

HISTORIC AND DESIGN REVIEW COMMISSION

May 20, 2015
Agenda Item No: 16

HDRC CASE NO: 2015-D03
IDENTIFIER: N/A
ADDRESS: 215 North San Saba
LEGAL DESCRIPTION: NCB 320, BLK 2, LOTS 2, 7, 8, 9, PORTIONS OF 3 AND 6; and NCB 321, PORTION OF LOT 11
ZONING: D AHOD
PUBLIC PROPERTY: No
COUNCIL DISTRICT: 1
DISTRICT: Downtown Business District
LANDMARK: No
APPLICANT: John Cola, Alex Roush Architects
OWNER: STRC San Saba Properties
TYPE OF WORK: Exterior repairs and alterations

REQUEST:

The applicant requests a Certificate of Appropriateness for approval to:

Add third floor to existing building, renovate existing exterior including surface materials, windows, canopies, and elevator/stair addition, upgrade existing landscaping, and repair existing parking as needed.

APPLICABLE CITATIONS:

City of San Antonio Downtown Design Guide:

Required Standards

1. Chapter 3. Section A.4: Wall openings, such as storefront windows and doors, shall comprise at least 70 percent of a commercial building's street and river level façade as seen in Figure 3.2.
2. Chapter 3. Section A.5: Clear glass for wall openings, i.e., doors and windows, shall be used along all street-level commercial façades for maximum transparency, especially in conjunction with retail and hotel uses as illustrated in Figure 3.3. Dark tinted, reflective or opaque glazing is not permitted for any required wall opening along commercial street level facades.
3. Chapter 3. Section A.6: A building's primary entrance, defined as the entrance which provides the most direct access to a building's main lobby and is kept unlocked during business hours, shall be located on a public street or on a courtyard, plaza or paseo that is connected to and visible from a public street or the River Walk.
4. Chapter 3. Section A.7: At least one building entrance/exit, which may be either a building or tenant and resident entrance, shall be provided along each street frontage.
5. Chapter 4. Section A.1: Locate off-street parking behind or below buildings as seen in Figure 4.2 and 4.3.
6. Chapter 4. Section A.9: Vehicular access shall be from an alley, sidewalk or mid-block on a street as illustrated in Figure 4.5.
7. Chapter 4. Section A.10: Curb cuts and parking and loading entries into buildings shall be limited to the minimum number required and the minimum width permitted.

8. Chapter 7. Section A.1: Provide well-marked entrances to cue access and use. Enhance all public entrances to a building through the use of compatible architectural or graphic treatment. Main building entrances shall read differently from retail storefronts, restaurants, and commercial entrances.
9. Chapter 7. Section C.1: San Antonio has strong sun conditions. Use deep reveals to get shadow lines.
10. Chapter 7. Section C. Prohibited Materials:
 - Imitation stone (fiberglass or plastic);
 - Plywood or decorative exterior plywood;
 - “Lumpy” stucco, CMU;
 - Rough sawn or “natural” (unfinished) wood, EIFS;
 - Used brick with no fired face (salvaged from interior walls);
 - Imitation wood siding;
 - Plastic panels.
11. Chapter 7. Section D.1: Reinforce a building’s entry with one or more of the following architectural treatments:
 - extra-height lobby space;
 - distinctive doorways;
 - decorative lighting;
 - distinctive entry canopy;
 - projected or deep recessed entry bay;
 - building name and address integrated into the facade;
 - artwork integrated into the facade or sidewalk;
 - a change in paving material, texture, or color within the property line;
 - distinctive landscaping, including plants, water features and seating.
12. Chapter 7. Section E.1: Windows are to be as transparent as possible at the ground floor of the building, with preference given to grey, low-e glass (88 percent light transmission).
13. Chapter 7. Section G.9: Parking and security lights shall not provide spillover to neighboring residential properties.
14. Chapter 7. Section I.1: Ventilation intakes and exhausts shall be located to minimize adverse pedestrian impacts along the sidewalk. Typically locating vents more than 20 feet vertically and horizontally from a sidewalk and directing the air flow away from the public realm will accomplish this objective.
15. Chapter 7. Section I.4: Lighting (exterior building and landscape) should be directed away from adjacent properties and roadways, and shielded as necessary. No fixture shall be directed at the window of a residential unit either within or adjacent to a project.

Preferred Guidelines

1. Chapter 3. Section A.8: Use clear windows and doors to make the pedestrian level façade highly transparent and accessible. Along retail streets, provide a nearly continuous band of windows. Ensure doorways in glass walls exhibit sufficient contrast to be clearly visible.
2. Chapter 3. Section A.13: More public entrances than the minimum specified by code, including building and or tenant and resident entrances are highly encouraged.
3. Chapter 4. Section A.7: Drop-offs, including residential, hotel and restaurant drop-offs, should be provided either 1) within the off street parking facilities using the parking access or 2) along the required curb line where there is a full-time curbside parking lane with no sidewalk narrowing. Exception: where

there is no curbside parking lane and off street drop-off is not feasible, a hotel may have a drop-off lane provided the required sidewalk width of 48 inches is maintained as shown in Figure 4.4.

4. Chapter 5. Section A.1: Divide large building facades into a series of appropriately scaled modules so that no building segment is more than 100 feet in length. Provide a passageway at least every 20 feet wide between buildings. Consider dividing a larger building into “modules” that are similar in scale.
5. Chapter 5. Section A.2: Monolithic slab-like structures that wall off views and overshadow the surrounding neighborhood are discouraged.
6. Chapter 7. Section A.2: Avoid continuous massing longer than 150 feet not articulated with shadow relief, projections and recesses. If massing extends beyond this length, it needs to be visibly articulated as several smaller masses using different materials, vertical breaks, such as expressed bay widths, or other architectural elements.
7. Chapter 7. Section A.3: Horizontal variation should be of an appropriate scale and reflect changes in the building uses or structure as seen in Figure 7.2.
8. Chapter 7. Section A.4: Vary details and materials horizontally to provide scale and three-dimensional qualities to the building.
9. Chapter 7. Section A.5: While blank street wall façades are discouraged, there is usually one side of the building that is less prominent (often times called “back of house”).
10. Chapter 7. Section B.1: Employ a different architectural treatment on the ground floor façade than on the upper floors, and feature high quality materials that add scale, texture and variety at the pedestrian level.
11. Chapter 7. Section B.2: Vertically articulate the street wall façade, establishing different treatment for the building’s base, middle and top) and use balconies, fenestration, or other elements to create an interesting pattern of projections and recesses.
12. Chapter 7. Section B.3: Provide an identifiable break between the building’s ground floors and upper floors designed for office or other use. This break may include a change in material, change in fenestration pattern or similar means.
13. Chapter 7. Section B.5: On façades exposed to the sun, employ shade and shadow created by reveals, surface changes, overhangs and sunshades to provide sustainable benefits and visual interest.
14. Chapter 7. Section C.2: Feature long-lived and local materials such as split limestone, brick and stone. The material palette should provide variety, reinforce massing and changes in the horizontal or vertical plane.
15. Chapter 7. Section C.3: Use especially durable materials on ground floor façades.
16. Chapter 7. Section C.5: Detail buildings with rigor and clarity to reinforce the architect’s design intentions and to help set a standard of quality to guide the built results.
17. Chapter 7. Section C.6: To provide visual variety and depth, layer the building skin and provide a variety of textures that bear a direct relationship to the building’s massing and structural elements. The skin should reinforce the integrity of the design concept and the building’s structural elements as seen in Figure 7.5 and 7.6 and not appear as surface pastiche.
18. Chapter 7. Section C.9: Design curtain walls with detail and texture, while employing the highest quality materials.
19. Chapter 7. Section C.10: Design the color palette for a building to reinforce building identity and complement changes in the horizontal or vertical plane.
20. Chapter 7. Section C.11: Value-added materials, such as stone should be placed at the base of the building, especially at the first floor level. Select materials suitable for a pedestrian urban environment.

Impervious materials such as stone, metal or glass should be used on the building exterior. Materials will be made graffiti resistant or be easily repainted.

21. Chapter 7. Section C.12: Corner buildings at prominent intersections require a higher standard of articulation, detailing, and architectural treatment than other buildings within the middle of the block.
22. Chapter 7. Section D.2: The primary entrance of all buildings will be off the public sidewalk as seen in Figure 7.7 and not from a parking area.
23. Chapter 7. Section D.3: Strong colors should emphasize architectural details and entrances.
24. Chapter 7. Section D.4: Deep recessed entries into the building are encouraged.
25. Chapter 7. Section E.2: Window placement, size, material and style should help define a building's architectural style and integrity as seen in Figure 7.8.
26. Chapter 7. Section E.3: In buildings other than curtain wall buildings, windows should be recessed (set back) from the exterior building wall, except where inappropriate to the building's architectural style. Generally, the required recess may not be accomplished by the use of plant-ons around the window.
27. Chapter 7. Section E.4: Windows and doors should be well-detailed where they meet the exterior wall to provide adequate weather protection and to create a shadow line.
28. Chapter 7. Section E.5: Windows on upper floors should be proportioned and placed in relation to grouping of storefront or other windows and elements in the base floor.
29. Chapter 7. Section F.1: Ground-floor window and door glazing should be transparent and non-reflective.
30. Chapter 7. Section F.2: Above the ground floor, both curtain wall and window and door glazing should have the minimum reflectivity needed to achieve energy efficiency standards. Non-reflective coating or tints are preferred.
31. Chapter 7. Section F.3: A limited amount of translucent glazing at the ground floor may be used to provide privacy.
32. Chapter 7. Section G.1: Light fixtures less than 16 feet in height are considered pedestrian scale as seen in Figure 7.9.
33. Chapter 7. Section G.2: All exterior lighting (building and landscape) should be integrated with the building design, create a sense of safety, encourage pedestrian activity after dark, and support Downtown's vital nightlife.
34. Chapter 7. Section G.3: Each project should develop a system or family of lighting layers that contribute to the night-time experience, including facade uplighting, sign and display window illumination, landscape, and streetscape lighting.
35. Chapter 7. Section G.4: Architectural lighting should relate to the pedestrian and accentuate major architectural features as seen in Figure 7.10.
36. Chapter 7. Section G.5: Landscape lighting should be of a character and scale that relates to the pedestrian and highlights special landscape features as seen in Figure 7.11.
37. Chapter 7. Section G.6: Exterior lighting should be shielded to reduce glare and eliminate light being cast into the night sky.
38. Chapter 7. Section G.7: In parking lots, a higher foot candle level should be provided at vehicle driveways, entry throats, pedestrian paths, plaza areas, and other activity areas.
39. Chapter 7. Section G.8: Pedestrian-scale light fixtures should be of durable and vandal resistant materials and construction.

40. Chapter 7. Section G.10: Integrate security lighting into the architectural and landscape lighting system. Security lighting should not be distinguishable from the project's overall lighting system.
41. Chapter 7. Section G.11: Illuminate alleys at levels for both vehicles and pedestrians.
42. Chapter 7. Section I.2: Mechanical equipment should be either screened from public view or the equipment itself should be integrated with the architectural design of the building.
43. Chapter 7. Section I.5: Reflective materials or other sources of glare (like polished metal surfaces) should be designed or screened to not impact views nor result in measurable heat gain upon surrounding windows either within or adjacent to a project.

FINDINGS:

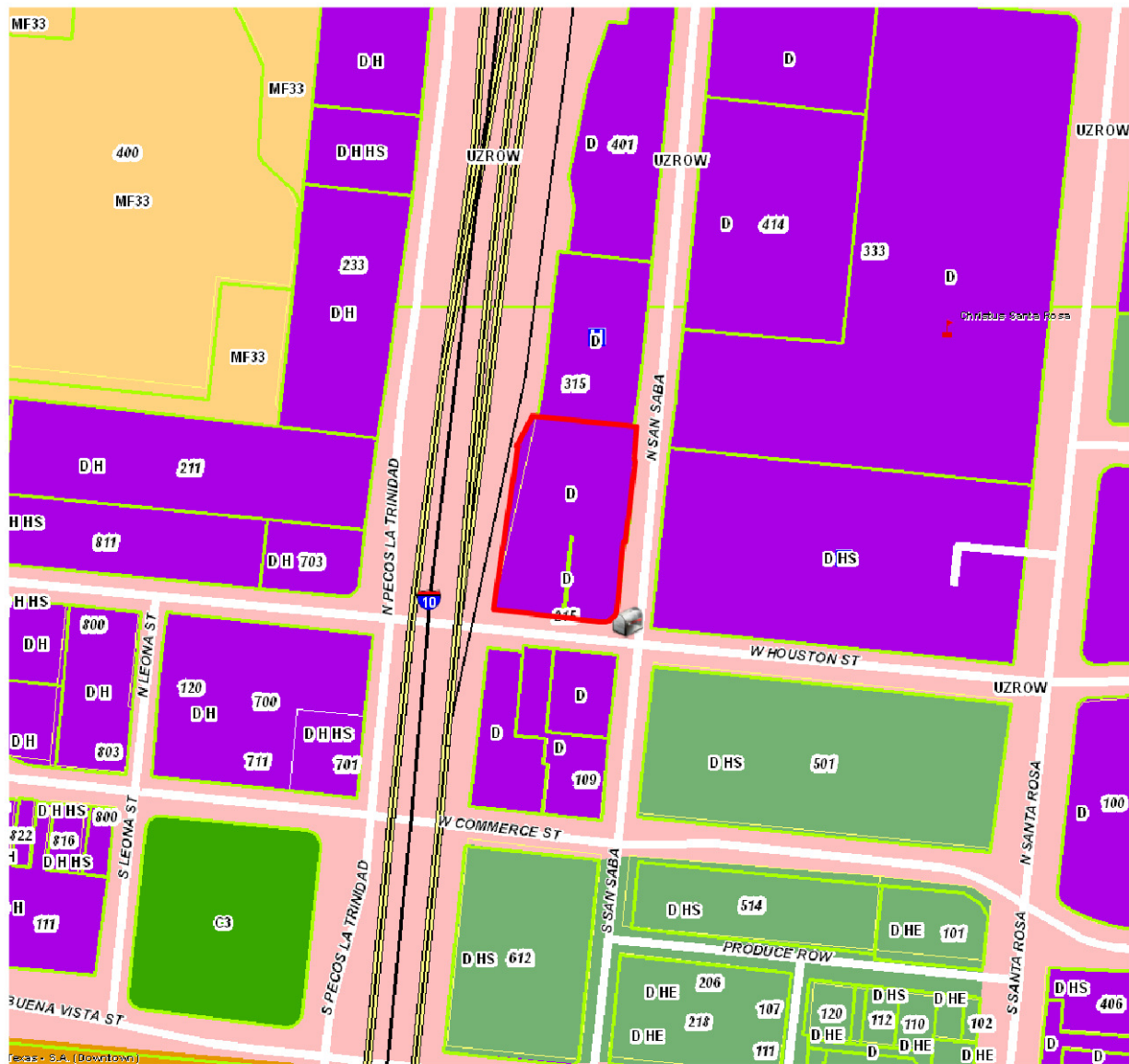
The proposed exterior renovation and additions meet the purpose and intent of the **Downtown Design Guide**.

RECOMMENDATION:

Staff recommends approval.

CASE MANAGER:

Micah Diaz, Senior Planner, Department of Planning and Community Development





Flex Viewer

Powered by ArcGIS Server

Printed: May 15, 2015

The City of San Antonio does not guarantee the accuracy, adequacy, completeness or usefulness of any information. The City does not warrant the completeness, timeliness, or positional, thematic, and attribute accuracy of the GIS data. The GIS data, cartographic products, and associated applications are not legal representations of the depicted data. Information shown on these maps is derived from public records that are constantly undergoing revision. Under no circumstances should GIS-derived products be used for final design purposes. The City provides this information on an "as is" basis without warranty of any kind, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose, and assumes no responsibility for anyone's use of the information.

Alex Roush Architects, Inc.

May 6th, 2015

Written Narrative – Explanation of Proposed Work

The existing building is a 2-Story Medical Office Building and is located at 215 North San Saba, San Antonio, Texas on a Non-Historic Site. The building was originally designed in the 1970's to accommodate a 3rd floor for future expansion. The intent is to build vertically 1 additional floor to bring the building to its maximum potential and renovate the Existing Exterior Skin of the Building.

In addition to the New 3rd Floor, the other exterior Alterations will include a new Drive-Under Canopy to the Front facing North San Saba Street, Elevator/Stair Addition to the rear facing the Interstate, Renovation of existing Walk-Under Canopy to continue around building to the rear, a drop of canopy at the rear facing the interstate, additional Clear Window Glazing along the bottom floor, updated Landscaping, & Parking Lot repair as required.

There will be Entry Doors on all 4 sides of the building. The Main Recessed Entry door will remain in the existing location facing North San Saba; an additional Storefront Door with Clear Glazing will be added facing North San Saba, the 2 existing side doors off the Existing Stair Towers will remain, and an Additional Storefront Entry doors with Clear Glazing will be provided at Rear of the building facing the Interstate

All new Mechanical Equipment will be located on the Roof and screened from Public View with Metal Screening to match other Building Metals. Any Exhausts needed will be placed far enough away from the Existing Sidewalk to minimize adverse Pedestrian Impacts.

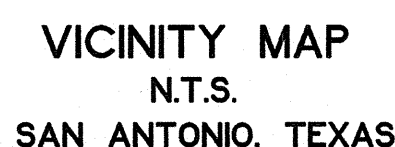
The Building Alterations will not render the Property as incompatible with the intended use of Zone "D" since the current Site will not be dramatically changed and it use will remain the same: Housing a Medical Office Building with Existing on-site Parking to remain.

The design intent is to transform the existing building into a permanently vibrant, modern & attractive Medical Center. The complete renovation and expansion of the existing Building will bring permanent jobs as well as a steady stream of Patients into the Downtown area.

