HISTORIC AND DESIGN REVIEW COMMISSION

November 15, 2017

HDRC CASE NO:	**2017-306**
ADDRESS:	420 BROADWAY
LEGAL DESCRIPTION:	NCB 432 (SAN ANTONIO LIGHT), BLOCK 16 LOT 14
ZONING:	FBZ T6-1, HS
CITY COUNCIL DIST.:	1
LANDMARK:	San Antonio Light Building
APPLICANT:	Adam Reed/Ford, Powell & Carson
OWNER:	Graystreet, 420 Broadway LLC
TYPE OF WORK:	Rehabilitation and exterior modifications
APPLICATION RECEIVED:	October 27, 2017
60-DAY REVIEW	December 26, 2017

REQUEST:

The applicant is requesting a Certificate of Appropriateness for Phase 1 improvements to the property located at 420 Broadway which includes the following:

1. Perform exterior modifications to the Light Building including repair to plaster, cleaning of cast stone and masonry and painting of the plaster work.
2. Replace the existing windows in the Light Building
3. Construct a new curtain wall on the southern façade of the Light Building.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Guidelines for Exterior Maintenance and Alterations

10. Commercial Facades

A. MAINTENANCE (PRESERVATION)
i. Character-defining features—Preserve character-defining features such as cornice molding, upper-story windows, transoms, display windows, kickplates, entryways, tiled paving at entryways, parapet walls, bulkheads, and other features that contribute to the character of the building.
ii. Windows and doors—Use clear glass in display windows. See Guidelines for Architectural Features: Doors, Windows, and Screens for additional guidance.
iii. Missing features—Replace missing features in-kind based on evidence such as photographs, or match the style of the building and the period in which it was designed.
iv. Materials—Use in-kind materials or materials appropriate to the time period of the original commercial facade when making repairs.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)
i. New features—Do not introduce new facade elements that alter or destroy the historic building character, such as adding inappropriate materials; altering the size or shape of windows, doors, bulkheads, and transom openings; or altering the façade from commercial to residential. Alterations should not disrupt the rhythm of the commercial block.
ii. Historical commercial facades—Return non-historic facades to the original design based on photographic evidence. Keep in mind that some non-original facades may have gained historic importance and should be retained. When evidence is not available, ensure the scale, design, materials, color, and texture is compatible with the historic building. Consider the features of the design holistically so as to not include elements from multiple buildings and styles.

Historic Design Guidelines, Chapter 3, Guidelines for Additions

2. Massing and Form of Non-Residential and Mixed-Use Additions

A. GENERAL
i. Historic context—Design new additions to be in keeping with the existing, historic context of the block. For example, additions should not fundamentally alter the scale and character of the block when viewed from the public right-of-way.

ii. Preferred location—Place additions at the side or rear of the building whenever possible to minimize the visual impact on the original structure from the public right of way. An addition to the front of a building is inappropriate.
iii. Similar roof form—Utilize a similar roof pitch, form, and orientation as the principal structure for additions, particularly for those that are visible from the public right-of-way.
iv. Subordinate to principal facade—Design additions to historic buildings to be subordinate to the principal façade of the original structure in terms of their scale and mass.
v. Transitions between old and new—Distinguish additions as new without distracting from the original structure. For example, rooftop additions should be appropriately set back to minimize visibility from the public right-of-way. For side or rear additions utilize setbacks, a small change in detailing, or a recessed area at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.

B. SCALE, MASSING, AND FORM
i. Height—Limit the height of side or rear additions to the height of the original structure. Limit the height of rooftop additions to no more than 40 percent of the height of original structure.
ii. Total addition footprint—New additions should never result in the doubling of the historic building footprint. Full-floor rooftop additions that obscure the form of the original structure are not appropriate.

FINDINGS:

a. The Light Building was constructed in 1931 as the home of the San Antonio Light newspaper on the corner of Broadway and McCullough. The structure features five stories with ornamental facades on both street sides. The southern facing façade features a blank stucco wall and the rear (west) façade features brick tile and steel windows. Both the southern and western facades lack ornamentation. At the rear of the Light Building, the Print Building was constructed circa 1969. These two structures are connected by a sky bridge.
b. The applicant has separated the redevelopment of this site into three phases. Phase includes only work to the Light Building and immediate site modifications to include parking upgrades and landscaping requirements.
c. LIGHT BUILDING REPAIR – The applicant has proposed to perform a number of exterior repair and maintenance items to the Light Building including the repair of plaster elements, the cleaning of cast stone elements, the restoration of entrance elements and masonry and painting. This is consistent with the Guidelines for Exterior Maintenance and Alterations 10.A.i.
d. WINDOW REPLACEMENT – The current windows in the Light Building are aluminum and are not the original windows. The current windows feature a one over one profile. The original windows featured a six over six profile. The applicant has proposed to install new, six over six windows that match the profile of the original. Staff finds this replacement appropriate.
e. CURTAIN WALL MODIFICATION – The southern façade of the Light Building is currently void of ornamentation of façade openings. The façade features brick from the street level to the top of the mezzanine level and then features stucco to the roof parapet. The applicant has proposed to modify this wall and install a glass curtain wall system. The applicant has proposed to maintain brick from the street level to the top of the mezzanine level and to create façade openings within this brick. The glass curtain wall system will span from the top of the brick to the top of the roof's parapet wall.
f. CORNER TOWERS – The applicant has proposed to maintain each corner tower; however, the applicant has proposed to install window openings on the southern façade of the tower on the southwest corner of the building. Staff finds this installation appropriate.
g. CORNER TOWER ADDITION – The only corner of the structure that does not feature a corner tower is the southeast corner. The applicant has proposed to construct a tower to be a contemporary interpretation of the original corner towers. Since conceptual approval, the applicant has modified the proposed tower to feature a reduced height and a clay tile exterior. The applicant has included a roof level lighting element. Staff finds the proposed design of the tower to be appropriate in that is balances the southern façade, but does not overwhelm the historic corner towers.
h. SITE MODIFICATIONS – The applicant has proposed site modifications that include the reconfiguring and resurfacing of the existing surface parking lot. Staff finds the proposed modifications appropriate.
i. ARCHAEOLOGY – The property is within the River Improvement Overlay District and is a designated Local Historic Landmark. A review of historic archival maps shows structures within the project area as early as 1873. Furthermore, an 1848 property survey map identifies ditches, possibly associated with the nearby Acequa del Alamo or Navarro Acequia, within the modern property. Thus, the project area may contain sites, some of which may be significant. Therefore, archaeological investigations shall be required for the project area. The archaeology consultant should submit the scope of work to the Office of Historic Preservation (OHP) for review

and approval prior to beginning field efforts.

RECOMMENDATION:

Staff recommends approval based on findings a through h with the following stipulations:

i. Archaeology – Archaeological investigations are required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning field efforts. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

CASE MANAGER:

Edward Hall

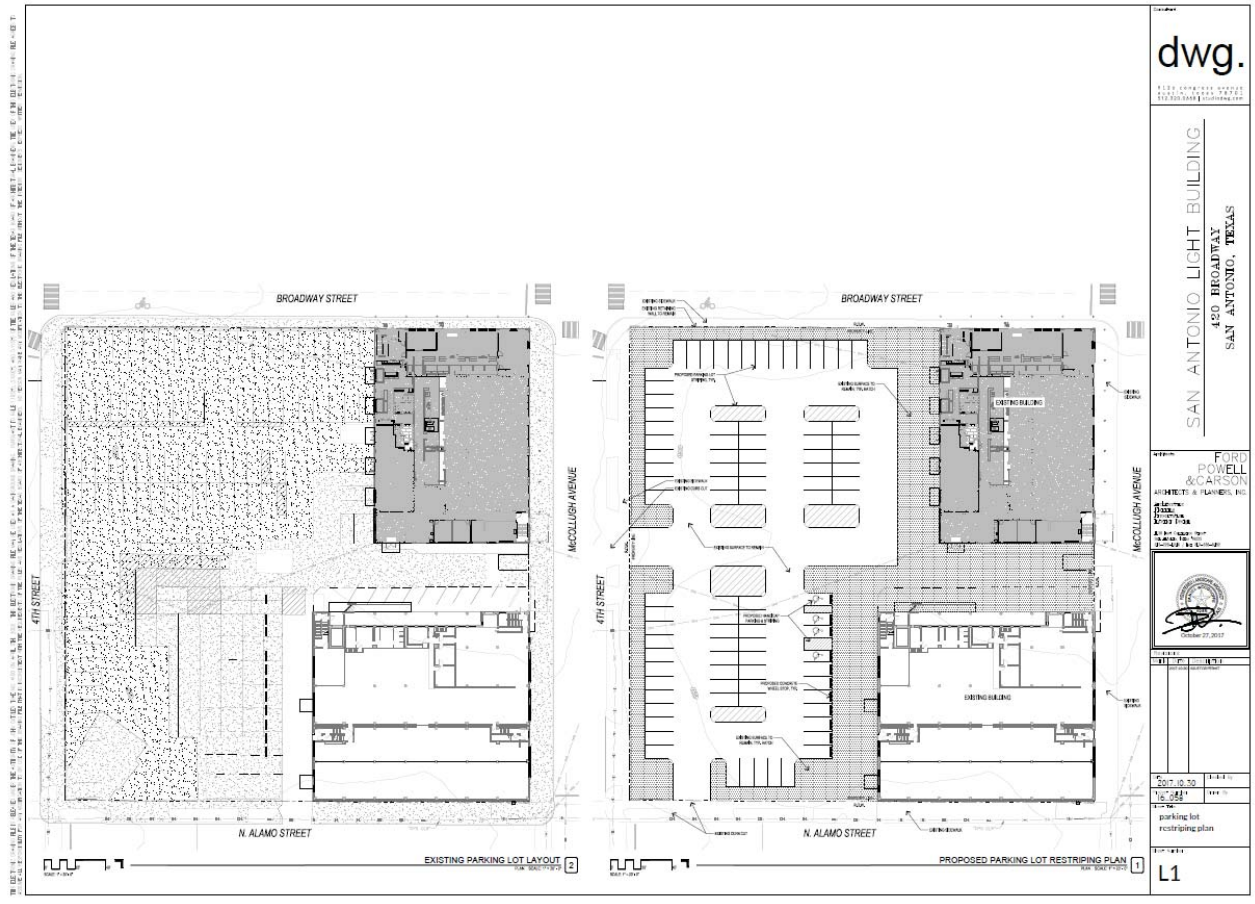
THE LIGHT BUILDING
420 BROADWAY | SAN ANTONIO, TX

HDRC FINAL APPROVAL
10-27-17

FORD POWELL & CARSON
Architects & Planners, Inc.

LIGHT BLOCK
SITE PLAN & PHASING FOR PERMITTING

FORD POWELL & CARSON
Architects & Planners, Inc.



dwg.

SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS

FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.

parking lot restriping plan

L1

LIGHT BLOCK PHASE I SITE PLAN:

- Parking improvements and core and shell work to the Light Building

LIGHT BLOCK PHASE II SITE PLAN:

- Full site development with Vertical Connector

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Architects & Planners, Inc.

THE LIGHT BUILDING (ca. 1953)

- 6 over 6 windows
- Neon marque at corner of McCullough & Broadway
- Large 1st Floor storefront windows along McCullough

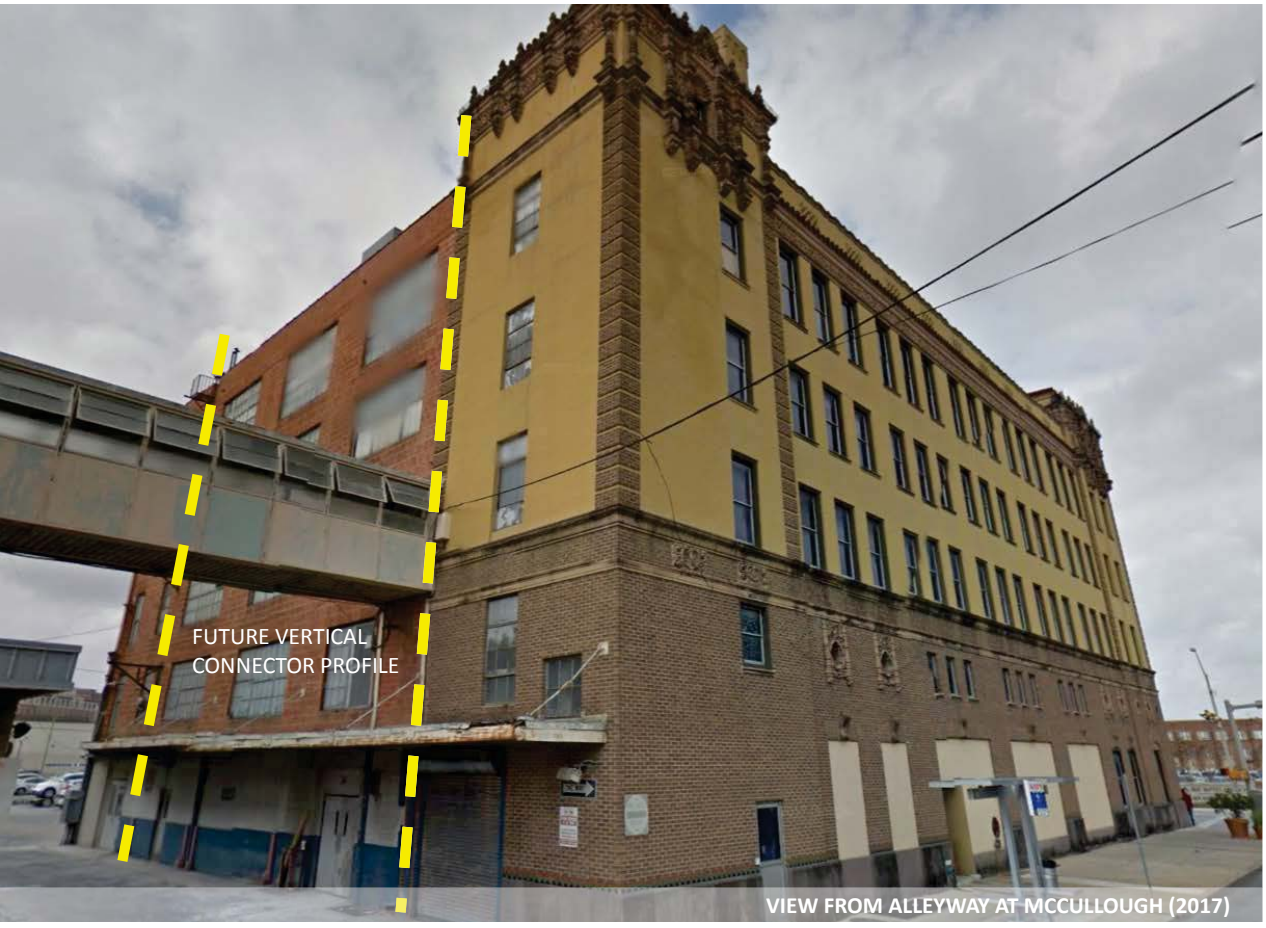
FORD POWELL &CARSON
Architects & Planners, Inc.

VIEW FROM MCCULLOUGH & BROADWAY (2017)

REQUEST FINAL APPROVAL FOR PHASE I:

- Restoration & painting of exterior plaster
- Clean masonry & cast stone
- Replace windows & re-build Broadway entry
- Curtainwall on south facade
- Remove existing skybridge connecting buildings
- Immediate minimal site improvements (parking to meet code & landscape requirements)
- Interior finish-out of 1st Floor suite and shell space above

FORD POWELL & CARSON
Architects & Planners, Inc.



VIEW FROM ALLEYWAY AT MCCULLOUGH (2017)

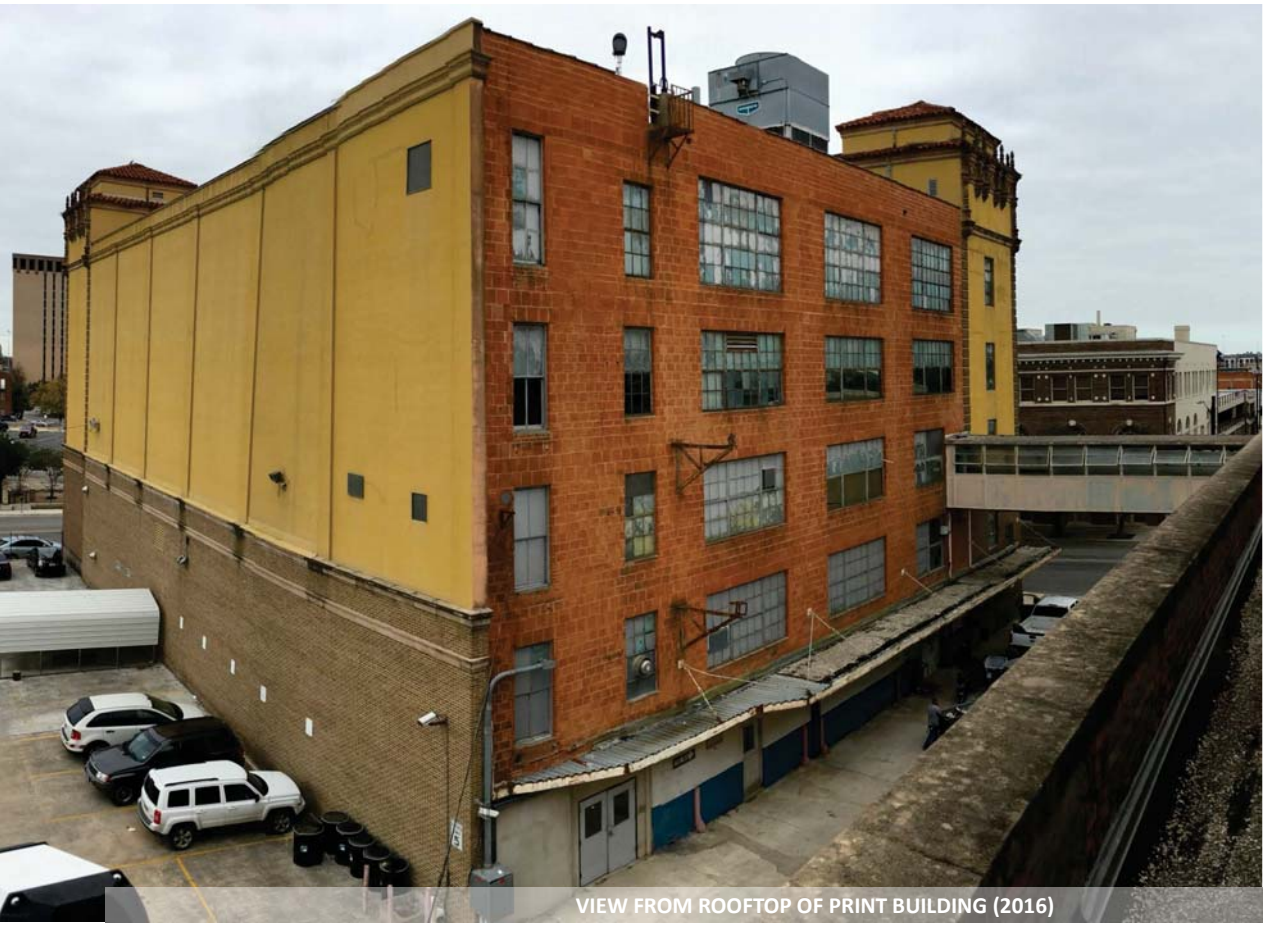
REQUEST FINAL APPROVAL FOR PHASE I:

- Restoration & painting of exterior plaster
- Clean masonry & cast stone
- Replace windows & re-build Broadway entry
- Curtainwall on south facade
- Remove existing skybridge connecting buildings
- Immediate minimal site improvements

NOTE:

- Vertical Connector linking Light Building to Print Building will occur in Phase II under a separate Permit Application, once adjacent Print Building programming is completed and design changes are completed.
- Complete site design package will occur in Phase II to include permanent landscaping, parking solution for future tenants in Building, outdoor amenities and ROW integration with future Broadway improvements project.

FORD POWELL &CARSON
Architects & Planners, Inc.



VIEW FROM ROOFTOP OF PRINT BUILDING (2016)

DEMOLITION OF SOUTH PLASTER WALL:

- CERTIFICATE OF APPROPRIATENESS & DEMO PERMIT OBTAINED IN JULY 2017 FOR REMOVAL OF 1969 PLASTER WALL ADDITION FOR NEW CURTAIN WALL

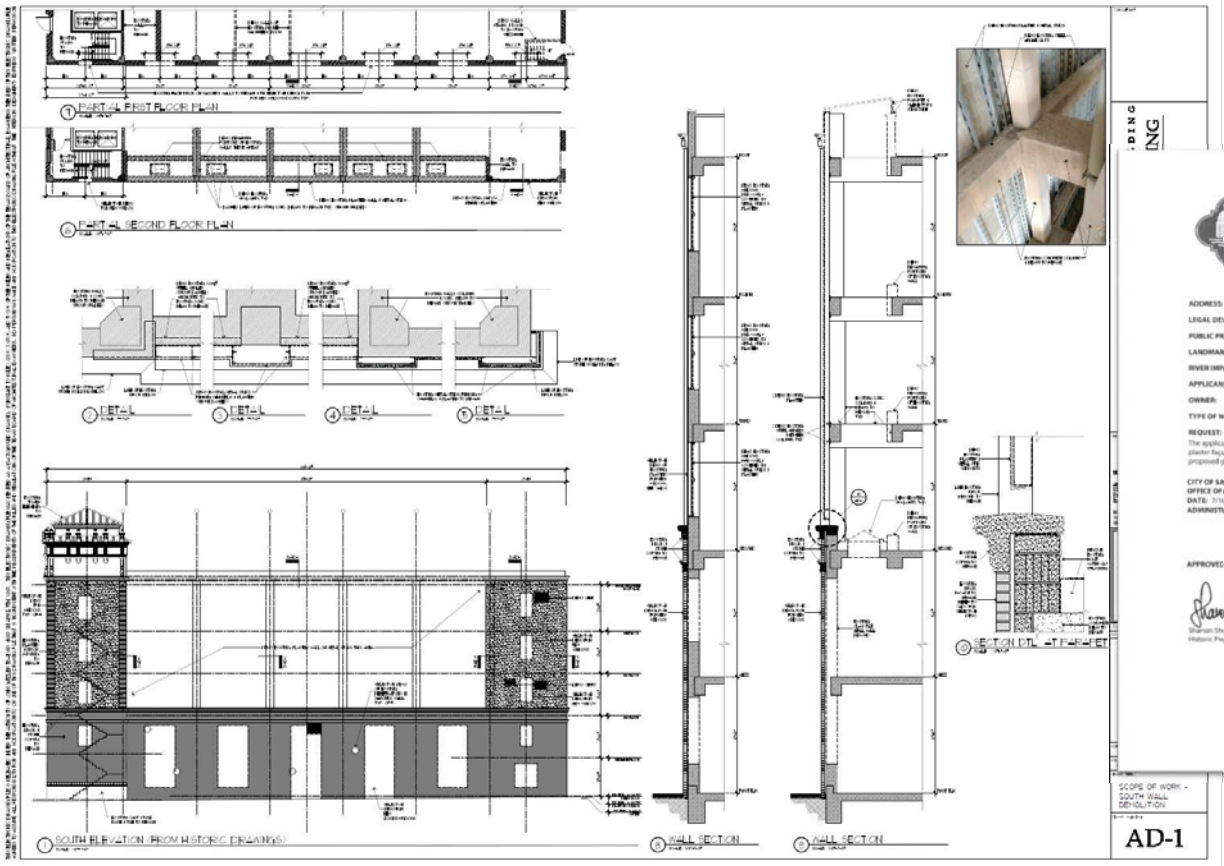
FORD POWELL &CARSON
Architects & Planners, Inc.

VIEW OF SOUTH FAÇADE FACING DOWNTOWN (2017)

DEMOLITION OF SOUTH PLASTER WALL:

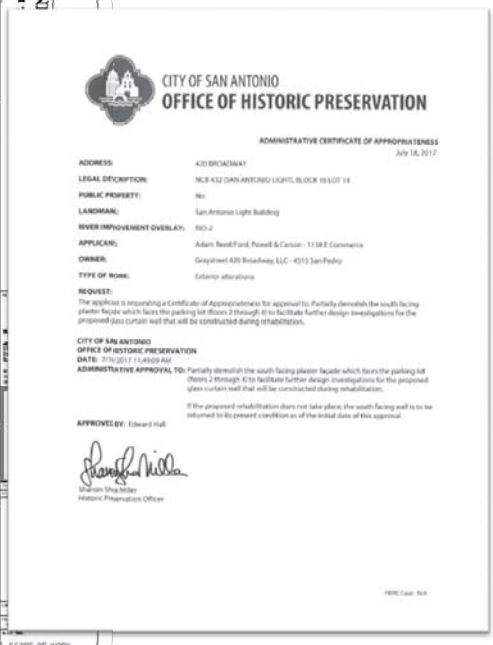
- CERTIFICATE OF APPROPRIATENESS & DEMO PERMIT OBTAINED IN JULY 2017 FOR REMOVAL OF 1969 PLASTER WALL ADDITION FOR NEW CURTAIN WALL

FORD POWELL &CARSON
Architects & Planners, Inc.



DEMOLITION OF SOUTH PLASTER WALL:

- CERTIFICATE OF APPROPRIATENESS & DEMO PERMIT OBTAINED IN JULY 2017 FOR REMOVAL OF 1969 PLASTER WALL ADDITION FOR NEW CURTAIN WALL



CITY OF SAN ANTONIO
OFFICE OF HISTORIC PRESERVATION

ADMINISTRATIVE CERTIFICATE OF APPROPRIATENESS

July 18, 2017

ADDRESS: 420 BROADWAY

LEGAL DESCRIPTION: NCB 432 (SAN ANTONIO LIGHT), BLOCK 16 LOT 14

PUBLIC PROPERTY: No

LANDMARK: San Antonio Light Building

RIVER IMPROVEMENT OVERLAY: RIO-2

APPLICANT: Adam Reed Ford, Powell & Carson - 1118 E Commerce

OWNER: Greystreet 420 Broadway, LLC - 4515 San Pedro

TYPE OF WORK: Exterior alterations

REQUEST:
The applicant is requesting a Certificate of Appropriateness for approval to: Partially demolish the south facing plaster façade which faces the parking lot (floors 2 through 4) to facilitate further design investigations for the proposed glass curtain wall that will be constructed during rehabilitation.

CITY OF SAN ANTONIO
OFFICE OF HISTORIC PRESERVATION
DATE: 7/18/2017 11:49:09 AM
ADMINISTRATIVE APPROVAL TO: Partially demolish the south facing plaster façade which faces the parking lot (floors 2 through 4) to facilitate further design investigations for the proposed glass curtain wall that will be constructed during rehabilitation.

If the proposed rehabilitation does not take place, the south facing wall is to be returned to its present condition as of the initial date of this approval.

APPROVED BY: Edward Hall

Sharon Shy Miller
Historic Preservation Officer

PARTIAL DEMOLITION OF SOUTH WALL

OHP RECOMMENDATION OF CONCEPTUAL APPROVAL W/ FOLLOWING STIPULATIONS:	FPC MEETING WITH OHP STAFF TO DISCUSS STAFF STIPULATIONS RESULTED IN THE FOLLOWING:
• Archaeology – Archaeological investigations are required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning field efforts. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.	• Archaeology – Understood. This will be confirmed and included in the scope of work.
• That the applicant remove the proposed corner tower and maintain the existing last column bay as is as noted in finding h.	• Removed metal cladding at SE tower and will be referencing the clay tile history with new tile to match damaged tile currently behind plaster at SE corner. Existing clay tile is heavily damaged and/or missing. New clay tile will speak to the building's previous industrial façade.
• That the applicant remove the proposed solid cladding material proposed on the connector addition and incorporate glazing as noted in the early conceptual sketch included in the application documents as noted in finding e.	• Vertical Connector *(to be submitted for Final Approval at a later date once design and programming decisions are confirmed)* massing will be minimized by introduction of more glazing as per the original conceptual sketch. The double height 1st Floor steps back for more delicate visual impact on the historic Light Building. Visibility through the connector will be maximized via more glazing.

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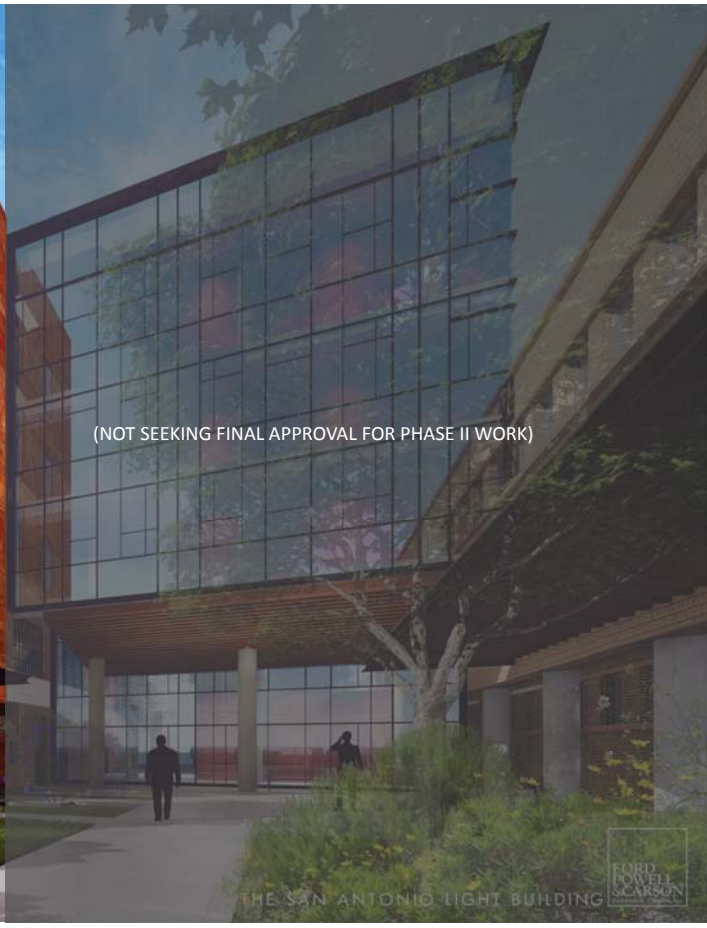
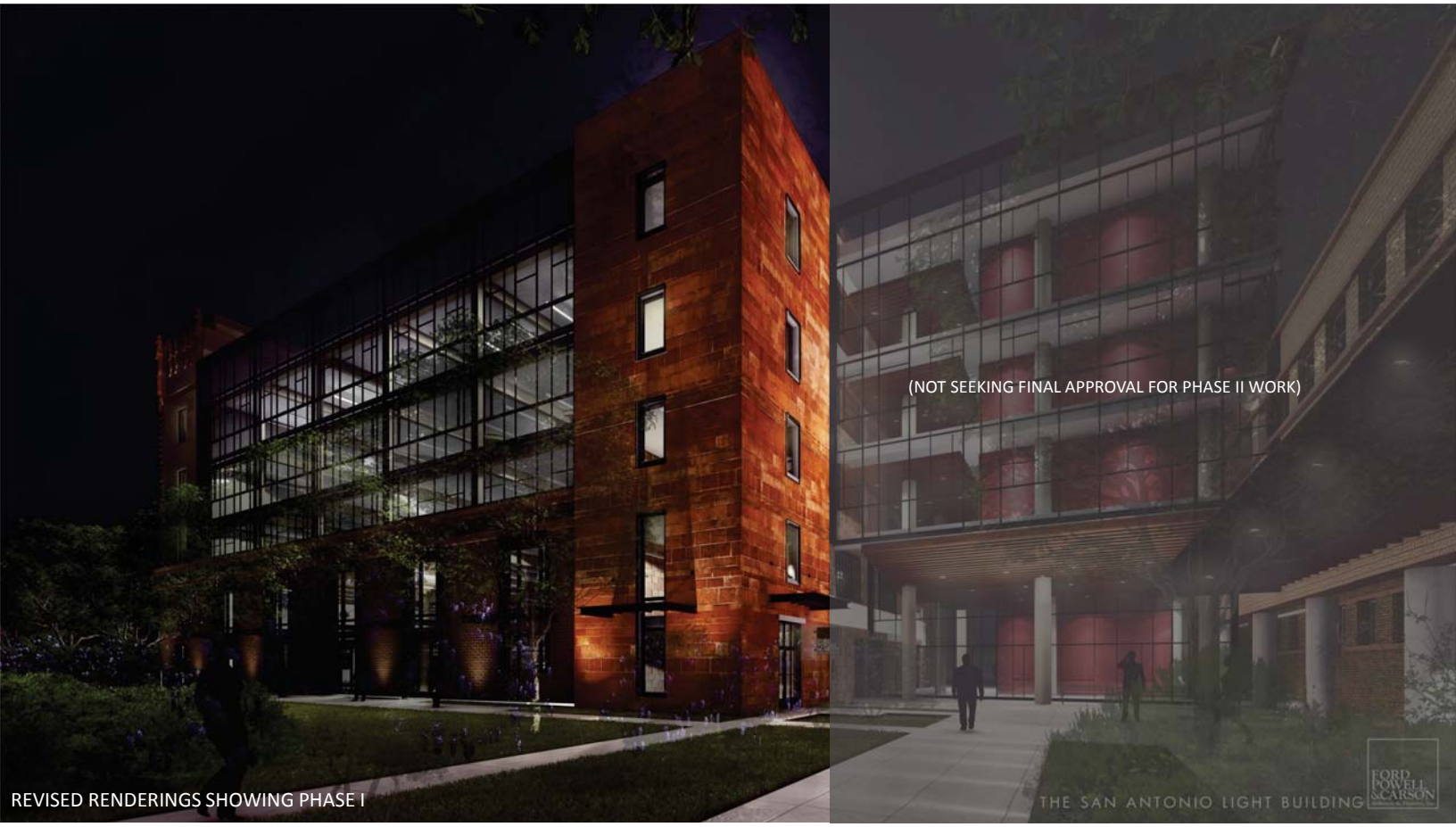
Architects & Planners, Inc.

REVISED RENDERINGS SHOWING PHASE I

REVISED RENDERINGS SHOWING PHASE I





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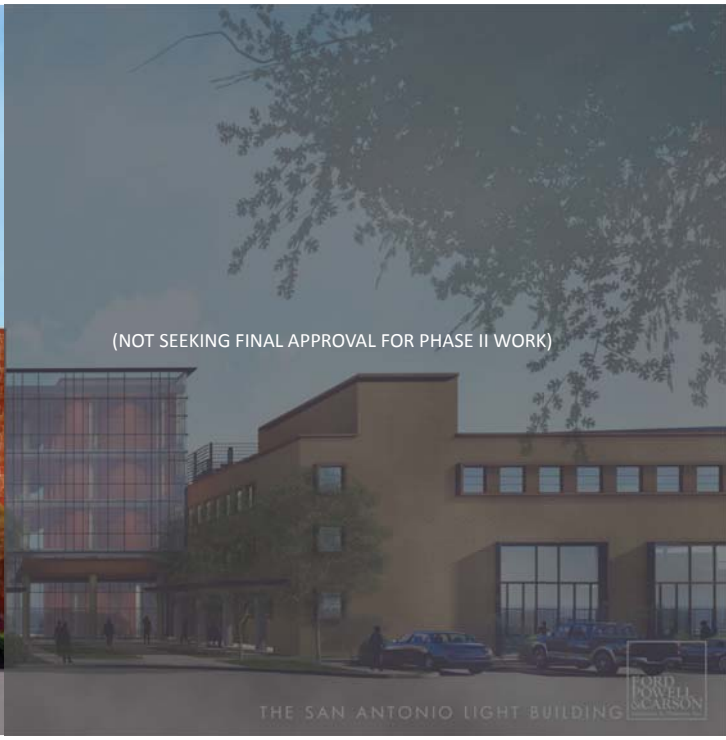

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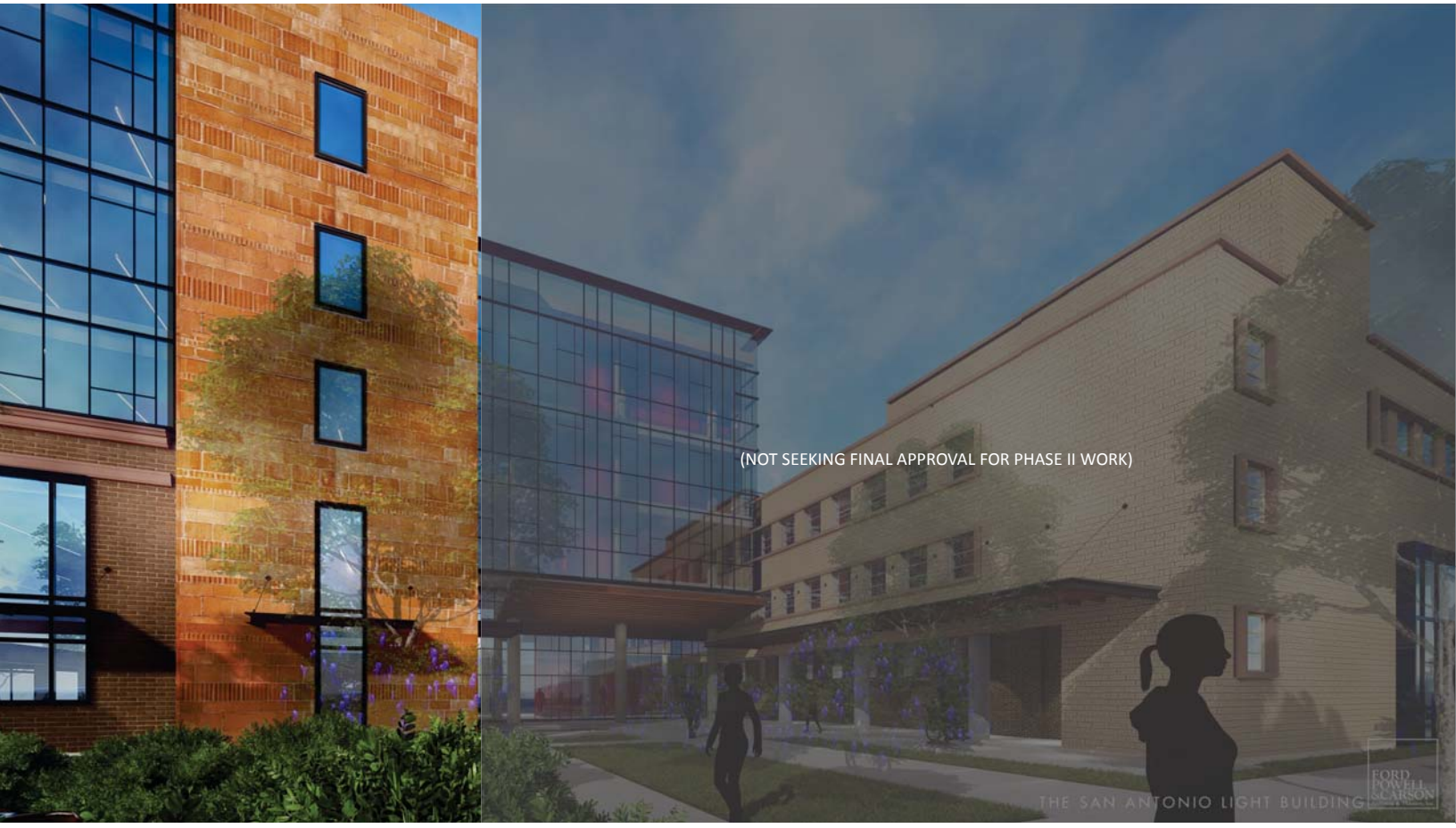
(NOT SEEKING FINAL APPROVAL FOR PHASE II WORK)
THE SAN ANTONIO LIGHT BUILDING
FORD POWELL CARSON

VIEW OF EXISTING ROOFTOP & STRUCTURAL POKE-THRU LOCATIONS (2016)

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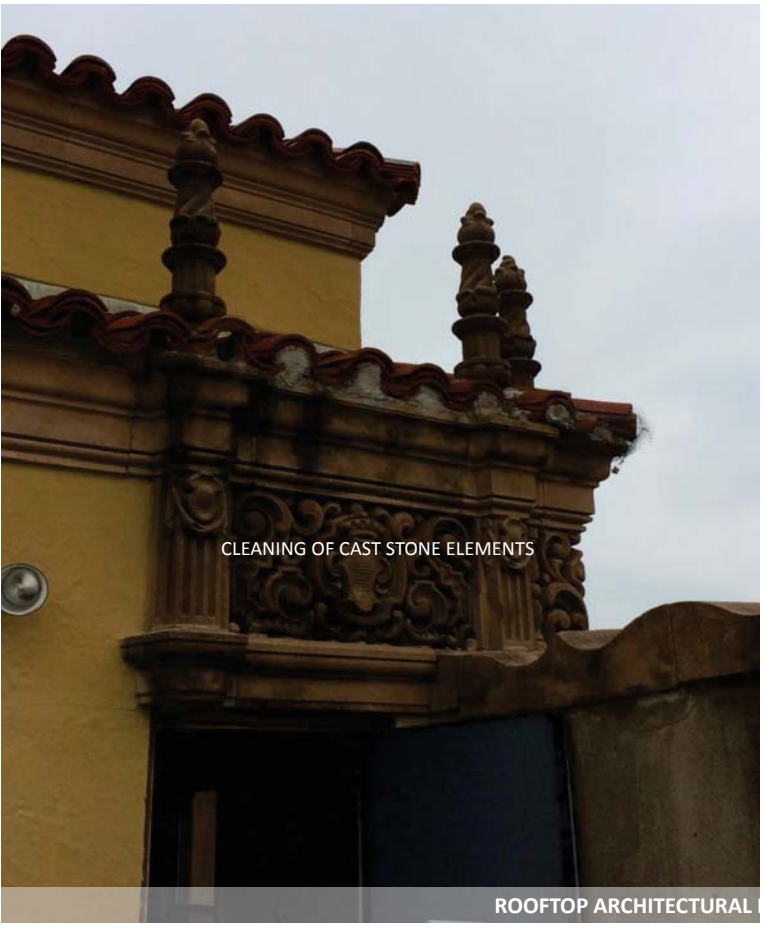
Architects & Planners, Inc.



ROOFTOP ARCHITECTURAL ELEMENTS (2017)

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Architects & Planners, Inc.

HISTORIC MAIN ENTRY FROM BROADWAY (2015)

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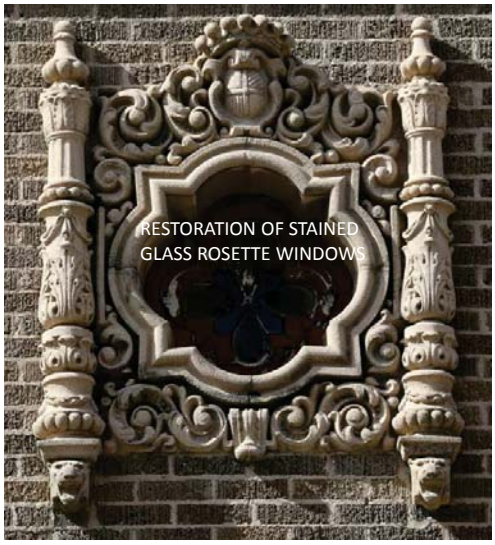
REPAIR, CLEANING OF
PLASTER AND MASONRY

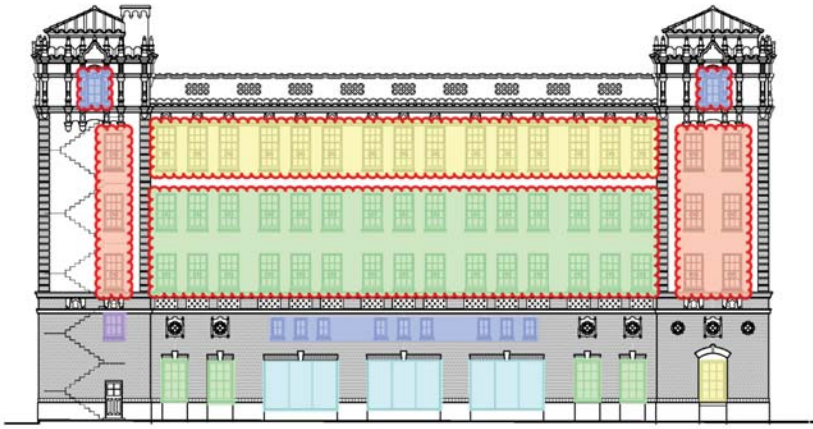


RESTORATION OF STAINED
GLASS ROSETTE WINDOWS

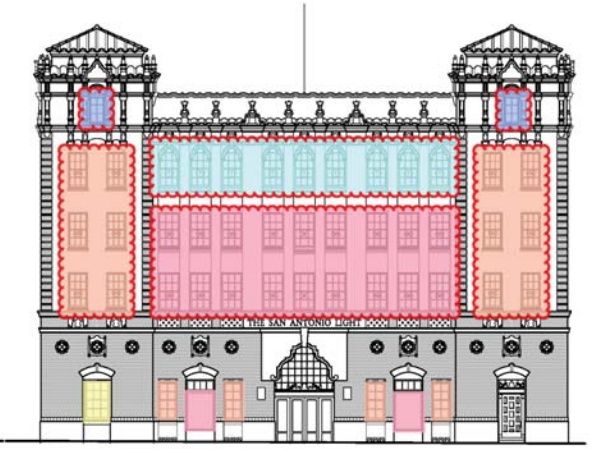
ALUMINUM WINDOWS
REPLACED WITH CLAD
KOLBE ULTRA
WINDOWS IN 6 OVER 6
ARRANGEMENT

WINDOWS OF THE LIGHT BUILDING (2017)

FORD POWELL &CARSON
Architects & Planners, Inc.



