



# Storefront Replacements at Various Charter Schools

## Invitation for Bids # PSPW-24-02

General Information		
<b>Project Cost Estimate</b>	\$110,000	See Section 1.4
<b>Project Timeline</b>	150 calendar days from NTP with an estimated start timeline of May 2024	See Section 1.4
<b>Evaluation of Proposals</b>	Staff	See Section 1.7
<b>Mandatory Pre-Bid Meeting</b>	10:00 a.m. on March 5, 2024, at various Charter School locations. The order of sites for the meeting will be as follows: 1) Central Campus, 2) Academic Village, 3) West Elementary. Location addresses can be found in Section 1.3.3 of the bid package. See Section 1.8.1 for more details regarding the Pre-Bid Meeting.	See Section 1.8
<b>Question Due Date</b>	March 11, 2024	See Section 1.8
<b>Proposals will be accepted until</b>	2:00 p.m. on March 26, 2024	See Section 1.8
<b>Proposal Security / Bid Bond</b>	<input type="checkbox"/> Not required. <input checked="" type="checkbox"/> Required only for bidders that have a total cumulative base proposal amount that exceeds \$200,000. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. <input type="checkbox"/> Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of 5% of the total cumulative base amount proposed. <input type="checkbox"/> Required for every bidder, regardless of proposal amount. Proposal Security shall be in the amount of \$10,000 or 5% of the total cumulative base amount proposed, whichever is less.	See Section 4.1
<b>100% Payment and Performance Bonds</b>	<input type="checkbox"/> Not required. <input type="checkbox"/> Required, regardless of the awarded contract amount. <input checked="" type="checkbox"/> Required in the event that the awarded contract exceeds \$200,000.	See Section 4.2
<b>Grant or Federal Funding Information</b>	Not Applicable	Not Applicable

THE CITY OF PEMBROKE PINES  
 PROCUREMENT DEPARTMENT  
 8300 SOUTH PALM DRIVE  
 PEMBROKE PINES, FLORIDA 33025  
 (954) 518-9020



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- Attachment A: Non-Collusive Affidavit
- Attachment B: Sample Insurance Certificate
- Attachment C: Specimen Contract – **Construction Agreement**
- Attachment D: Standard Release of Lien Form
- Attachment E: Academic Village Storefronts Plans
- Attachment F: Central Campus Storefronts Plans
- Attachment G: West Campus Storefronts Plans
- Attachment H: NOA - Series “3100-Resistor” Aluminum Storefront Window Wall System
- Attachment I: NOA - “351 Series” Outswing Aluminum Entrance Door w/wo Transom



## **SECTION 1 - INSTRUCTIONS**

### **1.1 NOTICE**

Notice is hereby given that the City Commission of the City of Pembroke Pines is seeking sealed proposals for:

#### **IFB # PSPW-24-02 Storefront Replacements at Various Charter Schools**

Solicitations may be obtained from the City of Pembroke Pines website at <http://www.ppines.com/index.aspx?NID=667> and on the <https://ppines.bonfirehub.com/> website.

If you have any problems downloading the solicitation, please contact the Bonfire Support at [Support@GoBonfire.com](mailto:Support@GoBonfire.com).

If additional information help is needed with downloading the solicitation package please contact the Procurement Department at (954) 518-9020 or by email at [purchasing@ppines.com](mailto:purchasing@ppines.com). The Procurement Department hours are between 7:00 a.m. - 6:00 p.m. on Monday through Thursday and is located at 8300 South Palm Drive, Pembroke Pines, Florida 33025.

The City requires all questions relating to the solicitation be entered through the “Messages” section for the specific project on the <https://ppines.bonfirehub.com/> website. Under the “Messages” section, vendors will find the “Opportunity Q&A” tab in which they can ask their specific question(s). Responses to the questions will be provided online at [https://ppines.bonfirehub.com](https://ppines.bonfirehub.com/). Such request must be received by the “Question Due Date” stated in the solicitation. The issuance of a response via Bonfire is considered an Addendum and shall be the only official method whereby such an interpretation or clarification will be made.

**Proposals will be accepted until 2:00 p.m., Tuesday, March 26, 2024.** Proposals must be submitted electronically at <https://ppines.bonfirehub.com/>. The sealed electronic proposals will be publicly opened at 2:30 p.m. by the City Clerk’s Office, in the City Hall Administration Building, 4<sup>th</sup> Floor Conference Room located at 601 City Center Way, Pembroke Pines, Florida, 33025.

#### **1.1.1 VIRTUAL BID OPENING**

The bid opening for this project will be held in the **City Clerk’s Office Conference Room** located on the 4<sup>th</sup> Floor in the Charles F. Dodge City Center/City Hall Administration Building at 601 City Center Way, Pembroke Pines, Florida, 33025 at **2:30 PM on the bid due date.**



In light of public health concerns and to ensure accessibility for all, the City encourages interested parties, vendors, and the public to participate virtually via live streaming instead of attending the meeting in person. To virtually attend the bid opening, please use the Cisco Webex Meetings platform.

**Virtual Meeting Details:**

- WebEx Meeting Link: <https://ppines.webex.com/meet/purchasing>
- Cisco Webex Meeting Number: 717 019 586
- Join by Phone Number: +1-408-418-9388

The public may download the **Cisco Webex Meetings app** from <https://www.webex.com/downloads.html/>

To ensure an efficient meeting process, participants are requested to mute their audio and camera during the meeting. While the public is welcome to attend the virtual bid opening, **please note that active participation and commenting will not be allowed during the proceedings.**

For further information about the bid opening or assistance in accessing the virtual meeting, please contact:

Danny Benedit, Procurement Department  
 City of Pembroke Pines  
 8300 South Palm Drive,  
 Pembroke Pines, FL 33025  
 954-518-9022 or 954-518-9020  
[purchasing@ppines.com](mailto:purchasing@ppines.com)

## **1.2 PURPOSE**

The City of Pembroke Pines is seeking proposals from qualified firms, hereinafter referred to as the Contractor, for the replacement of storefront systems at various Pembroke Pines Charter School locations, in accordance with the terms, conditions, and specifications contained in this solicitation.

## **1.3 SCOPE OF WORK**

### **1.3.1 PROJECT DETAILS**

- Contractor to remove existing storefront systems and dispose of at the City's discretion.
- Contractor shall be responsible to remove all debris from the site daily.
- Contractor is responsible for removal of metal framing wall at Academic Village and Central Campus main entries.
- The contractor must be careful to maintain security alarms, and other existing conditions for all parts of items to remain.



- Contractor shall take proper care to protect and close off work area as required for normal facility operation.
- Doors WE1, WE2, WE3, AV2, and AV3 are to include Allegion LCN 4040XP closers, Von Duprin 98/99 Series concealed vertical rods with push bar, hinges, power supply, Von Duprin EPT10 power transfer, Schlage AD Series card reader, and keyway cylinder Schlage Everest T for all doors. Any wiring needed for these items is to be included.
- Doors WE1, WE2, and WE3 require remote openers compatible with hardware being installed.
- Doors AV1, AV4 and C1 will not require card reader, push bars, EPT10 power transfer, power supply, and closer hardware.
- Contractor shall provide key cylinders a minimum of 2 weeks in advance for owner to rekey prior to Contractor's installation.
- Frame color to match existing.
- All doors removed shall have the new assemblies installed before end of work day to ensure that building can be locked up.
- Any repairs required around the doors due to replacement of such, shall be done by the contractor to include but not limited to, removal and reinstall drywall, stucco, paint, polyurethane sealant, interior and exterior floors, etc.
- Contractor is responsible for acquiring permit and calling in all necessary inspections.

### **1.3.2 PROJECT DETAILS**

- If Contractor is awarded during the school year, Contractor should plan for weekend work. If Contractor is awarded during the summer break, the work must be performed Monday through Friday, from 8 am to 5 pm, or as approved by the Project Manager.
- Contractor will be required to schedule all work with the City's Project Manager.
- Contractor must not allow materials and debris generated daily to be disposed of in an illegal manner.
- The minimum experience required as a licensed General Contractor is five (5) years for these projects.
- Contractor shall provide all materials, labor, equipment, and any other necessary items required for complete turn-key installation.
- City shall provide the Contractor with existing building plans and storefront NOA's. All other documents, plans, and submittals required to obtain a permit are to be provided by the contractor. Contractor is allowed to provide alternate NOA's with similar specifications for storefront doors and windows at time of bid submittal, for review and approval by the City.



- **If Contractor is submitting pricing for alternate storefront doors and windows, (see Attachments H & I for City’s provided NOA’s) contractor must confirm in the “Vendor Notes” column of the “Additional Responses” price sheet if the alternate storefront manufacturer can fabricate the doors to fit the specialized hardware. See 1.5.1 Pricing Sheet / Bid Tables for more details and sample.**
- Contractor shall provide all testing, manufacturer warranties, contractor warranties, and certifications.
- All items must be installed as per all governing code requirements.
- The successful Bidder shall employ a competent English-speaking superintendent who shall be in attendance at the project site during the progress of the work. The superintendent shall be the primary representative for the Bidder and all communications given to and all decisions made by the superintendent shall be binding to the Bidder.
- Contractor shall be responsible for all debris removal and restoration to any existing areas damaged by the contractor once the project is completed. Site shall be made safe as per OSHA standard, and clean of debris at the end of each work day.
- All precautions need to be taken for life safety and protection of people, vehicles, and all other structures on the site.
- Contractor is responsible for removal and reinstallation of fencing, landscaping, concrete, and any other items as necessary to access the work areas. Contractor is allowed to setup temporary container for storage.
- Contractor is responsible for acquiring all necessary permits.
- Contractor shall provide weekly schedule/progress updates.

**1.3.3 LOCATIONS**

<b>Charter School Name</b>	<b>Address</b>	<b>Storefront Numbers</b>
Central Campus	12350 Sheridan St, Pembroke Pines, FL 33026	C1
Academic Village	17189 Sheridan St, Pembroke Pines, FL 33331	AV1, AV2, AV3, AV4
West Elementary	18501 Pembroke Rd, Pembroke Pines, FL 33029	WE1, WE2, WE3





### **1.3.4 WARRANTIES**

- Contractor shall provide a minimum (1) year workmanship labor and material warranty covering repair of existing concrete and new concrete removed and/or replaced by the contractor.
- Upon completion of the project, and with their application instructions and specifications strictly adhered to, the contractor shall provide a written minimum (5) year product warranty from the manufacturer.

### **1.3.5 USE OF PREMISES**

- Contractor shall limit their use on the premises for work and storage, and to allow for Owner's Occupancy.
- Contractor shall coordinate use of premises under direction of owner representative, assume full responsibility for protection and safe keeping of products under this contract stored on site, and move any stored products under Contractor's control which interfere with operations of the Owners or separate contractor.

## **1.4 PROJECT COST ESTIMATE & TIMELINE**

Staff estimates this project to cost approximately \$110,000, which does not include permit costs.

Please note that the City will waive all City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees) related to this project. Any related State or County fees, for the aforementioned permits, will be paid by the City.

In addition, the City shall cover the cost for any other permit fees related to external entities through the City's Owner's Contingency for this project, **therefore proposers should not include permit costs in their total proposal price.**

The work shall be completed within 150 days from issuance of CITY's Notice to Proceed, with an estimated start timeline of May 2024.

In addition, please note the city's average time for a contractor to apply for and receive an approved permit is 30 days; delays in this timeline caused by the contractor's failure to actively monitor the permit process and submit all required documentation in a timely manner, will count against the project's contractual completion period.

### **1.4.1 LIQUIDATED DAMAGES**

Liquidated Damages for this project shall be \$500 per day.



### **1.4.2 PERMIT, LICENSE, IMPACT OR INSPECTION FEES**

With the exception of the City related permit, license, impact or inspection fees (including the Building Department and Engineering Department Permit Fees), which will be waived for this project, the City does not anticipate any additional permit, license, impact or inspection fees for this project.

The City shall determine the amount of the Owner's Contingency at time of award. The Owner's Contingency may be based on a specified percent of the proposed project amount and shall be established for the specific project being performed under the contract. This dollar amount shall be shown on the specific project purchase order as a distinct item from the vendor's overall offer to determine the total potential dollar value of the contract. Any Owner's Contingency funds that have not been utilized at the end of the project will remain with the City, if the permit fees exceed the Owner's Contingency indicated, the City will reimburse the contractor the actual amount of the permit fees required for project completion.

### **1.5 PROPOSAL REQUIREMENTS**

The <https://ppines.bonfirehub.com> website allows for vendors to complete, scan and upload their documents as part of the proposer's submittal on the website.

Prospective proposers interested in responding to this solicitation are requested to provide all of the information listed in this section. Submittals that do not respond completely to all of requirements specified herein may be considered non-responsive and eliminated from the process. Brevity and clarity are encouraged.

The Bonfire system utilizes "Questionnaires" to request the following information from prospective proposers.

#### **1.5.1 Pricing Sheet / Bid Tables**

1. **Bid Table:** The vendor must provide their pricing through the designated lines items listed on the Excel Sheet that is available for download on the Bonfire website under the "**Pricing Sheet / Bid Table**" section. Please follow the instructions given in this package and on the Excel Sheet to complete and upload the information back onto the Bonfire website.
2. **Primary Responses :** This tab of the Bid Table includes a "**Vendor Notes**" column for any additional comments regarding the requested line item(s). A comment is required in the "**Vendor Notes**" column. If the vendor does not need to submit any comments, please enter N/A or similar. **If the total cumulative base proposal amount does not exceed \$200,000 and a Payment and Performance Bond is not required,** please enter "0" on the "If Applicable, Cost for Payment and Performance Bond" column for each line item.



a. Below is a sample of the “**Primary Responses**” tab of the Bid Table:

Primary Responses				Numeric	Numeric	Text	
Success: All data is valid!							
Status	Bid/No Bid Decision	#	Item	Lump Sum Cost per Location	If Applicable, Cost for Payment and Performance Bond	Vendor Notes	Total Cost Including Payment and Performance Bond
Success: All values provided	Bid	#0-1	Central Campus	\$ 40,000.00	\$ 0.00	N/A	\$ 40,000.00
Success: All values provided	Bid	#0-2	Academic Village	\$ 40,000.00	\$ 0.00	N/A	\$ 40,000.00
Success: All values provided	Bid	#0-3	West Elementary	\$ 40,000.00	\$ 0.00	N/A	\$ 40,000.00
Basket Total							\$ 120,000.00
Grand Total							\$ 120,000.00

3. **Additional Responses:** This tab of the Bid Table allows for bidders to submit alternative options. Substitutions of brands or products must be submitted as an alternative for the City’s review and approval.
  - a. To submit an alternative, the vendor must copy the information for the corresponding line item from the “#” column in the “**Primary Responses**” tab and paste it into the “**Additional Responses**” tab to identify which item they are providing an alternative option for.
  - b. Vendors are required to identify the substitution of brands or products in the “**Vendor Notes**” column. In addition, **vendors must confirm in the “Vendor Notes” column if the alternate storefront manufacturer can fabricate the doors to fit the specialized hardware.**
  - c. For additional information on uploading supporting documentation for the proposed alternative(s), please refer to **Section 1.5.4(3)**.
  - d. Below is a sample of the “**Additional Responses**” tab of the Bid Table:



**Additional Responses**

Success: All data is valid!

Status	#	Item	Numeric	Numeric	Text	Total Cost Including Payment and Performance
			Lump Sum Cost per Location	If Applicable, Cost for Payment and Performance	Vendor Notes	
Success: All values provided	#0-1	Central Campus	\$ 40,000.00	\$ 0.00	Submitting "Alternate Brand Name", Doors can fit the specialized hardware.	\$ 40,000.00
Success: All values provided	#0-2	Academic Village	\$ 40,000.00	\$ 0.00	Submitting "Alternate Brand Name", Doors can fit the specialized hardware.	\$ 40,000.00
Success: All values provided	#0-3	West Elementary	\$ 40,000.00	\$ 0.00	Submitting "Alternate Brand Name", Doors can fit the specialized hardware.	\$ 40,000.00

**1.5.2 Questionnaires**

1. Contact Information Form
2. Proposer’s Background Information
3. Vendor Registration Checklist
4. **References Form:** Provide specific examples of similar contracts delivered by the proposed team members. Provide details on related projects (preferably where the team was the same). A minimum of 3 references should be from the last five years and should be capable of explaining and confirming your firm’s capacity to successfully complete the scope of work outlined herein. As part of the proposal evaluation process, the City may conduct an investigation of references, including a record check or consumer affairs complaints. Proposers’ submission of a proposal constitutes acknowledgment of the process and consent to investigate. The City is the sole judge in determining Proposers qualifications. In this section you will have the ability to enter information for 5 different references including the Reference Contact Information and the specific Project Information.

In addition, **do not provide City of Pembroke Pines projects as any of your references and do not utilize any current City of Pembroke Pines employees as reference contacts.**

- A) References Contact Information
  - a. Name of Firm, City, County or Agency
  - b. Address
  - c. Contact Name



- d. Contact Title
- e. Contact E-mail Address
- f. Contact Telephone #
- B) Project Information
  - a. Name of Contractor Performing the work
  - b. Name and location of the project
  - c. Nature of the firm's responsibility on the project
  - d. Project duration
  - e. Completion (Anticipated) Date
  - f. Size of project
  - g. Cost of project
  - h. Work for which staff was responsible

### **1.5.3 Other Completed Documents**

1. Attachment A: Non-Collusive Affidavit
2. Proposal Security (Bid Bond Form or Cashier's Check)
  - a. Each Proposal should be accompanied by a certified or cashier's check or by a Bid Bond made payable to the City of Pembroke Pines on an approved form, duly executed by the Proposer as principal and having as surety thereon a surety company acceptable to CITY and authorized to write such Bond under the laws of the State of Florida, in an amount not less than five percent (5%) of the amount of the base Proposal price.
  - b. Contingency is not to be counted in the total amount the proposal security is based on.
  - c. Proposers must submit a scanned copy of their bid security (bid bond form or cashier's check) with their bid submittal through Bonfire.
  - d. Proposers should also submit their original bid security (bid bond form or cashier's check) at time of the bid due date, or they may be deemed as non-responsive.
  - e. The original Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # PSPW-24-02 Storefront Replacements at Various Charter School Locations**" and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

Please see SECTION 4 - SPECIAL TERMS & CONDITIONS of this document for additional information.



### **1.5.4 Optional Documentation**

#### **1. Trade Secrets:**

- a. The Proposer's response to this solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this solicitation and the Contract to be executed for this solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.
- b. Any language contained in the Proposer's response to the solicitation purporting to require confidentiality of any portion of the Proposer's response to the solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the solicitation constitutes a Trade Secret.
- c. EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED. ALL DOCUMENTS THAT THE FIRM PURPORTS TO BE CONFIDENTIAL, PROPRIETARY OR A TRADE SECRET SHALL BE UPLOADED TO THE BONFIRE WEBSITE AS A SEPARATE ATTACHMENT, IN THIS SECTION, CLEARLY IDENTIFYING THE EXEMPTION BEING CLAIMED UNDER FLORIDA STATUTES 119.07.
- d. The city's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records.

#### **2. Financial Statements:**



- a. The City is **not** requesting the vendor to submit any financial statements for this project and prefers if the vendor does not submit financial statements. In addition, if the City needs a copy of the vendor's financial statements, the City can contact the vendor after the bid due date to request those documents. However, if the vendor does submit the financial statements, they should be uploaded in this section.
- b. Any claim of confidentiality on financial statements must be asserted at the time of submittal. The firm must identify the specific statute that authorizes the exemption from the Public Records Law. Please note that the financial statement exemption provided for in Section 119.071(1)c, Florida Statutes only applies to submittals in response to a solicitation for a "public works" project.

### 3. Alternatives:

- a. If you are submitting an alternative product, please upload any related information in this section (such as specification sheets, etc.).
- b. In addition, pursuant to **Section 3.7 "Brand Names,"** if and wherever in the specifications a brand name, make, name of manufacturer, trade name, or vendor catalog number is mentioned, it is for the purpose of establishing a grade or quality of material only. Since the City does not wish to rule out other competition and equal brands or makes, the phrase "OR EQUAL" is added. However, if a product other than that specified is bid, Proposers shall indicate on their proposal and clearly state the proposed substitution and deviation. It is the vendor's responsibility to provide any necessary documentation and samples within their bid submittal to prove that the product is equal to that specified. Such samples are to be furnished before the date of bid opening, unless otherwise specified. Additional evidence in the form of documentation and samples may be requested if the proposed brand is other than that specified. The City retains the right to determine if the proposed brand shall be considered as an approved equivalent or not.

### 4. Additional Information:

- a. Please provide any additional information that you deem necessary to complete your proposal in this section, if it has not been requested in another section.

## **1.6 VENDOR REGISTRATION DOCUMENTS**

The <https://ppines.bonfirehub.com/> website will allow vendors to update their information and documents on an as-needed basis. This process is intended to make the bidding process easier for vendors that bid on multiple City projects. This process will allow vendors to complete and



submit the following standard forms and documents at any time prior to bidding on a project. In addition, the vendors will be able to utilize these same forms without the need to re-fill and re-submit the forms each time they bid on a City project. In the event that the City does not have one of the forms or documents listed below for your company, the City may reach out to your company after the bid has closed to obtain the document(s).

**Furthermore, please make sure to update this information on an as-needed basis so that all pertinent information is accurate, such as local business tax receipts, and any other relevant information.**

The following documents can be completed prior to the bidding process through the <https://ppines.bonfirehub.com/> website and do not need to be attached to your submittal as the Bonfire website will automatically include it.

**1.6.1 Vendor Information Form**

**1.6.2 Form W-9 (Rev. October 2018)**

- a. Previously dated versions of this form will delay the processing of any payments to the selected vendor.

**1.6.3 Company Profile Form**

**1.6.4 Sworn Statement on Public Entity Crimes Form**

**1.6.5 Equal Benefits Certification Form**

**1.6.6 Vendor Drug-Free Workplace Certification Form**

**1.6.7 Scrutinized Company Certification**

**1.6.8 E-Verify System Certification Statement**

- a. Effective January 1, 2021, pursuant to Section 448.095, Florida Statutes, the City may not enter into a contract with a vendor/contractor/subcontractor unless that vendor/contractor/subcontractor is registered with and uses the E-Verify system administered by the U.S. Department of Homeland Security (“DHS”).
- b. Contractor shall also require all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract.

**1.6.9 Veteran Owned Small Business Preference Certification**





- a. If claiming Veteran Owned Small Business Preference Certification, business must attach the “Determination Letter” from the United States Department of Veteran Affairs Center for Verification and Evaluation notifying the business that they have been approved as a Veteran Owned Small Business (VOSB).
- b. The Veteran Owned Small Business Preference Certification form must be completed by/for the proposer; the proposer **WILL NOT** qualify for Veteran Owned Small Business Preference based on their sub-contractors’ qualifications.

**1.6.10 Local Business Tax Receipts**

**1.6.11 Local Vendor Preference Certification**

**1.7 EVALUATION OF PROPOSALS & PROCESS OF SELECTION**

- A. Staff will evaluate all responsive proposals received from proposers who meet or exceed the bid requirements contained in the solicitation. Evaluations shall be based upon the information contained in the proposals as submitted.
- B. Staff will make a recommendation to the City Commission for award of contract.

**1.8 TENTATIVE SCHEDULE OF EVENTS**

<b>Event</b>	<b>Time &amp;/or Date</b>
Issuance of Solicitation (Posting Date)	<b>February 27, 2024</b>
Mandatory Pre Bid Meeting	<b>10:00 a.m. on March 5, 2024</b>
Question Due Date	<b>March 11, 2024</b>
Anticipated Date of Issuance for the Addenda with Questions and Answers	<b>March 14, 2024</b>
Proposals will be accepted until	<b>2:00 p.m. on March 26, 2024</b>
Proposals will be opened at	<b>2:30 p.m. on March 26, 2024</b>
Evaluation of Proposals by Staff	<b>March 26, 2024– May 1, 2024</b>
Recommendation of Contractor to City Commission award	<b>May 1, 2024</b>
Issuance of Notice to Proceed	<b>May 9, 2024</b>
Project Commencement	<b>Not later than 10 days after NTP</b>
Project Completion	<b>150 days after NTP</b>

**1.8.1 MANDATORY SITE VISIT**

**It is mandatory to visit all sites prior to submitting a bid for this project.** There is a scheduled site visit on March 5, 2024, at 10 a.m. The order of sites for the meeting will be as follows: 1) Central Campus, 2) Academic Village, 3) West Elementary.



Charter School Name	Address
Central Campus	12350 Sheridan St, Pembroke Pines, FL 33026
Academic Village	17189 Sheridan St, Pembroke Pines, FL 33331
West Elementary	18501 Pembroke Rd, Pembroke Pines, FL 33029

In the event that a contractor cannot attend the scheduled site visit, or if a contractor would like a follow up visit to the site, they may request a site visit by contacting Irene Munarriz at 954-518-9061. We urge all contractors to attend the scheduled meeting, as a separate or follow-up meeting may not be afforded to the requester due to scheduling and availability of staff to assist with any additional meetings. In addition, if making a request for a separate or follow-up meeting, contractors are urged to make these requests as early as possible.

**Contractors may be required to sign in at any of the meetings to show proof of attendance. It is the vendor's responsibility to make sure that they sign in at the meeting.**

## **1.9 SUBMISSION REQUIREMENTS**

Bids/proposals **must be submitted electronically** at <https://ppines.bonfirehub.com/> on or before **2:00 p.m. on March 26, 2024.**

Please note vendors should be registered on Bonfire under the name of the organization that they are operating as and it should match the organization name on the documents that they are submitting and utilizing when responding to the solicitation.

In addition, the vendor must complete any questionnaires on the <https://ppines.bonfirehub.com/> website and provide any additional information requested throughout this solicitation. Any additional information requested in the solicitation should be scanned and uploaded.

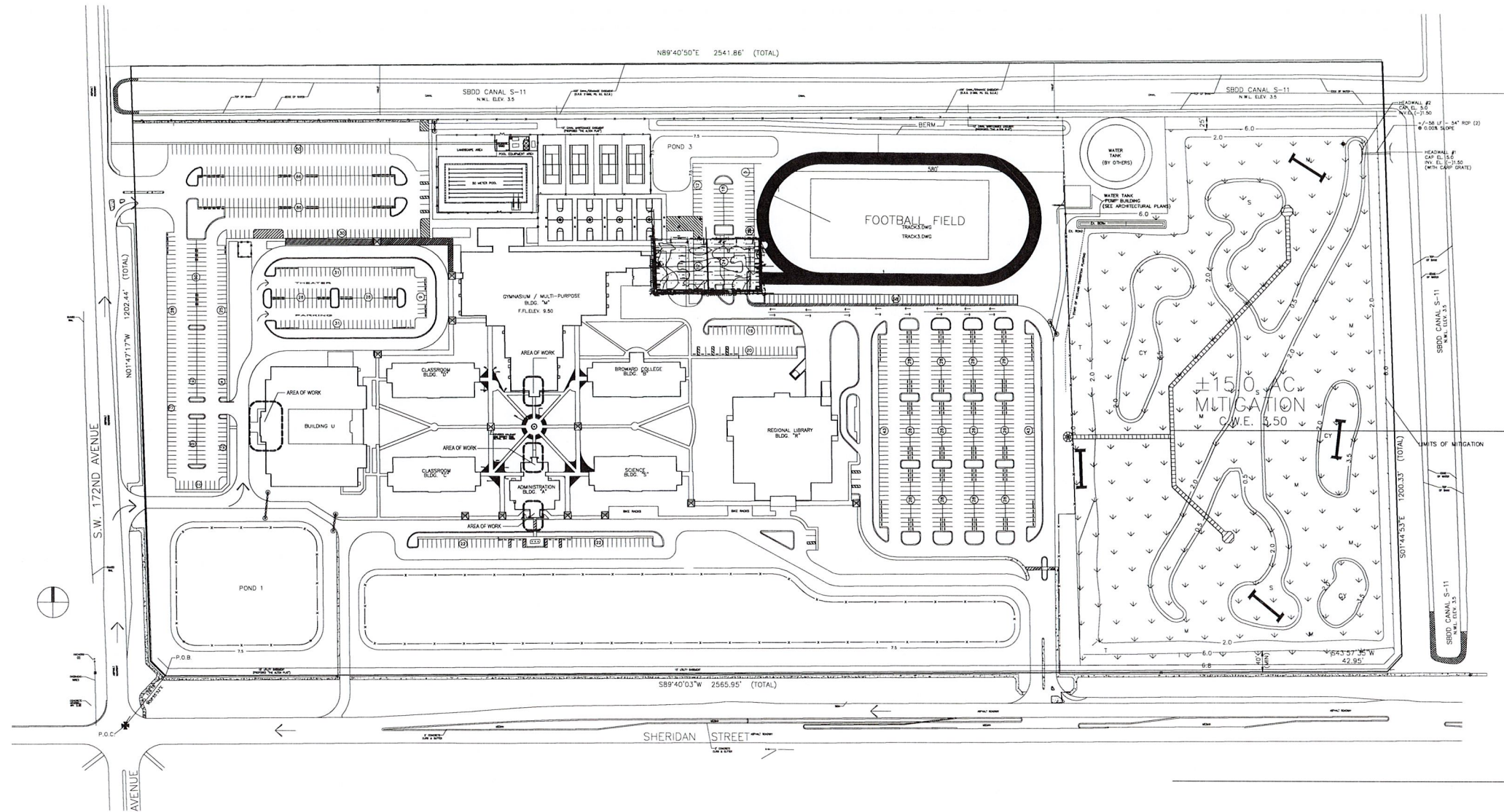
The City recommends for proposers to submit their proposals as soon as they are ready to do so. Please allow ample time to submit your proposals on the <https://ppines.bonfirehub.com/> website. Proposals may be modified or withdrawn prior to the deadline for submitting Proposals. Bonfire Support is happy to help you with submitting your proposal and to ensure that you are submitting your proposals correctly, but we ask that you contact [Support@GoBonfire.com](mailto:Support@GoBonfire.com) with ample time before the bid closing date and time.

**PLEASE DO NOT SUBMIT ANY PROPOSALS VIA MAIL, E-MAIL OR FAX.**

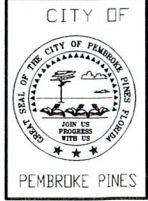
However, please note that any required Bid Bond or Cashier's Check should be in a sealed envelope, plainly marked "**BID SECURITY - IFB # PSPW-24-02 Storefront Replacements at Various Charter School Locations**" and sent to the City of Pembroke Pines, City Clerk's Office, 4th Floor, 601 City Center Way, Pembroke Pines, Florida, 33025.

# ACADEMIC VILLAGE STOREFRONT REPLACEMENT

17189 SHERIDAN STREET  
PEMBROKE PINES FLORIDA



SITE PLAN



REVISIONS	BY

LICENSE NO.