Thank You,



John Cola
Alex Roush Architects, Inc



TREE #	DESCRIPTION
1371	12" GRAPE MYRTLE (MULTI-TRUNK)
1372	11" GRAPE MYRTLE (MULTI-TRUNK)
5001	14" PALM
5002	14" PALM
5003	14" PALM
5004	14" PALM
5005	4" GRAPE MYRTLE
5006	15" GRAPE MYRTLE
5007	15" GRAPE MYRTLE
5008	17" GRAPE MYRTLE
5009	17" GRAPE MYRTLE
5403	13" GRAPE MYRTLE
5405	13" GRAPE MYRTLE
5437	14" PALM

OF A 1.351 ACRE TRACT OF LAND LOCATED IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS, BEING THAT CERTAIN 1.351 ACRE TRACT CONVEYED TO EMLRH4, LLC BY DEED OF RECORD IN VOLUME 13103, PAGE 1337 OF THE REAL PROPERTY RECORDS OF BEXAR COUNTY, TEXAS; SAID 1.351 ACRES BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, WITH ALL BEARINGS BEING REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, USING A COMBINED SCALE FACTOR OF 1.0001700

THENCE, ALONG THE EASTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 35, BEING THE WESTERLY LINE OF SAID 1.351 ACRE TRACT AND HEREOF, THE FOLLOWING COURSES:

North 10 Degrees 46 Minutes 31 Seconds East, A DISTANCE OF 49.87 FEET TO A SET 1/2 INCH IRON ROD WITH BPI CAP;

North 12 Degrees 27 Minutes 02 Seconds East, A DISTANCE OF 275.06 FEET TO A FOUND 1/2 INCH IRON ROD MARKING THE SOUTHWESTERLY CORNER OF LOT 14, NCB 321, SAN SABA PROFESSIONAL PLAZA SUBDIVISION, A SUBDIVISION OF RECORD IN VOLUME 9511, PAGE 154 OF THE DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS, BEING THE NORTHWESTERLY CORNER OF SAID 1.351 ACRE TRACT AND HEREOF:

THENCE, South 84 Degrees 34 Minutes 21 Seconds East, LEAVING THE EASTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 35, ALONG THE COMMON BOUNDARY LINE OF SAID LOT 14 AND SAID 1.351 ACRE TRACT, A DISTANCE OF 162.01 FEET TO A SET 1/2 INCH IRON ROD WITH BPI CAP IN THE WESTERLY RIGHT-OF-WAY LINE OF SAN SABA STREET (R.O.W. VARIES), BEING THE SOUTHEASTERLY CORNER OF SAID LOT 14, SAME BEING THE NORTHEASTERLY CORNER OF SAID 1.351 ACRE TRACT AND HEREOF:

THENCE, ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SAN SABA STREET, BEING THE EASTERLY LINE OF SAID 1.351 ACRE TRACT AND HEREOF, THE FOLLOWING COURSES:

South 05 Degrees 44 Minutes 02 Seconds West, A DISTANCE OF 56.05 FEET TO A SET 1/2 INCH IRON ROD WITH BPI CAP:

South 86 Degrees 02 Minutes 47 Seconds East, A DISTANCE OF 2.12 FEET TO A FOUND 1/2 INCH IRON ROD:

South 05 Degrees 14 Minutes 22 Seconds West, A DISTANCE OF 133.35 FEET TO A FOUND 1/2 INCH IRON ROD;

North 85 Degrees 50 Minutes 39 Seconds West, A DISTANCE OF 2.21 FEET TO A FOUND CUT
"X" IN CONCRETE:

South 05 Degrees 04 Minutes 22 Seconds West, A DISTANCE OF 108.25 FEET TO A FOUND P
NAIL IN CONCRETE;

SOUTHWESTELRY, ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 25.00 FEET, A CENTRAL ANGLE OF 90 Degrees 34 Minutes 36 Seconds, AN ARC LENGTH OF 39.52 FEET AND A CHORD BEARING South 50 Degrees 15 Minutes 08 Seconds West, A DISTANCE OF 35.53 FEET TO A FOUND PK NAIL IN CONCRETE IN THE NORTHERLY RIGHT-OF-WAY LINE OF HOUSTON STREET;

THENCE, North 84 Degrees 30 Minutes 30 Seconds West, ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF HOUSTON STREET, A DISTANCE OF 175.96 FEET TO THE POINT OF BEGINNING, CONTAINING AN AREA OF 1.351 ACRES (58,859 SQUARE FEET) OF LAND, MORE OR LESS.

- 1) THE TRACT OF LAND SHOWN HEREON WAS NOT ABSTRACTED BY THE SURVEYOR.
- 2) THE SURVEYOR HAS MADE NO ATTEMPT TO LOCATE OR DEFINE WETLANDS, HAZARDOUS WASTE AREAS, HABITATS, ENDANGERED SPECIES OR ANY OTHER ENVIRONMENTALLY SENSITIVE AREAS ON THE TRACT OF LAND SHOWN HEREON; NOR DOES THIS SURVEY MAKE ANY REPRESENTATIONS OF BEING AN ENVIRONMENTAL ASSESSMENT OF THE TRACT OF LAND SHOWN HEREON.
- 3) THE SURVEYOR HAS MADE NO ATTEMPT TO LOCATE OR DEFINE ARCHEOLOGICAL SITES, HISTORICAL SITES OR UNDOCUMENTED CEMETERIES ON THE TRACT OF LAND SHOWN HEREON; NOR DOES THIS SURVEY MAKE ANY REPRESENTATIONS OF BEING AN ARCHEOLOGICAL OR HISTORICAL SURVEY OF THE TRACT OF LAND SHOWN HEREON.
- 4) THE SURVEYOR HAS MADE NO ATTEMPT TO LOCATE, ABANDONED OR NOT, OIL AND GAS WELLS, OR ANY OTHER WELLS ON THE TRACT OF LAND SHOWN HEREON; NOR HAS THE SURVEYOR MADE ANY ATTEMPT TO RESEARCH SAME WITH THE RAILROAD COMMISSION OF TEXAS OR ANY OTHER STATE AGENCY; NOR HAS THE SURVEYOR INVESTIGATED ANY MINERAL OR ROYALTY INTERESTS IN THE TRACT OF LAND SHOWN HEREON.
- 5) ONLY THOSE COPIES WHICH BEAR AN ORIGINAL INK IMPRESSION SEAL OR EMBOSSED SEAL WILL BE CONSIDERED A VALID COPY; BUYER-PARTNERS WILL NOT BE RESPONSIBLE FOR THE CONTENT OF ANYTHING OTHER THAN A VALID COPY OF THIS SURVEY.
- 6) ZONING INFORMATION NOT PROVIDED BY INSURER AT THE TIME OF THIS SURVEY AS STATED BY ALTA/ACSM TABLE A, ITEM (6)(d).

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	BEARING
C1	39.52'	25.00'	90°34'36"	35.53	S50° 15' 08.05"W

ELEVATIONS SHOWN HEREON ARE NAVD 88 GPS DERIVED.

TBM A CUT "SQUARE" IN THE TOP OF CURB LOCATED IN THE NORTHERLY LINE OF HOUSTON STREET, $\pm 30'$ WEST OF SAN SABA STREET.
ELEV=651.94'

TBM B CUT "SQUARE" IN THE TOP OF CURB LOCATED IN THE WEST RIGHT OF WAY LINE OF SAN SABA STREET, $\pm 20'$ NORTH OF HOUSTON STREET.
ELEV=655.18'

THE TRACT SHOWN HEREON LIES WITHIN ZONE "X," (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, AS SHOWN ON MAP NO. 48020C0395C, DATED SEPTEMBER 29, 2010, FOR BEXAR COUNTY, TEXAS AND INCORPORATED AREAS. IF THIS SITE IS NOT WITHIN AN IDENTIFIED SPECIAL FLOOD HAZARD AREA, THE FLOOD STATEMENT OF THIS MAP IS NOT APPLICABLE TO PROPERTY AND THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

THIS SURVEY WAS PREPARED IN CONJUNCTION WITH THE TITLE COMMITMENT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO. NCS-648696-SNANT, EFFECTIVE DATE DECEMBER 30, 2013, ISSUED JANUARY 14, 2014, AND IS SUBJECT ONLY TO THE STATE OF FACTS CONTAINED THEREIN, AND RE-LISTED BELOW:

1. DELETED

10F) A 25 FOOT BUILDING SETBACK LINE ALONG THE FRONT PROPERTY LINE AS RECORDED IN VOLUME 7500, PAGE 57, DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS. (SUBJECT TO AS SHOWN)

10G) TERMS, CONDITIONS, AND STIPULATIONS CONTAINED IN AGREEMENT RECORDED IN VOLUME 8771, PAGE 1130, OFFICIAL PUBLIC RECORDS, BEXAR COUNTY, TEXAS, FOR ELECTRIC LINE RIGHT OF WAY AGREEMENT. (SUBJECT TO)

10H) 16 FOOT ELECTRIC AND UTILITY EASEMENT RECORDED IN VOLUME 6700, PAGE 10, DEED AND PLAT RECORDS, OF BEXAR COUNTY, TEXAS. (SUBJECT TO AS SHOWN AND PLOTTED).

●	1/2" IRON ROD FOUND (UNLESS NOTED)
○	1/2" IRON ROD SET
○	IRON PIPE FOUND
▲	NAIL FOUND
■	MONUMENT FOUND
★	LIGHT POLE
⚡	POWER POLE
⬇	DOWN GUARD
⚙	FIRE HYDRANT
⊗	WATER VALVE
⊠	WATER METER
⊞	ELECTRIC BOX
⊞	ELECTRIC METER
⊞	GAS METER
⊞	GAS VALVE
—+—	CHAIN LINK FENCE
—OE—	OVERHEAD ELEC. LINE
—G—	GAS LINE
WMHMO	WASTEWATER MANHOLE
SMHMO	STORMSEWER MANHOLE
TMHMO	TELEPHONE MANHOLE
CO+	WASTEWATER CLEANOUT
TSP+	TRAFFIC SIGNAL POST
—S—	SIGN
•	BOLLARD
P.O.B.	POINT OF BEGINNING
	BENCHMARK
(25)	PARKING COUNT
(HC)	HANDICAP SPACE

SANITARY SERVICE: SAWS
 ADDRESS: 2800 US HIGHWAY 281 NORTH, SAN ANTONIO, TEXAS 78207
 CONTACT: BOBBY JOHNSON
 PHONE: (210) 233-3483

WATER:
AGENCY: SAWS
 ADDRESS: 2800 US HIGHWAY 281 NORTH, SAN ANTONIO, TEXAS 78207
 CONTACT: KATHLEEN PRICE
 PHONE: (210) 233-3446

STORM DRAINAGE:
 AGENCY: CITY OF SAN ANTONIO, PUBLIC WORKS, DRAINAGE DEPT
 ADDRESS: 114 W. COMMERCE STREET SAN ANTONIO, TEXAS 78205
 CONTACT: MENDI UTMAN, P.E.
 PHONE: (210) 207-6050

ELECTRIC:
 CITY PUBLIC SERVICE
 ADDRESS: 145 NAVARRO, P.O. BOX 1771 SAN ANTONIO, TEXAS 78206
 CONTACT: TAMMY LEGOT
 PHONE: (210) 978-2815

GAS UTILITY:
 CITY PUBLIC SERVICE
 ADDRESS: 145 NAVARRO, P.O. BOX 1771 SAN ANTONIO, TEXAS 78206
 CONTACT: TAMMY LEGOT
 PHONE: (210) 978-2815

TELEPHONE:
 AGENCY: SOUTHWESTERN BELL TELEPHONE
 ADDRESS: COMMERCIAL BUILDING, ROOM 7600 SAN ANTONIO, TEXAS 78209
 CONTACT: THOMAS HARTER
 PHONE: (210) 820-7690

CABLE:
 TIME WARNER
 ADDRESS: 1900 BLUECREST, SAN ANTONIO, TEXAS 78247
 CONTACT: DARL LUSTIN
 PHONE: (210) 352-0082

TO: BIG DIAMOND, LLC, AND ITS AFFILIATES, INCLUDING WITHOUT LIMITATION, CST BRANDS, INC. AND TO FIRST AMERICAN TITLE INSURANCE COMPANY (THE "TITLE COMPANY"),

THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(B), 7(A), 7(B)(1), 8, 9, 11(B), 13, 14, 16, 17, 18, 19, 20 (A) AND 21 OF THE 2011 STANDARD. THE FIELD WORK WAS COMPLETED ON 02/28/14.

HAL B. LANE III
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 4690
BURY-SAN, INC.
922 ISOM ROAD, SUITE 100
SAN ANTONIO, TEXAS 78216-4184

3-26-14	2	REVISED CERTIFICATION PER CLIENT REQUEST	HBL
3-14-14	1	ADDED 16 ELEC AND UTILITY EASEMENT	HBL
DATE	NO.	REVISION	APPROVAL

ALTA/ACSM LAND TITLE SURVEY

OF A 1.351 ACRE TRACT OF LAND LOCATED IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS, BEING THAT CERTAIN 1.351 ACRE TRACT CONVEYED TO EMRLH4, LLC BY DEED OF RECORD IN VOLUME 13103, PAGE 1337 OF THE REAL PROPERTY RECORDS OF BEXAR COUNTY, TEXAS

CST BRANDS, INC.

SAN SABA STREET & HOUSTON STREET

DRAWN BY: MTH

SHEET
1

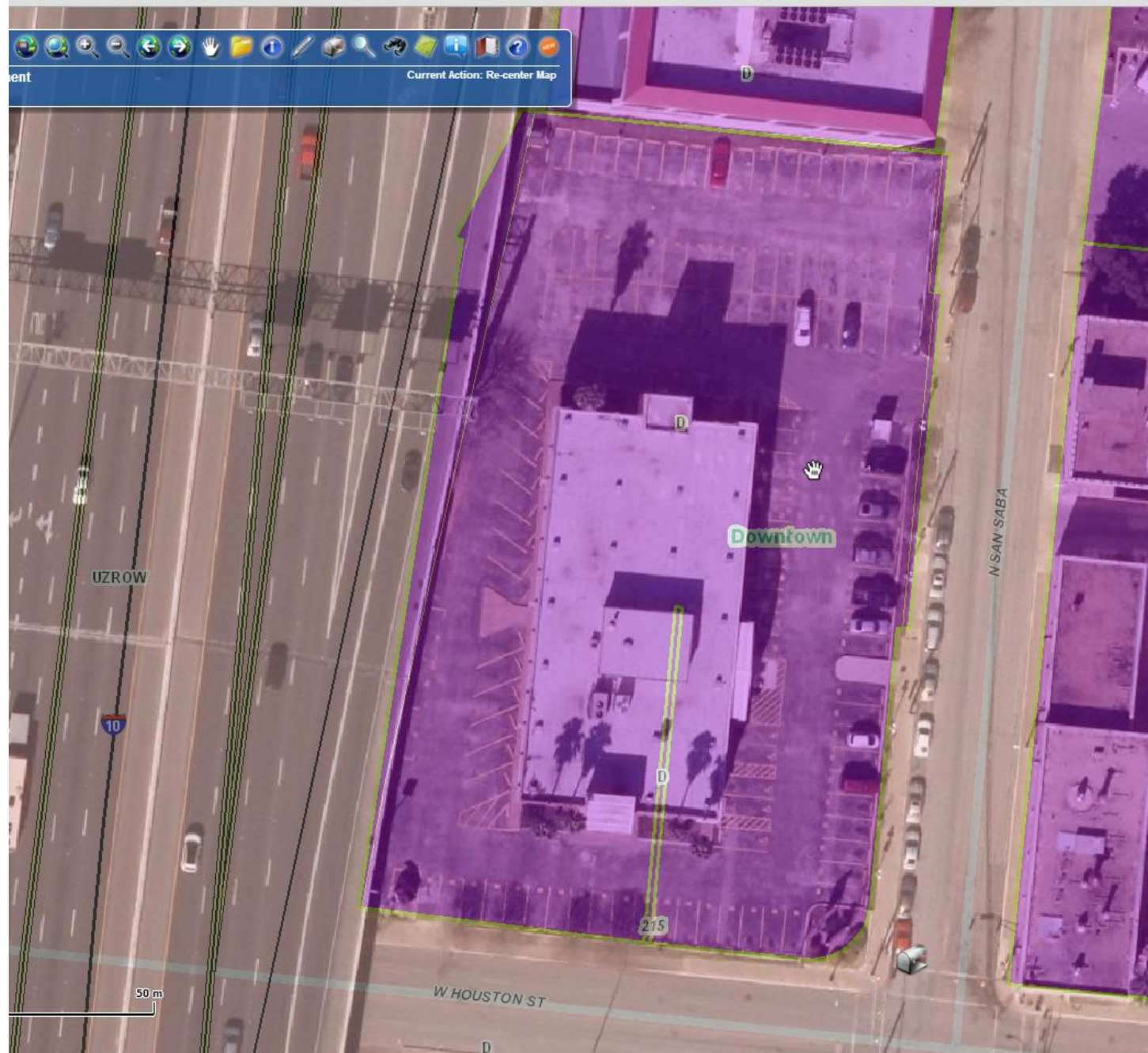
OF 1

DRAWING NO. SP-2



ent

Current Action: Re-center Map

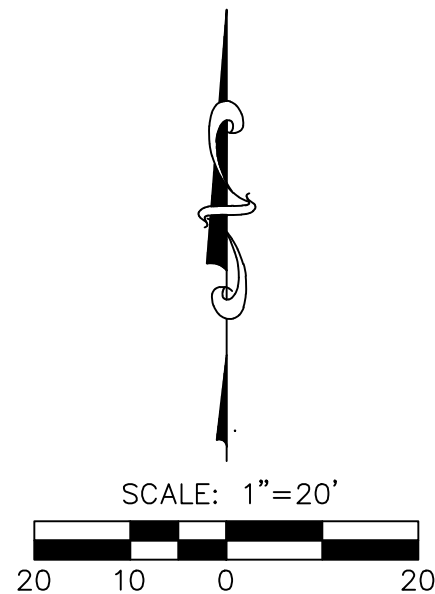




Know what's below.
Call before you dig.



CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	BEARING
C1	39.52'	25.00'	90°34'36"	35.53	S50° 15' 08.05"W



LEGEND		
EXISTING	PROPOSED	DESCRIPTION
---	---	PROPERTY (R.O.W.) LINE / SUBDIVISION BOUNDARY
---	---	ADJACENT PROPERTY
---	---	RECORD INFORMATION
---	---	BENCHMARK
---	---	LIGHT POLE
---	---	POWER POLE
---	---	DOWN GUY
---	---	TRANSFORMER (SIZE VARIES)
---	---	FIRE HYDRANT
---	---	WATER VALVE
---	---	WATER METER
---	---	WATER METER VAULT
---	---	WATER MANHOLE
---	---	TELEPHONE RISER
---	---	CABLE TV RISER
---	---	ELECTRIC BOX
---	---	ELECTRIC METER
---	---	GAS VALVE
---	---	GAS METER
---	---	TRAFFIC CONTROL BOX
---	---	TRAFFIC SIGNAL POST
---	---	UNDERGROUND GAS LINE MARKER
---	---	GREASE TRAP (SIZE VARIES)
---	---	STORMDRAIN LINE
---	---	WATER LINE
---	---	FIRE LINE
---	---	WASTEWATER LINE
---	---	GAS LINE
---	---	OVERHEAD ELECTRIC (PRIMARY)
---	---	UNDERGROUND ELECTRIC (PRIMARY)
---	---	UNDERGROUND ELECTRIC (SECONDARY)
---	---	UNDERGROUND TELEPHONE
---	---	UNDERGROUND CABLE
---	---	ELECTRIC MANHOLE (SIZE VARIES)
---	---	WASTEWATER MANHOLE (SIZE VARIES)
---	---	STORMDRAIN MANHOLE (SIZE VARIES)
---	---	TELEPHONE MANHOLE (SIZE VARIES)
---	---	FIRE DEPARTMENT CONNECTION
---	---	WASTEWATER CLEANOUT
---	---	CURB
---	---	HEADER CURB
---	---	SAWTOOTH CURB
---	---	RETAINING WALL
---	---	FENCE
---	---	CONCRETE SIDEWALKS
---	---	CONTOUR
---	---	DIRECTION OF FLOW
---	---	SPOT ELEVATION / TOP OF CURB
---	---	SPOT ELEVATION
---	---	SWALE
---	---	CONCRETE PAVEMENT
---	---	ASPHALT PAVEMENT

KIDNEY INSTITUTE
OF NORTH SAN SABA
215 N. SAN SABA STREET
SAN ANTONIO, TEXAS

DESIGNED BY: JC
DRAWN BY: JM
SCALE: 1"=SCALE'
DATE: 1/9/2015
SHEET NO.

OWNER:

REVISIONS:

DATE:

K LOVE
ENGINEERING
Site Development Engineering Services
Firm No. 11042
www.kloveengineering.com (210) 485-5683

Northeast Elevation



Southeast Elevation



Southwest
Elevation



Northwest
Elevation





ReCote™

Use Over

Brick
Concrete
Tilt-up Concrete
CMU
Stucco
Others approved in writing

VOC: <1% by Weight

VOC: 3 g/l

Manufacture Locations:
30058 • 77474 • 84651

**Packaging: 5 gallon (19L)
pail**

Pail Weight: 60 lbs (27 kg)

Shelf Life: 2 years

Coverage (estimated)
250-300 sf (23-28 sm)

Technical Data

Accelerated Weathering: Pass,
2000 hours

Specific Gravity g/cc: 1.70

Weight per Gallon, lbs: 13.0

Solids % by weight: 78.0

Solids % by Volume: 70.0

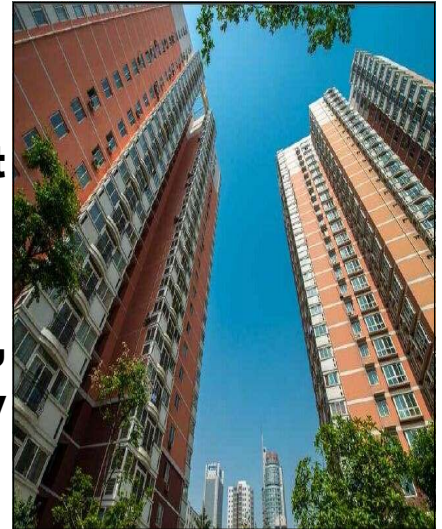
Wet Coating Thickness, mils:
25-30

Dry Coating Thickness, mils:
20-22

Solvent: Water

Master Wall® ReCote™
is an acrylic textured
wall coating formulated
for direct application to
masonry, concrete and
tilt-up concrete panels.

- **Beautifully light textured surface**
- **Apply with brush, roller or spray equipment**
- **64 Master Wall® Colors plus popular Boral® Colors**
- **Water-based for easy cleanup**



More Information



ReCote™



Master Wall Inc.®
Building a Culture of Excellence

masterwall.com

PO Box 397 • Fortson • GA • 31808 • 800-755-0825 • Tech: 800-760-2861



Temp: 50°-110°F (10°-43°C) • Working Time: 1/2 hr • Dry Time: 1-3 hrs (set) 24-48 (fully dry)
at room temperature, working and drying time will vary with temperature and humidity

Application Procedure

General - Air and substrate temperature for application of *ReCote*™ must be 50°F (10°C) or higher and must remain 50°F (10°C) or higher for a minimum of 24 hours. Working and drying times are based upon normal room temperature conditions and will vary with temperature and humidity. *ReCote*™ is not intended for horizontal applications such as floors, steps or other high traffic areas, or for below grade applications.

Preparation - Most existing surfaces will only need cleaning with an appropriate cleaner prior to the *ReCote*™ application. Avoid strong acid-based cleaners and allow all surfaces to fully dry prior to application. In situations where there is a drastic color change, walls are deteriorated, very porous, previously painted, or present other integrity issues use Master Wall Inc.® Primecoat Primer. The substrate must be approved by Master Wall Inc.®, clean, dry, structurally sound and free of efflorescence, oil, grease, form release agents and curing compounds or anything that would affect bond. Test painted surfaces prior to application. Concrete should cure for a minimum of 28 days.

Mixing - *ReCote*™ is pre-mixed in the pail, but minor separation may occur during shipping and storage. Prior to application, mix the material thoroughly with a drill and paddle mixer for several minutes to ensure proper blending. If a texture sprayer will be used for the application add 1 pint of water (16 oz, 0.47L) to the full pail prior to mixing. If the material is to be applied by brush, no additional water is needed. No boxing of materials is necessary, but when adding water make sure to add the same amount of water to each pail. Keep unused pails tightly sealed and protected from adverse conditions.

Brush or Roller Application - Applying *ReCote*™ with a brush or rollers should produce a durable, uniform finish under most situations. However, special attention should be given to how much material is loaded on the wall initially, how much excess material is left to pool in the mortar joints and how the brush marks or roller lines are minimized. Brushing or rolling the coating material on the wall, as opposed to spraying, will result in a slightly different finish and may reduce coverage. Heavy brush or roller marks can be minimized by re-brushing with a soft bristle brush using light pressure.

Spray Application - Using a hopper gun and air compressor or combined texture pump and air compressor unit, apply *ReCote*™ to the wall at a distance of 12-18 inches (0.3-0.5 m) from the surface. Use continuous regulated pressure to produce a consistent, fine spray. Always keep the spray gun pointed perpendicular to the wall and move at a pace sufficient to cover the masonry without flooding, built-up patches or runs. Work section by section in a circular pattern, overlapping each pass several inches so that a uniform thickness and texture is created. If the wall has recessed mortar joints or deep indentations in the surface, angle the spray equipment for complete coverage. For best results, a lighter second pass should be applied to even out color and texture variation before moving on to the next section.

Application Precautions - *ReCote*™ should not be applied when the substrate has a high moisture content as a result of heavy rain, recent cleaning, or a rising damp situation. High moisture levels can lead to coating damage and poor bond. To minimize the potential for streaking, splotchy areas and cold joints, fully complete sections and schedule stops at naturally occurring breaks in the wall such as an internal or external corner.

For spraying *ReCote*™, texture spray equipment must be used. Conventional airless or air assisted paint sprayers will clog and suffer damage from the sand content in *ReCote*™.

Clean-Up - *ReCote*™ may be cleaned with soap and water prior to drying. After the material has dried and cured, it can be removed with a wire brush or scraper, pressure washer using high pressure and a narrow angle spray tip or commercial strippers. Follow manufacturers instructions for spray equipment clean up.

Maintenance - Periodic maintenance cleaning to remove dirt, grime and other stains can be handled using a mild detergent cleaner or trisodium phosphate (TSP) with a soft bristle brush. If a pressure washer must be used make sure there is a combination of 1) sufficient but low pressure, 2) a wide angle spray tip, and 3) adequate distance from the wall to prevent any damage to the coating.

Caution-Ingestion hazard, keep out of the reach of children. If swallowed give 1-2 glasses of water. Do not induce vomiting. Based on the volume ingested, seek medical advice or immediate medical attention. In case of contact with eyes, flush thoroughly with warm water for 15 minutes. Obtain the MSDS for more detailed information at our website.



Equipment

Roller

Hopper Gun

Air Compressor

Commercial Texture
Sprayer

Recommended Settings

Latex compatible, 3/4"-1" nap

Orifice Size 3/16" (4-5 mm)

Rated 6.5 or greater CFM @90-100 PSI. Must deliver continuous regulated pressure of at least 60 PSI through a 3/8" hose. Consistency of pressure and volume to the gun is critical so make sure the compressor is sized to handle longer hose runs, fewer starts/stops and multiple spray guns.

Graco® RTX 1500, Graco® GTX 2000, Graco® 1030 FC or similar equipment using a 3/16" spray tip orifice.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Master Wall Inc.® products and is presented in good faith. Master Wall Inc.® assumes no liability, expressed or implied as to the architecture, engineering, or workmanship of any project. This information may be concurrent with, or superseded by other applicable documents, such as specifications and details. Contact Master Wall Inc.® for the most current product information. ©2014 Master Wall Inc.®



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masterwall.com

PO Box 397 • Fortson • GA • 31808 • 800-755-0825 • Tech: 800-760-2861

Section 09 97 26

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Technical • 800-760-2861 • FAX 734-433-0930

Part 1 General

1.01 GENERAL

- A. The Master Wall® ReCote™ Finish System for smooth precast and cast in place concrete consists of an acrylic primer and ReCote™ acrylic finish. When needed an acrylic modified base coat and/or fiberglass reinforcing mesh may be used to fill surface voids and level surfaces.

1.02 SCOPE OF WORK

- A. Provide all materials, labor, and equipment to install the Field Applied and/or Panelized Master Wall® ReCote™ Finish System.
- B. Related Sections:
1. Concrete 03300
 2. Unit Masonry 04200
 3. Light Gauge Steel Framing 05400
 4. Sheathing 06100
 5. Sheet Metal Flashing and Trim 07620
 6. Sealants 07900
 7. Doors and Windows 08000

1.03 TERMS / DEFINITIONS

- A. Applicator – The contractor that applies the Master Wall® ReCote™ Finish System.
- B. Base Coat – Material used to fill surface voids and level surfaces when needed.
- C. Base Coat Mixture – A field mixed blend of base coat and Portland cement.
- D. Building Expansion Joint – A joint through the entire building structure designed to accommodate structural movement.
- E. Expansion Joint – A designed joint in the continuity of a material, assembly, or system, designed to accommodate movement.
- F. ReCote™– An acrylic based, factory mixed decorative and protective coating that is applied to the base coat or to an approved substrate that has been properly prepared and primed.
- G. Primer – An acrylic solution applied to the substrate to equalize the absorption and/or enhance the bond of the coating.
- H. Reinforcing Mesh – Balanced, open weave, basic glass fiber mesh supplied by the manufacturer of the ReCote™ Finish System, treated for compatibility with other materials of the system, which functions to strengthen the surface and aid in leveling.
- I. Substrate - The approved material to which the ReCote™ Finish System is applied.

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1.04 QUALITY ASSURANCE

A. Design and Detailing

1. General

- a. Master Wall Inc.® current published specifications, data sheets, technical bulletins and other literature/information are minimum standards and guidelines that shall be followed when designing and detailing a project with the Master Wall® ReCote™ Finish System.
- b. Details shall conform to Master Wall Inc.® specifications and application instructions and shall be consistent with the project requirements.
- c. Master Wall Inc.® must approve deviations from the standard published specifications and application instructions in writing.
- d. The architect, engineer or the designer of the project should determine where the dew point would occur in relationship to the wall assembly and the project location during summer and winter conditions.
- e. The minimum slope of inclined surfaces shall not be less than 6" in 12" with a maximum length of 12" unless approved in writing by Master Wall Inc.® Inclined surfaces which are or could be defined as roofs by the building codes or application are not approved by Master Wall Inc.®
- f. The Master Wall® ReCote™ Finish System shall not be used on parapet caps.
- g. It is the responsibility of the architect and the purchaser to determine if a product is suitable for their intended use. The architect or designer of the project shall be responsible for all decisions pertaining to the design, details, structural capability, attachment details, shop drawings and the like. Master Wall Inc.® has prepared specifications, data sheets and technical bulletins to assist as guidelines for the use and installation of the products. Master Wall Inc.® is not responsible for the design, details, structural capability, attachment details and shop drawings whether it is based on Master Wall Inc.® information or not.

2. Substrates

- a. Acceptable substrates are poured in place concrete, precast concrete and conventional stucco and Master Wall® Base Coats.
- b. The flatness and finished appearance of the Master Wall® ReCote™ Finish System will depend on the flatness of the substrate and the skill of the applicator.
- c. Substrates not approved in the manufacturer's published literature shall be approved by the manufacturer in writing prior to the application of the system.
- d. The project architect or engineer shall engineer the substrate with regard to the required structural performance.

3. Expansion Joints

- a. Expansion joints are required at building expansion joints, at prefabricated panel joints, where substrates change, and where structural movement is anticipated. Reference construction documents for specific locations.

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4. Sealants

- a. Sealants and backer rod, as required at expansion joints and dissimilar substrates, shall provide a complete watertight system.
- b. The sealants in an expansion joint, or any sealant joint that anticipates significant movement, shall be bonded to the base coat, not the finish coat. Providing reinforcing mesh is used, the color of the mesh shall not be visible and the texture of the mesh shall not be exposed within the base coat at these locations.

5. Flashings

- a. Roof
 - 1) Crickets and step flashing shall be properly installed around chimneys.
 - 2) Flashing shall be installed at rooflines in a manner to prevent any intrusion of water behind the ReCote™ Finish System. This shall include the use of roof kick-out flashing at roof terminations.
- b. Openings
 - 1) Heads, jambs, and sills of all rough openings shall be treated in accordance with the designers' requirements and per window manufacturer requirements in a manner to prevent any intrusion of water behind the ReCote™ Finish System.

6. Penetrations

- a. All penetrations through the system such as hose bibs, dryer vents, lighting fixtures, air-conditioning hoses, etc. must be properly sealed to insure the integrity of the system.

B. Qualifications

1. The Applicator shall be knowledgeable in the proper installation of the ReCote™ Finish System.
2. The Applicator shall have demonstrated the ability to install the system on projects of similar size and complexity.
3. The Manufacturer of the substrate shall have demonstrated the ability to manufacture the substrate for projects of similar size and complexity.
4. The Applicator shall provide the proper equipment, manpower and supervision on the job site to install the system in compliance with project plans and specifications.
5. The sealant contractor shall be experienced in the installation of high performance industrial and commercial sealants.
6. Prior to the installation of the Master Wall® ReCote™ Finish System, erect sample wall mock-up using materials and joint details required for final work. Provide special features as directed for sealant and contiguous work. Build mock-up at the site where directed of full thickness, indicating the proposed color, texture, and workmanship to be expected in the completed work. Obtain architect's acceptance of the mock-up in regard to aesthetic quality before start of work. Retain mock-up during construction as a standard for judging completed work. Do not alter, move, or destroy mock-up until work is completed, and until final acceptance of the project by architect.

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1.05 SUBMITTALS

- A. The Applicator shall submit a list of completed projects of like size and complexity.
- B. The Applicator shall submit ReCote™ Finish System Manufacturer's current literature, data sheets, brochures, and specifications.
- C. The Applicator shall submit sufficient samples of each finish texture and color selected. The samples shall be prepared with the same tools and techniques required for the actual project. Color and texture should be approved based on the job site mock-up samples.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials in original unopened packages with labels intact. Verify all quantities, colors, and textures against bill of lading.
- B. Store all materials protected from direct exposure to weather conditions and at temperatures not less than 40° F (4° C) or greater than 110° F (43° C).
- C. Material safety data sheets (MSDS) shall be supplied for the components of the ReCote™ Finish System and be available at the job site.

1.07 JOB CONDITIONS

- A. Ambient air temperatures shall be 40° F (4° C) or greater and rising at the time of installation of the Master Wall Inc.® products and shall remain at 40° F (4° C) or greater for at least 24 hours after application.
- B. Provide supplemental heat and protection as required when the temperature and conditions are not in accordance with installation requirements. Sufficient ventilation and time shall be provided to ensure that materials have sufficiently dried prior to removing supplemental heat.
- C. Adequate protection shall be provided to prevent weather conditions (humidity, temperature, and precipitation) from having an affect on the curing or drying time of Master Wall Inc.® materials.
- D. Adjacent materials and the ReCote™ Finish System shall be protected during installation and while curing from weather and shall be protected from site damage.
- E. Coordinate installation of the Master Wall® ReCote™ Finish System with related work specified in other sections to ensure that the wall assembly is protected to prevent water from getting behind the ReCote™ Finish System. The cap flashing shall be installed as soon as possible after the finish coat has been applied. When this is not possible, temporary protection shall be provided immediately in this area.
- F. All sealants shall be installed in a timely manner. Protect open joints from water intrusion during construction with backer rod, or temporary covering, until permanently sealed.
- G. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffolding lines, texture variations, etc.

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1.08 REPAIR AND MAINTENANCE

- A. Refer to Master Wall Inc.® specific repair and maintenance procedures.
- B. Sealants and flashings shall be inspected annually to verify that the products are not allowing water intrusion behind the ReCote™ Finish System. If sealant and/or flashings are allowing water intrusion behind the ReCote™ Finish System, repairs should be made immediately.

1.09 LIMITED MATERIALS WARRANTY

- A. A Limited Materials Warranty shall be issued upon the receipt of a properly completed warranty request form.

PART 2 PRODUCTS

2.01 GENERAL

- A. All components of the Master Wall® ReCote™ Finish System shall be obtained from Master Wall Inc.® or its authorized distributors. No substitutions of, or additions of, other materials shall be submitted without prior written permission from Master Wall Inc.® Substitutions or additions will void the warranty.