NORTH ELEVATION - PER HISTORICAL DRAWINGS



WEST ELEVATION - PER HISTORICAL DRAWINGS

WOOD WINDOW SCHEDULE - PER HISTORICAL DRAWINGS

QTY.		FINISH MASONRY OPENING	SASH SIZE	KIND	FRAME	TRIM	GLASS
2	(A)	5'-6" x 7'-2 5/8" (Verify)	----	----	YELLOW PINE	GUM TRIM & BACK	1/4" PLATE GLASS
4	(B)	3'-7" X 8'-Ø 1/4"	3'-3" X 7'-11 3/4" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	GUM PLASTER RETURN MOULDING	4/4 LTS. D.S.A
2	(C)	4'-10" X 8'-Ø 1/4"	4'-6" X 7'-11 3/4" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	GUM PLASTER RETURN MOULDING	6/6 LTS. D.S.A
4	(D)	4'-10" X 8'-Ø 1/4"	4'-6" X 7'-11 3/4" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	GUM RET. MLD. IN GEN. OFFICE	6/6 LTS. D.S.A
3	(E)	14'-Ø" X 10'-Ø 3/8	----	----	YELLOW PINE	YELLOW PINE	PLATE GLASS
9	(G)	2'-4" X 3'-8 5/8"	2'-Ø" X 3'-4 1/8" X 1 3/4"	WOOD CASEMENT	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	4 LTS. D.S.A
1	(H)	3'-8" X 4'-7 3/8"	3'-4" X 4'-2 7/8" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	3/3 LTS. D.S.A
18	(M)	4'-Ø" X 6'-10 1/2"	3'-8" X 6'-6" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	6/6 LTS. D.S.A
21	(N)	3'-8" X 6'-10 1/2"	3'-4" X 6'-6" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	Y.P. TRIM	6/6 LTS. D.S.A
15	(R)	3'-10" X 8'-4"	3'-6" X 7'-11 1/2" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	6/9 LTS. D.S.A
30	(S)	3'-10" X 6'-10 1/2"	3'-6" X 6'-6" X 1 3/4"	DOUBLE HUNG	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	6/6 LTS. D.S.A
9	(T)	3'-8" X 7'-10"	----	DOUBLE HUNG SLIP HEAD SASH	YELLOW PINE	Y.P. PLASTER RETURN MOULDINGS	7/6 LTS. D.S.A
4	(U)	3'-Ø" X 5'-5"	2'-8" X 5'-1 1/2" X 1 3/4"	CASEMENT	YELLOW PINE	Y.P. TRIM	6 LTS. D.S.A

1 PRELIMINARY WINDOW SCHEDULE FOR NEW WINDOWS BY KOLBE

04-27-16

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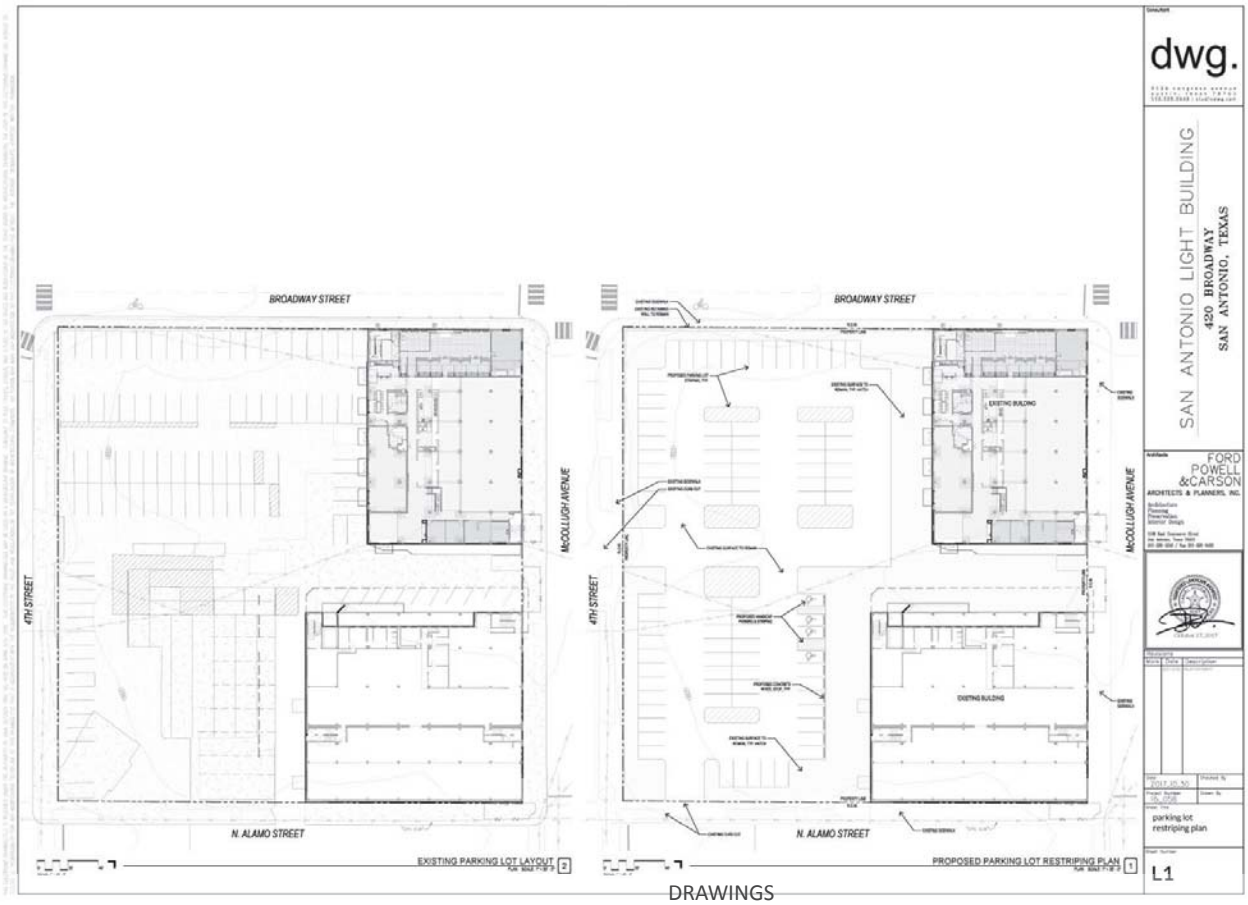
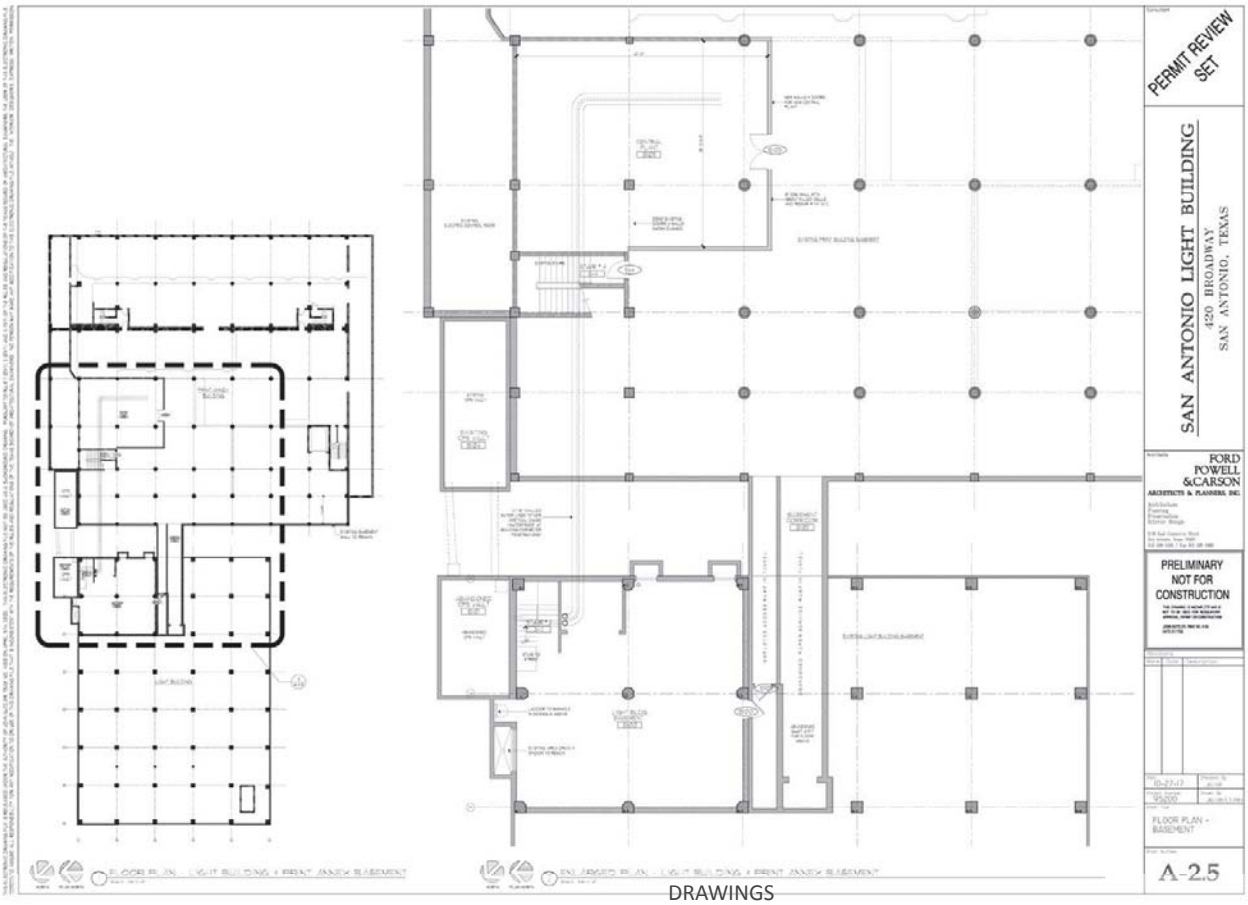
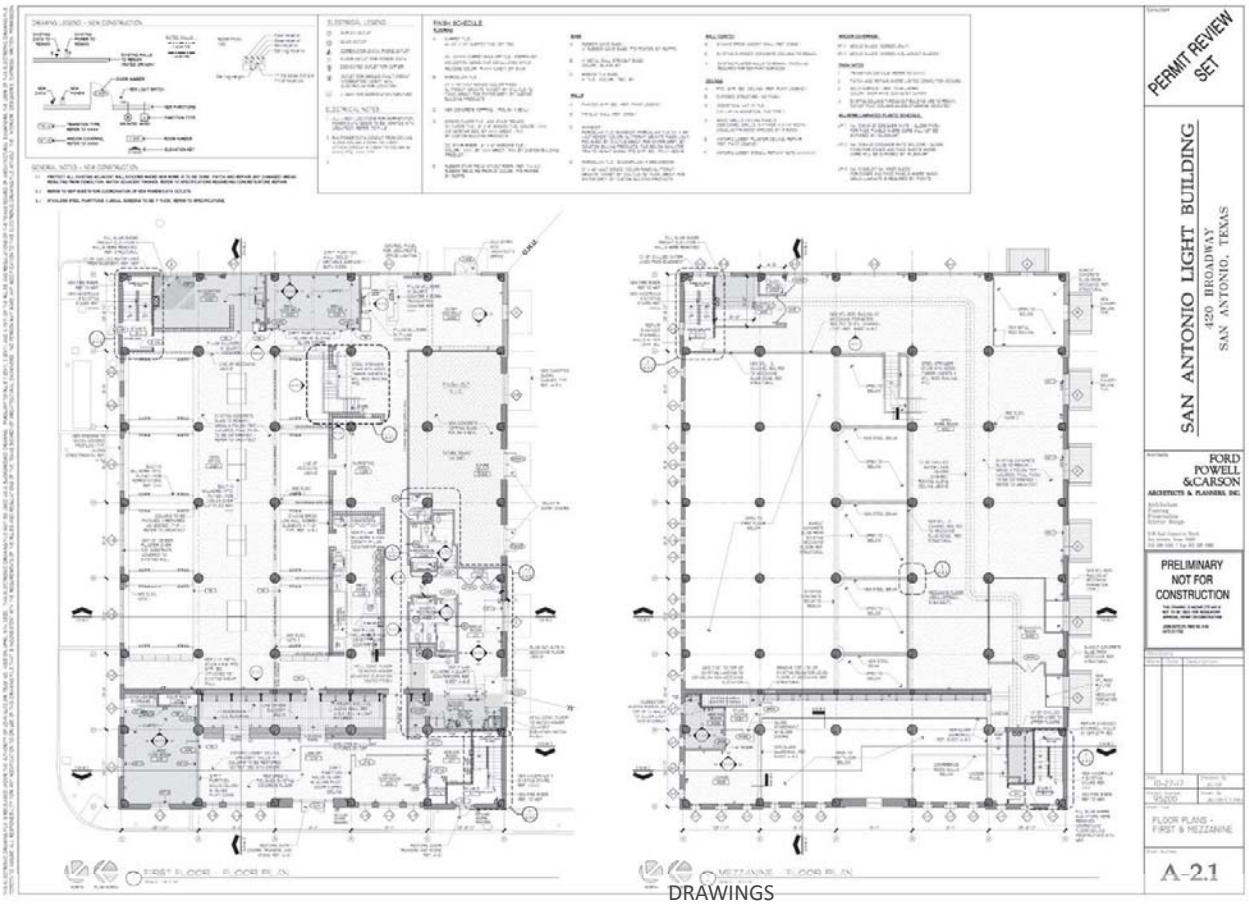

BROADWAY STREET
4TH STREET
McCULLOUGH AVENUE
N. ALAMO STREET
EXISTING PARKING LOT LAYOUT
BROADWAY STREET
4TH STREET
McCULLOUGH AVENUE
N. ALAMO STREET
PROPOSED PARKING LOT RESTRIPING PLAN
dwg.
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
parking lot restriping plan
L1

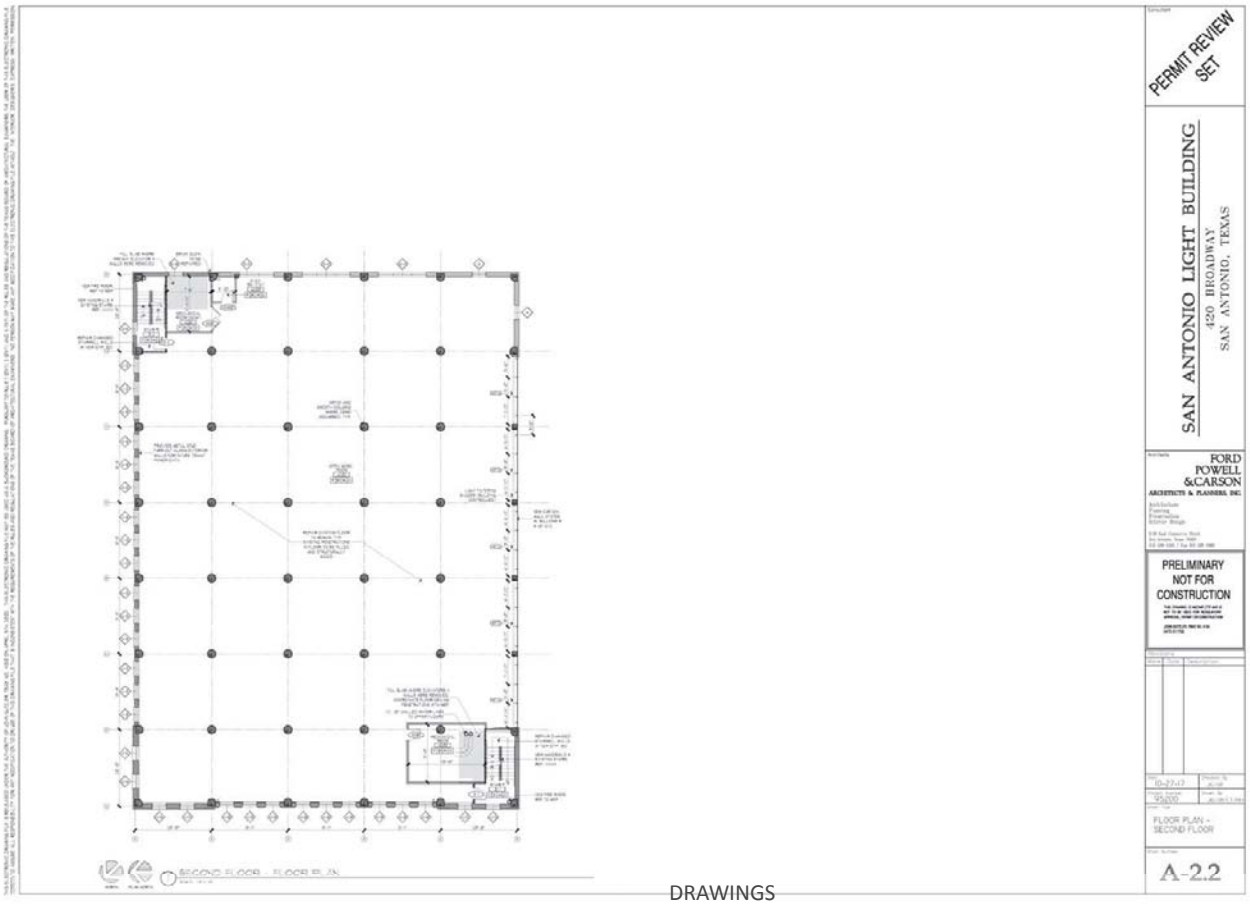
DRAWINGS


PERMIT REVIEW SET
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
10-27-17
FLOOR PLAN - BASEMENT
A-2.5

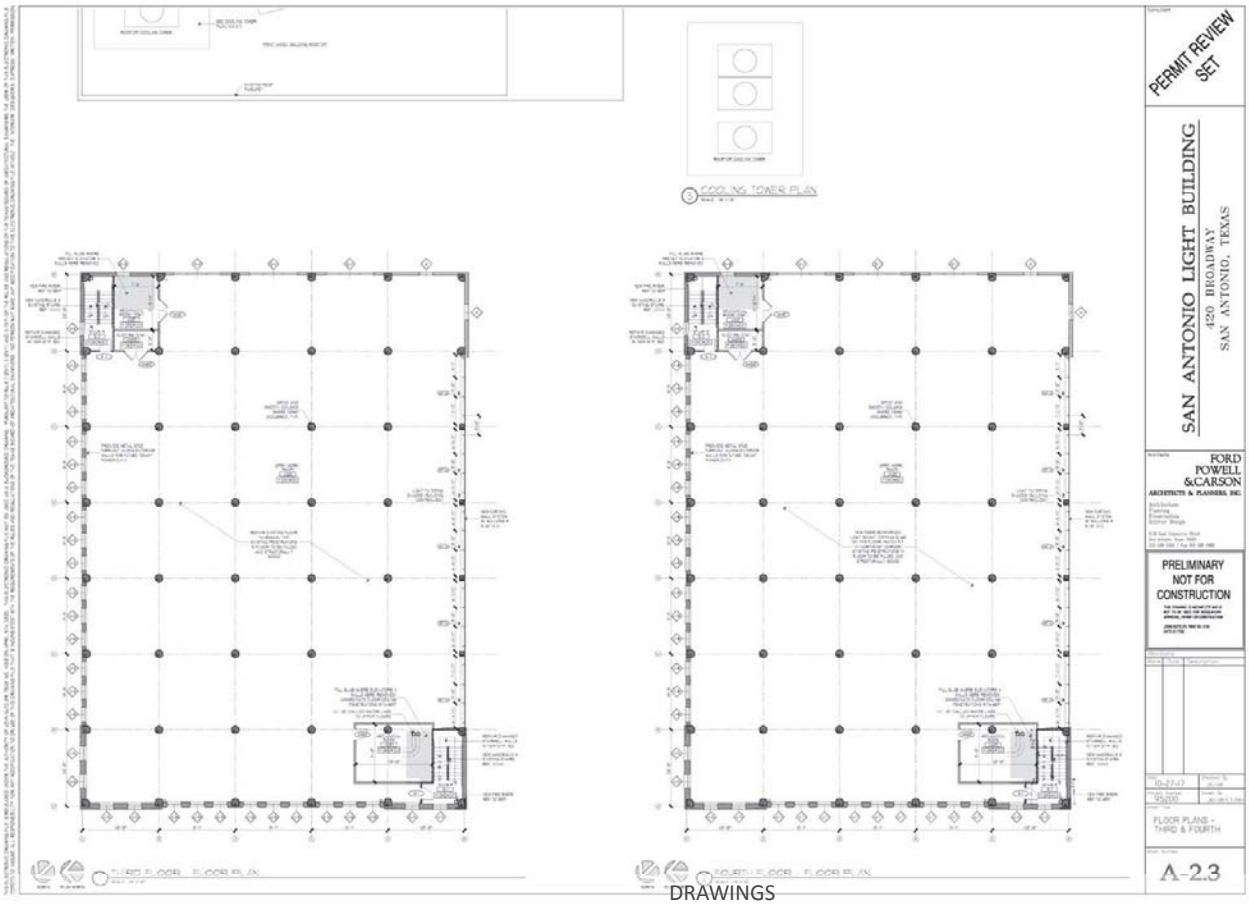
DRAWINGS


PERMIT REVIEW SET
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
10-27-17
FLOOR PLANS - FIRST & MEZZANINE
A-21

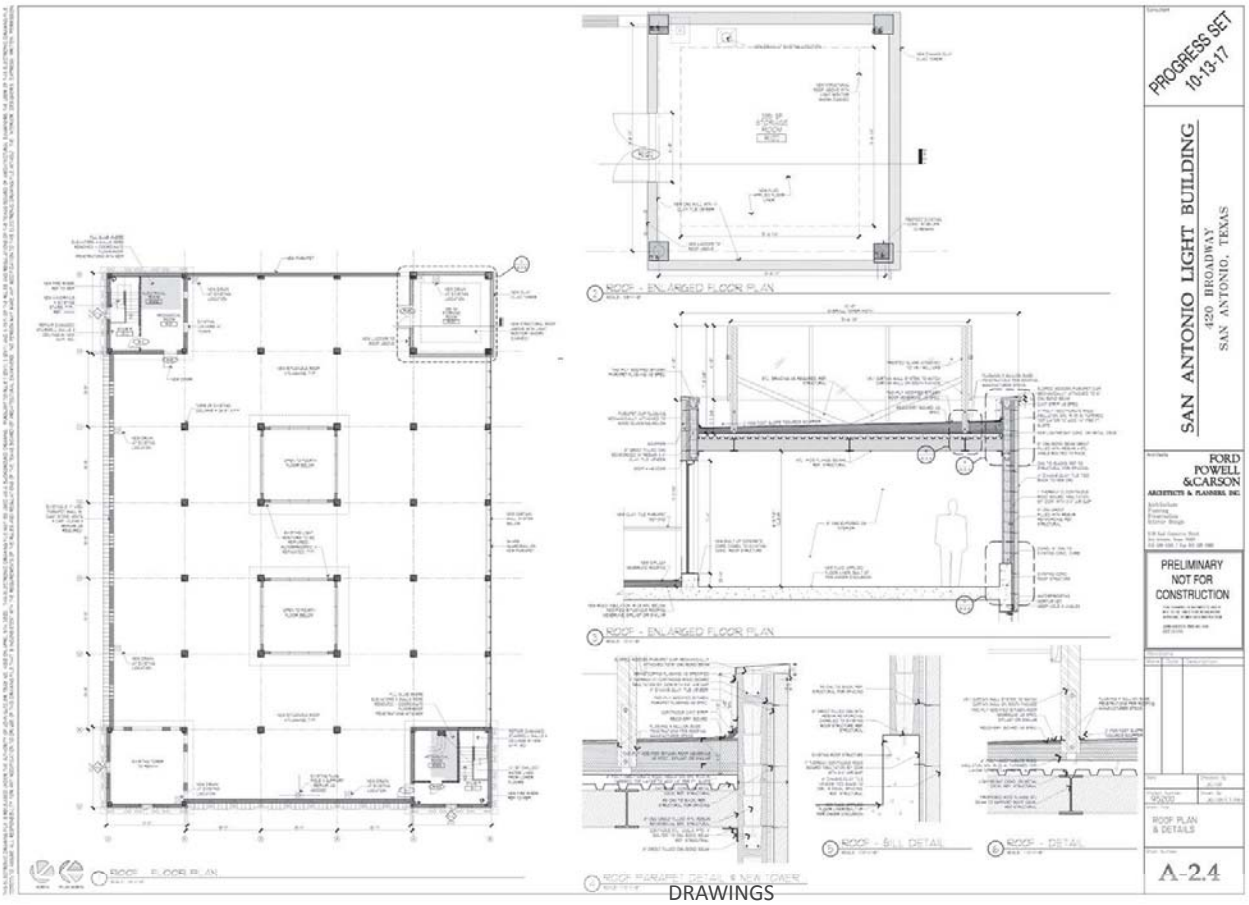
DRAWINGS


PERMIT REVIEW SET
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
10-27-17
FLOOR PLAN - SECOND FLOOR
A-22

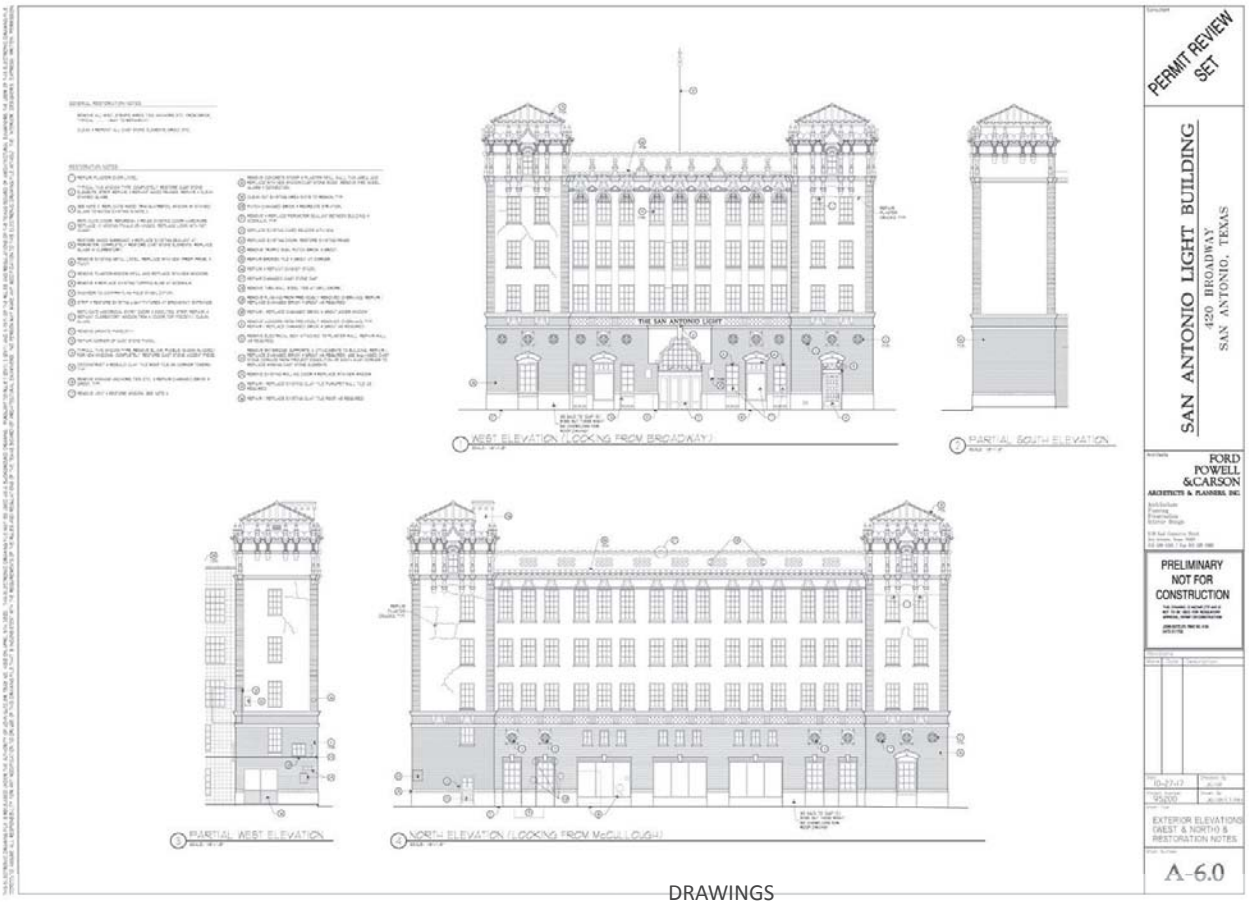
DRAWINGS


PERMIT REVIEW SET
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
10-27-17
FLOOR PLANS - THIRD & FOURTH
A-2.3
COOLING TOWER PLAN
THIRD FLOOR - FLOOR PLAN
FOURTH FLOOR - FLOOR PLAN

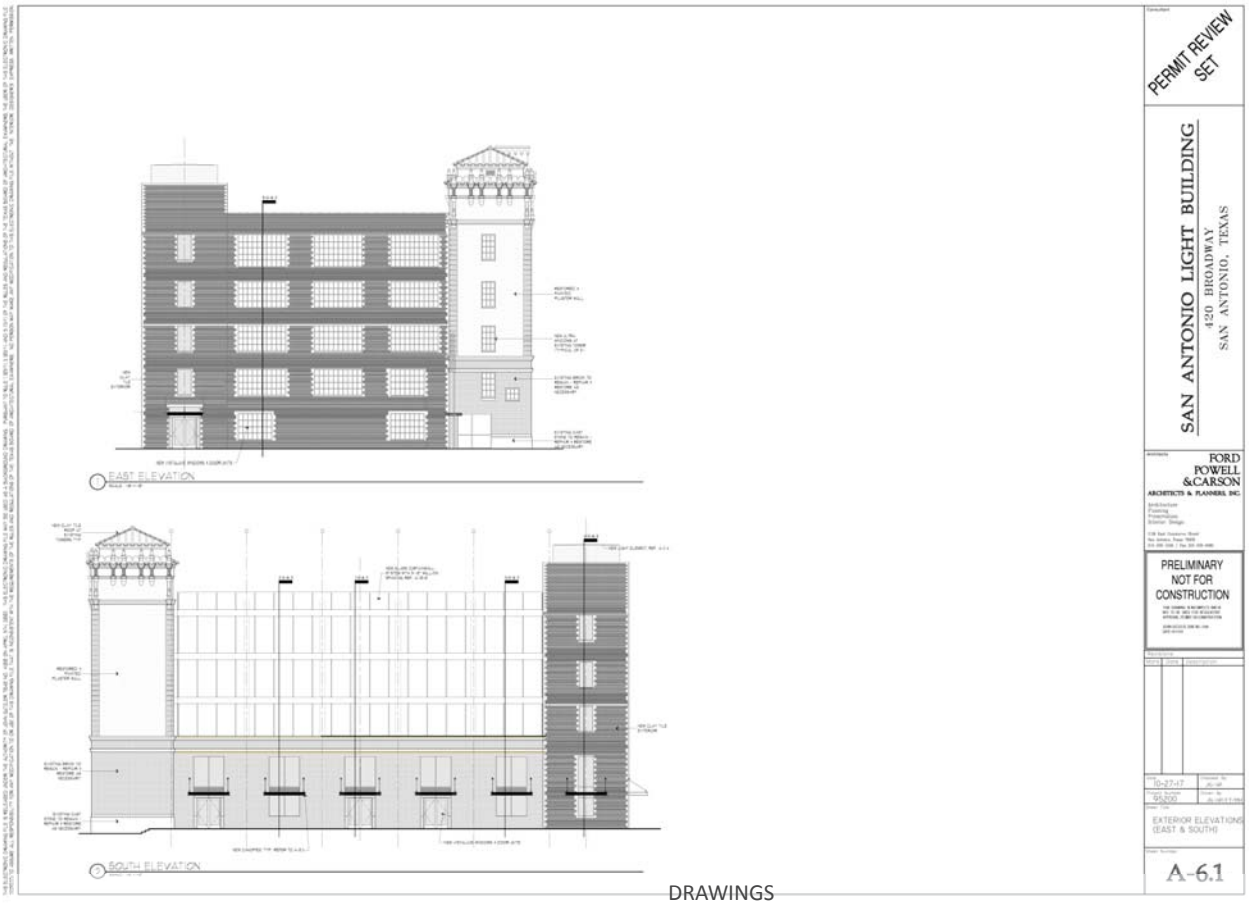
DRAWINGS


PROGRESS SET
10-13-17
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD
POWELL
&CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY
NOT FOR
CONSTRUCTION
ROOF PLAN
& DETAILS
A-2.4
ROOF - ENLARGED FLOOR PLAN
ROOF - ENLARGED FLOOR PLAN
ROOF - BUI DETAIL
ROOF - DETAIL
ROOF PARAPET DETAIL @ NW TOWER
ROOF FLOOR PLAN

DRAWINGS


PERMIT REVIEW SET
SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
10-27-17
EXTERIOR ELEVATIONS (WEST & NORTH) & RESTORATION NOTES
A-6.0
1 WEST ELEVATION (LOOKING FROM BROADWAY)
2 PARTIAL SOUTH ELEVATION
3 PARTIAL WEST ELEVATION
4 NORTH ELEVATION (LOOKING FROM McCULLOUGH)

DRAWINGS



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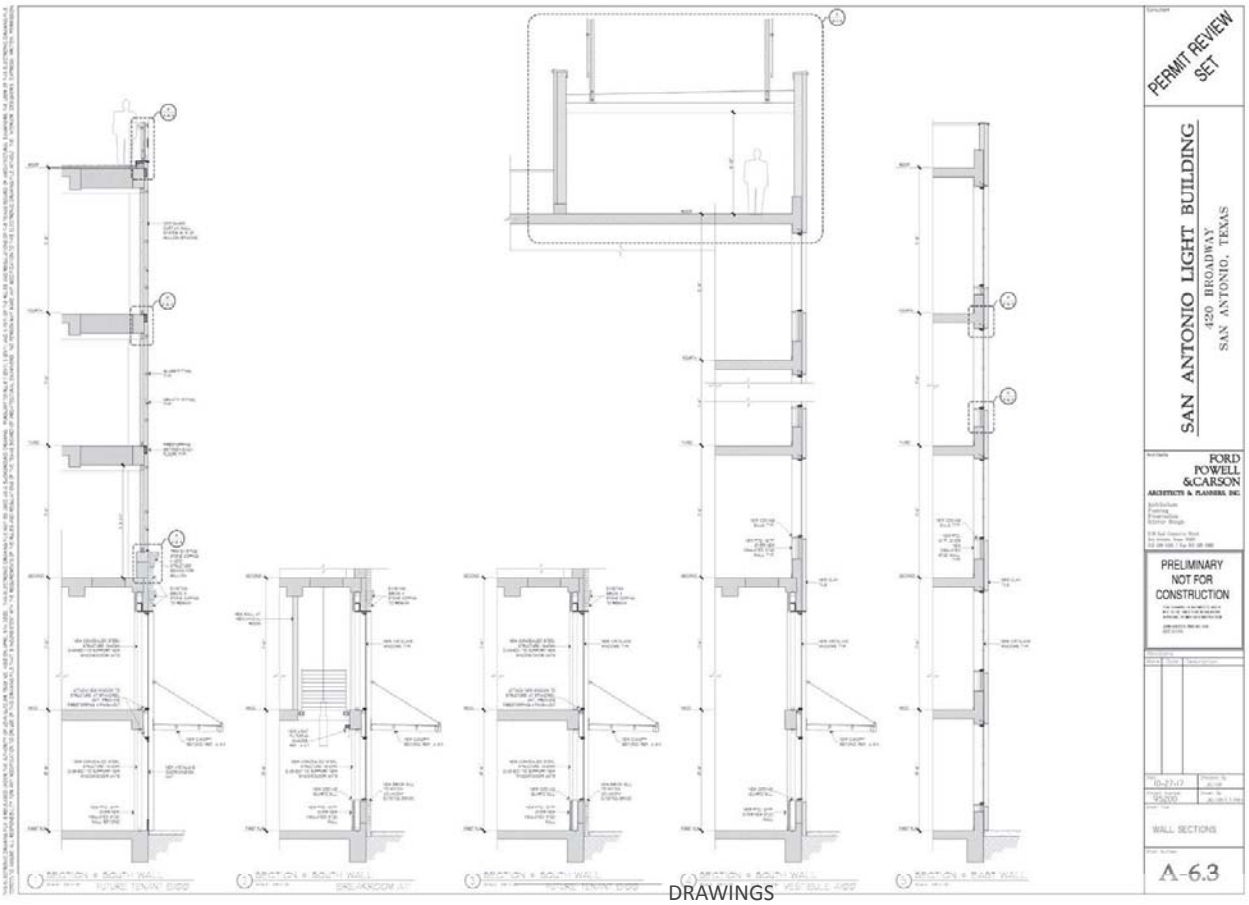
10-27-17

95200

EXTERIOR ELEVATIONS (EAST & SOUTH)

A-6.1

DRAWINGS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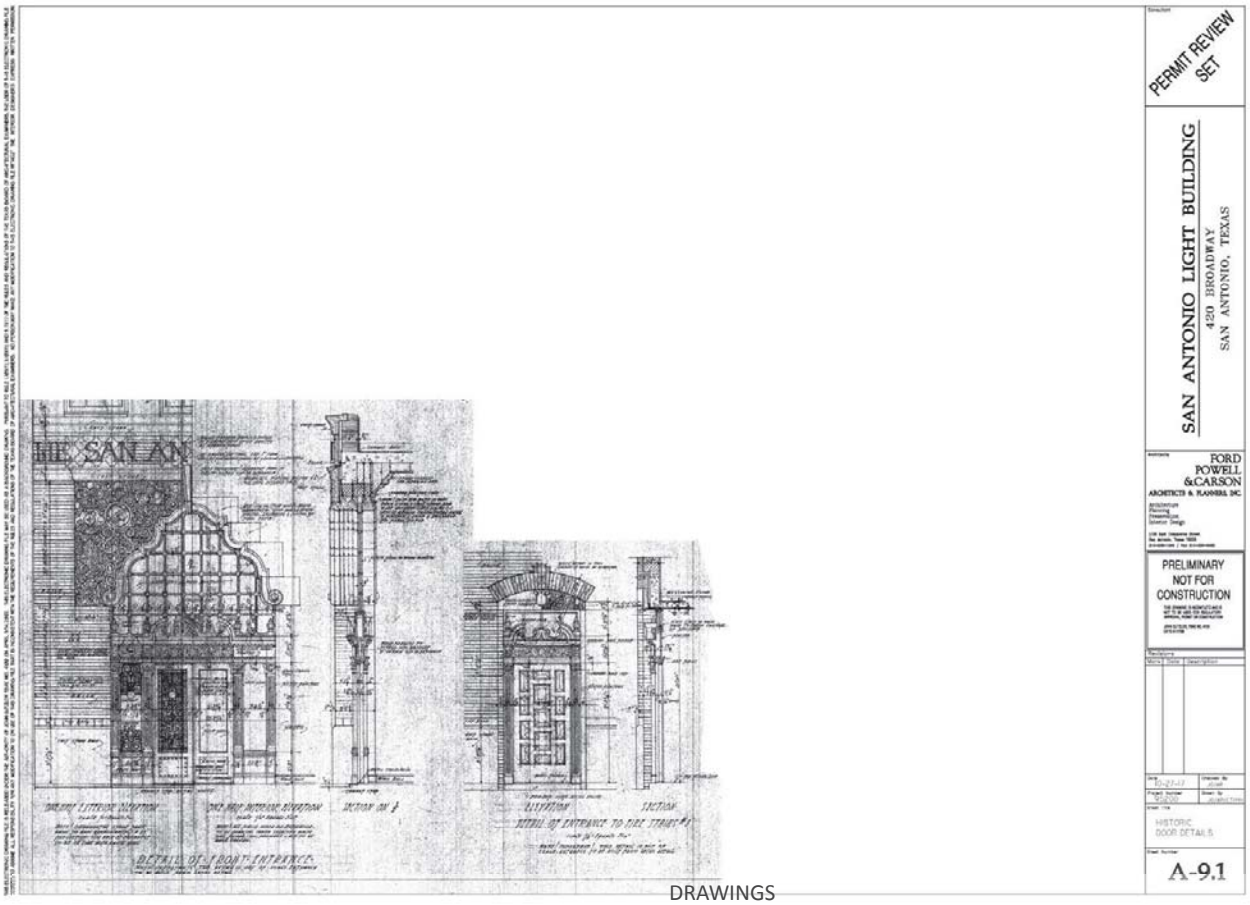
10-27-17
WALL SECTIONS
A-6.3

DRAWINGS



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SAN ANTONIO, TEXAS

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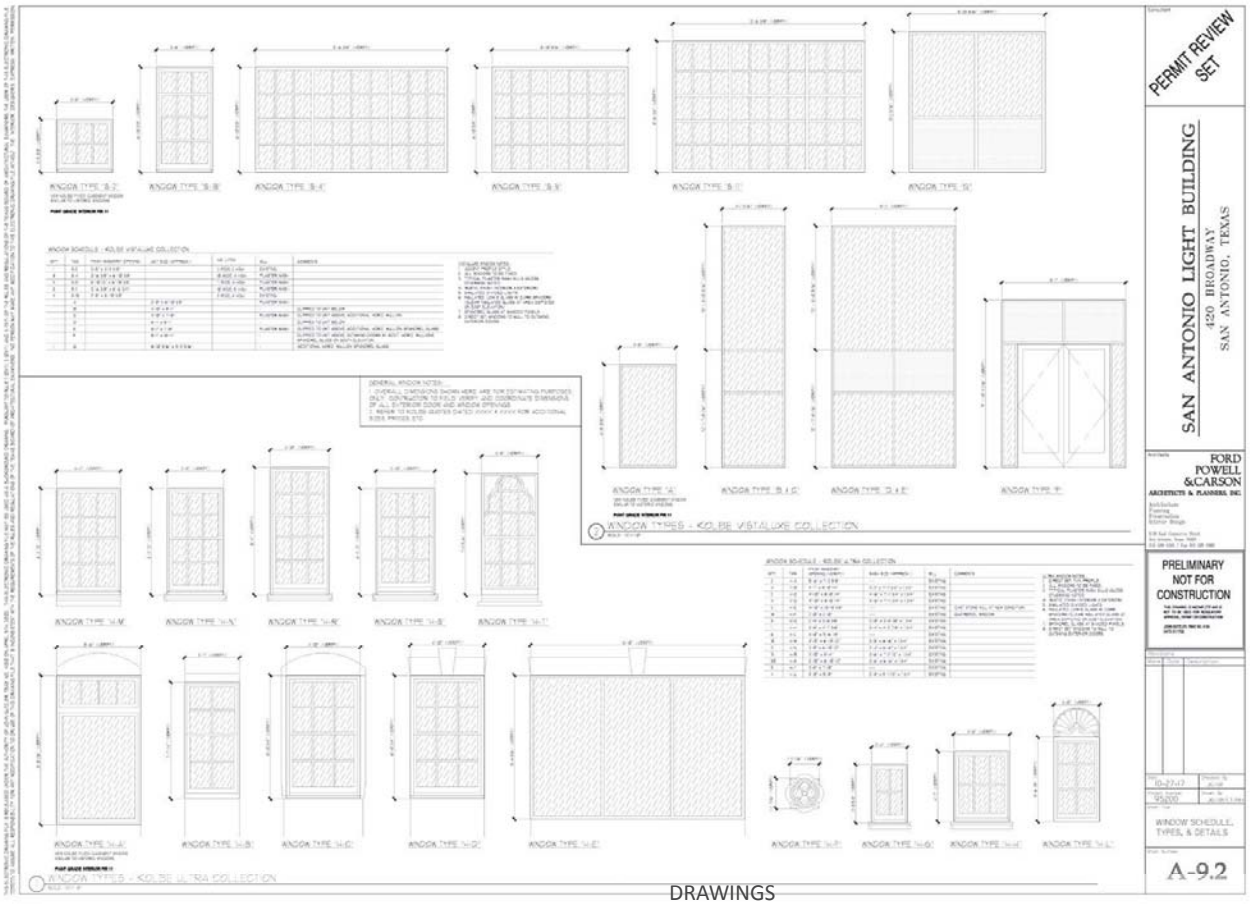
HISTORIC DOOR DETAILS

A-9.1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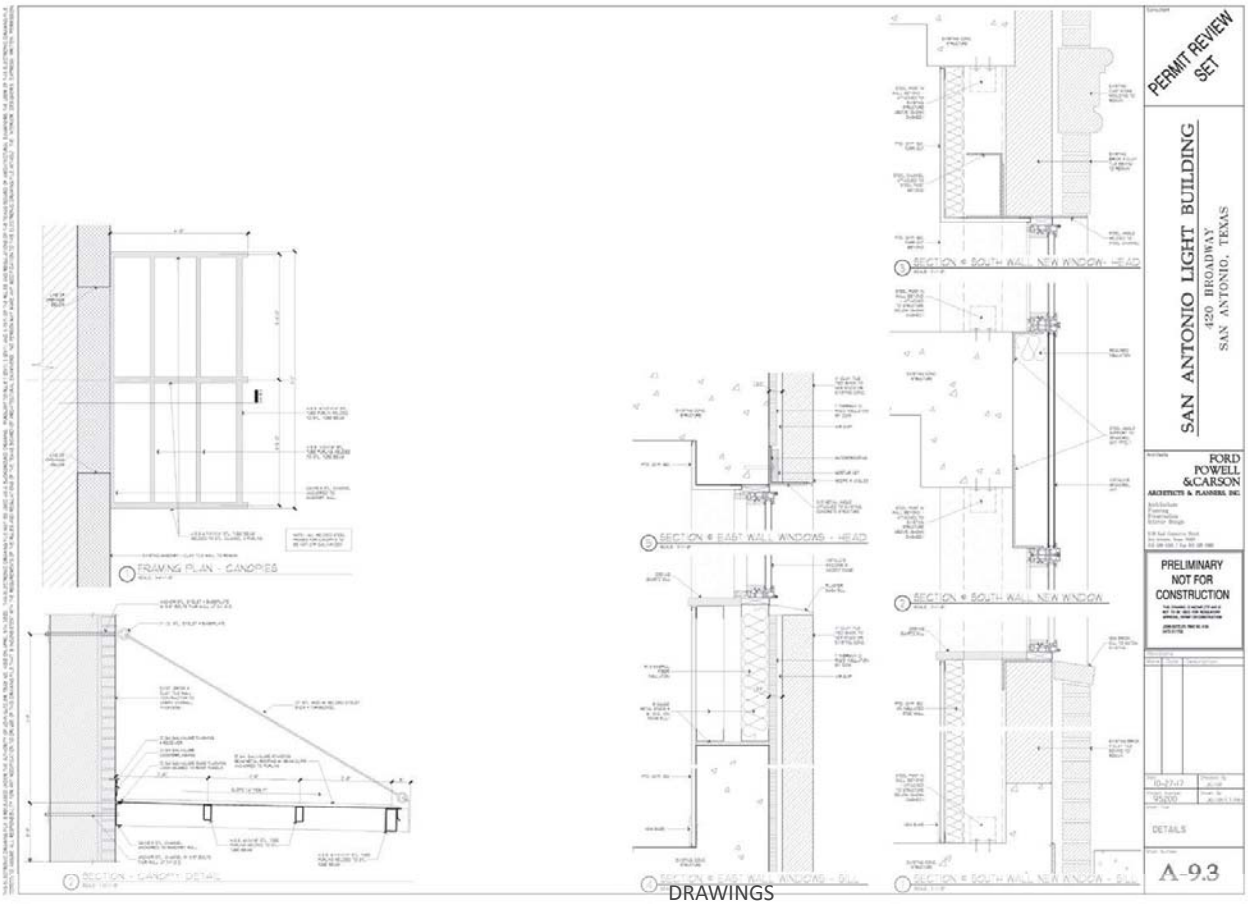
420 BROADWAY
SAN ANTONIO, TEXAS
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
PRELIMINARY NOT FOR CONSTRUCTION
WINDOW SCHEDULE, TYPES, & DETAILS
A-9.2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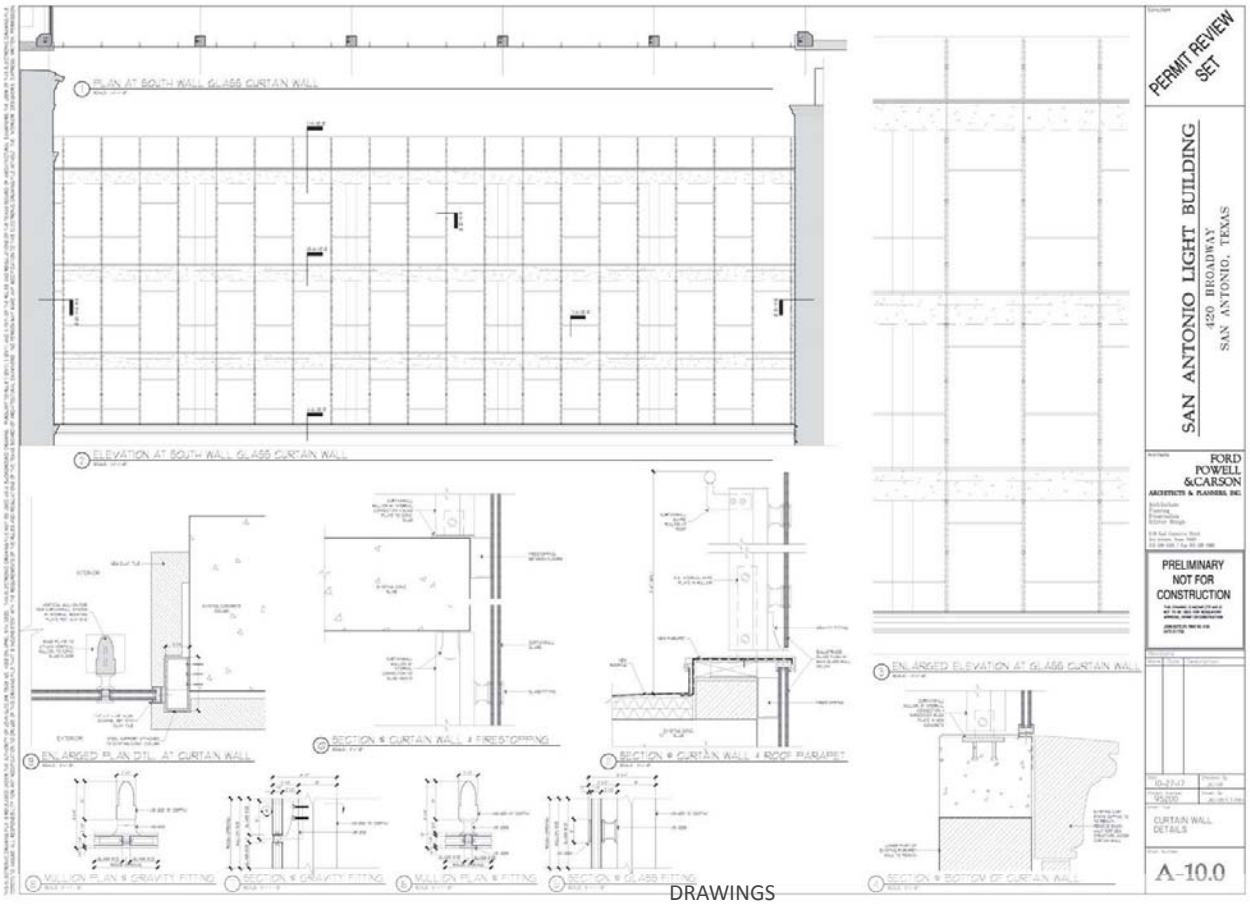
PRELIMINARY NOT FOR CONSTRUCTION
DETAILS
A-9.3
FRAMING PLAN - CANOPIES
SECTION - CANOPY DETAIL
SECTION @ EAST WALL WINDOWS - HEAD
SECTION @ EAST WALL WINDOWS - SILL
SECTION @ SOUTH WALL NEW WINDOW - HEAD
SECTION @ SOUTH WALL NEW WINDOW
SECTION @ SOUTH WALL NEW WINDOW - SILL

DRAWINGS


1 PLAN AT SOUTH WALL GLASS CURTAIN WALL
2 ELEVATION AT SOUTH WALL GLASS CURTAIN WALL
3 ENLARGED ELEVATION AT GLASS CURTAIN WALL
5 ENLARGED PLAN DTL AT CURTAIN WALL
10 SECTION @ CURTAIN WALL @ FIRESTOPPING
11 SECTION @ CURTAIN WALL @ ROOF PARAPET
4 SECTION @ BOTTOM OF CURTAIN WALL
6 WALL ON PLAN @ GRAVITY FITTING
7 SECTION @ GRAVITY FITTING
8 WALL ON PLAN @ FITTING
9 SECTION @ GLASS FITTING
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10-27-17
CURTAIN WALL DETAILS
A-10.0

DRAWINGS

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October 27, 2017
HDRC Final Approval Application

Office of Historic Preservation
1901 South Alamo
San Antonio, TX 78204

Project Description:

The building sits at a prominent corner of Broadway and McCullough Avenue and is physically located at 420 Broadway Street. It was the former home to the San Antonio Light newspaper, later purchased by the Express News which has occupied the property until last year when the site was bought by Gray Street Partners.

