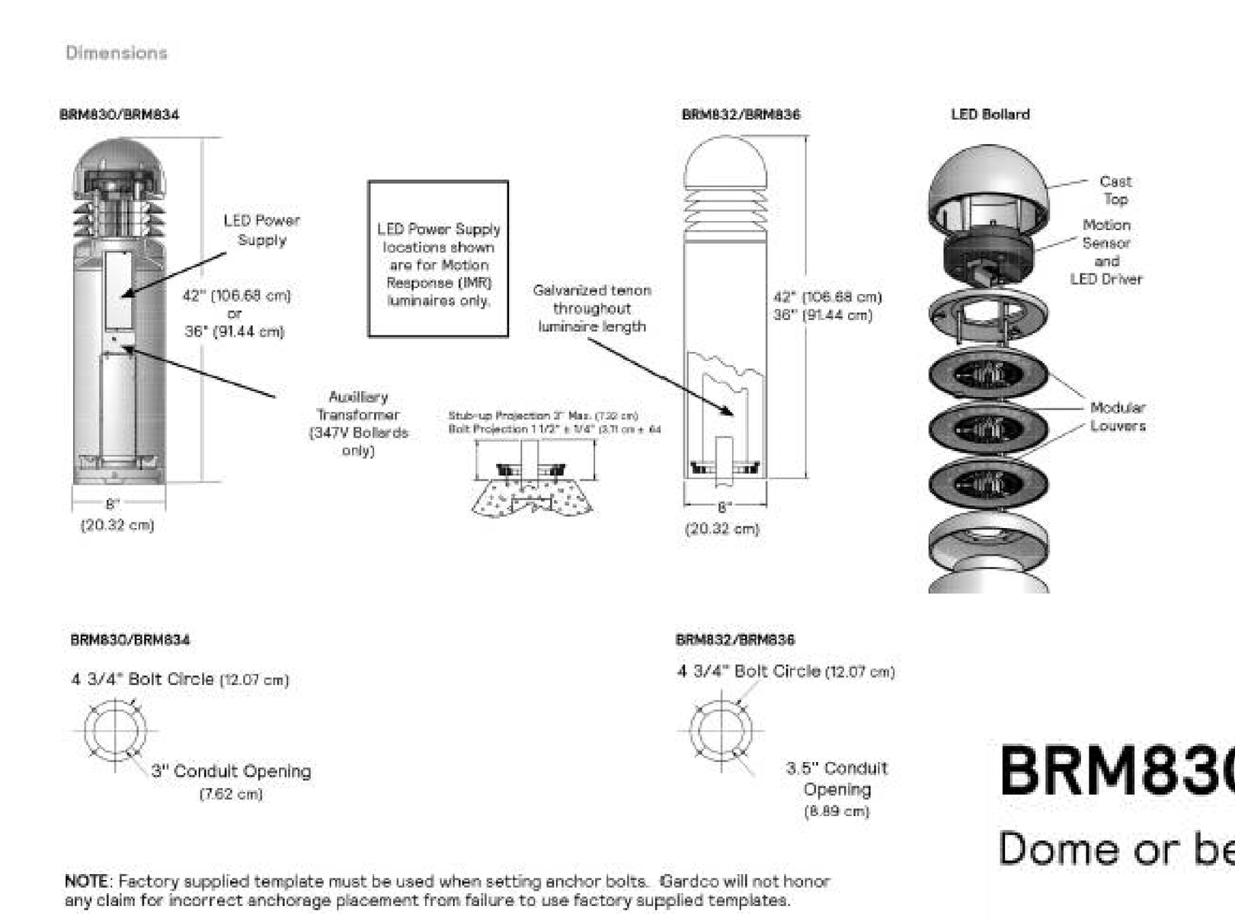
*2 EXISTING TO BE RELOCATED; NO ADDITIONAL ROADWAY LIGHTING
*HEIGHT OF FIXTURE TO MATCH EXISTING (NOT TO EXCEED 15' - 0")
*ALL LIGHTING FIXTURES ARE TO BE DIMMABLE
*EXISTING POLE LIGHTING IS 3500K (COLOR TEMP)