SEAL

PROJECT  
**ACADEMIC VILLAGE  
STOREFRONT REPLACEMENT**

SCALE:

N.T.S

DATE:

01-23-2024

DRAWN BY:

A. NUNEZ

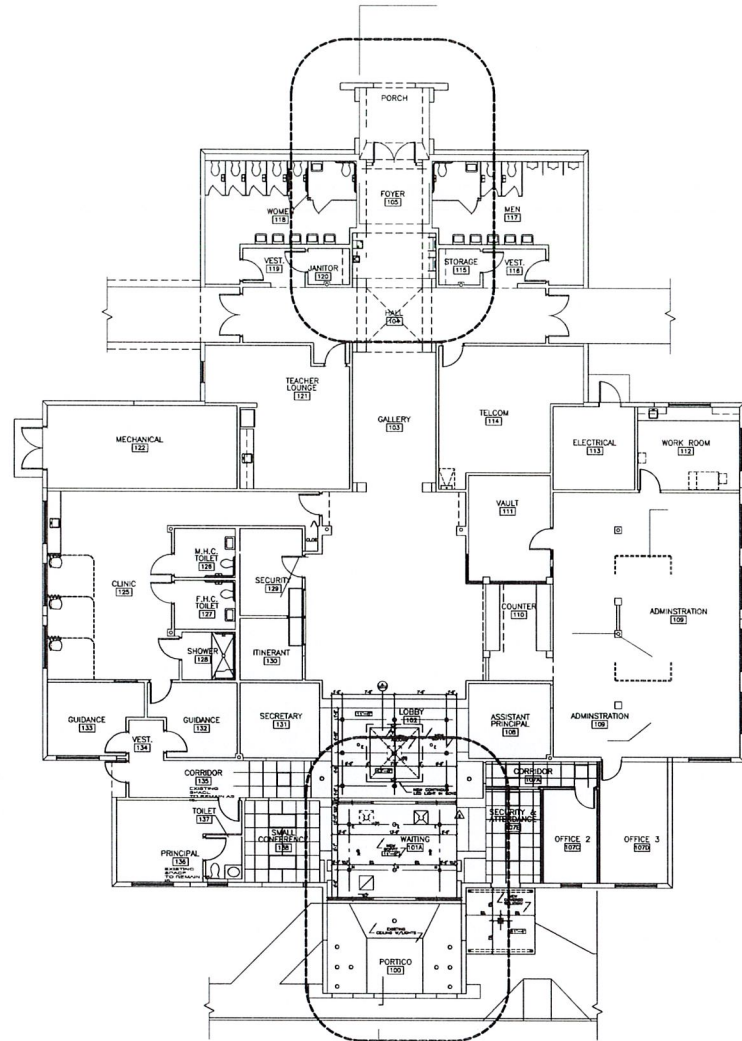
DRAWING NO.

07272005

DESCRIPTION

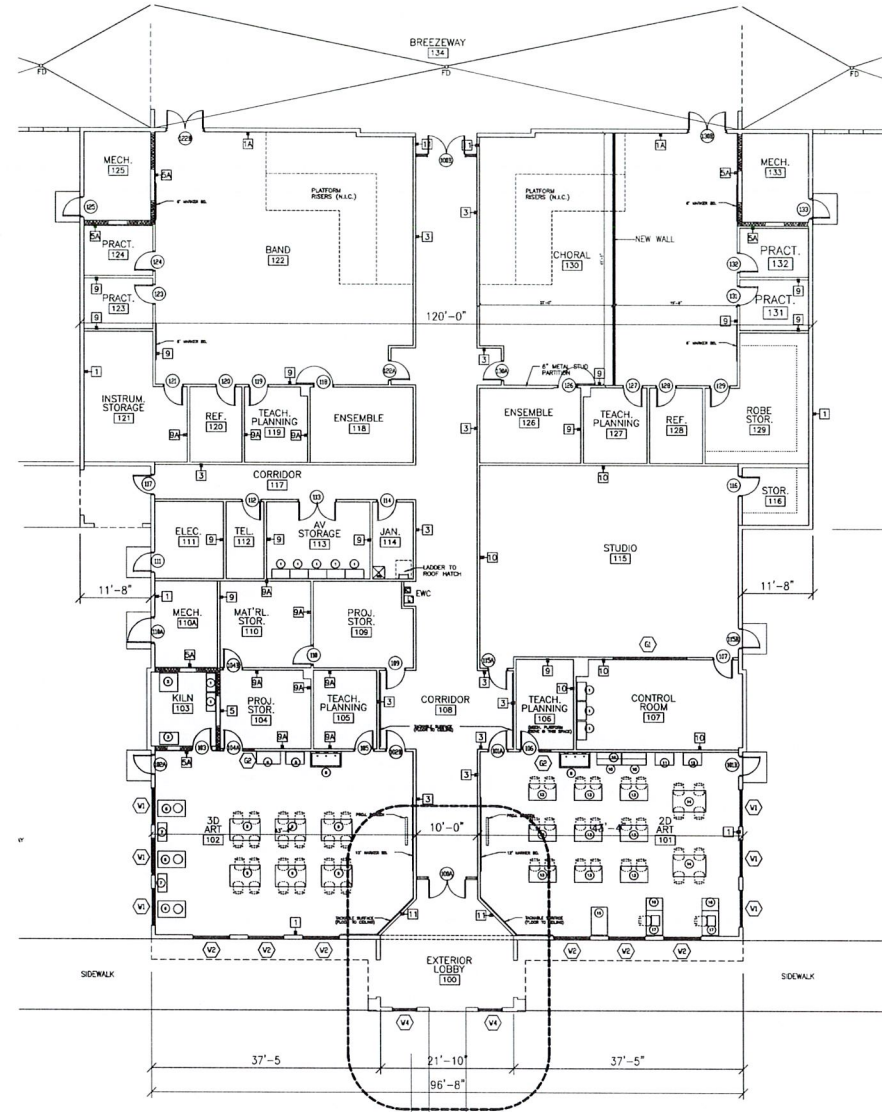
**A-1**

AREA OF WORK  
AV-2



AV-1  
AREA OF WORK

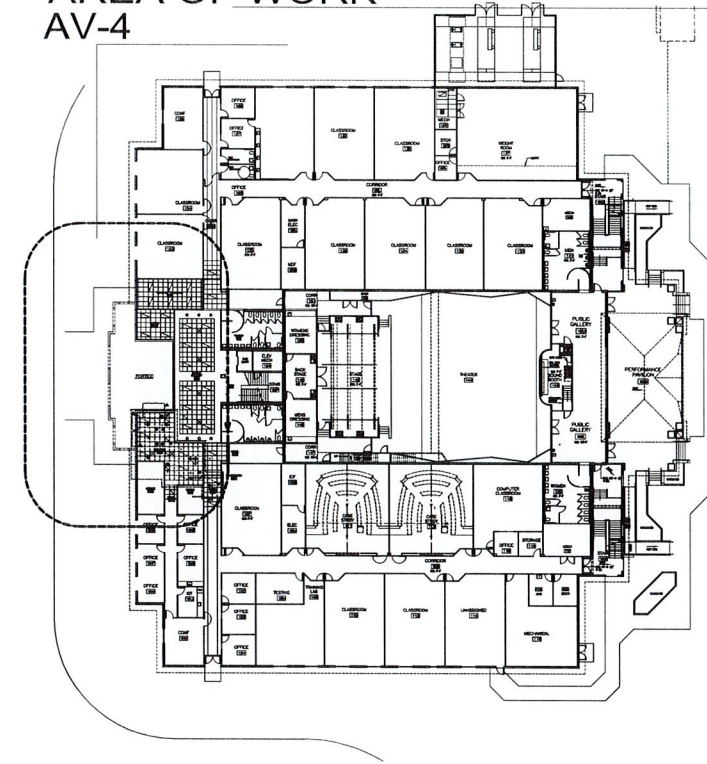
FLOOR PLAN  
ADM. BUILDING



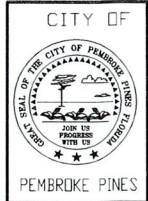
AV-3  
AREA OF WORK

FLOOR PLAN  
M BUILDING

AREA OF WORK  
AV-4



1ST FLOOR PLAN  
U BUILDING



REVISIONS	BY

LICENSE NO.  
  
SEAL

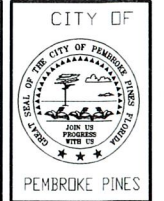
PROJECT  
**ACADEMIC VILLAGE  
STOREFRONT REPLACEMENT**

SCALE:  
N.T.S  
DATE:  
01-23-2024  
DRAWN BY:  
A. NUNEZ  
DRAWING NO.  
07272005

DESCRIPTION  
**A-2**

# CENTRAL CAMPUS CHARTER SCHOOL STOREFRONT REPLACEMENT

12350 SHERIDAN ST.  
PEMBROKE PINES FLORIDA 33026



REVISIONS	BY

LICENSE NO.

SEAL

PROJECT  
CENTRAL CAMPUS CHARTER SCHOOL  
STOREFRONT REPLACEMENT

SCALE:

N.T.S

DATE:

01-23-2024

DRAWN BY:

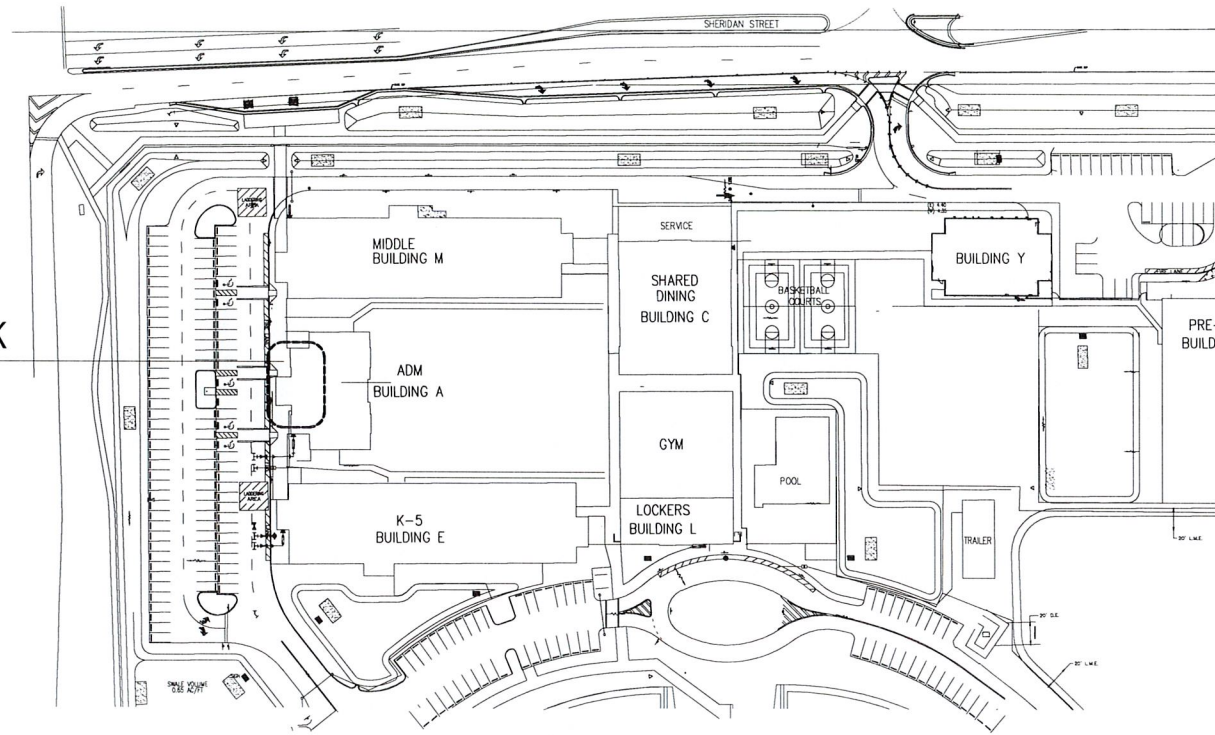
A. NUNEZ

DRAWING NO.

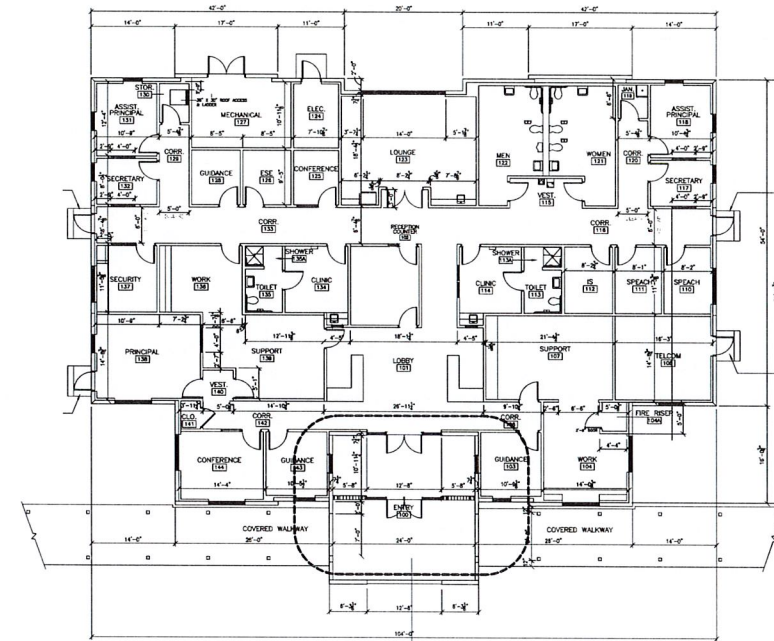
DESCRIPTION

A-1

AREA OF WORK



CENTRAL CAMPUS SCHOOL  
SITE PLAN



AREA OF WORK  
C-1

CENTRAL CAMPUS SCHOOL  
ADM. BUILDING

REVISIONS	
1	FEB. 18, 2021
2	JUNE 4, 2021
3	MARCH 3, 2022
4	NOV. 1, 2022



**JSA GROUP INC.**  
 12229 S.W. 132ND COURT MIAMI, FLORIDA 33186 (305) 251-7923  
 JULIO SANCHEZ ARCHITECT\*INTERIOR DESIGNER FAX (305) 251-7924  
 AR-0015751/AA0003560/ID-0002171 julio@jsagroup.net

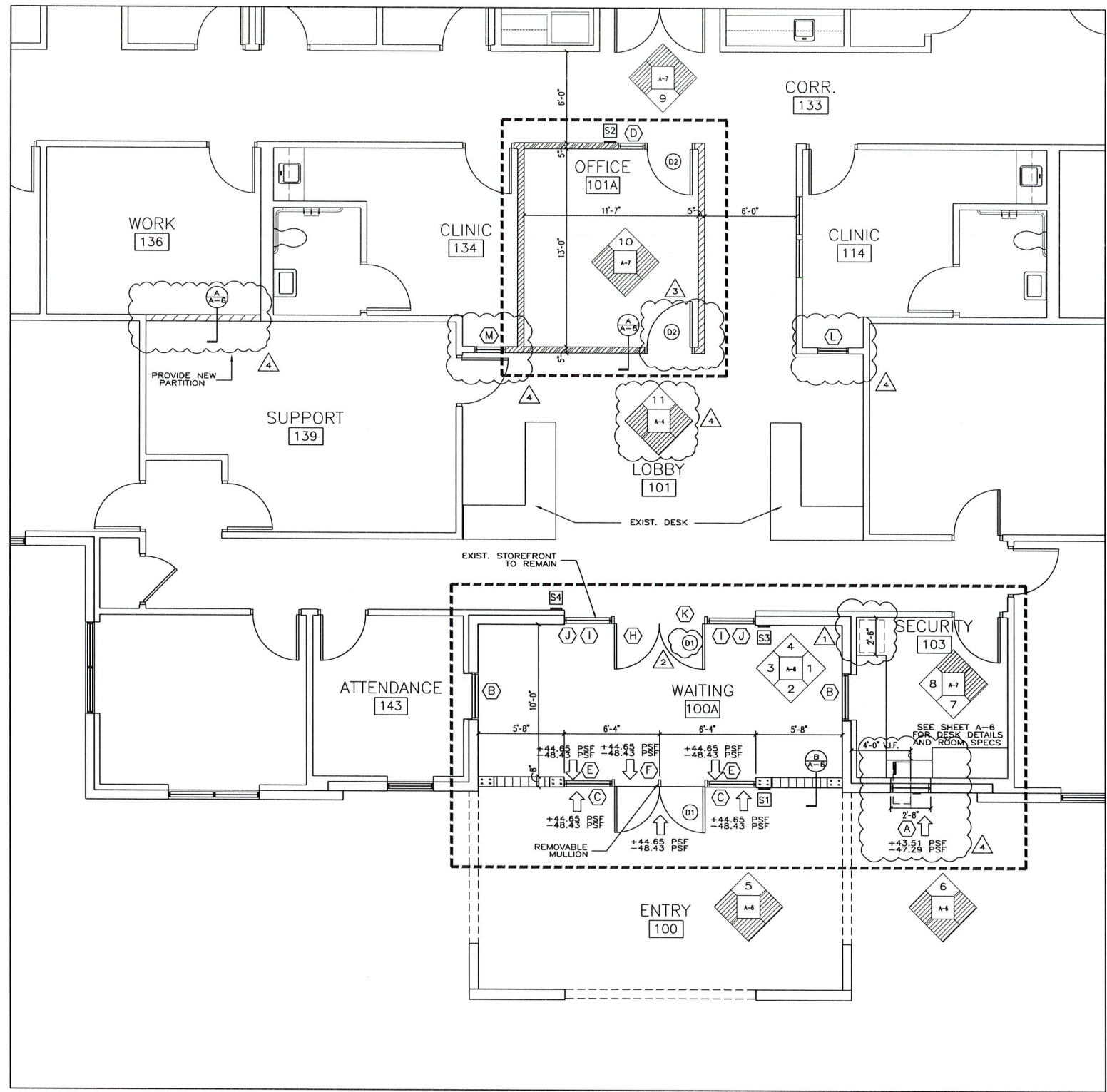
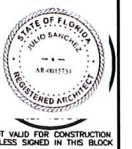
PROPOSED ADDITION & INTERIOR RENOVATIONS:  
**CENTRAL CAMPUS CHARTER - ADMIN.**  
 12350 SHERIDAN STREET  
 PEMBROKE PINES, FL, 33026

JOB # 19-0238

DRAWN BY: MS

NOVEMBER 2022

A-1



**GENERAL NOTES:**

- A- REVIEW AND APPROVAL BY AHJ SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH THIS CODE PER NFPA 1:1.14.4.
- B- FIRE CODE IN EFFECT: FLORIDA FIRE PREVENTION CODE (FFPC) 6TH EDITION, EFFECTIVE DECEMBER 31, 2017 WITH BROWARD COUNTY AMENDMENTS, WHICH INCLUDES NFPA 101, 2015 EDITION, NFPA 1, 2015 EDITION & STATE STATUES, 2017 EDITION.
- C- HARDWARE FOR DOOR NO. 1 SHALL BE "ALLEGION"-LCN 4040XP SERIES CLOSERS, "EVEREST" 29 T145 - SCHLAGE CORE, "VON DUPRIN" - QEL 9949, PS914 POWER SUPPLY.
- D- ADDITIONAL EXIT SIGNS AND EMERGENCY LIGHTS MAY BE REQUIRED BY THE FIRE INSPECTOR AT THE TIME OF THE FIRE FINAL.
- E- SEPARATE FIRE ALARM SHOP DRAWINGS COMPLYING WITH NFPA 72(2013 ED) AND PERMITS TO BE PROVIDED BY A LICENSED AND CERTIFIED FIRE ALARM CONTRACTOR.
- F- SEPARATE FIRE SPRINKLER SHOP DRAWINGS COMPLYING WITH NFPA 13 (2013 ED.) AND PERMITS TO BE PROVIDED BY A LICENSED AND CERTIFIED FIRE SPRINKLER CONTRACTOR.

**WALL LEGEND**

	EXISTING 8" CONCRETE BLOCK WALL AND/OR TILT UP PANEL
	NEW 8" CONCRETE BLOCK WALL
	EXISTING PARTITION
	NEW PARTITION

**NOTE:**  
 THESE DOCUMENTS ARE IN COMPLIANCE WITH THE FBC 2017.

**NOTE:**  
 AS PER FBC 2017, EXIST. BUILDING, CHAPTER 3 SECTION 303, THIS PROJECT IS CLASSIFIED AS ALTERATION LEVEL 2 AND TYPE III CONSTRUCTION

**NOTE:**  
 ALL WOOD IN CONTACT WITH CONCRETE OR C.M.U. SHALL BE PRESSURE TREATED AS PER FBC CHAPTER 2303

BUILDING SHALL COMPLY WITH FBC 2017, TABLE 803.5  
 INTERIOR WALLS AND CEILING FINISH REQUIREMENTS:  
 1- CLASS "B" FOR VERTICAL EXITS AND EXIT PASSAGEWAYS  
 2- CLASS "C" FOR EXIT ACCESS CORRIDORS AND OTHER EXITWAYS, ROOMS AND ENCLOSED SPACES.

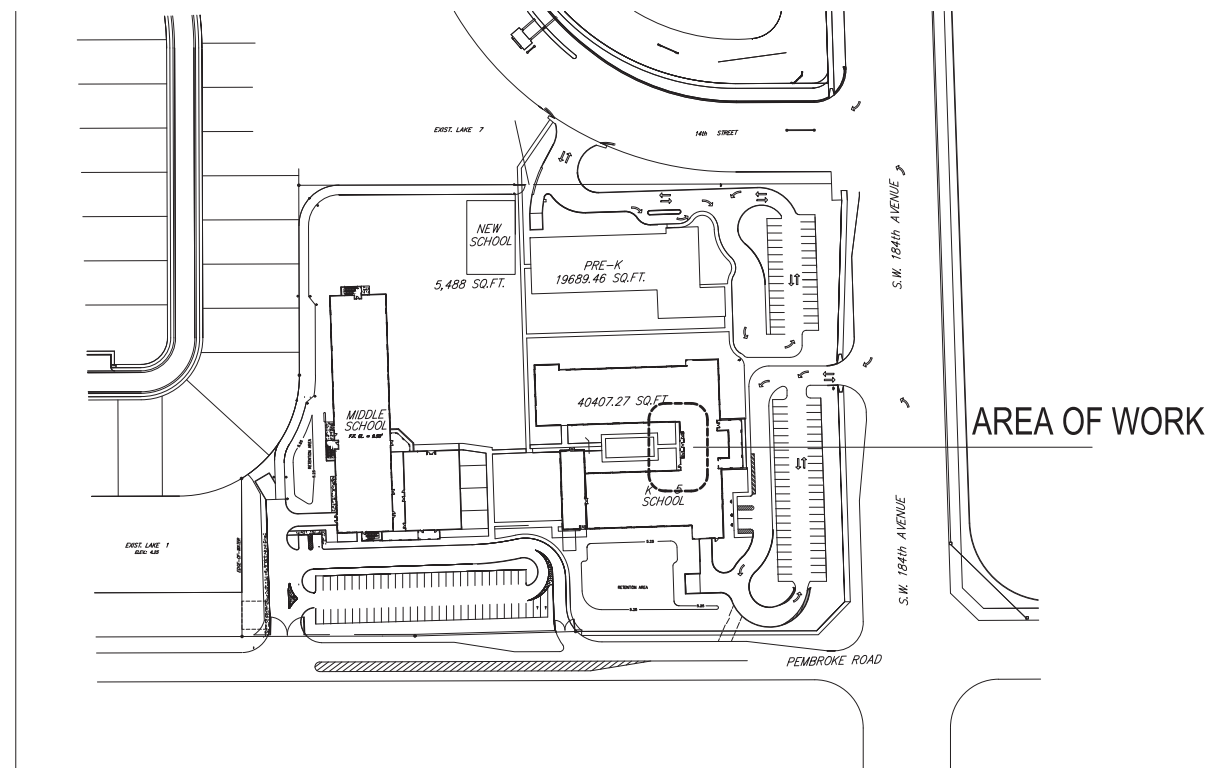
**PROPOSED FLOOR PLAN**  
 SCALE: 1/4"=1'-0"

NORTH

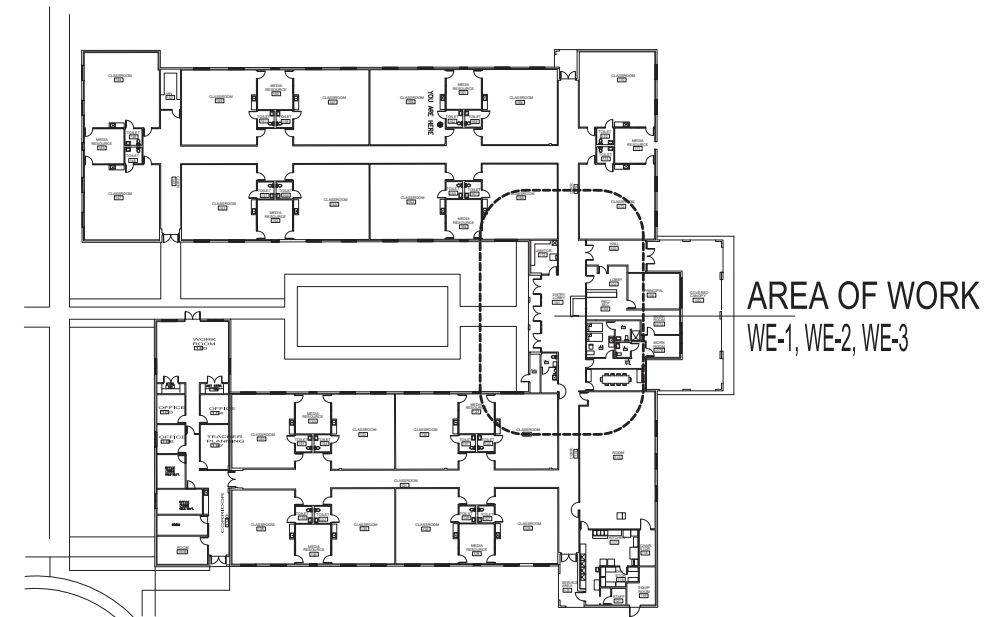
NET VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

# WEST CAMPUS CHARTER SCHOOL STOREFRONT REPLACEMENT

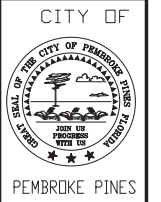
18501 PEMBROKE RD.  
PEMBROKE PINES FLORIDA 33029



WEST CAMPUS SCHOOL  
SITE PLAN



WEST CAMPUS SCHOOL  
ELEMENTARY BUILDING



REVISIONS	BY

LICENSE NO.

SEAL

PROJECT  
WEST CAMPUS CHARTER SCHOOL  
STOREFRONT REPLACEMENT

SCALE:

N.T.S

DATE:

01-23-2024

DRAWN BY:

A. NUNEZ

DRAWING NO.

DESCRIPTION

A-1



MIAMI-DADE COUNTY  
 PRODUCT CONTROL SECTION  
 11805 SW 26 Street, Room 208  
 Miami, Florida 33175-2474  
 T (786) 315-2590 F (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
 BOARD AND CODE ADMINISTRATION DIVISION  
**NOTICE OF ACCEPTANCE (NOA)**

**Trulite Glass & Aluminum Solutions, LLC**  
 403 West Park Ct, #201  
 Peachtree City, GA 30269

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: "351 Series" Outswing Aluminum Entrance Door w/wo Transom –LMI**

**APPROVAL DOCUMENT:** Drawing No. **AD15-23**, titled "351 Series Alum Outswing Doors w/wo Transom (Large Missile Impact)", sheets 1 through 17 of 17, dated 03/24/15, with revision "1" dated 02/11/2020, signed and sealed by Yiping Wang, P.E, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING: Large and Small Impact**

**Limitations:**

1. See water limitations in sheet **8, 9 & 13**.
2. Lower DP shall control, when doors w/wo transom is mulled to Storefront (under Separate approval), Full length Steel reinforcement is required, the tributary load, the mullion end anchors to be reviewed by Bldg. official.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises and renews NOA #17-1017.13** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**



*S.Z.*  
 07/16/2020

NOA No. 20-0424.01  
 Expiration Date: June 04, 2025  
 Approval Date: July 16, 2020  
 Page 1



Trulite Glass & Aluminum Solutions, LLCNOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**1. EVIDENCE SUBMITTED UNER PREVIOUS NOA'S****A. DRAWINGS**

1. Manufacturer's die drawings and sections. *(Submitted under NOA#14-0225.02).*
2. Drawing No. **AD-1523**, titled "351 Series Alum Outswing Dry-Glazed Doors w/wo Transom (Large Missile Impact)", sheets 1 through 11 of 11, dated 03/24/15, prepared, signed and sealed by Yiping Wang, P.E. on 09/29/17.

**B. TESTS**

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of an outswing aluminum entrance door w/wo Transoms, prepared by Fenestration Testing Lab, Test Report No(s). **FTL 7458**, dated 10/15/13, with addendum letter dated 04/09/14, signed and sealed by Marlin D. Brinson, P.E. *(Submitted under NOA#14-0225.02).*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC2014, prepared by MCY Engineering, Inc., dated FEB 15, 2015 and last revised on 04/28/15, signed and sealed by Yiping Wang, P.E.
2. Glazing complies w/ ASTME-1300-02 & -04

**D. QUALITY ASSURANCE**

1. Miami Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

1. NOA No. **14-0916.11** issued to Kuraray America., Inc. for their "SentryGlas" (Clear and White) Interlayer", expiring on 07/04/18.

**F. STATEMENTS**

1. Statement letter of conformance to **FBC 5<sup>th</sup> Edition (2014)** and **FBC 6<sup>th</sup> Edition (2017)**, and no financial interest, prepared by MCY Engineering, Inc., dated 09/29/17, signed and sealed by Yiping Wang, P.E.
2. Statement letter of Lab compliance, part of above referenced test reports.
3. Test Proposal # **12-1089** dated DEC 10, 2012, issued by PERA.

**G. OTHER**

1. This NOA **revises** NOA #**14-0225.02**, expiring on 06/04/20.




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Sifang Zhao, P.E.  
Product Control Examiner  
NOA No. 20-0424.01  
Expiration Date: June 04, 2025  
Approval Date: July 16, 2020

Trulite Glass & Aluminum Solutions, LLCNOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**2. NEW EVIDENCE SUBMITTED****A. DRAWINGS**

1. Drawing No. **AD15-23**, titled “351 Series Alum Outswing Doors w/wo Transom (Large Missile Impact)”, sheets 1 through 17 of 17, dated 03/24/15, with revision “1” dated 02/11/2020, prepared, signed and sealed by Yiping Wang, P.E.

**B. TESTS**

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Large Missile Impact Test per FBC, TAS 201-94  
4) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an outswing aluminum entrance door w/wo Transoms, prepared by Fenestration Testing Lab, Test Report No(s). **FTL-10168, FTL-9378**, dated 01/31/2020, signed and sealed by Idalmis Ortega, P.E.

2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Large Missile Impact Test per FBC, TAS 201-94  
4) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
5) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of an outswing aluminum entrance door w/wo Transoms, prepared by Fenestration Testing Lab, Test Report No(s). **FTL-9867, FTL-8757 and FTL-9689**, dated 01/31/2020, signed and sealed by Idalmis Ortega, P.E.

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC 6<sup>th</sup> (2017) and FBC 7<sup>th</sup> (2020) editions, prepared by MCY Engineering, Inc., dated June 02, 2020, signed and sealed by Yiping Wang, P.E.
2. Glazing complies w/ ASTM E-1300-09 & -12

**D. QUALITY ASSURANCE**

1. Miami Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

1. NOA No. **17-0808.02** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 12/28/17, expiring on 07/04/23.
2. NOA No. **17-0712.05** issued to **Eastman Chemical Company (MA)** for their “**Saflex PVB Clear and Color Glass Interlayers**” dated 09/07/17, expiring on 05/21/21.