The historic building named "The Light Building" was constructed circa 1931 and includes five-stories of concrete and stucco construction designed by architect Robert B. Kelly. There is also an adjacent press room building (The Print Building) and a parking lot on site. There was an addition to The Light Building and Print Building completed in 1969 by Bartlett Cocke.

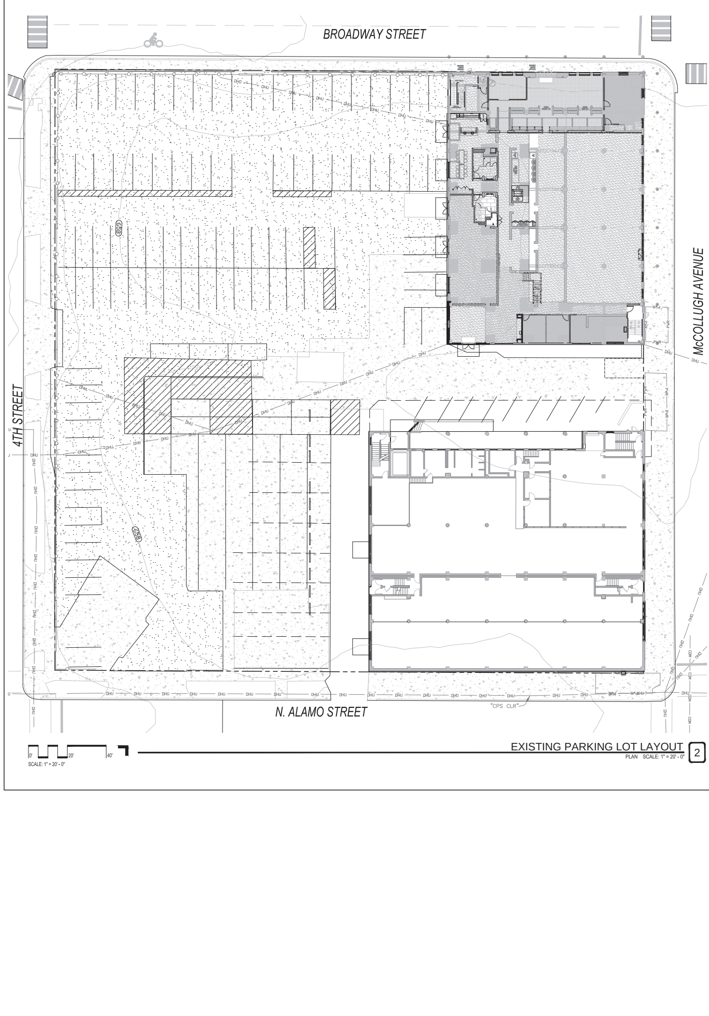
Submitted for Final Approval by the HDRC in this package of work will be the physical improvements to the Light Building core and shell. This scope includes the restoration of the building envelope via plaster painting and repair, masonry and cast stone repair and cleaning, removal of aluminum windows and doors to be replaced with wood clad windows matching the historic profiles, restoration of the Broadway entry elements and a re-roofing of the building. Also part of this scope will be the addition of a large south-facing curtain wall from the 2nd-rooftop levels that will involve the removal of the 1960's plaster wall addition. This was presented in June and Conceptual Approval, a Certificate of Appropriateness, and the Partial Demolition Permit were obtained in July. Site improvements will be phased with the project, with the initial design to involve re-striping and delineating surface parking in place of the existing paved lot that currently takes up the entire south half of the site.

The second phase involves permanent landscape, pedestrian walkways, event space, and Broadway improvements integration. This will be submitted under a separate permit once the design of the landscape, courtyards, and Vertical Connector are completed. Ford, Powell & Carson is not seeking HDRC final approval of the Vertical Connector at this time.

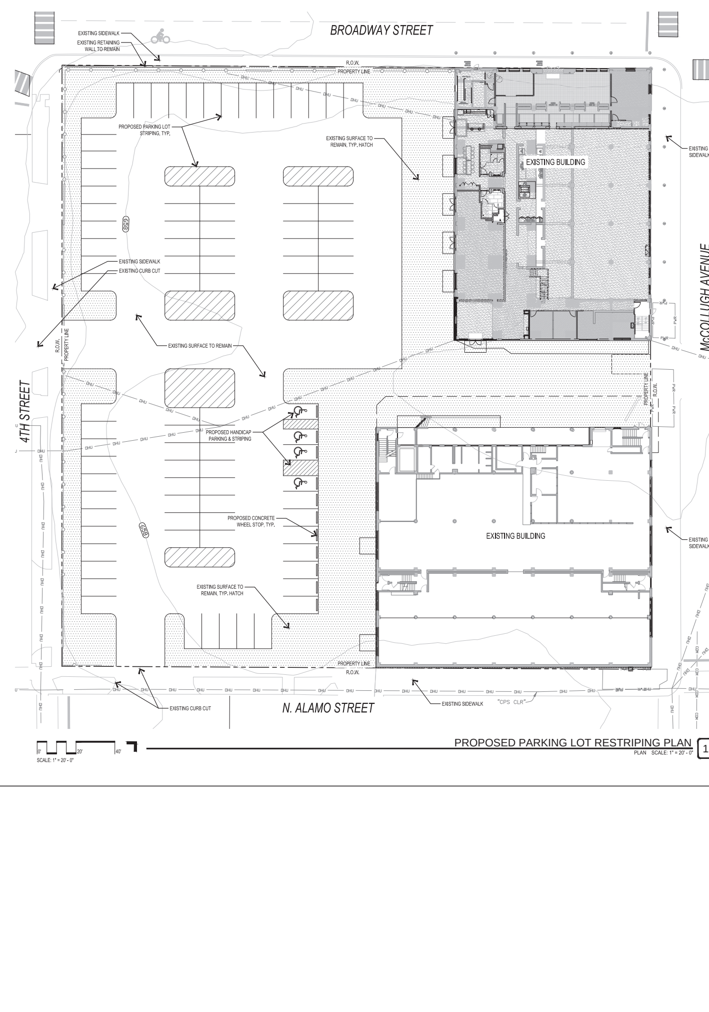
Windows that were added in the 1980s are being replaced with Kolbe Ultra custom clad windows that will replicate the original 6-over-6 glazing profile, as well as the large 1st floor profiles of the historic storefront windows. The Kolbe Vista Luxe line of

windows and doors will be used to replace the steel windows on the East facade as well as the storefront window and door components on the south. This line is used because of its minimal profile and nearly identical appearance to true steel windows and doors. All exterior windows and doors will consist of a dark bronze frame. The stained glass rosette windows along the Mezzanine level as well as the Broadway entry doors and transom will be restored by specialized craftsmen who have access to the original details and elevations. The curtainwall along the South elevation is the VS1 by Innovation Glass and will involve butt jointed glazing and interior structural millions every 5' on center. The upper floors will have automated interior roller shades that will mitigate glare and heat gain as the sun tracks throughout the day.

Since the last presentation to HDRC, the Owner has removed the rooftop restaurant over the Light Building—which has been reflected in the latest drawings. The upper floors of the building will be finished out as shell space, and the 1st floor offices will be designed as part of this 1st Phase of work. The new central plant will be located in the basement of the adjacent Print Building with chilled water lines running underground into the NE Corner of the Light Building.



EXISTING PARKING LOT LAYOUT 2
PLAN SCALE: 1" = 20' - 0"



PROPOSED PARKING LOT RESTRIPING PLAN 1
PLAN SCALE: 1" = 20' - 0"

Consultant

dwg.
912b congress avenue
austin, texas 78701
512.320.0668 | studiodwg.com

SAN ANTONIO LIGHT BUILDING
420 BROADWAY
SAN ANTONIO, TEXAS

Architects
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REGISTERED LANDSCAPE ARCHITECT DANIEL WOODROFFE 2285 STATE OF TEXAS
October 27, 2017

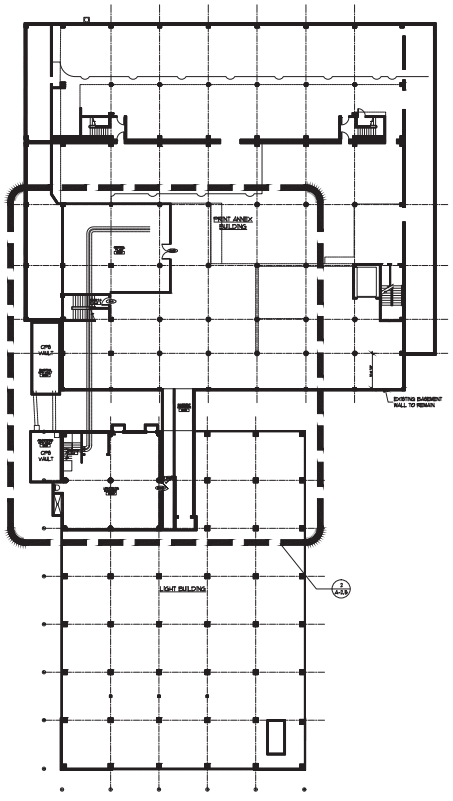
Revisions

Mark	Date	Description
	2017-10-30	ISSUE FOR PERMIT

Date: 2017.10.30
Checked By:
Project Number: 16_058
Drawn By:

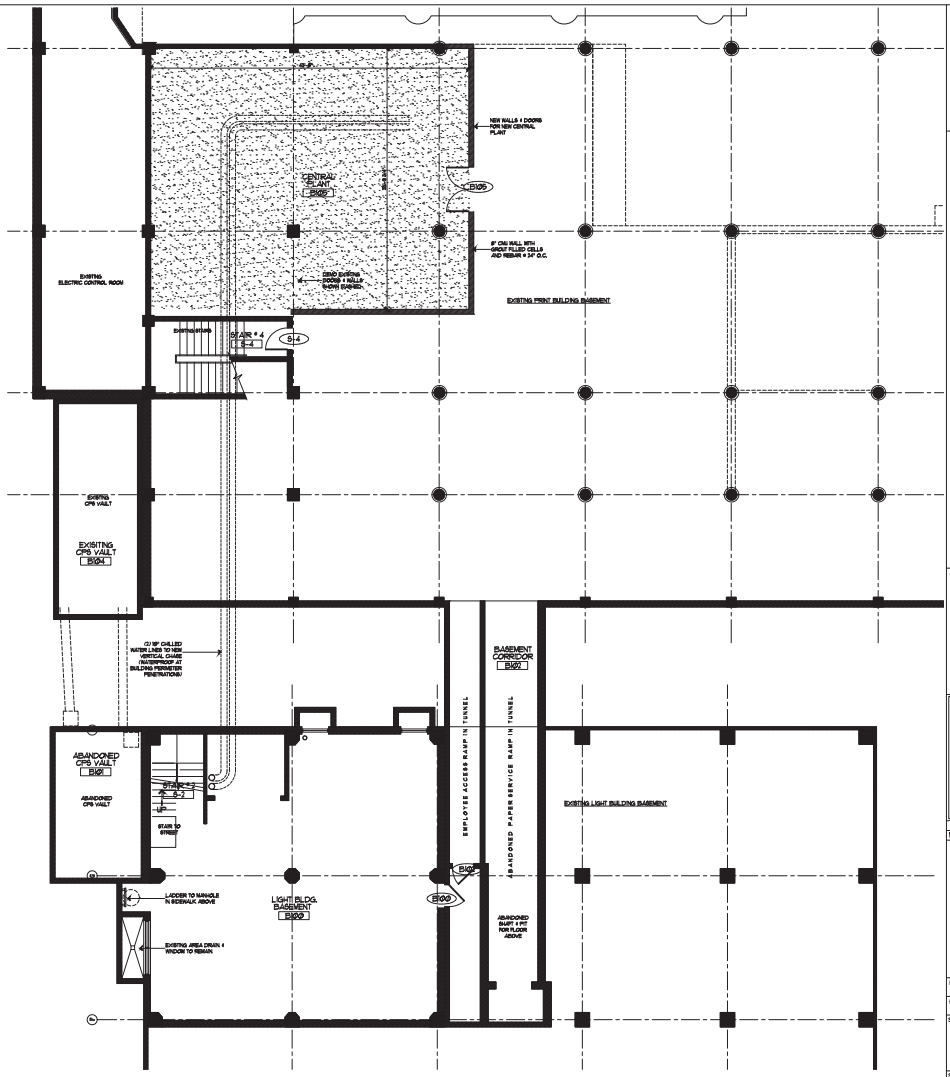
Sheet Title
parking lot restriping plan

Sheet Number
L1



NORTH PLAN NORTH

1 FLOOR PLAN - LIGHT BUILDING & PRINT ANNEX BASEMENT
SCALE: 1/8"=1'-0"



NORTH PLAN NORTH

2 ENLARGED PLAN - LIGHT BUILDING & PRINT ANNEX BASEMENT
SCALE: 1/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

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JOHN GUTZLER, TSBE NO. 4-365
DATE 6-17-05

Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
95-200	JG/AR/CT/MH

Sheet Title
FLOOR PLAN - BASEMENT

Sheet Number
A-2.5

DRAWING LEGEND - NEW CONSTRUCTION

- EXISTING DATA TO REMAIN
- EXISTING POWER TO REMAIN
- EXISTING WALLS TO REMAIN (RATED OR NON)
- RATED WALLS: 2 HOUR FIRE; 1 HOUR FIRE
- ROOM FINISH TAG: Floor material, Base material, Wall material, Ceiling material; Ceiling height; "/" indicates multiple finish materials
- NEW DATA
- NEW POWER
- DOOR NUMBER (3.100F)
- NEW LIGHT SWITCH
- NEW PARTITIONS
- PARTITION TYPE (B NON RATED, A RATED)
- (TR-X) TRANSITION TYPE, REFER TO XXXX
- (WT-X) WINDOW COVERING, REFER TO XXXX
- 3.100 ROOM NUMBER
- 5/A602 ELEVATION KEY

ELECTRICAL LEGEND

- DUPLEX OUTLET
- QUAD OUTLET
- COMBINATION DATA/ PHONE OUTLET
- FLOOR OUTLET FOR POWER/ DATA
- DEDICATED OUTLET FOR COPIER
- OUTLET FOR GROUND-FAULT CIRCUIT INTERRUPTER (VERIFY WITH ELECTRICIAN FOR LOCATION)
- J -BOX FOR WORKSTATION FURNITURE

ELECTRICAL NOTES

1. ALL J-BOX LOCATIONS FOR WORKSTATION POWER/DATA NEEDS TO BE VERIFIED WITH ARCHITECT. REFER TO F-1.0
2. RUN POWER/DATA CONDUIT FROM CEILING, ALONG COLUMN & DOWN TO J-BOX. ATTACH CONDUIT & J-BOX TO COLUMN W/ XXXX, PTD. XXX, TYP.
3.

GENERAL NOTES - NEW CONSTRUCTION

1.) PROTECT ALL EXISTING ADJACENT WALLS/DOORS WHERE NEW WORK IS TO BE DONE. PATCH AND REPAIR ANY DAMAGED AREAS RESULTING FROM DEMOLITION. MATCH ADJACENT FINISHES. REFER TO SPECIFICATIONS REGARDING CONCRETE/STONE REPAIR.

2.) REFER TO MEP SHEETS FOR COORDINATION OF NEW POWER/DATA OUTLETS.

3.) STAINLESS STEEL PARTITIONS & URINAL SCREENS TO BE 1" THICK. REFER TO SPECIFICATIONS.

FINISH SCHEDULE

FLOORING

A CARPET TILE:
A1: 24" X 24" CARPET TILE , BY TBD
A2: 24"X24" CARPET WALK-OFF TILE: STEPPIN OUT COLLECTION (MONOLITHIC INSTALLATION) STYLE: WELCOME COLOR: #XXXX NAME11, BY SHAW

B PORCELAIN TILE:
24" x 48" HAUT MONDE/ COLOR #HM03 GLITTERATI GRANITE, THINSET, BY DALTILE/ 3/8" THICK, GROUT: #335 WINTER GREY, BY CUSTOM BUILDING PRODUCTS

C NEW CONCRETE TOPPING: (POLISH & SEAL)

D MISSION FLOOR TILE AND STAIR TREADS
D1: FLOOR TILE: 8" X 8" MISSION TILE/ COLOR: XXX, 3/8" MORTAR BED, BY XXX, GROUT: #XX, BY CUSTOM BUILDING PRODUCTS
D2: STAIR RISER: 6" X 6" MISSIONS TILE / COLOR: XXX , BY XXX GROUT: #XX, BY CUSTOM BUILDING PRODUCT

E RUBBER STAIR TREAD WITHOUT RISER: (REF. 1/A-3.2) RUBBER TREAD #38 PROFILE/ COLOR: #178 PEWTER, BY ROPPE

BASE

A RUBBER COVE BASE:
4" RUBBER COVE BASE: #178 PEWTER, BY ROPPE.

B 4" METAL WALL STRAIGHT BASE: COLOR: BLACK, BY

C MISSION TILE BASE:
4" TILE: COLOR: TBD , BY

WALLS

A PAINTED GYP. BD. (REF. PAINT LEGEND)

B FIR SLAT WALL (REF. DWGS.)

C WAINSCOT:
PORCELAIN TILE/ WAINSCOT: PORCALAIN TILE 24" X 48" HAUT MONDE/ COLOR: GLITTERATI GRANITE #HM03 LIGHT POLISHED, BY DALTILE/GROUT: #335 WINTER GREY, BY COUSTOM BUILING PRODUCTS, TILE BELOW SCHLUTER TRIM TO HEIGHT SHOWN, PTD GYP. BD. (PXX) ABOVE.

D PORCELAIN TILE: BACKSPLASH @ BREAKROOM
12" x 48" HAUT MONDE/ COLOR #HM03 GLITTERATI GRANITE, THINSET, BY DALTILE/ 3/8" THICK, GROUT: #335 WINTER GREY, BY CUSTOM BUILDING PRODUCTS

WALL (CONT'D)

D D'HANIS BRICK ACCENT WALL (REF. DWGS.)

E EXISTING EXPOSED CONCRETE COLUMNS TO REMAIN.

F EXISTING PLASTER WALLS TO REMAIN- (PATCH AS REQUIRED FOR NEW PAINT SURFACES)

CEILINGS

A PTD. GYP. BD. CEILING: (REF. PAINT LEGEND)

B EXPOSED STRUCTURE- NO FINISH

C ACOUSTICAL LAY-IN TILE
2'X2' LAY-IN ACOUSTICAL TILE TYPE 1:

D WOOD GRILLE CEILING PANELS
1200 DOWEL GRILLE: 3/4"THICK X 3-1/4" WIDTH, DOUGLAS FIR WOOD SPECIES, BY 9 WOOD

E HISTORIC LOBBY PLASTER CEILING: REPAIR (REF. PAINT LEGEND)

F HISTORIC LOBBY STENCIL REPAINT NOTE XXXXXXX

WINDOW COVERINGS:

WT-1 MECHO SHADE (SCREEN ONLY)

WT-2 MECHO SHADE (SCREEN & BLACKOUT SHADES)

FINISH NOTES

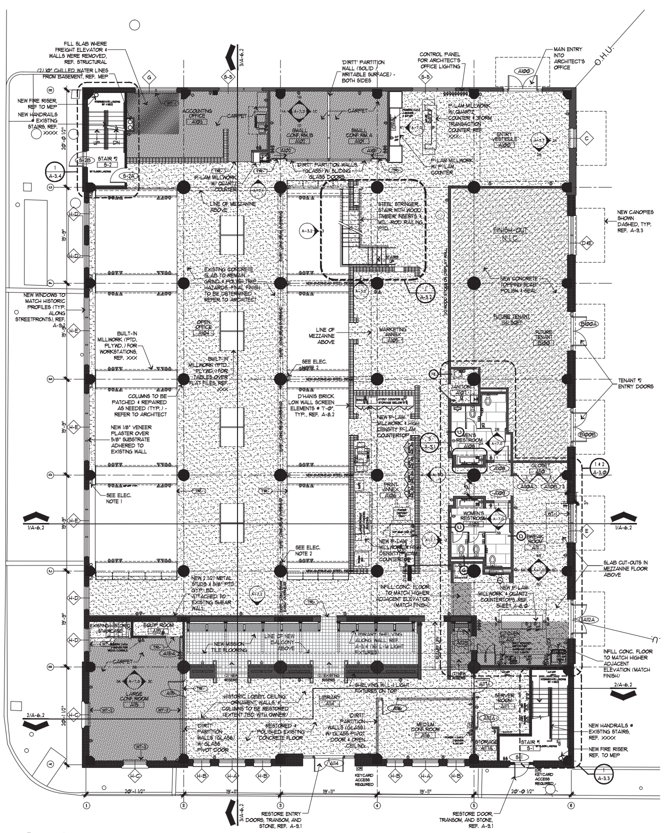
1. TRANSITION DETAILS (REFER TO AXXX)
2. PATCH AND REPAIR WHERE LIMITED DEMOLITION OCCURS.
3. SOLID SURFACE: (REF. TO MILLWORK) COLOR: SNOW WHITE, ZODIAQ BY DUPONT
4. EXISTING COLUMNS THROUGHOUT BUILDING ARE TO REMAIN. DO NOT PAINT COLUMNS UNLESS OTHERWISE INDICATED.

MILLWORK LAMINATED PLASTIC SCHEDULE:

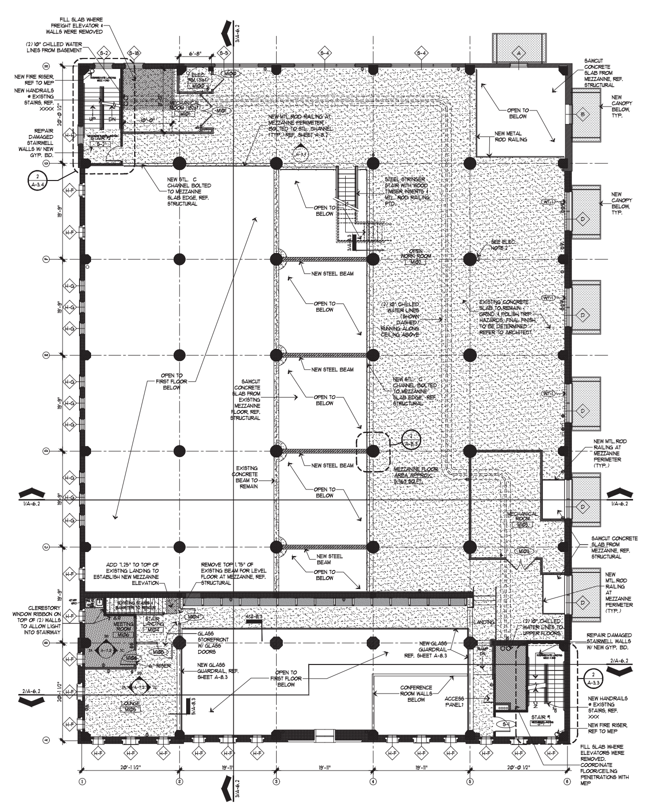
LP-1 No. D354K-01 DESIGNER WHITE - GLOSS FINISH FOR FACE PANELS WHERE CORE WILL NOT BE EXPOSED BY WILSONART

LP-2 No. D354-01 DESIGNER WHITE SOLICOR - GLOSS FINISH FOR EDGES AND FACE SHEETS WHERE CORE WILL BE EXPOSED BY WILSONART

LP-3 No. KINGSLEY No. WW011 SUEDE FOR EDGES AND FACE PANELS WHERE WOOD GRAIN LAMINATE IS REQUIRED BY PIONITE



1 FIRST FLOOR - FLOOR PLAN
SCALE: 1/8"=1'-0"



2 MEZZANINE - FLOOR PLAN
SCALE: 1/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

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JOHN GUTZLER, TBAE NO. 4100
DATE 01/17/03

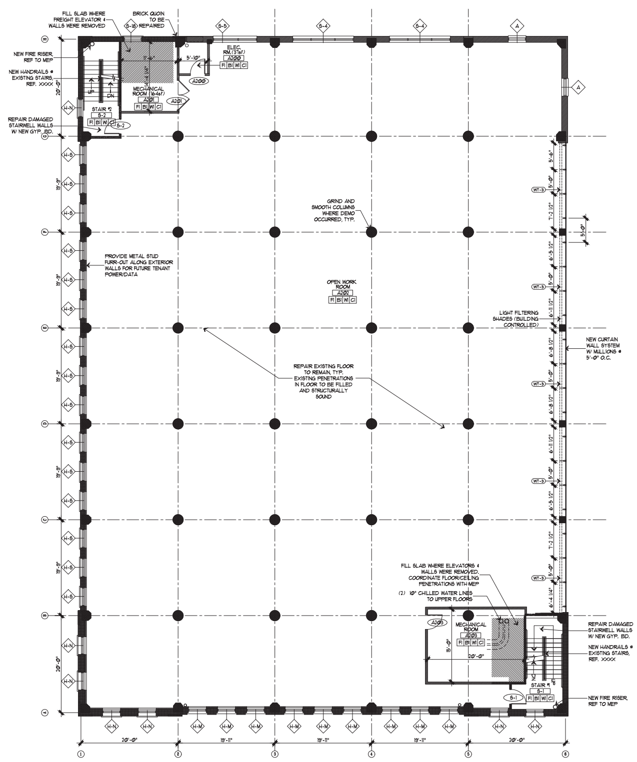
Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JG/AR
Project Number	**Drawn By**
95200	JG/AR/CT/MH

Sheet Title
FLOOR PLANS - FIRST & MEZZANINE

Sheet Number
A-2.1



NORTH PLAN NORTH

1 SECOND FLOOR - FLOOR PLAN

SCALE: 1/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

420 BROADWAY

SAN ANTONIO, TEXAS

Architects

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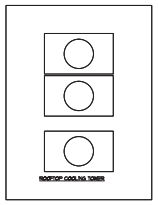
Date 10-27-17	Checked By JG/AR
Project Number 95200	Drawn By JG/AR/CT/MH

Sheet Title

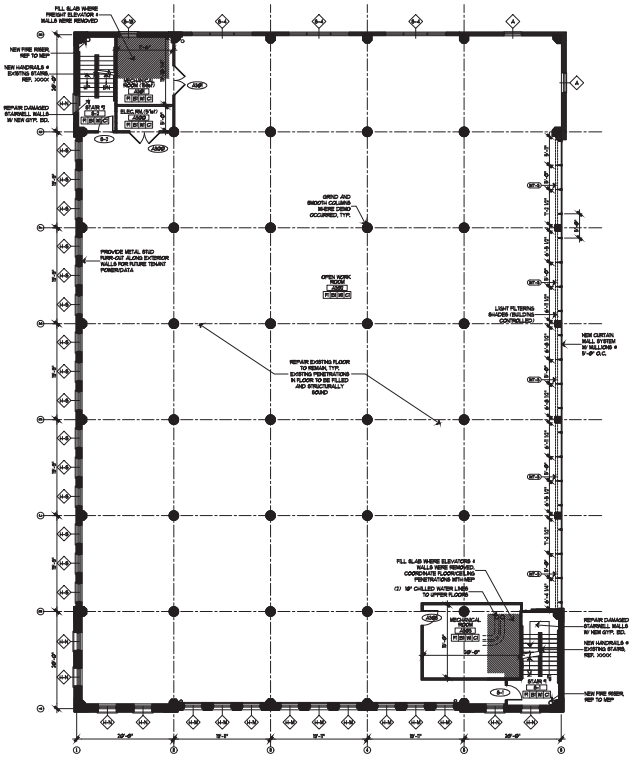
FLOOR PLAN - SECOND FLOOR

Sheet Number

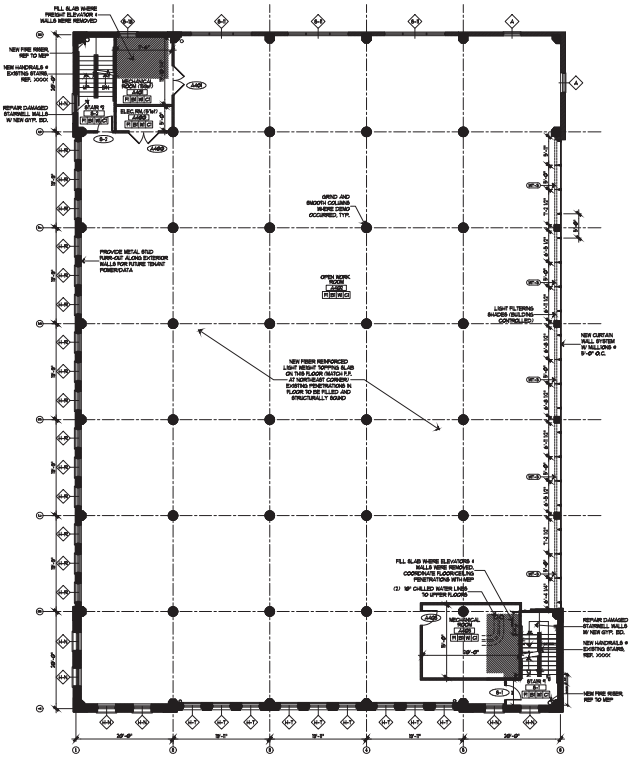
A-2.2



3 COOLING TOWER PLAN
SCALE: 1/8"=1'-0"



NORTH PLAN NORTH 1 THIRD FLOOR - FLOOR PLAN
SCALE: 1/8"=1'-0"



NORTH PLAN NORTH 2 FOURTH FLOOR - FLOOR PLAN
SCALE: 1/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

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JOHN GUTZLER, TEXAS NO. 14,965
DATE 8/17/05

Revisions

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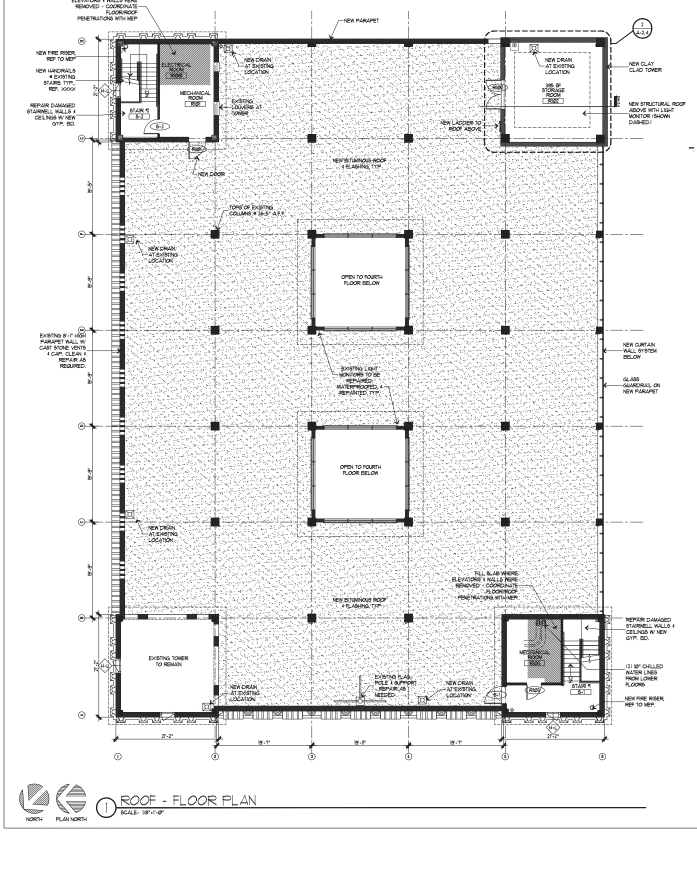
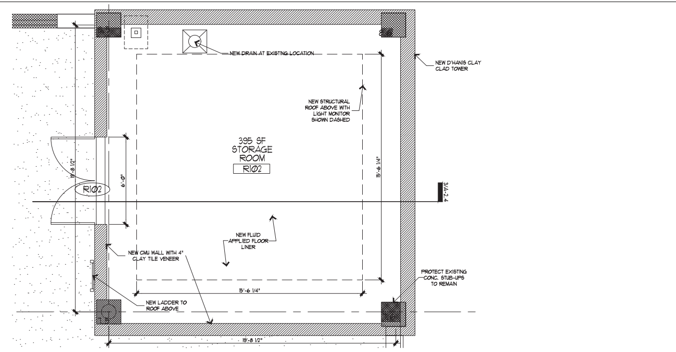
Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
95200	AG/AR/CT/MH

Sheet Title
FLOOR PLANS - THIRD & FOURTH

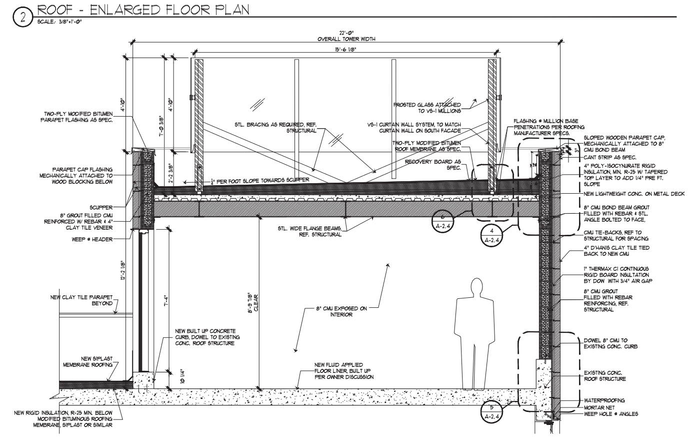
Sheet Number
A-2.3



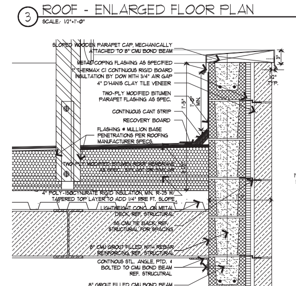
1 ROOF - FLOOR PLAN
SCALE: 1/8"=1'-0"



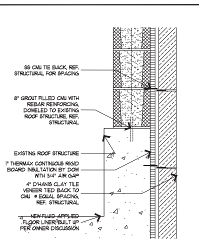
2 ROOF - ENLARGED FLOOR PLAN
SCALE: 3/8"=1'-0"



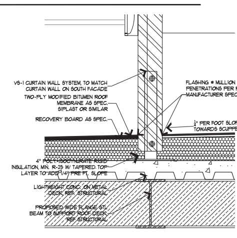
3 ROOF - ENLARGED FLOOR PLAN
SCALE: 3/8"=1'-0"



4 ROOF PARAPET DETAIL @ NEW TOWER
SCALE: 1 1/2"=1'-0"



5 ROOF - SILL DETAIL
SCALE: 1 1/2"=1'-0"



6 ROOF - DETAIL
SCALE: 1 1/2"=1'-0"

Consultant

PROGRESS SET
10-13-17

SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

Architects

FORD
POWELL
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JOHN GUTZLER, TBAE NO. 4100
DATE 8/17/03

Revisions

Mark	Date	Description

Date	Checked By JG/AR
Project Number 95200	Drawn By JG/AR/CT/MH

Sheet Title
ROOF PLAN
& DETAILS

Sheet Number
A-2.4

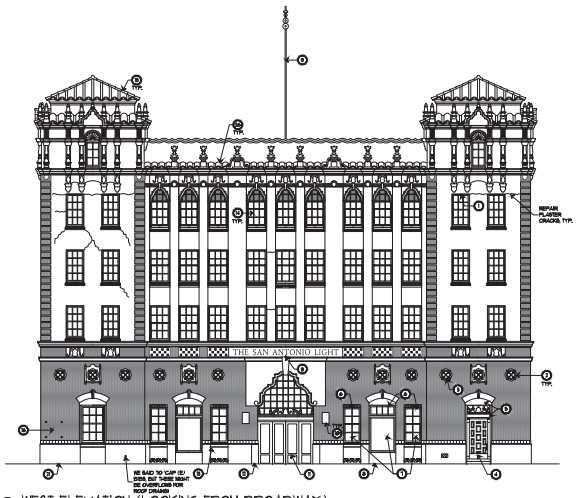
GENERAL RESTORATION NOTES

REMOVE ALL MISC. STRAPS, WIRES, TIES, ANCHORS, ETC. FROM BRICK, TYPICAL ..... (TYP.)

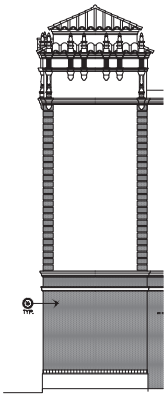
CLEAN & REPOINT ALL CAST STONE ELEMENTS, GROUT, ETC.

RESTORATION NOTES

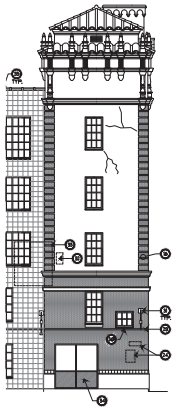
1. REPAIR PLASTER OVER LINTEL.
2. TYPICAL THIS WINDOW TYPE, COMPLETELY RESTORE CAST STONE ELEMENTS, STRIP, REPAIR, & REPAINT WOOD FRAMES, REPAIR & CLEAN STAINED GLASS.
3. SEE NOTE 2. REPLICATE WOOD TRIM QUATREFOIL WINDOW W/ STAINED GLASS TO MATCH EXISTING IN NOTE 2.
4. REPLICATE DOOR, REFINISH & REUSE EXISTING DOOR HARDWARE. REPLACE (2) MISSING PANELS ON HINGES. REPLACE LOCK WITH KEY DUMMY.
5. RESTORE WOOD SURROUND & REPLACE EXISTING SEALANT AT PERIMETER. COMPLETELY RESTORE CAST STONE ELEMENTS. REPLACE GLASS IN CLERESTORY.
6. REMOVE EXISTING METAL LINTEL. REPLACE WITH NEW (PREP, PRIME, & PAINT)
7. REMOVE PLASTER/WINDOW INFILL AND REPLACE WITH NEW WINDOWS.
8. REMOVE & REPLACE EXISTING TOPPING SLAB AT SIDEWALK.
9. ENGINEER TO CONFIRM FLAG POLE STABILIZATION.
10. STRIP & RESTORE EXISTING LIGHT FIXTURES AT BROADWAY ENTRANCE.
11. REPLICATE HISTORICAL ENTRY DOOR & SIDELITES. STRIP, REPAIR, & REPAINT CLERESTORY WINDOW TRIM & (1)DOOR TOP PIECE/S11. CLEAN GLASS.
12. REMOVE GRANITE PANEL/S11
13. REPAIR CORNER OF CAST STONE PANEL.
14. TYPICAL THIS WINDOW TYPE, REMOVE BLANK PANELS (SHOWN SHADED) FOR NEW WINDOWS. COMPLETELY RESTORE CAST STONE ACCENT PIECE.
15. DECONSTRUCT & RESHELF CLAY TILE ROOF TILE ON CORNER TOWERS, TYP.
16. REMOVE SIGNAGE ANCHORS, TIES, ETC. & REPAIR DAMAGED BRICK & GROUT, TYP.
17. REMOVE VENT & RESTORE WINDOW. SEE NOTE 5.
18. REMOVE CONCRETE STOOP & PLASTER INFILL WALL THIS AREA, AND REPLACE WITH NEW WINDOW/CAST STONE BASE. REMOVE FIRE WHEEL ALARM & CONDUCTION.
19. CLEAN OUT EXISTING AREA WAYS TO REMAIN, TYP.
20. PATCH DAMAGED BRICK & RECREATE STRATION.
21. REMOVE & REPLACE PERIMETER SEALANT BETWEEN BUILDING & SCISSALE, TYP.
22. REPLACE EXISTING CARD READER WITH NEW.
23. REPLACE EXISTING DOOR, RESTORE EXISTING FRAME.
24. REMOVE TRAFFIC SIGN. PATCH BRICK & GROUT.
25. REPAIR BROKEN TILE & GROUT AT CORNER.
26. REPAIR & REPAINT CHIMNEY STACK.
27. REPAIR DAMAGED CAST STONE CAP.
28. REMOVE THRU-WALL STEEL TIES AT GRILLEWORK.
29. REMOVE FLASHING FROM PREVIOUSLY REMOVED OVERHANG. REPAIR / REPLACE DAMAGED BRICK & GROUT AS REQUIRED.
30. REPAIR / REPLACE DAMAGED BRICK & GROUT UNDER WINDOW.
31. REMOVE HANGERS FROM PREVIOUSLY REMOVED OVERHANG, TYP. REPAIR / REPLACE DAMAGED BRICK & GROUT AS REQUIRED.
32. REMOVE ELECTRICAL BOX ATTACHED TO PLASTER WALL. REPAIR WALL AS REQUIRED.
33. REMOVE SCAFFOLDING, SUPPORTS, & ATTACHMENTS TO BUILDING. REPAIR / REPLACE DAMAGED BRICK & GROUT AS REQUIRED. USE SALVAGED CAST STONE CORNICE FROM PRODUCT DEMOLITION OF SOUTH EAST CORNER TO REPLACE MISSING CAST STONE ELEMENTS.
34. REMOVE EXISTING ROLLING DOOR & REPLACE WITH NEW WINDOW.
35. REPAIR / REPLACE EXISTING CLAY TILE PARAPET WALL TILE AS REQUIRED.
36. REPAIR / REPLACE EXISTING CLAY TILE ROOF AS REQUIRED.



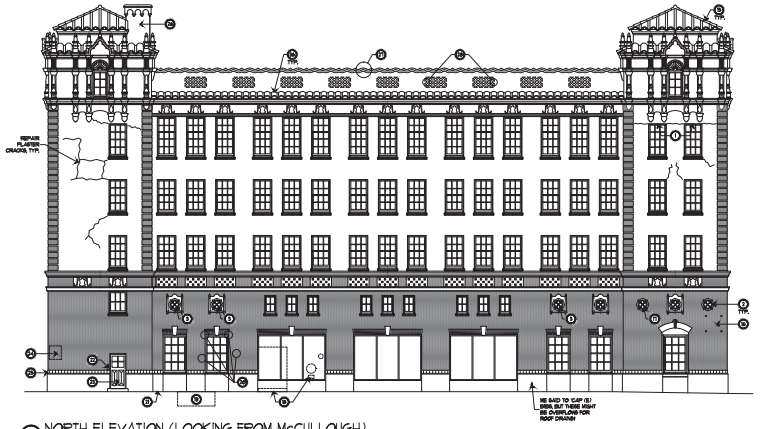
1 WEST ELEVATION (LOOKING FROM BROADWAY)
SCALE: 1/8"=1'-0"



2 PARTIAL SOUTH ELEVATION
SCALE: 1/8"=1'-0"



3 PARTIAL WEST ELEVATION
SCALE: 1/8"=1'-0"



4 NORTH ELEVATION (LOOKING FROM McCULLOUGH)
SCALE: 1/8"=1'-0"

Consultant

PERMIT REVIEW SET

SAN ANTONIO LIGHT BUILDING

420 BROADWAY
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JOHN GUTZLER, TSBE NO.4365
DATE 01/17/20

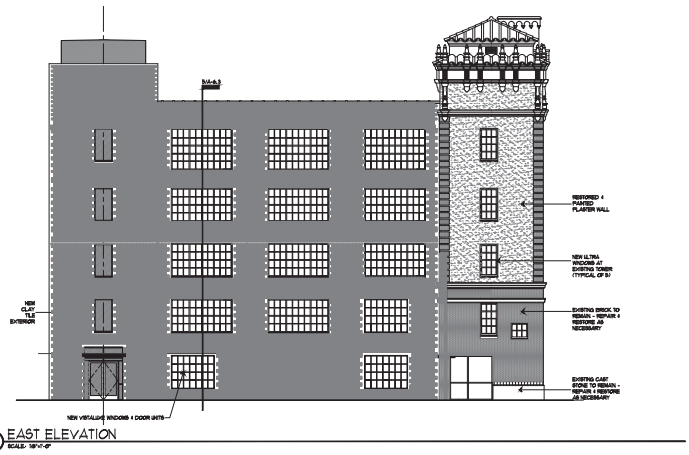
Revisions

Mark	Date	Description

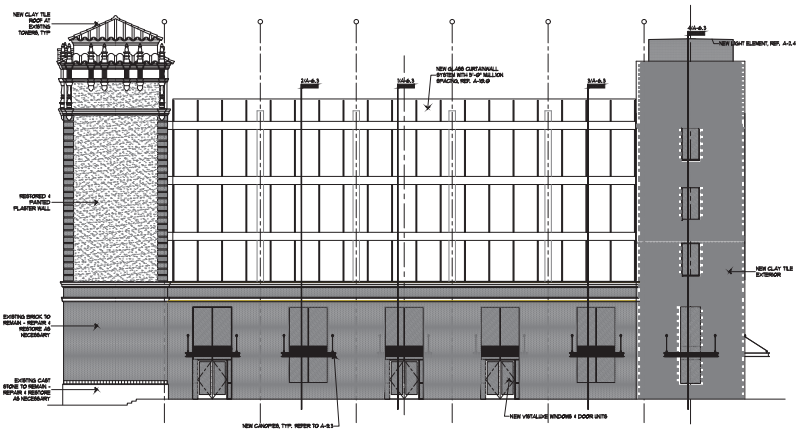
Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
95200	AG/AR/CT/MH

Sheet Title
EXTERIOR ELEVATIONS (WEST & NORTH) & RESTORATION NOTES

Sheet Number
A-6.0



1 EAST ELEVATION
SCALE: 1/8"=1'-0"



2 SOUTH ELEVATION
SCALE: 1/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

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JOHN GUTZLER, TEXAS NO. 4169
DATED 01/17/22

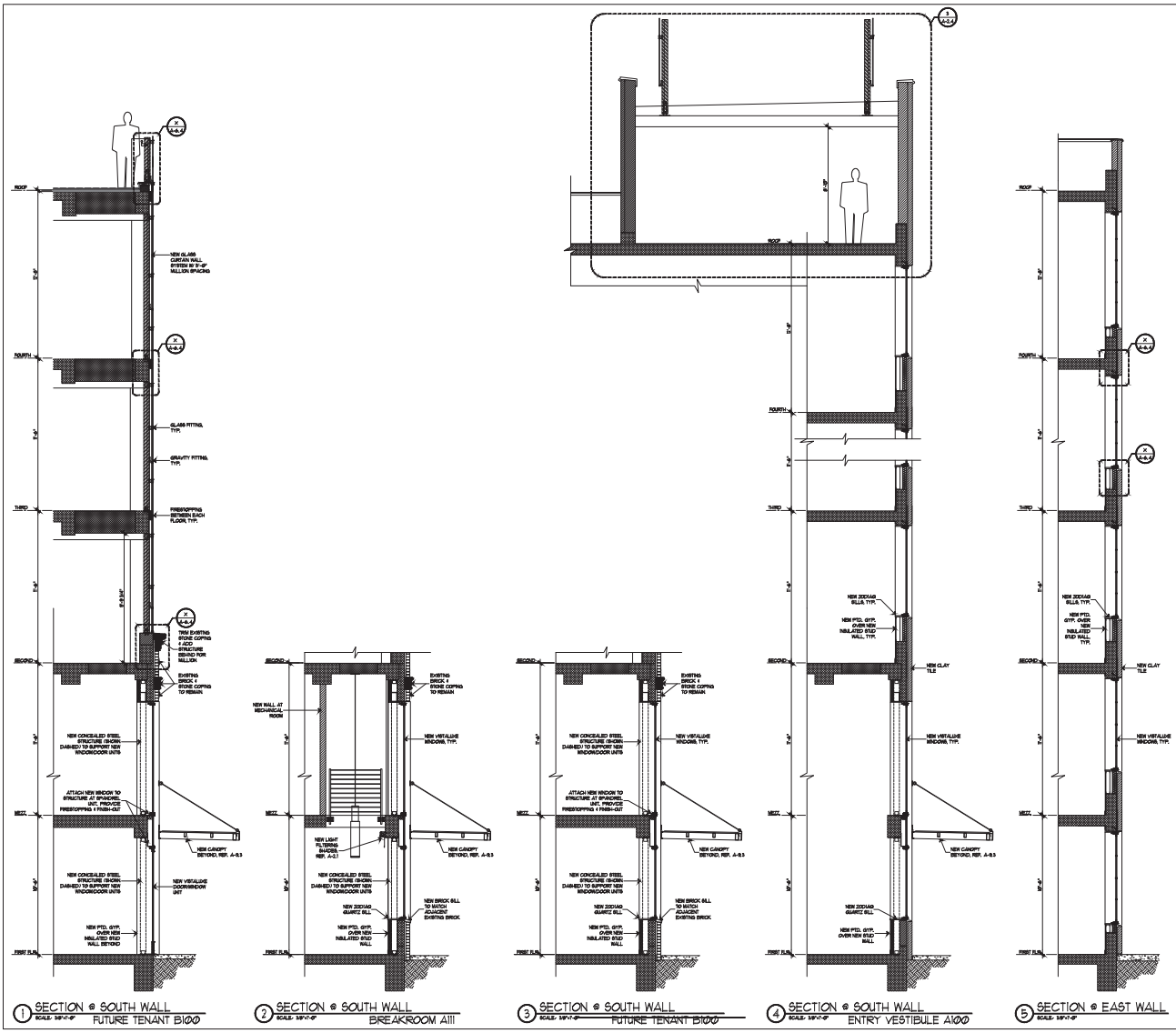
Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
95200	JG/AR/CT/MH

Sheet Title
EXTERIOR ELEVATIONS (EAST & SOUTH)

Sheet Number
A-6.1



1 SECTION @ SOUTH WALL — FUTURE TENANT B100 — SCALE: 3/8"=1'-0"

2 SECTION @ SOUTH WALL — BREAKROOM A111 — SCALE: 3/8"=1'-0"

3 SECTION @ SOUTH WALL — FUTURE TENANT B100 — SCALE: 3/8"=1'-0"

4 SECTION @ SOUTH WALL — ENTRY VESTIBULE A100 — SCALE: 3/8"=1'-0"

5 SECTION @ EAST WALL — SCALE: 3/8"=1'-0"

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SAN ANTONIO LIGHT BUILDING

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JOHN GUTZLER, TEXAS NO. 4169
DATED 01/17/20

Revisions

Mark	Date	Description

Date	Checked By
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Project Number	Drawn By
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Sheet Title
WALL SECTIONS

Sheet Number
A-6.3

Consultant

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SAN ANTONIO LIGHT BUILDING

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JOHN GUTZLER, TEXAS NO. 4966
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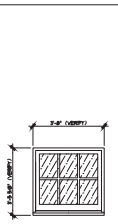
Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JG/AR
Project Number	**Drawn By**
95200	JG/AR/CT/MH

Sheet Title
HISTORIC DOOR DETAILS

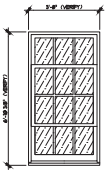
Sheet Number
A-9.1



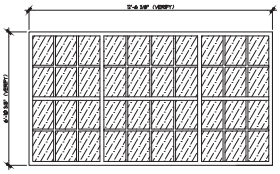
WINDOW TYPE "S-2"

NEW KOLBE FIXED CASEMENT WINDOW SIMILAR TO HISTORIC WINDOWS

PAINT GRADE INTERIOR PER 11



WINDOW TYPE "S-1B"



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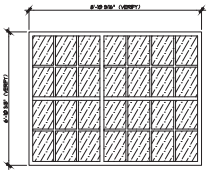

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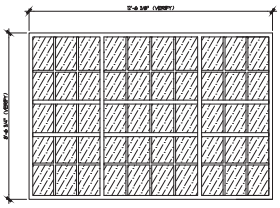
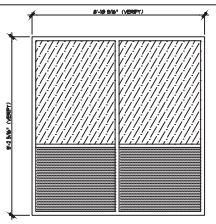


WINDOW TYPE "S-11"



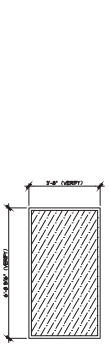
WINDOW TYPE "G"

WINDOW SCHEDULE - KOLBE VISTALUXE COLLECTION

QTY.	TAG	FINISH MASONRY OPENING	UNIT SIZE (APPROX.)	NO. LITES	SILL	COMMENTS
1	S-2	3'-0" x 5'-5 3/8"		3 WIDE, 2 HIGH	EXISTING	
8	S-1	3'-0 3/8" x 6'-10 3/8"		3 WIDE, 4 HIGH	PLASTER WASH	
3	S-5	8'-10 1/2" x 6'-10 3/8"		7 WIDE, 4 HIGH	PLASTER WASH	
3	S-11	12'-6 3/8" x 8'-6 3/8"		10 WIDE, 5 HIGH	PLASTER WASH	
4	S-G	9'-0" x 6'-10 3/8"		3 WIDE, 4 HIGH	EXISTING	
	A		3'-0" x 8'-10 3/8"		PLASTER WASH	
	B		4'-6" x 8'-7"		-	CLIPPED TO UNIT BELOW
	C		4'-6" x 1'-3"		PLASTER WASH	CLIPPED TO UNIT ABOVE, ADDITIONAL HORIZ. MULLION
	D		8'-7" x 8'-7"		-	CLIPPED TO UNIT BELOW
	E		8'-7" x 1'-6"		PLASTER WASH	CLIPPED TO UNIT ABOVE, ADDITIONAL HORIZ. MULLION, SPANDREL GLASS
	F		8'-7" x 10'-7"		-	CLIPPED TO UNIT ABOVE OUTSWING DOORS W/ ADDT. HORIZ. MULLIONS, SPANDREL GLASS ON SOUTH ELEVATION
1	G		8'-10 3/8" x 9'-2 3/8"		-	ADDITIONAL HORIZ. MULLION, SPANDREL GLASS

VISTALUXE WINDOW NOTES:-
1. ACCENT PROFILE STYLE.
2. ALL WINDOWS TO BE FIXED.
3. TYPICAL PLASTER WASH SILLS UNLESS OTHERWISE NOTED.
4. *MATTIC FINISH (INTERIOR + EXTERIOR).
5. SIMULATED DIVIDED LIGHTS.
6. INSULATED LOW-E GLASS W/ DARK SPACERS (CLEAR INSULATED GLASS AT AREA DEPICTED ON EAST ELEVATION)
7. SPANDREL GLASS AT SHADED PANELS.
8. DIRECT SET WINDOWS TO WALL TO OUTWING EXTERIOR DOORS.