2.02 MATERIALS

- A. Reinforcing Mesh (optional)
 - 1. Standard Mesh – nominal 4.5 oz./sq. yd. open weave glass fiber fabric, treated for alkaline resistance and compatibility with Master Wall® Base Coats, and conforming to ASTM D-76, D-579, D-5035, and MIL-Y-1140.
- B. Base Coats (optional, to fill voids or level surfaces)
 - 1. F & M, F&M Plus: An acrylic-based product mixed one-to-one by weight with Portland cement designed for use over an approved substrate. (F & M Plus is recommended for use as the base coat in the Master Wall® ReCote™ Finish System when substrates require leveling.)
 - 2. Bagged Base Coat (MBB, MBB Plus): A polymer based cementitious product mixed with 5 to 6 quarts of water for use over an approved substrate. (MBB Plus is recommended for use as the base coat in the Master Wall® ReCote™ Finish System when substrates require leveling.)
- C. Water Resistant Base Coat (optional)
 - 1. Guardian – An acrylic-based product mixed one-to-one by weight with Portland cement for use over an approved substrate. (This product should be used as designated on the construction drawings where additional resistance to moisture is needed, i.e. sloped surfaces.)

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- D. Primer: Primecoat Primer or Sanded Primecoat Primer, tinted to match the finish color.
- E. Finish: Master Wall Inc.® ReCote™ textured acrylic finish.
- F. Water: Shall be clear, clean and potable without any foreign matter in the solution that may affect the color and setting qualities of the cement, base or finish coat.
- G. Cement: Type I or I-II Portland cement meeting ASTM C-150.
- H. Sealants Systems (waterproofing trades): Reference sealant specification (Section 07920) and Master Wall® sealant recommendations (Technical Bulletin MW-131-050101) for acceptable sealants.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Prior to installation of the ReCote™ Finish System, the contractor shall verify that the substrate:
 - 1. Is an approved substrate.
 - 2. 3. Is flat within 6.4 mm (1/4 in) in a 3.05 m (10 ft) radius.
 - 3. Is sound, dry, connections are tight, has no surface voids, projections or other conditions that may interfere with the ReCote™ Finish System installation or performance.
- B. Prior to the installation of the ReCote™ Finish System, the architect or general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the ReCote™ Finish application. Additionally, the Contractor shall ensure that:
 - 1. Metal roof flashing has been installed in accordance with Asphalt Roofing Manufacturers Association (ARMA) Standards.
 - 2. Openings are flashed as necessary to prevent water penetration.
 - 3. Chimneys, Balconies, and Decks have been properly flashed.
 - 4. Windows, Doors, etc. are installed and flashed per manufacturer's requirements.
- C. Prior to the installation of the ReCote™ Finish System, the contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

3.02 PREPARATION

- A. The ReCote™ Finish materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
- B. Protect adjoining work and property during ReCote™ Finish installation.
- C. The substrate shall be prepared as to be free of foreign materials, such as, oil, dust, dirt, form release agents, efflorescence, paint, wax, water repellents, moisture, frost and any other condition that inhibit adhesion.

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3.03 INSTALLATION

- A. The system shall be installed in accordance with the current Master Wall Inc.® ReCote™ Finish System Application Instructions.
- B. The overall minimum base coat thickness shall be sufficient to fully embed the mesh, when used.
- C. Sealant shall not be applied directly to textured finishes.
- D. When installing the ReCote™ Finish System, adhere according to Master Wall Inc.® and local requirements.

3.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper application of the ReCote™ Finish materials.
- B. Master Wall Inc.® assumes no responsibility for on-site inspections or application of its products.
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Master Wall Inc.® recommendations.

3.05 CLEANING

- A. All excess ReCote™ Finish System materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where the ReCote™ Finish System has been installed, shall be left free of debris and foreign substances resulting from the contractor's work.

3.06 PROTECTION

- A. The ReCote™ Finish System shall be protected from inclement weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.

Disclaimer

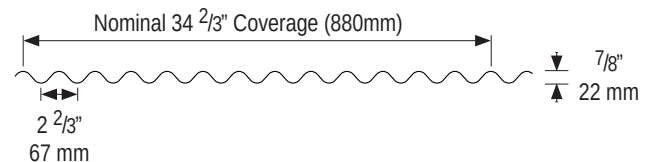
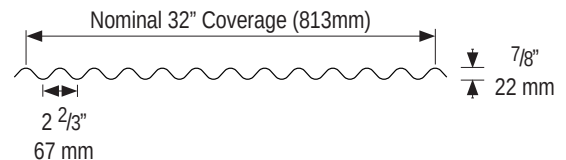
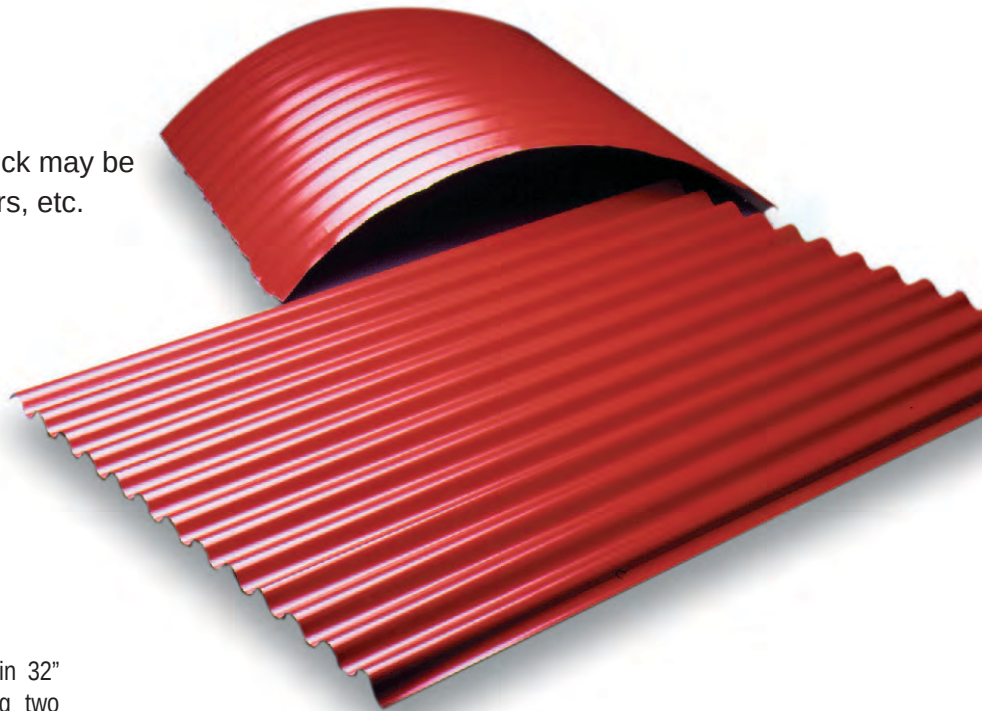
This Specification is published for general informational purposes only and is not intended to imply that these are the only materials, procedures, or methods, which are available or suitable. Materials, procedures, or methods may vary according to the particular circumstances, local building code requirements, design conditions, or statutory and regulatory requirements. While the information in this specification is believed to be accurate and reliable, it is presented without guarantee or responsibility on the part of Master Wall Inc.®

Berridge S-Deck

Corrugated structural metal decking. S-Deck may be curved for covered walkways, shelter covers, etc.

- Rigid 24-gauge or 22-gauge steel
- Vertical and horizontal applications
- 32" panels can be factory curved
- Minimum 5' radius for curved panels (10' min. radius for 22GA)
- ASTM E-1592 tested
- Florida Product Approval
- UL 790 fire rating
- UL 2218 class 4

Curved S-Deck Notes: Curved S-Deck is available in 32" exposure panels only. Berridge recommends lapping two corrugations on panel side laps when using curved S-Deck. Exposure will be 29-1/3" with two laps or 32" with one lap. Add 6" to 8" extra to all panel lengths for Curved S-Deck.



24 GAUGE S-DECK SECTION PROPERTIES

GAUGE	INCHES	WT. (PSF)	FY (KSI)	I_x (in ⁴ /ft)	M_A (ft-lbs/ft)
24	.024	1.24	40	0.0326	144.9

ALLOWABLE UNIFORM LOADS (PSF)

MATERIAL THICKNESS (INCHES)	DEAD + LIVE LOAD (STRESS)						LIVE LOAD DEFL (L/240)					
	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
.024	215	149	110	83	66	53	257	149	94	63	44	32

22 GAUGE S-DECK SECTION PROPERTIES

GAUGE	INCHES	WT. (PSF)	FY (KSI)	I_x (in ⁴ /ft)	M_A (ft-lbs/ft)
22	.030	1.55	40	0.0408	180

ALLOWABLE UNIFORM LOADS (PSF)

MATERIAL THICKNESS (INCHES)	DEAD + LIVE LOAD (STRESS)						LIVE LOAD DEFL (L/240)					
	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
.030	266	185	136	104	82	66	269	187	118	79	55	40

NOTES:

1. Section Properties and Allowable Stresses have been calculated in accordance with the 2007 AISI Specifications for the Design of Cold-Formed Steel Structural Members.
2. Panel steel conforms to ASTM A792 Structural Steel Grade 40.
3. Values shown as allowable loads are based on panels covering three equal continuous spans. Multiply the values by 0.85 for two span dead + live load (stress).
4. The Panel weight has been deducted from the allowable load tables.



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6515 Fratt Road
San Antonio, Texas 78218
(800) 669-0009 • www.berridge.com

MANUFACTURER

Berridge Manufacturing Company
6515 Fratt Road
San Antonio, Texas 78218
Phone: (800) 669-0009 Toll Free
(210) 650-3050 Local
Fax: (210) 650-0379

SECTION 07610 SHEET METAL ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preformed, prefinished metal roofing and flashings.
- B. Miscellaneous trim, flashing, closures, drip flashing, and accessories.
- C. Sealant.
- D. Fastening devices.

1.02 RELATED SECTIONS

- A. Section 05120: Structural Steel Framing.
- B. Section 05500: Miscellaneous Metal Fabrication.
- C. Section 06100: Rough Carpentry.
- D. Section 07631: Flashing and Sheet Metal Gutters.
- E. Section 07900: Sealants.

1.03 REFERENCES

- A. American Iron & Steel Institute (AISI) Specification for the Design of Cold formed Steel Structural Members.
- B. ASTM A-653-09 Steel Sheet, Zinc-Coated (Galvanized)
- C. ASTM 792-86 AZ-50 Aluminum Zinc Alloy Coated Steel (Galvalume Sheet Metal
- D. ASTM E-1680
- E. ASTM E-1646
- F. ASTM E-1592
- G. Spec Data Sheet - Aluminum Zinc Alloy Coated Steel (Galvalume) Sheet Metal by Bethlehem Corp.
- H. SMACNA - Architectural Sheet Metal Manual.
- I. Building Materials Directory - Underwriter's Laboratories, Test Procedure 580 - UL-90.

1.04 ASSEMBLY DESCRIPTION

- A. The roofing assembly includes preformed sheet metal panels, related accessories, valleys, hips, ridges, eaves, corners, rakes, miscellaneous flashing and attaching devices.

1.05 SUBMITTALS

- A. Submit detailed shop drawings showing layout of panels, anchoring details, joint details, trim, flashing, and accessories. Show details of weatherproofing, terminations, and penetrations of metal work at 0'-3"= 1'-0" scale.
- B. Submit a sample of each type of roof panel, complete with factory finish.
- C. Submit results indicating compliance with minimum requirements of the following performance tests:
 - 1. Air Infiltration - ASTM E 1680
 - 2. Water Infiltration - ASTM E 1646
 - 3. Wind Uplift - UL 90
- D. Submit calculations with registered engineer seal, verifying roof panel and attachment method resist wind pressures imposed on it pursuant to applicable building codes.

1.06 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in Architectural Sheet Metal Products with ten (10) years minimum experience.
- B. No product substitutions shall be permitted without meeting specifications.
- C. Substitutions shall be submitted 10 days prior to bid date and acceptance put forth in an addendum.
- D. No substitutions shall be made after the bid date.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Upon receipt of panels and other materials, installer shall examine the shipment for damage and completeness.

- B. Panels should be stored in a clean, dry place. One end should be elevated allowing moisture to run off.
- C. Panels with strippable film must not be stored in the open, exposed to the sun.
- D. Stack all materials to prevent damage and to allow adequate ventilation.

1.08 WARRANTY

- A. Paint finish shall have a twenty-year warranty against cracking, peeling and fading (not to exceed 5 N.B.S. units).
- B. Galvalume material shall have a twenty-year warranty against failure due to corrosion, rupture or perforation.
- C. Roofing Installer shall furnish guarantee covering watertightness of the roofing system for the period of two (2) years from the date of substantial completion.
- D. When required, Roofing Installer to furnish, Manufacturer's standard watertightness warranty; Roofing Installer to comply with Manufacturer's watertightness warranty program and submit to manufacture all required documents. Watertightness warranty program to include roofing installation inspections which Roofing Installer shall participate.

PART 2 PRODUCT

2.01 ACCEPTABLE MANUFACTURERS

- A. Berridge Manufacturing Company, San Antonio, Texas.
- B. Substitutions shall fully comply with specified requirements.

2.02 SHEET MATERIALS

- A. Prefinished metal shall be Aluminum-Zinc Alloy Coated (AZ-50 Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min.
- B. Finish shall be full strength Kynar 500® or Hylar 5000™ fluoropolymer coating applied by the manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75 ± 0.05 mil over 0.20 ± 0.05 mil prime coat, to provide a total top side dry film thickness of 0.95 ± 0.10 mil. Bottom side shall be coated with a primer (non-metallics only) and beige urethane coating with a total dry film thickness of 0.35 ± 0.05 mil. Finish shall conform to all tests for adhesion, flexibility, and longevity as specified by the Kynar 500® or Hylar 5000™ finish supplier.
- C. Strippable film shall be applied to the top side of all prefinished metal to protect the finish during fabrication, shipping and field handling. This strippable film MUST be removed immediately before installation.
- D. Unpainted metal shall be Aluminum-Zinc Alloy Coated (AZ-55 Acrylic Coated Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min., with clear acrylic coating on both sides of material.
- E. Field protection must be provided by the contractor at the job site so stacked or coiled material is not exposed to weather and moisture.
- F. Flashing maybe factory fabricated or field fabricated. Unless otherwise specified all exposed adjacent flashing shall be of the same material and finish as panel system.

2.03 ACCESSORY MATERIALS

- A. Fasteners: [Galvanized Steel] or [Stainless Steel] with washers at exposed fasteners where approved by architect.
- B. Sealant: Sealant shall be an ultra low modulus, high performance, one-part, moisture curing silicone joint sealant. [Tremco Spectrum One] or [Dow 790] or [Pecora 890NST] or [Duralink] or [Titebond Metal Roof Sealant] (Do not use a clear sealant or sealants which release a solvent or acid during curing).
- C. Sealant must be resistant to environmental conditions such as wind loading, wind driven rain, snow, sleet, acid rain, ozone, ultraviolet light and extreme temperature variations.
- D. Features must include joint movement capabilities of +100% & -50% ASTM C-719, capable of taking expansion, compression, transverse and longitudinal movement, service temperature range -65°F to 300°F (-54°C to 149°C), Flow, sag or slump: ASTM C-639; Nil, Hardness (Shore A): ASTM C-661; 15, Tensile strength at maximum elongation: ASTM D-412; 200 psi, Tensile strength at 100% elongation: ASTM D-412; 35 psi, Tear strength, (die "C"); ASTM D-624; 40 pli, Peel strength (Aluminum, Glass, Concrete): ASTM C-794; 30 pli
- E. Vinyl Weatherseal Insert.

2.04 FABRICATION

- A. All exposed adjacent flashing shall be of the same material and finish as the roof panels.
- B. Hem all exposed edges of flashing on underside, ½ inch.

2.05 BERRIDGE "S" DECK PANEL

1. Nominal coverage width to be [32"] or [34 2/3"].
2. Panels shall be factory formed to 40' max. As an option, panels may be factory curved to a minimum radius of 5'-0" (32" width only). Curved S-Deck is 29 1/3" with double lap or 34" nominal total width.
3. 7/8" corrugations to be spaced 2 ½" on center.
4. Panel-to-panel and panel-to-purlin connections to be with No. 12-14 self-drilling fasteners, 1" min. for panel-to-purlin connections, ¾" minimum for panel-to-panel connections.

5. When used as a finish roof panel over open framing, compressible blanket insulation to be maximum 4 ½" thickness before compression.
6. For roof applications, a line of tape sealant for weathertightness shall be used at panel side laps and end laps.

PART 3 EXECUTION

3.01 INSPECTION

A. Substrate

1. Examine plywood or metal deck to ensure proper attachment to framing.
2. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves or projections, level to ¼" in 20' and properly sloped to [valleys] (or) [eaves].
3. Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set, cant strips and reglets in place, and nailing strips located.
4. Verify deck is dry and free of snow or ice. [Flutes in steel deck to be clean and dry] or [joints in wood deck to be solidly supported and nailed].

B. Underlayment:

1. Verify [#30 unperforated asphalt saturated roofing felt underlayment has been installed over solid plywood or OSB sheathing and fastened in place] or [ice & water shield membrane on metal deck].
2. One (1) layer of #30 asphalt roofing felt paper for roof slopes of 3:12 and up, two (2) layers for roof slopes of 1:12 - 3:12 in moderate climates (check with Berridge).
3. Ice & Water Shield underlayment to be used on all curved applications and on low (less than 1:12) slope or complex roofs per Berridge recommendation.
4. Underlayment materials approved by Berridge for a watertightness warranty include - Grace Ice & Water Shield (40 mil), Grace Ultra (30 mil), Tamko TW Underlayment (40 mil), Tamko TW Metal & Tile (75 mil), Carlisle WIP 300 HT (40 mil), Soprema Lastobond Shield HT (40 mil), Polyglass Polystick MTS (60 mil), and Mid-States Asphalt Quik-Stick HT Pro (60 mil) *PLEASE NOTE, NO OTHER MID-STATES ASPHALT PRODUCTS WITH SIMILAR NAMES OR OTHERWISE ARE APPROVED FOR THE BERRIDGE WATERTIGHTNESS WARRANTY PROGRAM
5. Ensure felt installed horizontally, starting at eave to ridge with a 6" minimum overlap and 18" endlaps.
6. Ensure that all nail heads and felt caps are totally flush with the substrate. Fasteners shall be galvanized roofing nails or zinc-coated fasteners with Berridge Coated Felt Caps.