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Sifang Zhao, P.E.  
Product Control Examiner  
NOA No. 20-0424.01  
Expiration Date: June 04, 2025  
Approval Date: July 16, 2020

Trulite Glass & Aluminum Solutions, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**F. STATEMENTS**

1. Statement letter of conformance to **FBC 6<sup>th</sup> Edition (2017)** and **FBC 7<sup>th</sup> Edition (2020)**, and no financial interest, prepared by MCY Engineering, Inc., dated 06/02/2020 signed and sealed by Yiping Wang, P.E.
2. Test Proposal # **14-1349 Rev #1** dated 05/13/2015, issued by RER.

**G. OTHER**

1. This NOA **revises** and renews NOA #**17-1017.13**, expiring on 06/04/20.



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Sifang Zhao, P.E.  
Product Control Examiner  
NOA No. 20-0424.01  
Expiration Date: June 04, 2025  
Approval Date: July 16, 2020

## TRULITTE GLASS & ALUMINUM SOLUTION SERIES 351 ALUMINUM OUT SWING DOORS LARGE MISSILE IMPACT



http://www.trulite.com

403 WESTPARK CT. SUITE 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132 | f. 954-724-2083

PRODUCT:

**351 SERIES  
ALUM OUTSWING  
DOORS**  
W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

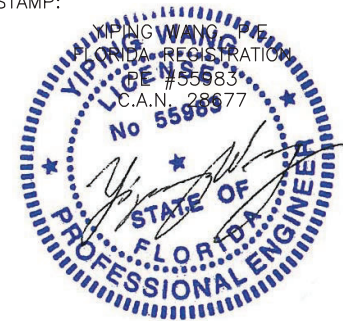
ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12871 Miramar Pkwy Ste. 301  
Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

SHEET TITLE

## COVER

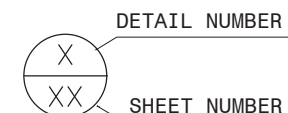
DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>1 OF 17</b>
DWG: AD15-23	

### DRAWING INDEX

SHEET	DESCRIPTION	REVISION			
COVER	COVER				
G1	GLASS OPTION				
E01	ELEVATIONS				
E02	ELEVATIONS				
E03	ELEVATIONS				
E04	ELEVATIONS				
E05	ELEVATIONS				
D1	DETAILS				
D2	DETAILS				
D3	DETAILS				
D4	DETAILS				
D5	DETAILS				
A1	ANCHOR TYPES				
H1	HARDWARE				
BOM	BILL OF MATERIALS				
PO1	PARTS				
ISO	ISOMETRIC				

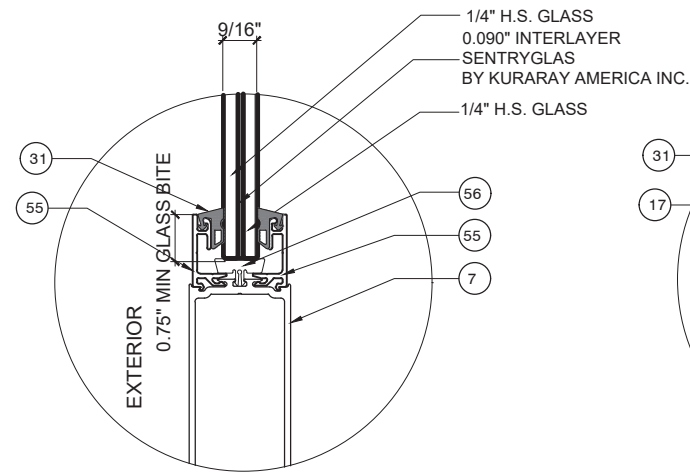
### ABBREVIATIONS AND SYMBOLS

D.L.O. - DAYLITE OPENING	S.S. - STAINLESS STEEL
F.H. - FRAME HEIGHT	H.S. - HEAT STRENGTHENED
F.W. - FRAME WIDTH	SSG - STRUCTURAL SILICONE GLAZED
LG. - LONG	TEMP. - TEMPERED
STL. - STEEL	O.C. - ON CENTER
ALUM. - ALUMINUM	
MULL. - MULLION	
HORIZ. - HORIZONTAL	
W/ - WITH	
W/O - WITHOUT	
VERT. - VERTICAL	

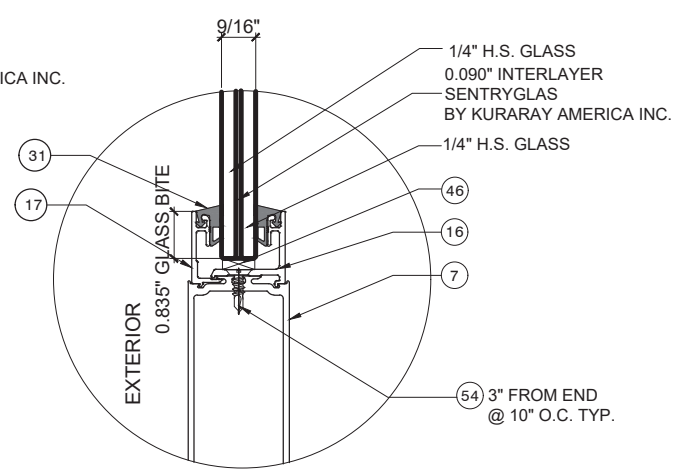


- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2017 6TH / 2020 7TH EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
  - DOORS ARE RATED LARGE MISSILE IMPACT. SHUTTERS OR EXTERNAL PROTECTION DEVICES IS NOT REQUIRED.
  - DOOR TESTED FOR IMPACT LEVEL D
  - ULTIMATE DESIGN LOAD OBTAINED FROM ASCE 7-10/16, MULTIPLY BY 0.6, SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THE DOCUMENT.
  - FOR WATER INFILTRATION RATINGS, SEE LIMITATION ON SHEET A1.
  - 1X OR 2X WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE, TO BE REVIEWED BY BUILDING OFFICIAL.
  - ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
  - MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2017 6TH EDITION FLORIDA BUILDING CODE SECTION AS APPLICABLE.
  - ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
  - LIMITATION:  
WHEN DOORS OR DOOR WITH TRANSOM ARE MULLED TO STOREFRONT (UNDER SEPARATE APPROVAL) LOWER DESIGN PRESSURE FROM DOOR, DOOR WITH TRANSOM OR STOREFRONT SHALL GOVERN IN THE ENTIRE ASSEMBLY.
  - WHERE APPLICABLE:  
EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

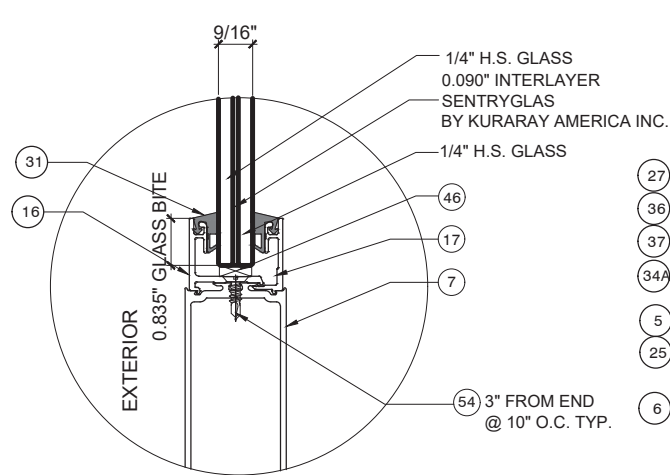
## DRY-GLAZED LAMINATED GLASS OPTIONS



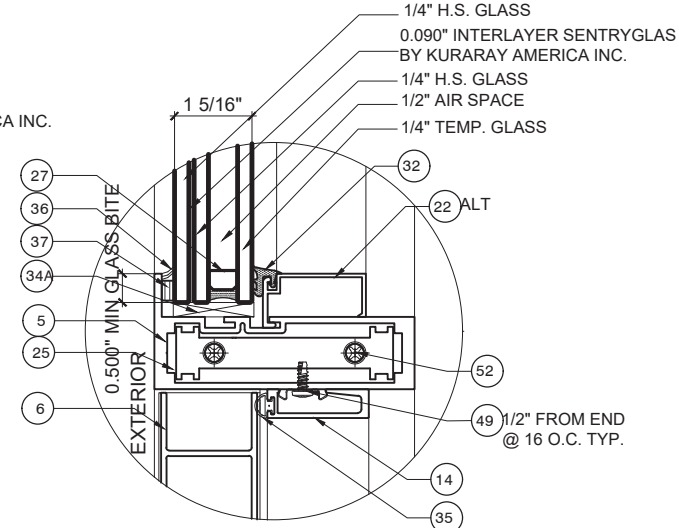
**G1** 9/16" LAMINATED GLASS GLAZING  
DETAIL DOOR LEAF (ACT/INACT)  
FOR DOOR PANEL WIDTH UPTO 36"



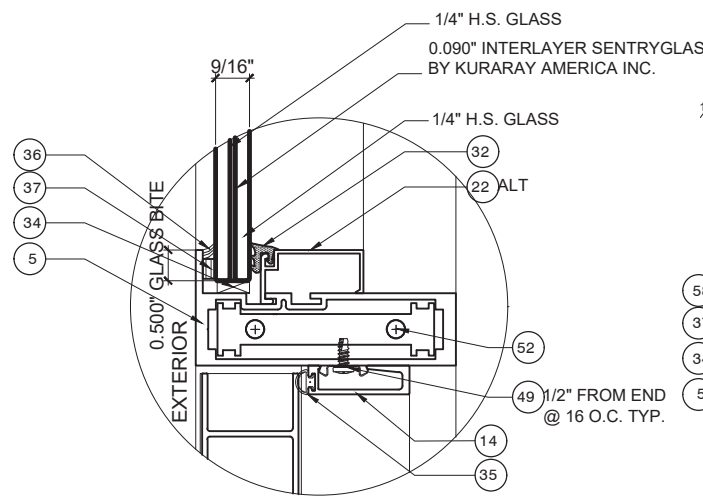
**G1A** 9/16" LAMINATED GLASS GLAZING  
DETAIL DOOR LEAF (ACT/INACT)  
FOR DOOR PANEL WIDTH UPTO 48"



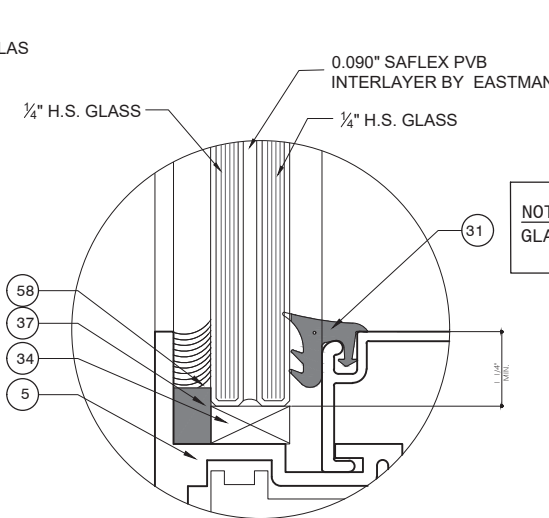
**G1B** 9/16" LAMINATED GLASS GLAZING  
OPTION W/ INTERIOR DOOR  
ADAPTOR IN THE EXTERIOR SIDE



**G2** 1 5/16" TOTAL INSULATED LAMINATED GLASS  
THICKNESS AT TRANSOM



**G3** 9/16" TOTAL LAMINATED GLASS  
THICKNESS AT TRANSOM

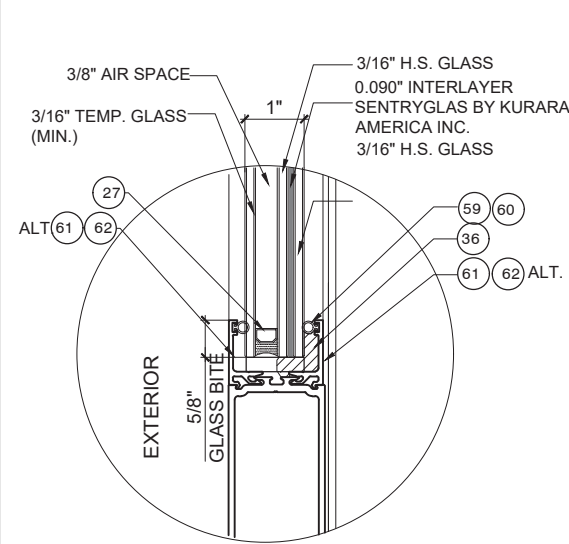


**G8** 9/16" LAMINATED GLASS GLAZING  
AT TRANSOM

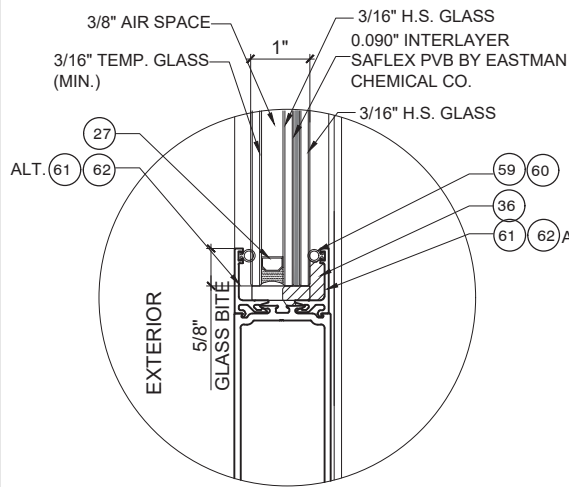
**NOTE:**  
GLAZING COMPLIES WITH ASTM E1300-09.

**27) SPACER:**  
1/2" AIR SPACE WITH AN ALUMINUM  
SERIES LPXC SPACER BY ALL METAL  
INC. AROUND THE PERIMETER OF  
GLASS.  
**PRIMARY SEALANT:**  
PIB - POLYISOBUTYLENE  
**SECONDARY SEALANT:**  
SILICONE SEALANT

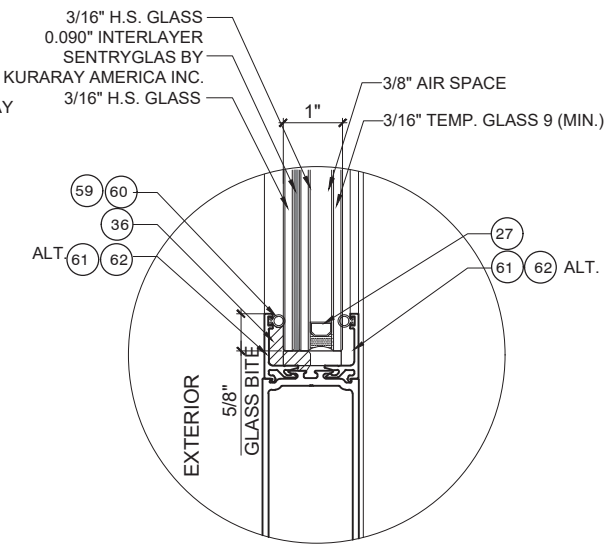
## WET-GLAZED LAMINATED INSULATED GLASS OPTIONS



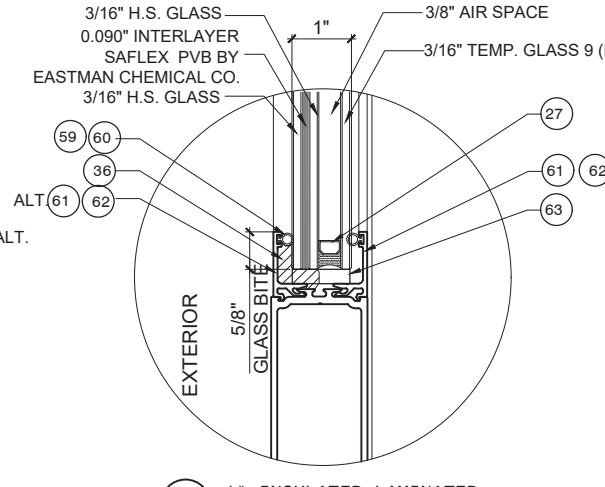
**G4** 1" INSULATED LAMINATED  
GLASS GLAZING DETAIL DOOR  
LEAF (ACT/INACT)



**G6** 1" INSULATED LAMINATED  
GLASS GLAZING DETAIL DOOR  
LEAF (ACT/INACT)



**G5** 1" INSULATED LAMINATED  
GLASS GLAZING DETAIL DOOR  
LEAF (ACT/INACT)



**G7** 1" INSULATED LAMINATED  
GLASS GLAZING DETAIL DOOR  
LEAF (ACT/INACT)



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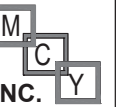
403 WESTPARK CT. SUITE 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132 | f. 954-724-2083

PRODUCT:

**351 SERIES  
ALUM OUTSWING  
DOORS**  
W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

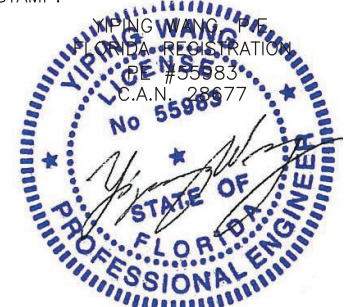
ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12871 Miramar Pkwy Ste. 301  
Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By *[Signature]*  
Miami-Dade Product Control

SHEET TITLE

G1

DRAWN: FRANK  
DATE: 03-24-15  
DWG: AD15-23

DRAWING No:

2 OF 17



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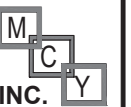
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
( LARGE MISSILE IMPACT )

REVN	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



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NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

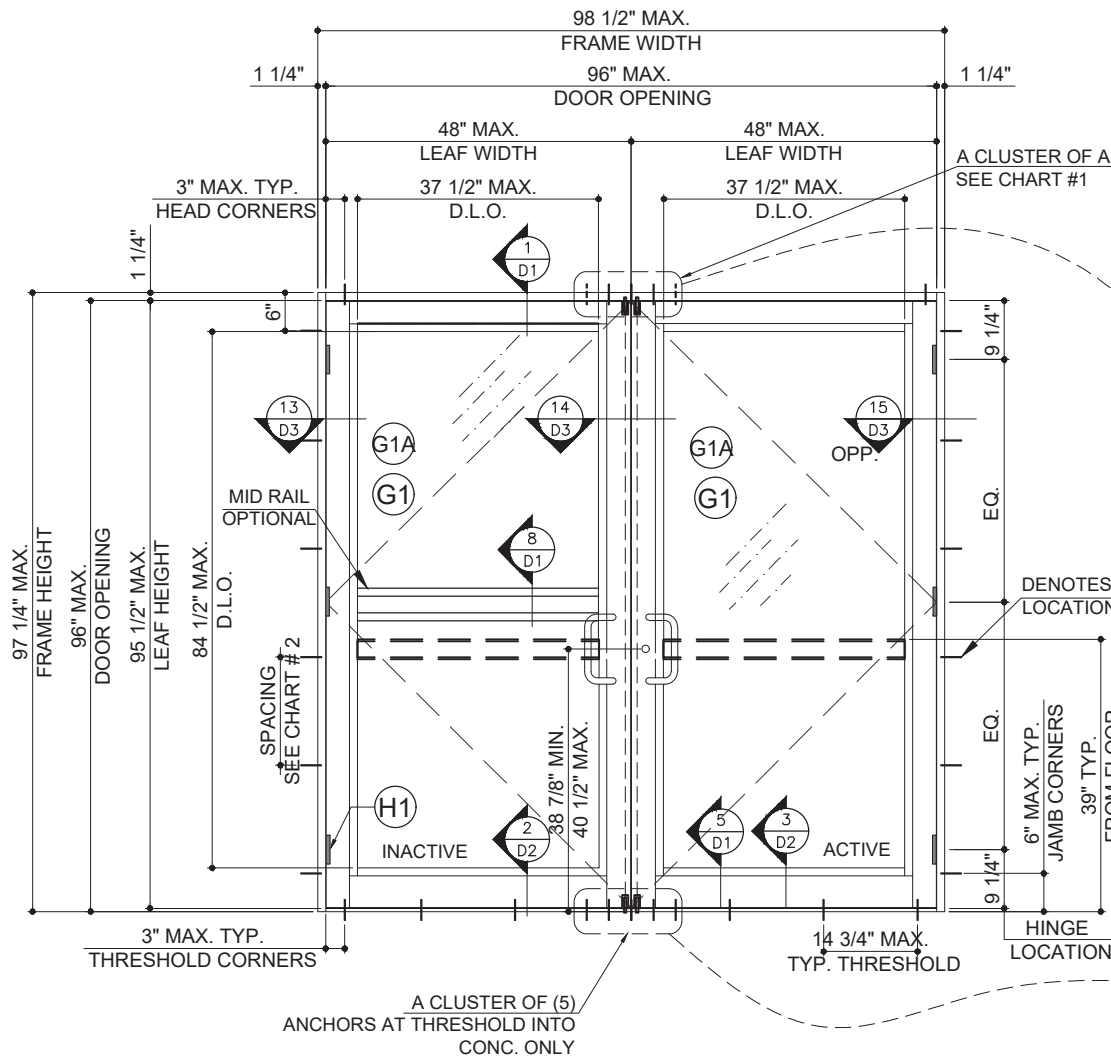
SHEET TITLE

## E01

DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>3 OF 17</b>
DWG: AD15-23	

CHART #1  
NUMBER OF ANCHORS AT MEETING STILE (HEAD)

ANCHOR TYPE	NUMBER OF ANCHORS					
	1/4" SHIM	3/8" SHIM	1/4" SHIM	3/8" SHIM	1/4" SHIM	3/8" SHIM
A	5	5	5	5	5	6
B	3	4	4	5	4	5
C	3	4	3	5	3	5
	< 72" WIDTH		< 84" WIDTH		< 96" WIDTH	



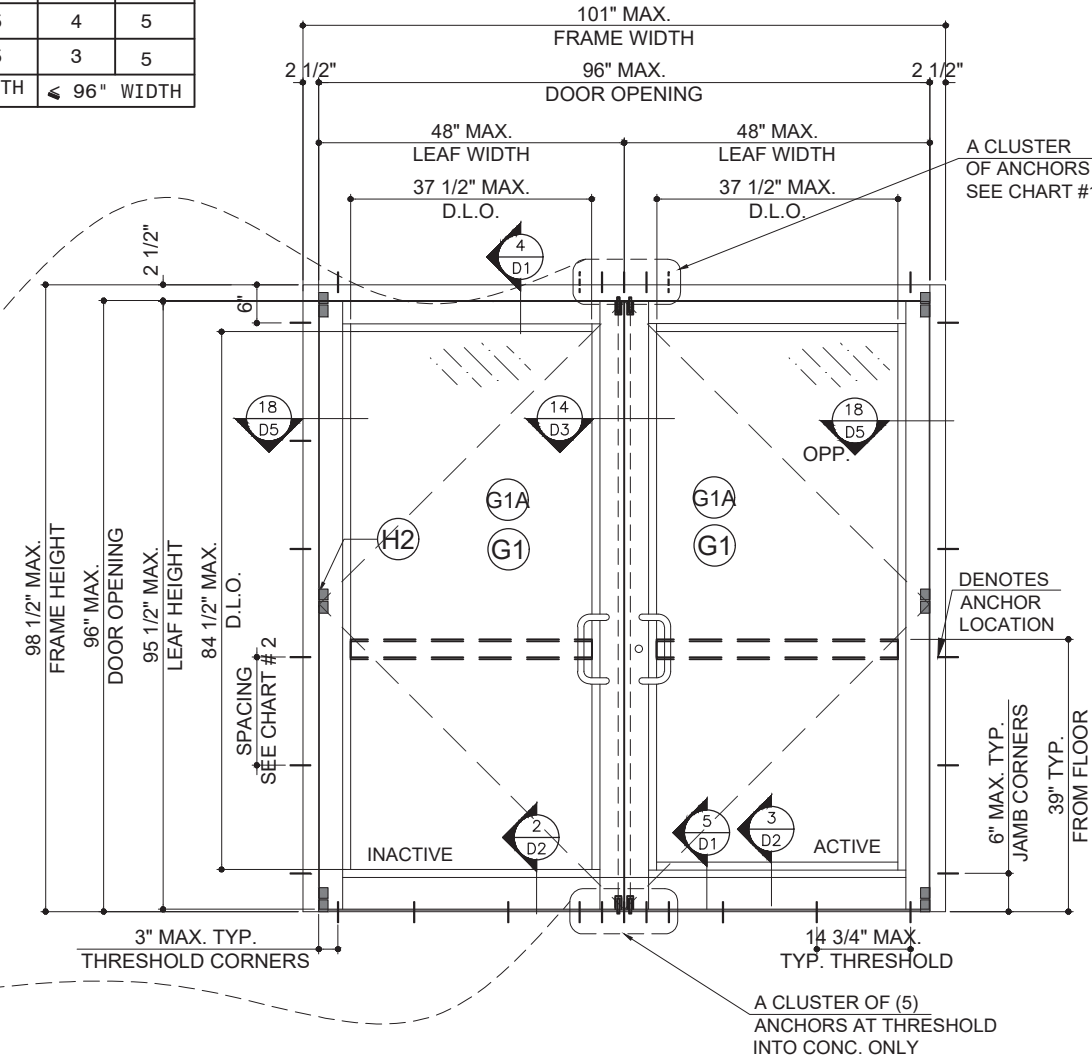
OUTSWING DOOR  
WITH 3000 SERIES FRAME  
TYPICAL EXTERIOR ELEVATION  
SEE CHART #4 ON PAGE H1 FOR LOCK OPTIONS

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF

CHART #2

DOOR WIDTH	JAMB ANCHOR SPACING
72"	17"
84"	15"
96"	13"

351 DOOR WITH LAMINATED GLASS OPTION



OUTSWING DOOR  
WITH 5000 SERIES FRAME  
TYPICAL EXTERIOR ELEVATION  
SEE CHART #4 ON PAGE H1 FOR LOCK OPTIONS

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF



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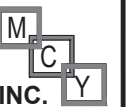
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
( LARGE MISSILE IMPACT )

REVN	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

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Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
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PRODUCT CONTROL APPROVAL:

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Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
Miami-Dade Product Control

SHEET TITLE

## E04

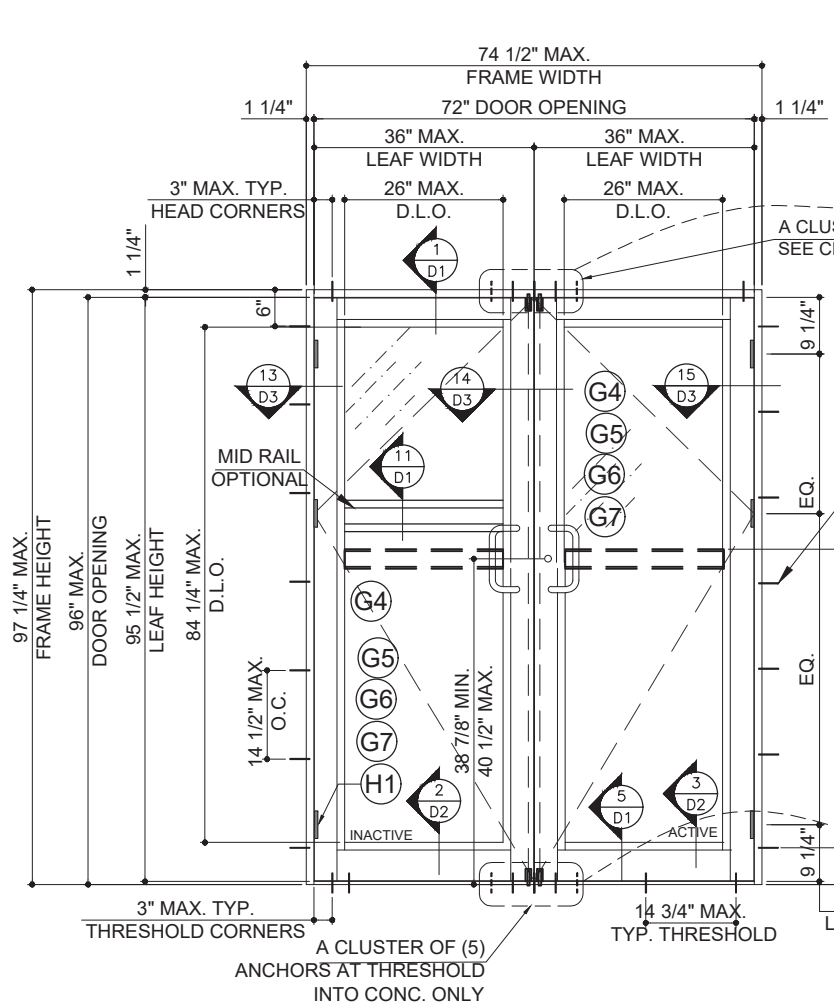
DRAWN: FRANK

DRAWING No:

DATE: 03-24-15

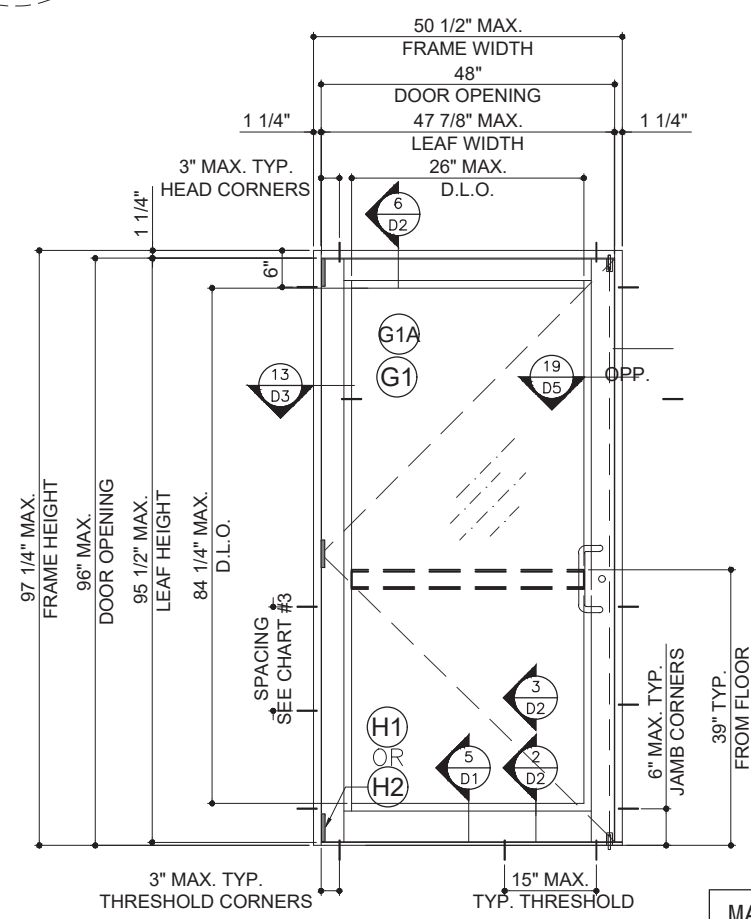
## 4 OF 17

DWG: AD15-23



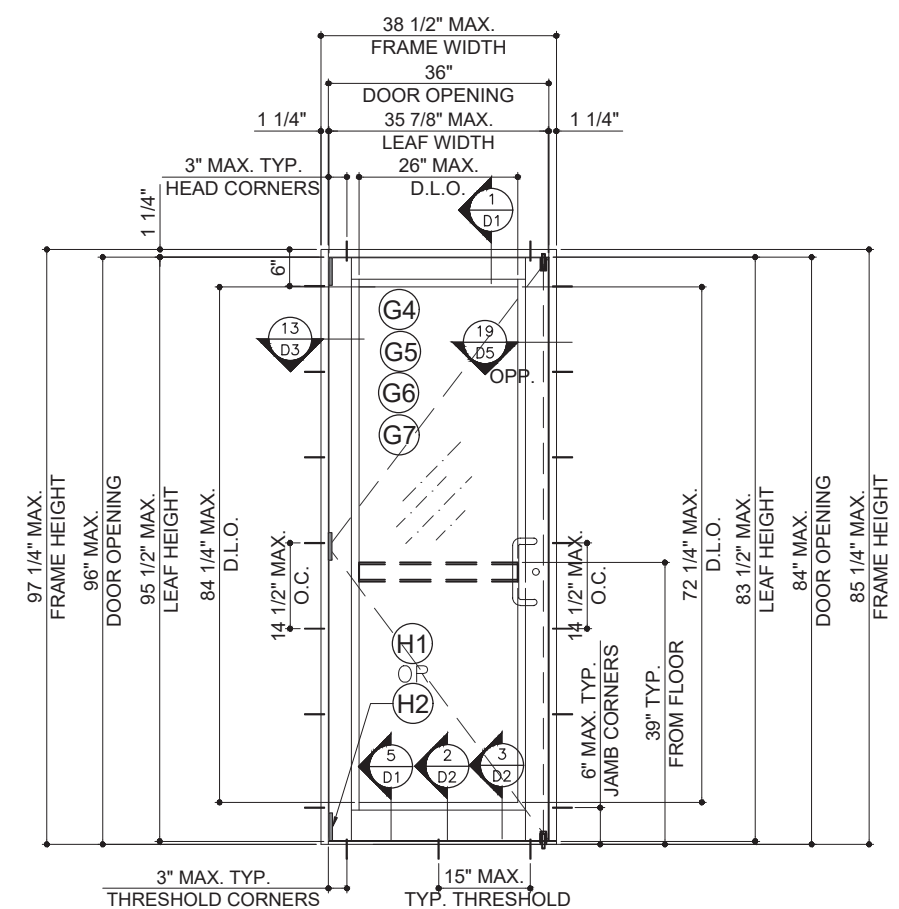
OUTSWING DOOR 72"x 96" MAX. DOUBLE DOOR  
WITH 3000 SERIES FRAME  
TYPICAL EXTERIOR ELEVATION  
INSULATED LAMINATED GLASS OPTION