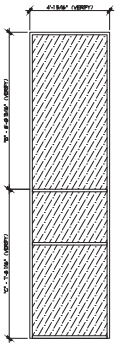
GENERAL WINDOW NOTES:-
1. OVERALL DIMENSIONS SHOWN HERE ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO FIELD VERIFY AND COORDINATE DIMENSIONS OF ALL EXTERIOR DOOR AND WINDOW OPENINGS
2. REFER TO KOLBE QUOTES DATED XXXX & XXXX FOR ADDITIONAL SIZES, PRICES, ETC.



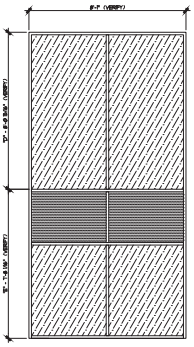
WINDOW TYPE "A"

NEW KOLBE FIXED CASEMENT WINDOW SIMILAR TO HISTORIC WINDOWS

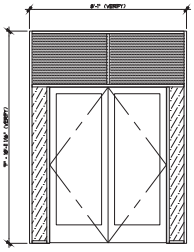
PAINT GRADE INTERIOR PER 11



WINDOW TYPE "B & C"

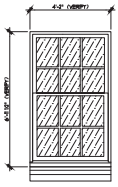


WINDOW TYPE "D & E"

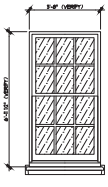


WINDOW TYPE "F"

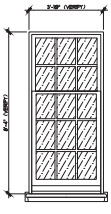
2 WINDOW TYPES - KOLBE VISTALUXE COLLECTION
SCALE: 1/2"=1'-0"



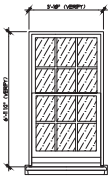
WINDOW TYPE "H-M"



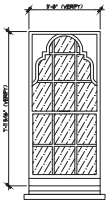
WINDOW TYPE "H-N"



WINDOW TYPE "H-R"



WINDOW TYPE "H-S"

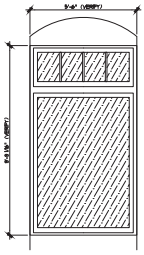


WINDOW TYPE "H-T"

WINDOW SCHEDULE - KOLBE ULTRA COLLECTION

QTY.	TAG	FINISH MASONRY OPENING (VERIFY)	SASH SIZE (APPROX.)	SILL	COMMENTS
2	H-A	5'-4" x 7'-2 3/8"	---	EXISTING	
4	H-B	3'-7" x 6'-8 1/4"	3'-4" x 7'-5 3/4" x 1 3/4"	EXISTING	
2	H-C	4'-9" x 6'-8 1/4"	4'-6" x 7'-5 3/4" x 1 3/4"	EXISTING	
4	H-D	4'-9" x 8'-6 1/4"	4'-6" x 7'-5 3/4" x 1 3/4"	EXISTING	
3	H-E	14'-4" x 10'-0 3/8"	---	EXISTING	CAST STONE SILL AT NEW CONDITION
19	H-F	7'-4" x 7'-4"	---	EXISTING	QUATREFOIL WINDOW
9	H-G	7'-4" x 5'-6 3/8"	7'-0" x 5'-4 1/8" x 1 3/4"	EXISTING	
1	H-H	9'-8" x 4'-1 3/8"	9'-4" x 4'-2 1/8" x 1 3/4"	EXISTING	
6	H-L	5'-8" x 9'-6 1/8"	---	EXISTING	
19	H-M	4'-8" x 6'-10 1/2"	3'-4" x 6'-4" x 1 3/4"	EXISTING	
2	H-N	5'-8" x 6'-10 1/2"	5'-4" x 6'-4" x 1 3/4"	EXISTING	
9	H-R	5'-8" x 8'-4"	5'-4" x 7'-10 1/2" x 1 3/4"	EXISTING	
30	H-S	5'-8" x 6'-10 1/2"	5'-4" x 6'-4" x 1 3/4"	EXISTING	
9	H-T	5'-8" x 7'-7 5/8"	---	EXISTING	
4	H-U	5'-8" x 5'-3"	5'-4" x 5'-1 1/2" x 1 3/4"	EXISTING	

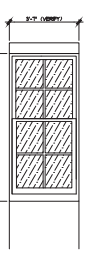
ULTRA WINDOW NOTES:-
1. DIRECT SET, THIN PROFILE.
2. ALL WINDOWS TO BE FIXED.
3. TYPICAL PLASTER WASH SILLS UNLESS OTHERWISE NOTED.
4. *MATTIC FINISH (INTERIOR + EXTERIOR).
5. SIMULATED DIVIDED LIGHTS.
6. INSULATED LOW-E GLASS W/ DARK SPACERS (CLEAR INSULATED GLASS AT AREA DEPICTED ON EAST ELEVATION)
7. SPANDREL GLASS AT SHADED PANELS.
8. DIRECT SET WINDOWS TO WALL TO OUTWING EXTERIOR DOORS.



WINDOW TYPE "H-A"

NEW KOLBE FIXED CASEMENT WINDOW SIMILAR TO HISTORIC WINDOWS

PAINT GRADE INTERIOR PER 11



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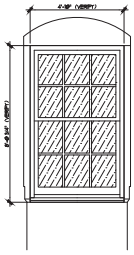
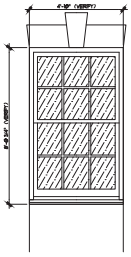


WINDOW TYPE "H-C"



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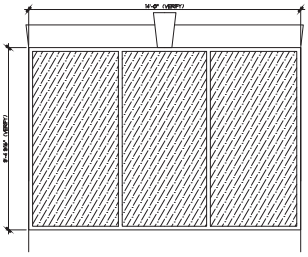

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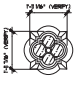

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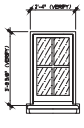
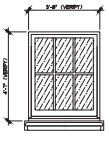


WINDOW TYPE "H-G"



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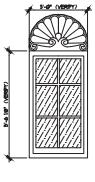

WINDOW TYPE "H-L"

1 WINDOW TYPES - KOLBE ULTRA COLLECTION
SCALE: 1/2"=1'-0"

Consultant

PERMIT REVIEW SET

SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

Architects
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
Architecture
Planning
Preservation
Interior Design
1139 East Commerce Street
San Antonio, Texas 78205
210-226-1346 / Fax 210-226-8468

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JOHN GUTZLER, TEXAS NO. 14,965
DATE 8/17/05

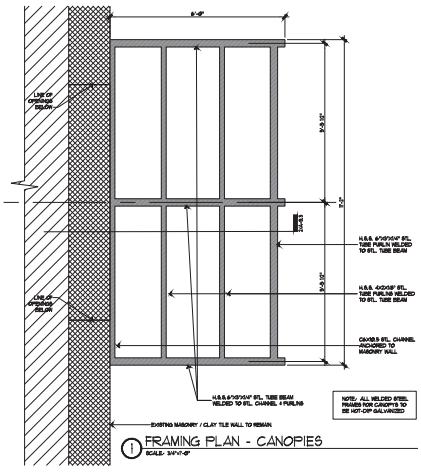
Revisions

Mark	Date	Description

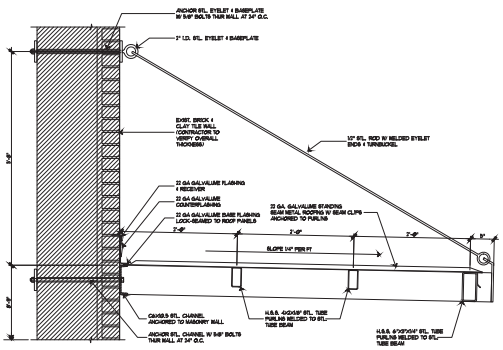
Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
05-200	AG/AR/CT/MH

Sheet Title
WINDOW SCHEDULE, TYPES, & DETAILS

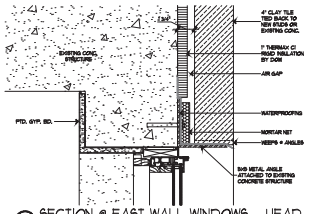
Sheet Number
A-9.2



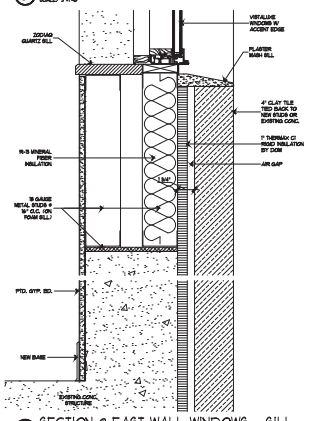
1 FRAMING PLAN - CANOPIES
SCALE: 3/4"=1'-0"



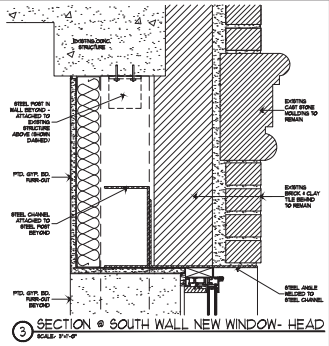
2 SECTION - CANOPY DETAIL
SCALE: 1 1/2"=1'-0"



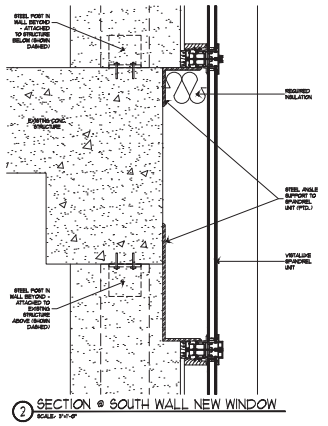
5 SECTION @ EAST WALL WINDOWS - HEAD
SCALE: 3"=1'-0"



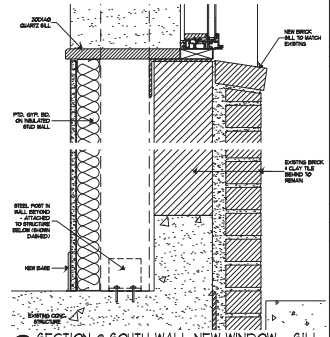
4 SECTION @ EAST WALL WINDOWS - SILL
SCALE: 3"=1'-0"



3 SECTION @ SOUTH WALL NEW WINDOW- HEAD
SCALE: 3"=1'-0"



2 SECTION @ SOUTH WALL NEW WINDOW
SCALE: 3"=1'-0"



1 SECTION @ SOUTH WALL NEW WINDOW - SILL
SCALE: 3"=1'-0"

Consultant

PERMIT REVIEW SET

SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

Architects
FORD POWELL &CARSON
ARCHITECTS & PLANNERS, INC.
Architecture
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DATE 8/17/05

Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JG/AR
Project Number	Drawn By
95-200	AG/AR/CT/MH

Sheet Title
DETAILS

Sheet Number
A-9.3

1 PLAN AT SOUTH WALL GLASS CURTAIN WALL
SCALE: 1/4"=1'-0"

2 ELEVATION AT SOUTH WALL GLASS CURTAIN WALL
SCALE: 1/4"=1'-0"

3 ENLARGED ELEVATION AT GLASS CURTAIN WALL
SCALE: 1/2"=1'-0"

4 SECTION @ BOTTOM OF CURTAIN WALL
SCALE: 3"=1'-0"

5 SECTION @ GLASS FITTING
SCALE: 3"=1'-0"

6 MULLION PLAN @ FITTING
SCALE: 3"=1'-0"

7 SECTION @ GRAVITY FITTING
SCALE: 3"=1'-0"

8 MULLION PLAN @ GRAVITY FITTING
SCALE: 3"=1'-0"

9 ENLARGED PLAN DTL. AT CURTAIN WALL
SCALE: 3"=1'-0"

10 SECTION @ CURTAIN WALL & FIRESTOPPING
SCALE: 3"=1'-0"

11 SECTION @ CURTAIN WALL & ROOF PARAPET
SCALE: 3"=1'-0"

Consultant

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SAN ANTONIO LIGHT BUILDING

420 BROADWAY
SAN ANTONIO, TEXAS

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San Antonio, Texas 78205
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JOHN OUTLER, TEXAS NO. 14965
DATE 8/17/05

Revisions

Mark	Date	Description

Date	Checked By
10-27-17	JS/AR
Project Number	Drawn By
95-200	AS/AR/CT/MH

Sheet Title
CURTAIN WALL DETAILS

Sheet Number
A-10.0

HISTORIC AND DESIGN REVIEW COMMISSION

June 21, 2017

HDRC CASE NO:	**2017-306**
ADDRESS:	420 BROADWAY
LEGAL DESCRIPTION:	NCB 432 (SAN ANTONIO LIGHT), BLOCK 16 LOT 14
ZONING:	FBZ T6-1,HS
CITY COUNCIL DIST.:	1
LANDMARK:	San Antonio Light Building
APPLICANT:	Adam Reed/Ford, Powell & Carson
OWNER:	Graystreet, 420 Broadway LLC
TYPE OF WORK:	Rehabilitation, exterior modifications and a connection addition

REQUEST:

The applicant is requesting conceptual approval to:

1. Perform exterior modifications to the Light Building including repair to plaster, cleaning of cast stone and masonry and painting of the plaster work.
2. Replace the existing windows in the Light Building
3. Remove the skybridge connecting the Light Building and the Print Building and construct a new vertical connector to join the two structures.
4. Construct a new curtain wall on the southern façade of the Light Building.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Guidelines for Exterior Maintenance and Alterations

10. Commercial Facades

A. MAINTENANCE (PRESERVATION)
i. Character-defining features—Preserve character-defining features such as cornice molding, upper-story windows, transoms, display windows, kickplates, entryways, tiled paving at entryways, parapet walls, bulkheads, and other features that contribute to the character of the building.
ii. Windows and doors—Use clear glass in display windows. See Guidelines for Architectural Features: Doors, Windows, and Screens for additional guidance.
iii. Missing features—Replace missing features in-kind based on evidence such as photographs, or match the style of the building and the period in which it was designed.
iv. Materials—Use in-kind materials or materials appropriate to the time period of the original commercial facade when making repairs.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)
i. New features—Do not introduce new facade elements that alter or destroy the historic building character, such as adding inappropriate materials; altering the size or shape of windows, doors, bulkheads, and transom openings; or altering the façade from commercial to residential. Alterations should not disrupt the rhythm of the commercial block.
ii. Historical commercial facades—Return non-historic facades to the original design based on photographic evidence. Keep in mind that some non-original facades may have gained historic importance and should be retained. When evidence is not available, ensure the scale, design, materials, color, and texture is compatible with the historic building. Consider the features of the design holistically so as to not include elements from multiple buildings and styles.

Historic Design Guidelines, Chapter 3, Guidelines for Additions

2. Massing and Form of Non-Residential and Mixed-Use Additions

A. GENERAL
i. Historic context—Design new additions to be in keeping with the existing, historic context of the block. For example, additions should not fundamentally alter the scale and character of the block when viewed from the public right-of-way.

ii. Preferred location—Place additions at the side or rear of the building whenever possible to minimize the visual impact on the original structure from the public right of way. An addition to the front of a building is inappropriate.
iii. Similar roof form—Utilize a similar roof pitch, form, and orientation as the principal structure for additions, particularly for those that are visible from the public right-of-way.
iv. Subordinate to principal facade—Design additions to historic buildings to be subordinate to the principal façade of the original structure in terms of their scale and mass.
v. Transitions between old and new—Distinguish additions as new without distracting from the original structure. For example, rooftop additions should be appropriately set back to minimize visibility from the public right-of-way. For side or rear additions utilize setbacks, a small change in detailing, or a recessed area at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.

B. SCALE, MASSING, AND FORM
i. Height—Limit the height of side or rear additions to the height of the original structure. Limit the height of rooftop additions to no more than 40 percent of the height of original structure.
ii. Total addition footprint—New additions should never result in the doubling of the historic building footprint. Full-floor rooftop additions that obscure the form of the original structure are not appropriate.

FINDINGS:

a. The Light Building was constructed in 1931 as the home of the San Antonio Light newspaper on the corner of Broadway and McCullough. The structure features five stories with ornamental facades on both street sides. The southern facing façade features a blank stucco wall and the rear (west) façade features brick tile and steel windows. Both the southern and western facades lack ornamentation. At the rear of the Light Building, the Print Building was constructed circa 1969. These two structures are connected by a sky bridge.
b. LIGHT BUILDING REPAIR – The applicant has proposed to perform a number of exterior repair and maintenance items to the Light Building including the repair of plaster elements, the cleaning of cast stone elements and masonry and painting. This is consistent with the Guidelines for Exterior Maintenance and Alterations 10.A.i.
c. WINDOW REPLACEMENT – The current windows in the Light Building are aluminum and are not the original windows. The current windows feature a one over one profile. The original windows featured a six over six profile. The applicant has proposed to install new, six over six windows that match the profile of the original. Staff finds this replacement appropriate.
d. CONNECTOR ADDITION – At the rear of the Light Building, the applicant has proposed to remove the existing skybridge and construct a vertical connector to join the two structures. Per the Guidelines for Additions, additions to non-residential structures should be located at the rear of the historic structure, should not lessen the historic character of the historic building when viewed from the public right of way, should feature a similar roof form, should be subordinate to the principal façade and should be subordinate in height to the primary historic structure. Staff finds the location of the proposed connector appropriate; however, staff has concerns regarding the massing and cladding of the proposed connector.
e. CONNECTOR ADDITION– The applicant has noted a both a glass curtain wall system and a solid paneling system to connect the Light Building to the Print Building. As currently proposed, staff finds the solid paneling system to add visual weight and mass to the proposed structure. Staff finds that the applicant should reduce the amount of solid cladding and introduce more glazing to be consistent with the conceptual sketch that is included in the application documents.
f. CURTAIN WALL MODIFICATION – The southern façade of the Light Building is currently void of ornamentation of façade openings. The façade features brick from the street level to the top of the mezzanine level and then features stucco to the roof parapet. The applicant has proposed to modify this wall and install a glass curtain wall system. The applicant has proposed to maintain brick from the street level to the top of the mezzanine level and to create façade openings within this brick. The glass curtain wall system will span from the top of the brick to the top of the roof's parapet wall.
g. CORNER TOWERS – The applicant has proposed to maintain each corner tower; however, the applicant has proposed to install window openings on the southern façade of the tower on the southwest corner of the building. Staff finds this installation appropriate.
h. CORNER TOWER ADDITION – The only corner of the structure that does not feature a corner tower is the southeast corner. The applicant has proposed to construct a tower to be a contemporary interpretation of the original corner towers. While the location and general height will be consistent with the originals, staff finds the installation of the proposed corner tower adds additional massing to the rear of the historic structure that distracts

from the historic facades. Staff finds that the applicant should remove the proposed new corner tower and leave the last column bay as it currently exists; however, staff finds that the inclusion of the proposed roof level light element is appropriate.

i. ARCHAEOLOGY – The property is within the River Improvement Overlay District and is a designated Local Historic Landmark. A review of historic archival maps shows structures within the project area as early as 1873. Furthermore, an 1848 property survey map identifies ditches, possibly associated with the nearby Acequa del Alamo or Navarro Acequia, within the modern property. Thus, the project area may contain sites, some of which may be significant. Therefore, archaeological investigations shall be required for the project area. The archaeology consultant should submit the scope of work to the Office of Historic Preservation (OHP) for review and approval prior to beginning field efforts.

RECOMMENDATION:

Staff recommends conceptual approval based on findings a through h with the following stipulations:

i. Archaeology – Archaeological investigations are required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning field efforts. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.
ii. That the applicant remove the proposed corner tower and maintain the existing last column bay as is as noted in finding h.
iii. That the applicant remove the proposed solid cladding material proposed on the connector addition and incorporate glazing as noted in the early conceptual sketch included in the application documents as noted in finding e.

Conceptual approval is contingent the applicant meeting each of the above noted stipulations.

CASE MANAGER:

Edward Hall

CITY OF SAN ANTONIO
OFFICE OF HISTORIC PRESERVATION

ADMINISTRATIVE CERTIFICATE OF APPROPRIATENESS

July 18, 2017

ADDRESS:	420 BROADWAY
LEGAL DESCRIPTION:	NCB 432 (SAN ANTONIO LIGHT), BLOCK 16 LOT 14
PUBLIC PROPERTY:	No
LANDMARK:	San Antonio Light Building
RIVER IMPROVEMENT OVERLAY:	RIO-2
APPLICANT:	Adam Reed/Ford, Powell & Carson - 1138 E Commerce
OWNER:	Graystreet 420 Broadway, LLC - 4515 San Pedro
TYPE OF WORK:	Exterior alterations

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to: Partially demolish the south facing plaster façade which faces the parking lot (floors 2 through 4) to facilitate further design investigations for the proposed glass curtain wall that will be constructed during rehabilitation.

CITY OF SAN ANTONIO
OFFICE OF HISTORIC PRESERVATION
DATE: 7/18/2017 11:49:09 AM

ADMINISTRATIVE APPROVAL TO: Partially demolish the south facing plaster façade which faces the parking lot (floors 2 through 4) to facilitate further design investigations for the proposed glass curtain wall that will be constructed during rehabilitation.

If the proposed rehabilitation does not take place, the south facing wall is to be returned to its present condition as of the initial date of this approval.

APPROVED BY: Edward Hall

Shanon Shea Miller
Historic Preservation Officer

HDRC Case: N/A

ADMINISTRATIVE CERTIFICATE OF APPROPRIATENESS

Print Form

CITY OF SAN ANTONIO

OFFICE OF HISTORIC PRESERVATION
1901 S. ALAMO, SAN ANTONIO, TEXAS 78204
P: 210.215.9274 E: OHP@SANANTONIO.GOV

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT
2017 JUL 18 AM 11:15
DATE RECEIVED

This form is to be used for certain minor alterations, additions, ordinary repairs, signage refacing, or maintenance.
See reverse side for a checklist of required supporting documents.

Property Address 420 BROADWAY STREET

☐ Historic District ☒ Historic Landmark ☒ River Improvement Overlay ☐ Public Property

Property Owner: GRAYSTREET 420 BROADWAY, LLC

Mailing Address: 4515 SAN PEDRO AVE. Zip Code: 78212

Phone Number: 210-602-3564 Email Address: RICHARD@GRAYSTREET.COM

Applicant: (if different from owner) ADAM REED (FORD, POWELL & CARSON)

Mailing Address: 1138 E. COMMERCE ST. Zip Code: 78205

Phone Number: 210-226-1246 Email Address: AREED@FPCARCH.COM

PROVIDE A DETAILED DESCRIPTION OF THE PROJECT BELOW:

PARTIAL DEMOLITION OF SOUTH-FACING PLASTER FACADE FACING PARKING LOT (FLOORS 2-4). FACADE TO BE REPLACED WITH CURTAIN WALL DURING CONSTRUCTION PHASE.

ALL ADMINISTRATIVE CERTIFICATES OF APPROPRIATENESS FORMS MUST BE DISPLAYED ON THE JOBSITE.
THIS FORM DOES NOT TAKE THE PLACE OF A BUILDING PERMIT. A building permit, if applicable, must be obtained from the City of San Antonio, Development Services Department.

SIGNATURE OF APPLICANT

7-18-17
DATE

FOR STAFF COMMENTS ONLY

Completed forms and supporting documents may be submitted in person to 1901 S. Alamo or by email to: OHP@sanantonio.gov.

VS-1 CURTAINWALL SYSTEM

SYSTEM TECHNICAL DATA

INDEX

VS-1 METHODOLOGY

Introduction
Welcome to the world of VS-1, a new way to build glass walls. We are certain you will quickly appreciate the high level of design that is possible by using the VS-1 kit of parts to solve your building envelope needs. Our goal is nothing less than to have VS-1 become the new standard glazing method in the construction industry. This would represent the first true innovative shift in the market since the 1950's when the standard rectangular tube aluminum systems were developed.

Because of its simplicity and minimum number of parts, solving your glazing situations with VS-1 is readily achieved by even the first time user. Very sophisticated solution strategies are now available to the designer to help solve even your most challenging design at very economical pricing. We invite you to use this design manual to create solutions to your glazing needs. CAD versions of the details are available from your local VS-1 system engineer. Once you have created a set of documents, we offer to review them for conformance to the standard system parameters. This will assure that the details will properly satisfy your project needs without needing modification after bid/during formal shop drawing submittal; also that the budgets you are carrying coincide with what your documents show.

By keeping within the standard guidelines noted below, the designer will make use of the pre-engineered and pre-tested VS-1 system components. Variations from the standard parameters is possible but requires engineering study to respond to the unique requirements of the solution. Increased cost could occur for non-standard conditions but these will be communicated to you through dialog with your VS-1 certified contact person.

Custom options: as demonstrated by the Spertus Institute project in Chicago, the VS-1 system can be highly customized to provide a tailor-made solution to your building needs. By using the VS-1 design methodology, highly custom solutions are possible yet at favorable value pricing of the end result. Custom solutions are best achieved by a design-assist fee interaction with your local glazing professional who will access the custom engineering team at the VS-1 tech center.

Key desIgn attrIbutes of the VS-1 system
- Vertical, shaped blade mullions (minimalist aesthetic appearance)
- No horizontal members
- Point supported system (mullion set back from inside of glass by 2 1/8" to visually minimize the mullion's appearance from the exterior (offset glass plane from mullions dramatically expresses the glass wall in its purest form (Mies would be pleased)
- Ability to achieve all-glass corners as part of standard system
- Glass tiling does not have to align with the mullion grid; Mondrianic patterns are possible
- Integrated operable panels (awning and parallel project out type of windows); motorized options available
- Large glass panels possible with integrated frit bands to eliminate need for separate metal panel slab edge cover
- Fire safing metal details allow floor to floor isolation
- Ability to attach exterior sun shade devices & signage) directly to the mullion through the vertical joints (eliminates the need to attach to the building)
- Office partition closures at mullions possible
- Integrated canopies can support directly to the mullions without the need for a secondary steel structure
- Standard swing and revolving doors seamlessly integrate into the system
- Barrier glazing system (exterior wet seal; interior silicone joint filler gasket for smooth finished appearance)
- Thermally broken system
- Large spans possible with standard system components (up to 32 ft clear)
- Standard tempered glass panels (no drilling needed; through the joint fittings along the vertical joints hold the glass panels to the mullions)

Design Guidelines for VS-1

1. Mullion spacing
a. Standard spacing is 5 ft o.c. (spacing up to 6.5 ft has been constructed)
b. If mullions are spaced closer than 5 ft costs will increase as there will be more material per square ft of wall area; however the architectural program may require this narrower spacing.
c. If mullions are spaced more than 5 ft o.c. a subjective engineering assessment must be made with the system engineer to verify hat the VS-1 metal components (mullions and fittings) will still work or if custom components will be required; cost impacts will also be communicated.

2. Mullion span (assume 30 psf avg. wind load; maximum mullion spacing at 5 ft o.c.)
a. 5in deep mullion: span range 10 to 13 ft
b. 8 in deep mullion: span range 13 to 18 ft
c. 10 in deep mullion: span range 17 to 32 ft; preference is for top hung support above 24 ft; ground basing VS-1 walls above 24 ft may require lateral bracing (stainless rods or small diameter struts)

3. Gravity clips/fittings: located at each horizontal glass joint as it crosses a mullion

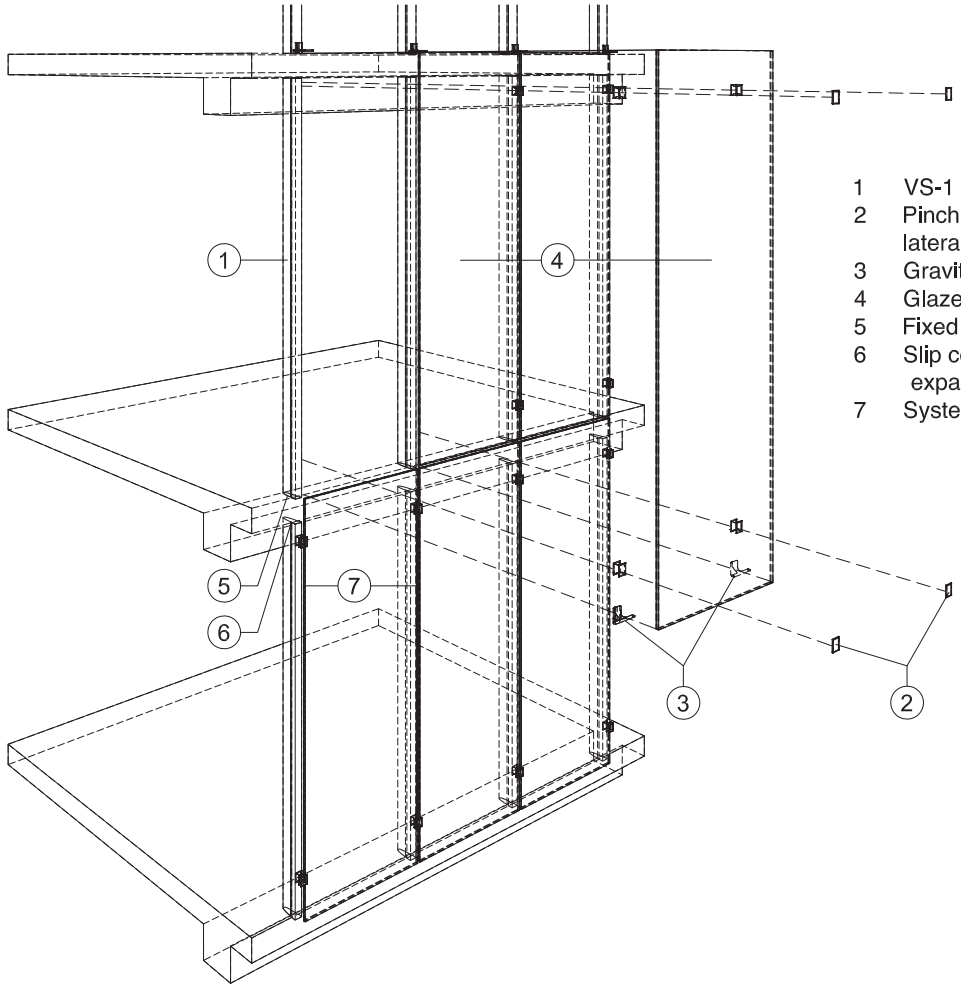
VS-1 METHODOLOGY

4. Pinch plates
a. 5 ft o.c. along vertical mullion
b. No pinch plates at glass panel corners
c. Glass panel cantilevers past top/bottom pinch plates up to 2 ft – 6 in
d. No pinch plate required near perimeter channels; channel takes lateral load at head, sill and jambs
e. Pinch Plate visibility can be minimized by coloring the exterior cap plate dark, it will visually "disappear" when the wall is viewed from a distance. (see Pratt Institute elevation pg.31)
f. If it is desireable to eliminate the exterior cap plates, a side- slotted IGU panel can be used to achieve this. A slight cost increase will occur over standard system details. The VARIO connection mechanically restrains the IGU and outer lite against failure of the seal (European ETAG 002 requirements) See details 33 and 34.

5. Edge channel
a. Standard wall interface with adjacent construction is a C channel; glass slips into channel with min. ½" bite
b. Channel can be recessed into wall or surface mounted
c. Channel requires a structural member to attach to; member must be designed to resist vertical and lateral loads at channel.
d. Alternately a mullion can be placed at the jambs

6. Glass (assume 30 psf avg. wind load and 5 ft mullion spacing)
a. Standard glass panel make up for the VS-1 system is all tempered 3/8" + 1/2" air + 3/8" IGU (1 1/4" overall panel thickness)
b. Custom panels can be made to accommodate wider mullion spacing
c. Laminated glass possible
d. Monolithic glass possible (1/2" tempered typical)
e. Standard maximum sized glass panel at 5 ft x 10 ft; large panels possible but custom gravity clips may be required; verify all sizes with glass manufacture to assure desired coatings are available for large sized panels.
f. Tripple IGU panels can be accommodated with wider gravity fitting/clip (3" panel thickness +/-)

SYSTEM ASSEMBLY



1 VS-1 Mullion.
2 Pinch plate secures glass and transfers lateral loads to mullion.
3 Gravity fitting supports weight of glass units.
4 Glazed monolithic or insulating glass units.
5 Fixed connector at base of mullion.*
6 Slip connector at the top of mullion allows expansion.**
7 System weather seal.

SYSTEM ASSEMBLY MULLION CONNECTIONS

7. Mullion anchors to building
a. Wall system is typically ground based
b. Single height walls (store front)
c. Insert plate at base (or drilled in base plate)
d. Vertical 1/2" steel knife plate is welded to base plate
e. Mullion attaches to knife plate via architectural stainless steel pin bolt
f. Top anchor is rounded and sleeves into mullion inner cavity to achieve slip joint
g. Allow 1/2" reveal at top and bottom of mullion with adjacent finishes (this eliminates the need to cope around the shaped mullion and only the 1/2" rectangular knife plate)

8. Multiple height walls
a. Wall system has base of mullion pin bolted to steel knife plate and rounded slip plate anchor at top
b. Minimum distance between inside surface of glass and slab edge to satisfy fire safing insulation requirements is 5" (confirm with you local fire safing engineer)
c. knife plate can be welded to pour stop face; this eliminates the need for insert plates (confirm with PE of building; coordinate curtain wall reactions with slab edge)
d. pin/slip anchor condition continues up the building for all floors
e. horizontal expansion joint is typically located just above the slab elevation of a floor
f. request from PE of building to limit slab edge deflection at walls to maximum of 3/8"; this will allow the standard 1" horizontal glass joint to accommodate live load deflections without the need for increasing its height.

9. Doors
a. A standard jamb extrusion clips onto the side of the mullions at the door jambs to allow the integration of standard doors (metal framed or all glass)
b. A deeper portal detail is possible to allow the designer to express the entry area more
c. Swing and revolving doors can readily be integrated into the VS-1 wall solution; side lites possible as required

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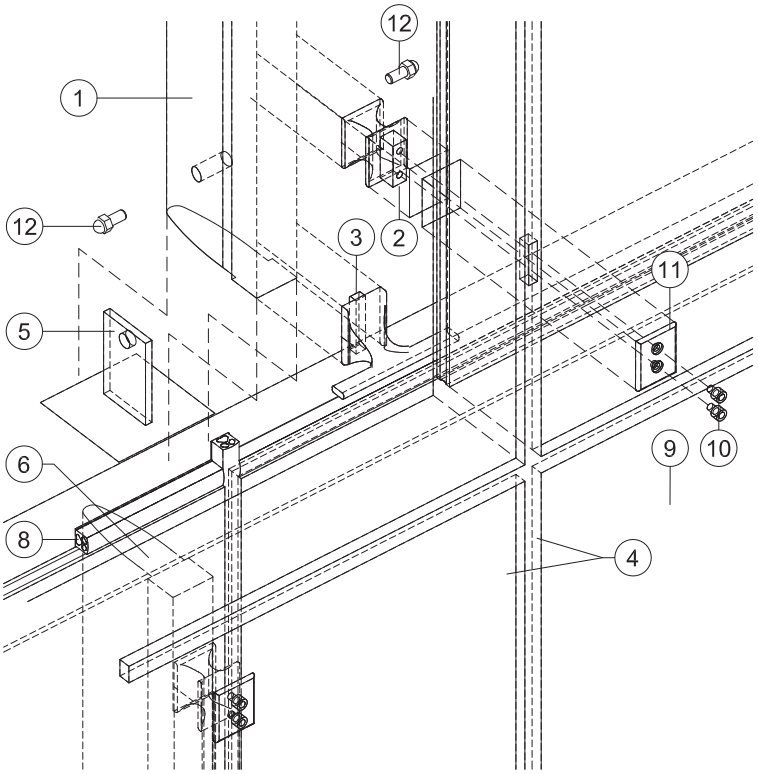


1 VS-1 Mullion.
2 Pinch plate secures glass and transfers lateral loads to mullion.
3 Gravity fitting supports weight of glass units.
4 Glazed monolithic or insulating glass units.
5 Fixed connector at base of mullion.*
6 Slip connector at the top of mullion allows expansion.**
7 System weather seal.
8 Mechanical seal.
9 Primary silicone seal.
10 Pinch plate fixing screw and cap nuts.
11 Pinch plate exterior face.
12 Mullion fixed connector pin.

SYSTEM ASSEMBLY FLUSH GLAZED WINDOWS

10. Windows
a. Standard window is the awning type
b. Window dimensions can vary; maximum window width = 5 ft; 2.5 ft standard height
c. Mullion required at each window jamb
d. Parallel project out window also possible; similar size requirements as awning; jamb mullions required (note: closure handles required at top and bottom of parallel project out window)

11. Exterior louvers/solar panels/ shading/Dual Glass wall
a. Smaller louver blades can be attached directly adjacent to the glass via T brackets attached to the mullions or,
b. Louver sun shade system can be set at exterior of wall approx. 30 to 36 inches away from glass exterior surface (to allow cleaning and maintenance access)
c. T brackets attach to the mullion and knife through the vertical joints
d. Struts/brackets bolt attach to the T brackets
e. Louver panels attach to the struts/brackets
f. Grating can be attached to the struts/brackets to provide walking platform for maintenance personnel
g. Solar panels can be attached to the struts/brackets
h. Second glass plane can be attached to the struts/brackets (Dual Glass Wall configuration; blinds can be attached at the center of this jumbo airspace to coordinate with the building control system to significantly enhance building performance)

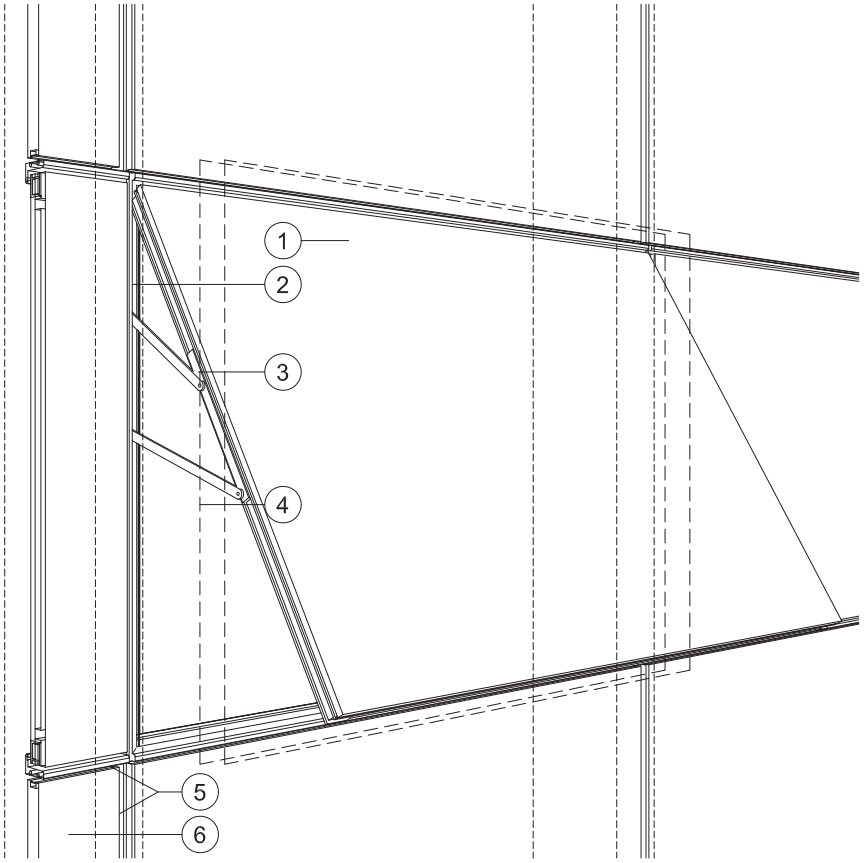
Please call you local VS-1 certified engineer or Innovation Glass LLC (iG) at t.845-758-3078 or email: franz@innovationglass.com

May your journey with VS-1 take you to new design heights and help you achieve excellent architecture.