3.02 INSTALLATION

- A. Comply with manufacturers standard instructions and conform to standards set forth in the Architectural Sheet Metal Manual published by SMACNA, in order to achieve a watertight installation.
- B. Install panels in such a manner that horizontal lines are true and level and vertical lines are plumb.
- C. Install starter and edge trim before installing roof panels.
- D. Remove protective strippable film prior to installation of roof panels.
- E. Attach panels using manufacturer's standard clips and fasteners, spaced in accordance with approved shop drawings.
- F. Install sealants for preformed roofing panels as approved on shop drawings.
- G. Do not allow panels or trim to come into contact with dissimilar materials.
- H. Do not allow traffic on completed roof. If required, provide cushioned walk boards.
- I. Protect installed roof panels and trim from damage caused by adjacent construction until completion of installation.
- J. Remove and replace any panels or components which are damaged beyond successful repair.

3.03 CLEANING

- A. Clean any grease, finger marks or stains from the panels per manufacturer's recommendations.
- B. Remove all scrap and construction debris from the site.

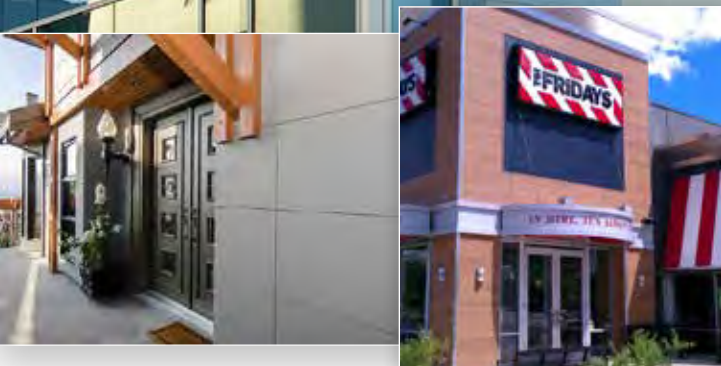
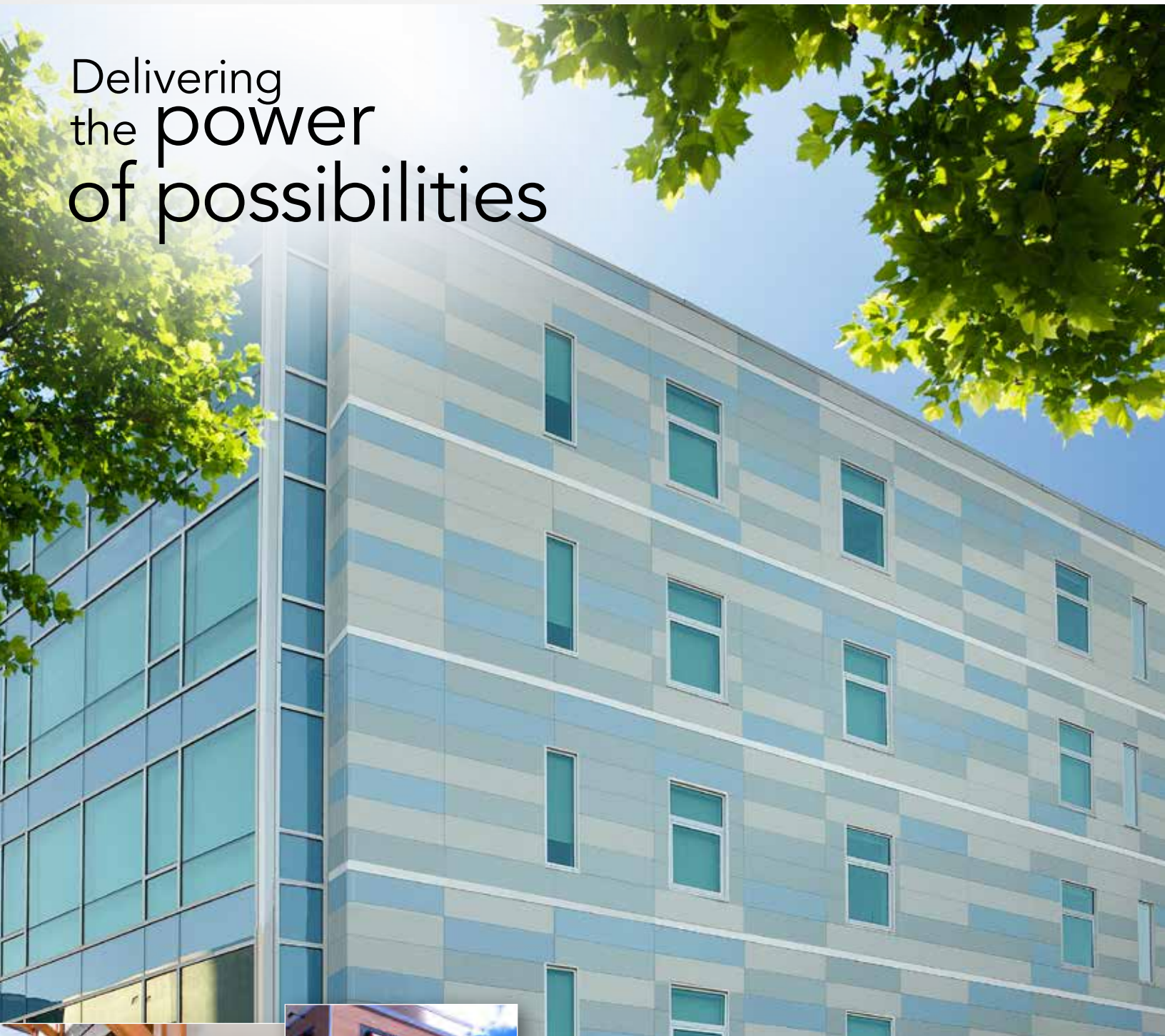
3.04 FINAL INSPECTION

- A. Final inspection will be performed by a firm appointed and paid for by the owner in accordance with section 01410.

END OF SECTION

NOTE: Please reference Berridge Manufacturing Company's current Sweet's Catalog 07 61 00/BER , Sweet's BuyLine 49510 and 07 41 00/BER and Berridge's web site at www.berridge.com for standard product offering with regard to materials, gauges, finishes and colors available.

Delivering
the **power**
of possibilities



the power of possibilities™

The look you envisioned...
the Performance you hoped for

When you're looking for clean lines...
take a look at ArchitecturalBlock



Contemporary good looks, space-age performance

The clean, linear look of Nichiha ArchitecturalBlock™ is a versatile choice for commercial and residential projects alike. Its cool modern tones and subtle seams are the perfect partner for gleaming glass, stainless steel or even a splash of neon. ArchitecturalBlock is a handsome, durable and cost effective solution. The ease of installation and wide variety of corner options make it as popular with contractors as it is with clients.



ArchitecturalBlock is also available with an optional score in the middle of the panel. The distinctive deep score mark gives the impression of 3-ft panels for decidedly different appearance from the standard panel.

ARCHITECTURALBLOCK™ SERIES

LARGE AND SMALL



GRAY



MOCHA



TUSCAN

ARCHITECTURALBLOCK™ SERIES

PROFILE	LARGE 18" x 6' WITHOUT SCORE SMALL 18" x 6' WITH SCORE
DIMENSIONS (NOM. FT. ~ ACTUAL MM)	18" [H] x 6' [L] (455MM [H] x 1,818MM [L])
THICKNESS (NOM. IN. ~ ACTUAL MM)	5/8 (16MM)
WEIGHT (LBS. PER PANEL)	37.9
WEIGHT (LBS. PER SQ. FT.)	4.2
EXPOSED COVERAGE (SQ. FT. PER PANEL)	9
PACKAGING (PIECES PER PACK)	2 [18 SQ. FT.]

*TEXTURE VARIES BY COLOR SELECTION

Don't sweat the small stuff...we already have

Nichiha's unique installation hardware and accessories ensure that taking your vision from the drawing board to reality is a cinch.



STARTER TRACK (10')

5MM	FA 100 B
10MM	N/A



CORRUGATED SHIM (4')

5MM	FS 1005
10MM	FS 1010



VERTICAL STARTER TRACK (6.6')

5MM	FA 300 T
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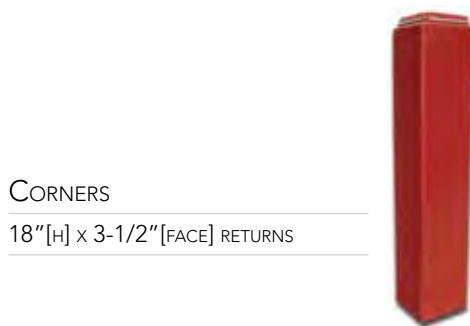
SINGLE FLANGE SEALANT BACKER (6.5')

5MM	FHK 1110 R
10MM	FHK 1017 R



DOUBLE FLANGE SEALANT BACKER (10')

5MM	FH 1010 R
10MM	FH 1020 R



CORNERS

18"[H] X 3-1/2"[FACE] RETURNS



CORNER CLIP

PANEL THICKNESS	5/8"	3/4"
5MM	JE 550 C	JE 650 C
10MM	N/A	N/A



PANEL CLIP

PANEL THICKNESS	5/8"	3/4"
5MM	JE 550	JE 650
10MM	JE 710	JE 720CA



SHORT JOINT CLIP

PANEL THICKNESS	5/8"	3/4"
5MM	JEJ 555	JEJ 607
10MM	N/A	N/A



LONG JOINT CLIP

PANEL THICKNESS	5/8"	3/4"
5MM	JEL 551	JEL 651
10MM	JEL 552	JEL 652



HIGH-WIND-LOAD ALUMINUM CLIP
w/JOINT ATTACHMENT

PANEL THICKNESS	5/8"	3/4"
5MM	JES 301	JES 302
10MM	N/A	N/A



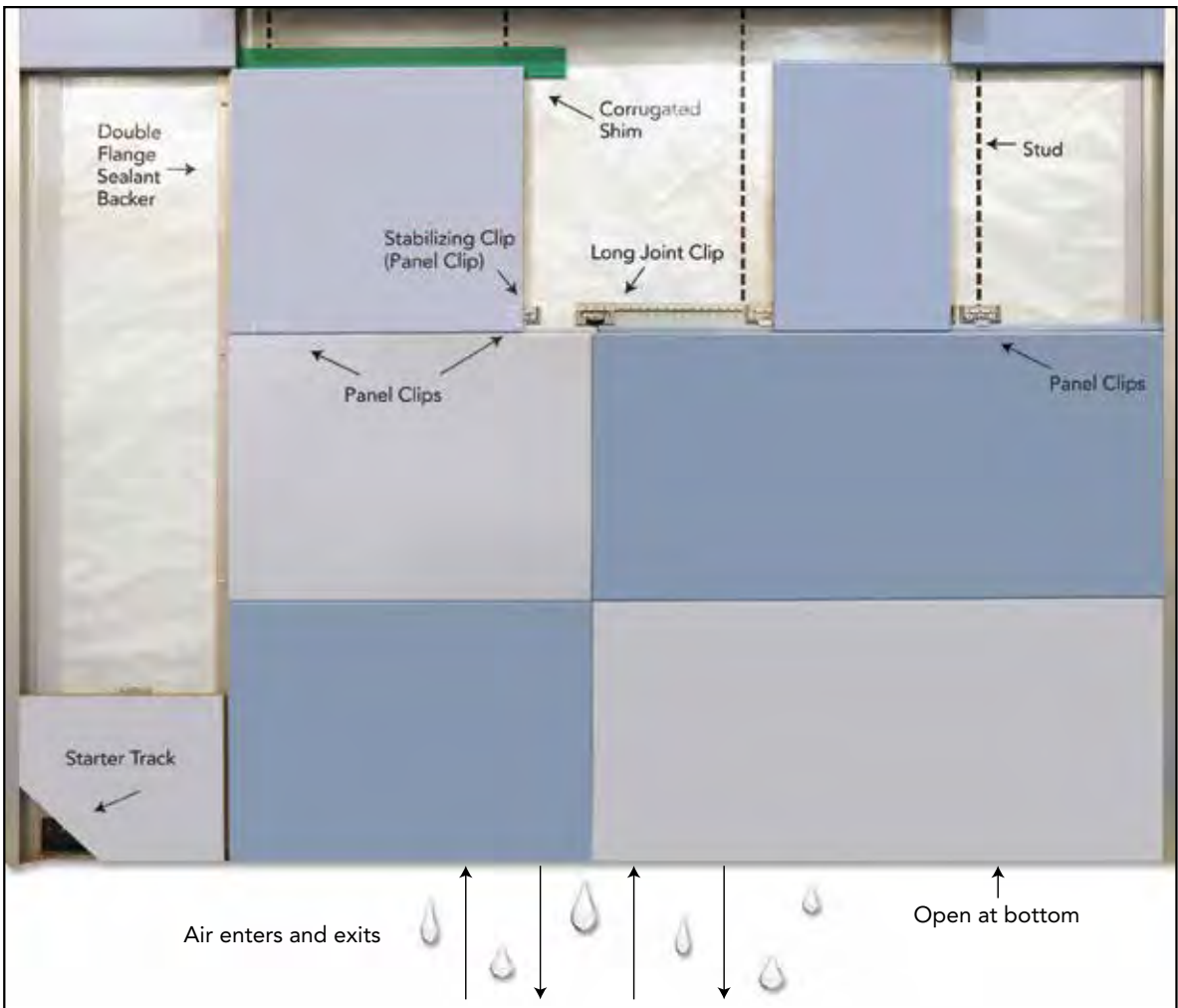
KURASTONE™ CLIP

5MM	JE 602
10MM	JE 720CA

A closer look at How it works

Quick and easy

A truly unique element of Nichiha Architectural Wall Panels is the clip installation system. This patented installation system reduces installed costs, as no special tools or specific trade labor are needed to complete installation. The clip system also creates a pocket of air between the panels and substrate, reducing the potential for moisture build-up. No exposed fasteners mean a clean, beautiful look for any application. As versatile as they are convenient, Nichiha panels can be installed on all of the most common substrates: Traditional wood framing - Concrete and masonry (CMU's) - Structural insulated panels (SIP's) and metal frame construction.



The Nichiha panel system installs 9 square feet at a time utilizing our patented clip system to provide an air gap between the panels and the substrate of up to 10mm. Panels are installed over a starter track and attached to framing with panel clips. A long joint clip is used at the top of all vertical joints, with a stabilizing clip (panel clip) at the bottom. The corrugated shims act as a vented spacer to maintain the air gap behind the panels any time the panel's shiplap must be cut, or when a clip cannot be used. The single and double-flange sealant backers take the place of traditional foam backers in areas where panels butt to trim, at expansion joints, windows, doors or inside corners. For more detailed installation instructions, please visit nichiha.com.

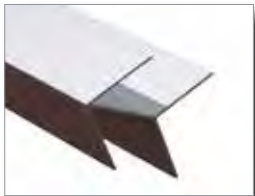
Completing the system just became easier...



Like the perfect accessory, Nichiha's customized Tamlyn trim can add the finishing touches to any project. It's not only simple and sleek; it's a cost-effective and time-efficient solution to finishing corners, windows and door trims. Choose from 5 trim profiles specifically designed for Nichiha's Architectural Wall Panels to create a durable yet handsome appearance.

Enhancing your project style doesn't mean you have to compromise on performance. Tamlyn's trim for Nichiha provides weather-resistant coatings so you can expect low maintenance and long-lasting beauty.

Whether you prefer the crisp look of clear anodized finish or color matching Illumination Series panels with your selected trim profiles... you're sure to make a statement. If color is your thing... we have you covered. Illumination Series Color Xpression System is available with all trim profiles. We make it a cinch to achieve the look you're after... all with the simple installation you desire.



CORNER KEY

DIMENSIONS	3" x 10'
(NOM. FT. ~ ACTUAL MM)	(76.2MM x 3,030MM)
WEIGHT (LBS. PER PIECE)	3.89
PACKAGING (LN. FT. PER PIECE)	50



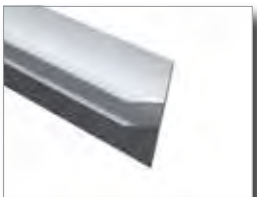
OPEN OUTSIDE CORNER

DIMENSIONS	2.96" x 10'
(NOM. FT. ~ ACTUAL MM)	(75MM x 3,030MM)
WEIGHT (LBS. PER PIECE)	2.98
PACKAGING (LN. FT. PER PIECE)	50



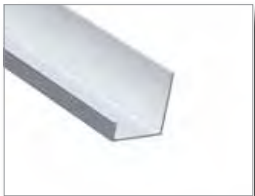
H-MOLD

DIMENSIONS	2" x 10'
(NOM. FT. ~ ACTUAL MM)	(50.8MM x 3,030MM)
WEIGHT (LBS. PER PIECE)	2.42
PACKAGING (LN. FT. PER PIECE)	50



BEAD REVEAL

DIMENSIONS	.5" x 10'
(NOM. FT. ~ ACTUAL MM)	(12.7MM x 3,030MM)
WEIGHT (LBS. PER PIECE)	2.46
PACKAGING (LN. FT. PER PIECE)	50



J-MOLD

DIMENSIONS	.375" x 10'
(NOM. FT. ~ ACTUAL MM)	(9.5MM x 3,030MM)
WEIGHT (LBS. PER PIECE)	1.4
PACKAGING (LN. FT. PER PIECE)	50

Tamlyn's trim profiles are designed to install best with Nichiha's 10mm rainscreen clip system. However, the same appearance can be achieved with our 5mm clip system but requires additional installation procedures. For help using the 5mm clip system with Tamlyn's trim profiles, please contact your Nichiha Architectural Representative or our Technical Department at 1.866.424.4421.

Never underestimate the power of really good tools

Whether you're an architect, a builder or a contractor, Nichiha wants to see to it that you have all the information you need to make your project go as smoothly as possible. The way we see it, we're partners.

Our website offers a comprehensive collection of technical information, Architectural details, in depth specifications and everything you'll ever need to know about installing Nichiha products. We invite and encourage you to visit our website at nichiha.com.

And by all means, if you have a troublesome question or comment, our ears are always open. Call us at 1.866.424.4421 or visit us at nichiha.com.