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF



OUTSWING SINGLE DOOR  
TYPICAL EXTERIOR ELEVATION  
LAMINATED GLASS OPTION

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF



OUTSWING SINGLE DOOR  
TYPICAL EXTERIOR ELEVATION  
INSULATED LAMINATED GLASS OPTION

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF



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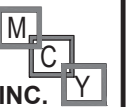
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REV#	DATE/REMARKS
REV 01	02/11/2020

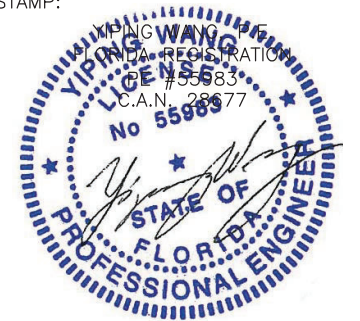
ENGINEER:



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GLAZING CONSULTANT

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Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
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PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

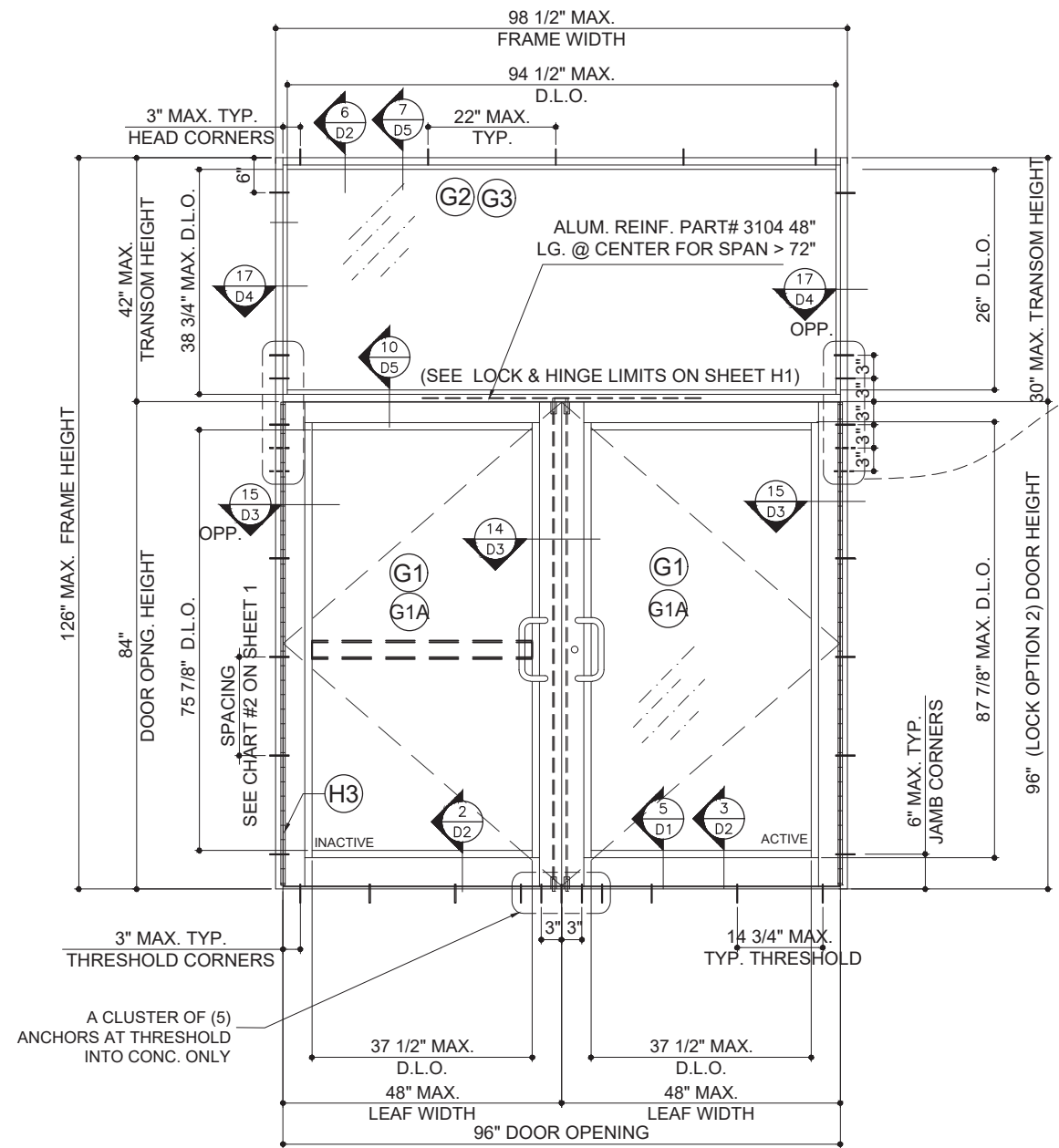
Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

SHEET TITLE

## E03

DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>5 OF 17</b>
DWG: AD15-23	



A CLUSTER OF (5) ANCHORS AT THRESHOLD INTO CONC. ONLY

**OUTSWING DOOR WITH TRANSOM**  
TYPICAL EXTERIOR ELEVATION  
SEE CHART #4 ON PAGE H1 FOR LOCK OPTIONS

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF

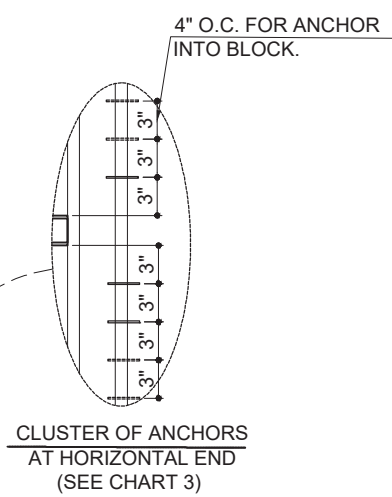
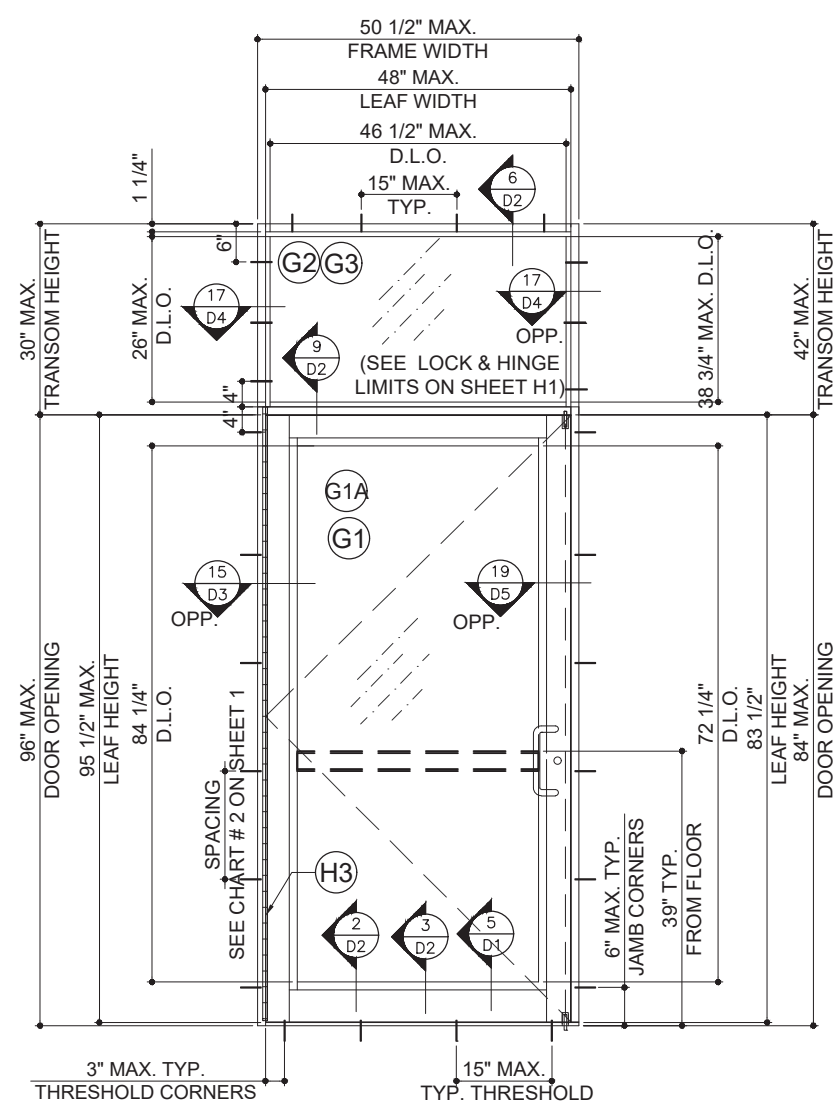


CHART #3 NUMBER OF ANCHORS AT TRANSOM END

ANCHOR TYPE	NUMBER OF ANCHORS					
	1/4" SHIM	3/8" SHIM	1/4" SHIM	3/8" SHIM	1/4" SHIM	3/8" SHIM
B	4	4	5	5	5	5
	3	4	6	5	6	5
B**	4	4	5	5	6	5
	2	3	3	4	3	4
	≤ 72" WIDTH		≤ 84" WIDTH		≤ 96" WIDTH	

\*\* into CMU with ultracon only

### 351 DOOR WITH LAMINATED GLASS OPTION



**OUTSWING SINGLE DOOR WITH TRANSOM**  
TYPICAL EXTERIOR ELEVATION

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF





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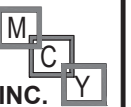
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PRODUCT:

**351 SERIES  
ALUM OUTSWING  
DOORS**  
W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

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Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
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July 13th, 2020

PRODUCT CONTROL APPROVAL:

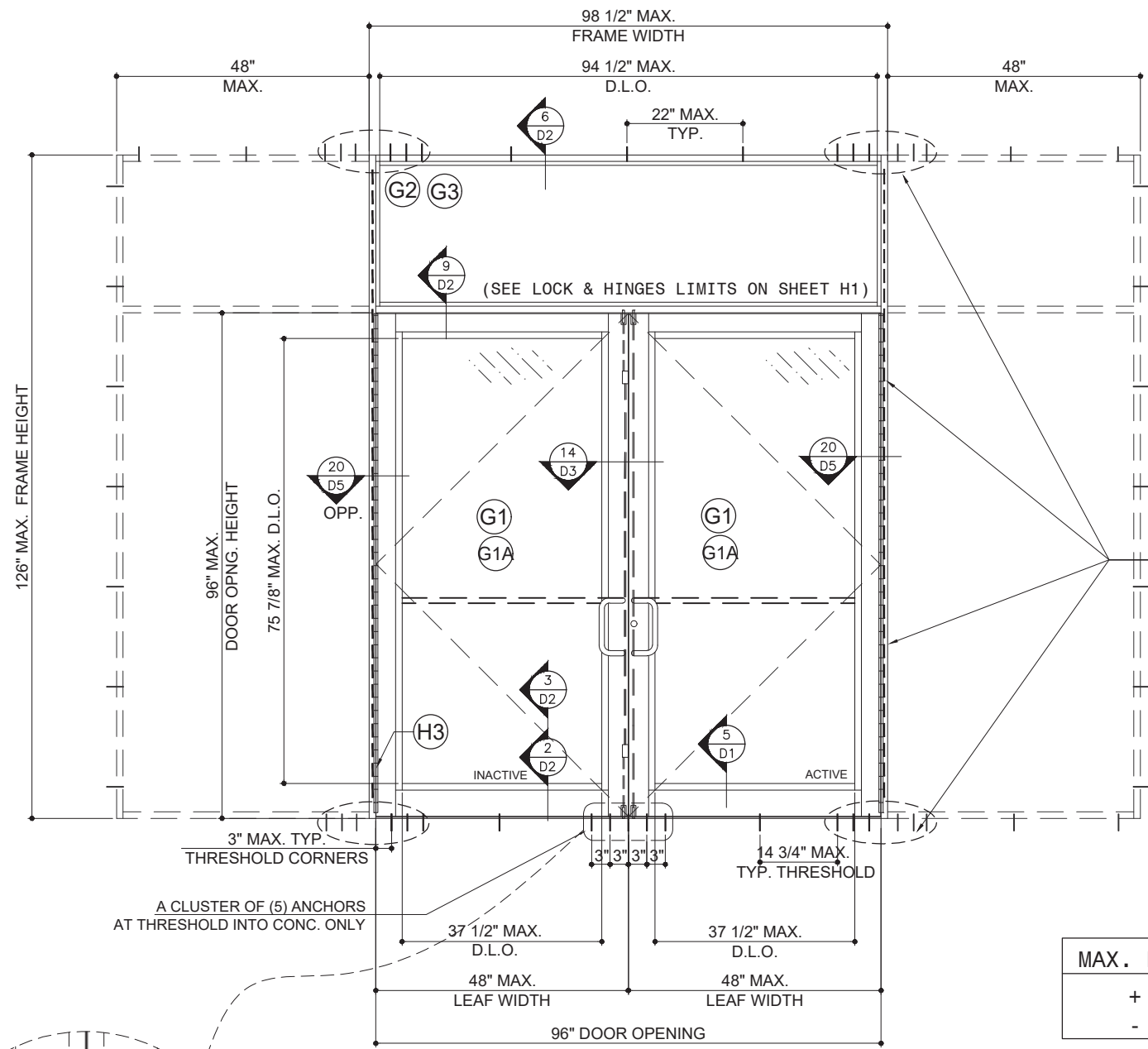
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**  
Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

SHEET TITLE

**E02**

DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>6 OF 17</b>
DWG: AD15-23	

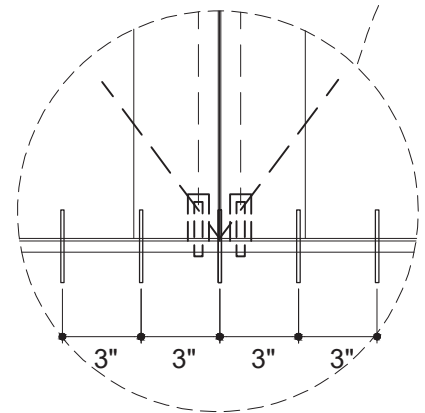


SIDELITE, MULLION REINFORCEMENT AND ANCHORS REFER TO SEPARATE WINDOW WALL PRODUCT APPROVAL.

WHEN DOORS OR DOOR WITH TRANSOM ARE MULLED TO STOREFRONT (UNDER SEPARATE APPROVAL) LOWER DESIGN PRESSURE FROM DOOR, DOOR WITH TRANSOM OR STOREFRONT SHALL CONTROL FOR THE ENTIRE ASSEMBLY.

MAX. DESIGN LOAD
+ 70 PSF
- 70 PSF

OUTSWING DOOR WITH OR W/O TRANSOM  
& SIDELITES (UNDER SEPARATE APPROVAL)  
(SINGLE DOOR ALSO APPLIES)





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PRODUCT:

**351 SERIES  
ALUM OUTSWING  
DOORS**  
W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

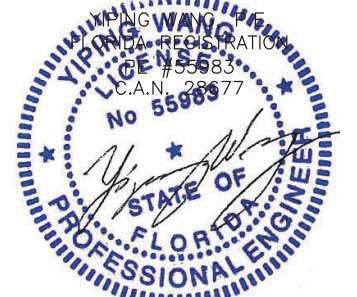
ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

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Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**  
Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

SHEET TITLE

**E05**

DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>7 OF 17</b>
DWG: AD15-23	

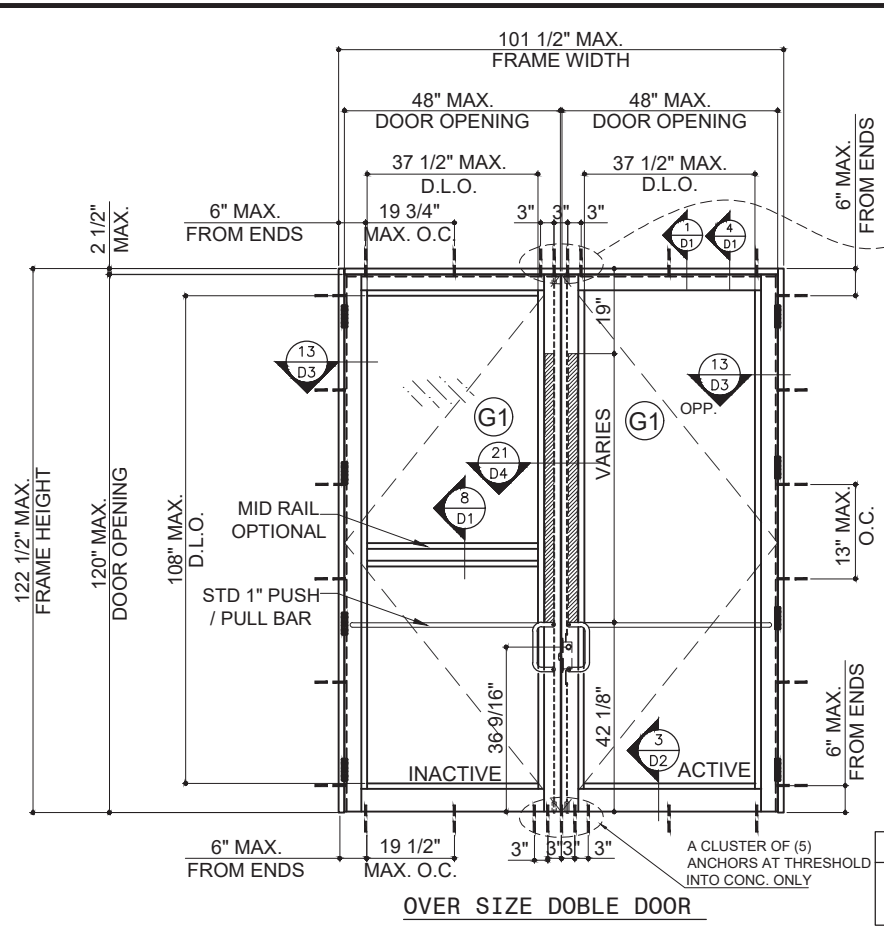
CHART 4  
NUMBER OF ANCHORS AT MEETING STILE HEAD

ANCHOR TYPE	NUMBER OF ANCHORS	
	1/4" SHIM	3/8" SHIM
A	7	7
B	5	7
C	4	6

CHART 5  
NUMBER OF ANCHORS AT MEETING STILE HEAD

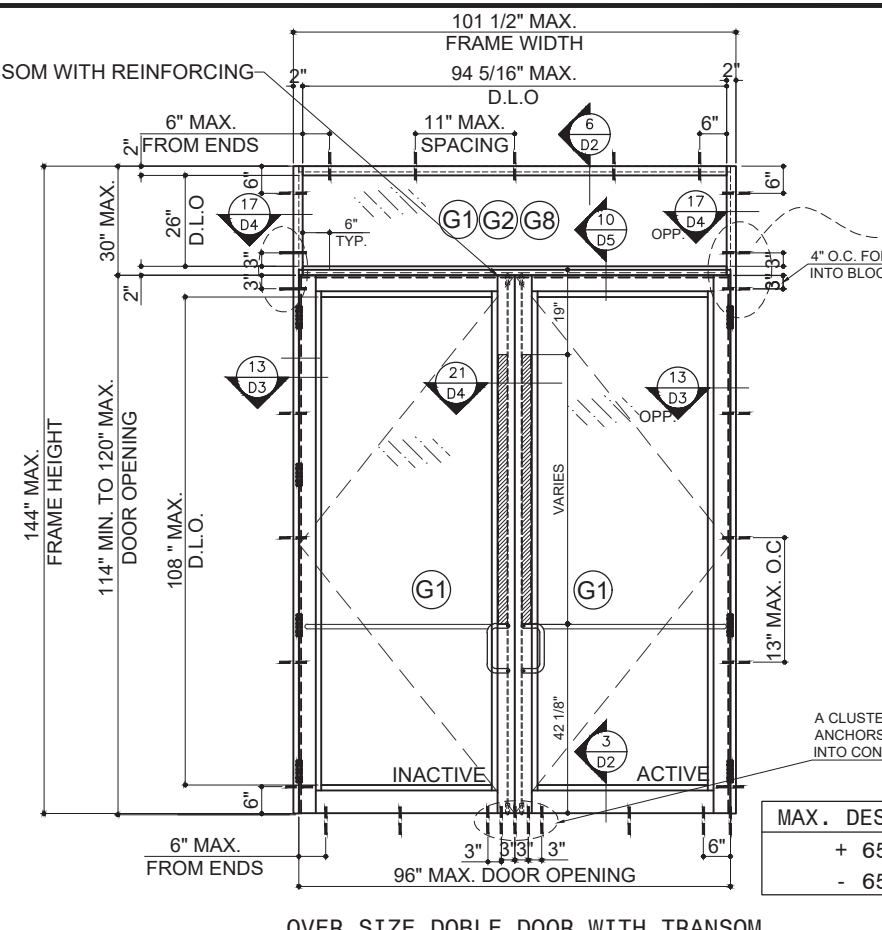
ANCHOR TYPE	NUMBER OF ANCHORS	
	1/4" SHIM	3/8" SHIM
A	6	6
B	4	6
B**	6	6
C	3	5

\*\* into CMU with Ultracon only



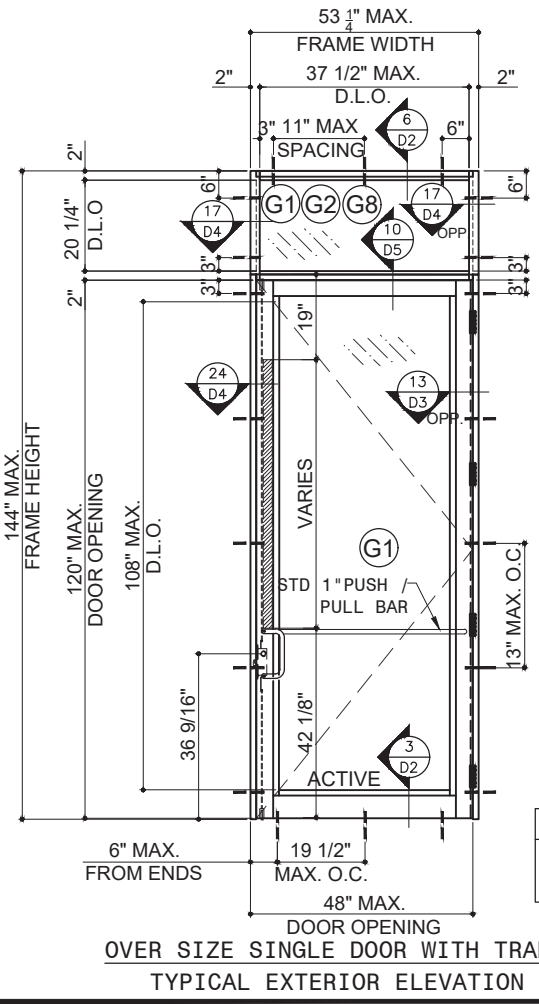
**OVER SIZE DOBLE DOOR  
TYPICAL EXTERIOR ELEVATION**

MAX. DESIGN LOAD	
+ 70 PSF	- 70 PSF



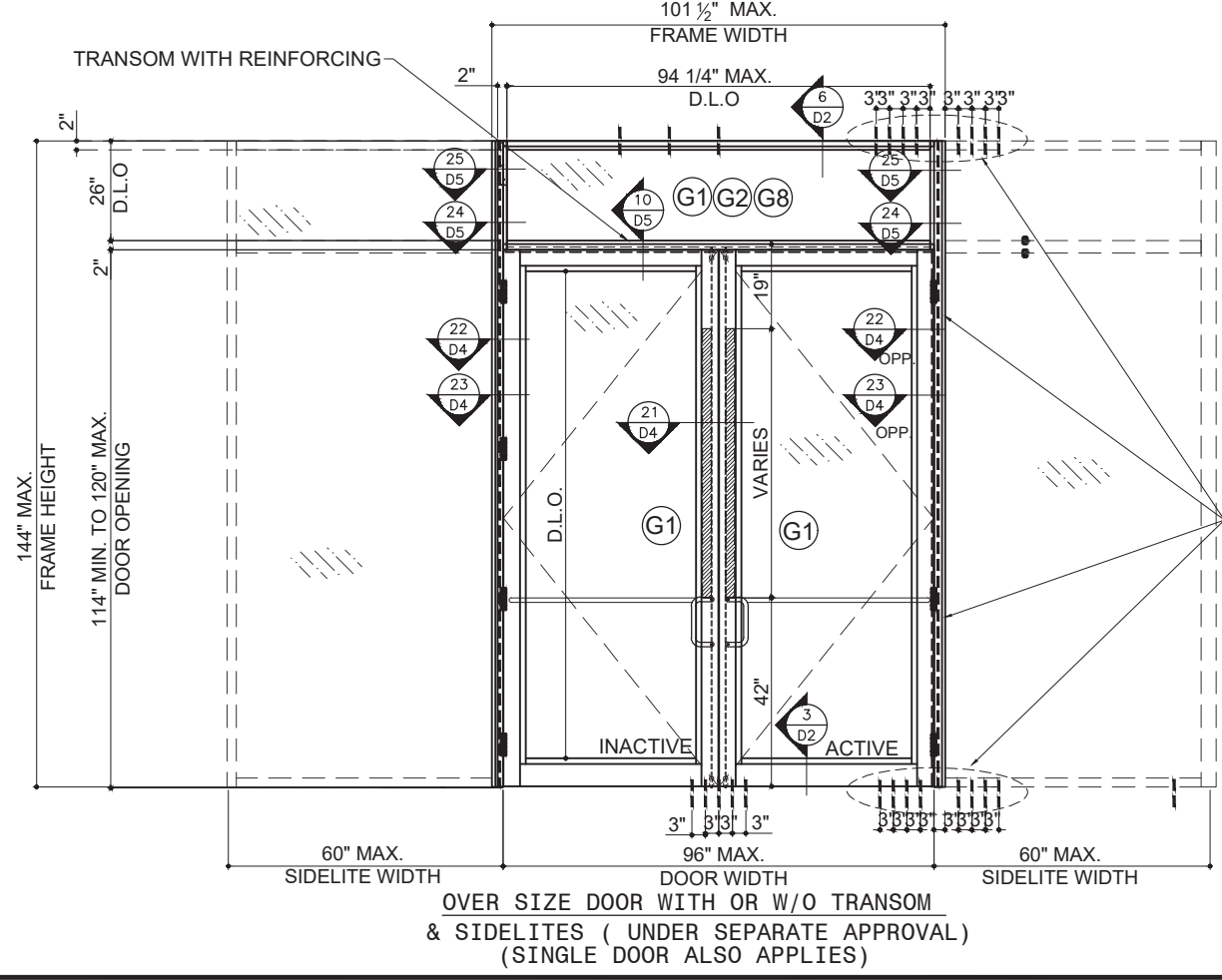
**OVER SIZE DOBLE DOOR WITH TRANSOM  
TYPICAL EXTERIOR ELEVATION**

MAX. DESIGN LOAD	
+ 65 PSF	- 65 PSF



**OVER SIZE SINGLE DOOR WITH TRANSOM  
TYPICAL EXTERIOR ELEVATION**

MAX. DESIGN LOAD	
+ 65 PSF	- 70 PSF



**OVER SIZE DOOR WITH OR W/O TRANSOM  
& SIDELITES ( UNDER SEPARATE APPROVAL )  
( SINGLE DOOR ALSO APPLIES )**

SIDELITE, MULLION REINFORCEMENT AND ANCHORS REFER TO SEPARATE PRODUCT APPROVAL.

WHEN DOORS OR DOOR WITH TRANSOM ARE MULLED TO STOREFRONT (UNDER SEPARATE APPROVAL) LOWER DESIGN PRESSURE FROM DOOR, DOOR WITH TRANSOM OR STOREFRONT SHALL CONTROL FOR THE ENTIRE ASSEMBLY.