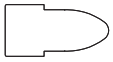
VS-1 Redefining the curtain wall

---

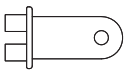
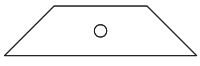
1 Flush glazed window IGU
2 Zero sight line window frame integrated into VS-1 Curtain Wall
3 Friction stays for awning windows
4 Optional parallel projection window opening
5 Continuous gasket and seal around window frame and adjacent IGU
6 VS-1 Mullion dashed



EXTRUSION SCHEDULE

PART NUMBER	DESCRIPTION	PROFILE
VS1-001	5" VERTICAL MULLION	
VS1-002	8" VERTICAL MULLION	
VS1-003	10" VERTICAL MULLION	
VS1-004	F JAMB CLIP	
VS1-005	F CHANNEL	
VS1-006	EDGE CHANNEL	
VS1-007	HANDRAIL GRAVITY ADAPTOR	

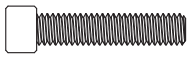
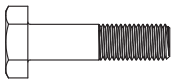
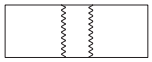
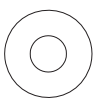
HARDWARE SCHEDULE

PART NUMBER	DESCRIPTION	PROFILE
VS1-008	PINCH PLATE BODY	
VS1-009	PINCH PLATE CAP	
VS1-010	GRAVITY SHELF	
VS1-011	HAND RAIL	
VS1-012	HAND RAIL BRACKET	
VS1-013	HAND RAIL BODY	
VS1-014	CUSTOM GRAVITY SHELF	
VS1-015	JAMB CHANNEL GRAVITY SHELF	
VS1-016	S.S BRACING RODS 3/8"Ø and 1/4"	
VS1-017	ALL GLASS CORNER GRAVITY SHELF	

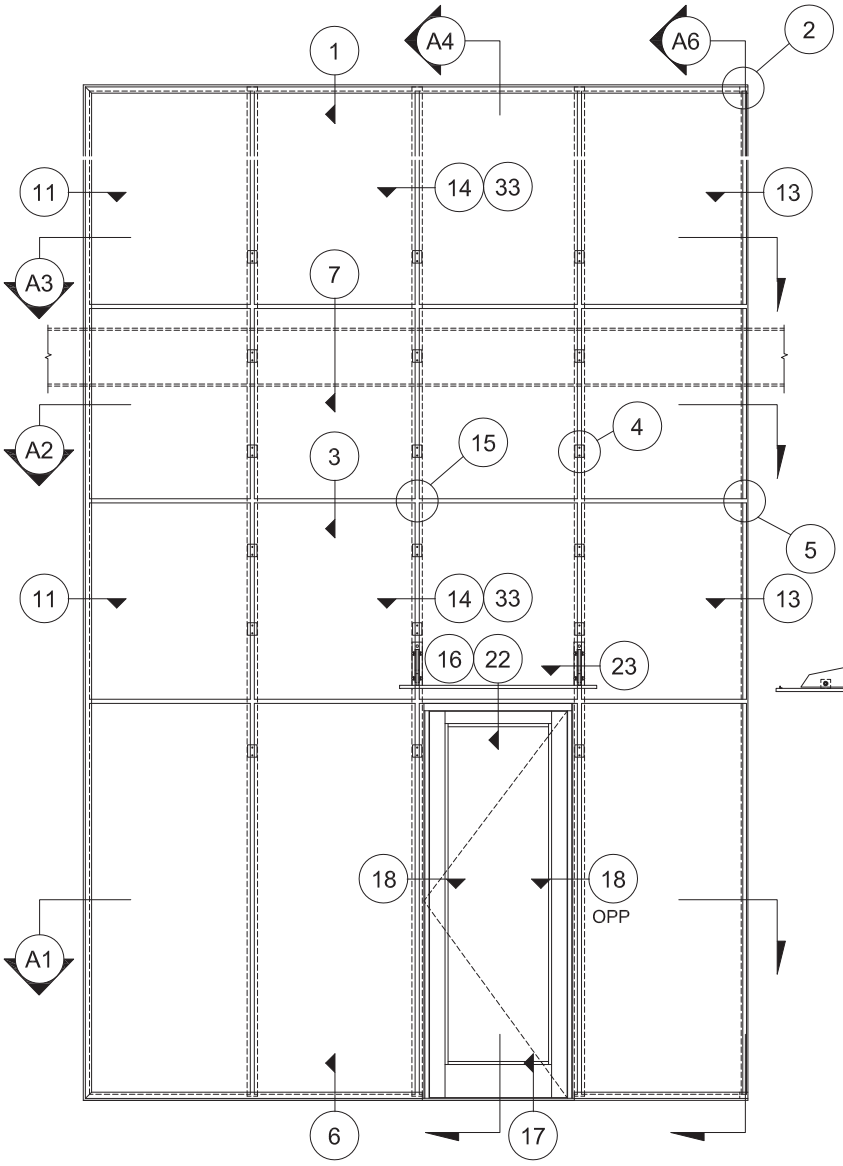
GASKET SCHEDULE

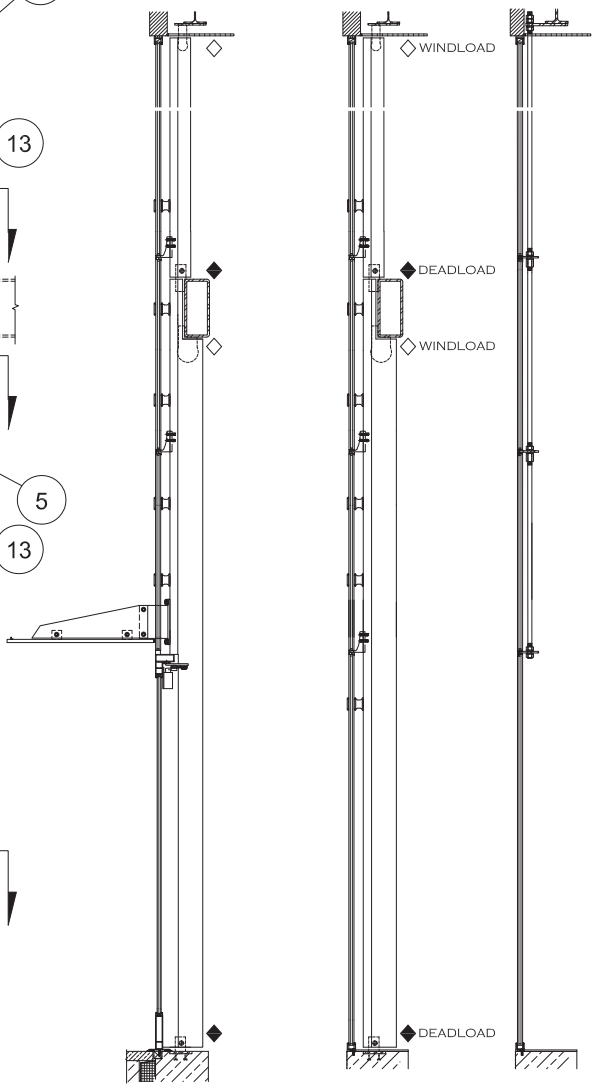
DESCRIPTION	PART #	MANUFACTURER	PROFILE	DUROMETER
PINCH PLATE O-RING	VS1-018	-		
GLASS JOINT GASKET FOR 1" JOINTS	VS1-019	-		70 +/- 5
GLASS JOINT GASKET FOR 1-7/8" JOINTS	VS1-020	-		70 +/- 5
GLASS JOINT GASKET FOR 1/2"	VS1-021	-		70 +/- 5
GLASS JOINT GASKET FOR 3/8" JOINTS	VS1-022	-		70 +/- 5
1-1/4" X 7/8" SETTING BLOCK	VS1-023	-		

FASTENER SCHEDULE

DESCRIPTION	PROFILE
5/16 - 18 ZINC PLATED SOCKET HEAD SCREW X 3" LONG	
5/16" - 18 ZINC PLATED TORX HEAD SCREW X 1-1/2" LONG	
1/4" - 20 316 ST. STEEL STUD	
1/4" - 20 18-8 ST .STEEL CAP NUT (SECURITY)	
1/4" - 20 S.S. CAP NUT (STD)	
5/8 Ø STEEL A325 SPECIAL GRAVITY BOLT	
ZINC PLATED CHANNEL CLAMP NUT/	
STAINLESS STEEL COUPLER NUTS	
STAINLESS STEEL NUTS	
WASHERS: FOR 5/16" BOLT FOR 3/8" RODS FOR 1/4" RODS	

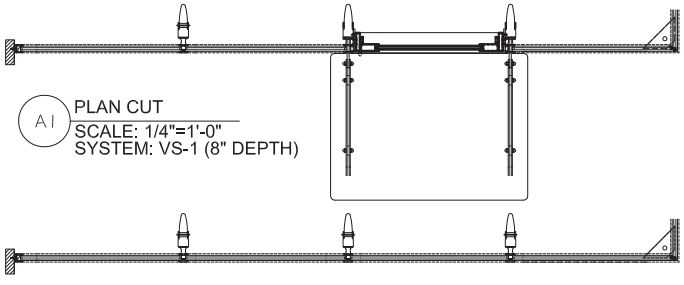
ELEVATION / WALL SECTION



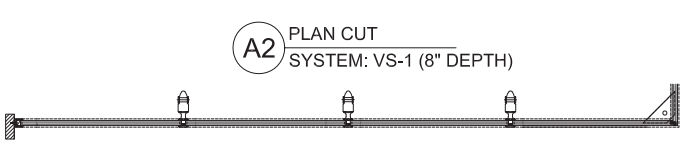


A ELEVATION
SCALE: N/A
SYSTEM: VS-1

A4 SECTION CUT A5 SECTION CUT A6 SECTION CUT



A1 PLAN CUT
SCALE: 1/4"=1'-0"
SYSTEM: VS-1 (8" DEPTH)

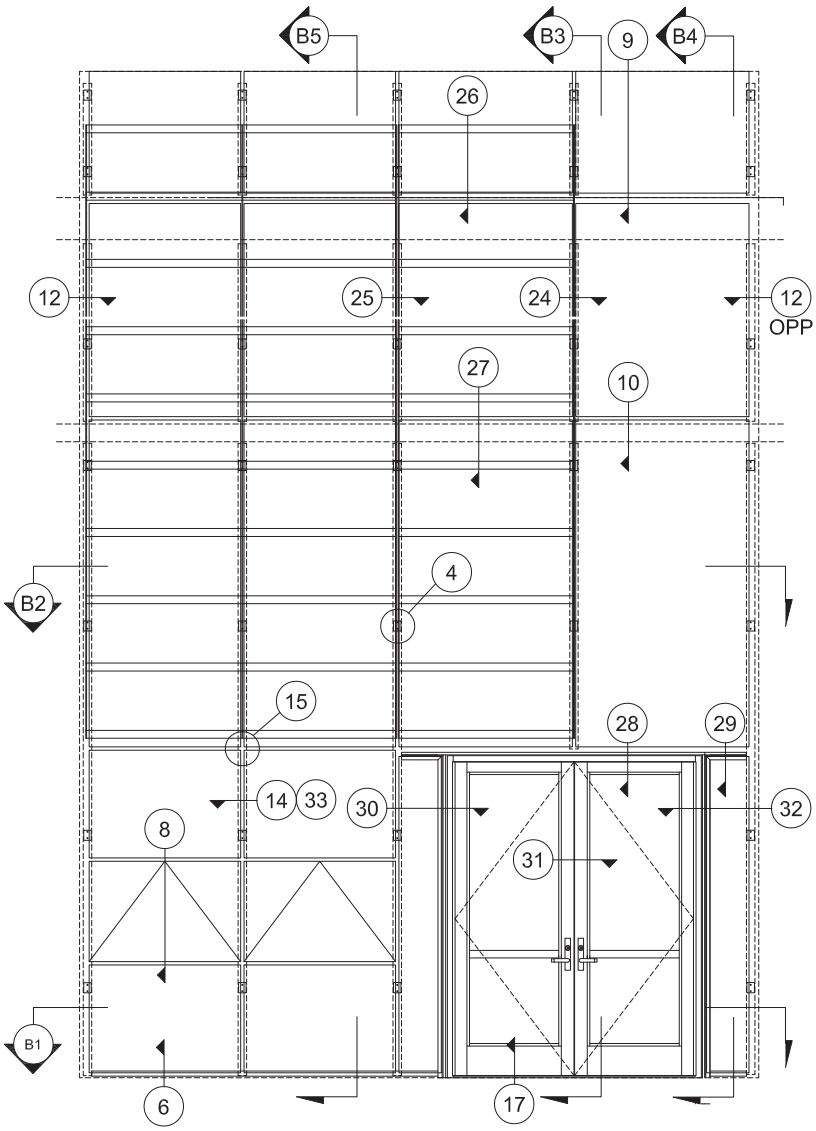


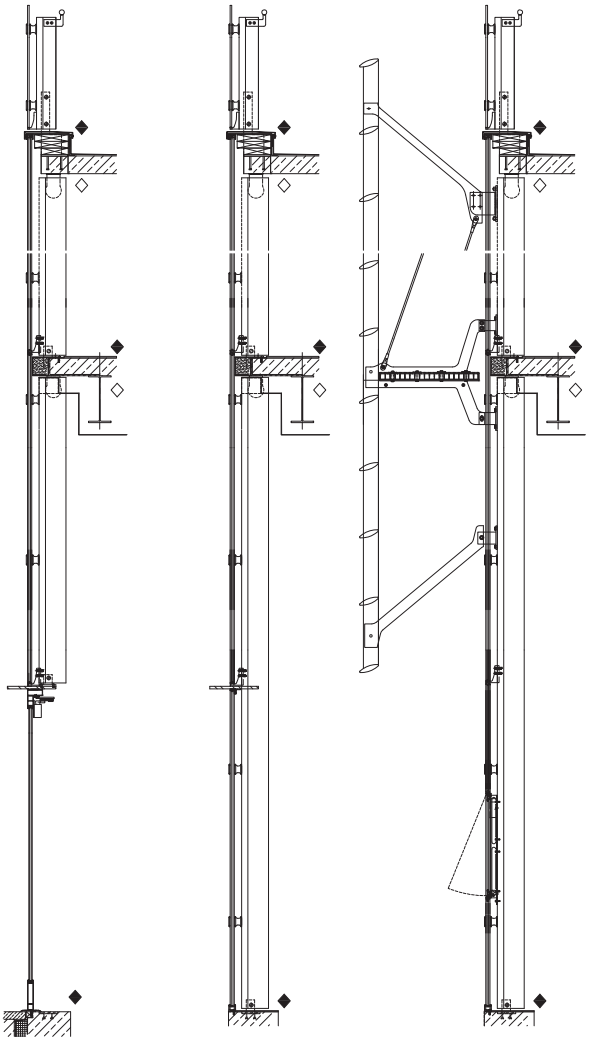
A2 PLAN CUT
SYSTEM: VS-1 (8" DEPTH)

A3 PLAN CUT
SYSTEM: VS-1 (5" DEPTH)

STANDARD WINDOW SIZE NOTE:
5' STANDARD HORIZONTAL WIDTH
2' TO 3-1/2' STANDARD VERTICAL HEIGHT

ELEVATION / WALL SECTION





B ELEVATION
SCALE: N/A
SYSTEM: VS-1

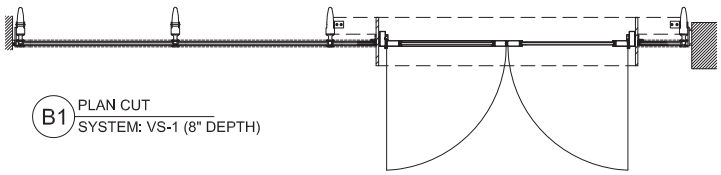
STANDARD WINDOW SIZE NOTE:
5' STANDARD HORIZONTAL WIDTH
2' TO 3-1/2' STANDARD VERTICAL HEIGHT

STAINLESS STEEL ROD

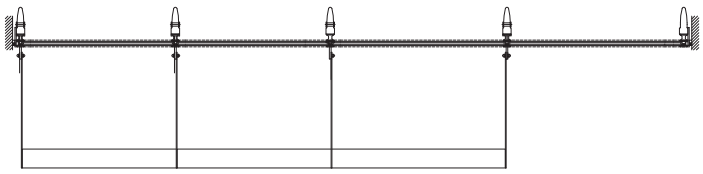
B3 SECTION CUT

B4 SECTION CUT

B5 SECTION CUT

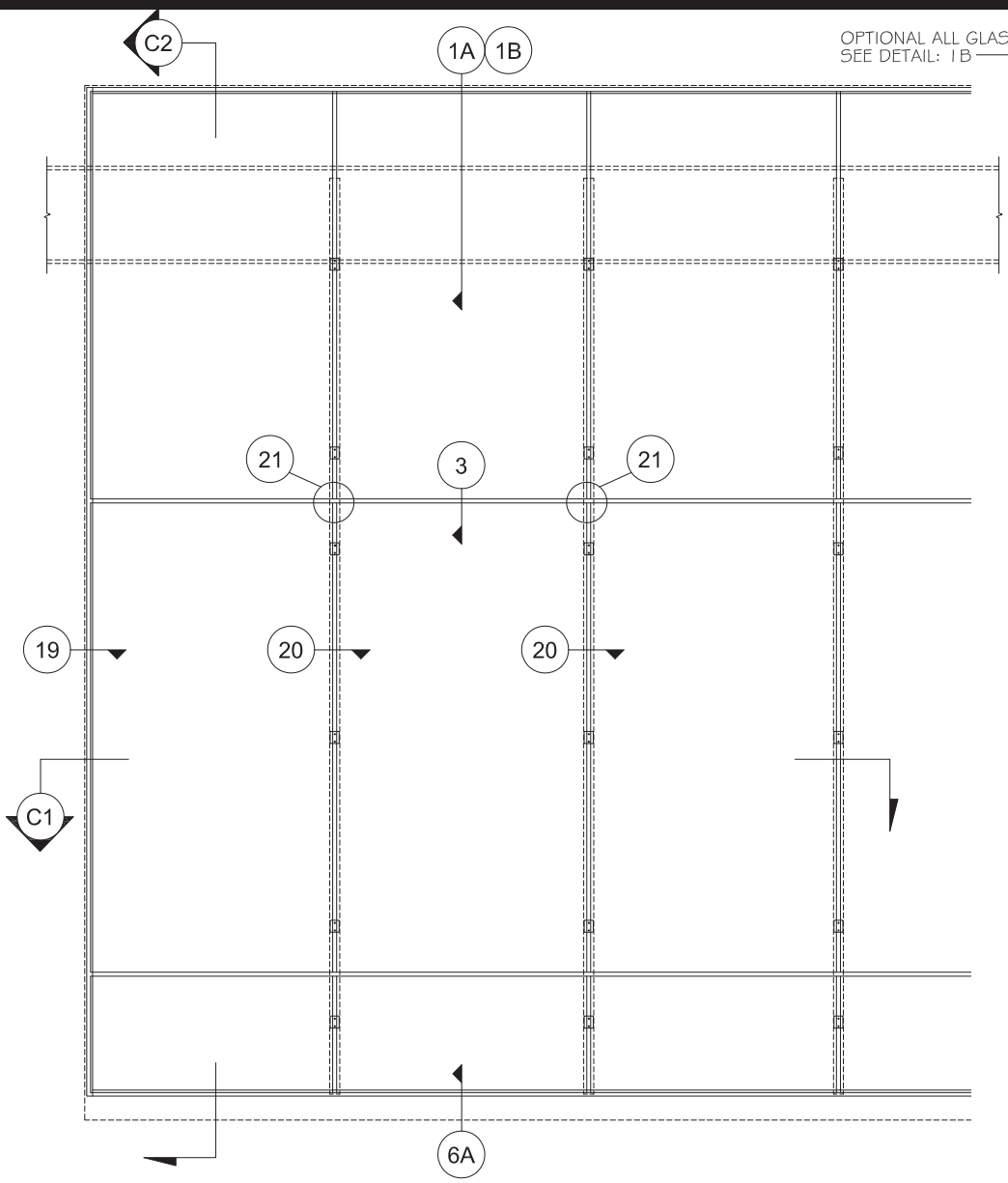


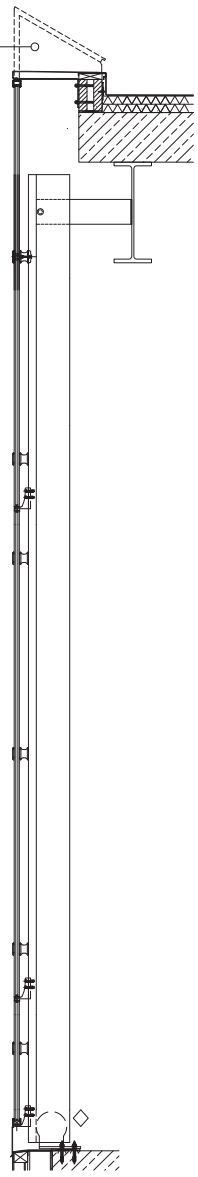
B1 PLAN CUT
SYSTEM: VS-1 (8" DEPTH)



B2 PLAN CUT
SYSTEM: VS-1 (8" DEPTH)

ELEVATION / WALL SECTION





C2 SECTION CUT
TOP HUNG WALL

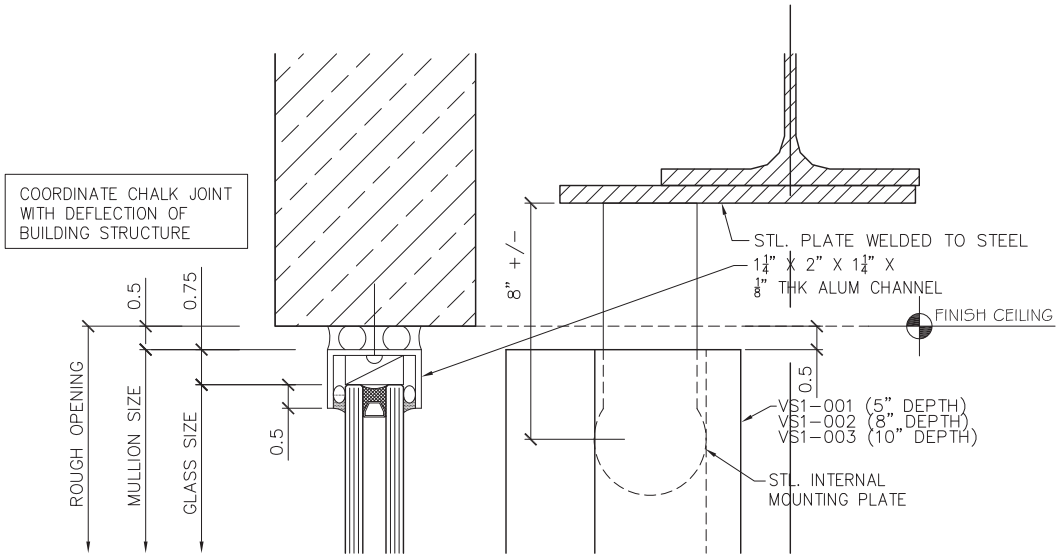
C ELEVATION
SCALE: N/A
SYSTEM: VS-1 (10" DEPTH)

C1 PLAN CUT
SYSTEM: VS-1 (10" DEPTH)

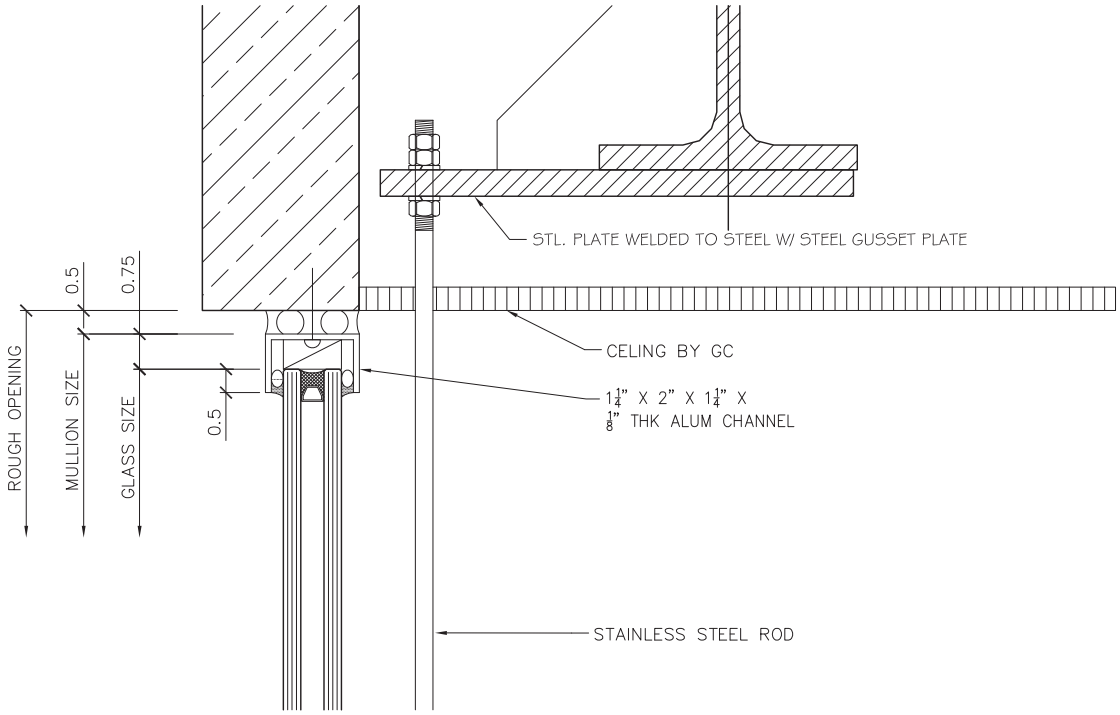
NOTE:
WALL CAN ALSO BE GROUND BASED:
LARGE SPANS MAY REQUIRE LATERAL
BRACING RODS BETWEEN MULLIONS

NOTE:
5' STANDARD HORIZONTAL WIDTH
2' TO 3-1/2' STANDARD VERTICAL HEIGHT

TYPICAL VS-1 SYSTEM DETAILS

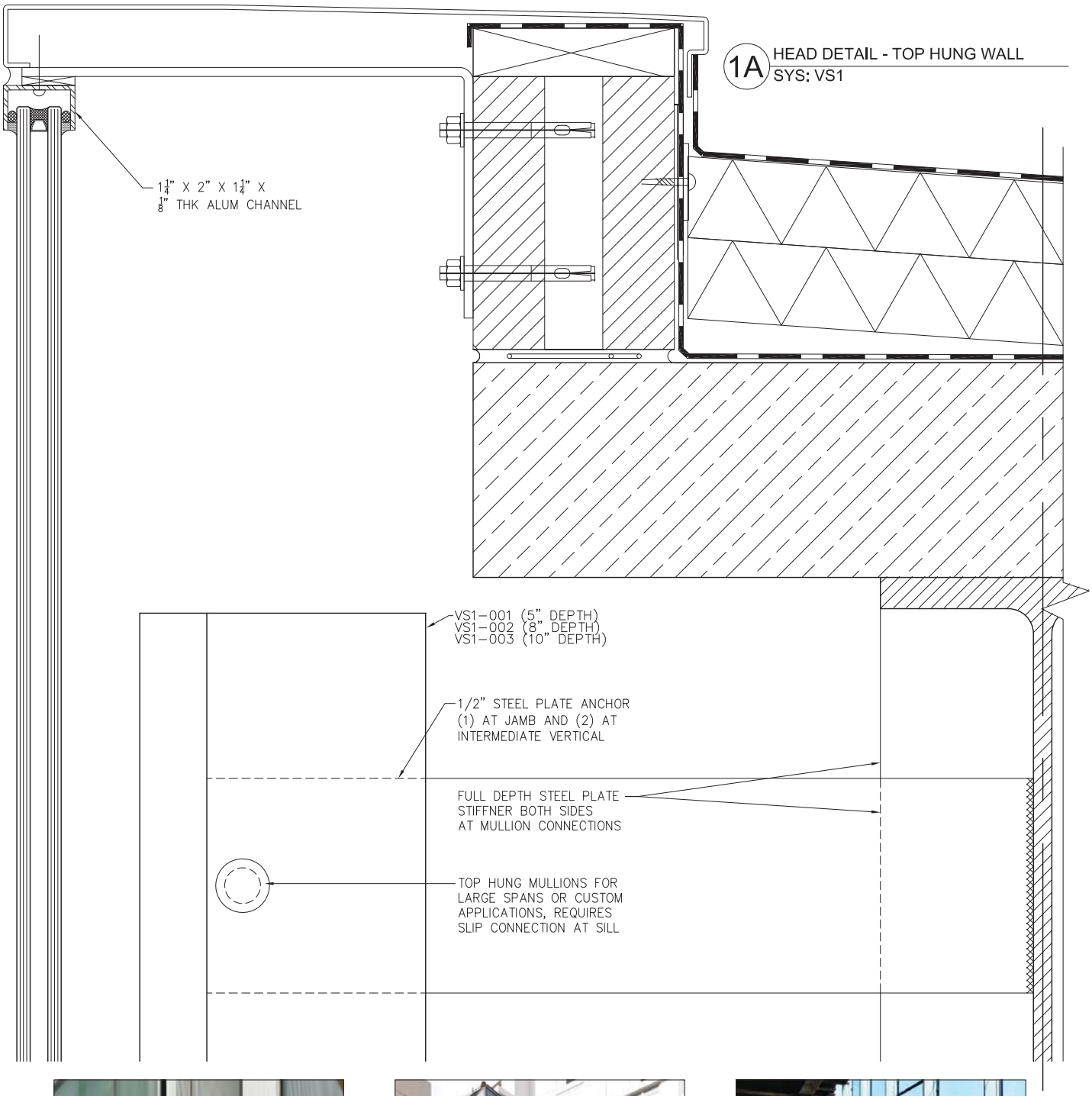


1 HEAD DETAIL
SYS: VS1



2 HEAD @ CORNER
SYS: VS1

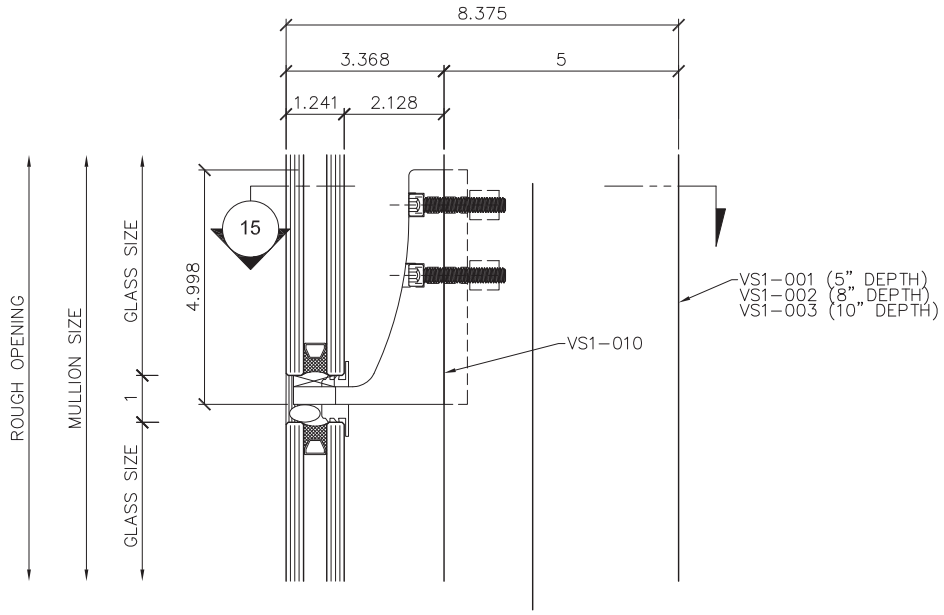
TYPICAL VS-1 SYSTEM DETAILS



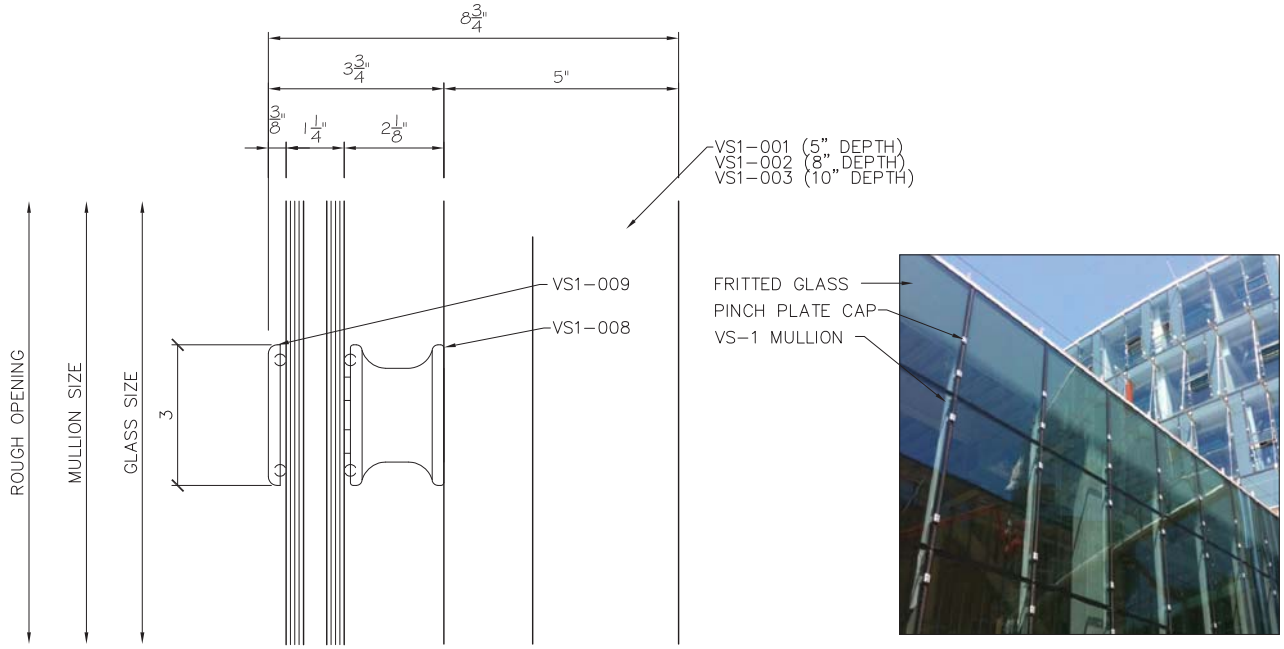
TYPICAL VS-1 SYSTEM DETAILS

1B HEAD DETAIL - ALL GLASS PARAPET
SYS: VS1

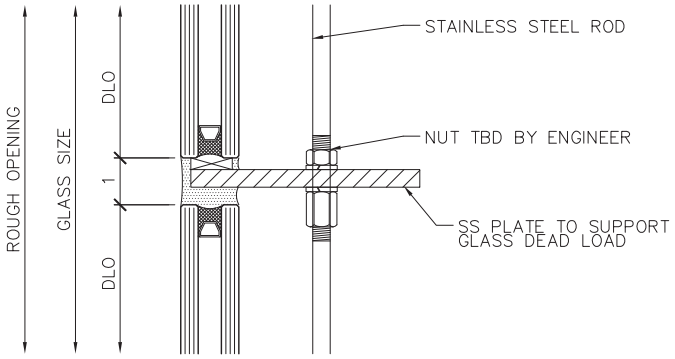
TYPICAL VS-1 SYSTEM DETAILS



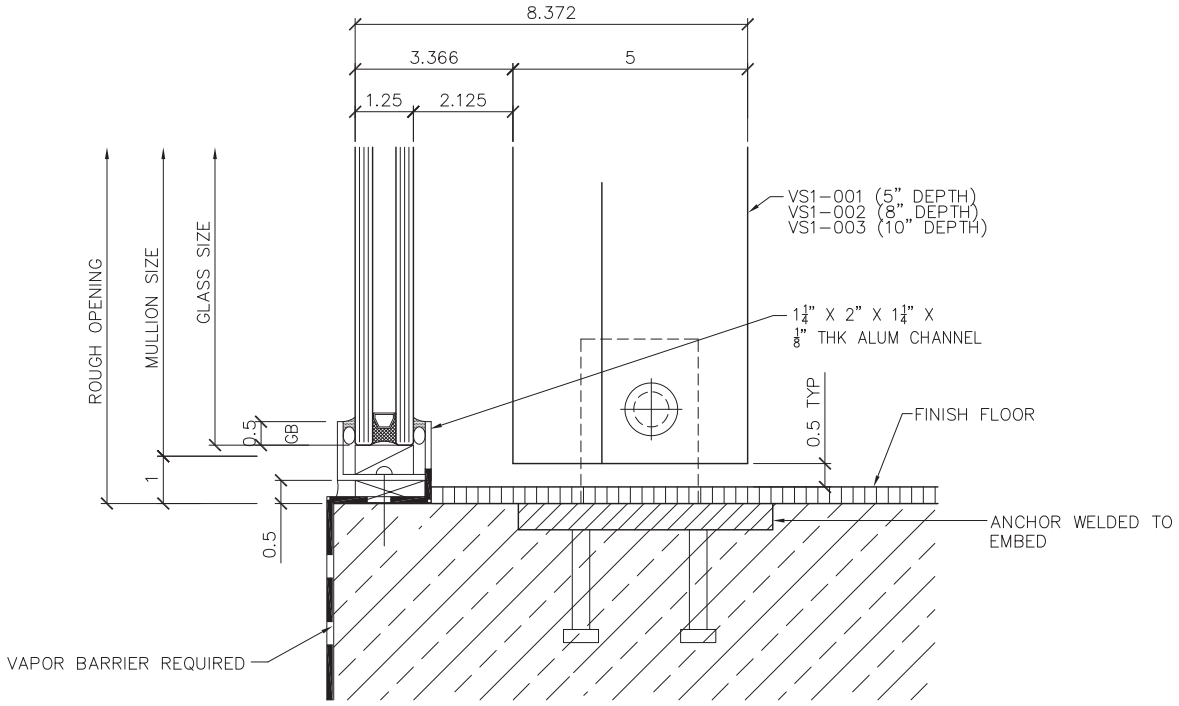
3 GRAVITY FITTING
SYS: VS1



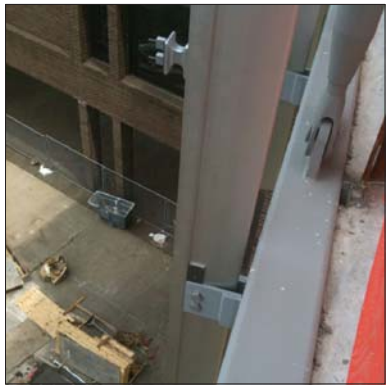
4 GLASS FITTING
SYS: VS1



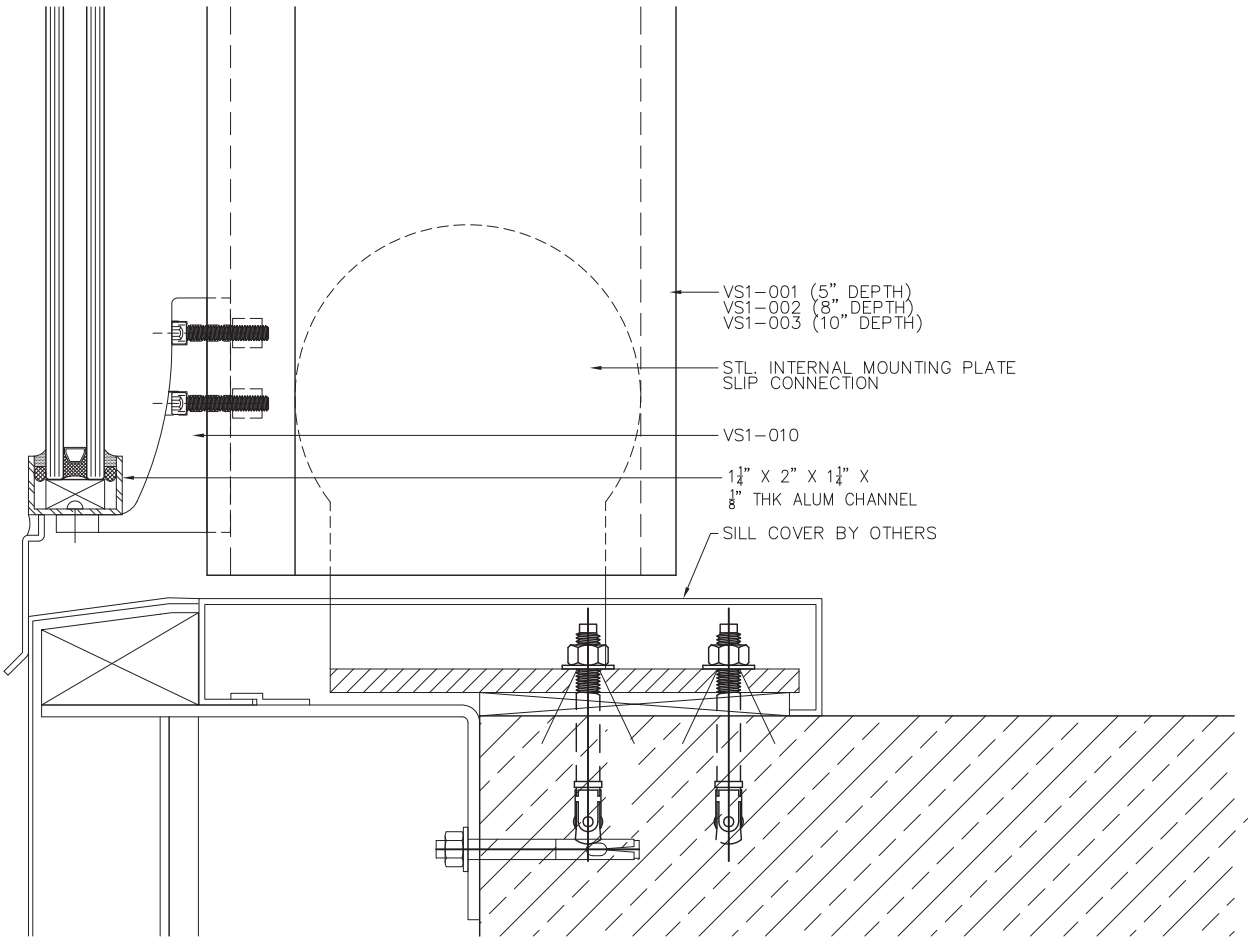
5 INTERMEDIATE @ CORNER
SYS: VS1



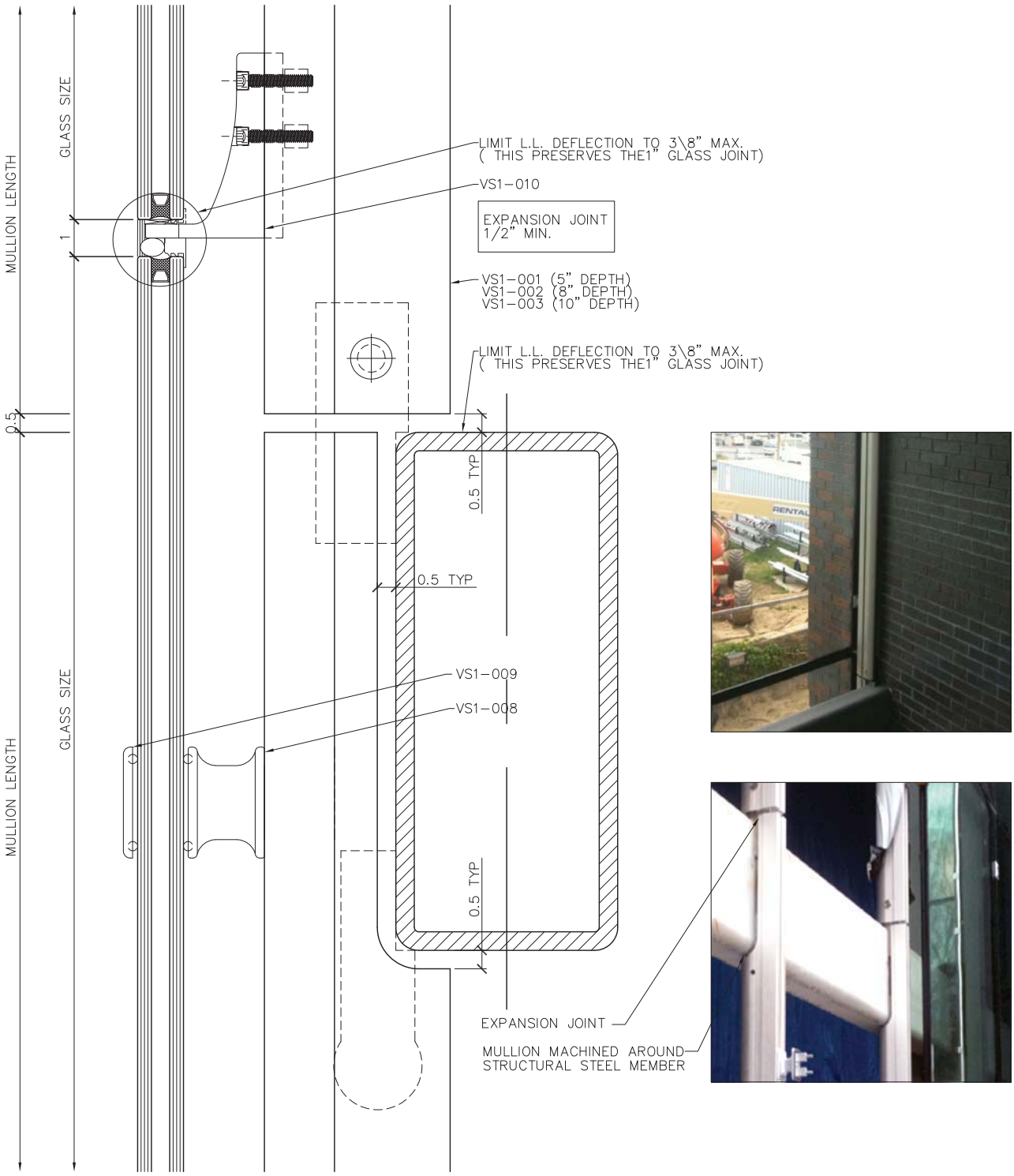
6 SILL DETAIL
SYS: VS1



MULLION CANTILEVER BEYOND FIXED CONNECTION

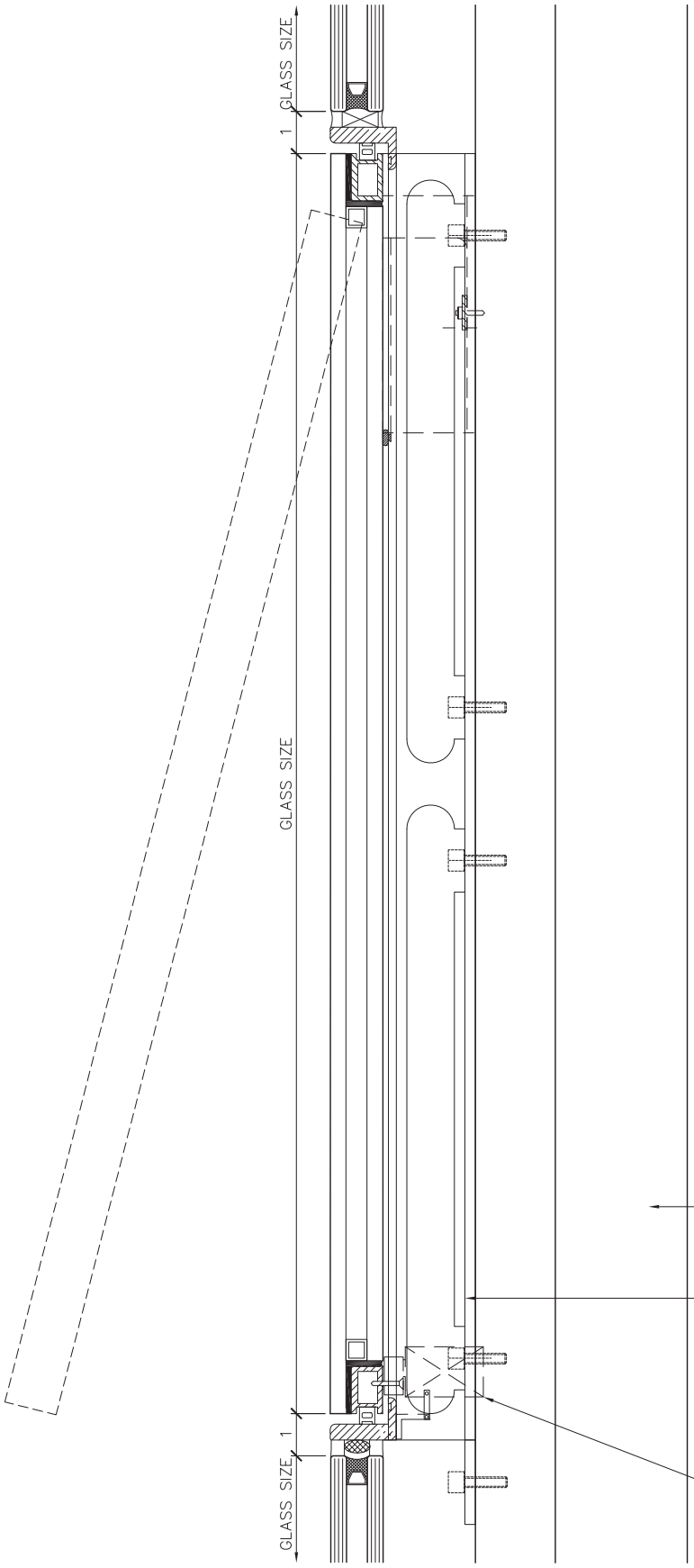


6A SILL DETAIL FOR TOP HUNG WALL
SYS: VS1



7 CONNECTION AT STEEL
SYS: VS1

TYPICAL VS-1 SYSTEM DETAILS



VS-1 OPERABLE WINDOW

INSULATED PANEL WITH SOLID CERAMIC FRIT TO EXTERIOR GLASS

GRADUATED CERAMIC FRIT

FIRE STOPPING ZONE

VS1-001 (5" DEPTH)
VS1-002 (8" DEPTH)
VS1-003 (10" DEPTH)

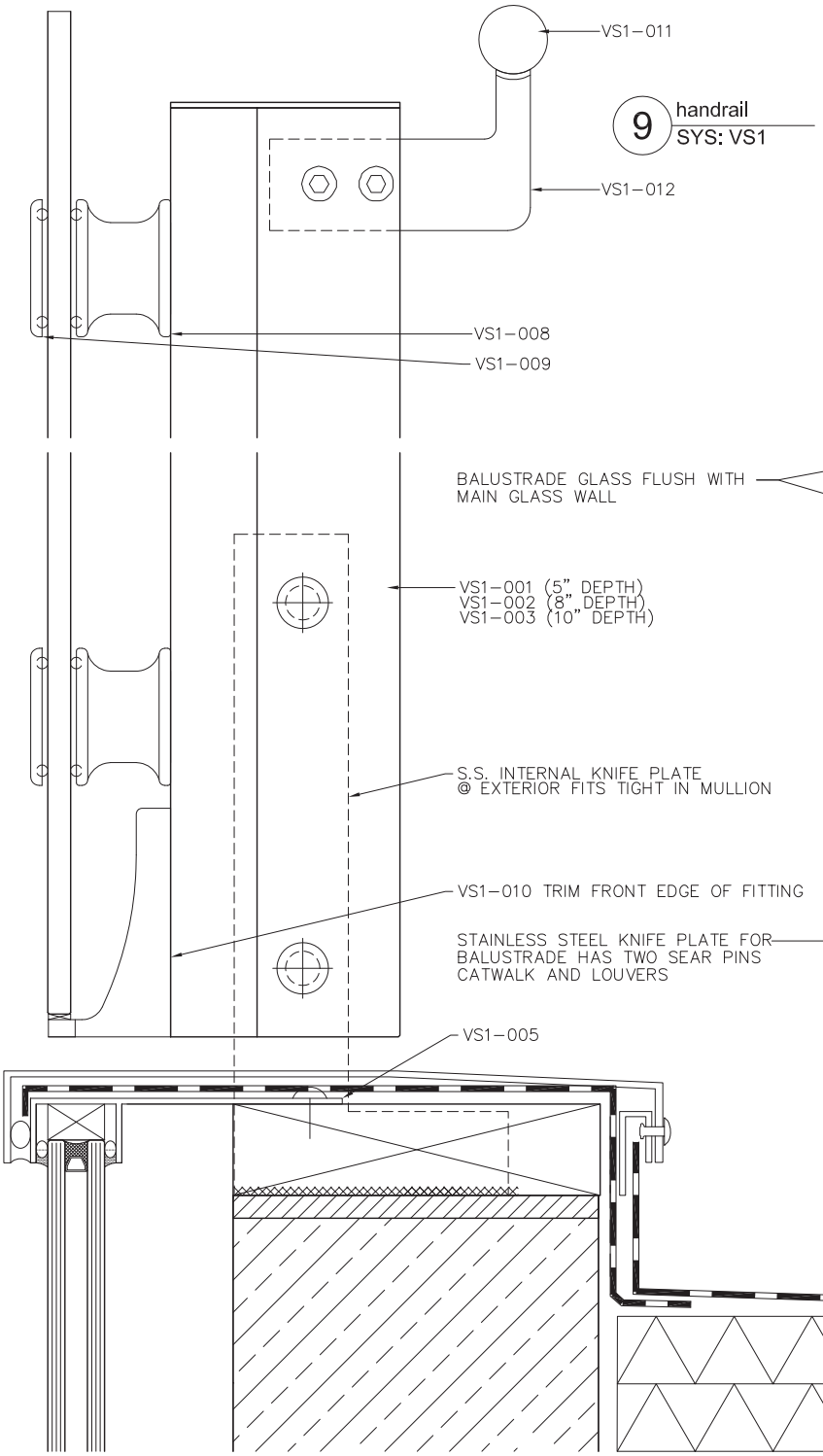
VS-1 WINDOW ASSEMBLY AWNING OR PARALLEL PROJECTION