B LIGHT BOLLARDS (RELOCATED)

BRM830 series LED bollard

Dome or bevel top louver



LIGHT BOLLARD TO MATCH EXISTING BOLLARDS

*2 EXISTING TO BE RELOCATED. NO ADDITIONAL LIGHT BOLLARDS
*HEIGHT OF FIXTURE TO MATCH EXISTING (NOT TO EXCEED 15' - 0")
*ALL LIGHTING FIXTURES ARE TO BE DIMMABLE
*EXISTING BOLLARDS ARE 4000K (COLOR TEMP)

BRM830 series LED bollard

Dome or bevel top louver

LED Wattage and Lumen Values

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Average System Watts	Lumen Output	BUG Rating	Efficacy (LPW)
BRM83X-54L-116-NW-G2 (Asymmetric)	54	116	4000	41.4	1053	B0-U3-G1	25
BRM83X-108L-58-NW-G2 (Symmetric)	108	58	4000	38.6	1226	B1-U3-G1	32

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown. Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

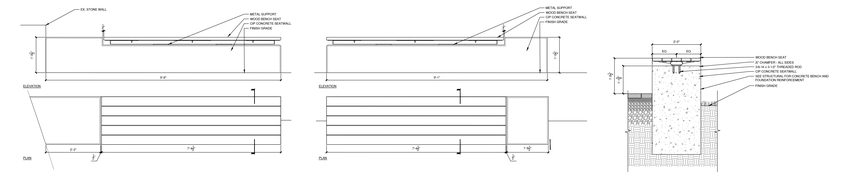
Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours

Ambient Temperature °C	System Current	LED Current	Calculated L_{70} Hours	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	1050mA	116mA	>100,000 hours	>60,000 hours	88%

INTEGRATED PLANTER/BENCH

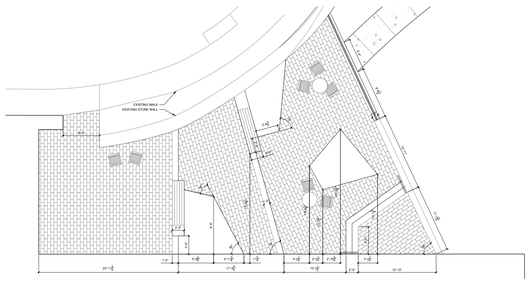
ARCHITECT'S DETAILS



1 BENCH A — Scale: 1" = 1'-0"

2 BENCH B — Scale: 1" = 1'-0"

3 BENCH SECTION — Scale: 1" = 1'-0"



4 COURTYARD LAYOUT — Scale: 1/4" = 1'-0"

MANUFACTURER PRODUCT DATA

Link
Product Data Sheet

landscape forms

The Link seating system marks a new opportunity for designers to achieve the scalability, elegance and creative freedom of custom, one-off site furnishings with added value and simplicity of off-the-shelf solutions. Designed in collaboration with Jess Sorel of sorelstudio, Link's dramatic, modern aesthetics and virtually limitless configurations allow it to adapt to a diverse range of landscapes and applications. The inline or piano key orientation of the wood slats on the seats and backs allow for straight, mitered, arced, or even serpentine arrangements, enabling Link to accommodate the design and nuances of virtually any site, both physically and aesthetically.

Seating System
- Link is a modular seating system with the ability to fit multiple applications.
- Benches are available in straight, miter, 90° radius, or 140° radius styles.
- Compatible benches can be connected to make a run of benches, fit in a corner, and/or make a complete circle.
- Seat slats are wood and available in inline and piano key style.
- Corresponding backs options include backed, backless, or partially backed.
- Optional arms are available for all bench styles, full backed and backless.
- Multiple mounting options offer a broad application for the bench system.
- Straight inline and straight piano keys benches can be specified with a straight concrete block, metal supports, wall mount, or top-of-wall mount.
  Note: ganged benches can only share a support and be connected with a metal T support.
- 90° radius and 140° radius piano key benches can be specified with metal supports or top-of-wall mount.
  Note: radius benches cannot be specified with a wall mount.
- Metal supports are finished with powdercoat and have adjustable glides.
- Straight concrete block is comprised of Meldstone and available in the standard color options – See material sheet for standard options.
- Benches do not ship fully assembled.