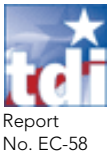
NICHIHA WARRANTIES

- Illumination Series Panels – 50-year limited warranty* on panels, 15-year limited warranty* on finish.
- Nichiha Block, Stone, Brick, VintageWood™ and EmpireBlock™ Panels – 50-year limited warranty* on panels, 15-year limited warranty* on finish.
- KuraStone™ Panels – 50-year limited warranty* on panels, 10-year limited warranty* on finish.
- Metal Trim: TAMLYN warrants defective-free products for a period of 10 years for the original purchaser. Please visit tamlyn.com for detailed information on terms, conditions and limitations.

* See Nichiha warranties for detailed information on terms, conditions and limitations. Visit nichiha.com for easy downloadable warranties or call toll-free 1.866.424.4421 for a copy.

Nichiha MSDS is available at nichiha.com, at your local NICHIIHA dealer or call NICHIIHA direct, toll-free 1.866.424.4421.

Certification
& testing:



Report
No. EC-58



Report
No. FL12875



Report
No. 13083-R
No. 13205-R



Report
No. ESR-1694



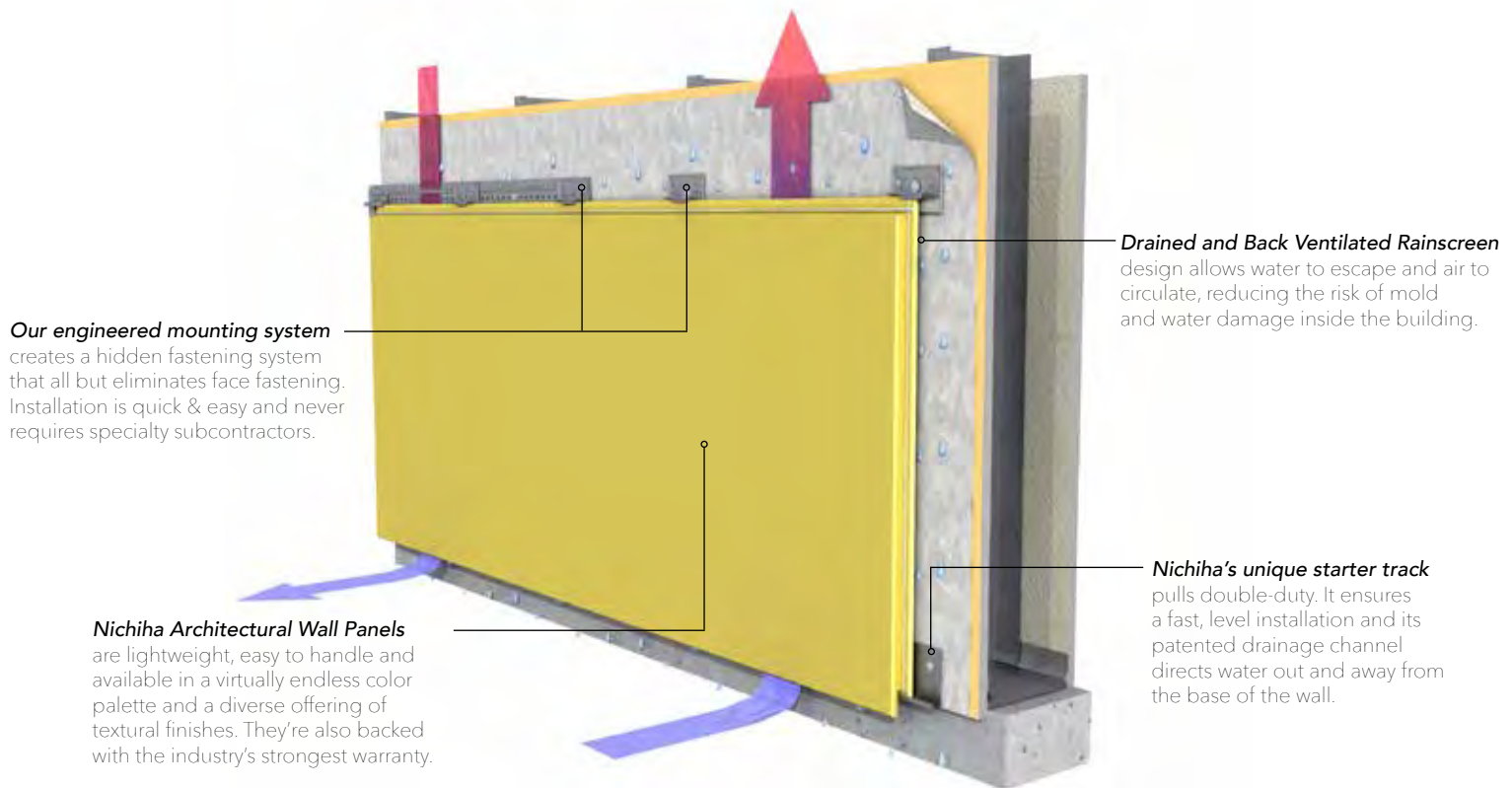
Silica Dust Warning: NICHIIHA products may contain some amounts of crystalline silica [a.k.a. sand, silicon dioxide], which is a naturally occurring mineral. The amount will vary from product to product. Inhalation of crystalline silica into the lungs and repeated exposure to silica can cause health disorders, such as silicosis, lung cancer, or death depending upon various factors. To be conservative, Nichiha recommends that whenever cutting, sawing, sanding, sniping or abrading the product, users observe the Safety Instructions above. For further information or questions, please consult the MSDS, your employer, or visit www.osha.gov/SLTC/silicacrystalline/index.html and www.cdc.gov/niosh/topics/silica. The MSDS for Nichiha products are available at www.nichiha.com, at your local Nichiha dealer or through Nichiha directly at 1.866.424.4421. FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND OTHER INSTRUCTION MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

ARCHITECTURALBLOCK, CANYONBRICK, EMPIREBLOCK, FIELDSTONE, KURASTONE, PLYMOUTHBRICK, QUARRYSTONE, SANDSTONE, THE POWER OF POSSIBILITIES, VINTAGEBRICK and VINTAGEWOOD are trademarks of Nichiha USA, Inc.



Giving you the power of possibilities™

Nobody sees the world quite like you do. Your sense of style and vision knows no bounds. Nichiha fiber cement cladding products are a perfect match. Because we believe the potential for fiber cement is virtually limitless as well. And we're proving it everyday. Our ever-expanding offering of textures and finishes takes buildings of all kinds to new and unexpected places. Nobody delivers the high performance of fiber cement like Nichiha. If you're planning on building or remodeling just about anything... we're confident that our wide range of product options will help you unleash a world of opportunities. We invite you to explore the power of possibilities.



Get the inside story...

learn more at nichiha.com/insidestory



AIA Credit:
1 LU/HSW Hour

Scan this QR code or visit www.nichiha.com/lunchandlearn for more information on Nichiha's CEU rainscreen course.



the power of possibilities™



Architectural Block Three-Part Specification

07 43 42

Composite Wall Panels

Part I - General

1.1 SECTION INCLUDES:

- A. Exterior, panelized fiber cement cladding system and accessories to complete a drained and back-ventilated rainscreen.
- B. Interior fiber cement panelized cladding system and accessories.

1.2 RELATED SECTIONS

- A. Section 05 41 00 - Structural Metal Stud Framing
- B. Section 06 10 00 - Rough Carpentry
- C. Section 06 16 00 - Sheathing
- D. Section 07 20 00 - Thermal Protection
- E. Section 07 25 00 - Weather Barriers
- F. Section 07 60 00 - Flashing and Sheet Metal
- G. Section 07 90 00 - Joint Protection

1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
 - 1. AAMA 509-09 – Voluntary Test and Classification Method of Drained and Back Ventilated Rain Screen Wall Cladding Systems
- B. ASTM International (ASTM):
 - 1. ASTM C 518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - 2. ASTM C 1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber Cement.
 - a. ASTM C 1186 – Standard Specification for Flat Fiber-Cement Sheets.
 - 3. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 - 4. ASTM E 228 - Standard Test Method for Linear Thermal Expansion of Solid Materials with a Vitreous Silica Dilatometer.

5. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 6. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 7. ASTM G 23 - Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) with and without Water for Exposure of Nonmetallic Materials, Replaced by G152 and G153.
- C. Florida Building Code - Test Protocol HVHZ
1. Testing Application Standard (TAS) 201, 202, 203 – Impact Test Procedures
- D. Underwriters Laboratories (UL):
1. UL 723/ASTM E-84 - Standard Test for Surface Burning Characteristics of Building Materials.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Submit manufacturer's product description, standard detail drawings relevant to the project, storage and handling requirements, and installation instructions.
- C. Product Test Reports and Code Compliance: Documents demonstrating product compliance with local building code, such as test reports or Evaluation Reports from qualified, independent testing agencies.
- D. LEED Credits: Provide documentation of LEED Credits for project certification under USGBC LEED 2009 (Version 3.0).
- E. Shop Drawings: Submit drawings, including plan, section, and elevation drawings, showing installation details that demonstrate product layout, dimensions, finish colors, edge/termination conditions/treatments, compression and control joints, openings, and penetrations.
- F. Samples: Submit samples of each product type proposed for use.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
1. All fiber cement panels specified in this section must be supplied by a manufacturer with a minimum of 10 years of experience in fabricating and supplying fiber cement cladding systems.
 - a. Products covered under this section are to be manufactured in an ISO 9001 certified facility.

2. Provide technical and design support as needed regarding installation requirements and warranty compliance provisions.

B. Installer Qualifications: All products listed in this section are to be installed by a single installer trained by manufacturer or representative.

C. Mock-Up Wall: Provide a mock-up wall as evaluation tool for product and installation workmanship.

D. Pre-Installation Meetings: Prior to beginning installation, conduct conference to verify and discuss substrate conditions, manufacturer's installation instructions and warranty requirements, and project requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Panels must be stored flat and kept dry before installation. A waterproof cover over panels and accessories should be used at all times prior to installation.

B. If panels are exposed to water or water vapor prior to installation, allow to completely dry before installing. Failure to do so may result in panel shrinkage at ship lap joints, and such action may void warranty.

C. Panels MUST be carried on edge. Do not carry or lift panels flat. Improper handling may cause cracking or panel damage.

D. Direct contact between the panels and the ground should be avoided at all times. It is necessary to keep panels clean during installation process.

1.7 WARRANTY

A. Provide manufacturer's 50-year warranty against manufactured defects in fiber cement panels.

B. Provide manufacturer's 15-year warranty against manufactured defects in panel finish.

C. Warranty provides for the original purchaser. See warranty for detailed information on terms, conditions and limitations.

PART II: PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Nichiha Corporation, 18-19 Nishiki 2-chome Naka-ku, Nagoya, Aichi 460-8610, Japan.

B. Acceptable Manufacturer's Representative: Nichiha USA, Inc., 6465 E. Johns Crossing, Suite 250, Johns Creek, GA 30097. Toll free: 1.866.424.4421, Office: 770.805.9466, Fax: 770.805.9467, www.nichiha.com.

1. Basis of Design Product: Nichiha Architectural Block.

a. Profile colors: Grey, Mocha, Tuscan.

i. Panel color(s):

b. Profiles: Large (without score line) or Small (with added score line).

c. Optional Accessories:

i. Manufactured corners with 3-1/2" returns for each profile color.

ii. Aluminum trim to be painted per finish schedule.

d. Dimensions: Nominal - 18" (h) x 6' (l);

Actual - 455mm (h) x 1,818 mm (l).

e. Panel Thickness: 5/8 inch (16 mm actual).

f. Finish: Matte, lightly textured.

g. Weight: 35.27 lbs. per panel (6').

h. Coverage: 9 sq. ft. per panel (6').

i. Factory sealed on six [6] sides.

C. Substitutions: Not permitted.

D. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 MATERIALS

A. Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles.

B. Panel surface pre-finished and machine applied.

C. Panels profiled along all four edges, such that both horizontal and vertical joints between the installed panels are ship-lapped.

D. Factory-applied sealant gasket added to top and right panel edges; all joints contain a factory sealant.

2.3 PERFORMANCE REQUIREMENTS:

A. Fiber Cement Cladding – Must comply with ASTM C-1186, Type A requirements:

1. Linear Variation with Change in Moisture Content: 0.17% linear change.

2. Wet Flexural Strength, lower limit: 580 psi.

3. Water Tightness: No water droplets observed on any specimen.

4. Freeze-thaw: No damage or defects observed.

5. Warm Water: No evidence of cracking, delamination, swelling, or other defects observed.

6. Heat-Rain: No crazing, cracking, or other deleterious effects, surface or joint changes observed in any specimen.

B. Mean Coefficient of Linear Thermal Expansion (ASTM E-228): Max 1.0×10^{-5} in./in. F.

C. Surface Burning (UL 723/ASTM E-84): Flame Spread: 0, Smoke Developed: 5.

D. Wind Load (ASTM E-330): Refer to manufacturer installation guidelines for ultimate test pressure data corresponding to framing dimensions, fastener type, and attachment clips. Project engineer(s) must determine Zone 4 and 5 design pressures based on project specifics.

1. Minimum lateral deflection: $L/120$.

E. Water Penetration (ASTM E-331): No water leakage observed into wall cavity.

F. Weather Resistant (ASTM G-23): No cracking, checking, crazing, erosion, or other detrimental effects observed.

G. Steady-State Heat Flux and Thermal Transmission Properties Test (ASTM C-518): thermal resistance R Value of 1.23 F.

H. Fire Resistant (ASTM E-119): The wall assembly must successfully endure 60-minute fire exposure without developing excessive unexposed surface temperature or allowing flaming on the unexposed side of the assembly.

I. Drained and Back Ventilated Rainscreen (AAMA 509-09): System must pass all component tests.

J. Florida Building Code - Test Protocol HVHZ (TAS 201, 202, 203): Passed.

2.4 INSTALLATION COMPONENTS

A. Ultimate Clip System:

1. Starter Track: FA 700 (10mm rainscreen) – 10' (I) galvalume.
2. Panel Clips: JEL 777 "Ultimate Clip" (10mm rainscreen for 5/8" AWP) – 400 series stainless steel.
 - a. Joint Tab Attachments (included).
3. Single Flange Sealant Backer – FHK 1017 (10mm) – 6.5' (I) fluorine coated galvalume.
4. Double Flange Sealant Backer – FH 1020 (10mm) – 10' (I) fluorine coated galvalume.
5. Corrugated Spacer – FS 1005 (5mm), FS 1010 (10mm) – 4' (I).
6. Finish Clip (optional) – JE310 (5mm)

B. Aluminum Trim (optional): Paint as specified in finish schedule.

- C. Fasteners: Corrosion resistant fasteners, such as hot-dipped galvanized screws appropriate to local building codes and practices must be used. Use Stainless Steel fasteners in high humidity and high-moisture regions. Panel manufacturer is not liable for corrosion resistance of fasteners. Do not use aluminum fasteners, staples or fasteners that are not rated or designed for intended use. See manufacturer's instructions for appropriate fasteners for construction method used.
- D. Flashing: Flash all areas specified in manufacturer's instructions. Do not use raw aluminum flashing. Flashing must be galvanized, anodized, or PVC coated.
- E. Sealant: Sealant shall be polyurethane, or hybrid, and comply with ASTM C920.

PART III: EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 - 1. Fiber cement panels can be installed over braced wood, steel studs and sheathing including plywood, OSB, plastic foam or fiberboard sheathing. Fiber cement panels can also be installed over Structural Insulated Panels (SIP's), Concrete Masonry Units (CMU's) and Concrete Block Structures (CBS's) with furring strips, and Pre-Engineered Metal Construction.
 - 2. Allowable stud spacing: See manufacturer's installation instructions for details.
 - 3. A weather resistive barrier is required when installing fiber cement panels. Use an approved weather resistive barrier (WRB) as defined by the 2012 IRC. Refer to local building codes.
 - 4. Appropriate metal flashing should be used to prevent moisture penetration around all doors, windows, wall bottoms, material transitions and penetrations. Refer to local building codes for best practices.
- B. Examine site to ensure substrate conditions are within specification for proper installation.
- C. Do not begin installation until unacceptable conditions have been corrected.
- D. Do not install panels or components that appear to be damaged or defective. Do not install wet panels.

3.2 INSTALLATION

- A. General: Install products in accordance with the latest installation guidelines of the manufacturer and all applicable building codes and other laws, rules, regulations and ordinances. Review all manufacturer installation, maintenance instructions, and other applicable documents before installation.

1. Consult with your local dealer or Nichiha Technical Department before installing any Nichiha fiber cement product on a building higher than 45 feet or three stories. Special installation conditions may be required.

B. Panel Cutting

1. Always cut fiber cement panels outside or in a well ventilated area. Do not cut the products in an enclosed area.
2. Always wear safety glasses and NIOSH/OSHA approved respirator whenever cutting, drilling, sawing, sanding or abrading the products. Refer to manufacturer MSDS for more information.
3. Use a dust-reducing circular saw with a diamond-tipped or carbide-tipped blade.
 - a. Recommended circular saw: Makita 7-1/4" Circular Saw with Dust Collector (#5057KB).
 - b. Recommended blade: Tenryu Board-Pro Plus PCD Blade (#BP-18505).
 - c. Shears (electric or pneumatic) or jig saw can be used for complicated cuttings, such as service openings, curves, radii and scrollwork.
4. **Silica Dust Warning:** Fiber cement products may contain some amounts of crystalline silica, a naturally occurring, potentially hazardous mineral when airborne in dust form. Consult product MSDS or visit www.osha.gov/SLTC/silicacrystalline/index.html.

3.3 CLEANING AND MAINTENANCE

- A. Review manufacturer guidelines for detailed care instructions.



> YCW 750 XT

High Performance Curtain Wall
Featuring Dual Thermal Barriers



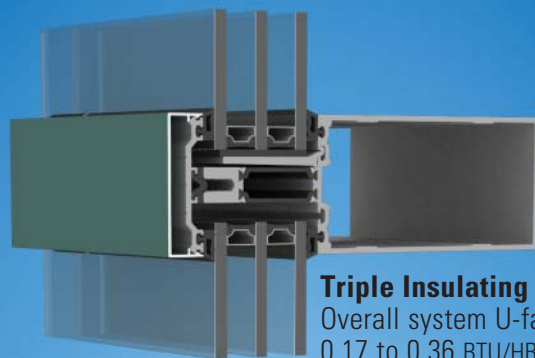
Energy Saving Curtain Wall with Multiple Glazing Options

YCW 750 XT yields best-in-class thermal performance and exceeds not only current codes, but also exceeds the most stringent green building codes and standards in the market today. This 2-1/2" sightline outside glazed curtain wall system utilizes MegaTherm® technology with structural polyamide struts (in 3 widths) that accommodate standard 1" glazing units as well as advanced glazing options such as triple glazing and suspended film technology.