EXTERIOR BRACKETS PRIOR TO FITTING OF CATWALK AND LOUVERS

VS-1 OPERABLE WINDOW PARALLEL PROJECTION OPTION AVAILABLE

MOTOR (OPTIONAL)

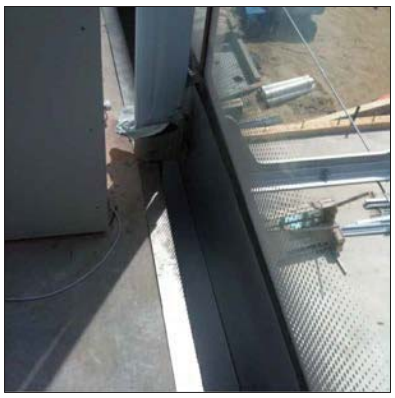
8 operable window
SYS: VS1


VS1–011
9 handrail
SYS: VS1
VS1–012
VS1–008
VS1–009
BALUSTRADE GLASS FLUSH WITH MAIN GLASS WALL
VS1–001 (5" DEPTH)
VS1–002 (8" DEPTH)
VS1–003 (10" DEPTH)
S.S. INTERNAL KNIFE PLATE @ EXTERIOR FITS TIGHT IN MULLION
VS1–010 TRIM FRONT EDGE OF FITTING
STAINLESS STEEL KNIFE PLATE FOR BALUSTRADE HAS TWO SEAR PINS CATWALK AND LOUVERS
VS1–005