MAX. DESIGN LOAD	
+ 65 PSF	- 65 PSF



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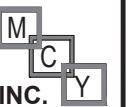
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

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Miramar, FL 33027  
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www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
**Miami-Dade Product Control**

SHEET TITLE

## D1

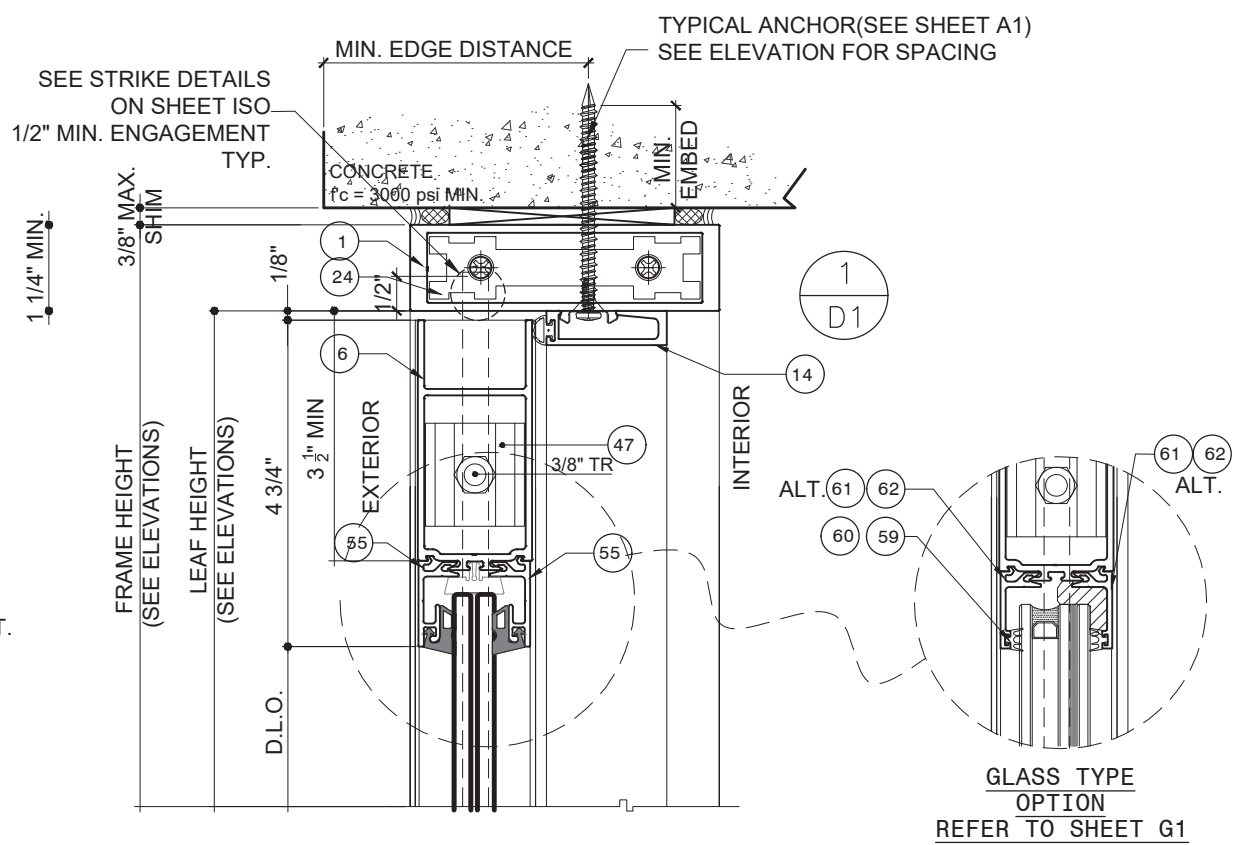
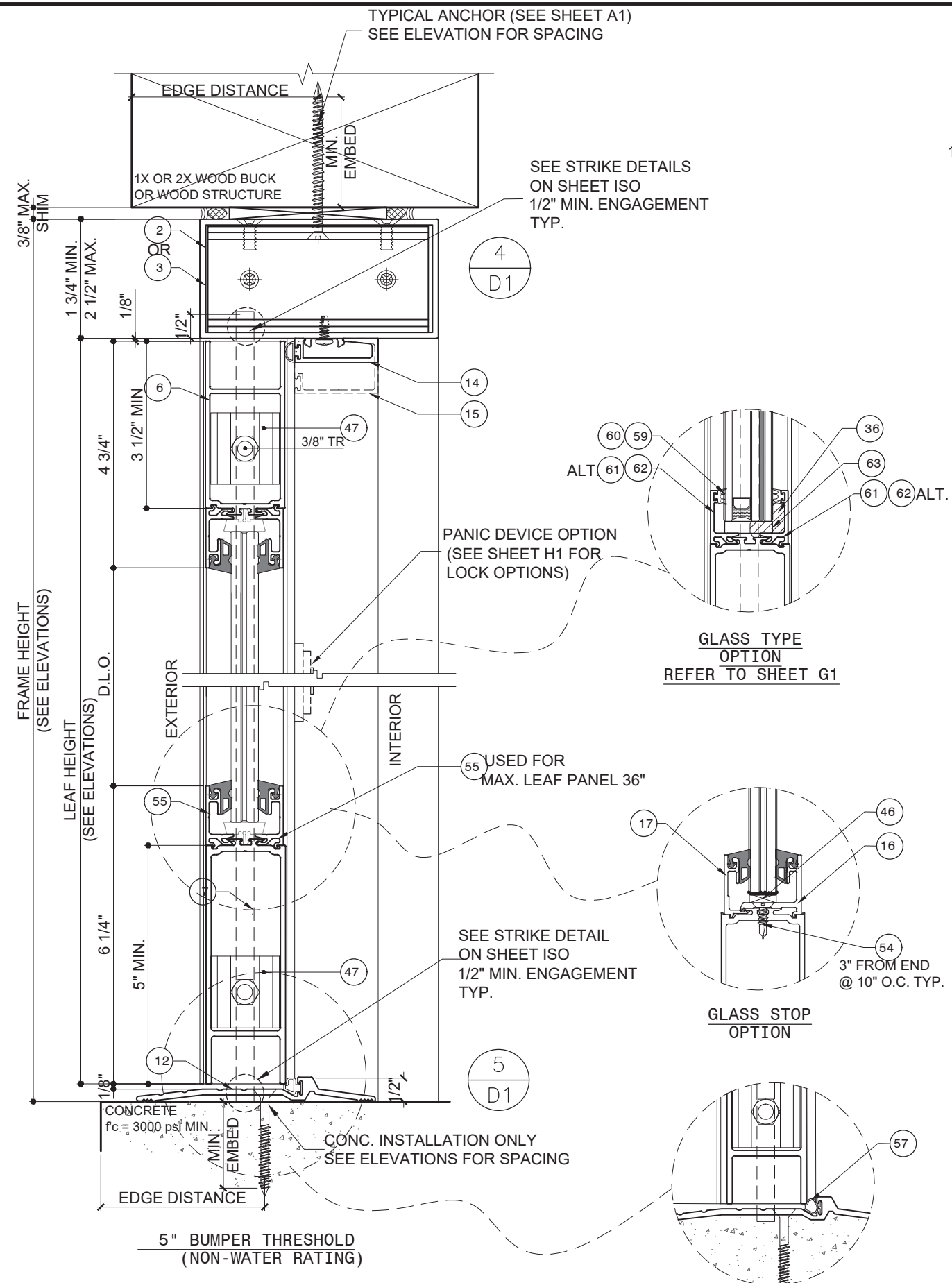
DRAWN: FRANK

DRAWING No:

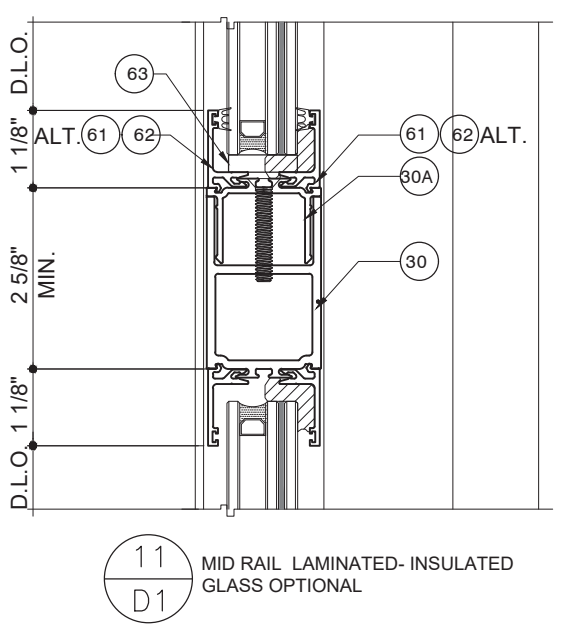
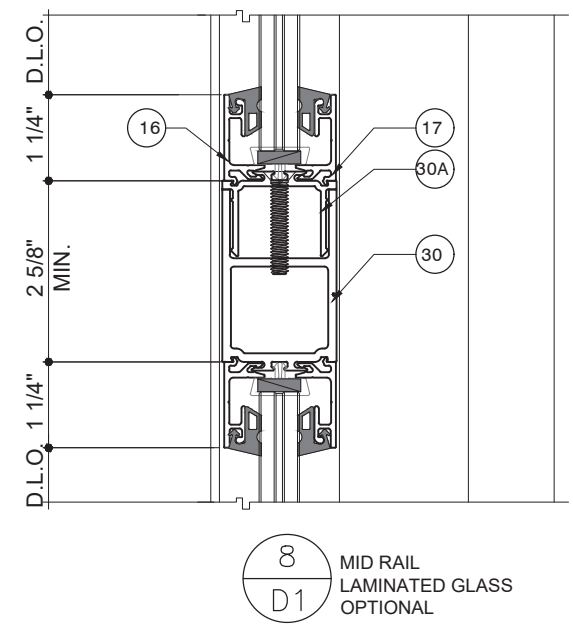
DATE: 03-24-15

## 8 OF 17

DWG: AD15-23



EPDM GASKETS USED IN THIS FENESTRATION PRODUCT  
ARE IN COMPLIANCE WITH ASTM STANDARD C864.



8  
D1  
MID RAIL  
LAMINATED GLASS  
OPTIONAL

11  
D1  
MID RAIL LAMINATED-INSULATED  
GLASS OPTIONAL

NOTE: ADA COMPLIANT TO BE REVIEWED BY BUILDING OFFICIAL.

ULTRAFAB E205 THRESHOLD GASKET  
OPTION



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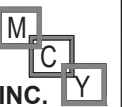
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12871 Miramar Pkwy Ste. 301  
Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
www.MCYEngineering.com

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July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
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NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By Miami-Dade Product Control

SHEET TITLE

D2

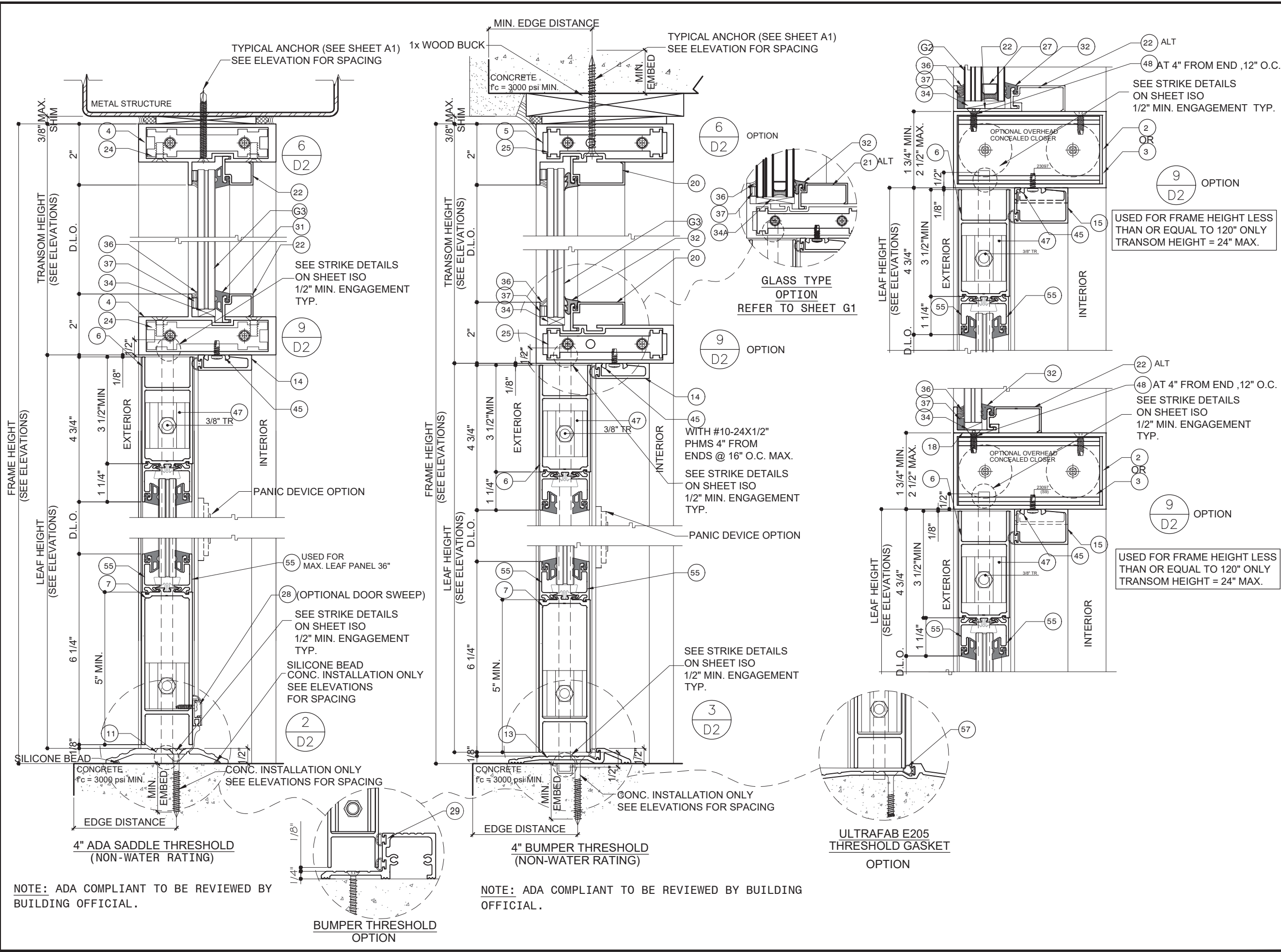
DRAWN: FRANK

DRAWING No:

DATE: 03-24-15

9 OF 17

DWG: AD15-23



NOTE: ADA COMPLIANT TO BE REVIEWED BY BUILDING OFFICIAL.

NOTE: ADA COMPLIANT TO BE REVIEWED BY BUILDING OFFICIAL.



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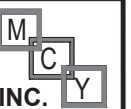
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REV#	DATE/REMARKS
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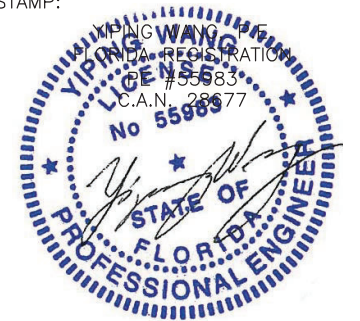
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By   
**Miami-Dade Product Control**

SHEET TITLE

## D3

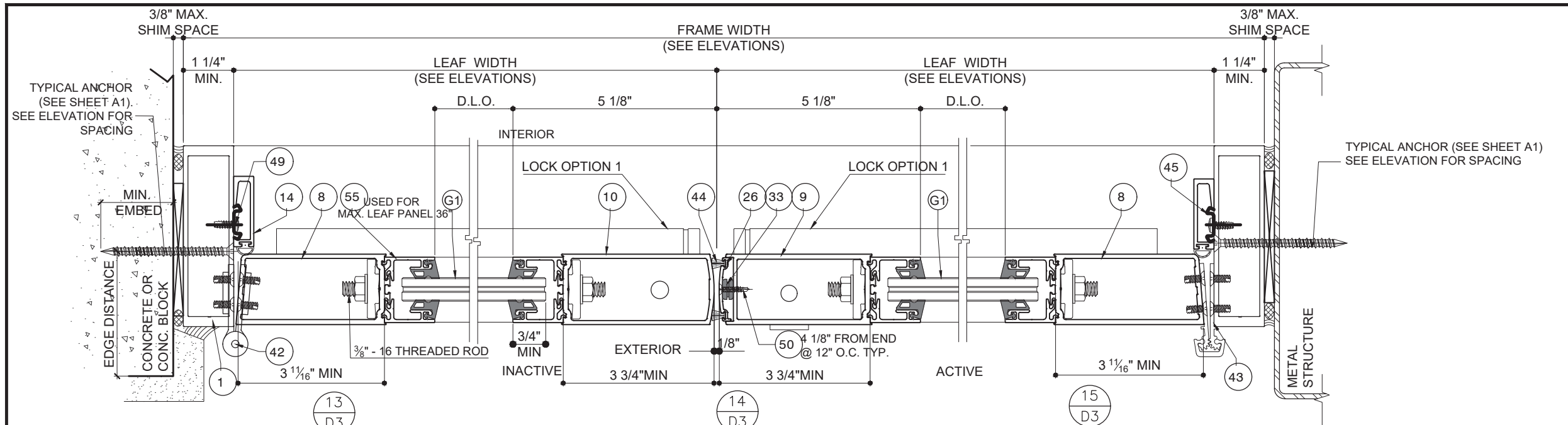
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DRAWING No:

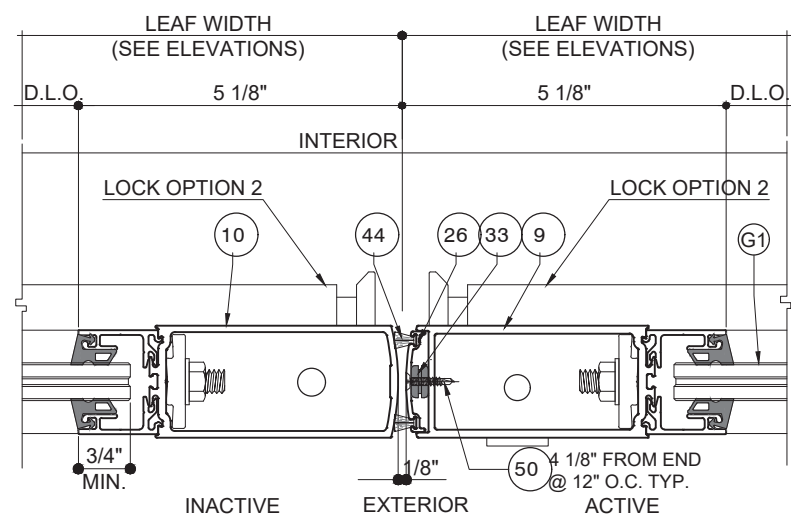
DATE: 03-24-15

# 10 OF 17

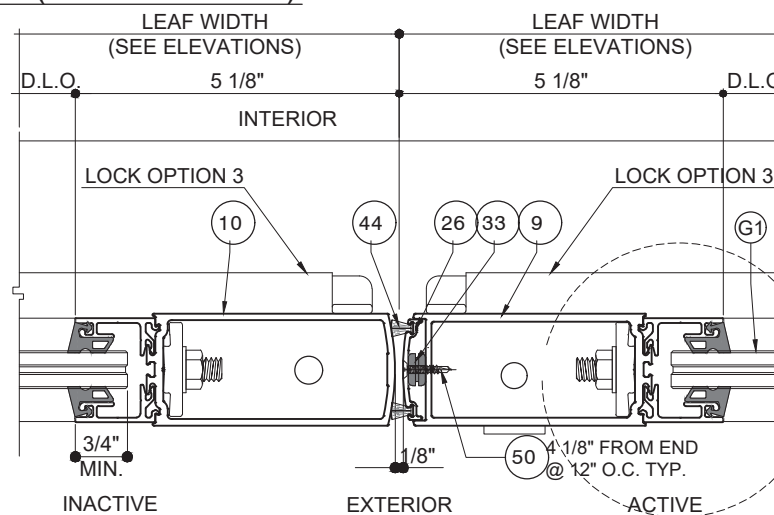
DWG: AD15-23



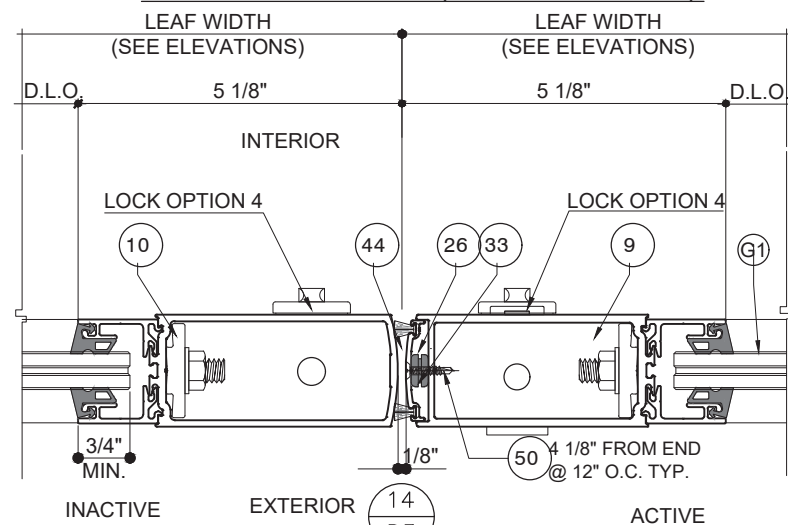
**LOCK OPTION 1 (SEE SHEET H1)**



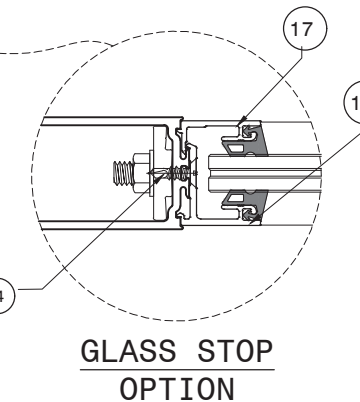
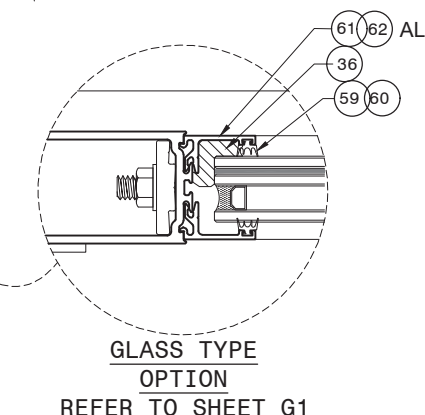
**LOCK OPTION 2 (SEE SHEET H1)**



**LOCK OPTION 3 (SEE SHEET H1)**



**LOCK OPTION 4 & 5 (SEE SHEET H1)**



**NOTE:**  
1- DOOR OR DOOR WITH TRANSOM IS QUALIFIED FOR INSTALLATION INTO APPROVED STOREFRONT(SEE SHEET 6 AND SHEET 7).  
2- REINFORCED STOREFRONT AND END ANCHORS REFER TO SEPARATE PRODUCT APPROVAL, TO BE REVIEWED BY BUILDING OFFICIAL.



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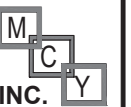
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
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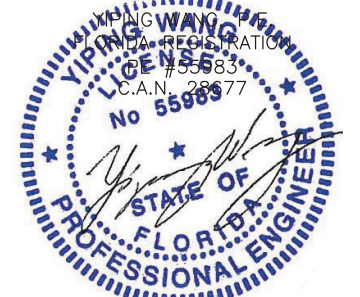
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SHEET TITLE

## D4

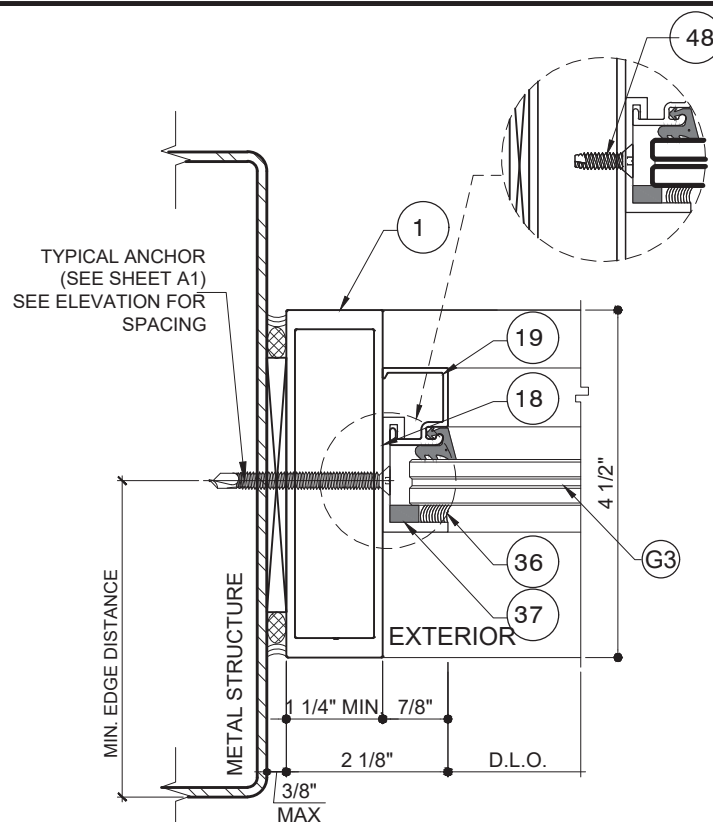
DRAWN: FRANK

DRAWING No:

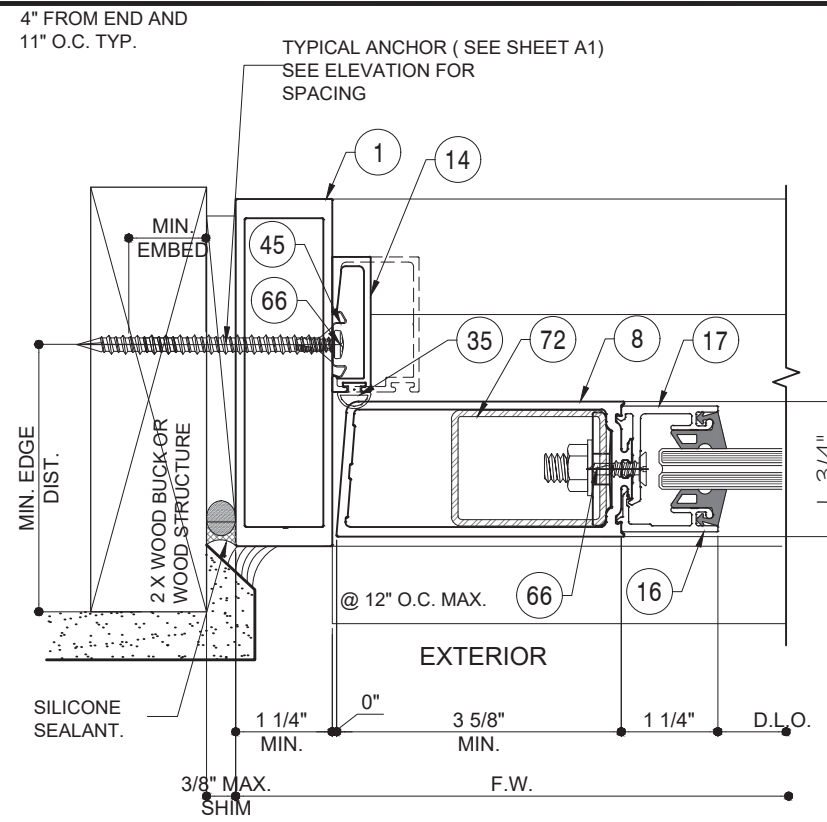
DATE: 03-24-15

## 11 OF 17

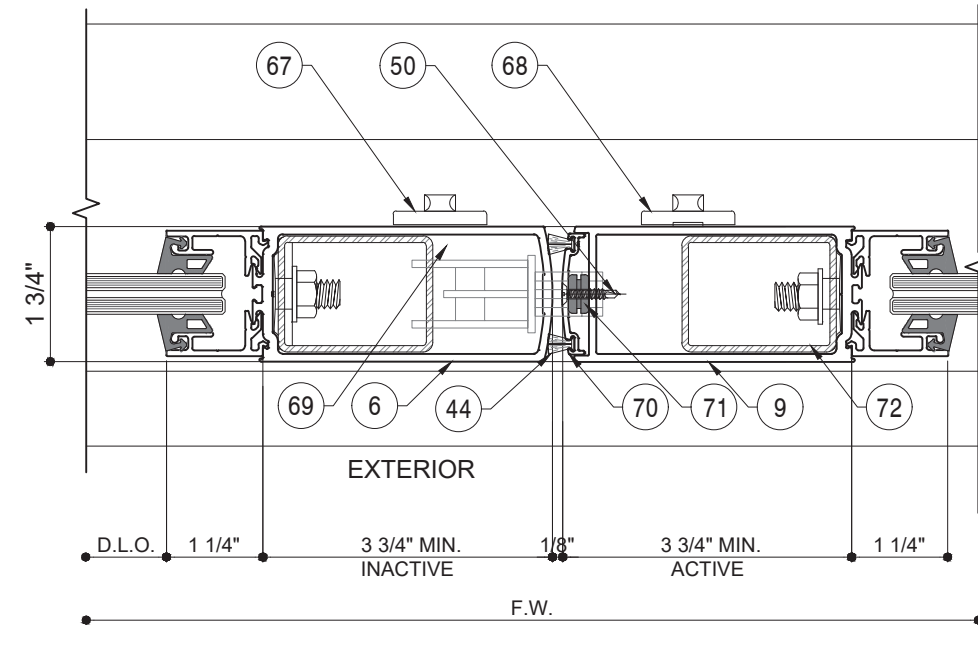
DWG: AD15-23



(17)  
D4 TRANSOM OPTION

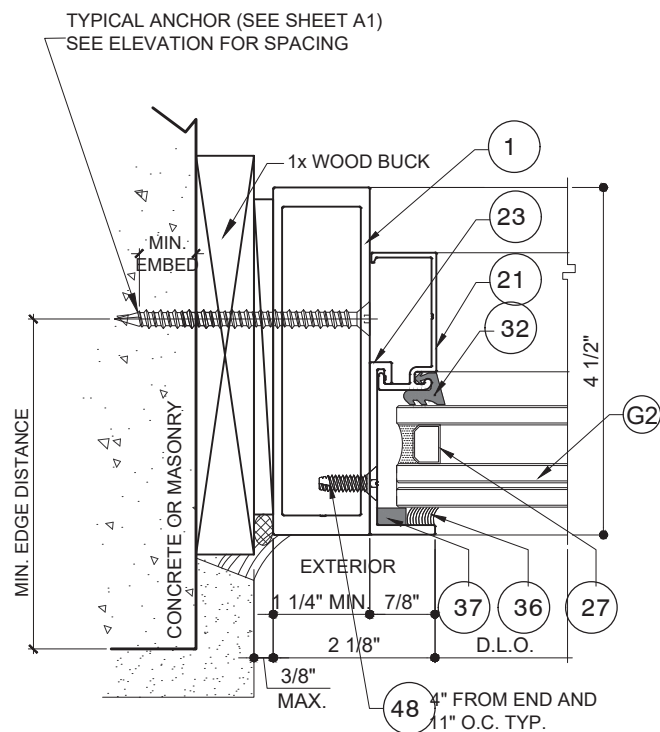


(24)  
D4

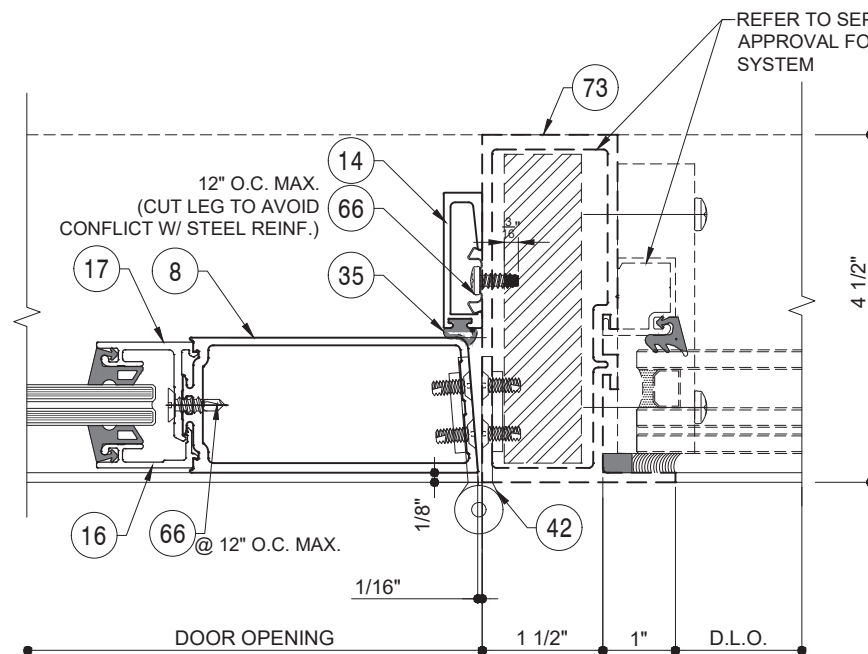


(21)  
D4

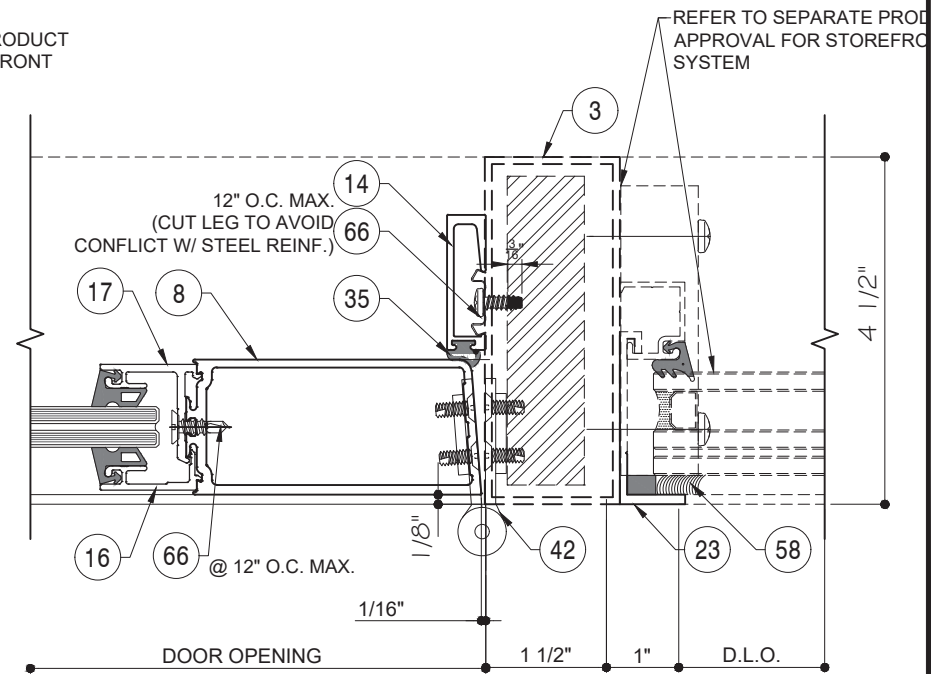
**NOTE:**  
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2- REINFORCED STOREFRONT AND END ANCHORS REFER TO SEPARATE PRODUCT APPROVAL, TO BE REVIEWED BY BUILDING OFFICIAL.