Support Style	Weight
Concrete Block	485 lbs
Metal Leg – Inline Support	31 lbs
Metal Leg – Middle Support	31 lbs
Wall Mount Support	28 lbs
Top-of-Wall Mount Support	Included in bench weight

Style	Depth	Width	Height	Weight
	19"	44"	13.5"	485 lbs

Link
Product Data Sheet

landscape forms

Inline / Straight	Style	Depth	Length	Height	Weight (w/ bm)
	Backless, no arms	23.5"	67.5"	19.05"	179 lbs
	Backless, backless arms	23.5"	67.5"	19.05"	204 lbs
	Partial Backed (left), no arms	25.25"	67.5"	33.75"	216 lbs
	Partial Backed (right), no arms	25.25"	67.5"	33.75"	216 lbs
	Backed, no arms	25.25"	67.5"	33.75"	244 lbs
	Backed, backed arms	25.25"	67.5"	33.75"	294 lbs

Link
Material / Colors Sheet

landscape forms

Vivid Series - Powdercoated Metal* (Fine Texture)

Clay · Lemon · Mango · Lolt Sunset Orange · Chili · Lolt Apple Red · Lolt Leaf Green · Moss · Forest · Lolt Navy Blue

Neutral Series - Powdercoated Metal*

Silver Metallic · Mercury Metallic · Steel Metallic · Bronze Metallic · Titanium Metallic · Gloss Black · Gloss White

Architectural Series - Powdercoated Metal* (Fine Texture)

Fog · Obsidian · Matte Black · Terra · Nutmeg · Onyx · Sage · Blue Ash · Dusk

MeldStone™*

Natural White · Natural Ecru · Natural Grey

Woodgrains (Exterior, LF-80 Finish)*

Domestically Sourced Thermally Modified Ash · Oak · Maple · Jarrah (P)

Woodgrains (Interior, LF-80 Finish)*

Domestically Sourced Thermally Modified Ash · Oak · Maple · Jarrah (P)

REFERENCE IMAGES
(THE IMAGES BELOW ARE SIMILAR IN COLOR/STYLE/SPECIFICATION)

LANDSCAPE PAVERS

MANUFACTURER PRODUCT DATA

BLU 80 mm (6"×13")

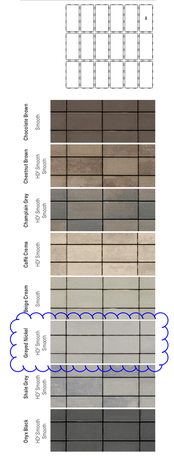
DESCRIPTION: Paver **TEXTURE:** Smooth, HD² Smooth

Specifications per pallet

144 units / pallet

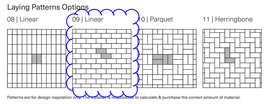
		Imperial	Metric
Product dimension (L × W × H)		6 ½ × 13 × 3 ⅛	165 × 330 × 80
Cubing		84.40 ft³	7.84 m³
Approx. Weight		3 133 lbs	1 421 kg
Number of rows		8	
Coverage per row		10.55 ft²	0.98 m²
Lin. coverage per row	Depth	19.49 lin. ft	5.94 lin. m
	Length	9.74 lin. ft	2.97 lin. m

Pallet Overview



Laying Patterns Options

08 | Linear · 09 | Linear · 10 | Parquet · 11 | Herringbone



Patterns are for design inspiration only. Consult your sales representative to calculate & purchase the correct amount of material.

NOTES

See page 6 for icons description.
See page 19 for more information about applications.
See page 56 to 58 for more technical information. When used in a permeable pavement application, see page 93 to 97 for more technical information.