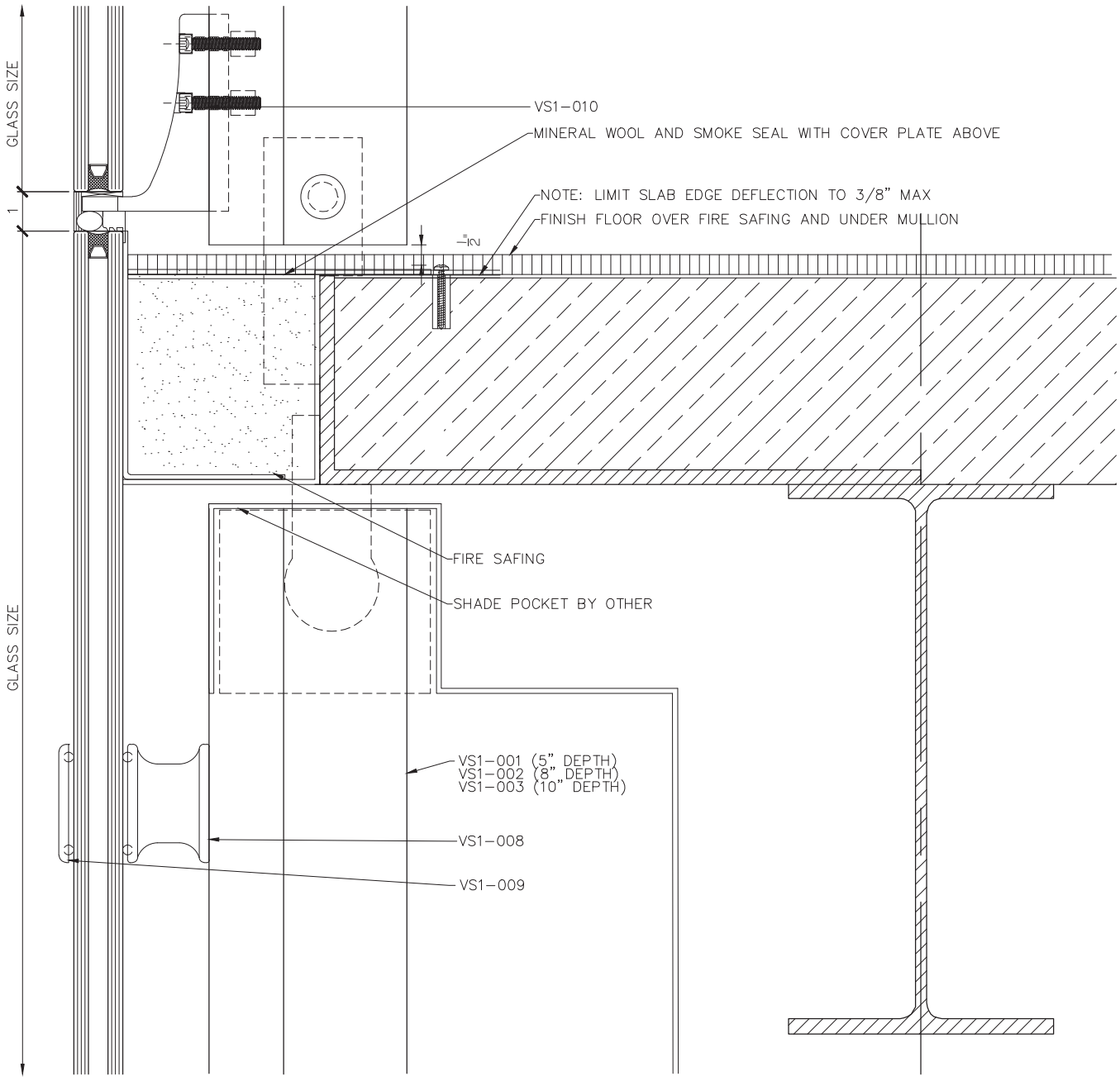
TYPICAL VS-1 SYSTEM DETAILS

SPACE BETWEEN IGU AND SLAB EDGE

MINERAL WOOL FITTED

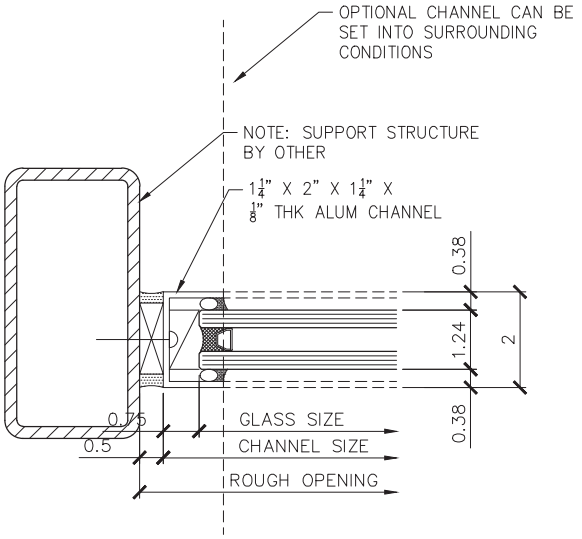


COVER PLATE OVER SMOKE SEAL

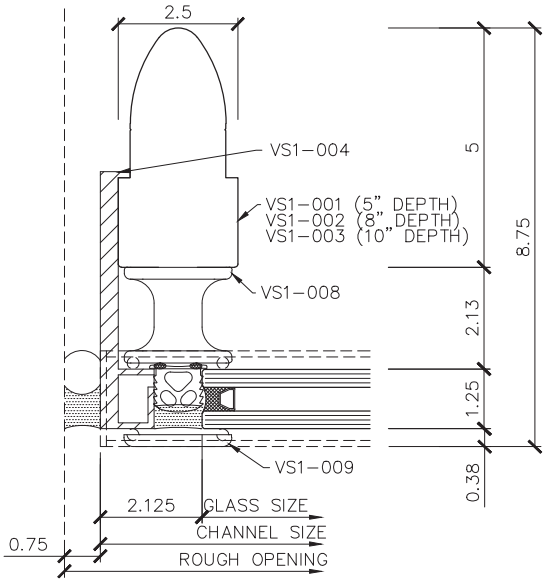


10 JAMB @ firesafing
SYS: VS1

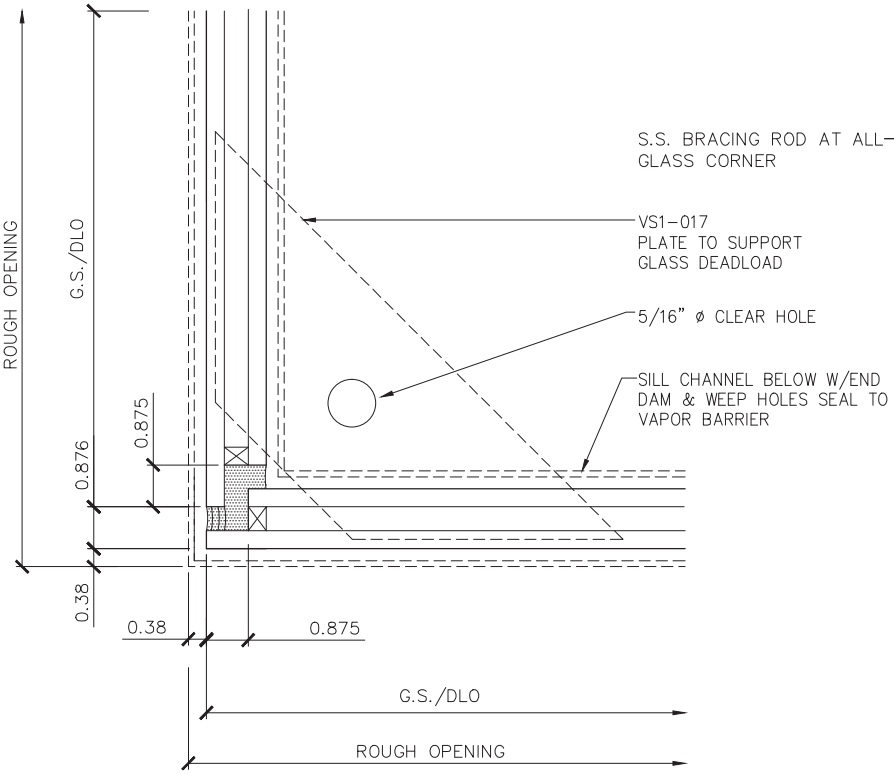
TYPICAL VS-1 SYSTEM DETAILS



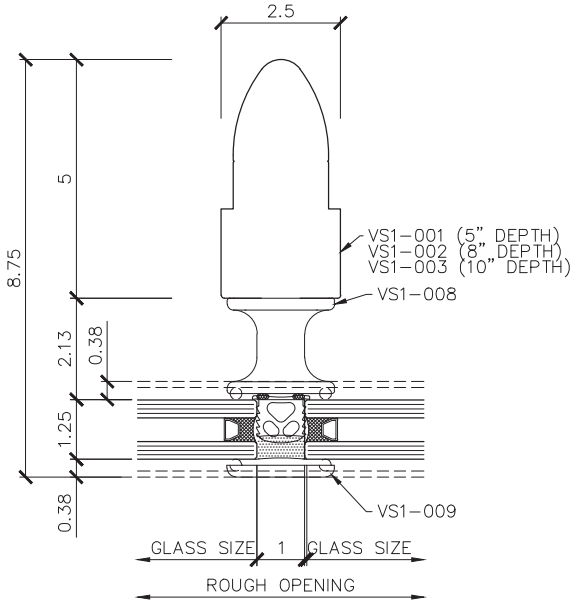
11 JAMB (NO MULLION)
SYS: VS1



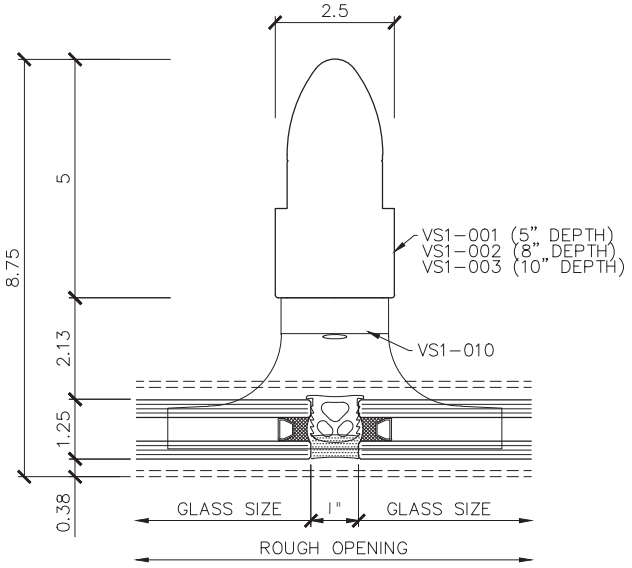
12 JAMB
SYS: VS1



13 GLASS 90° CORNER
SYS: VS1

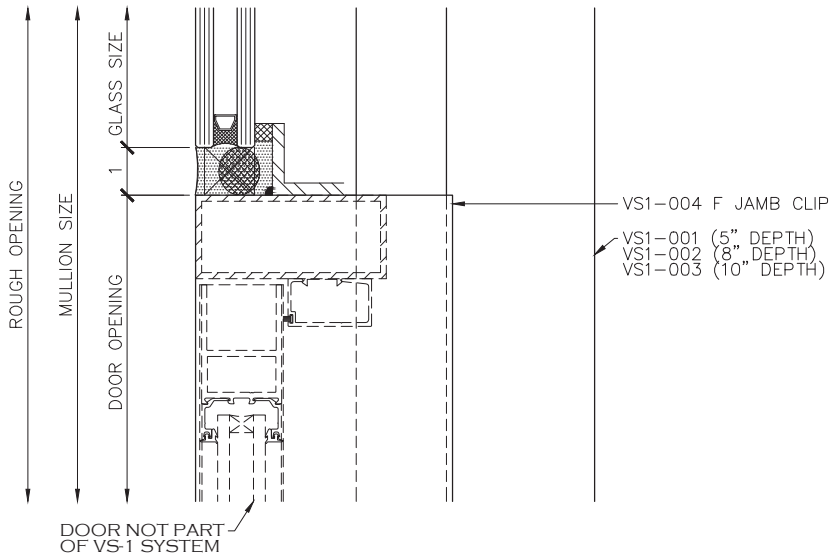


14 MULLION PLAN BETWEEN FITTINGS
SYS: VS1

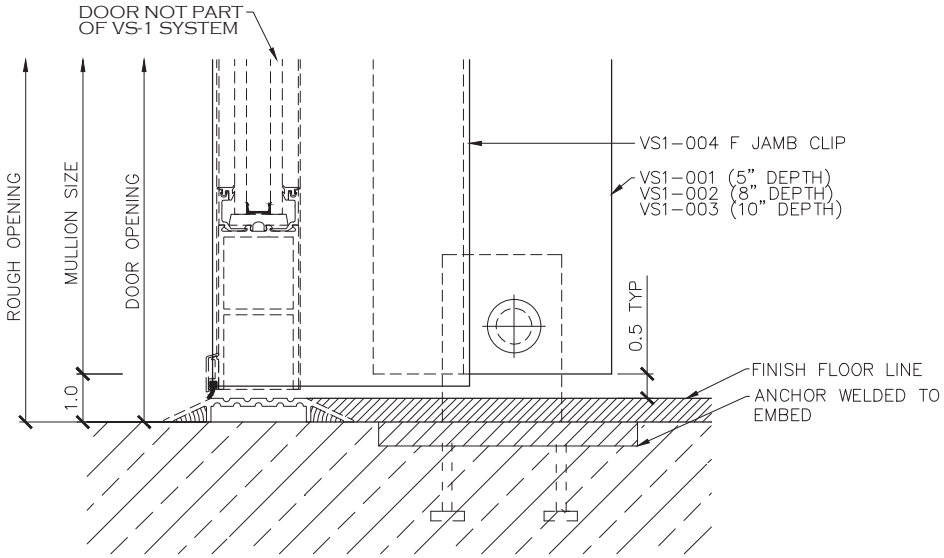


15 MULLION PLAN AT GRAVITY FITTING
SYS: VS1

TYPICAL VS-1 SYSTEM DETAILS



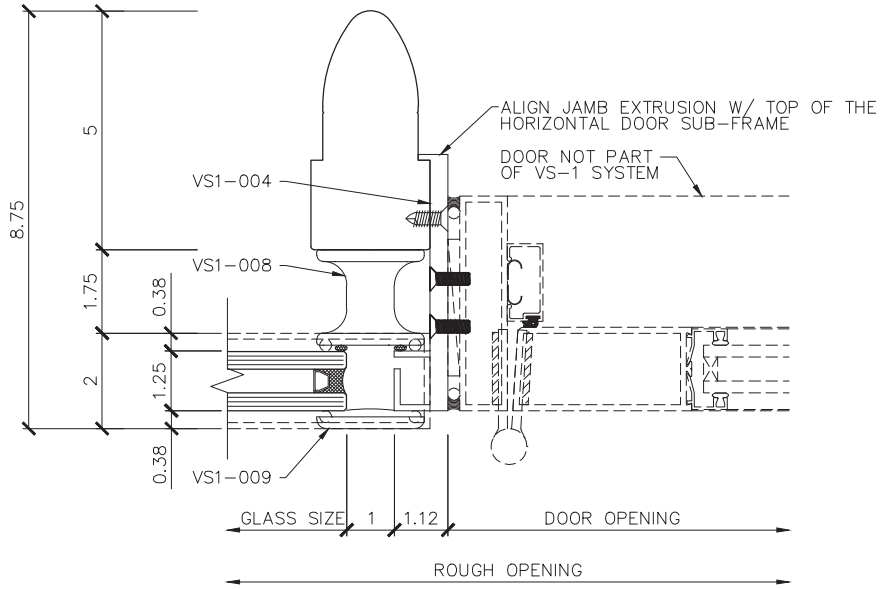
16 DOOR HEAD DETAIL
SYS: VS1



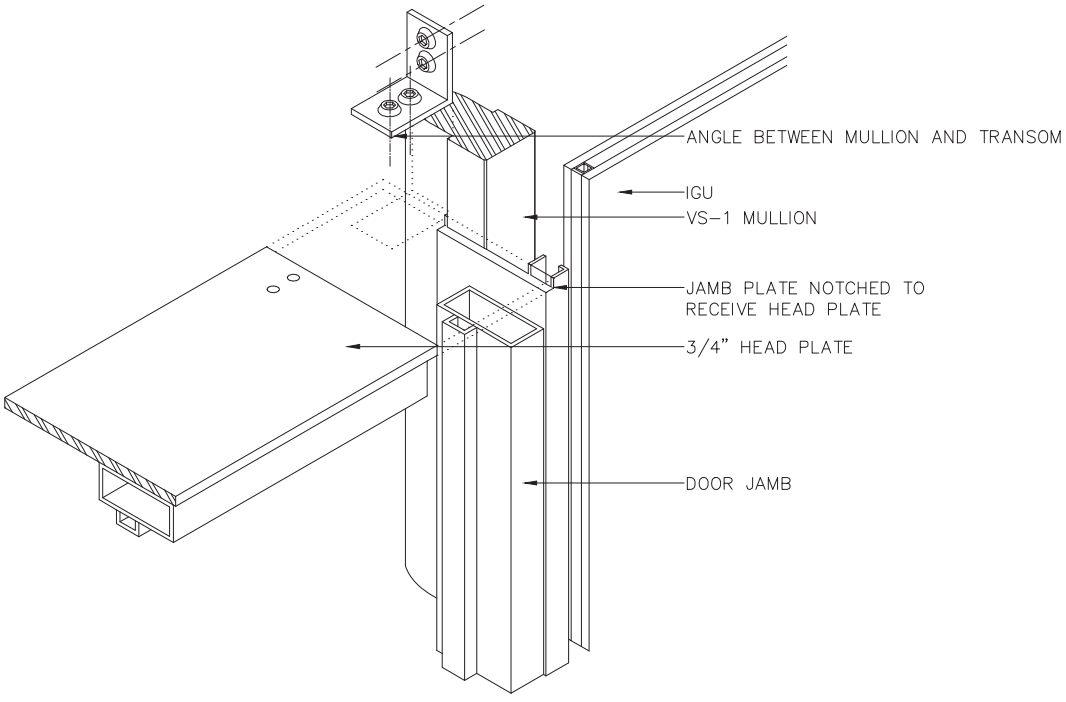
17 DOOR SILL DETAIL
SYS: VS1

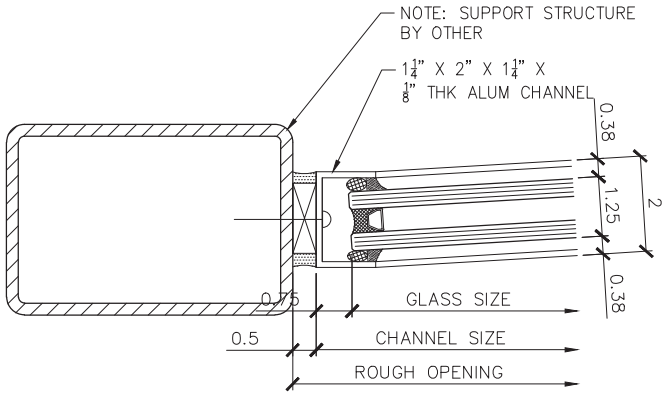
PRIOR TO GLASS INSTALLATION

JAMB AND TRANSOM FLUSH WITH GLASS

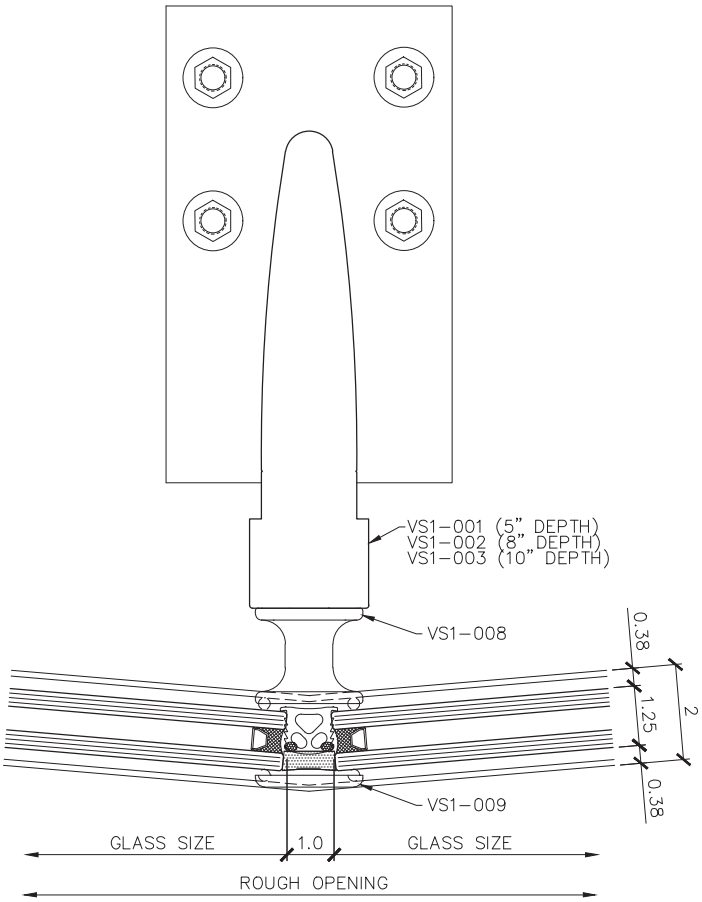


18 DOOR JAMB
SYS: VS1

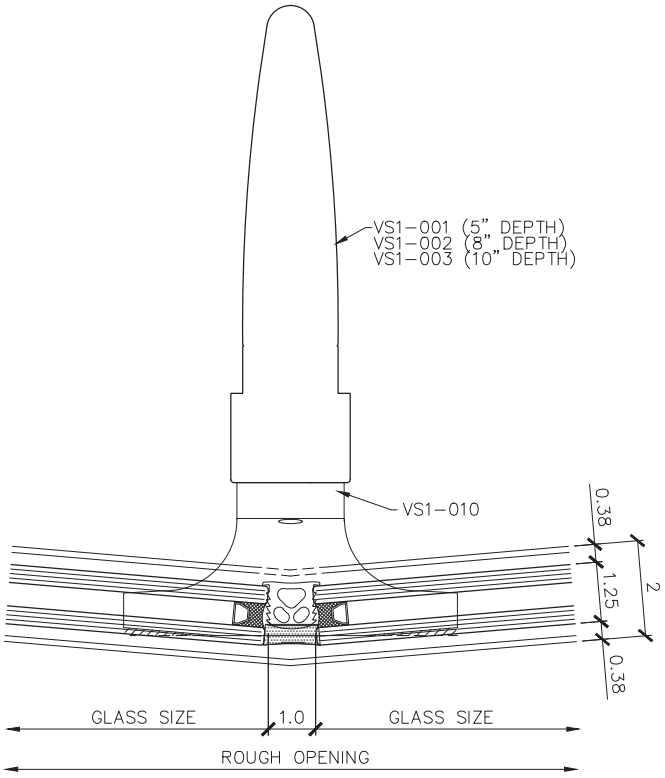




19 curved wall jamb
SYS: VS1

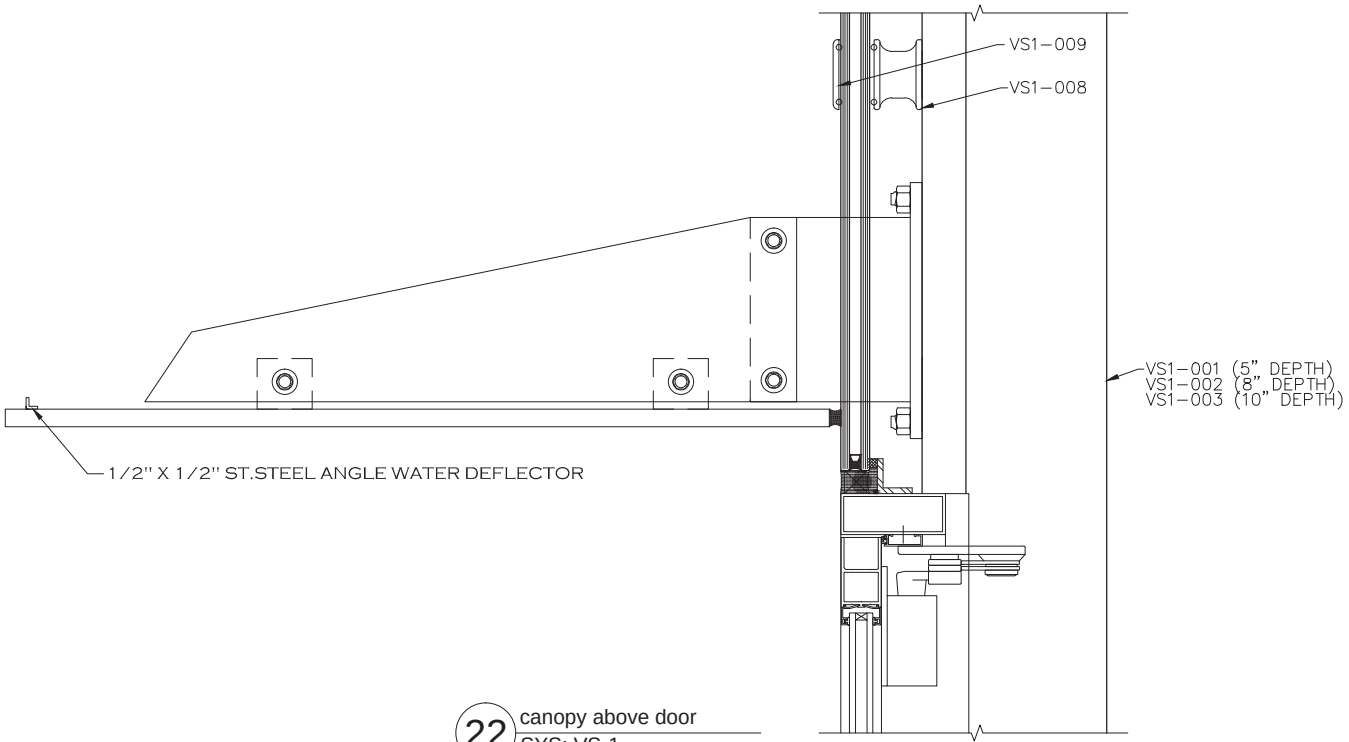


20 curved wall intermediate
SYS: VS-1

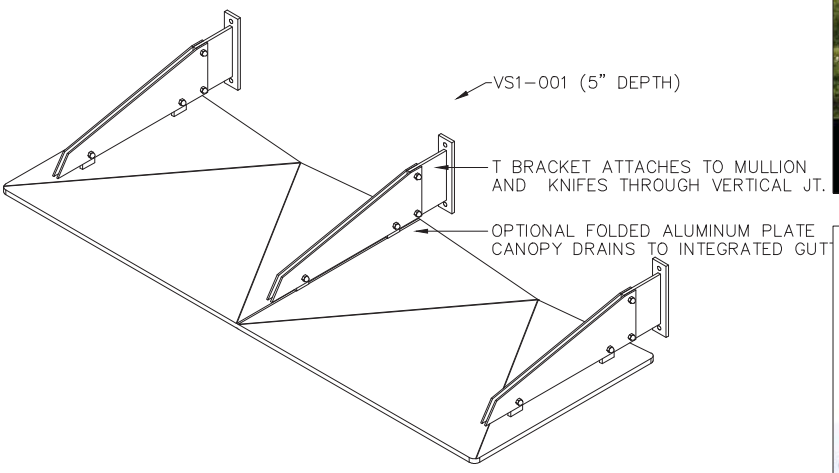


21 curved wall intermediate
SYS: VS-1

TYPICAL VS-1 SYSTEM DETAILS

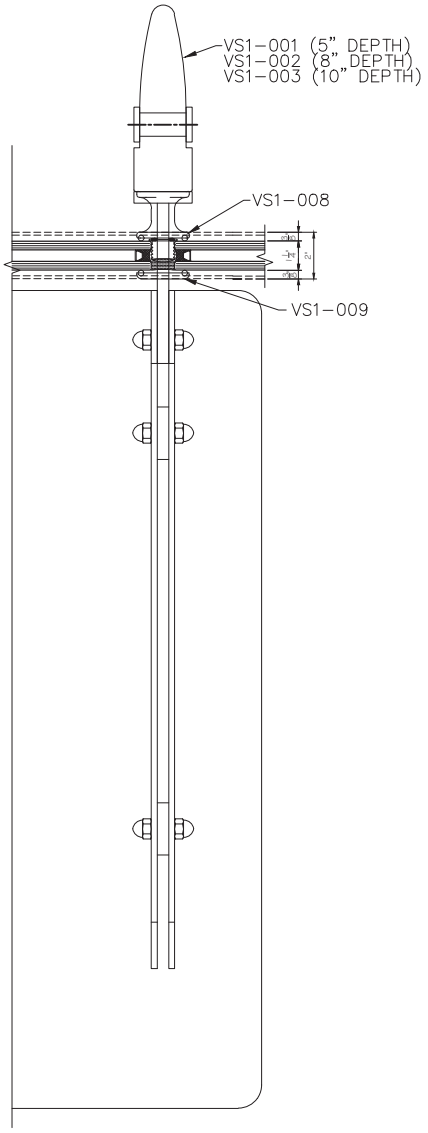


22 canopy above door
SYS: VS-1

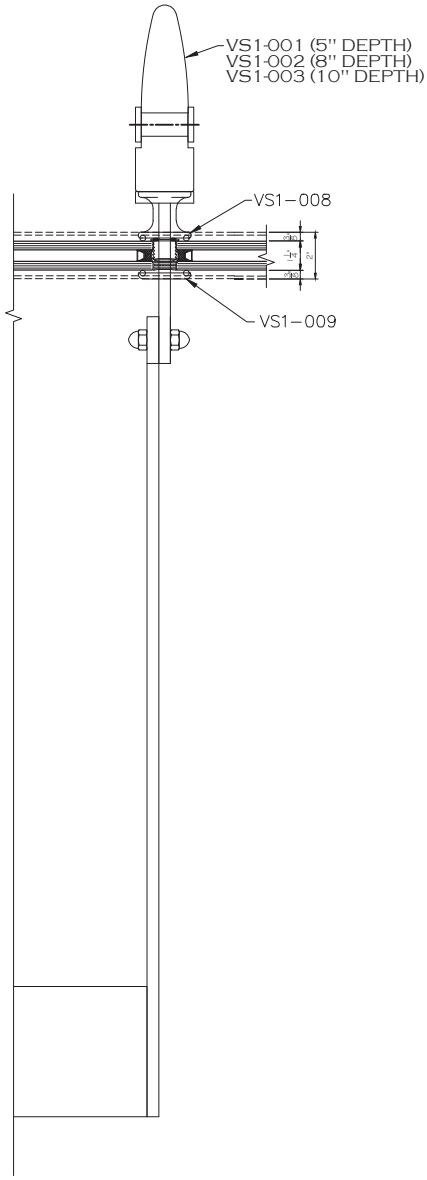


FOLDED PLATE CANOPY
SYS: VS-1

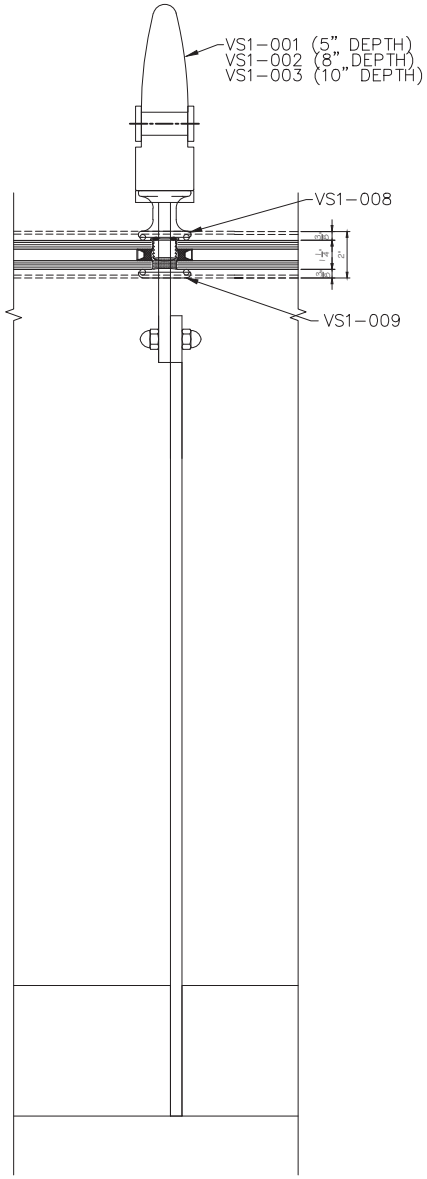
TYPICAL VS-1 SYSTEM DETAILS



23 canopy above door
SYS: VS-1

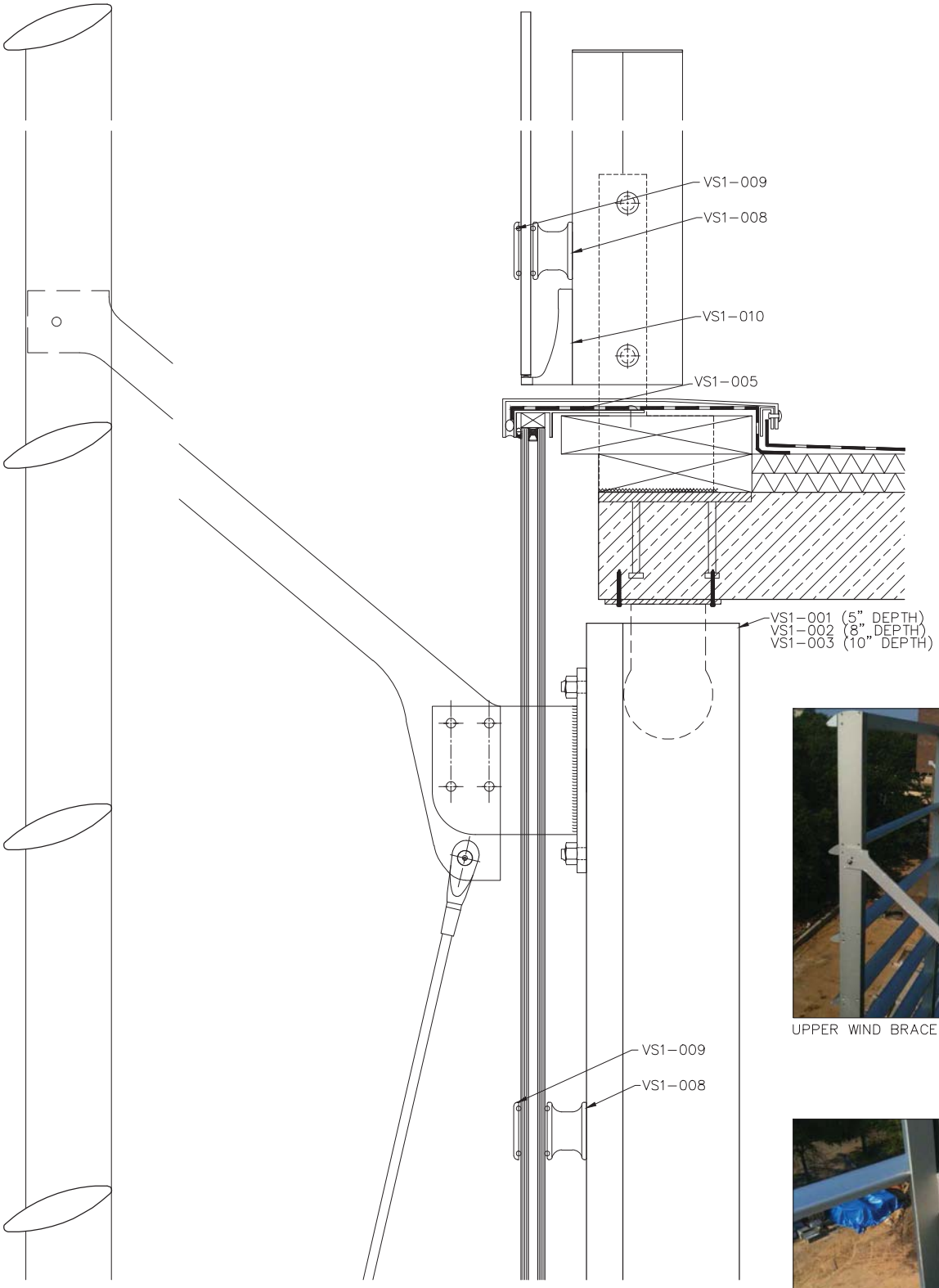


24 louver detail
SYS: VS-1



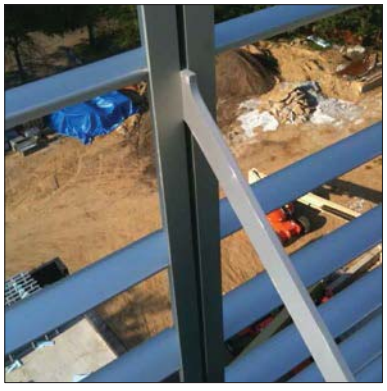
25 LOUVER DETAIL
SYS: VS-1

TYPICAL VS-1 SYSTEM DETAILS

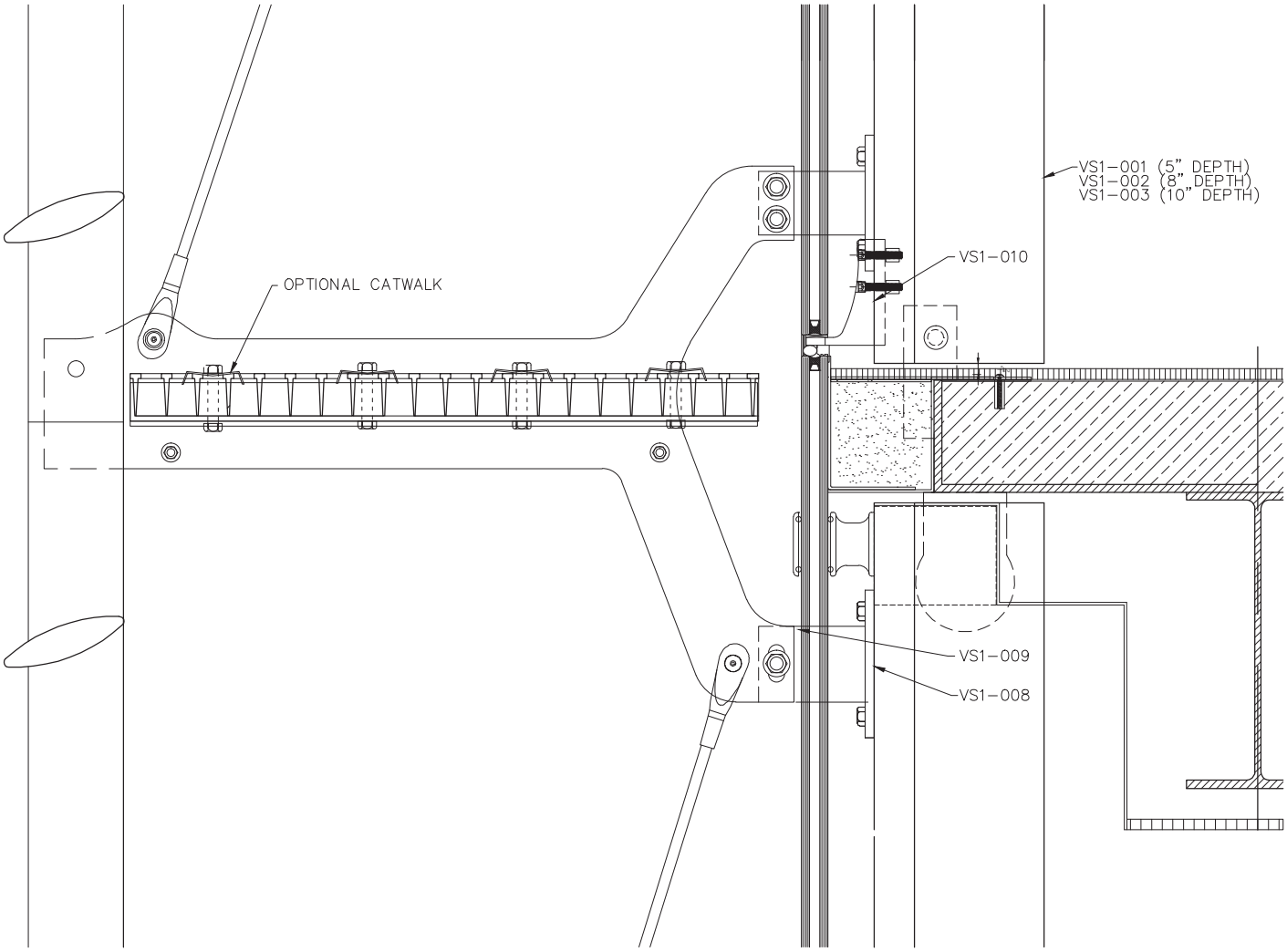


26 LOUVER DETAIL
SYS: VS-1

UPPER WIND BRACE FOR LOUVERS



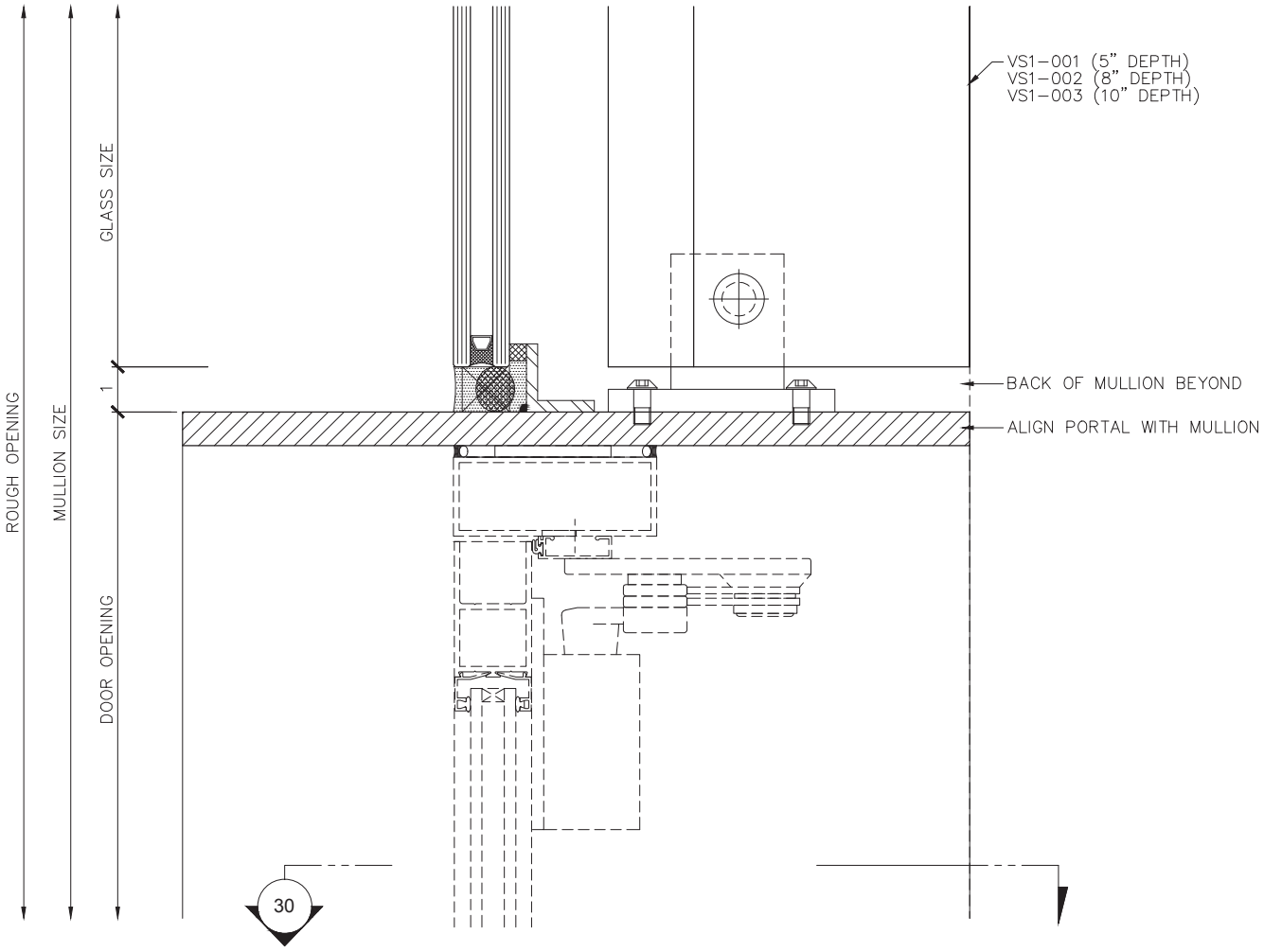
TYPICAL VS-1 SYSTEM DETAILS



27 LOUVER DETAIL
SYS: VS-1

INTEGRATED LOUVER AND MAINTENANCE CATWALK SUPPORTED BY VS-1 MULLION

TYPICAL VS-1 SYSTEM DETAILS

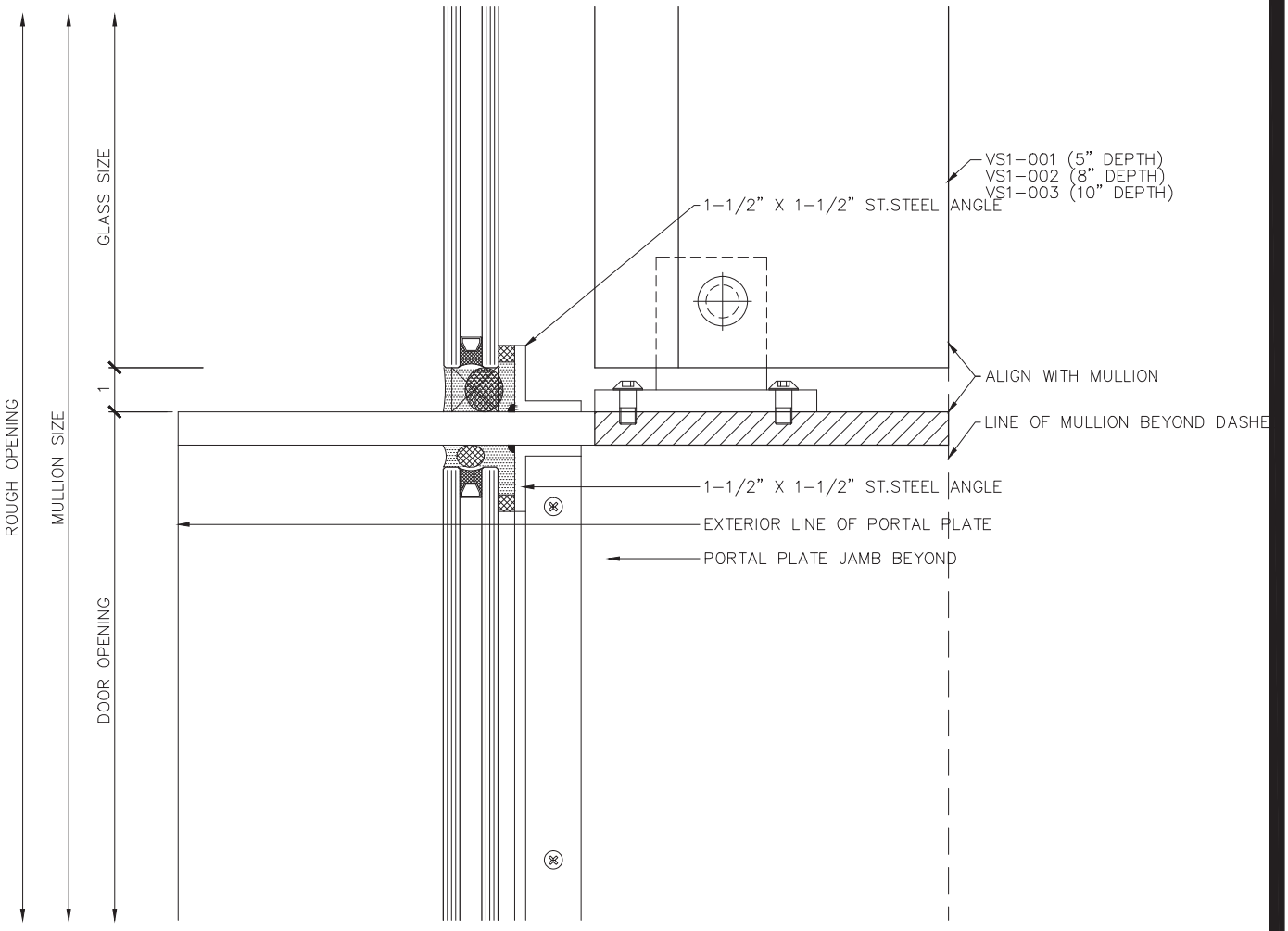


28 DOOR HEAD/PORTAL PLATE DETAIL
SYS: VS-1


INTEGRATED GUTTER

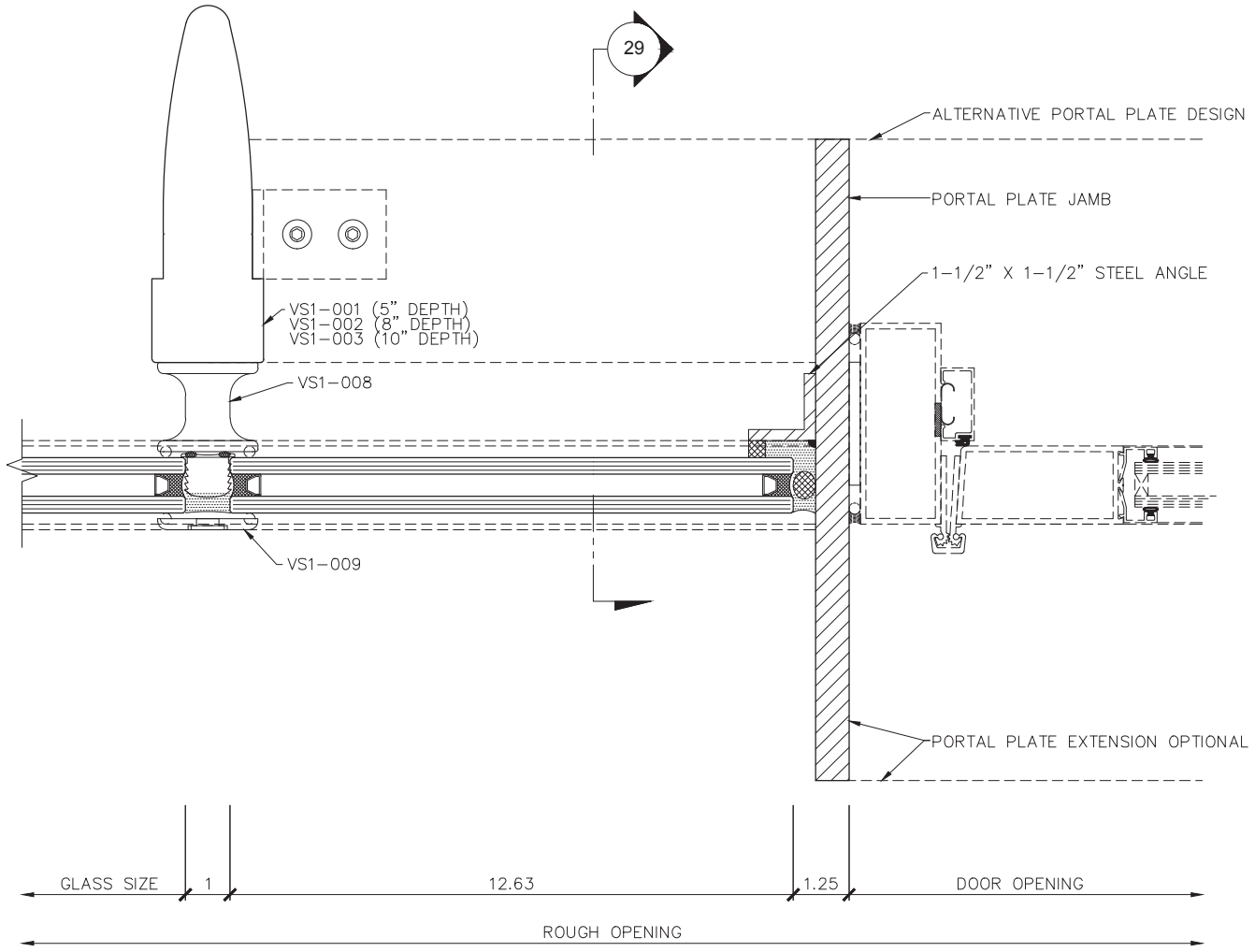

INTERIOR MULLIONS SUPPORTING PORTAL


EXTENDED JAMB AND TRANSOM



29 PORTAL PLATE DETAIL THROUGH SIDE LITE
SYS: VS-1

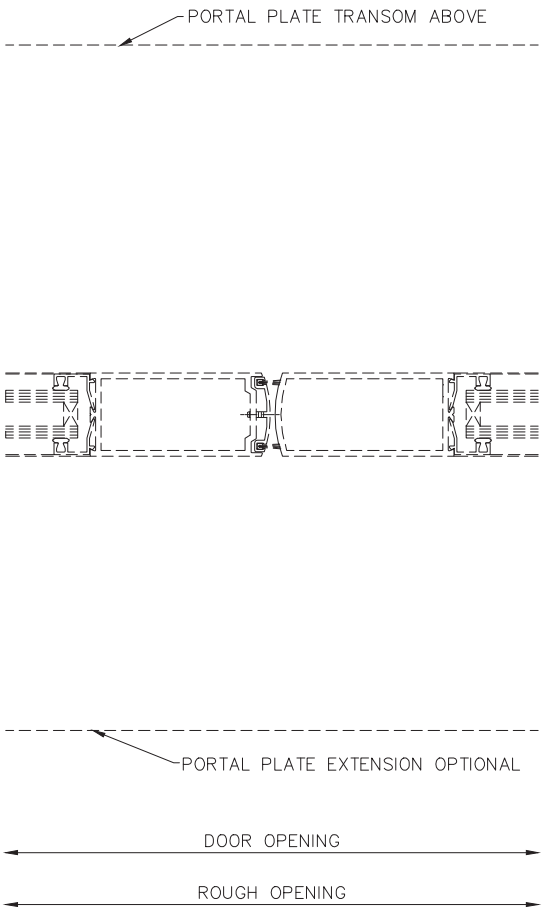
TYPICAL VS-1 SYSTEM DETAILS



30 DOOR JAMB / PORTAL PLATE DETAIL
SYS: VS-1

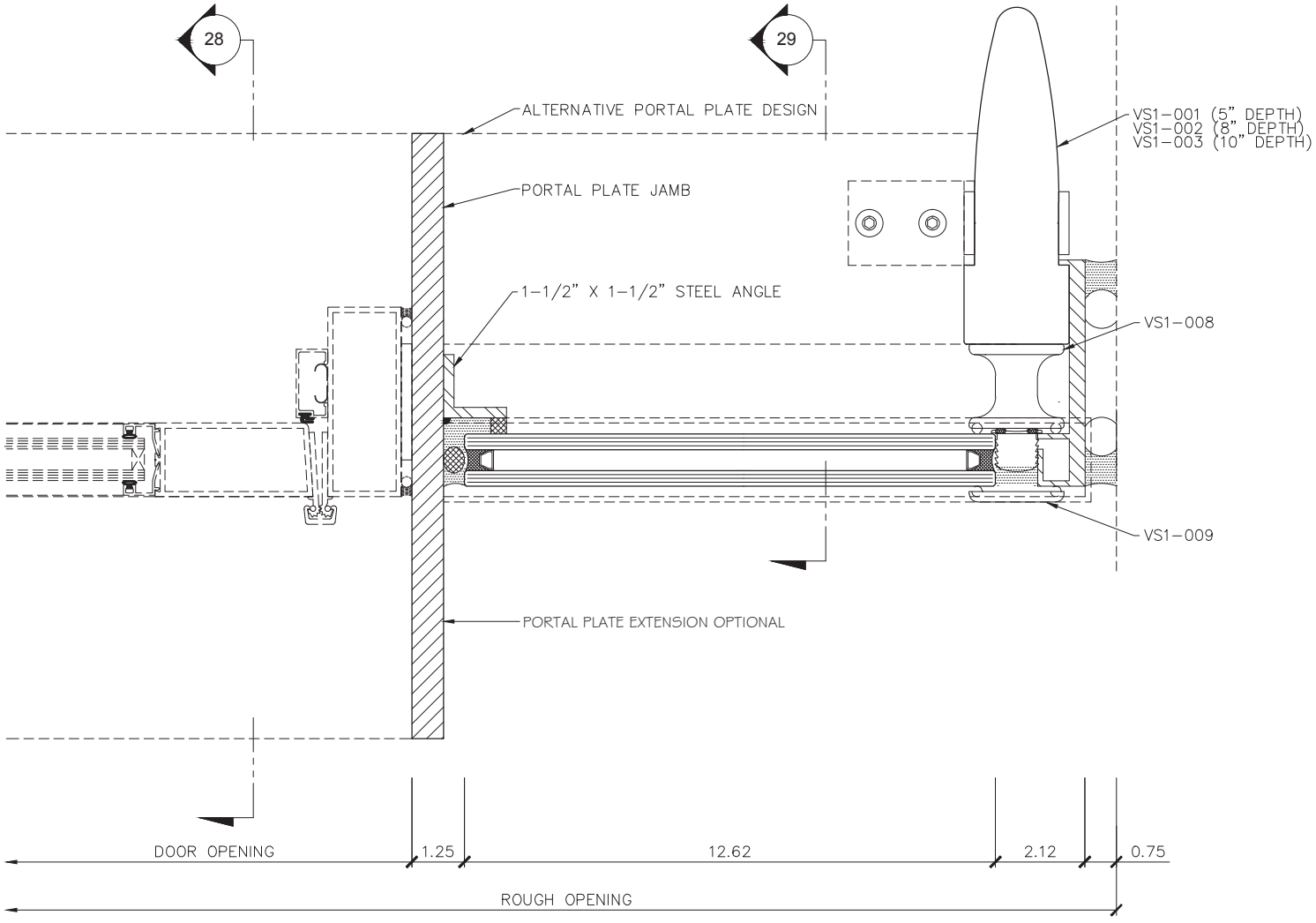
STRUCTURAL GLASS VESTIBULE

PORTAL FRAME

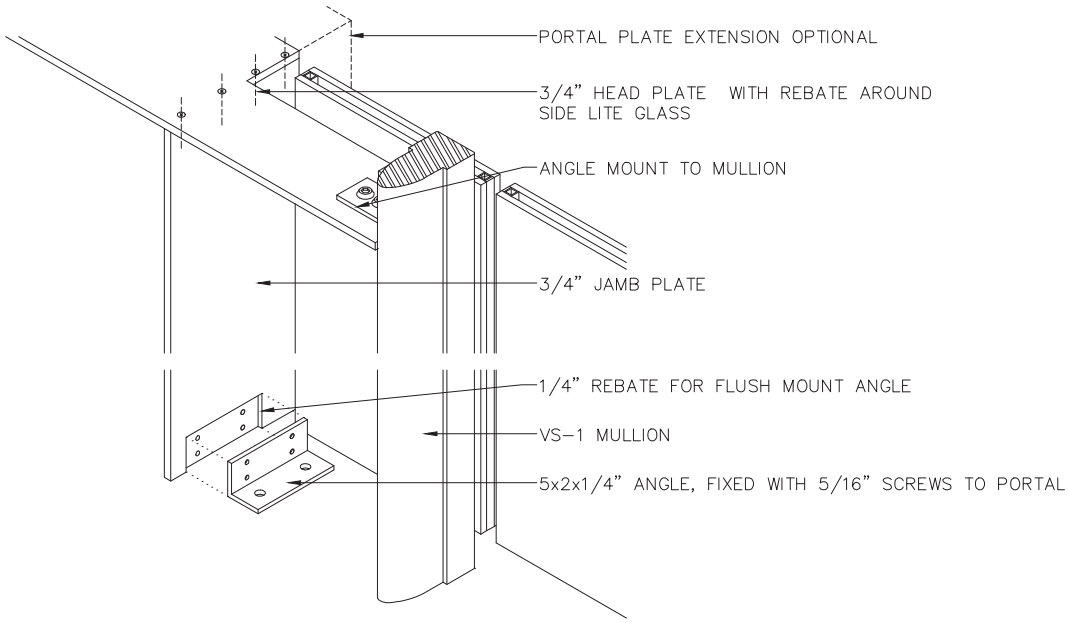


31 MEETING STYLES DETAIL
SYS: VS-1

PORTAL FRAME FLUSH WITH EXTERIOR GLASS

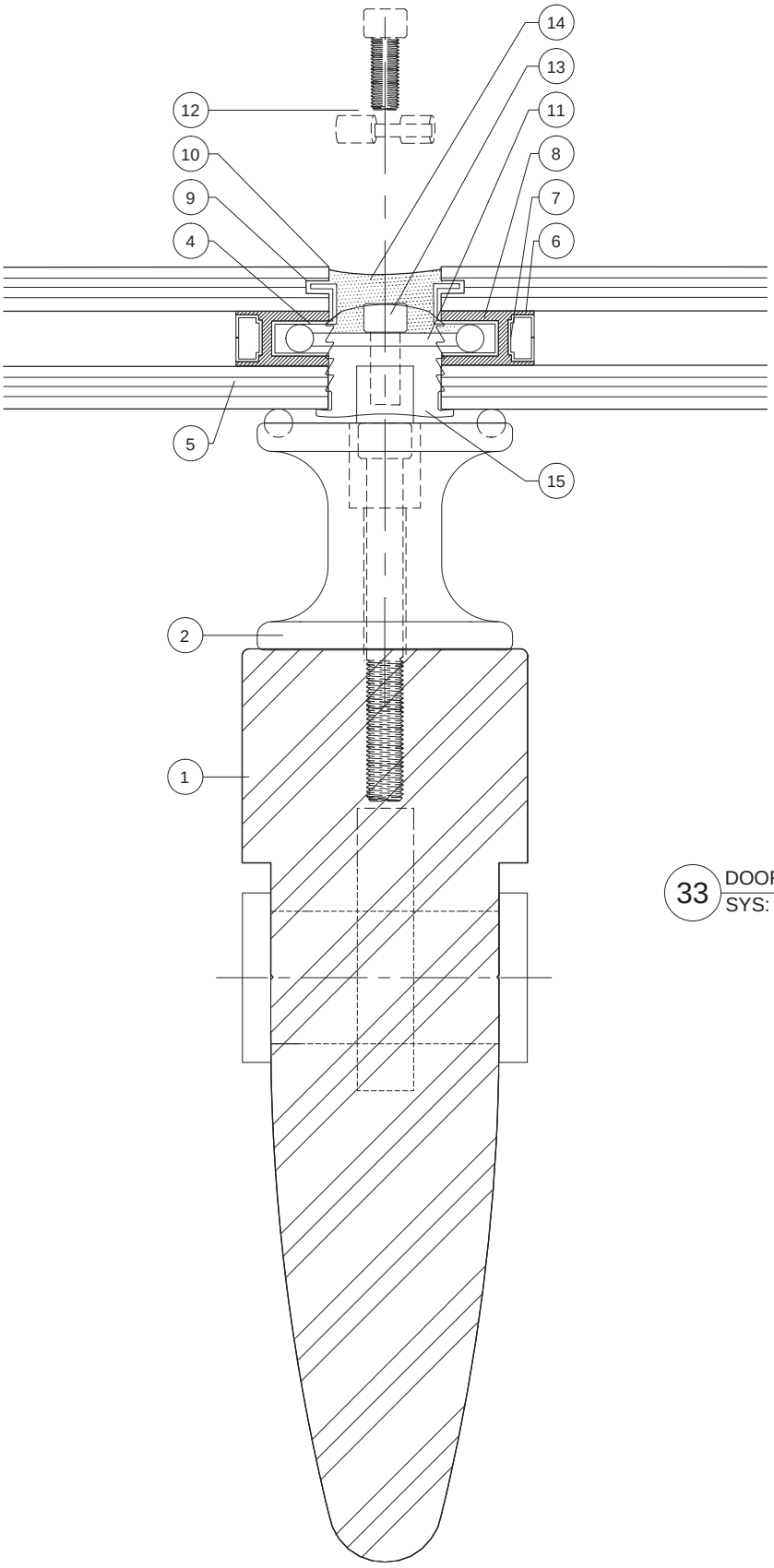


32 DOOR JAMB / PORTAL PLATE DETAIL
SYS: VS-1



FLUSH GLAZED VARIO GLASS CONNECTION

The VARIO glazing restraint detail requires the exterior lite of the IGU to be rebated at the Pinch Plate locations, an integrated channel fits into the rebate and between the metal spacer. Mechanical fixing of the exterior lite complies with European ETAG 002 building safety standards by guarding against failure of structurally glazed systems. When used with the VS-1 Pinch plate body the exterior cap is eliminated giving a flushed glazed appearance.

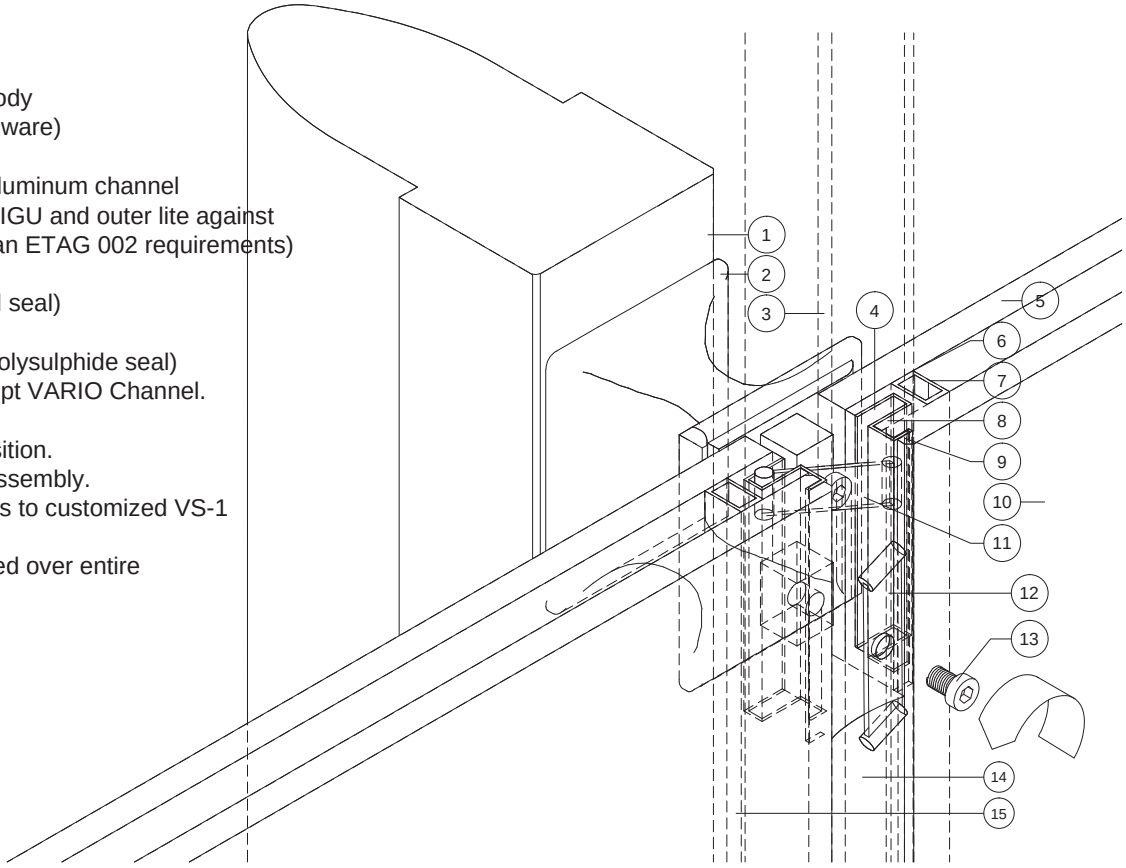


1 VS-1 Mullion.
2 Customized Pinch Plate Body (shortened for VARIO hardware)
3 Position of IGU dashed.
4 VARIO stainless steel or aluminum channel mechanically restrains the IGU and outer lite against failure of the seal (European ETAG 002 requirements)
5 Interior lite.
6 Primary sealing level (butyl seal)
7 Metal Spacer.
8 Secondary sealing level (polysulphide seal)
9 Rebate in outer lite to accept VARIO Channel.
10 Outer lite.
11 VARIO Anchor in fixed position.
12 VARIO anchor exploded assembly.
13 Anchor restraint screw fixes to customized VS-1 Pinch Plate.
14 Exterior primary seal applied over entire VARIO restraint assembly.
15 Interior mechanical seal.

33 DOOR JAMB / PORTAL PLATE DETAIL
SYS: VS-1

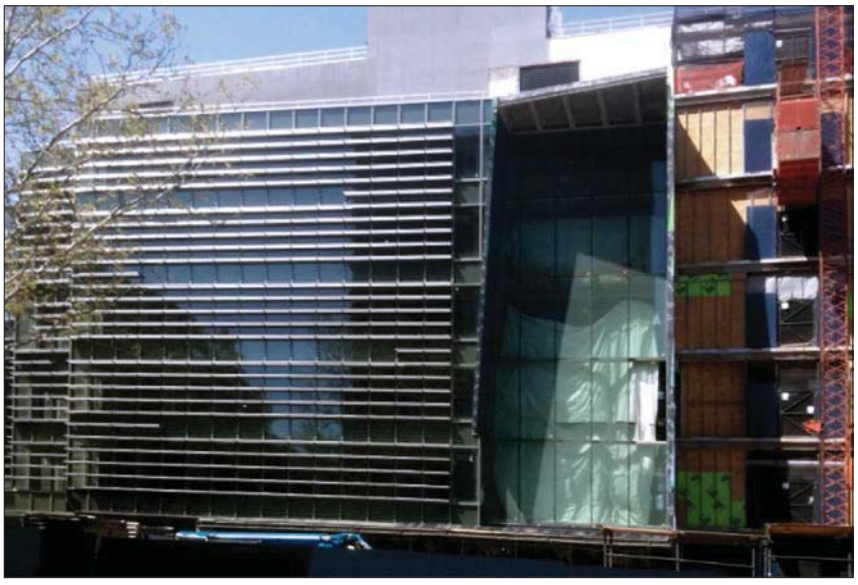
FLUSH GLAZED VARIO GLASS CONNECTION

1 VS-1 Mullion.
2 Customized Pinch Plate Body (shortened for VARIO hardware)
3 Position of IGU dashed.
4 VARIO stainless steel or aluminum channel mechanically restrains the IGU and outer lite against failure of the seal (European ETAG 002 requirements)
5 Interior lite.
6 Primary sealing level (butyl seal)
7 Metal Spacer.
8 Secondary sealing level (polysulphide seal)
9 Rebate in outer lite to accept VARIO Channel.
10 Outer lite.
11 VARIO Anchor in fixed position.
12 VARIO anchor exploded assembly.
13 Anchor restraint screw fixes to customized VS-1 Pinch Plate.
14 Exterior primary seal applied over entire VARIO restraint assembly.
15 Interior mechanical seal.



COLORED PINCH PLATE CAPS

An alternative and more cost effective to the VARIO glazing restraint system is to color the exterior cap of the pinch plate assembly to match the silicone seal and the edge color of the IGU metal spacer. This is achieved with the standard kit of VS-1 parts.



EXTERIOR PINCH PLATE CAPS ON THE PRATT INSTITUTE COLORED TO MINIMIZE THEIR APPEARANCE.

CAP LOCATIONS

SECTION 08975 - VS-1 Glass Wall

Part 1 - General

1.01 Related documents and general requirements:

A. General Contract Provisions and Sections of Division 1 apply to Work of this Section.

Examine all other Sections of the Specifications for requirements which affect the Work of this Section. Coordinate the Work of this Section with the related Work of other trades, and cooperated with such trades to assure the steady progress of all Work of this Contract.

1.02 Scope

A. The Glass Wall Contractor shall include all engineering, labor, materials, tools, equipment, appliances and services required to manufacture, deliver, furnish and install all items necessary for the proper execution and completion of the Work as shown on the Contract Documents, as specified herein, and/or as required by job conditions. All items not shown or specified, but which are necessary for the proper execution and completion of the Work shall be provided by the Glass Wall Contractor.

B. The extent of the VS-1 Glass Wall covered herein is shown on the building elevations, sections, floor plans and details of the Contract Documents and includes a fully enclosed, structurally sound, weather tight wall system including but not limited to: VS-1 Glazing System (patent pending)

1. Glass panels
2. Cast aluminum wind restraint fittings (pinch plates)
3. Cast aluminum gravity support brackets
4. Head, sill and jamb glazing channels and related anchor supports
5. Joint filler silicone gasket at interior glass joints
5. Insert setting diagrams, support brackets, expansion joint definitions as required to accommodate wall expansion and building movement.
6. Sealants, caulking, joint fillers, miscellaneous gaskets, fasteners and weeps, closures, and cut outs, as shown or as may be required in conjunction with the system or to join the system to adjacent construction, except as specifically excluded below.
7. fully integrated VS-1 operable window panels with hardware
8. integrated VS-1 door portal framing
9. doors and hardware

1.03 Work Specifically Excluded

The following items are excluded from the project scope:

A. Expansion joints
B. Flashing and sheet metal closures
C. Strengthening of building structural system
D. Foundation and embedment plates, including structural design of the embedment plates or anchor bolts.
E. Mock-up design, fabrication, and testing
F. Gutters
G. Sun shades
H. Vents
I. Metal Panel system
J. Canopies

1.04 References

A. Standard and applicable state and local building codes
B. American Architectural Manufacturers Association (AAMA)
C. Glass Association of American (GANA)
D. American Institute of Steel Construction (AISC)
E. American Iron and Steel Institute (AISI)
F. American National Standards Institute (ANAI)
G. American Society for Testing and Materials (ASTM)
H. American Welding Society (AWS)
I. Insulating Glass Certification Council (IGCC)
J. Sealed Insulating Glass Manufacturers Association (SIGMA)
K. Flat Glass Marketing Association (FGMA)
L. Steel Structures Painting Council (SSPC)

1.05 Performance Requirements

A. The Work, as erected, shall meet or exceed the following structural and weather resistance requirements as demonstrated by engineering calculations and prior testing of mock-up(s).

1. Applicable building code: _____

B. Provision for Thermal Movements

1. The Work shall be designed to provide for such expansion and contraction of component materials as will be caused by an exterior ambient temperature of -20oF to +110oF (or to values provided by building engineer), a metal surface temperature of +180oF for dark colors and +150oF for light colors, and an interior ambient temperature range of +50oF to +75oF(or to values provided by building engineer),, without causing buckling, stresses on glass, metal, joint seals, undue stress on structural elements, damaging loads on fasteners, reduction of performance or other detrimental effects.

2. The amount of such thermal movement that is accommodated in the VS-1 Glass Wall shall be identified on that Contractor's shop drawings, and shall be accompanied by thermal calculations.

A. Provision for Movement of the building Structure

1. The Work shall be designed to accommodate performance criteria, including but not limited to dead load and live load deflection, thermal expansion, elastic shortening and/or sway and torsion of the building frame, and seismic forces.
2. The amount of such movement that is accommodated in the Glass Wall Contractor's design shall be identified on that Contractor's Shop Drawings.
3. Anticipated building live load vertical movement (including allowance for creep, elastic shortening of vertical components and the vertical component of sway) and anticipated lateral movement due to wind load and/or seismic load are as follows:
   (Values provided by building engineer)
   Vertical =L/_____
   Horizontal East-West at Project Elevation __'-__" = ___"
   Horizontal North-South at Project Elevation __'-__" = ___"

B. Structural Properties

1. Minimum design wind pressures for the Work acting normal to the plane of the surface of the Work shall be the greater of those required by the applicable Building Code, or as recommended by the Glass Wall Contractor as a result of his expertise in the design and construction of such Work, but no less than 30 PSF positive and negative, except at corners 8'-0" in from the edge on both faces where the design load shall be no less than 45 PSF positive and negative.
2. At corners and other changes in plane, both surfaces shall be assumed to experience the worst combination(s) of inward and outward design pressures simultaneously.
3. A one third increase in allowable stress shall not be permitted in calculations employing these design pressures, unless such calculations are based upon minimum rather than nominal metal thickness. Glass members or elements shall not be relied upon or utilized in calculations to demonstrate structural adequacy.
4. The deflection of any framing member, in a direction normal or perpendicular to the plane of the wall, when subjected to the design loads specified above shall not exceed L/175 where L is the clear span of the member, nor shall the deflection of a framing member overhanging an anchor point exceed 2l/175.
5. The deflection of any framing member in a direction parallel to the plane of the wall, when carrying its full dead load, shall neither exceed an amount which will reduce the glass bite at the perimeter channel below 75% of the design dimension, nor reduce the clearance between that member and the edge of the glass to less than 1/4".
6. Glass deflection (for each panel independently) at full design load shall be limited to L/140 where "L" is the distance between pinch plates or the measurement of the glass edge spanning between VS-1 vertical mullions, whichever is greater.

E. Seismic requirement is Zone ___.

F. Water Penetration

1. Water penetration, for purposes of this Specification Section, is defined as the appearance of uncontrolled water on the indoor face of any part of the Work. "Controlled" water or condensation is that which is demonstrably drained harmlessly to the exterior of the Work without endangering or wetting adjacent surfaces or insulation, and not visible in the final construction.
2. No uncontrolled water penetration shall occur at a pressure differential of 12PSF as tested in accordance with ASTM E-331.

G. Air Leakage

1. Air leakage through the Work shall not exceed 0.06 CFM per square foot of wall area at a test pressure of 6.24 PSF as tested in accordance with ASTM E-283.

H. The Contract Drawings and Specifications may not delineate some conditions or modifications which may be required to complete the Work of this Section. The Glass Wall Contractor shall develop any conditions not detailed on the Contract Drawings or noted in this Section through shop drawings to the same level of aesthetics and in compliance with performance criteria, as intended in the Contract Drawings and the Specifications.

I. Fire Safing: for conditions where the VS-1 mullion passes in front of the slab edge as it is attached to a building, provide a continuous aluminum or steel slab edge metal that will allow the fire safing and smoke seal material to be applied per manufacturer's specifications. Use Hiliti-type system or equivalent.

1.06 Quality Assurance

A. Provide all VS-1 system components by one supplier.

B. Qualifications

1. Welding shall be done by skilled and qualified mechanics licensed where required in accordance with local building regulations. Welding shall be in conformance with AWS Structural Welding Code D1.1 as well as AISC "Specification for Architecturally Exposed Structural Steel".
2. The firm(s) engineering, fabricating and/or erecting the VS-1 Glass Wall shall have no less than five (5) years experience in work of similar scope and complexity in the United States. A minimum of five (5) projects must have been completed prior to the bid date of this project using the specific system being proposed.
3. The firm glazing the Work shall have no less than five (5) years experience in the United States in work of similar scope and complexity.
4. The alternate metal fabricators listed in section 2.02 bidding the metal scope of work for this project must submit to the architect at least ten (10) days prior to bid the following documentation:
   a. System technical description
   b. Drawings of the system applied to this project. Drawings must at a minimum include:
      .1 plans, elevations and sections of each wall type
      .2 details of system for each wall type: head, sill, interior vertical joints, interior horizontal joints, jambs, special details, anchor details
      .3 component details of each component
      .4 compliance information for section 1.06.2 & 3. List job name, location, year completed, name of GC, architect and PE with contact email and telephone of manager for each party.

4. b .5 calculations showing the sections and components are in compliance with the performance requirements of this specification.
.6 copy of mock up test report per section 1.06.B.5

5. Provide copy of test reports from independent 3rd party laboratory demonstrating system has passed the following tests:
a. static air infiltration test per ASTM E 283
b. static pressure water resistance per ASTM E 331 to 12 psf
c. uniform load deflection test per ASTM E 330 (30 psf)
d. above tests to be conducted with at least two (2) operable windows as part of the mock up test assembly. Windows to be cycled 300 times prior to conducting test.

1.07 Quality Control Program

A. Quality control procedures for all VS-1 system components including fasteners shall be carried out at the factory, including test loadings, unless historical data can be provided that is acceptable to the Architect. In all cases, the loads applied in the quality control test must attain the following minimum values:
1. Two times the value of the permissible member load for all parts in tension.
2. Two times the value of the permissible member load for all parts in compression.

B. Finish Quality Control program; all polished metal to #4 satin finish per ANSI B46.1.

C. See 2.03 for glass and glazing hardware quality control requirements.

D. Job site standard: see 3.02.C.

E. Provide quality control manual for all cast parts; include verification that all 100% of all cast parts were:
1. inspected
2. die-penetrant tested to assure no cracks are present in the cast part

Sample quantities of each cast part to have additional testing performed as follows;
3. X-ray to assure internal voids are minimal in quantity and size so as not to compromise the structural performance of the cast part.
4. Conduct tensile test on sample pour bars to assure structural properties of cast parts have been achieved by the casting process.

F. The Owner reserves the right to visit and inspect the fabricating facilities of the Glass Wall Contractor and any approved subcontractor to the Glass Wall Contractor at any time when the Work is in progress. All shop and field materials and workmanship shall be subject to inspection by the Owner at all times. Provide unimpeded access to the Work and any scaffolds utilized in the installation thereof without requiring execution of any special release forms.

1.08 Submittals

A. Vendor Approval
Within thirty (30) days of award of Contract the Glass Wall Contractor shall submit letters indicating the following sub-contractors and guarantee that their participation in the Work will not adversely affect the Guarantees listed below in 1.09:
1.Glass and glazing supplier
2.Metal system fabricator

B. Submission Schedule
Within thirty (30) days of award of Contract, the Contractor shall submit Glass Wall Contractor's schedule of all submittals, enumerating all drawing, samples and other submittals by name, quantity etc., and anticipated submittal date.

C. Progress Schedule
Within thirty (30) days of award of Contract the Glass Wall Contractor shall submit a schedule for the following items:
1. Glass order placement and lead time
2. Metal system fabrication
3. Casting fabrication
4. Installation & glazing

D. Quality Control Program
Within sixty (60) days of award of Contract the Glass Wall Contractor shall submit a description of the quality control programs that will be implemented for the glass, metal system and glazing hardware components of this Work.

E. Shop Drawings
Submit shop drawings in accordance with General Contract Provisions before the fabrication and installation of all Work and associated components. Include:
1. Wall elevations at 1/4" scale
2. Details sized as necessary to adequately show required information
3. Typical glazing unit elevation at 1" scale.
4. Show full size details of all conditions for every member of the glazing system. This includes the joint, anchorage, glazing system, and provision for expansion and contraction and sealant application. Provide isometric details of any conditions, as requested by the Owner and/or as required for proper assembly.
5. The details shall show all dimensions, sizes, thickness, materials, finishes, joint attachments, anchors and anchor mounts, and shall indicate erection tolerances, assumed building framing tolerances, thermal movement and movement due to live loads.
6. Include coordination details for related and adjoining Work, insert drawings and erection diagrams. Show relative lay-out for all adjacent walls, materials, all correctly dimensioned as based upon Contract Documents.

F. Calculations
1. Standard system: the VS-1 system is a pre-engineered structural cladding system. If the project uses the VS-1 system within its standard parameters, then an engineering certification by the metal supplier will be provided verifying that the VS-1 system as drawn for this project meets or exceeds the performance criteria set forth in this project.

2. Custom system: for custom use of the VS-1 system, submit structural calculations for the Work and anchorage to the building structure, with all materials and all connections fully dimensioned. Show stresses, deflections, thermal movement and ultimate factor of safety. All drawings and calculations shall bear the seal and signature of a Professional Engineer licensed in the State of _____. All calculations shall be in accordance with the current practices of the AISC and AISI except as otherwise provided in this Specification Section.

G. Test Reports

Submit air leakage and water penetration test results for the VS-1 system as described in 1.05.F & G.

H. Samples

Submit four samples each of all materials to be included in the Work in size and quantity as required by the Owner. These will include, but not be limited to, samples of:

1. Glass - 12" x 12" samples of each glass type fully prepared for installation.
2. Glazing hardware - mounting brackets with associated glass attachment devices, finished per Contract Documents.
3. Shop paint finish.
4. Head, jamb and sill channels finished per Contract Documents.
5. Gaskets, sealing materials, joint fillers, backer rods and flashing.
6. Field touch-up paint sample - 12" x 12".

I. Other

Submit certifications, guarantees, and all other required documentation including but not necessarily limited to those as described below:

1. Anchor setting diagrams
2. Guarantees
3. Metal finisher's quality control program
4. Casting company's quality control program
5. Glass manufacturer's quality control program
6. Glass manufacturer's certification of suitability of product for application described in Contract Documents
7. Sealant manufacturer's certification of suitability of sealant product(s) for application described in Contract Documents
8. Sealant manufacturer's test results
9. Maintenance Manual

1.09 Guarantees

A. The Contractor shall ensure that the Glass Wall Contractor provides to the Owner all guarantees called for in 1.09. The guarantee shall state that all Work in accord with Contract Drawings and Specifications, as amended by any changes thereto authorized by the Owner, free from defects in materials and workmanship, and weather tight for a period of one (1) year from the date of substantial completion of the Glass Wall Contractor's scope. Glass Wall Contractor shall agree to repair or replace defective materials and workmanship to "like new condition", including such exploratory work as necessary to determine the cause, during the guarantee period, at no additional cost to the Owner. Painted finishes shall carry the paint manufacturer's standard warranty.

Glass Wall Contractor shall be responsible for damage to the building and furnishings occasioned by defective materials or workmanship or damage as part of repairs to the Work. Guarantee does not cover damage resulting from vandalism or act of nature exceeding performance criteria.

B. Guarantee shall further state that glass shall be guaranteed against breakage due to defects in glass materials, glazing hardware, fabrication of insulating units, and/or installation for a period of ten years from the date of issuance of the Certification of Final Completion. This guarantee shall by provided by the glass manufacturer.

C. Silicone sealants shall carry a ten year warranty from the sealant manufacturer against adhesive or cohesive failure and staining in a form acceptable to the Owner.

D. Defective materials and workmanship is hereby defined to include, but not be limited to, evidence of:

1. Penetration of water into the building.
2. Air infiltration exceeding specified limits.
3. Structural failure of components resulting from forces within specified limits.
4. Delaminating of the insulated glass unit.
5. Cracking, crazing, flaking of coatings and opacifiers.
6. Discoloration of excessive fading, excessive non-uniformity, pitting, cracking, peeling, or crazing of finish or corrosion.
7. Secondary glass damage and/or damage due to falling VS-1 system curtain call components.
8. Adhesive or cohesive failure of sealant. Staining caused by sealants.
9. Crazing on surface of non-structural sealant.

E. The foregoing guarantee shall not, however, be a limitation on any rights which the Owner would have, either expressed on implied, in connection with this Contract in the absence of such a guarantee, the said guarantee being given only on the greater assurance of the Owner.

Part 2 - Products

2.01 VS-1 Glass wall system

The drawings and details show a VS-1 Glass Wall design concept utilizing a through-the-joint point supported approach for the glass wall solution. It is intended that a single company bear contractual responsibility for engineering, fabricating and erecting the VS-1 Glass Wall.

2.02 Manufacturers

A. VS-1 system structure (patent pending)
1. Approved manufacturer: Innovation Glass LLC, 54 Elizabeth Street, Red Hook, NY, tel. 845-758-3078; e-contact: franz@innovationglass.com <mailto:franz@innovationglass.com>
2. The following manufactures are acceptable suppliers of products equal to the VS-1 system. These manufacturers must comply prior to bid with the requirements of section 1.06. Alternate manufacturers' products shall not alter the performance, design intent, geometry, site lines, support locations and loads, interface details, or Architectural intent of the system
   a. Kawneer
   b. Vistawall
   c. US Aluminum

B. Glass
1. Viracon
2. Saint Gobain
3. AFG

Alternate manufacturers' products shall not alter the performance, design intent, geometry, thickness, support locations, interface details, or Architectural intent of the system. Submit product data to the architect for approval.

2.03 Components and Materials

A. Metals
1. Provide sizes, shapes and profiles as shown and/or required. Provide thickness, as necessary, to comply with structural loading requirements. Provide finish of carbon steel members per section 08900.
2. Aluminum extrusions: 6105-T5
3. Aluminum castings:
   d. minimum Fy (min) = 28 ksi
   e. ultimate tensile strength Fu (min) = 35ksi
4. Steel rectangular tubing - A500 Grade B, FY=46 Ksi
5. Steel pipes - A500 Gr. B, FY=46 Ksi, or A53 Gr. B
6. Gusset plates - A36 or A572 as required and specified on drawings.
7. Stainless Steel tubing - 304 stainless steel, unless exterior application exposed to weather then use 316 stainless steel.
8. Stainless Steel tension rods/cables and end fittings to be non-magnetic 300 series S.S., all with a #4 satin finish. If exterior application exposed to weather use only 316 stainless steel with #4 satin finish.
9. Carbon Steel tension rods - painted carbon A500 Grade B steel as called for in the final construction documents.
10. Tension rods end fittings to provide at least 1" take-up per assembly. Equivalent rod/cable connection detailing permitted subject to architect's approval.
11. Anchor gusset plates: Structural steel per ASTM A36 primed and painted as directed by Owner.
12. Perimeter channels: Provide aluminum of suitable alloy and temper as recommended by the manufacturer and finish applicator, to comply with the requirements of performance, fabrication and application of finish. Minimum thickness shall be 1/8".

B. Glass
1. Vertical glass to be tempered with following minimum thickness dimensions:
   a. inner lite: ___inches
   b. air space: __ inches
   c. outer lite: ___ inches
   d. low e coating on #2 surface; use low e performance criteria to meet or exceed the following:
      .1 Viracon VE _____
2. Overhead glass (if applicable) to have inner lite as a laminated element.
3. All glass shall be horizontally tempered to eliminate tong marks.
4. All edge work, holes and notches in the tempered glass panels shall be completed before tempering and shall comply with the requirements as follows:
   Dimensional tolerance on panel size shall be +/- 1mm of the theoretical dimension required.
   Squareness of each panel shall be within 3mm.
   Bow allowance shall be 0.1%.
5. Flatness shall be held to a maximum of 0.05mm.

C. Gaskets/Weather Stripping
1. All gaskets/weather-stripping and spacers shall be chemically compatible with the silicone sealant and suitable for specific purpose intended. Submit compliance data.
2. O-rings at pinch plates: ¼" diameter neoprene.

D. Sealants
1. All joints, which are sealed with sealant as part of the fabrication or erection procedure, shall be sealed with an approved low/medium modulus silicone sealant (exposed or concealed) in manufacturer's standard color as selected by the Owner. All perimeter sealant (metal to adjacent construction) shall be sealed with an approved low/medium modulus silicone sealant in manufacturer's standard color as selected by the Owner. Silicone sealant shall be as manufactured by General Electric (Silpruf) or Dow Corning (790 or 795) or Owner approve equal.

2. In using specified sealant, strictly observe printed instructions of sealant manufacturer regarding joint size, limitations, backer rod, mixing, cleaning, surface preparation, priming and application. A primer shall be used, unless written instructions from the sealant manufacturer advise to the contrary, and sealant manufacturer certifies that the lack of the use thereof will not reduce sealant performance. Sealant shall not be applied when substrates are wet or when the temperature is below 40oF, unless special low temperature application procedures, as recommended by the sealant manufacturer are followed.
3. Care shall be exercised to insure against "three surface adhesion". Bond breakers shall be provided where necessary.
4. Provide certification from sealant manufacturer that the sealant manufacturer has reviewed all sealant details and finds sealant suitable for the purpose intended, compatible with and will not stain the surfaces with which they are in contact. Statement as to compatibility, adhesion sufficiency and non-staining shall be accompanied by actual test results on production substrates performed in accord with applicable ASTM procedures. Cleaners used in laboratory testing shall be as intended for use on the Work and shall be VOC complaint with local governmental requirements.

2.04 Accessories

A. Fasteners visible or exposed to the weather to be fabricated from non-magnetic stainless steel (316 alloy or equivalent).
B. Self-drilling screws may not be used without prior approval from the VS-1 metal supplier.
C. Slip joint linings/sleeves/shim: Provide stainless steel sleeve spacers and/or suitable bearing pads, as required, to insure free noiseless movement between surfaces where expansion and deflection movements are intended. Provide "Eel Slip", "Nylatron" or high impact polystyrene shims or pads or equivalent plastic units or sizes and thickness (minimum 1/16" except 1/8" for "Eel Slip) recommended by the manufacturer to permanently prevent "freeze up" of joints.
D. Flashing require within the system and to adjacent construction shall be aluminum.

2.05 Fabrication

A. General
All parts of the Work shall be of the materials, design, sizes and thickness shown or note on the Contract Drawings and/or specified in this Specification Section or as may be required to meet the aesthetic intent and design performance requirements. Methods of fabrication and assemble, however, unless specifically stated, shall be at the discretion of the manufacturer and subject to the acceptance of the Owner.
B. Workmanship
All work shall be done by competent workman thoroughly skilled in the trade. Use no materials, equipment or practices that may adversely affect the functioning, appearance and durability of the completed Work and related construction. The work shall be accomplished in compliance with the specified criteria and without buckling, opening of joints, undue stress on fasteners, sealant and gaskets, opening of welds, cracking of glass, leakage, noises or other harmful effects.
C. Joints in Metalwork
All exposed Work shall be carefully matched to produce continuity of line and design with all joints, unless otherwise shown or specified, being accurately fitted joints and rigidly secured. Any exposed edges shall be finished to match face of the Work.
D. Shop Assembly
As far as practicable, all fitting and assemble work shall be done in the shop.
E. Exposed Fasteners
Exposed fasteners on finished surfaces will not be permitted unless otherwise shown on the Contract Drawings, or specified. Exposed fasteners, if permitted by the Owner, shall be painted to match the adjoining finish and shall be located as inconspicuously as possible.
F. Protection of Metals
Protection against galvanic action shall be provided where dissimilar materials or metals are in contact. This protection shall be provided by either painting the contact surfaces with two heavy coatings of zinc rich primer in different colors or by application of an appropriate sealant or tape or other approved galvanic isolator.
G. Welding
1. All welding shall be in accord with pertinent recommendations of the American Welding Society and shall be done with electrodes and/or methods recommended by the suppliers of the metals being welded. Type, size and spacing of welds shall be as shown on the approved shop drawings.
2. Welds behind finished surfaces shall be done in such a manner as not to cause distortion "weld telegraphing" and/or discoloration on the finished side. Weld spatter and welding oxides on finished surfaces will not be permitted.
H. Shop Painting of Carbon Steel
Items of carbon steel, unless galvanized after fabrication or scheduled for other finish shall, after completion of fabrication and welding, be thoroughly cleaned of all loose scale, filing, dirt and other foreign matter and shall be painted with two coats of an approved zinc rich primer in two different colors. Surface preparation shall be SSPC-SP6. See section 08900 for additional finish requirements.
I. Shop Painting of Aluminum
a. extrusions - factory paint all exposed metal surfaces in strict accordance with manufacturers recommended application procedures. Use PPG Duracron (or equivalent) paint to standard color selection for all interior applications; use PPG Duranar XL (or equivalent) paint for all exterior applications. Submit color chart.
b. castings - factory paint all exposed metal surfaces with a powder coat type paint to standard color selection; submit color chart.

Part 3 - Execution

3.01 Examination

A. After lines and grades have been established, and before beginning installation in any area, the Glass Wall Contractor shall examine all parts of the structure on which the Work is to be placed in that area. Should any conditions be found which, in his opinion, will prevent the proper execution of his Work, he shall report such conditions in writing to the General Contractor and make recommendations as to any necessary corrections. Installation or Work shall not proceed in that area until the General Contractor approves proposed installation methods.

3.02 Installation

A. Qualification of Workmen
All Work shall be performed by skilled workmen, especially trained and experienced in this type of Work.

B. Lines and Grades
Bench marks for elevations and building line offset marks for alignment shall be established on each floor level by the General Contractor, who shall be responsible for their accuracy. Should any error be found in their location, the Glass Wall Contractor shall so notify the General Contractor in writing, and installation Work shall not proceed in the affected areas until the errors have been corrected.