(17)  
D4 TRANSOM OPTION



(22)  
D4



(23)  
D4 OPTION  
DESIGN LOAD: +/-59.5 PSF



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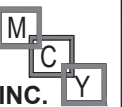
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
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Expiration Date **06/04/2025**

By   
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SHEET TITLE

## D5

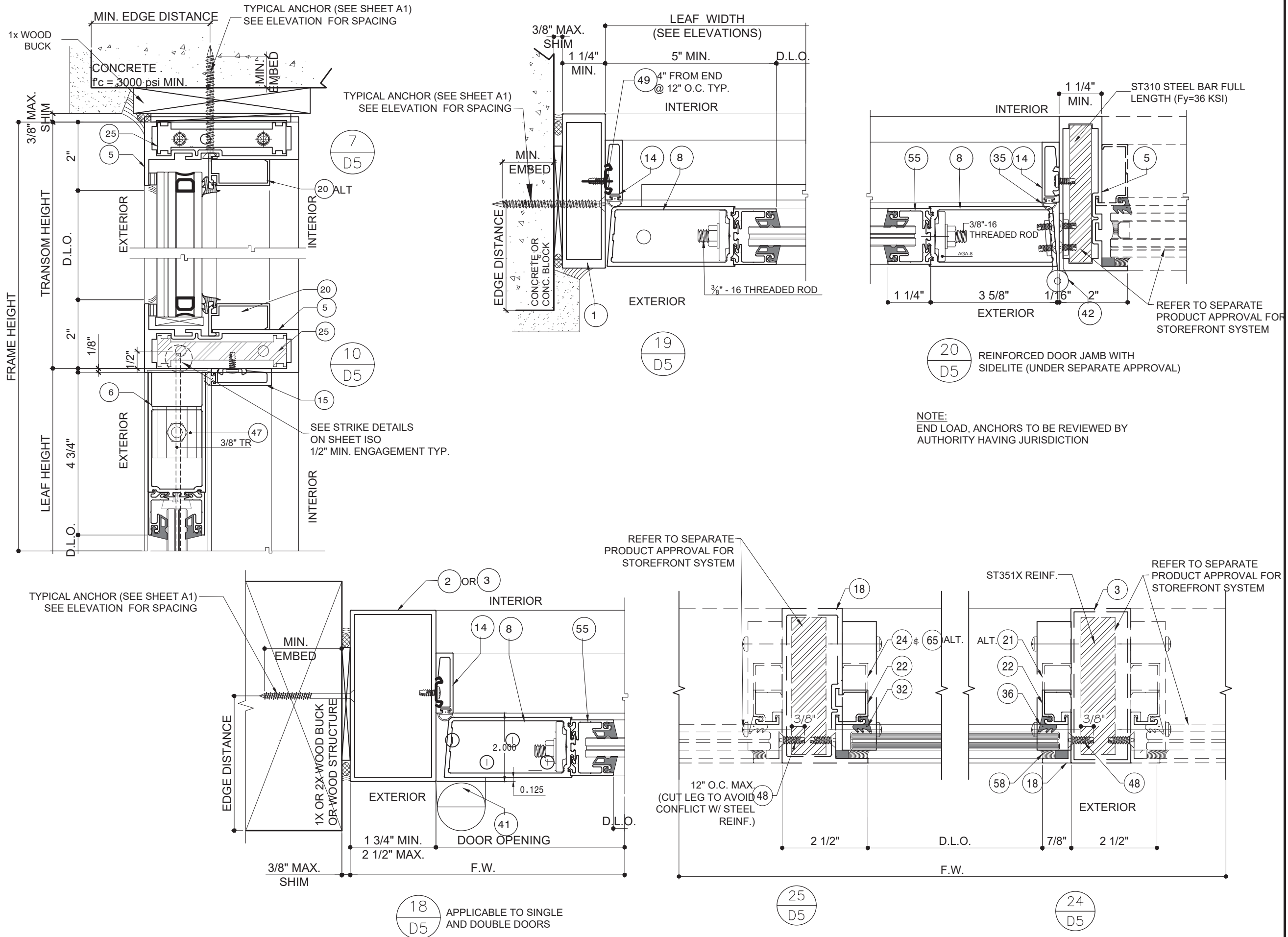
DRAWN: FRANK

DRAWING No:

DATE: 03-24-15

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DWG: AD15-23





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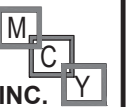
PRODUCT:

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SHEET TITLE

**A1**

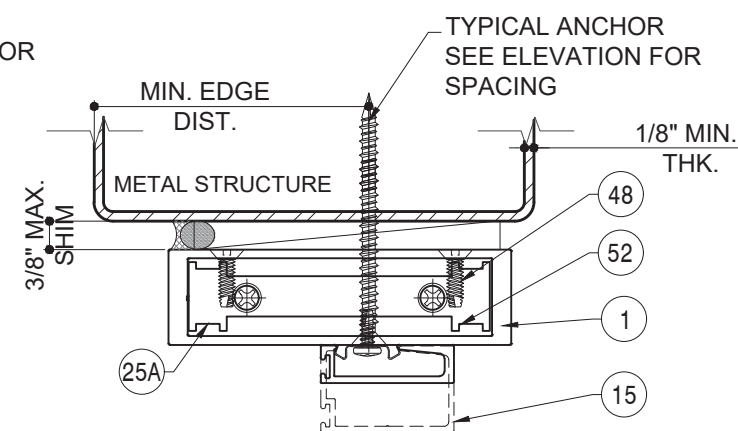
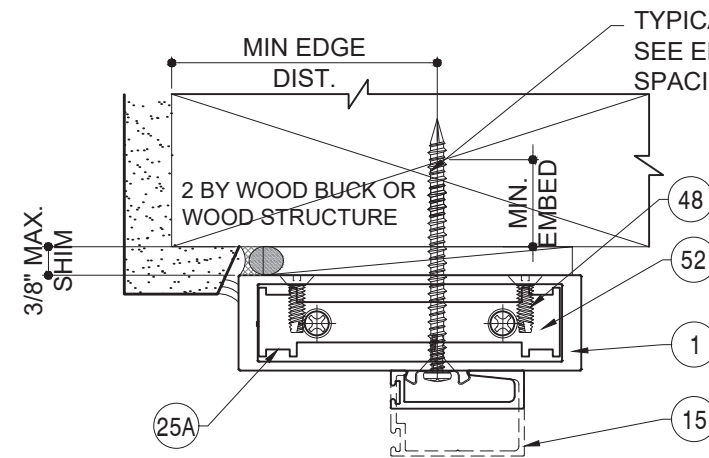
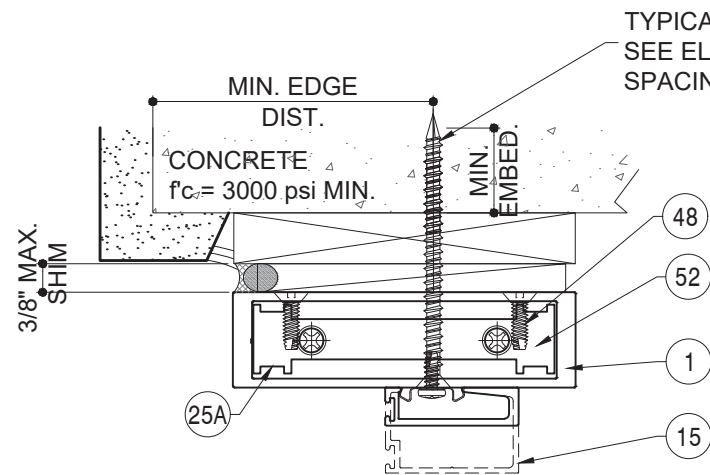
DRAWN: FRANK

DRAWING No:

DATE: 03-24-15

**13 OF 17**

DWG: AD15-23



**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**TYPE A:** 1/4" DIA. ELCO ULTRACON (Fu=177 ksi Fy=120 ksi)  
OR 1/4" DIA. TAPCON (Fu=120 ksi Fy=92 ksi)

- THRU 1BY OR 2BY WOOD BUCKS
  - 1-3/4" MIN. EMBED INTO CONC.@ HEAD/SILL
  - 1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK @ JAMB
  - 1-1/4" MIN. EMBED INTO HOLLOW BLOCK @ JAMB
- INTO 2X WOOD BUCKS OR WOOD STRUCTURAL
  - 1-1/2" MIN. EMBED @ HEAD AND JAMB

**TYPE B:** 1/4" DIA. ELCO ULTRACON (Fu=177 ksi Fy=120 ksi)  
OR 1/4" DIA. ITW TAPCON (Fu=120 ksi Fy=92 ksi)

- DIRECTLY INTO CONCRETE, GROUT FILLED BLOCK OR HOLLOW BLOCK.
  - 1-3/4" MIN. EMBED INTO CONCRETE @ HEAD/SILL
  - 1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK @ JAMB
  - 1-1/4" MIN. EMBED INTO HOLLOW BLOCK @ JAMB

**TYPE C:** 1/4" TEK OR SELF DRILLING SCREWS (GRADE 5 FU=120ksi FY=92ksi)

- INTO METAL STRUCTURES (HEAD/JAMB)
  - STEEL : 1/8" MIN. THICKNESS (Fy = 36 ksi MIN.)
  - ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
  - (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**MIN. EDGE DISTANCES**

INTO CONCRETE AND MASONRY = 2 1/2"  
INTO WOOD STRUCTURE = 1"  
INTO METAL STRUCTURE = 3/4"

**SUBSTRATE**

CONCRETE f'c = 3000 PSI MIN.  
MASONRY C-90 f'c = 2000 PSI MIN.  
WOOD SG= 0.55

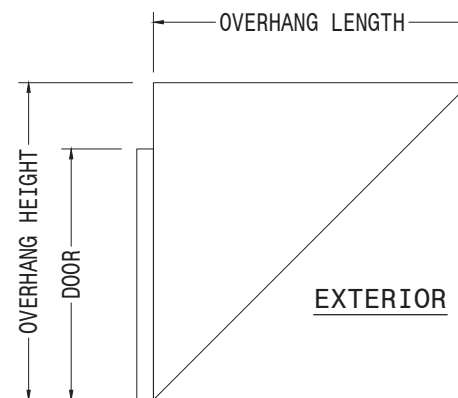
**SEALANTS:**

ALL FRAME AND PANEL JOINT, INSTALLATION SCREWS AND HEADS OF ANCHOR SCREWS AT SILL TO BE SEALED WITH CLEAR SEALANT.

1X OR 2X WOOD BUCKS AND METAL STRUCTURES BY OTHERS MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEMS AND TRANSFER THEM TO THE BUILDING STRUCTURE.

**NOTE #1:**

UNITS WHERE WATER INFILTRATION IS REQUIRED MUST BE INSTALLED AT LOCATIONS PROTECTED BY AN OVERHANG MEETING CRITERIA AS PER ILLUSTRATION BELOW OR IN NON-HABITABLE AREAS WHERE WATER INFILTRATION IS ACCEPTABLE. IT IS APPLIED TO 4" NON-WATER RATING SADDLE THRESHOLD (DETAIL 2/D2) AND 4" (DETAIL 3/D2) OR 5" (DETAIL 5/D1) BUMPER THRESHOLD. FOR WATER INFILTRATION REQUIRE HIGHER THAN 5 PSF ( $\leq 33.3$  PSF)



$$OH \text{ RATIO} = \frac{\text{OVERHANG LENGTH}}{\text{OVERHANG HEIGHT}} \geq 1$$



**LOCKS:**

**LOCK OPTION 1 (ACTIVE/INACTIVE PANEL):** AHT 8000 CVR TWO POINT LOCK SYSTEM WITH STRIKE PLATES AND ACTIVATING SURFACE MOUNT METALLIC INTERIOR PANIC DEVICE AND REGENT KEY OPERATOR ON THE EXTERIOR

**LOCK OPTION 2 (ACTIVE/INACTIVE PANEL):** FALCON DOOR-O-MATIC 1690 CVR TWO POINT LOCK SYSTEM WITH STRIKE PLATES AND ACTIVATING SURFACE MOUNT METALLIC PANIC DEVICE ON THE INTERIOR

**LOCK OPTION 3 (ACTIVE/INACTIVE PANEL):** VON DUPRIN 9947 CVR TWO POINT LOCK SYSTEM WITH TOP/BOTTOM STRIKE PLATES AND ACTIVATING SURFACE MOUNT METALLIC PANIC DEVICE ON THE INTERIOR AND SCHLAGE STANDARD KEY OPERATOR ON THE EXTERIOR

**LOCK OPTION 4:**

**INACTIVE PANEL:** ADAMS RITE MS1880, MS1881 & ILCO 1880 CONCEALED TWO POINT LOCK SYSTEM WITH VERTICAL ROD AND STRIKE PLATES. THUMB TURN ON THE INTERIOR CAN NOT APPLY TO SINGLE PANEL DOOR

**ACTIVE PANEL:** ADAMS RITE W/AR4016 OR ILCO 4016 TOP ROD & AR4015 OR ILCO 4015 BOTTOM ROD WITH STRIKE PLATE, CONCEALED THREE POINT LOCK SYSTEM WITH ILCO185 EIGHT PLY HOOK LOCK, KEY OPERATOR ON THE EXTERIOR AND THUMB TURN ON THE INTERIOR

**LOCK OPTION 5:**

**INACTIVE PANEL:** REGENT ML-207-TT-2PT TWO POINT LOCK SYSTEM WITH EIGHT PLY HOOK LOCK. THUMB TURN ON THE INTERIOR CAN NOT APPLY TO SINGLE PANEL DOOR

**ACTIVE PANEL:** REGENT ML-207-012, CONCEALED THREE POINT LOCK SYSTEM WITH EIGHT PLY HOOK LOCK, KEY OPERATOR ON THE EXTERIOR AND THUMB TURN ON THE INTERIOR

**HINGES:** REFER TO DETAILS (H1) (H2) & (H3)

**HINGE OPTION 1:** (32) H1: (3) 4 1/2" BUTT HINGES (26298)  
9 1/4" FROM TOP & BOTTOM, CENTERED

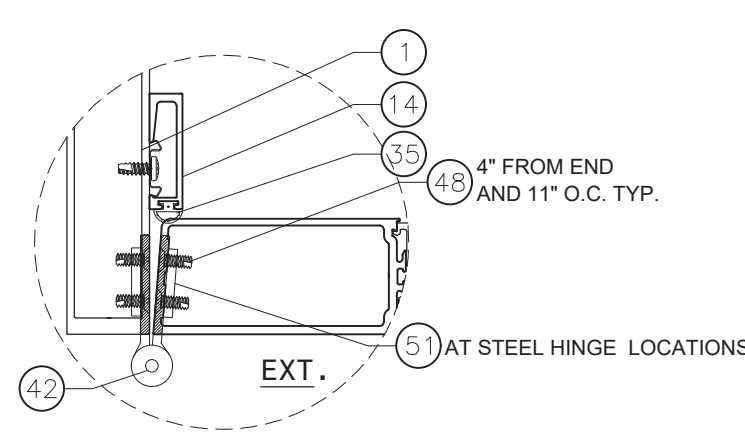
**HINGE OPTION 2:** (31) H2: OFFSET CAST ALUMINUM PIVOT HINGES  
TOP (H160X)  
BOTTOM (H160X)  
MIDSPAN (2456x)

**HINGE OPTION 3:** (33) H3: CONTINUOUS ALUMINUM GEAR (60095)

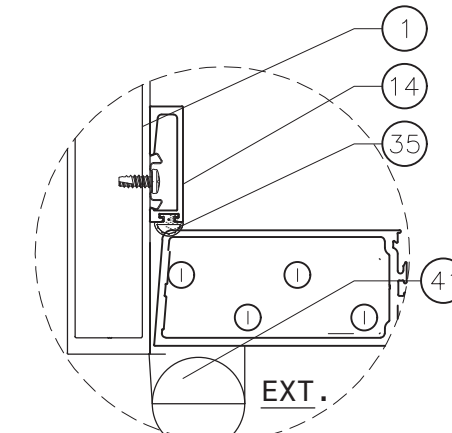
**CHART#4:**

DOOR		CONFIG.	LOCK OPTIONS
WIDTH (MAX)	HEIGHT (MAX)		
≤ 96"	≤ 96"	XX	1,2,3,4,5
≤ 96"	≤ 120"	XX	1,4,5
≤ 48"	≤ 96"	X	1,2,3,4,5 (ACTIVE PANEL)
≤ 48"	≤ 120"	X	1,4,5 (ACTIVE PANEL)

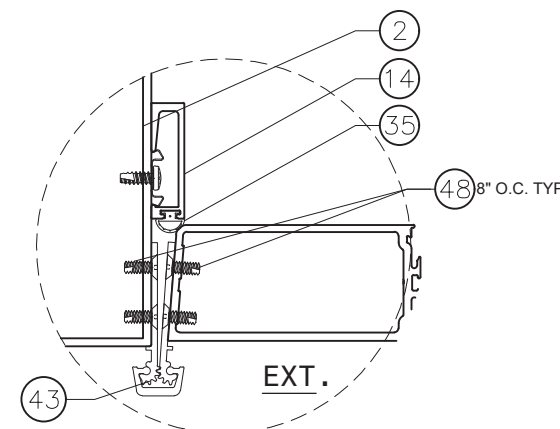
**NOTE:** HINGES SHOWN ARE IMAGE ONLY.



**(H1) HINGE OPTION 1: (26298)**  
4-1/2" STEEL BUTT HINGE  
(SEE ELEVATION FOR LOCATION)



**(H2) HINGE OPTION 2:** OFFSET PIVOT HINGE  
(SEE ELEVATION FOR LOCATION)  
TOP (H160X)  
BOTTOM (H160X)  
MIDSPAN (2456x)



**(H3) HINGE OPTION 3: (6009X)**  
CONCEALED ALUM. CONTINUOUS  
GEARED HINGE  
(SEE ELEVATION FOR LOCATION)



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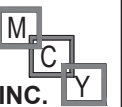
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**351 SERIES  
ALUM OUTSWING  
DOORS**

W/ OR W/O TRANSOM  
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REVN	DATE/REMARKS
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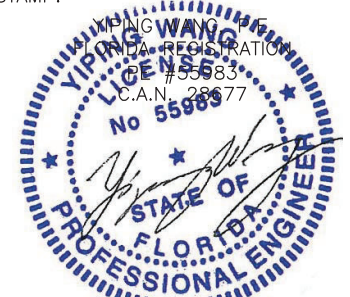
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By *[Signature]*  
Miami-Dade Product Control

SHEET TITLE

**H1**

DRAWN: FRANK	DRAWING No:
DATE: 03-24-15	<b>14 OF 17</b>
DWG: AD15-23	



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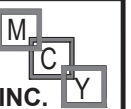
PRODUCT:

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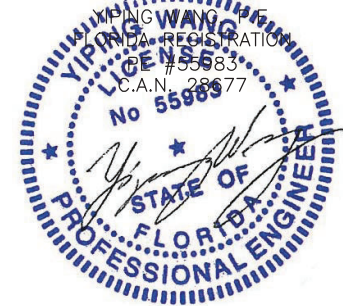
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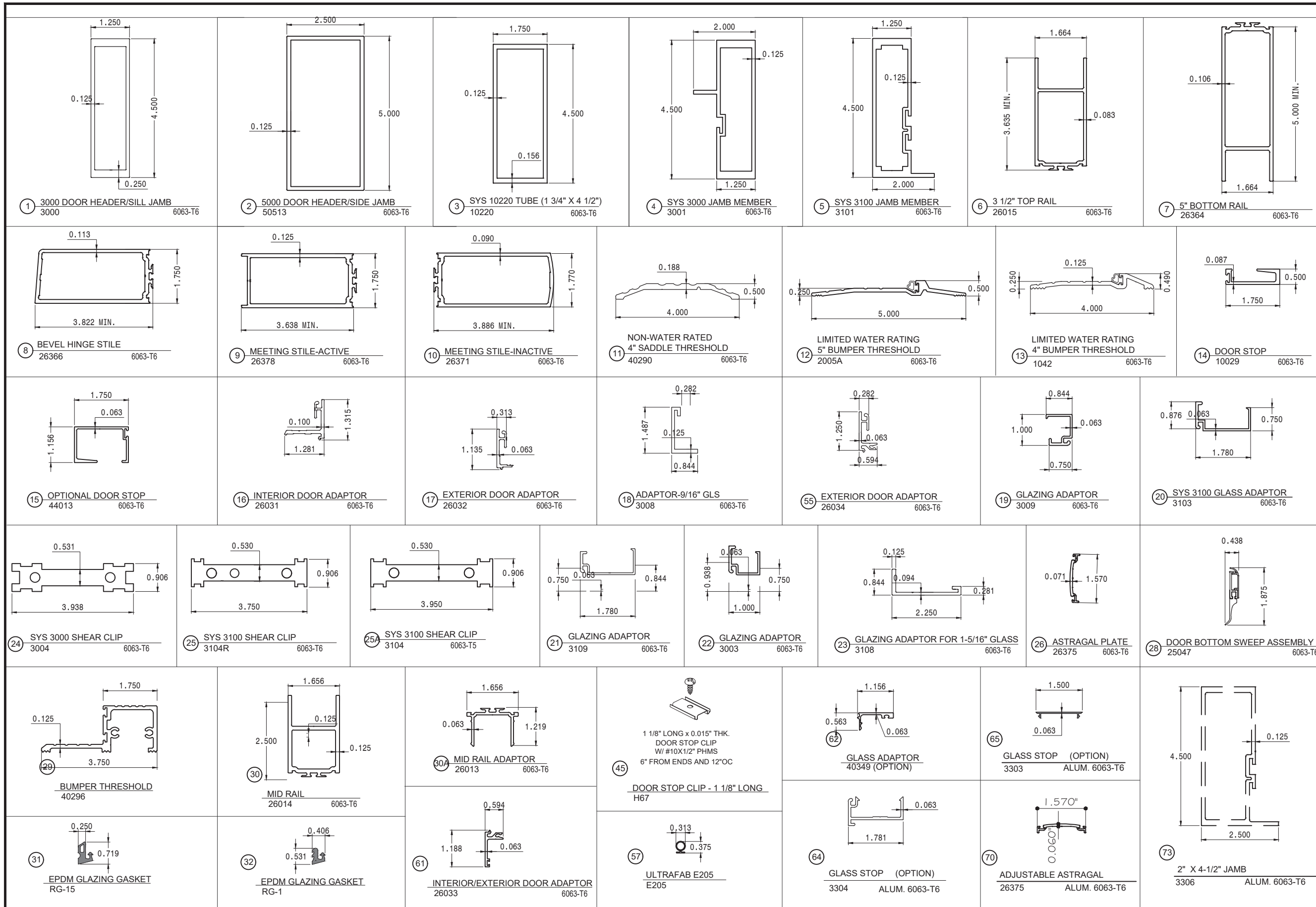
By **Miami-Dade Product Control**

SHEET TITLE  
**P01**

DRAWN: FRANK  
DATE: 03-24-15  
DWG: AD15-23

DRAWING No:

15 OF 17



### BILL OF MATERIALS

ITEM #	PART #	DESCRIPTION	MATERIAL	SUPPLIER/MANUF.
1	3000	3000 DOOR HEADER/SILL JAMB	ALUM. 6063-T6	BONNELL
2	50513	5000 DOOR HEADER/SIDE JAMB	ALUM. 6063-T6	BONNELL
3	10220	SYS 10220 1-3/4" X 4 1/2" TUBE	ALUM. 6063-T6	BONNELL
4	3001	3000 TRANSOM BAR/TRANSOM HEADER/JAMB	ALUM. 6063-T6	BONNELL
5	3101	3100 TRANSOM BAR/TRANSOM HEADER/JAMB	ALUM. 6063-T6	BONNELL
6	26015	3 1/2" TOP RAIL	ALUM. 6063-T6	BONNELL
7	26364	5" BOTTOM RAIL	ALUM. 6063-T6	BONNELL
8	26366	BEVEL HINGE STILE	ALUM. 6063-T6	BONNELL
9	26378	MEETING STILE-ACTIVE	ALUM. 6063-T6	BONNELL
10	26371	MEETING STILE-INACTIVE	ALUM. 6063-T6	BONNELL
11	40290	4"SADDLE THRESHOLD	ALUM. 6063-T6	BONNELL
12	2005A	5"BUMPER THRESHOLD	ALUM. 6063-T6	PEMCO
13	1042	4"BUMPER THRESHOLD	ALUM. 6063-T6	BONNELL
14	10029	DOOR STOP	ALUM. 6063-T6	BONNELL
15	44013	OPTIONAL DOOR STOP	ALUM. 6063-T6	BONNELL
16	26031	INTERIOR DOOR ADAPTOR	ALUM. 6063-T6	BONNELL
17	26032	EXTERIOR DOOR ADAPTOR	ALUM. 6063-T6	BONNELL
18	3008	GLAZING ADAPTOR-9/16"	ALUM. 6063-T6	BONNELL
19	3009	GLAZING ADAPTOR	ALUM. 6063-T6	BONNELL
20	3103	SYS 3100 GLAZING ADAPTOR	ALUM. 6063-T6	BONNELL
21	3109	TRANSOM GLAZING ADAPTOR	ALUM. 6063-T6	BONNELL
22	3003	GLAZING ADAPTOR	ALUM. 6063-T6	BONNELL
23	3108	TRANSOM GLAZING ADAPTOR FOR 1-5/16" GLASS	ALUM. 6063-T6	BONNELL
24	3004	SYS 3000 SHEAR CLIP	ALUM. 6063-T6	BONNELL
25	3104R	SYS 3100 SHEAR CLIP	ALUM. 6063-T6	BONNELL
25A	3104	SYS 3100 SHEAR CLIP	ALUM. 6063-T6	BONNELL
26	26375	ASTRAGAL PLATE	ALUM. 6063-T6	ALL METAL INC.
27	1122	INSULATED ALUMINUM SPACER	ALUMINUM	HAGER
28	25047	DOOR BOTTOM SWEEP ASSEMBLY	ALUM / RUBBER	BONNELL
29	40296	1 1/2" x 3 3/4" BUMPER THRESHOLD	ALUM. 6063-T6	BONNELL
30	26014	MID RAIL	ALUM. 6063-T6	BONNELL
30A	26013	MID RAIL ADAPTOR	ALUM. 6063-T6	TREMCO/GRP
31	RG15	EPDM GLAZING GASKET	EPDM (DUROMETER 70 SHORE A)	TREMCO/GRP
32	RG1	EPDM GLAZING GASKET	EPDM (DUROMETER 70 SHORE A)	RUBBER GROMMET
33	23301	RUBBER GROMMET AT ASTRAGAL	NITRILE	TREMCO/GRP
34	H62D	1/2"x 1/4" SETTING BLOCK	EPDM (DUROMETER 85 +/-5 SHORE A)	TREMCO/GRP
34A	H62F	1 3/8"x 1/4" SETTING BLOCK	EPDM (DUROMETER 85 +/-5 SHORE A)	TREMCO/GRP
35	RG5	DOOR STOP GASKET	EPDM (DUROMETER 65 SHORE A)	DOW CORNING
36	DOWSIL995	DC995 SILICONE	SILICONE	
37	V2108	1/4"x3/8" GLAZING TAPE	FOAM	ST. GOBAIN
41	H160X SET	(TOP)	ALUM. 6063-T6	GLOBAL DOOR
		(BOTTOM)	ALUM. 6063-T6	GLOBAL DOOR
	2456X MIDSPAN	OFFSET PIVOT HINGE	ALUM. 6063-T6	GLOBAL DOOR
42	26298	4-1/2" STEEL BUTT HINGE 1/8" THK.	STEEL	HAGER COMPANIES/IMPERIAL USA (GLOBAL DOOR)
43	6009X	ALUM CONTINUOUS GEARED HINGE 0.094" THK.	ALUM. 6063-T6	HAGER COMPANIES
44	24110	BRUSH PILE AT DOOR MEETING STILE	YARN	AMESBURY GROUP
45	23501	DOOR STOP CLIP-1 1/8" LG, 6" ON ENDS,12" O.C.	STEEL	EVANS MANUFACTURING
46	SPACER2	PVC SETTING BLOCK FOR 9/16" GLASS	PVC PLASTIC	M & M PLASTIC
47	2620301	BACKING PLATE	ALUM. 6063-T6	BONNELL
48	23163	#12-24" x 3/4" PFH-23	ZINC COATED STEEL	ALLOY FASTENER
49	23897	#10-24" x 1/4" PFH	ZINC COATED STEEL	VARIES
50	23302	#6 x 3/4" UC-PFH TEK	ZINC COATED STEEL	VARIES
51	26139	HINGE BACKING PLATE	STEEL	EVANS
52	23233	1/4-20 X 1-1/2" PFH	ZINC COATED STEEL	ALLOY FASTENER
53	23089	#10-24" x 5/10" PFH	ZINC COATED STEEL	ALLOY FASTENER
54	23079	#10-24" x 3/14" PFH	STEEL	ALLOY FASTENER
55	26034	DOOR ADAPTOR USED FOR DOOR LEAF WIDTH UPTO 36"	ALUM. 6063-T6	BONNELL
56	SPACER3	DOOR SETTING BLOCK	PVC PLASTIC EXTRUSION	M&M PLASTICS