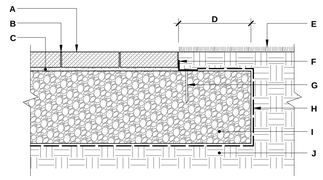
JOINT WIDTH: ³⁄₁₆" (7 mm)
% OF SURFACE OPENING: 4.8%
INFILTRATION RATE: 670 in./hr (14 475 mm/hr)

64

***WATER IS TO ABSORB THROUGH THE AGGREGATE IN OPENINGS, NOT THE PAVERS THEMSELVES**
***PAVER SYSTEM IS NOT INCLUDED IN THE STORMWATER RUNOFF CALCULATIONS**

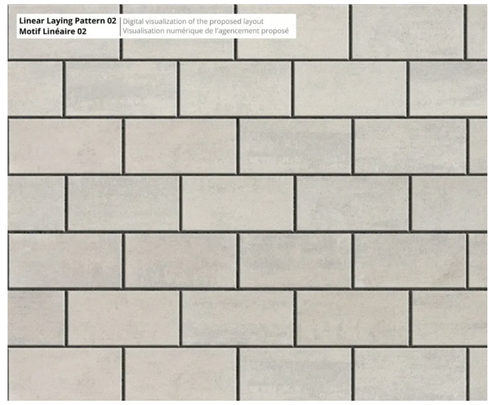
TECHO—BLOC

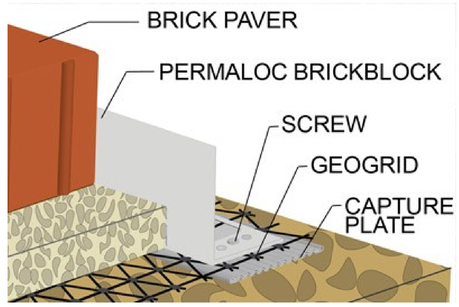
PAVERS
GRANULAR BASE



A. TECHO-BLOC PRECAST CONCRETE PAVER 2 ⅜" (60 mm) THICK MIN.
B. SAND JOINT FILL
C. SAND SETTING BED (CONCRETE SAND) 1" (25 mm)
D. EXTRA WIDTH EQUAL TO FOUNDATION THICKNESS
E. LAWN
F. ALUMINIUM / STEEL / PLASTIC EDGE RESTRAIN
G. NAIL
H. GEOTEXTILE
I. COMPACTED GRANULAR BASE 0-3/4" (0-20 mm)
J. SUBGRADE

REFERENCE IMAGES
(THE IMAGES BELOW ARE SIMILAR IN COLOR/STYLE/SPECIFICATION)





permaloc SUSTAINABLE EDGING SOLUTIONS

Permeable Pavement Installation Instructions

Typical Installation
Refer to specification detail for actual requirements.

DIAGRAM 1

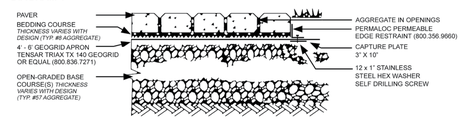


DIAGRAM 2
Top View

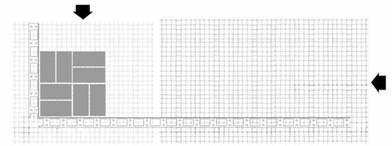


DIAGRAM 3

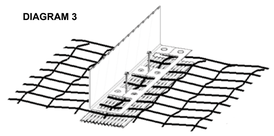


DIAGRAM 4

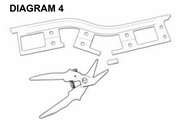


DIAGRAM 5
Top View

HQ1 AUDITORIUM

DATE: 7.29.25

MATERIALS AND MANUFACTURERS SPECIFICATIONS

SCALE:

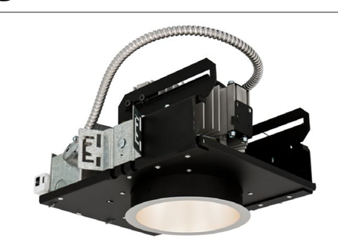
ASD | SKY

C

EXTERIOR SOFFIT LIGHTS (QUANTITY: 14)

gotham®

Luminaire Type:
Catalog Number (autopopulated):



Gotham Architectural Downlighting
LED Downlights

6" Incito®
Downlight

Solid-State Lighting
(US and International Patents Pending)

C.E.C. TITLE 20 COMPLIANT

BAA

CA+ CAPABLE

FEATURES

INTENDED USE
- Achieve the lowest installed power density and operating costs while achieving every layer of light via the optimized general illumination distributions from the EVO family, and the high centerbeam accent layers from the highly flexible Incito family. The EVO and Incito families maintain consistent luminous apertures, dimming characteristics, and color quality to ensure the blending of families in common spaces renders an unparalleled, tailored visual experience.