C. Erection Tolerances
1. General Contractor Tolerances
The following are the tolerances that the General Contractor must hold for the building steel framing, supporting the work of the Glass Wall Contractors' scope:

D. All steel work to AISC standards
1. Columns 1/8" per foot up to 50' in height, to a maximum of 1" out of plane of the wall and 2" in plane of the wall.
2. Beams - +/- ½" from theoretical location all directions

E. All Concrete work to ACI standards
1. Slabs - +/- ½" from theoretical elevations
2. VS-1 system Contractor Erection Tolerances
All parts of the Work shall be erected, plumb and true, in proper alignment and relation to established lines and grades, and as shown on approved shop drawings and/or erection drawings. The following are the guidelines for the VS-1 system Contractor for field erection tolerances:

F. Survey and layout connections to the building within +/- 1/8" from theoretical locations.

G. Vertical framing members must be plumb to within +/- 1/8" from theoretical position.
1. At a location of his choice, but adjacent to completed opaque wall, the Glass Wall Contractor shall erect the following full bay assemblies which upon acceptance by the Owner shall serve as job standards for completion of the Work:
VS-1 system extending one complete glazing bay and full height.

H. Welding
All welding shall be done by skilled mechanics, certified, qualified or licensed in accord with local building regulations and shall conform to the recommended practices of the American Welding Society and approved shop drawing requirements. Welds and adjoining burnt areas shall be thoroughly cleaned and painted with two coats of paint as specified above. Protect glass and other finished surfaces from damage, and prevent causing fires.

I. Use of Sealant Materials
1. Application of exterior sealant in moving joints shall not commence until the Work of this Specification Section has been "topped out" and the Owner has released Work for sealant application.
2. Sealing materials specified in this Specification Section shall be used in strict accordance with the manufacturer's printed instructions and shall be applied only by mechanics trained or experienced in their use.
3. Before applying sealing materials, all mortar, dirt, dust, moisture, protective coatings and other foreign matter shall completely be removed from surfaces it will contact. Comply with manufacturer's instructions for final wiping of surfaces immediately before application of primer and glazing sealants.
4. Adjoining surfaces shall be masked, when required to maintain a clean and neat appearance. Sealant compounds shall be tooled to fill the joint and provide a smooth finish surface.
5. Clean excess sealant from glass and support members immediately after application, using solvents or cleaners recommended by the manufacturers.

J. Anchorage
Anchorage of the Work to the structure shall be by approved methods in strict accordance with approved shop and/or erection drawings. Supporting brackets shall be so designed as to provide three dimensional adjustment and accurate location of all components. After the unit is properly positioned, all connections so designated on approved shop drawings shall be rigidly fixed by welding or other positive means.

K. Glazing
1. Before glazing, the backer structure shall be checked to see that it is square, plumb and true plane, and within tolerance to install the glass. Perimeter glazing channel clearance shall be sufficient to avoid all point loading.
2. If found otherwise, glazing shall not proceed until proper corrections are made. Correct glass sizes to insure adequate "glass bite" shall be verified by field measurement. Glass shall be installed in such manner to assure proper "glass bite" at all channels.
3. No glass shall be cut after leaving the factory.
4. Install in accordance with Glazing Manufacturer's requirements and the shop drawings.
5. Employ only experienced glaziers who have had previous experience with materials and systems being applied. Use tools and equipment recommended by the glass manufacturer.
6. Plate-to-plate joints of glass are sealed with silicone sealant. Joint dimensions shall be maintained to be compatible with sealant properties and live load movement of the structure.
7. Bolt Torque: Torque bolts to torques specified on shop drawings using calibrated tool. Lock torqued bolts into position to prevent back-off. Reset calibrations regularly to ensure accurate torquing.
8. Maintain a minimum temperature of 40oF during glazing unless the manufacturer of the glazing material specifically agrees in writing to application of this material at lower temperature. If job progress of other conditions require glazing work when temperature is below 40oF (or below the minimum temperature recommended by the manufacturer), consult the manufacturer and establish in writing the minimum provisions required to ensure satisfactory work.
9. Inspect each unit of glass immediately before installation. Glass which has significant impact damage at edges, scratches or abrasion of faces, or any other evidence of damage shall not be installed.

L. Removal of Debris
All debris caused by or incidental to the installation of this Work shall be deposited in trash receptacles provided by the General Contractor on a daily basis, as the Work progresses.

3.03 Cleaning and Protection

A. Remove from the installed Work all sealant smears or other unsightly marks caused by Glass Wall Contractor's workmen that would not be readily removed by normal final cleaning with mild soap and water.
B. Glass Wall Contractor shall be responsible for any damage or disfigurement of the Work caused by his own personnel.
C. Final cleaning excluded from the scope of this section.

3.04 Inspection

The Owner will inspect the Work. The Glass Wall Contractor shall cooperate with the Owner's inspection personnel and allow unrestricted access to the Work, both in plant and field, and to any scaffolds used in the performance of the Work without requiring any scaffold releases, in order to facilitate such inspection. The Glass Wall Contractor to schedule all required field inspections required by the Contract Documents through the General Contractor.
The Glass Wall Contractor shall perform all tests that may be required by the inspection personnel as a condition precedent to issuance of the Certificate of Completion.

3.05 "As-Built" Drawings and Maintenance Manual

Submit to the Owner three copies of "as-built shop drawings" and an assembled and bound maintenance manual, describing the materials, devices, and procedures to be followed in cleaning and maintaining the Work. Include manufacturers' brochures describing the actual materials used in the Work, including metal alloys, finishes, glass, sealants, gaskets and all other major components.

-End of Section-

On Behalf Of: Allen & Allen Company
Address: 701 Sanfernando Street
San Antonio, TX 78207
Phone: 210-344-6099
Fax: 2102251146
Bid By: JAMES OTREMBA
Contact: James Otremba
Email: jameso@lumberhardware.com
Address: P.O. Box 5140
San Antonio, TX 78201
Phone: 210-413-1886
Fax: 210-733-5043

Bill To: SAN ANTONIO LIGHT BLDG
420 BROADWAY
SAN ANTONIO, TX

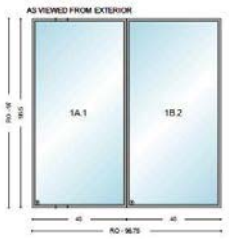
Job Site: SAN ANTONIO LIGHT BLDG
420 BROADWAY
SAN ANTONIO, TX

Quote 673741D: FORD POWELL & CARSON
Project: SAN ANTONIO LIGHT BUILDING
Printed: 8/31/2017 12:14:18 AM

Line	Label	UOM	Quantity	Cubic Feet	Unit Price	Extended Price
001	TYPE D UPPER	**EA**	(5)	**34.13**	**$3,963.87**	**$19,819.35**

Field Mull - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Overall Rough Opening*:
97-1/4" X 97-1/2"

Overall Frame Size:
96-1/4" X 96-1/2"

Overall Unit Dimension:
96-1/4" X 96-1/2"

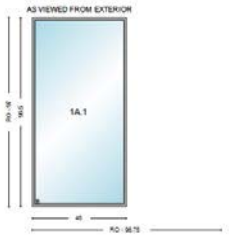
001-1 TYPE D UPPER **34.13** **$2,219.44** **$11,097.20**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1A.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Clear glass, Tempered Glass
Species-Finish-Color
Unit 1A.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Frame Size:
96-1/4" X 96-1/2"

001-8 TYPE D UPPER **34.13** **$1,744.43** **$8,722.15**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.2: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1B.2: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Scaled to Fit

Unit 1B.2: Clear glass, Tempered Glass
Species-Finish-Color
Unit 1B.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Frame Size:
96-1/4" X 96-1/2"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

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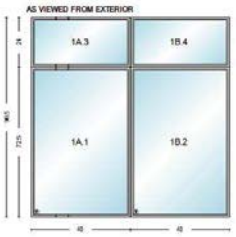
002 TYPE E LOWER **EA** (3) **34.13** **$4,631.87** **$13,895.61**

Line not mulled at Kolbe - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

002-1 TYPE E LOWER **34.13** **$2,605.52** **$7,816.56**

Unit
Unit 1A.1: VLDS (Assy 1)

Unit 1A.3: VLDS4020-1 (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.3: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1A.1, 1A.3: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Clear glass, Tempered Glass

Unit 1A.3: Clear glass
Species-Finish-Color
Unit 1A.1, 1A.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

Rough Opening*:
97-1/4" X 97-1/2"

Frame Size:
96-1/4" X 96-1/2"

Unit Dimension:
96-1/4" X 96-1/2"

002-8 TYPE E LOWER **34.13** **$2,026.35** **$6,079.05**

Unit
Unit 1B.2: VLDS (Assy 1)

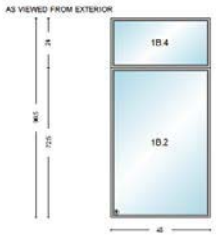
Unit 1B.4: VLDS4020-1 (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.2, 1B.4: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1B.2, 1B.4: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.2: Clear glass, Tempered Glass

Unit 1B.4: Clear glass
Species-Finish-Color
Unit 1B.2, 1B.4: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.2, 1B.4: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

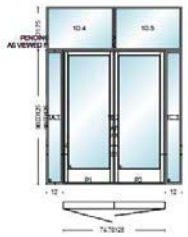
Rough Opening*:
97-1/4" X 97-1/2"

Frame Size:
96-1/4" X 96-1/2"

Unit Dimension:
96-1/4" X 96-1/2"

003	TYPE F DR	**EA**	(3)	**8.67**	**$10,656.29**	**$31,968.87**

Line not mulled at Kolbe - See child lines below: }



Scaled to Fit

VistaLuxe products utilizing Performance Divided Lite bar sizes of 1 3/8" or 2 1/4" or 4 1/2" may have a composite material for the exterior bar.
Rectangular Direct Set Units with a Frame Size less than 15" x 15" will be made with a Wood Core instead of the standard Vinyl Core.
Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

003-1 TYPE F DR **8.67** **$3,229.80** **$9,689.40**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1: Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 1W2H, 2 1/4" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1: Pine, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

VistaLuxe products utilizing Performance Divided Lite bar sizes of 1 3/8" or 2 1/4" or 4 1/2" may have a composite material for the exterior bar.
Rectangular Direct Set Units with a Frame Size less than 15" x 15" will be made with a Wood Core instead of the standard Vinyl Core.
Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

Rough Opening*:
100-9/32" X 131-1/32"

Frame Size:
99-9/32" X 130-1/32"

Unit Dimension:
99-9/32" X 130-1/32"

003- TYPE F DR **30.97** **$4,530.65** **$13,591.95**

Unit
VLX6080 (Assy 1)

VistaLuxe Rectangle Exterior Swinging Door
Stiles & Rails
Unit 1B.2 Panel 1, 1B.2 Panel 2: Bottom Rail (10")
Unit
Unit 1B.2: Extruded Sash, Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Outswing, Active - Active : Primary Left Hinging, Accent Frame, Full Lite Panel Style, 1 3/4" Panel, 1 3/4" Frame
Glass
Unit 1B.2: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating, Square (S4S) Bead

Unit 1B.2 Glass 1, 1B.2 Glass 2: Clear glass, Tempered Glass
Hardware-Accessories
Unit 1B.2: No Lock w/ 2 Point Flush Bolt Door Hardware, Astragal, Black Painted Hinges, No Screen - No Prep, Yes
Species-Finish-Color
Unit 1B.2: Pine, No Fingerjoints, 70% Fluoropolymer Exterior Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Coal Black Exterior, Colored Prefinish Interior Sash, Colored Prefinish Interior Frame, Match All Interior Colors, Coal Black Interior, Black Weatherstrip
Casing-Jambs-Trim
Unit 1B.2: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

Rough Opening*:
100-9/32" X 131-1/32"

Frame Size:
99-9/32" X 130-1/32"

Unit Dimension:
99-9/32" X 130-1/32"

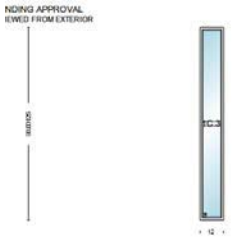
003- TYPE F DR **8.67** **$1,186.62** **$3,559.86**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1C.3: Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1C.3: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.3: Clear glass, Tempered Glass
Lite Divisions
Unit 1C.3: Performance Divided Lites, Colonial, 1W2H, 2 1/4" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1C.3: Pine, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.3: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

VistaLuxe products utilizing Performance Divided Lite bar sizes of 1 3/8" or 2 1/4" or 4 1/2" may have a composite material for the exterior bar.
Rectangular Direct Set Units with a Frame Size less than 15" x 15" will be made with a Wood Core instead of the standard Vinyl Core.
Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
100-9/32" X 131-1/32"

Frame Size:
99-9/32" X 130-1/32"

Unit Dimension:
99-9/32" X 130-1/32"

003- TYPE F DR **23.22** **$1,709.22** **$5,127.66**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1D.4, 1D.5: Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1D.4, 1D.5: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Scaled to Fit

Unit 1D.4, 1D.5: Clear glass
Species-Finish-Color
Unit 1D.4, 1D.5: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1D.4, 1D.5: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Rough Opening*:
100-9/32" X 131-1/32"

Frame Size:
99-9/32" X 130-1/32"

Unit Dimension:
99-9/32" X 130-1/32"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

004 TYPE A **EA** (10) **26.70** **$1,480.56** **$14,805.60**

Scaled to Fit

Rough Opening:
44-1/2" X 82-7/8"

Frame Size:
44" X 82-3/8"

Unit Dimension:
44" X 82-3/8"

*** Unit ***
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set

*** Unit ***
Unit 1.1: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop

*** Glass ***
Unit 1.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.1: Clear glass, Tempered Glass

*** Species-Finish-Color ***
Unit 1.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Applied

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

005	TYPE S-18	**EA**	(4)	**26.70**	**$1,853.68**	**$7,414.72**

Scaled to Fit

Rough Opening:
44-1/2" X 82-7/8"

Frame Size:
44" X 82-3/8"

Unit Dimension:
44" X 82-3/8"

*** Unit ***
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set

*** Unit ***
Unit 1.1: VistaLuxe, Accent Match Casement/Awning Frame

*** Glass ***
Unit 1.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.1: Clear glass, Tempered Glass

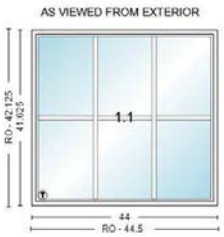
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Applied

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

006 TYPE S-2 **EA** (1) **8.03** **$1,095.11** **$1,095.11**



Scaled to Fit

Rough Opening:
44-1/2" X 42-1/8"

Frame Size:
44" X 41-5/8"

Unit Dimension:
44" X 41-5/8"

*** Unit ***
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set

*** Unit ***
Unit 1.1: VistaLuxe, Accent Match Casement/Awning Frame

*** Glass ***
Unit 1.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.1: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W2H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame

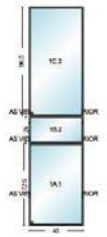
*** Casing-Jambs-Trim ***
Unit 1.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Applied

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

007 TYPE C / B **EA** (1) **25.64** **$4,397.22** **$4,397.22**

Field Mull - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Overall Rough Opening*:
49" X 194-1/2"

Overall Frame Size:
48" X 193-1/2"

Overall Unit Dimension:
48" X 193-1/2"

007-1 TYPE C / B **25.64** **$2,036.70** **$2,036.70**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1A.1: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Clear glass, Tempered Glass
Species-Finish-Color
Unit 1A.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

Frame Size:
48" X 193-1/2"

007- TYPE C / B **5.05** **$616.09** **$616.09**

Unit
VLDS4020-1 (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.2: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1B.2: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Scaled to Fit

Unit 1B.2: Clear glass
Species-Finish-Color
Unit 1B.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Frame Size:
48" X 193-1/2"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

007- TYPE C / B **34.13** **$1,744.43** **$1,744.43**

Unit
VLDS (Assy 1)

Scaled to Fit

VistaLuxe Rectangle Direct Set
Unit
Unit 1C.3: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1C.3: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.3: Clear glass, Tempered Glass
Species-Finish-Color
Unit 1C.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

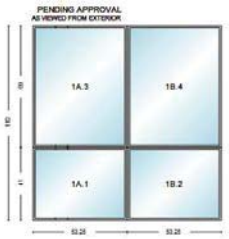
Frame Size:
48" X 193-1/2"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

008 TYPE L **EA** (1) **43.16** **$4,649.86** **$4,649.86**

Line not mulled at Kolbe - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

008-1 TYPE L **43.16** **$2,641.00** **$2,641.00**

Unit
Unit 1A.1: VLDS (Assy 1)

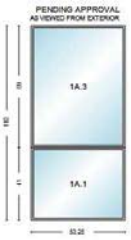
Unit 1A.3: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.3: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1A.1, 1A.3: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Custom Glass = SPANDREL GLASS, Custom glass

Unit 1A.3: Clear glass
Species-Finish-Color
Unit 1A.1, 1A.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-3/4" X 111"

Frame Size:
106-3/4" X 110"

Unit Dimension:
106-3/4" X 110"

008-8 TYPE L **43.16** **$2,008.86** **$2,008.86**

Unit
Unit 1B.2: VLDS (Assy 1)

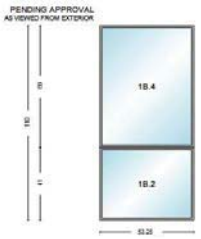
Unit 1B.4: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.2, 1B.4: VistaLuxe, Accent Match Casement/Awning Frame, Square Stop
Glass
Unit 1B.2, 1B.4: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.2: Custom Glass = SPANDREL GLASS, Custom glass

Unit 1B.4: Clear glass
Species-Finish-Color
Unit 1B.2, 1B.4: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Colored Prefinish Interior Frame, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.2, 1B.4: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-3/4" X 111"

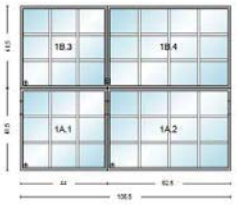
Frame Size:
106-3/4" X 110"

Unit Dimension:
106-3/4" X 110"

009	S-5 *CLEAR IG*	**EA**	(2)	**32.56**	**$5,874.72**	**$11,749.44**

Line not mulled at Kolbe - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

009-1 S-5 *CLEAR IG* **32.56** **$3,336.38** **$6,672.76**

Unit
Unit 1A.1: VLDS (Assy 1)

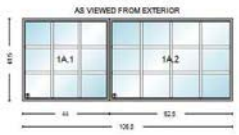
Unit 1A.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1, 1A.2: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1, 1A.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1A.2: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1, 1A.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-1/2" X 84-1/4"

Frame Size:
106-1/2" X 83-1/4"

Unit Dimension:
106-1/2" X 83-1/4"

009-8 S-5 *CLEAR IG* **32.56** **$2,538.34** **$5,076.68**

Unit
Unit 1B.3: VLDS (Assy 1)

Unit 1B.4: VLDS (Assy 2)

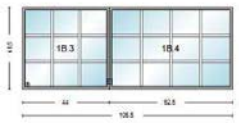
VistaLuxe Rectangle Direct Set
Unit
Unit 1B.3, 1B.4: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.3, 1B.4: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.3: Clear glass, Tempered Glass

Unit 1B.4: Clear glass
Lite Divisions
Unit 1B.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1B.4: Performance Divided Lites, Colonial, Align Horizontal Bars, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.3, 1B.4: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.3, 1B.4: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-1/2" X 84-1/4"

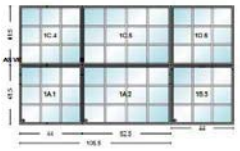
Frame Size:
106-1/2" X 83-1/4"

Unit Dimension:
106-1/2" X 83-1/4"

010	S-4 *CLEAR IG*	**EA**	(5)	**32.56**	**$8,624.38**	**$43,121.90**

Line not mulled at Kolbe - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

010-1 S-4 *CLEAR IG* **32.56** **$3,989.08** **$19,945.40**

Unit
Unit 1A.1: VLDS (Assy 1)

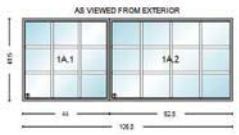
Unit 1A.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1, 1A.2: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1, 1A.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1A.2: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1, 1A.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

010- S-4	**8.01**	**$1,191.08**	**$5,955.40**

Unit
VLDS (Assy 1)

Scaled to Fit

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.3: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.3: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.3: Clear glass, Tempered Glass
Lite Divisions
Unit 1B.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

010- S-4 **32.56** **$2,395.74** **$11,978.70**

Unit
Unit 1C.4: VLDS (Assy 1)

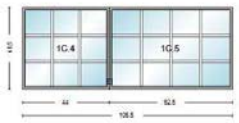
Unit 1C.5: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1C.4, 1C.5: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1C.4, 1C.5: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.4, 1C.5: Clear glass
Lite Divisions
Unit 1C.4: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1C.5: Performance Divided Lites, Colonial, Align Horizontal Bars, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1C.4, 1C.5: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.4, 1C.5: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

010- S-4 **8.01** **$1,048.48** **$5,242.40**

Unit
VLDS (Assy 1)

Scaled to Fit

VistaLuxe Rectangle Direct Set
Unit
Unit 1D.6: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1D.6: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1D.6: Clear glass
Lite Divisions
Unit 1D.6: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1D.6: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1D.6: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

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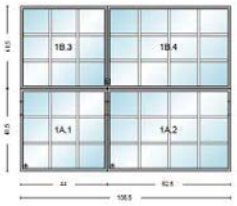
011 S-5 *LOW-E IG* **EA** (1) **32.56** **$5,677.93** **$5,677.93**

Line not mulled at Kolbe - See child lines below: }



Scaled to Fit

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

011-1 S-5 *LOW-E IG* **32.56** **$3,309.28** **$3,309.28**

Unit
Unit 1A.1: VLDS (Assy 1)

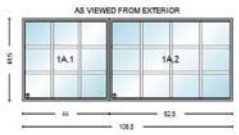
Unit 1A.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1, 1A.2: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1, 1A.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1A.2: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1, 1A.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-1/2" X 84-1/4"

Frame Size:
106-1/2" X 83-1/4"

Unit Dimension:
106-1/2" X 83-1/4"

011-8 S-5 *LOW-E IG* **32.56** **$2,368.65** **$2,368.65**

Unit
Unit 1B.3: VLDS (Assy 1)

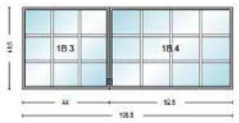
Unit 1B.4: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.3, 1B.4: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.3, 1B.4: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.3, 1B.4: Clear glass
Lite Divisions
Unit 1B.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1B.4: Performance Divided Lites, Colonial, Align Horizontal Bars, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.3, 1B.4: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.3, 1B.4: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
107-1/2" X 84-1/4"

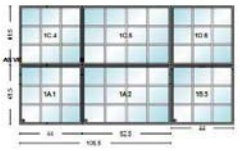
Frame Size:
106-1/2" X 83-1/4"

Unit Dimension:
106-1/2" X 83-1/4"

012	S-4 *LOW-E IG*	**EA**	(1)	**32.56**	**$8,543.11**	**$8,543.11**

Line not mulled at Kolbe - See child lines below: }

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

012-1 S-4 *LOW-E IG* **32.56** **$3,961.99** **$3,961.99**

Unit
Unit 1A.1: VLDS (Assy 1)

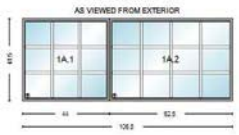
Unit 1A.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1, 1A.2: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1, 1A.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1A.2: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1, 1A.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

012- S-4 *LOW-E IG* **8.01** **$1,177.53** **$1,177.53**

Unit
VLDS (Assy 1)

Scaled to Fit

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.3: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.3: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.3: Clear glass, Tempered Glass
Lite Divisions
Unit 1B.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

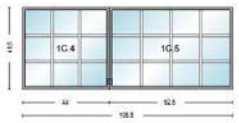
Unit Dimension:
150-3/4" X 83-1/4"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

012- S-4 *LOW-E IG* **32.56** **$2,368.65** **$2,368.65**

Unit
Unit 1C.4: VLDS (Assy 1)

Unit 1C.5: VLDS (Assy 2)



Scaled to Fit

VistaLuxe Rectangle Direct Set
Unit
Unit 1C.4, 1C.5: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1C.4, 1C.5: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.4, 1C.5: Clear glass
Lite Divisions
Unit 1C.4: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1C.5: Performance Divided Lites, Colonial, Align Horizontal Bars, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1C.4, 1C.5: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.4, 1C.5: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

012- S-4 *LOW-E IG* **8.01** **$1,034.94** **$1,034.94**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1D.6: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1D.6: Dual Glazed, H-K LoE 270 Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Scaled to Fit

Unit 1D.6: Clear glass
Lite Divisions
Unit 1D.6: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1D.6: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1D.6: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Rough Opening*:
151-3/4" X 84-1/4"

Frame Size:
150-3/4" X 83-1/4"

Unit Dimension:
150-3/4" X 83-1/4"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

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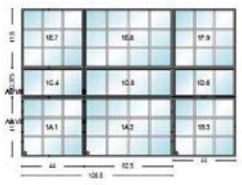
013 S-11 *CLEAR IG* **EA** (2) **32.56** **$11,632.87** **$23,265.74**

Line not mulled at Kolbe - See child lines below: }



Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

013-1 S-11 *CLEAR IG* **32.56** **$4,798.93** **$9,597.86**

Unit
Unit 1A.1: VLDS (Assy 1)

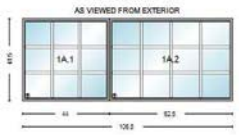
Unit 1A.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1, 1A.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1, 1A.2: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1, 1A.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1A.2: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1, 1A.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1, 1A.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

013- S-11 *CLEAR IG* **8.01** **$1,191.08** **$2,382.16**

Unit
VLDS (Assy 1)

Scaled to Fit

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.3: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.3: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.3: Clear glass, Tempered Glass
Lite Divisions
Unit 1B.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

013- S-11 *CLEAR IG* **15.99** **$1,524.95** **$3,049.90**

Unit
Unit 1C.4: VLDS (Assy 1)

Unit 1C.5: VLDS (Assy 2)

Scaled to Fit

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

VistaLuxe Rectangle Direct Set
Unit
Unit 1C.4, 1C.5: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1C.4, 1C.5: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.4, 1C.5: Clear glass
Lite Divisions
Unit 1C.4: Performance Divided Lites, Colonial, Align Vertical Bars, 3W1H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1C.5: Performance Divided Lites, Colonial, Align Vertical Bars, 4W1H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1C.4, 1C.5: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.4, 1C.5: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

013- S-11 *CLEAR IG*	**3.93**	**$673.69**	**$1,347.38**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1D.6: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1D.6: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1D.6: Clear glass
Lite Divisions
Unit 1D.6: Performance Divided Lites, Colonial, Align Vertical Bars, 3W1H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1D.6: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1D.6: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Scaled to Fit

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

013- S-11 *CLEAR IG* **32.56** **$2,395.74** **$4,791.48**

Unit
Unit 1E.7: VLDS (Assy 1)

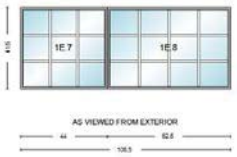
Unit 1E.8: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set
Unit
Unit 1E.7, 1E.8: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1E.7, 1E.8: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1E.7, 1E.8: Clear glass
Lite Divisions
Unit 1E.7: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

Unit 1E.8: Performance Divided Lites, Colonial, 4W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1E.7, 1E.8: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1E.7, 1E.8: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

013- S-11 *CLEAR IG* **8.01** **$1,048.48** **$2,096.96**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1F.9: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1F.9: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Scaled to Fit

Unit 1F.9: Clear glass
Lite Divisions
Unit 1F.9: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1F.9: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1F.9: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Rough Opening*:
151-3/4" X 104-7/8"

Frame Size:
150-3/4" X 103-7/8"

Unit Dimension:
150-3/4" X 103-7/8"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

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014 TYPE K *CLEAR IG* **EA** (2) **6.80** **$3,480.71** **$6,961.42**

Field Mull - See child lines below: }

Scaled to Fit

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

Overall Rough Opening*:
38-3/8" X 103-5/8"

Overall Frame Size:
37-3/8" X 102-5/8"

Overall Unit Dimension:
37-3/8" X 102-5/8"

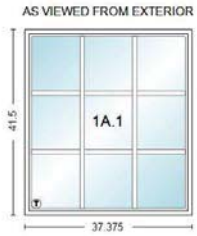
014-1 TYPE K *CLEAR IG* **6.80** **$1,698.21** **$3,396.42**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1A.1: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1A.1: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1A.1: Clear glass, Tempered Glass
Lite Divisions
Unit 1A.1: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1A.1: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1A.1: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.



Scaled to Fit

Frame Size:
37-3/8" X 102-5/8"

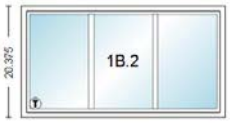
014- TYPE K *CLEAR IG* **3.34** **$687.49** **$1,374.98**

Unit
VLDS (Assy 1)

VistaLuxe Rectangle Direct Set
Unit
Unit 1B.2: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1B.2: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1B.2: Clear glass, Tempered Glass
Lite Divisions
Unit 1B.2: Performance Divided Lites, Colonial, Align Vertical Bars, 3W1H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1B.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1B.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

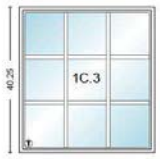


Scaled to Fit

Frame Size:
37-3/8" X 102-5/8"

014- TYPE K *CLEAR IG* **6.60** **$1,095.01** **$2,190.02**

Unit
VLDS (Assy 1)



AS VIEWED FROM EXTERIOR
37.375

Scaled to Fit

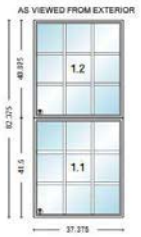
VistaLuxe Rectangle Direct Set
Unit
Unit 1C.3: VistaLuxe, Accent Match Casement/Awning Frame
Glass
Unit 1C.3: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1C.3: Clear glass, Tempered Glass
Lite Divisions
Unit 1C.3: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars
Species-Finish-Color
Unit 1C.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame
Casing-Jambs-Trim
Unit 1C.3: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Frame Size:
37-3/8" X 102-5/8"

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffener selected. Kolbe recommends adding an additional 1/2" to the standard rough opening.
Steel Stiffeners require specialized attachment anchors connecting the mull to the rough opening. Anchors are shipped loose. See installation instructions which are shipped with the anchors.

015	TYPE H *CLEAR IG*	**EA**	(4)	**22.68**	**$2,299.25**	**$9,197.00**



Scaled to Fit

Rough Opening*:
38-3/8" X 83-3/8"

Frame Size:
37-3/8" X 82-3/8"

Unit Dimension:
37-3/8" X 82-3/8"

*** Unit ***
Unit 1.1: VLDS (Assy 1)

Unit 1.2: VLDS (Assy 2)

VistaLuxe Rectangle Direct Set

*** Unit ***
Unit 1.1, 1.2: VistaLuxe, Accent Match Casement/Awning Frame

*** Glass ***
Unit 1.1, 1.2: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.1, 1.2: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1, 1.2: Performance Divided Lites, Colonial, 3W3H, 7/8" Bars, Black Internal Spacers, Square (S4S) Bars

*** Species-Finish-Color ***
Unit 1.1, 1.2: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Coal Black Exterior Lite Bars, Colored Prefinish Interior Frame, Coal Black Interior Bars, Coal Black Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1, 1.2: No Floor Sill on Bottommost Window(s), No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs, Jambs Loose

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

016 TYPE J DR **EA** (1) **72.54** **$5,473.49** **$5,473.49**

Scaled to Fit

Rough Opening*:
75-25/32" X 132-21/32"

Frame Size:
74-25/32" X 131-21/32"

Unit Dimension:
74-25/32" X 131-21/32"

*** Unit ***
Unit 1.1: VLX6080 (Assy 1)

Unit 1.2, 1.3: VLDS (Assy 2)

Unit 1.1: VistaLuxe Rectangle Exterior Swinging Door

Unit 1.2, 1.3: VistaLuxe Rectangle Direct Set

*** Stiles & Rails ***
Unit 1.1 Panel 1, 1.1 Panel 2: Bottom Rail (10")

*** Unit ***
Unit 1.1: Extruded Sash, Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Outswing, Active - Active : Primary Left Hinging, Accent Frame, Full Lite Panel Style, 1 3/4" Panel, 1 3/4" Frame

Unit 1.2, 1.3: Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Accent Match Casement/Awning Frame, Square Stop

*** Glass ***
Unit 1.1: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating, Square (S4S) Bead

Unit 1.1 Glass 1, 1.1 Glass 2: Clear glass, Tempered Glass

Unit 1.2, 1.3: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.2, 1.3: Clear glass

*** Hardware-Accessories ***
Unit 1.1: No Lock w/ 2 Point Flush Bolt Door Hardware, Astragal, Black Painted Hinges, No Screen - No Prep, Yes

*** Species-Finish-Color ***
Unit 1.1: Pine, No Fingerjoints, 70% Fluoropolymer Exterior Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Coal Black Exterior, Unfinished Interior Sash, Unfinished Interior Frame, Black Weatherstrip

Unit 1.2, 1.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1, 1.2, 1.3: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

017 TYPE G DR **EA** (2) **67.92** **$5,355.90** **$10,711.80**

Scaled to Fit

Rough Opening*:
75-25/32" X 124-9/32"

Frame Size:
74-25/32" X 123-9/32"

Unit Dimension:
74-25/32" X 123-9/32"

*** Unit ***
Unit 1.1: VLX6080 (Assy 1)

Unit 1.2, 1.3: VLDS (Assy 2)

Unit 1.1: VistaLuxe Rectangle Exterior Swinging Door

Unit 1.2, 1.3: VistaLuxe Rectangle Direct Set

*** Stiles & Rails ***
Unit 1.1 Panel 1, 1.1 Panel 2: Bottom Rail (10")

*** Unit ***
Unit 1.1: Extruded Sash, Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Outswing, Active - Active : Primary Left Hinging, Accent Frame, Full Lite Panel Style, 1 3/4" Panel, 1 3/4" Frame

Unit 1.2, 1.3: Unit Notes = PRICE DOOR UNIT WITHOUT ASTRAGAL BUT WITH PANEL EDGE MOHAIR WEATHERSTRIP, VistaLuxe, Accent Match Casement/Awning Frame, Square Stop

*** Glass ***
Unit 1.1: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating, Square (S4S) Bead

Unit 1.1 Glass 1, 1.1 Glass 2: Clear glass, Tempered Glass

Unit 1.2, 1.3: Dual Glazed, Insulated Glass, Black Spacer, Glass Preserve without Neat Coating

Unit 1.2, 1.3: Clear glass

*** Hardware-Accessories ***
Unit 1.1: No Lock w/ 2 Point Flush Bolt Door Hardware, Astragal, Black Painted Hinges, No Screen - No Prep, Yes

*** Species-Finish-Color ***
Unit 1.1: Pine, No Fingerjoints, 70% Fluoropolymer Exterior Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Coal Black Exterior, Unfinished Interior Sash, Unfinished Interior Frame, Black Weatherstrip

Unit 1.2, 1.3: Pine, No Fingerjoints, Coal Black 70% Fluoropolymer Exterior, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1, 1.2, 1.3: ADA-compliant w/ Thermal Break Door Sill, Dark Bronze Anodized Door Sill, No Casing, 6-5/16" Clips Installation Clips, Nailing Fin, 4-9/16" Jambs

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

Notes / Totals / Signature

Total Quantity:	103	**Total Cubic Feet:** 2,510.58	**Total Perimeter Feet:** 41,160.38	**Sub-Total*:**	$222,748.17
				Total Tax:	$18,376.74
				Total Freight:	$175.00
				Total Labor:	$0.00
				Total Amount:	$241,299.91

Total Amount includes Kolbe and/or Non-Kolbe lines if applicable

Signature: _____ **Date:** _____

Purchase Order: _____

On Behalf Of: Allen & Allen Company
Address: 701 Sanfernando Street
San Antonio, TX 78207
Phone: 210-344-6099
Fax: 210-225-1146
Bid By: JAMES OTREMBA
Contact: James Otremba
Email: jameso@lumberhardware.com
Address: P.O. Box 5140
San Antonio, TX 78201
Phone: 210-413-1886
Fax: 210-733-5043

Bill To/Ship To: SAN ANTONIO LIGHT BUILDING
DOWN TOWN
SAN ANTONIO,

Job Site: SAN ANTONIO LIGHT BUILDING
DOWN TOWN
SAN ANTONIO,

Allen & Allen Company
LUMBER & HARDWARE

KOLBE
WINDOWS & DOORS
We're for the visionaries.™

Quote 552360D: FORD POWELL AND CARSON
Project: SAN ANTONIO LIGHT BUILDING *all fixed glass*
Printed: 5/6/2016 12:33:53 AM

Line	Label	UOM	Quantity	Cubic Feet	Unit Price	Extended Price
001	TYPE A	EA	(2)	56.45	[redacted]	

*** Unit ***
UTR (Assy 1)

Ultra Rectangle CS/AW Transom

*** Unit ***
Unit 1.1: Match Crank Out Profile, Direct Set, Beveled Stop

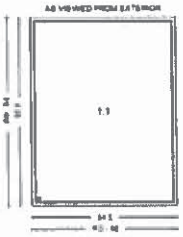
*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating

Unit 1.1: Clear glass, Tempered Glass

*** Species-Finish-Color ***
Unit 1.1: Pine, Slate 70% Fluoropolymer Exterior, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), Slate Exterior Casing/Accessories, 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

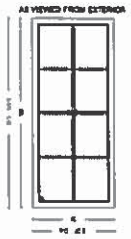
Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.



Scaled to Fit

Rough Opening:
65" X 84"
Frame Size:
64-1/2" X 83-1/2"
Unit Dimension:
66-7/16" X 86-5/8"

002 TYPE B **EA** (4) **38.99** [redacted]



Scaled to Fit

Rough Opening:
40-1/2" X 93-1/2"
Frame Size:
40" X 93"
Unit Dimension:
41-15/16" X 96-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

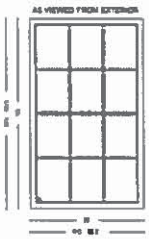
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 2W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

003 TYPE C **EA** (2) **54.59** [redacted]



Scaled to Fit

Rough Opening:
56-1/2" X 93-1/2"
Frame Size:
56" X 93"
Unit Dimension:
57-15/16" X 96-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

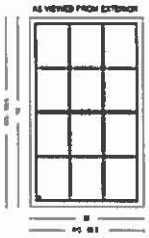
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

004 TYPE D **EA** (4) **54.59** [redacted]



Scaled to Fit

Rough Opening:
56-1/2" X 93-1/2"
Frame Size:
56" X 93"
Unit Dimension:
57-15/16" X 96-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

005 TYPE E **EA** (9) **65.55** [redacted]

Scaled to Fit

Rough Opening:
53-1/2" X 118-1/2"
Frame Size:
53" X 118"
Unit Dimension:
54-15/16" X 121-1/8"

*** Unit ***
UTR (Assy 1)

Ultra Rectangle CS/AW Transom

*** Unit ***
Unit 1.1: Match Crank Out Profile, Direct Set, Beveled Stop

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating

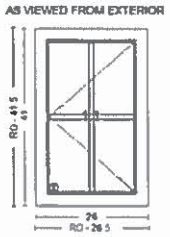
Unit 1.1: Clear glass, Tempered Glass

*** Species-Finish-Color ***
Unit 1.1: Pine, Slate 70% Fluoropolymer Exterior, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), Slate Exterior Casing/Accessories, 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

006 TYPE G **EA** (9) **6.65** [redacted]



Scaled to Fit

Rough Opening:
26-1/2" X 41-1/2"
Frame Size:
26" X 41"
Unit Dimension:
27-15/16" X 44-1/8"

*** Unit ***
UCS (Assy 1)

Ultra Rectangle Casement

*** Unit ***
Unit 1.1: Extruded Sash, Crank Out, Left Hinging, Stepped Stop

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 2W2H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

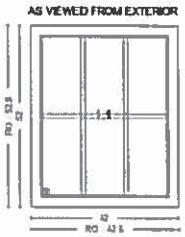
*** Hardware-Accessories ***
Unit 1.1: Standard Window Hardware, Bright Brass Hardware, BetterVue Fiberglass Screen, Screen(s) Loose

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame, Rustic Screen

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

007 TYPE H **EA** (1) **15.26** [redacted]



Scaled to Fit

Rough Opening:
42-1/2" X 52-1/2"
Frame Size:
42" X 52"
Unit Dimension:
43-15/16" X 55-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

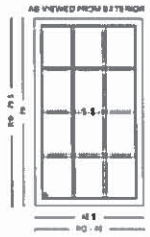
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W2H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

008 TYPE M **EA** (18) **37.68** [redacted]



Scaled to Fit

Rough Opening:
46" X 79-1/2"
Frame Size:
45-1/2" X 79"
Unit Dimension:
47-7/16" X 82-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

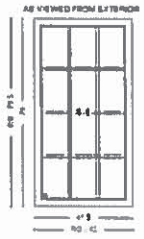
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

009 TYPE N **EA** (21) **34.36** [redacted]



Scaled to Fit

Rough Opening:
42" X 79-1/2"
Frame Size:
41-1/2" X 79"
Unit Dimension:
43-7/16" X 82-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

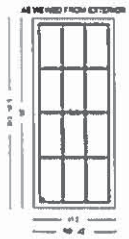
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

010 TYPE R **EA** (15) **42.19** [redacted]



Scaled to Fit

Rough Opening:
42" X 97-1/2"
Frame Size:
41-1/2" X 97"
Unit Dimension:
43-7/16" X 100-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

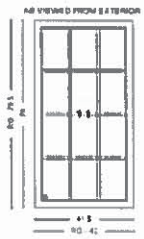
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

011 TYPE S **EA** (30) **34.36** [redacted]



Scaled to Fit

Rough Opening:
42" X 79-1/2"
Frame Size:
41-1/2" X 79"
Unit Dimension:
43-7/16" X 82-1/8"

*** Unit ***
UDHT (Assy 1)

Ultra Rectangle DH/SH Transom

*** Unit ***
Unit 1.1: Clad Sash, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

012 TYPE T **EA** (9) **39.58** [redacted]

Scaled to Fit

Rough Opening:
42" X 91-1/2"
Frame Size:
41-1/2" X 91"
Unit Dimension:
43-7/16" X 94-1/8"

*** Unit ***
URT (Assy 1)

Ultra Segment DH/SH Transom

*** Unit ***
Unit 1.1: Extruded Sash, Unit Notes = SPECIAL ASSEMBLY PENDING, Match Traditional Profile, Sash Set

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

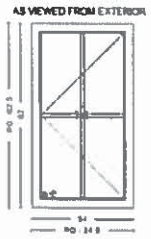
*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 3W4H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.
Due to manufacturing procedures, all radius components will have fingerjoints.

013 TYPE U **EA** **(4)** **14.73** [redacted]



Scaled to Fit

Rough Opening:
34-1/2" X 62-1/2"
Frame Size:
34" X 62"
Unit Dimension:
35-15/16" X 65-1/8"

*** Unit ***
UCS (Assy 1)

Ultra Rectangle Casement

*** Unit ***
Unit 1.1: Extruded Sash, Crank Out, Left Hinging, Stepped Stop

*** Glass ***
Unit 1.1: H-K LoE 270 Insulated Glass, Mill Finish Spacer, Glass Preserve without Neat Coating, Beveled Bead

Unit 1.1: Clear glass, Tempered Glass

*** Lite Divisions ***
Unit 1.1: Performance Divided Lites, Colonial, 2W2H, 1 1/8" Bars, Champagne Internal Spacers, Beveled Bars

*** Hardware-Accessories ***
Unit 1.1: Standard Window Hardware, Bright Brass Hardware, BetterVue Fiberglass Screen, Screen(s) Loose

*** Species-Finish-Color ***
Unit 1.1: Pine, 70% Fluoropolymer Ext Sash, 70% Fluoropolymer Exterior Frame, Match All Ext Colors, Slate Exterior, Unfinished Interior Sash Finish, Unfinished Interior Frame, Rustic Screen

*** Casing-Jambs-Trim ***
Unit 1.1: Pavilion Casing (BU864), Historic 2" x 2" Sill Nosing (B8321), 10-1/16" Clips Installation Clips, Exterior Casing/Accessories Applied, 7-1/8" Jambs, Jambs Applied, Head and Sides Casing Placement

Opening(s) designated by a circled 'E' meet most national building codes for emergency escape and rescue requirements. Check your local codes for product compliance for your application. Number of installation clips applied is configured for a DP20 installation design pressure. Kolbe also recommends adding an additional 1/2" to the standard rough opening.

014 None Assigned (1) **0.00** [redacted]

FIELD ASSEMBLY AND SUPERVISION
MISCELLANEOUS

Notes / Totals / Signature

Total Quantity: 128 **Total Cubic Feet:** 4,740.37

Sub-Total*:	[redacted]
Total Tax:	
Total Freight:	
Total Labor:	
Total Amount:	

Total Amount includes Kolbe and/or Non-Kolbe lines if applicable

Signature: _____ **Date:** _____

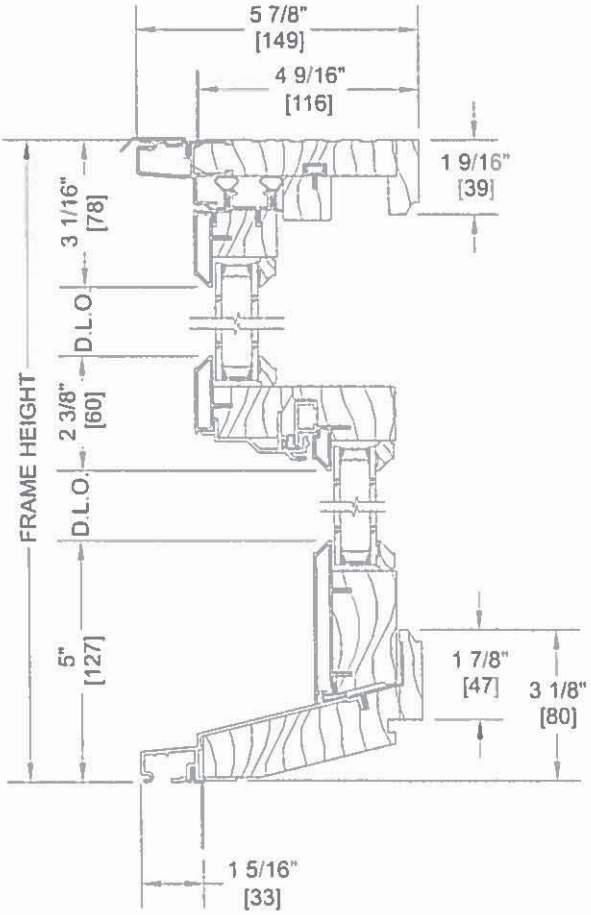
Purchase Order: _____

Printed By: James Otremba
Created: 5/6/2016

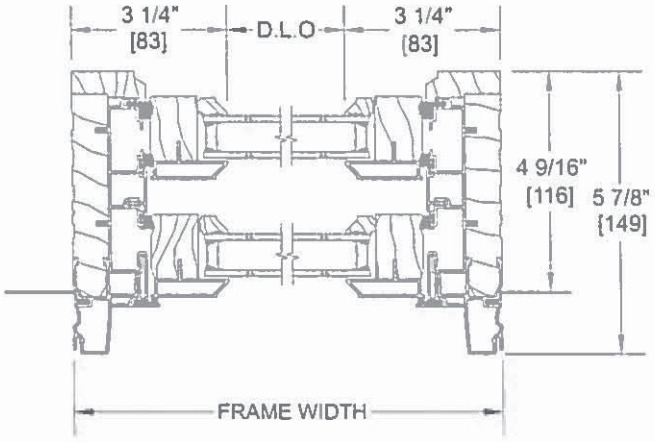
Section Details | Sterling Double Hung Operating Units – 4-9/16" Jambs

Scale: 3" = 1'-0"

VERTICAL CROSS SECTION



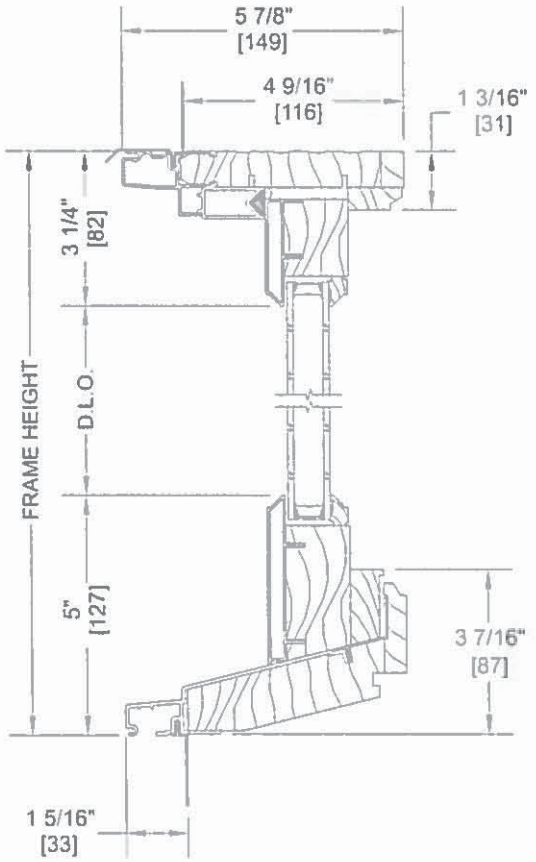
HORIZONTAL CROSS SECTION



Section Details | Sterling Double Hung Studio Units – 4-9/16" Jambs

Scale: 3" = 1'-0"

STUDIO UNIT
VERTICAL CROSS SECTION



STUDIO UNIT
HORIZONTAL CROSS SECTION