### BILL OF MATERIALS

ITEM #	PART #	DESCRIPTION	MATERIAL	SUPPLIER/MANUF.
57	ULTRAFAB E205	BUMPER THRESHOLD GASKET	THERMOPLASTIC ELASTOMERS(TPE)	ULTRAFAB
58	DOWSIL 795	DOWSIL 795 SILICONE	SILICONE	DOW CORNING
59	05207	EPDM GASKET	EPDM (DUROMETER 65 SHORE A)	BONNELL
60	RG-17	EPDM GASKET (OPTIONAL)	EPDM (DUROMETER 65 SHORE A)	TREMCO
61	26033	INTERIOR/EXTERIOR DOOR ADAPTOR	ALUM. 6063-T6	BONNELL
62	40349	GLAZING ADAPTOR (OPTION)	ALUM. 6063-T6	BONNELL
63	H62B	1/8"x 1"x 2" SETTING BLOCK	EPDM (DUROMETER 85 +/-5 SHORE A)	TREMCO
64	3304	TRANSOM GLASS STOP	ALUM. 6063-T6	BONNELL
65	3303	TRANSOM GLASS STOP OPTION	ALUM. 6063-T6	BONNELL
66	23097	SCREW AT SPRING CLIP, #10-24 X 1/2" PPH @ 12" O.C.	ZINC COATED STEEL	VARIES
67	H1880	2 POINT LOCK SYSTEM HARDWARE	STEEL	ADAMS RITE, AT INACTIVE PANEL @ 36 9/16" FROM BOTTOM
68	FZ4588	3 POINT LOCK SYSTEM HARDWARE	STEEL	ADAMS RITE, AT ACTIVE PANEL @ 36 9/16" FROM BOTTOM
69	351X-LG	LOCK GUIDE	ALUM. 6063-T6	BONNELL
70	26375	ADJUSTABLE ASTRAGAL	ALUM. 6063-T6	BONNELL
71	23301	RUBBER GROMMET AT ASTRAGAL	NITRILE	RUBBERGROMMET.COM
72	ST351-1	1-1/2" X 2" X 14 GA. STEEL TUBE REINF.	STEEL	VARIES, INSIDE EACH PANEL LOCK STILE LOCATED @ 42"FROM BOTTOM
73	3306	DOOR JAMB MULLION	ALUM. 6063-T6	BONNELL



http://www.trulite.com

403 WESTPARK CT. SUITE 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132 | f. 954-724-2083

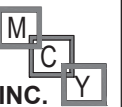
PRODUCT:

**351 SERIES  
ALUM OUTSWING  
DOORS  
W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)**

REVN      DATE/REMARKS

REV 01      02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12871 Miramar Pkwy Ste. 301

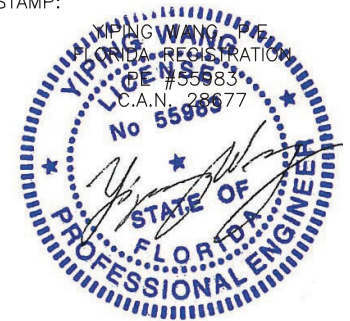
Miramar, FL 33027

P: 305-271-0117

Email: MCY.Engineering@att.net

www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
Miami-Dade Product Control

SHEET TITLE

**BOM**

DRAWN: FRANK

DRAWING No:

DATE: 03-24-15

**16 OF 17**

DWG: AD15-23



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403 WESTPARK CT. SUITE 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132 | f. 954-724-2083

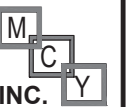
PRODUCT:

## 351 SERIES ALUM OUTSWING DOORS

W/ OR W/O TRANSOM  
(LARGE MISSILE IMPACT)

REV#	DATE/REMARKS
REV 01	02/11/2020

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12871 Miramar Pkwy Ste. 301  
Miramar, FL 33027  
P: 305-271-0117  
Email: MCY.Engineering@att.net  
www.MCYEngineering.com

STAMP:



July 13th, 2020

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. **20-0424.01**

Expiration Date **06/04/2025**

By   
Miami-Dade Product Control

SHEET TITLE

## ISO

DRAWN: FRANK

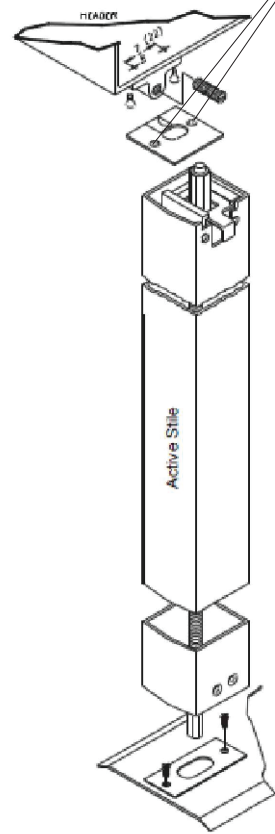
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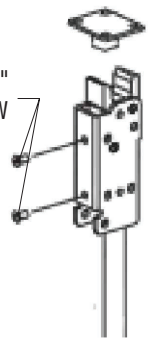
17 OF 17

DWG: AD15-23

(2) 8-3/4(19) SELF TAP  
SCREWS (TOP AND BOTTOM)



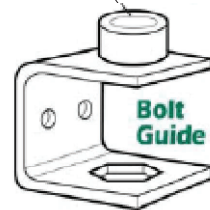
(2) #10-24 BY 3/8"  
MOUNTING SCREW



STRIKES (FALCON DOOR-O-MATIC)  
LOCK OPTION 2

STRIKES (AHT 8000)  
LOCK OPTION 1

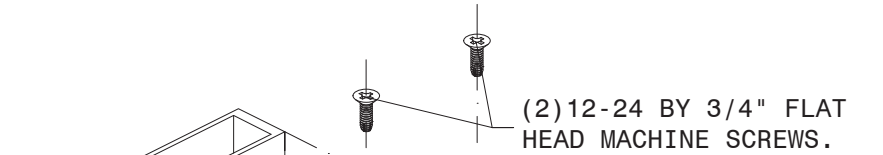
11/16" THROW



ADAMS RITE TOP/BOTTOM STRIKE  
LOCK OPTION 4

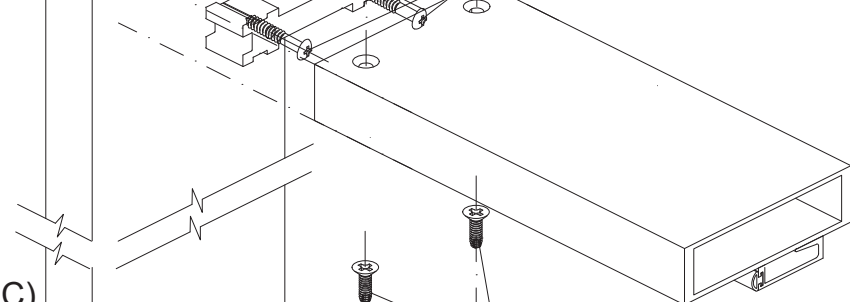


STRIKES (VONDUPRIN 9947)  
LOCK OPTION 3



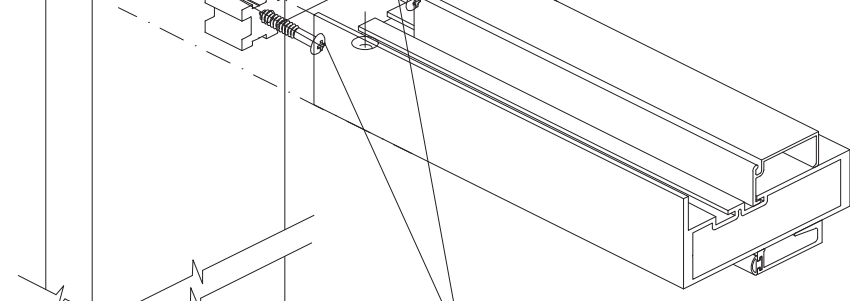
(2) 12-24 BY 3/4" FLAT  
HEAD MACHINE SCREWS.

(2) 1/4-20 BY 1 1/2" PAN  
HEAD MACHINE SCREWS.

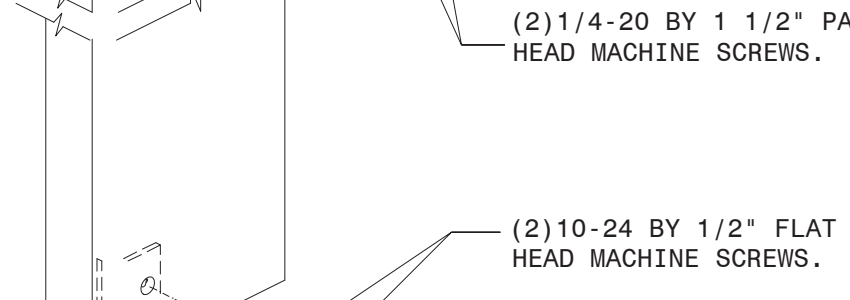


(2) 12-24 BY 3/4" FLAT  
HEAD MACHINE SCREWS.

(2) 1/4-20 BY 1 1/2" PAN  
HEAD MACHINE SCREWS.

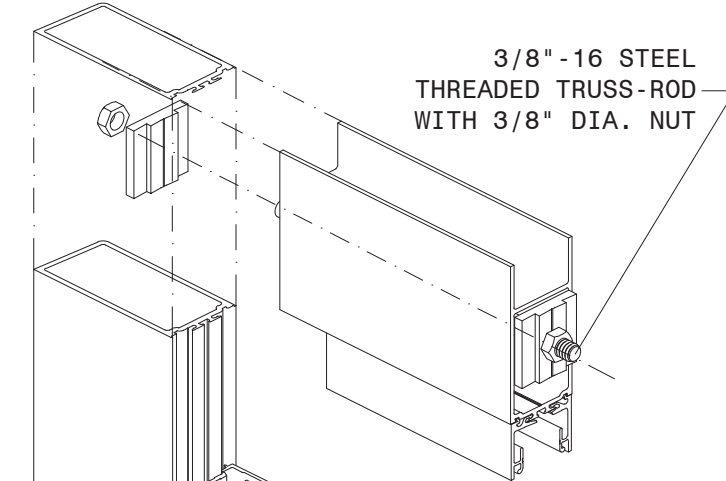


(2) 10-24 BY 1/2" FLAT  
HEAD MACHINE SCREWS.

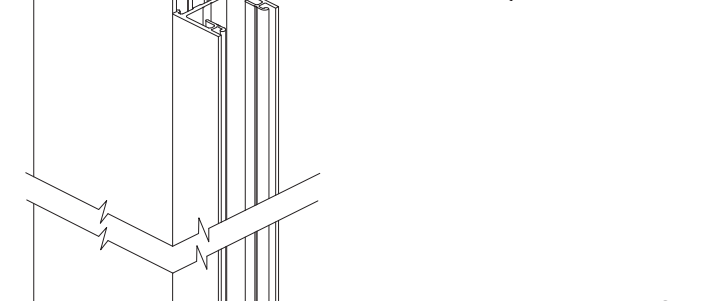


(2) #10-24 BY 1/2"  
FH. MS.

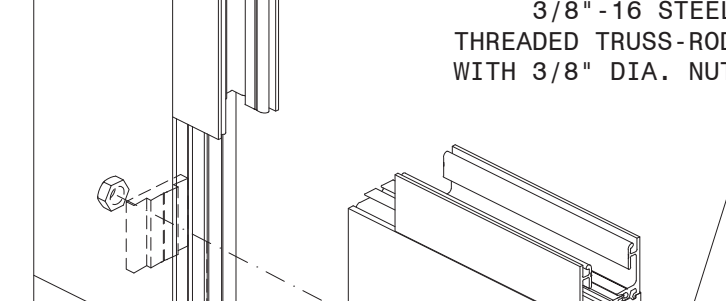
FRAME CORNER CONNECTION



3/8" -16 STEEL  
THREADED TRUSS-ROD  
WITH 3/8" DIA. NUT



3/8" -16 STEEL  
THREADED TRUSS-ROD  
WITH 3/8" DIA. NUT



DOOR PANEL CORNER CONNECTION



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, FL 33175-2474  
T (786) 315-2590 F (786) 315-2599

## NOTICE OF ACCEPTANCE (NOA)

[www.miamidade.gov/building](http://www.miamidade.gov/building)

**Trulite Glass & Aluminum Solutions, LLC**  
**403 West Park Ct, #201**  
**Peachtree City, GA 30269**

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

### DESCRIPTION: Series "3100-Resistor" Aluminum Storefront/Window Wall System - L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **AD11-21**, titled "Resistor 3100 Storefront Wall - LMI", sheets 1 through 13 of 13, dated 09/16/21, with revision **4** dated 03/09/22, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA No. 21-0930.10** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P. E.**

**Trulite Glass & Aluminum Solutions, LLC****NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED****1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's****A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under NOA No. 04-1213.01)*
2. Drawing No. **AD11-21**, titled "Resistor 3100 Aluminum Storefront Wall - LMI", sheets 1 through 13 of 13, dated 09/16/21, with revision **2** dated 09/16/21, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.  
*(Submitted under NOA No. 21-0930.10)*

**B. TESTS**

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of a series 3100 aluminum storefront system, prepared by Intertek, Inc., Test Report No. **M7456.01-450-18R0**, dated 09/22/21, signed and sealed by Vinu J. Abraham, P.E.  
*(Submitted under NOA No. 21-0930.10)*
2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No.:
  - **FTL-5884**, dated 05/28/09, signed and sealed by Michael R. Wenzel, P.E.  
*(Submitted under NOA No.09-1022.01)*
  - **FTL-5140**, dated 01/20/07, signed and sealed by Michael R. Wenzel, P.E.  
*(Submitted under NOA No.08-1024.04)*
  - **FTL-3634**, dated 04/24/03, signed and sealed by Joseph Chan, P.E.  
*(Submitted under NOA No. 04-1213.01)*
3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-3942**, dated 02/03/04, signed and sealed by Edmundo Largaespada, P.E.  
*(Submitted under NOA No. 05-0906.04)*

**Trulite Glass & Aluminum Solutions, LLC****NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)**
- C. CALCULATIONS**
  1. Anchor verification calculations and structural analysis, complying with **FBC 7<sup>th</sup> Edition (2020)**, dated 09/28/21, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.  
*(Submitted under NOA No. 21-0930.10)*
  2. Glazing complies with **ASTM E1300-04**
- D. QUALITY ASSURANCE**
  1. Miami-Dade Department of Regulatory and Economic Resources (RER).
- E. MATERIAL CERTIFICATIONS**
  1. Notice of Acceptance No. **20-0915.19** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 11/19/20, expiring on 07/04/23.
  2. Notice of Acceptance No. **20-0622.02** issued to **Eastman Chemical Company (MA)** for their "**Saflex HP Clear or Color Glass Interlayers**" dated 08/06/20, expiring on 04/14/23.
  3. Notice of Acceptance No. **21-0216.01** issued to **Eastman Chemical Company (MA)** for their "**Saflex PVB Interlayers - Clear and Colored for Glass**" dated 04/29/21, expiring on 05/21/26.
  4. Notice of Acceptance No. **20-0929.03** issued to **Everlam N.V.** for their "**Everlam Super Tough PVB Glass Interlayer**", dated 04/29/21, expiring on 04/29/26.
- F. STATEMENTS**
  1. Statement letter of conformance, complying with **FBC 7<sup>th</sup> Edition (2020)**, and of no financial interest, dated September 28, 2021, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.  
*(Submitted under NOA No. 21-0930.10)*
  2. Test Proposal No. **21-0643R** issued by the Product Control Section, dated May 20, 2021 and revised on August 27, 2021, signed by Manuel Perez, P.E.  
*(Submitted under NOA No. 21-0930.10)*
- G. OTHERS**
  1. Notice of Acceptance No. **21-0122.14** issued to Trulite Glass & Aluminum Solutions, LLC for their Series "3100 Resistor" Aluminum Storefront/Window Wall System – L.M.I.", approved on 04/22/21 and expiring on 03/31/25.

**Trulite Glass & Aluminum Solutions, LLC****NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED****2. NEW EVIDENCE SUBMITTED****A. DRAWINGS**

1. Drawing No. **AD11-21**, titled “Resistor 3100 Aluminum Storefront Wall - LMI”, sheets 1 through 13 of 13, dated 09/16/21, with revision 4 dated 03/09/22, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.

**B. TESTS**

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of a series 3100 aluminum storefront system, prepared by Intertek, Inc., Test Report No. **M3224.01-450-18 R0**, dated 12/13/21, signed and sealed by Vinu J. Abraham, P.E.

**C. CALCULATIONS**

1. None.

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **20-0915.19** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 11/19/20, expiring on 07/04/23.
2. Notice of Acceptance No. **20-0622.02** issued to **Eastman Chemical Company (MA)** for their “**Saflex HP Clear or Color Glass Interlayers**” dated 08/06/20, expiring on 04/14/23.
3. Notice of Acceptance No. **21-0216.01** issued to **Eastman Chemical Company (MA)** for their “**Saflex PVB Interlayers - Clear and Colored for Glass**” dated 04/29/21, expiring on 05/21/26.
4. Notice of Acceptance No. **20-0929.03** issued to **Everlam N.V.** for their “**Everlam Super Tough PVB Glass Interlayer**”, dated 04/29/21, expiring on 04/29/26.
5. Notice of Acceptance No. **21-0628.05** issued to **Everlam N.V.** for their “**Everlam LAM50 PVB Glass Interlayer**”, dated 10/07/21, expiring on 10/07/26.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC 7<sup>th</sup> Edition (2020)**, and of no financial interest, dated March 10, 2022, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.



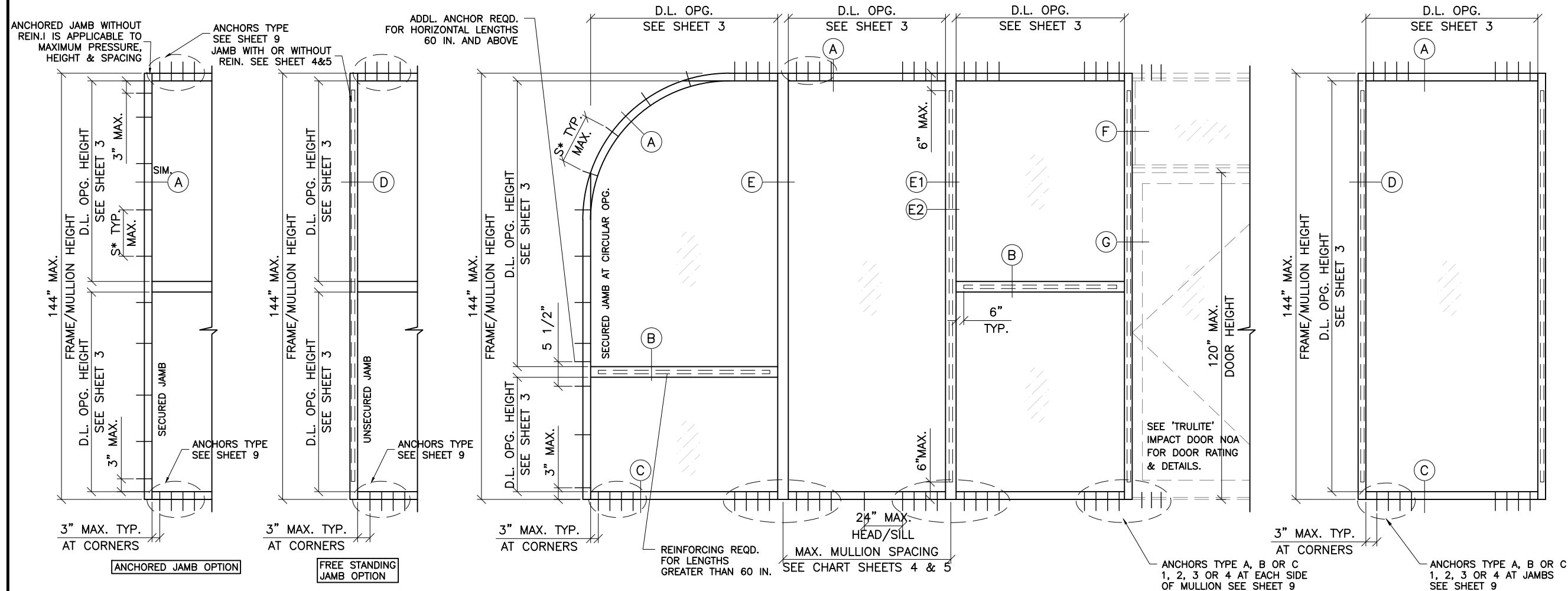
**Trulite Glass & Aluminum Solutions, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. NEW EVIDENCE SUBMITTED (CONTINUED)**

**G. OTHERS**

1. Notice of Acceptance No. **21-0930.10** issued to Trulite Glass & Aluminum Solutions, LLC for their Series “3100-Resistor” Aluminum Storefront/Window Wall System – L.M.I.”, approved on 10/28/21 and expiring on 03/31/25.



TYPICAL ELEVATIONS

**SERIES 3100/L-3100 ALUMINUM WINDOW WALL SYSTEM**

- WINDOW WALL SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.
  - THIS SYSTEM MAY BE USED IN CONJUNCTION WITH MIAMI DADE COUNTY APPROVED ENTRANCE DOORS.
  - CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.
- 
- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 7TH EDITION (2020) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
  - WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.
  - ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
  - ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
  - A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
  - MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/ METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2020 FLORIDA BLDG. CODE SECTION AS APPLICABLE.
  - ULTIMATE DESIGN LOAD OBTAINED FROM ASCE7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.

**INSTRUCTIONS:**  
USE CHARTS AS FOLLOWS.

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD.
- STEP 2:** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE BASED ON APPLICABLE WIND DURATION.
- STEP 3:** CHECK MULLION AND JAMB CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3 & 4. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4:** USING CHART ON SHEETS 5 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5:** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

S\* = 11" O.C. FOR ALL TYPICAL ANCHORS EXCEPT 10" O.C. FOR 1/4" ULTRACON INTO GROUT FILLED BLOCK & MULLION SPACE ≥ 64"

THIS PRODUCT HAS BEEN TESTED FOR WATER RESISTANCE INFILTRATION UP TO 50 PSF.



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p. 800-432-8132

PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI



REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12781 Miramar Parkway #301  
Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcyengineering.com  
www.MCYEngineering.com

STAMP:



March 10th, 2022

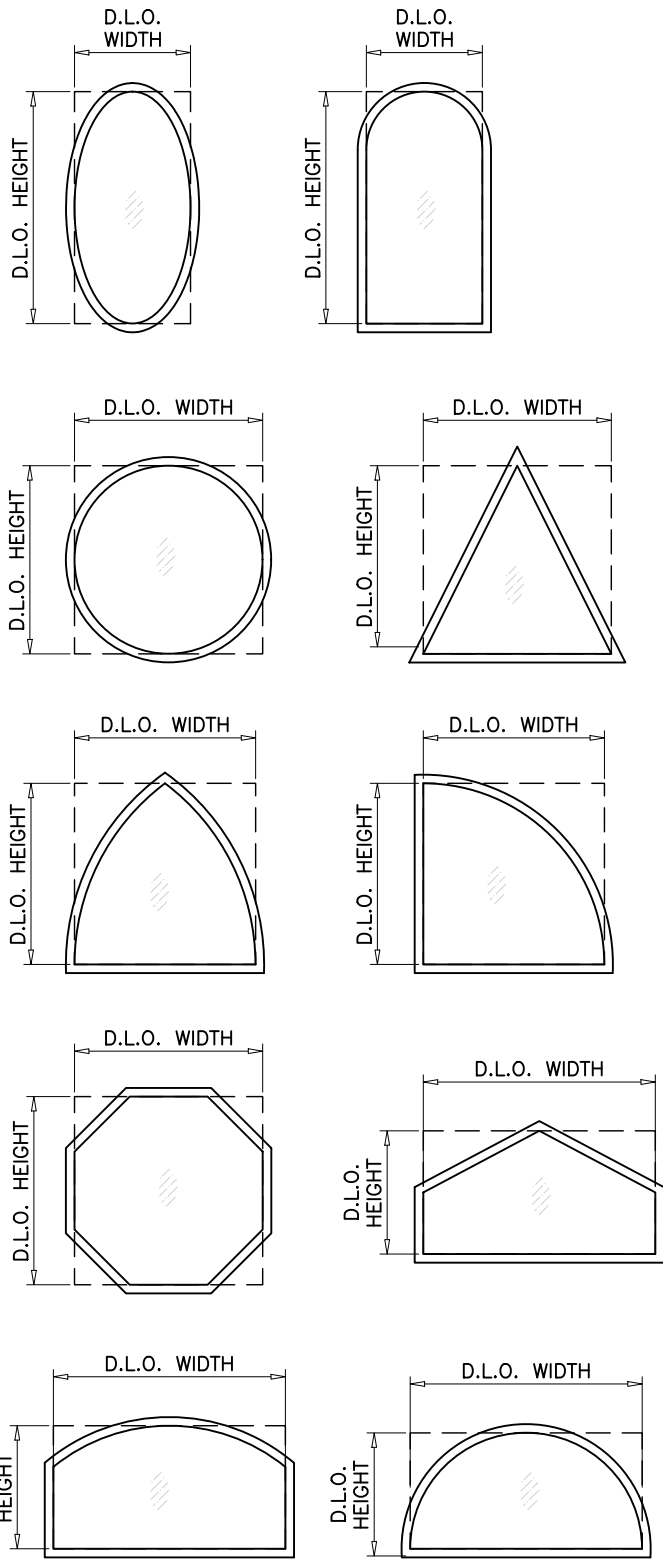
PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. 21-1216.10  
Expiration Date 03/31/2025  
By *Manuel Perez*  
Miami-Dade Product Control

DRAWN: James  
DATE: 03.09.22  
DWG: AD11-21

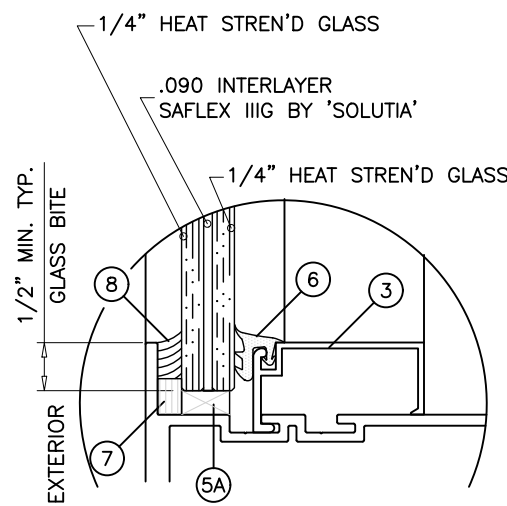
DRAWING No:

**1 OF 13**

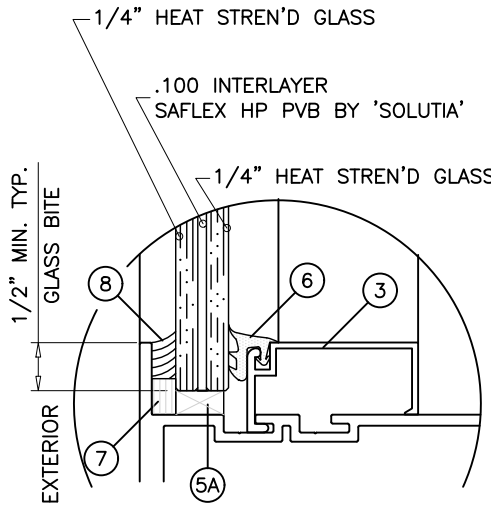


ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES. SINGLE LITES MAY BE INSTALLED VERTICALLY AS SHOWN ABOVE OR HORIZONTALLY.

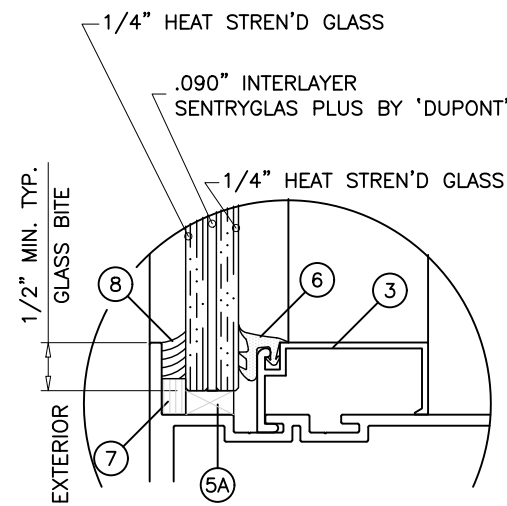
FOR ALTERNATE SHAPES LIMIT MAX. LOADS TO ±90.0 PSF  
 SEE SHEET 3 FOR D.L.O. WIDTHS AND HEIGHTS.  
 USE ANCHOR TYPE 'D' AT 3" FROM FRAME ENDS AND 12" O.C. MAX. SPACING.