To ensure long-term structural integrity, the dead load of the insulating glass rests on integrated structural supports, diverting this load away from the thermal barriers.

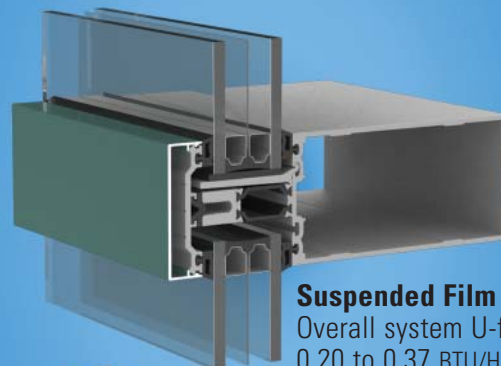
Product Benefits/Performance

- Outstanding Thermal Performance – three MegaTherm strut widths allow Glazing infills of 1", 1-1/2", and 2" and overall U-factors as low as 0.17
- Warmer interior surfaces – Increased resistance to condensation, with a CRF, up to 82
- Optional integral sill flashing
- Ability to integrate with building's air-vapor barrier
- Water (ASTM E 331): 15 PSF
- STC (ASTM E 90): 1" IG; 32, 1" Laminated; 35
- OITC (ASTM E 1425): 1" IG; 27, 1" Laminated; 30
- Integrates with sun control products ThermaShade® and Luminance®



Triple Insulating Glass

Overall system U-factor:
0.17 to 0.36 BTU/HR/FT²/°F



Suspended Film Glazing

Overall system U-factor:
0.20 to 0.37 BTU/HR/FT²/°F



Standard 1" Glazing

Overall system U-factor:
0.30 to 0.53 BTU/HR/FT²/°F

> YCW 750 XT

High Performance Curtain Wall System Featuring Dual Thermal Barriers

Specifications

Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.

- For spans less than 13'-6" (4.1m): L/175 or 3/4" (19.1mm) maximum.
- For spans greater than 13'-6" (4.1m) but less than 40'-0" (12.2m): L/175 or L/240 + 1/4" (6.4mm).

Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance.

Air Infiltration: Completed curtain wall systems shall have 0.06 CFM/FT² (1.10 m³/h·m²) maximum allowable infiltration when tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa).

Water Infiltration: No uncontrolled water on indoor face of any component when tested in accordance with:

- ASTM E 331 at a static pressure of 15 PSF (718 Pa).
- AAMA 501.1 at a dynamic pressure of 15 PSF (718 Pa).

Thermal Performance: When tested in accordance with AAMA 1503.1 and NFRC 102 based on 1" clear high performance insulating glass, 1/4" Clear (E=0.040 #2), 1/2" Air Space, 1/4" Clear, having a center of glass U-factor of 0.29 BTU/HR/FT²/°F.

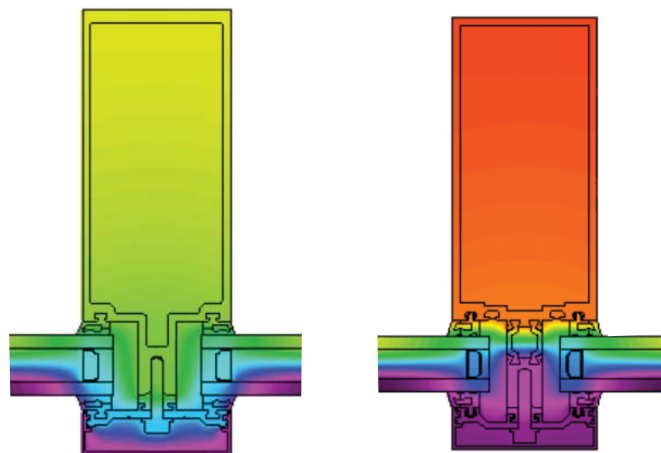
Note to Specifier: The U-factor and CRF for the glazed system as a whole will be affected by the characteristics of the glass specified.

- Thermal Transmittance U-factor: 0.37 BTU/HR/FT²/°F or less.
- Condensation Resistance Factor (CRF_f): A minimum of 78.

Complete CSI Specifications available at www.ykkap.com/productmaster

Thermal Imaging

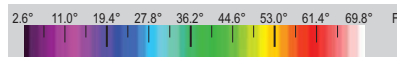
Frame temperature comparison values based on 0° exterior, and 70° interior air temperatures.



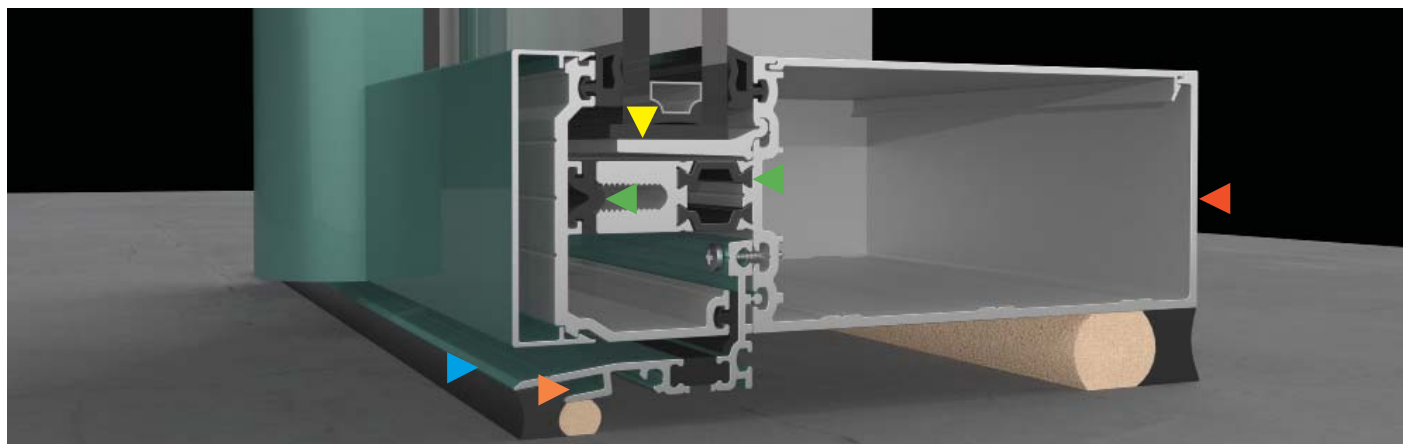
YCW 750 OG

YCW 750 XT

Temperature Scale



- ▼ **DUAL THERMAL BARRIER** - polyamide struts (6/6 with glass fibers on all three axes) and thermal isolator
- ▼ **WARMER INTERIOR SURFACES** - Greater occupant comfort and increased resistance to condensation, with CRF_f values up to 82
- ▼ **INTEGRATED STRUCTURAL SUPPORT** - Carry dead load of the insulating glass, diverting load away from polyamide struts
- ▼ **OPTIONAL INTEGRAL SILL FLASHING** - Diverts internally drained water away from adjacent building components at sill
- ▼ **OPTIONAL BREAK METAL INTERFACE** - Allows flashing to extend further from the building at the sill



Additional product information including CAD details, CSI formatted specifications, and installation instructions are available online at ykkap.com under the Products category. Please contact your local branch office if you do not have internet access.

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Glazed Aluminum Curtain Walls:
 - 1. YKK AP Series YCW 750 XT Aluminum Curtain Wall System
- B. Related Sections:
 - 1. Sealants: Refer to Division 7 Joint Treatment Section for sealant requirements.
 - 2. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.
 - 3. Single Source Requirement: All products listed below shall be by the same manufacturer.
 - a. Section 08 32 13 Sliding Aluminum-Framed Glass Doors.
 - b. Section 08 41 13 Aluminum-Framed Entrances and Storefronts.
 - c. Section 08 51 13 Aluminum Windows.
 - d. Section 08 44 33 Sloped Glazing Assemblies.

1.02 SYSTEM PERFORMANCE DESCRIPTION

- A. Performance Requirements: Provide aluminum curtain wall systems that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test method indicated.
 - 1. Air Infiltration: Completed curtain wall systems shall have 0.06 CFM/FT² (1.10 m³/h·m²) maximum allowable infiltration when tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa).
 - 2. Water Infiltration:
 - a. No uncontrolled water on indoor face of any component when tested in accordance with ASTM E 331 at a static pressure of 15 PSF (718 Pa).
 - b. No uncontrolled water on indoor face of any component when tested in accordance with AAMA 501.1 at a dynamic pressure of 15 PSF (718 Pa).
 - 3. Optional Incidental Water Management: Head member shall be capable of directing condensation from the wall cavity above the curtain wall to the exterior of the system.
 - 4. Wind Loads: Completed curtain wall system shall withstand wind pressure loads normal to wall plane indicated:
 - a. Exterior Walls:
 - 1) Positive Pressure:
 - 2) Negative Pressure:
 - b. Interior Walls (Pressure Acting in Either Direction):
 - 5. Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.
 - a. For spans less than 13'-6" (4.1m): L/175 or 3/4" (19.1mm) maximum. .
 - b. For spans greater than 13'-6" (4.1m) but less than 40'-0" (12.2m): L/175 or L/240 + 1/4" (6.4mm).
 - 6. Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.
 - 7a. Thermal Performance:
 - a. YCW 750 XT when tested in accordance with AAMA 1503.1, AAMA 507, and NFRC 100 based on 1" clear high performance insulating glass, 1/4" Clear (E=0.040 #2), 1/2" Air Space, 1/4" Clear, having a center of glass U-factor of 0.29 BTU/HR/FT²/°F with an NFRC U-factor of 0.37 BTU/HR/ FT²/°F.

Note to Specifier: The U-factor and CRF for the glazed system as a whole will be affected by the characteristics of the glass specified and percentage of vision area.

- b. Condensation Resistance Factor (CRF_f): 78, with a CRF_g of 67.
- c. Thermal Transmittance U-Factor: 0.37 BTU/HR/FT²/°F or less.

Note: Performance based on lab testing and will vary by glass type; see actual test reports.

7b. Thermal Performance:

- a. YCW 750 XT when tested in accordance with AAMA 1503.1, AAMA 507, and NFRC 100 based on 1-1/2" clear high performance insulating glass, 1/4" Cardinal E272 (e=0.042*, #2) Heat Strengthened, 0.28" Gap, Aluminum Spacer (A1-D), 95% Krypton-Filled, 0.002 SMIONE, 0.35" Gap, Aluminum Spacer (A1-D), 95% Krypton-Filled, 0.003" Southwall Technologies, Inc. HM88 (e=0.110*, #5), 0.28" Gap, Aluminum Spacer (A1-D), 95% Krypton-Filled, 1/4" Clear Heat-Strengthened having a center of glass U-factor of 0.10 BTU/HR/FT²/°F.

Note to Specifier: The U-factor and CRF for the glazed system as a whole will be affected by the characteristics

of the glass specified and percentage of vision area.

- b. Condensation Resistance Factor (CRF_i): 82
- c. Thermal Transmittance U-Factor: 0.20 BTU/HR/FT²/°F or less.

Note: Performance based on lab testing and will vary by glass type; see actual test reports.

7c. Thermal Performance:

- a. YCW 750 XT when tested in accordance with AAMA 1503., AAMA 507, and NFRC 100 based on 2" clear high performance glass, 1/4" Viracon VE1-85 (e=0.02040*, #2) Heat-Strengthened, 0.69" Gap, Aluminum Spacer (A1-D), Air-Filled*, 1/4" Viracon VE1-85 (e=0.088*, #4) Heat-Strengthened, 0.69" Gap, Aluminum Spacer (A1-D), Air-Filled*, 1/4" Clear Heat-Strengthened, having a center of glass U-factor of 0.16 BTU/HR/FT²/°F.

Note to Specifier: The U-factor and CRF for the glazed system as a whole will be affected by the characteristics of the glass specified and percentage of vision area.

- b. Condensation Resistance Factor (CRF_i): 82
- c. Thermal Transmittance U-Factor: 0.24 BTU/HR/FT²/°F or less.

Note: Performance based on lab testing and will vary by glass type; see actual test reports.

8. Acoustical Performance: When tested in accordance with AAMA 1801:

- a. Sound Transmission Class (STC) shall not be less than 32 for heat strengthened; 35 for laminated glazing.
- b. Outdoor-Indoor Transmission Class (OITC) shall not be less than 27 for heat strengthened; 30 for laminated glazing.

1.03 SUBMITTALS

- A. General: Prepare, review, approve, and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections. Product data, shop drawings, samples, and similar submittals are defined in "Conditions of the Contract."
- B. Product Data: Submit product data for each type curtain wall series specified.
- C. Substitutions: Whenever substitute products are to be considered, supporting technical data, samples and test reports must be submitted ten (10) working days prior to bid date in order to make a valid comparison.
- D. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, finish colors and textures.
- E. Samples: Submit verification samples for colors on actual aluminum substrates indicating full color range expected in installed system.
- F. Quality Assurance / Control Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
 - 2. Installer Qualification Data: Submit installer qualification data.
- G. Closeout Submittals:
 - 1. Warranty: Submit warranty documents specified herein.
 - 2. Project Record Documents: Submit project record documents for installed materials in accordance with Division 1 Project Closeout (Project Record Documents) Section.

1.04 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installer Qualifications: Installer experienced (as determined by contractor) to perform work of this section who has specialized in the installation of work similar to that required for this project. If requested by Owner, submit reference list of completed projects.
 - 2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction process.
- B. Mock-Ups (Field Constructed): Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner's and Architect's acceptance of finish color, and workmanship standard.
 - 1. Mock-Up Size:
 - 2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
 - 3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval..
- C. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements.

1.05 PROJECT CONDITIONS / SITE CONDITIONS

- A. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

1.06 WARRANTY

- A. Project Warranty: Refer to "Conditions of the Contract" for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by an authorized company official.
 - 1. Warranty Period: Manufacturer's one (1) year standard warranty commencing on the substantial date of completion for the project provided that the warranty, in no event, shall start later than six (6) months from the date of shipment by YKK AP America Inc.

EDITOR NOTE: Longer warranty periods are available at additional cost.

PART 2 PRODUCTS

2.01 MANUFACTURERS (Acceptable Manufacturers/Products)

- A. Acceptable Manufacturers: YKK AP America Inc.
270 Riverside Parkway, Suite A
Telephone: (678) 838-6000; Fax: (678) 838-6001
 - 1. Curtain Wall System: YKK AP YCW 750 XT Aluminum Curtain Wall System.
- B. Curtain Wall Framing System:
 - 1. Description: Framing shall be thermally broken. Horizontal and vertical framing members shall have a nominal face dimension of 2-1/2 inches. Depth as indicated on drawings. Framing system shall provide a flush glazed appearance on all sides with no protruding glass stops.
 - 2. Thermal Barrier: Provide continuous thermal barrier by means of 6/6 nylon polyamide glass fiber reinforced pressure extruded bars. Systems employing non-structural thermal barriers are not acceptable.

2.02 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 and 6063-T6 Aluminum Alloys.
- B. Aluminum Sheet:
 - 1. Anodized Finish: ASTM B 209 (ASTM B 209M), 5005-H14 Aluminum Alloy, 0.050" (1.27 mm) minimum thickness.
 - 2. Painted Finish: ASTM B 209 (ASTM B 209M), 3003-H14 Aluminum Alloy, 0.080" (1.95 mm) minimum thickness.
 - 3. Thermal Barrier: Provide YKK AP MegaTherm® continuous thermal barrier by means of 6/6 nylon polyamide glass fiber reinforced pressure extruded bars. Systems employing non-structural thermal barriers are not acceptable.

2.03 ACCESSORIES

- A. Manufacturer's Standard Accessories:
 - 1. Fasteners: Zinc plated steel concealed fasteners; Hardened aluminum alloys or AISI 300 series stainless steel exposed fasteners, countersunk, finish to match aluminum color.
 - 2. Sealant: Non-skinning type, AAMA 803.3
 - 3. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.

2.04 RELATED MATERIALS (Specified In Other Sections)

- A. Glass: Refer to Division 8 Glass and Glazing Section for glass materials.

2.05 FABRICATION

- A. Shop Assembly: Fabricate and assemble units with joints only at intersection of aluminum members with hairline joints; rigidly secure, and sealed in accordance with manufacturer's recommendations.

2.06 FINISHES AND COLORS

A. YKK AP America Anodized Plus® Finish:

CODE	DESCRIPTION
YS1N*	Clear Anodized Plus®
YH3N	Champagne Anodized Plus®
YB1N	Medium Bronze Anodized Plus®
YB5N*	Dark Bronze Anodized Plus®
YK1N*	Black Anodized Plus®
YW3N	White Anodized Plus®
M	Mill Finish

* Indicates standard finish usually carried as inventory.

Anodized Plus® is an advanced sealing technology that completely seals the anodic film yielding superior durability (See AAMA 612).

B. Anodized Finishing: Prepare aluminum surfaces for specified finish; apply shop finish in accordance with the following:

1. Anodic Coating: Electrolytic color coating followed by an organic seal applied in accordance with the requirements of AAMA 612. Aluminum extrusions shall be produced from quality controlled billets meeting AA-6063-T5.
 - a. Exposed Surfaces shall be free of scratches and other serious blemishes.
 - b. Extrusions shall be given a caustic etch followed by an anodic oxide treatment and then sealed with an organic coating applied with an electrodeposition process.
 - c. The anodized coating shall comply with all of the requirements of AAMA 612: Voluntary Specifications, Performance Requirements and Test Procedures for Combined Coatings of Anodic Oxide and Transparent Organic Coatings on Architectural Aluminum. Testing shall demonstrate the ability of the finish to resist damage from mortar, salt spray, and chemicals commonly found on construction sites, and to resist the loss of color and gloss.
 - d. Overall coating thickness for finishes shall be a minimum of 0.7 mils.