OPTICAL SYSTEM
- Ten optimized distribution patterns allow designers to achieve tailored effects.
- Self-flanged semi-specular or matte-diffuse lower reflector utilized in combination with a highly transmissive lens.
- Patented Bounding Ray™ Optical Principle design (U.S. Patent No. 5,800,050) provides smooth and continuous transition from lensed source to the top of the reflector down to the bottom of the reflector.

MECHANICAL SYSTEM
- Light engine and driver are accessible from above or below ceiling.
- 16-gauge black painted steel mounting frame with C-channel mounting bars included. Post-installation adjustment possible from above or below ceiling.
- Galvanized steel junction box with hinged access covers and spring latch. Three combination 1/2"-3/4" and one 1/2" knockout for straight-through conduit runs. Capacity: 8 (4in, 4out) No. 12 AWG conductors rated for 90°C.
- Accommodates up to 1½"-thick ceilings.

ELECTRICAL SYSTEM
- Solid-state LED light engine available in 2700 K, 3000 K, 3500 K or 4000 K color temperatures. CRI: 85 typical.
- eldoLED ecoDrive 0-10V driver available with 10% dimming level.
- eldoLED ecoDrive 0-10V driver available with 1% dimming level.
- eldoLED SOLOdrive 0-10V driver available with <1% dimming level.
- eldoLED SOLOdrive DALI driver available with <1% dimming level.
- eldoLED POWERdrive DMX with RDM (remote device management) available with <1% dimming level.
- Rated system life of 60,000 hours at >70% output.
- Emergency battery pack with remote test switch available.
- Tested in accordance with LM-79 and LM-80 standards.

LISTINGS
- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling.

BUY AMERICAN ACT
- This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
- 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: ICO 30/50 6ARFL LD 20D 120 EZB

Series	Color temperature	Nominal delivered lumen values[1]	Aperture/Trim color	Trim style	Finish	Beam	Voltage
ICO	**27/** 2700 K **30/** 3000 K **35/** 3500 K **40/** 4000 K	**20** 2000 lumens **25** 2500 lumens **30** 3000 lumens **35** 3500 lumens **40** 4000 lumens **45** 4500 lumens **50** 5000 lumens **55** 5500 lumens **60** 6000 lumens **65** 6500 lumens **70** 7000 lumens **75** 7500 lumens **80** 8000 lumens **85** 8500 lumens	**6AR** Clear **6PR** Pewter **6WTR** Wheat **6GR** Gold **6WR**[2] White **6BR**[2] Black	**(blank)** Self-flanged **FL** Flangeless	**LSS** Semi-specular **LD** Matte diffuse	**20D** 20° beam angle **25D** 25° beam angle **30D** 30° beam angle **35D** 35° beam angle **40D** 40° beam angle **45D** 45° beam angle **55D** 55° beam angle **60D** 60° beam angle **65D** 65° beam angle **70D** 70° beam angle	**120** **277** **347**[3]

Driver		Options			
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	**SF**	Single fuse	**HAO**	High ambient capability up to 40°C. Fixture height is 10-3/8"
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	**TRW**[4]	White painted flange	**NPS80EZ**	nLight® dimming pack controls 0-10V eldoLED drivers.
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	**TRBL**[5]	Black painted flange	**NPS80EZ ER**[8]	nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.
EDAB	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	**ELR**[6]	Emergency battery pack with remote test switch, CEC compliant	**LTVI**[9]	Lutron ECOsystem interface for compatibility with 0-10V EZ10, EZ1 or EZB.
EDXB	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Includes termination resistor. Refer to DMXR Manual.	**CP**[7]	Chicago plenum	**RRL__**	RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature. Available only in RRLA, RRLB, RRLAE, and RRLC12S.
		BGTD	Bodine generator transfer device		
		CRI90	High CRI (90+)		

ACCESSORIES order as separate catalog numbers (shipped separately)

SCA Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D. Refer to TECH-190.

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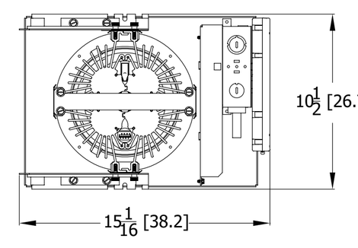
gotham®

6" INCITO
Open Reflector
Solid-State Lighting

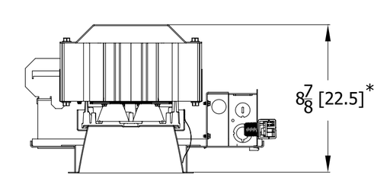
gotham®

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6-1/4 [15.8]
Ceiling opening: 6-15/16 [17.6]
Overlap trim: 7-1/2 [19.1] self-flanged
6-5/8 [16.8] flangeless



* HIGH AMBIENT FIXTURE HEIGHT - 10-5/8"

Incito Round Downlight - Flanged

Incito Round Downlight – Flangless (FL)

ELECTRICAL

WATTAGE CONSUMPTION MATRIX

LUMENS	BEAM ANGLES 20	25	30	35	40	45	55	60	65	70
8500	95.5	95.5	95.5	95.5	95.5	108.7	108.7	108.7	108.7	108.7
8000	91	91	91	91	91	99.8	99.8	99.8	99.8	99.8
7500	82.3	82.3	82.3	82.3	82.3	95.5	95.5	95.5	95.5	95.5
7000	73.6	73.6	73.6	73.6	73.6	86.7	86.7	86.7	86.7	86.7
6500	69.3	69.3	69.3	69.3	69.3	82.3	82.3	82.3	82.3	82.3
6000	60.9	60.9	60.9	60.9	60.9	73.6	73.6	73.6	73.6	73.6
5500	56.9	56.9	56.9	56.9	56.9	65.1	65.1	65.1	65.1	65.1
5000	48.3	48.3	48.3	48.3	48.3	60.9	60.9	60.9	60.9	60.9
4500	44.2	44.2	44.2	44.2	44.2	52.5	52.5	52.5	52.5	52.5
4000	40.2	40.2	40.2	40.2	40.2	43.4	43.4	43.4	43.4	43.4
3500	34	34	34	34	34	37	37	37	37	37
3000	28.4	28.4	28.4	28.4	28.4	31	31	31	31	31
2500	26.3	26.3	26.3	26.3	26.3	28.4	28.4	28.4	28.4	28.4
2000	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3

CRI/CCT Multiplier Table

CRI	CCT	Multiplier
80	2700K	0.94
	3000K	0.97
	3500K	1.00
	4000K	1.02
90	2700K	0.79
	3000K	0.82
	3500K	0.85
	4000K	0.87

EL/ELR AVAILABILITY / COMPATIBILITY – Initial Lumens

LED			Initial Lumens	
Product	Lumens	Watts	EL/ELR	ELRHL
ICO 6"	2000-8500	24-101	580	N/A

nLight® Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight for complete listing of nLight controls.

WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX [color]	Wide view (PIR / dual tech)	nWV 16 / nWV PDT 16
Photocell controls	**Model number**	Wall Switch w/ Raise/Lower (PIR / dual tech)	nWSX LV DX / nWSX PDT LV DX
On/Off & Dimming	nCM ADCX	**Cat-5 cables (plenum rated)**	**Model number**
		10', CAT5 10FT	CAT5 10FT J1
		15', CAT5 15FT	CAT5 15FT J1

NOTES

ORDERING NOTES

1. Nominal downlight lumens.
2. Not available with finishes. Not available with flangeless (FL) trim style.
3. Add 2" to overall height.
4. Not available with white reflector. Not applicable with FL option.
5. Not available with black reflector. Not applicable with FL option.
6. For dimensional changes, refer to TECH-140. Not available with CP option. Must specify 120V or 277V. Not available with 347V.
7. Chicago plenum available 7500 lumens and below.
8. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
9. Shipped installed from the factory. Not available with CP.

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***ALL LIGHTING FIXTURES ARE TO BE DIMMABLE AND 3500K**