C. High Performance Organic Coating Finish:

1. Fluoropolymer Type: Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solvay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.
2. Colors: Selected by Architect from the following:
 - a. Standard coating color charts.
 - b. Custom coating color charts.
 - c. Color Name and Number:

D. Finishes Testing:

1. Apply 0.5% solution NaOH, sodium hydroxide, to small area of finished sample area; leave in place for sixty minutes; lightly wipe off NaOH; Do not clean area further.
2. Submit samples with test area noted on each sample.

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS / RECOMMENDATIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, installation instructions, and product carton instructions. The latest Installation Manual can be found at www.ykkap.com.

3.02 EXAMINATION

A. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions.

3.03 PREPARATION

A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

3.04 INSTALLATION

A. General: Install manufacturer's system in accordance with shop drawings, and within specified tolerances.

1. Protect aluminum members in contact with masonry, steel, concrete, or dissimilar materials using nylon pads or bituminous coating.
2. Shim and brace aluminum system before anchoring to structure.
3. Verify curtain wall system allows water entering system to be collected in gutters and wept to the exterior. Verify weep holes are open, and metal joints are sealed in accordance with manufacturers installation instructions.

4. Seal metal to metal curtain wall system joints using sealant recommended by system manufacturer.

3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Upon request, provide manufacturer's field service consisting of site visit for inspection of product installation in accordance with manufacturer's instructions.
- B. Field Test: Conduct field test to determine watertightness of curtain wall system. Conduct test in accordance with AAMA 501.2.

3.06 ADJUSTING AND CLEANING

- A. Adjusting: Adjust operating items as recommended by manufacturer.
- B. Cleaning: The General Contractor shall clean installed products in accordance with manufacturer's instructions prior To Owner's acceptance, and remove construction debris from project site. Legally dispose of debris.
- C. Protection: The General Contractor shall protect installed product's finish surfaces from damage during construction.

END OF SECTION

04-3012-02

This document supersedes all previous versions.



> YES 45 FS/FI

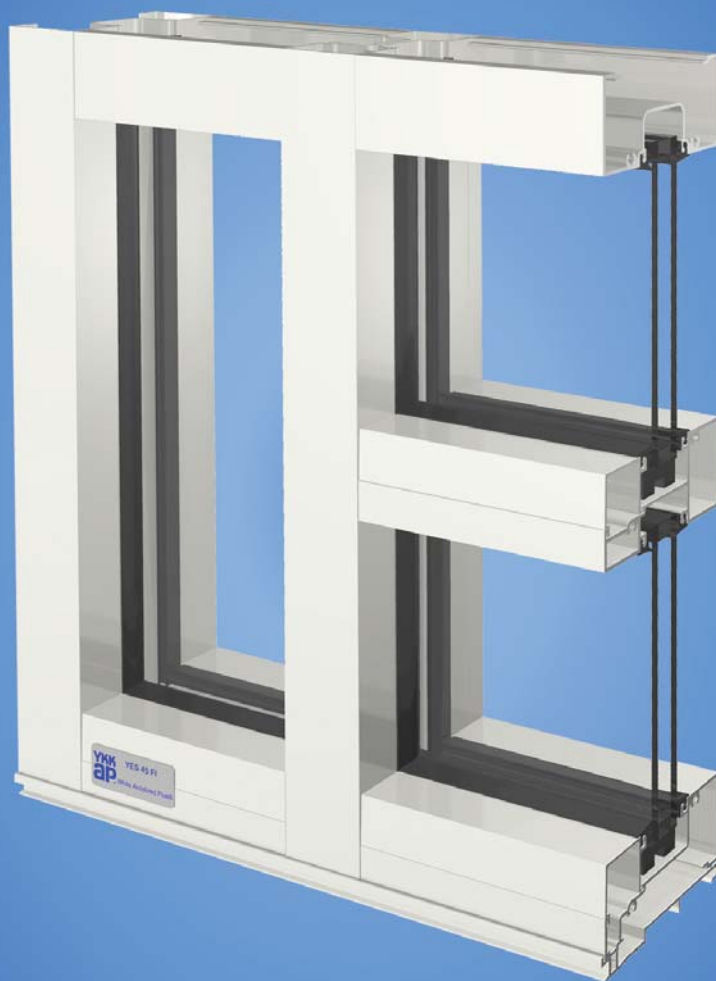
Center Set Storefront System

SYSTEM DESCRIPTION:

YES 45 FS (1-3/4" x 4-1/2") is a center set, flush glazed framing system designed primarily for 1/4" glass or infill panels 1/4" to 3/8" thick. YES 45 FI (2" x 4-1/2") is a center set, flush glazed framing system developed for 1" insulating glass and other types of infill panels of varying thicknesses. Both systems will accommodate YKK AP's patented hinged mullion (USP 4934115), as well as our flexible mullion; these mullions allow more creative freedom where curves and angles become a functional part of the design.

OPTIONS & FEATURES:

- Outside or Inside Glazed
- Screw Spline and Shear Block Assembly
- Gasket With Stretch-Resistant Cord
- Integral Entrance Door Frames
- Enhanced Water Infiltration Resistance
- Model 20D/35D/50D Single Doors
up to 4'-0" x 8'-0"
- Model 20D/35D/50D Pairs
up to 8'-0" x 8'-0"



* Insulating glass option shown, monolithic option similar.

> YES 45 FS/FI

Center Set Storefront System Specifications

1.01 SUMMARY

- A. Section Includes: Aluminum Storefront Systems
 - 1. YKK AP Series YES 45 FS/FI Storefront Systems (Monolithic Glazing)
- B. Related Sections:
 - 1. Sealants: Refer to Division 7 Joint Treatment Section for sealant requirements.
 - 2. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.

1.02 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide aluminum storefront systems that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test method indicated.
 - 1. Wind Loads: Completed storefront system shall withstand wind pressure loads normal to wall plane indicated:
 - a. Exterior Walls:
 - 1) Positive Pressure:
 - 2) Negative Pressure:
 - b. Interior Walls (Pressure Acting in Either Direction):
 - 2. Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures L/175 or 3/4" (19.1mm) maximum.
 - 3. Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.
 - 4. Air Infiltration: When tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa), completed storefront systems shall have maximum allowable infiltration of: 0.06 CFM/FT² (1.10 m³/h-m²)
 - 5. Water Infiltration: No uncontrolled water when tested in accordance with ASTM E 331 at test pressure differential of: 10 PSF (479 Pa), (or when required, field tested in accordance with AAMA 503). Fastener Heads must be seated and sealed against Sill Flashing on any fasteners that penetrate through the Sill Flashing.

2.01 MANUFACTURERS

- A. Acceptable Manufacturers: YKK AP America Inc.
 - 1. Storefront System: YKK AP YES 45 FS/FI Storefront Systems.
- B. Storefront Framing System:
 - 1. Description: Center rabbet, exterior flush glazed; jambs and vertical mullions continuous; head, sill, intermediate horizontal attached by screw spline joinery.
 - 2. Components: Manufacturer's standard extruded aluminum expansion mullions, 0–15 degree hinged mullions, 90 degree corner posts, flexible corner posts, three way corner post, 93–170 degree flexible corner posts, entrance door framing, and indicated shapes.

2.02 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 Aluminum Alloy.

2.03 ACCESSORIES

- A. Manufacturer's Standard Accessories:
 - 1. Fasteners: Zinc plated steel concealed fasteners; Hardened aluminum alloys or AISI 300 series stainless steel exposed fasteners.
 - 2. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.
 - 3. 0.050 Aluminum Sill Flashing End Dams must have 3 point attachment.

2.06 FINISHES

- A. Anodic Coating: Electrolytic color coating followed by an organic seal applied in accordance with the requirements of AAMA 612.
- B. High Performance Organic Coating Finish: Type Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.

For additional information on architectural aluminum products offered by YKK AP America Inc. visit our web site at www.ykkap.com.

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Aluminum Storefront, including:
 - 1. YKK AP Series YES 45 FS Storefront System (Monolithic Glazing)
 - 2. YKK AP Series YES 45 FI Storefront System (Insulating Glazing)
- B. Related Sections:
 - 1. Sealants: Refer to Division 7 Joint Treatment Section for sealant requirements.
 - 2. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.
 - 3. Single Source Requirement: All products listed below shall be by the same manufacturer.
 - a. Section 08 32 13 Sliding Aluminum - Framed Glass Doors
 - b. Section 08 51 13 Aluminum Windows.
 - c. Section 08 44 13 Glazed Aluminum Curtain Walls.
 - d. Section 08 44 33 Sloped Glazing Assemblies.

1.02 SYSTEM PERFORMANCE DESCRIPTION

- A. Performance Requirements: Provide aluminum storefront systems that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test method indicated.
 - 1. Air Infiltration: When tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa), completed storefront systems shall have maximum allowable infiltration of:
 - a. 0.06 CFM/FT² (1.10 m³/h·m²) for YES 45 FS systems.
 - b. 0.06 CFM/FT² (1.10 m³/h·m²) for YES 45 FI systems.
 - 2. Water Infiltration: No uncontrolled water when tested in accordance with ASTM E 331 at test pressure differential of:
 - a. 10 PSF (479 Pa) for YES 45 FS systems.
 - b. 10 PSF (479 Pa) for YES 45 FI systems.(or when required, field tested in accordance with AAMA 503). Fastener Heads must be seated and sealed against Sill Flashing on any fasteners that penetrate through the Sill Flashing.
 - 3. Wind Loads: Completed storefront system shall withstand wind pressure loads normal to wall plane indicated:
 - a. Exterior Walls:
 - 1) Positive Pressure:
 - 2) Negative Pressure:
 - b. Interior Walls (Pressure Acting in Either Direction):
 - 4. Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.
 - a. Without Horizontals: L/175 or 3/4" (19.1mm) maximum. .
 - b. With Horizontals: L/175 or L/240 + 1/4" (6.4mm) for spans greater than 13'-6" (4.1m) but less than 40'-0" (12.2m).
 - 5. Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.
 - 6. Thermal Performance: When tested in accordance with AAMA 1503.1 and NFRC 100:
 - a. Condensation Resistance Factor (CRF_f): A minimum of 44 for YES 45 FI systems.
 - b. Thermal Transmittance U Value: 0.51 BTU/HR/FT²/°F or less for YES 45 FI systems.

Note: Thermal Performance for the glazed system as a whole will be affected by the characteristics of the glass specified.

1.03 SUBMITTALS

- A. General: Prepare, review, approve, and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections. Product data, shop drawings, samples, and similar submittals are defined in "Conditions of the Contract."
- B. Product Data: Submit product data for each type storefront series specified.
- C. Substitutions: Whenever substitute products are to be considered, supporting technical data, samples, and test reports must be submitted ten (10) working days prior to bid date in order to make a valid comparison.
- D. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, finish colors and textures.
- E. Samples: Submit verification samples for colors on actual aluminum substrates indicating full color range expected

in installed system.

F. Quality Assurance / Control Submittals:

1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
2. Installer Qualification Data: Submit installer qualification data.

G. Closeout Submittals:

1. Warranty: Submit warranty documents specified herein.
2. Project Record Documents: Submit project record documents for installed materials in accordance with Division 1 Project Closeout (Project Record Documents) Section.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Installer Qualifications: Installer experienced (as determined by contractor) to perform work of this section who has specialized in the installation of work similar to that required for this project. If requested by Owner, submit reference list of completed projects.
2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction process.

B. Mock-Ups (Field Constructed): Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner's and Architect's acceptance of finish color, and workmanship standard.

1. Mock-Up Size:
2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.

C. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements.

1.05 PROJECT CONDITIONS / SITE CONDITIONS

A. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

1.06 WARRANTY

A. Project Warranty: Refer to "Conditions of the Contract" for project warranty provisions.

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by an authorized company official.

1. Warranty Period: Manufacturer's one (1) year standard warranty commencing on the substantial date of completion for the project provided that the warranty, in no event, shall start later than six (6) months from the date of shipment by YKK AP America Inc.

EDITOR NOTE: Longer warranty periods are available at additional cost.

PART 2 PRODUCTS

2.01 MANUFACTURERS (Acceptable Manufacturers/Products)

A. Acceptable Manufacturers:

YKK AP America Inc.
270 Riverside Parkway, Suite A
Austell, GA 30168
Telephone: (678) 838-6000; Fax: (678) 838-6001

1. Storefront System: YKK AP YES 45 FS Storefront System.
2. Storefront System: YKK AP YES 45 FI Storefront System.

B. Storefront Framing System:

1. Description: Center rabbet, exterior flush glazed; jambs and vertical mullions continuous; head, sill, intermediate horizontal attached by screw spline joinery.
2. Components: Manufacturer's standard extruded aluminum expansion mullions, 0-15 degree hinged mullions, 90 degree corner posts, flexible corner posts, three way corner post, 93-170 degree flexible corner posts, entrance door framing, and indicated shapes.

2.02 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 Aluminum Alloy.
- B. Aluminum Sheet:
 - 1. Anodized Finish: ASTM B 209 (ASTM B 209M), 5005-H14 Aluminum Alloy, 0.050" (1.27 mm) minimum thickness.
 - 2. Painted Finish: ASTM B 209 (ASTM B 209M), 3003-H14 Aluminum Alloy, 0.080" (1.95 mm) minimum thickness.

2.03 ACCESSORIES

- A. Manufacturer's Standard Accessories:
 - 1. Fasteners: Zinc plated steel concealed fasteners; Hardened aluminum alloys or AISI 300 series stainless steel exposed fasteners.
 - 2. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.
 - 3. 0.050 Aluminum Sill Flashing End Dams must have 3 point attachment.

2.04 RELATED MATERIALS (Specified In Other Sections)

- A. Glass: Refer to Division 8 Glass and Glazing Section for glass materials.

2.05 FABRICATION

- A. Shop Assembly: Fabricate and assemble units with joints only at intersection of aluminum members with uniform hairline joints; rigidly secure, and sealed in accordance with manufacturer's recommendations.
 - 1. Hardware: Drill and cut to template for hardware. Reinforce frames and door stiles to receive hardware in accordance with manufacturer's recommendations.
 - 2. Welding: Conceal welds on aluminum members in accordance with AWS recommendations or methods recommended by manufacturer. Members showing welding bloom or discoloration on finish or material distortion will be rejected.

2.06 FINISHES AND COLORS

- A. YKK AP America Anodized Plus® Finish:

CODE DESCRIPTION

YS1N* Clear Anodized Plus®

YH3N Champagne Anodized Plus®

YB1N Medium Bronze Anodized Plus®

YB5N* Dark Bronze Anodized Plus®

YK1N* Black Anodized Plus®

YW3N White Anodized Plus®

M Mill Finish

* Indicates standard finish usually carried as inventory.

Anodized Plus® is an advanced sealing technology that completely seals the anodic film yielding superior durability (See AAMA 612).

- B. Anodized Finishing: Prepare aluminum surfaces for specified finish; apply shop finish in accordance with the following:
 - 1. Anodic Coating: Electrolytic color coating followed by an organic seal applied in accordance with the requirements of AAMA 612. Aluminum extrusions shall be produced from quality controlled billets meeting AA-6063-T5.
 - a. Exposed Surfaces shall be free of scratches and other serious blemishes.
 - b. Extrusions shall be given a caustic etch followed by an anodic oxide treatment and then sealed with an organic coating applied with an electrodeposition process.
 - c. The anodized coating shall comply with all of the requirements of AAMA 612: Voluntary Specifications, Performance Requirements and Test Procedures for Combined Coatings of Anodic Oxide and Transparent Organic Coatings on Architectural Aluminum. Testing shall demonstrate the ability of the finish to resist damage from mortar, salt spray, and chemicals commonly found on construction sites, and to resist the loss of color and gloss.
 - d. Overall coating thickness for finishes shall be a minimum of 0.7 mils.
 - 2) CASS Corrosion Resistance Test, CASS 240/ASTM B368 Test Method.
 - 3) Other AAMA 2605 Performance Tests specified in these specifications, such as: 7.3 Dry Film Hardness; 7.8.2 Salt Spray Resistance; 7.9.1.2 Color Retention, South Florida; 7.9.1.4 Gloss Retention, South Florida.
- C. High Performance Organic Coating Finish:
 - 1. Type Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solvay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and

meeting AAMA 2605 specifications.

2. Colors: Selected by Architect from the following:
 - a. Standard coating color charts.
 - b. Custom coating color charts.
 - c. Color Name and Number:
- D. Finishes Testing:
 1. Apply 0.5% solution NaOH, sodium hydroxide, to small area of finished sample area; leave in place for sixty minutes; lightly wipe off NaOH; Do not clean area further.
 2. Submit samples with test area noted on each sample.

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS / RECOMMENDATIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, installation instructions, and product carton instructions. Latest Installation Instructions can be found at www.ykkap.com.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions.

3.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.
 1. Aluminum Surface Protection: Protect aluminum surfaces from contact with lime, mortar, cement, acids, and other harmful contaminants.

3.04 INSTALLATION

- A. General: Install manufacturer's system in accordance with shop drawings, and within specified tolerances.
 1. Protect aluminum members in contact with masonry, steel, concrete, or dissimilar materials using nylon pads or bituminous coating.
 2. Shim and brace aluminum system before anchoring to structure.
 3. Provide sill flashing at exterior storefront systems. Extend extruded flashing continuous with splice joints; set in continuous beads of sealant.
 4. Verify storefront system allows water entering system to be collected in gutters and wept to exterior. Verify metal joints are sealed in accordance with manufacturers installation instructions.
 5. Locate expansion mullions where indicated on reviewed shop drawings.
 6. Seal metal to metal storefront system joints using sealant recommended by system manufacturer.

3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Upon request, provide manufacturer's field service consisting of site visit for inspection of product installation in accordance with manufacturer's instructions.
- B. Field Test: Conduct field test to determine watertightness of storefront system. Conduct test in accordance with AAMA 501.2.

3.06 ADJUSTING AND CLEANING

- A. Adjusting: Adjust swing doors for operation in accordance with manufacturer's recommendations.
- B. Cleaning: The General Contractor shall clean installed products in accordance with manufacturer's instructions prior to owner's acceptance, and remove construction debris from project site. Legally dispose of debris.
- C. Protection: The General Contractor shall protect the installed product's finish surfaces from damage during construction.

END OF SECTION

02-3009-04

This document supersedes all previous versions.