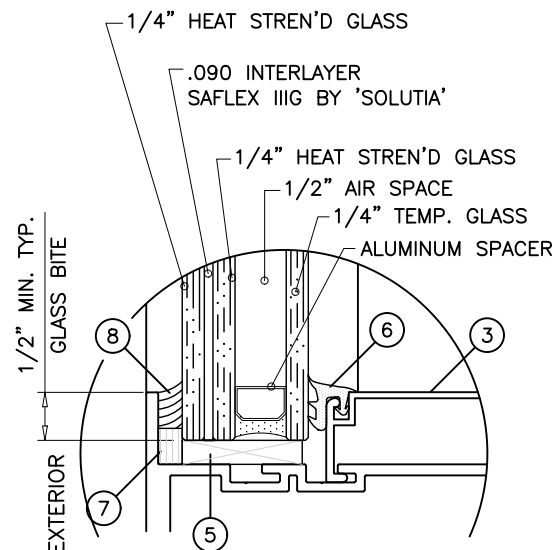
**GLASS TYPE 'A'**  
 9/16" NOMINAL OVERALL



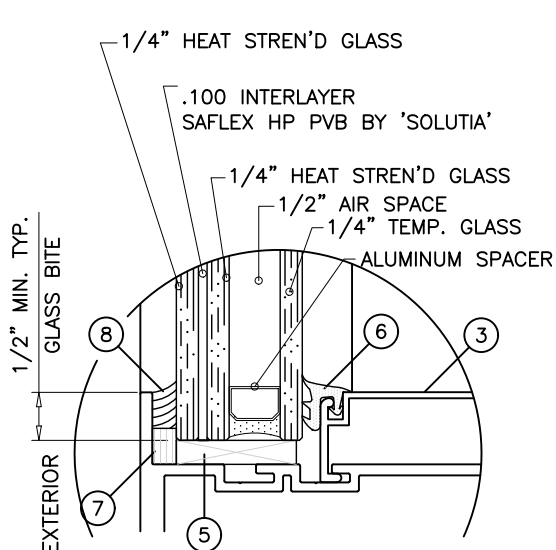
**GLASS TYPE 'B'**  
 9/16" NOMINAL OVERALL



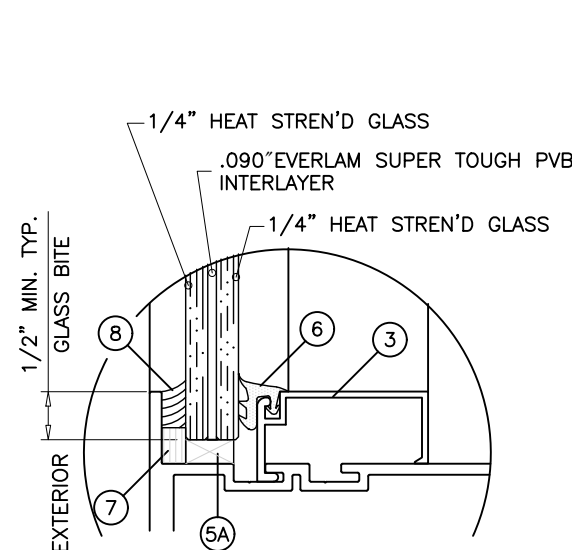
**GLASS TYPE 'C'**  
 9/16" NOMINAL OVERALL



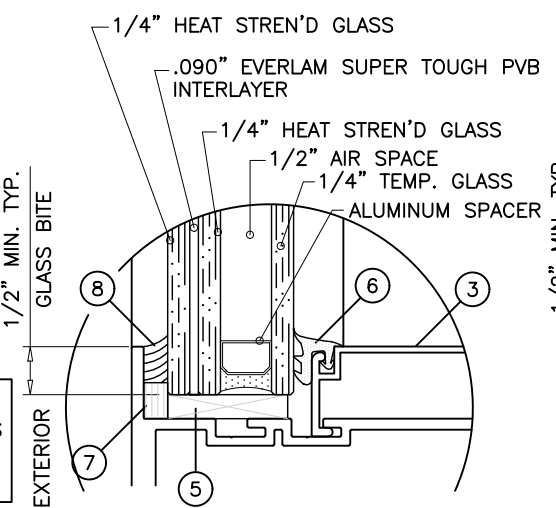
**GLASS TYPE 'A1'**  
 1-5/16" NOMINAL OVERALL



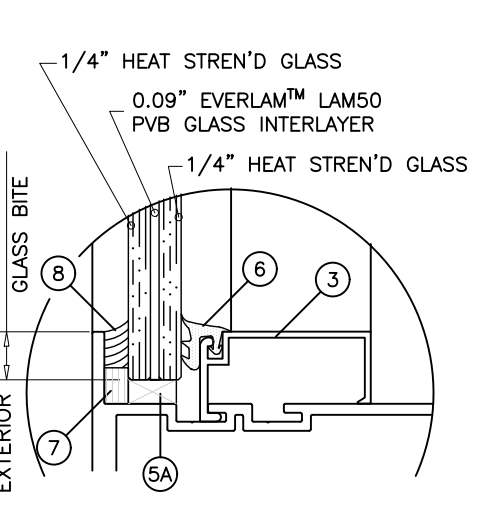
**GLASS TYPE 'B1'**  
 1-5/16" NOMINAL OVERALL



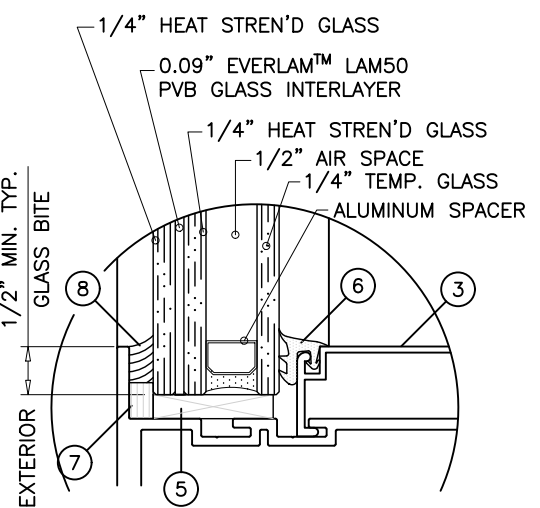
**GLASS TYPE 'D'**  
 9/16" NOMINAL OVERALL



**GLASS TYPE 'E'**  
 1-5/16" NOMINAL OVERALL



**GLASS TYPE 'F'**  
 9/16" NOMINAL OVERALL




**GLASS TYPE 'G'**  
 1-5/16" NOMINAL OVERALL

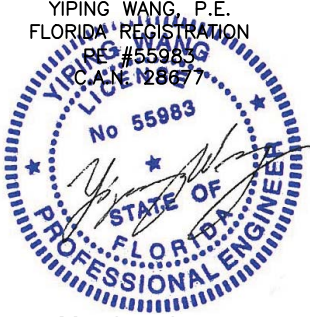
GLAZING OPTION

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<http://www.trulite.com>  
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 p. 800-432-8132

PRODUCT:  
**Resistor**  
**3100 ALUMINUM**  
**STOREFRONT WALL-LMI**  
**Resistor**  
 PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:  
  
**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANT  
 12781 Miramar Parkway #301  
 Miramar, FL 33027  
 P: 305-271-0117  
 Email: mcy@mcyengineering.com  
 www.MCYEngineering.com

STAMP:  
  
 YIPING WANG, P.E.  
 FLORIDA REGISTRATION  
 PE #55983  
 C.A.N. 128677  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 March 10th, 2022

PRODUCT CONTROL APPROVAL:  
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
**NOA-No.** 21-1216.10  
**Expiration Date** 03/31/2025  
 By *Manual Perez*  
**Miami-Dade Product Control**

DI  
 D1  
 D1

GLASS LOAD CAPACITY - PSF								
NOMINAL DIMS.		GLASS 'A'	GLASS 'A1'	GLASS 'B'	GLASS 'B1'	GLASS 'C'	GLASS 'D&E'	GLASS 'F&G'
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
20"	68"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
38"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
44"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
53"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
56"		70.0	80.0	100.0	100.0	100.0	+70/-85	-
62"		70.0	80.0	100.0	100.0	100.0	-	-
68"		70.0	-	100.0	100.0	100.0	-	-
72"		70.0	-	100.0	100.0	100.0	-	-
20"	74"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
38"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
44"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
48"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
56"		70.0	80.0	100.0	100.0	100.0	+70/-85	-
62"		70.0	-	100.0	100.0	100.0	-	-
68"		-	-	100.0	100.0	100.0	-	-
72"		-	-	100.0	100.0	100.0	-	-
20"	80"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
38"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
45"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
50"		70.0	80.0	100.0	100.0	100.0	+70/-85	-
56"		70.0	-	100.0	100.0	100.0	-	-
62"		-	-	100.0	100.0	100.0	-	-
68"		-	-	100.0	100.0	100.0	-	-
72"		-	-	100.0	100.0	100.0	-	-
20"	86"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
42"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
44"		70.0	80.0	100.0	100.0	100.0	+70/-85	-
50"		70.0	-	100.0	100.0	100.0	-	-
56"		70.0	-	100.0	100.0	100.0	-	-
62"		-	-	100.0	100.0	100.0	-	-
68"		-	-	100.0	100.0	100.0	-	-
72"		-	-	100.0	100.0	100.0	-	-
20"	92"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
39.25"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
45.25"		70.0	80.0	100.0	100.0	100.0	+70/-85	-
50"		70.0	-	100.0	100.0	100.0	-	-
56"		-	-	100.0	100.0	100.0	-	-
62"		-	-	100.0	100.0	100.0	-	-
68"		-	-	100.0	100.0	100.0	-	-
72"		-	-	100.0	100.0	100.0	-	-

GLASS LOAD CAPACITY - PSF									
NOMINAL DIMS.		GLASS 'A'	GLASS 'A1'	GLASS 'B'	GLASS 'B1'	GLASS 'C'	GLASS 'D&E'	GLASS 'F&G'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
20"	98"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75	
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75	
36"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75	
38"		70.0	80.0	100.0	100.0	100.0	+70/-85	-	
44"		70.0	-	100.0	100.0	100.0	-	-	
50"		-	-	100.0	100.0	100.0	-	-	
56"		-	-	100.0	100.0	100.0	-	-	
62"		-	-	100.0	100.0	100.0	-	-	
68"		-	-	100.0	100.0	100.0	-	-	
20"		104"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"	70.0		80.0	100.0	100.0	100.0	+70/-85	+65/-75	
34"	70.0		80.0	100.0	100.0	100.0	+70/-85	+65/-75	
38"	70.0		80.0	100.0	100.0	100.0	+70/-85	-	
44"	70.0		-	100.0	100.0	100.0	-	-	
50"	-		-	100.0	100.0	100.0	-	-	
56"	-		-	100.0	100.0	100.0	-	-	
62"	-		-	100.0	100.0	100.0	-	-	
20"	110"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"			70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75	
38"		70.0	80.0	100.0	100.0	100.0	-	-	
44"		70.0	-	100.0	100.0	100.0	-	-	
50"		-	-	100.0	100.0	100.0	-	-	
56"		-	-	100.0	100.0	100.0	-	-	
62"		-	-	100.0	100.0	100.0	-	-	
20"		116"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
31"			70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"	70.0		80.0	100.0	100.0	100.0	+70/-85	+65/-75	
38"	70.0		-	100.0	100.0	100.0	-	-	
44"	-		-	100.0	100.0	100.0	-	-	
50"	-		-	100.0	100.0	100.0	-	-	
56"	-		-	100.0	100.0	100.0	-	-	
58-3/4"	-		-	100.0	100.0	100.0	-	-	
20"	122"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
29"			70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75	
38"		70.0	-	100.0	100.0	100.0	-	-	
44"		-	-	100.0	100.0	100.0	-	-	
50"		-	-	100.0	100.0	100.0	-	-	
20"		128"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
28"			70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"			70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
38"			70.0	-	100.0	100.0	100.0	-	-
44"	-		-	100.0	100.0	100.0	-	-	
50"	-		-	100.0	100.0	100.0	-	-	

**PRODUCT REVISED**  
 as per **PRODUCT REVISED**  
**NO. as complying with the Florida Building Code**  
**Exp NOA-No. 21-1216.10**  
**By Expiration Date 03/31/2025**  
 Mia By Manual Perez  
**Miami-Dade Product Control**

✓ D.L.O. ✓ D.L.O. ✓

NOTE:  
 GLASS CAPACITIES ON THIS SHEET ARE  
 BASED ON ASTM E1300 (3 SEC. GUSTS)

GLASS LOAD CAPACITY - PSF								
NOMINAL DIMS.		GLASS 'A'	GLASS 'A1'	GLASS 'B'	GLASS 'B1'	GLASS 'C'	GLASS 'D&E'	GLASS 'F&G'
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
20"	134"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
26"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	-	100.0	100.0	100.0	-	-
38"		-	-	100.0	100.0	100.0	-	-
44"		-	-	100.0	100.0	100.0	-	-
50"		-	-	99.8	100.0	100.0	-	-
20"	140"	70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
25"		70.0	80.0	100.0	100.0	100.0	+70/-85	+65/-75
32"		70.0	-	100.0	100.0	100.0	-	-
38"		-	-	100.0	100.0	100.0	-	-
44"	-	-	100.0	100.0	100.0	-	-	



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 PEACHTREE CITY, GA 30269  
 p. 800-432-8132

PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
**STOREFRONT WALL-LMI**



REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:



**NG WANG, P.E.**  
 CONSULTANT

16315 W. Flamingo Avenue  
 Miami, FL 33027  
 305-271-0117  
 mcyc@mcycengineering.com  
 MCYEngineering.com



March 10th, 2022

CONTROL APPROVAL:

**PRODUCT REVISED**  
**complying with the Florida Building Code**

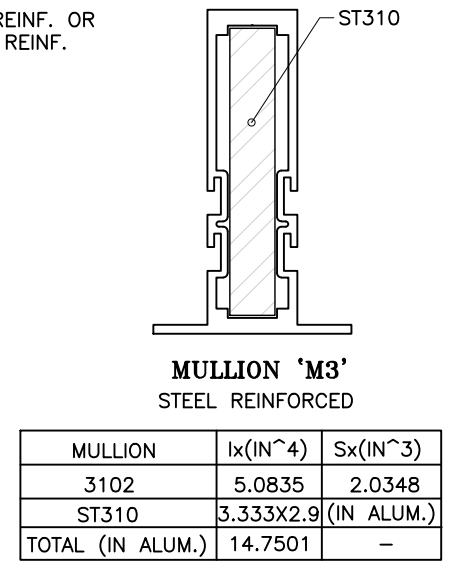
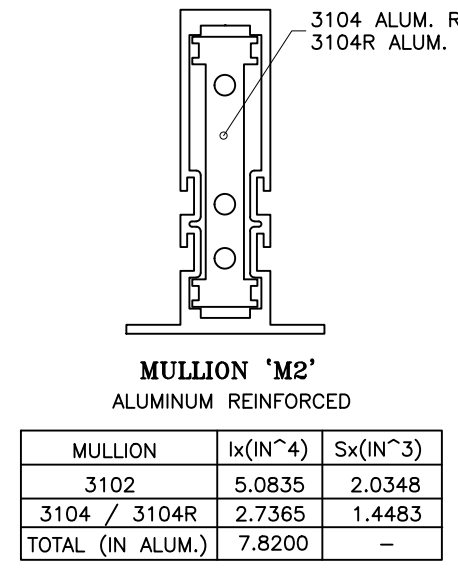
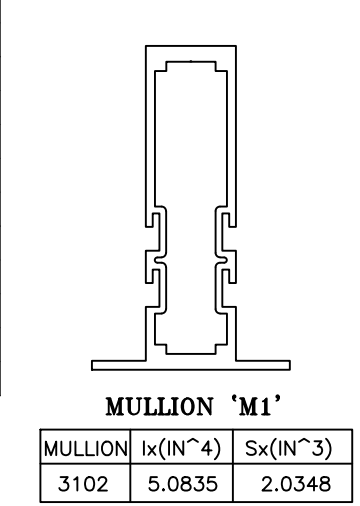
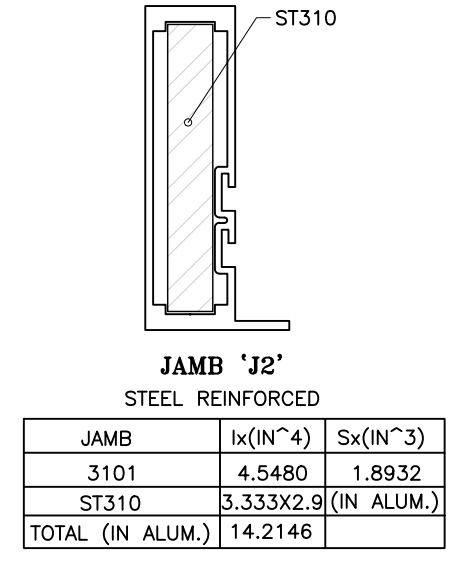
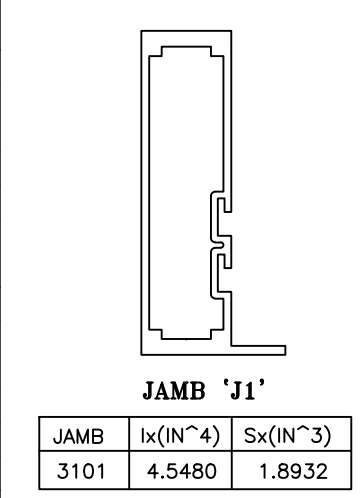
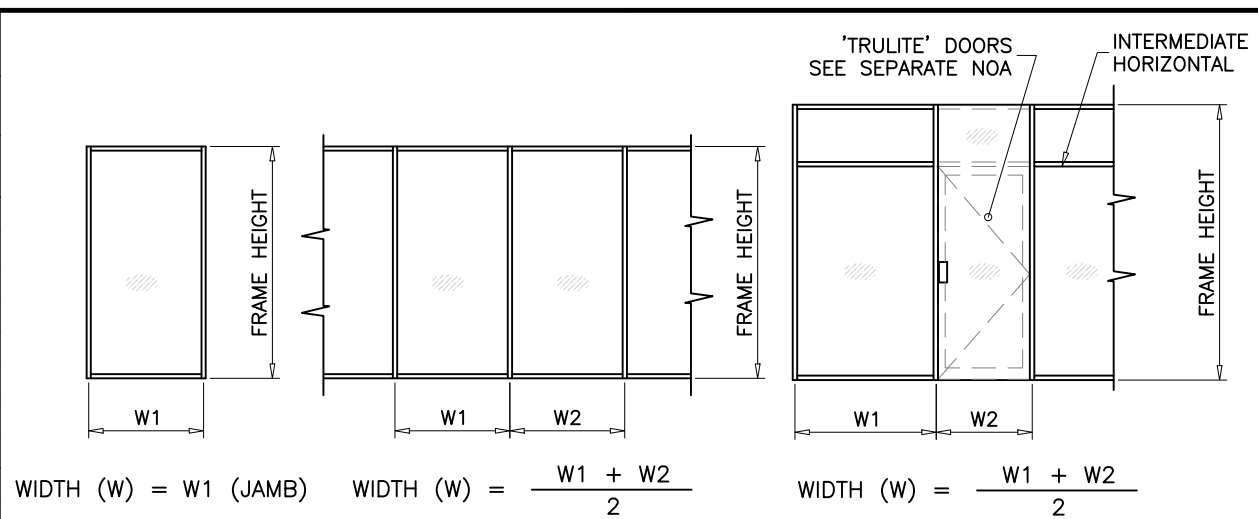
21-1216.10

Date 03/31/2025

Manual Perez  
 Miami-Dade Product Control

JAMB/MULLION LOAD CAPACITY - PSF WITHOUT INTERMEDIATE HORIZONTALS				
NOMINAL DIMS.		MULL 'M1'	JAMB 'J1' MULL 'M2'	JAMB 'J2' MULL 'M3'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
24"	78"	80.0	100.0	100.0
30"		80.0	100.0	100.0
36"		80.0	100.0	100.0
42"		80.0	100.0	100.0
48"		80.0	100.0	100.0
54"		80.0	100.0	100.0
60"		80.0	100.0	100.0
66"		-	100.0	100.0
72"		-	100.0	100.0
24"		84"	80.0	100.0
30"	80.0		100.0	100.0
36"	80.0		100.0	100.0
42"	80.0		100.0	100.0
48"	80.0		100.0	100.0
54"	80.0		100.0	100.0
60"	80.0		100.0	100.0
66"	-		100.0	100.0
72"	-		100.0	100.0
24"	90"		80.0	100.0
30"		80.0	100.0	100.0
36"		80.0	100.0	100.0
42"		80.0	100.0	100.0
48"		80.0	100.0	100.0
54"		77.4	100.0	100.0
60"		-	100.0	100.0
66"		-	100.0	100.0
72"		-	100.0	100.0
24"		96"	80.0	100.0
30"	80.0		100.0	100.0
36"	80.0		100.0	100.0
42"	80.0		100.0	100.0
48"	72.8		100.0	100.0
54"	66.3		100.0	100.0
60"	-		96.8	96.8
66"	-		90.9	90.9
72"	-		86.4	86.4
24"	102"		-	100.0
30"		-	100.0	100.0
36"		-	100.0	100.0
42"		-	100.0	100.0
48"		-	99.5	99.5
54"		-	90.4	90.4
60"		-	83.3	83.3
66"		-	77.9	77.9
72"		-	73.7	73.7

JAMB/MULLION LOAD CAPACITY - PSF WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		MULL 'M1'	JAMB 'J1' MULL 'M2'	JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
24"	108"	-	100.0	100.0	
30"		-	100.0	100.0	
36"		-	100.0	100.0	
42"		-	98.0	98.0	
48"		-	87.1	87.1	
54"		-	78.9	78.9	
60"		-	72.5	72.5	
66"		-	67.6	67.6	
24"		114"	-	100.0	100.0
30"			-	100.0	100.0
36"	-		98.2	98.2	
42"	-		85.4	85.4	
48"	-		76.0	76.0	
54"	-		69.0	69.0	
60"	-		63.5	63.5	
24"	120"		-	100.0	100.0
30"			-	99.5	99.5
36"			-	83.8	83.8
42"		-	72.8	72.8	
48"		-	64.7	64.7	
54"		-	58.6	60.0	
60"		-	53.8	60.0	
24"		126"	-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"	-		-	60.0	
48"	-		-	60.0	
54"	-		-	60.0	
24"	132"		-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"		-	-	60.0	
24"		138"	-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"			-	-	60.0
24"	144"		-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"			-	-	57.6



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PRODUCT:  
**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI  
**Resistor**  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

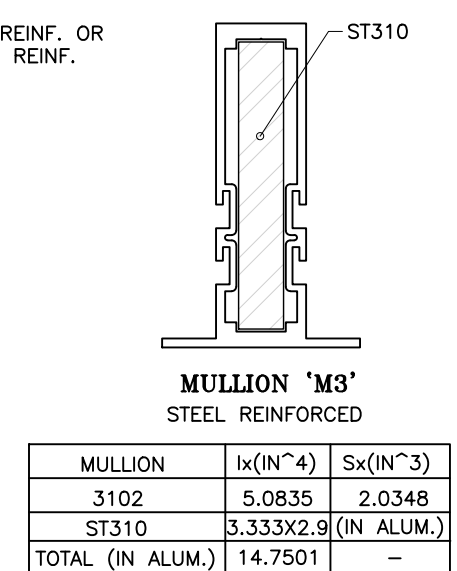
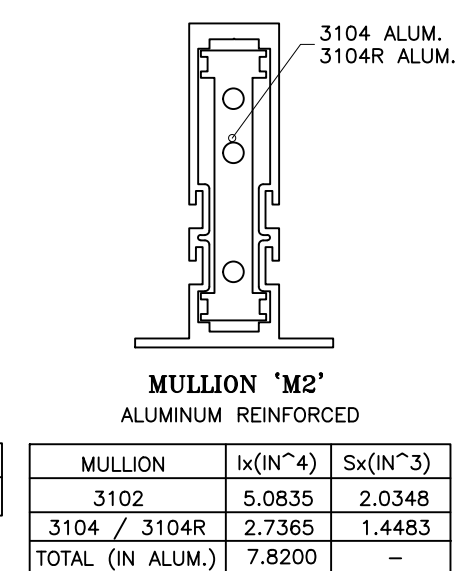
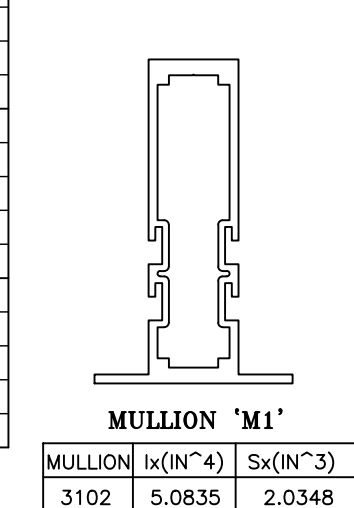
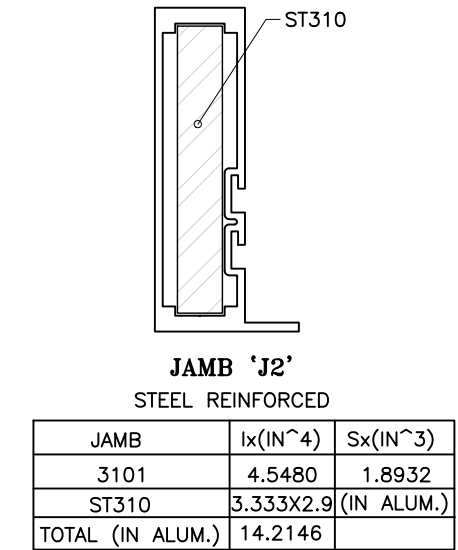
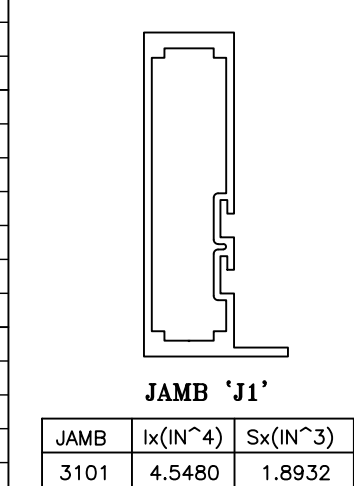
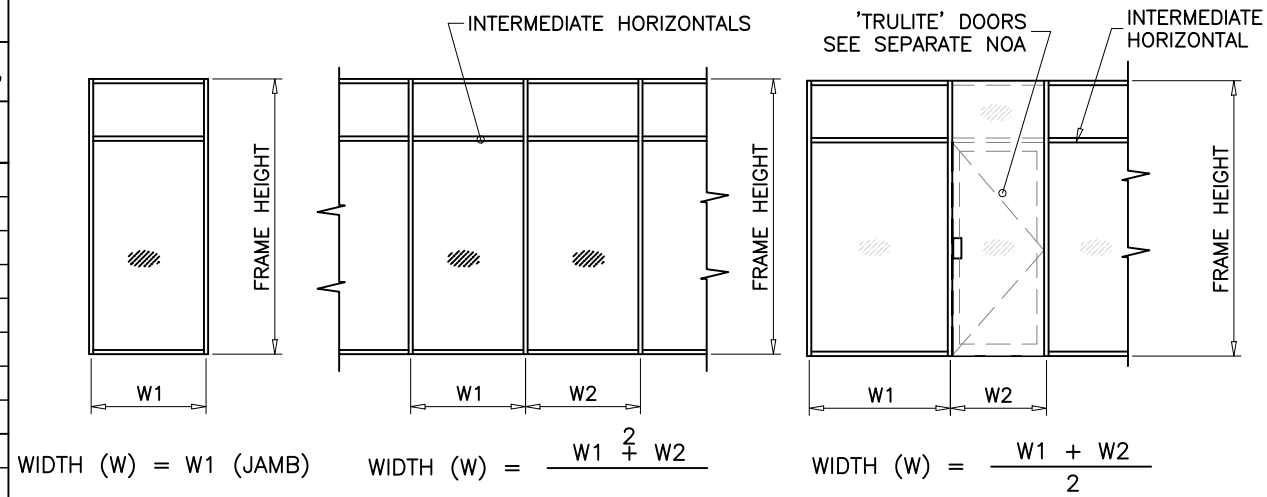
ENGINEER:  
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT  
12781 Miramar Parkway #301  
Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcyengineering.com  
www.MCYEngineering.com

STAMP:  
YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 12867  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
March 10th, 2022

PRODUCT CONTROL APPROVAL:  
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 21-1216.10  
Expiration Date 03/31/2025  
By *Manuel Perez*  
Miami-Dade Product Control

JAMB/MULLION LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS				
NOMINAL DIMS.		JAMB 'J1' MULL 'M2'	JAMB 'J2' MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
24"	78"	80.0	100.0	100.0
30"		80.0	100.0	100.0
36"		80.0	100.0	100.0
42"		80.0	100.0	100.0
48"		80.0	100.0	100.0
54"		80.0	100.0	100.0
60"		80.0	100.0	100.0
66"		-	100.0	100.0
72"		-	100.0	100.0
24"		84"	80.0	100.0
30"	80.0		100.0	100.0
36"	80.0		100.0	100.0
42"	80.0		100.0	100.0
48"	80.0		100.0	100.0
54"	80.0		100.0	100.0
60"	72.1		100.0	100.0
66"	-		100.0	100.0
72"	-		93.9	93.9
24"	90"		80.0	100.0
30"		80.0	100.0	100.0
36"		80.0	100.0	100.0
42"		80.0	100.0	100.0
48"		78.6	100.0	100.0
54"		69.8	100.0	100.0
60"		-	97.0	97.0
66"		-	88.2	88.2
72"		-	80.9	80.9
24"		96"	80.0	100.0
30"	80.0		100.0	100.0
36"	80.0		100.0	100.0
42"	78.9		100.0	100.0
48"	69.0		100.0	100.0
54"	61.4		93.7	93.7
60"	-		84.3	84.3
66"	-		76.7	76.7
72"	-		70.3	70.3
24"	102"		-	100.0
30"		-	100.0	100.0
36"		-	100.0	100.0
42"		-	100.0	100.0
48"		-	92.9	92.9
54"		-	82.6	82.6
60"		-	74.3	74.3
66"		-	67.6	67.6
72"		-	61.9	61.9

JAMB/MULLION LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		JAMB 'J1' MULL 'M2'	JAMB 'J2' MULL 'M3'		
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
24"	108"	-	100.0	100.0	
30"		-	100.0	100.0	
36"		-	100.0	100.0	
42"		-	94.7	94.7	
48"		-	82.9	82.9	
54"		-	73.7	73.7	
60"		-	66.3	66.3	
66"		-	60.3	60.3	
24"		114"	-	100.0	100.0
30"			-	100.0	100.0
36"	-		94.5	94.5	
42"	-		81.0	81.0	
48"	-		70.9	70.9	
54"	-		63.0	63.0	
60"	-		56.7	60.0	
24"	120"		-	100.0	100.0
30"			-	97.3	97.3
36"			-	81.1	81.1
42"		-	69.5	69.5	
48"		-	60.8	60.8	
54"		-	54.0	60.0	
60"		-	48.6	60.0	
24"		126"	-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"	-		-	60.0	
48"	-		-	60.0	
54"	-		-	60.0	
24"	132"		-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"		-	-	60.0	
24"		138"	-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"			-	-	60.0
24"	144"		-	-	60.0
30"			-	-	60.0
36"			-	-	60.0
42"			-	-	60.0
48"			-	-	55.2



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PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI

**Resistor**  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:

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STAMP:

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
No. 55983  
C.A.N. 128677

March 10th, 2022

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida Building Code

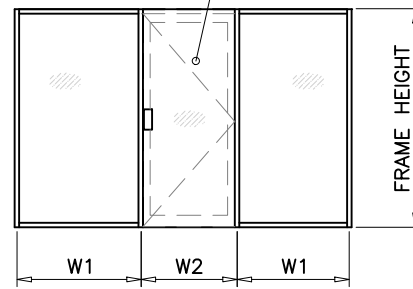
NOA-No. 21-1216.10

Expiration Date 03/31/2025

By *Manuel Perez*  
Miami-Dade Product Control

DOOR MULLION LOAD CAPACITY - PSF			
NOMINAL DIMS.		WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W)	FRAME HEIGHT	EXT.(+) / INT.(-)	EXT.(+) / INT.(-)
30"	81-1/4"	87.0	87.0
36"		87.0	87.0
42"		87.0	87.0
48"		87.0	87.0
54"		-	87.0
60"		-	87.0
30"	85-1/4"	87.0	87.0
36"		87.0	87.0
42"		87.0	87.0
48"		84.5	87.0
54"		-	87.0
60"		-	87.0
30"	91-1/4"	87.0	87.0
36"		87.0	87.0
42"		80.7	87.0
48"		-	87.0
54"		-	87.0
60"		-	87.0
30"	97-1/4"	87.0	87.0
36"		77.8	87.0
42"		66.7	87.0
48"		-	87.0
54"		-	87.0
60"		-	79.1
30"	102"	-	87.0
36"		-	87.0
42"		-	87.0
48"		-	87.0
54"		-	79.9
60"		-	71.9
30"	108"	-	87.0
36"		-	87.0
42"		-	87.0
48"		-	79.3
54"		-	70.5
60"		-	63.5
30"	114"	-	87.0
36"		-	87.0
42"		-	77.1
48"		-	67.5
54"		-	60.0
60"		-	54.0
30"	120"	-	87.0
36"		-	77.1
42"		-	66.1
48"		-	57.8
54"		-	51.4
60"		-	46.3

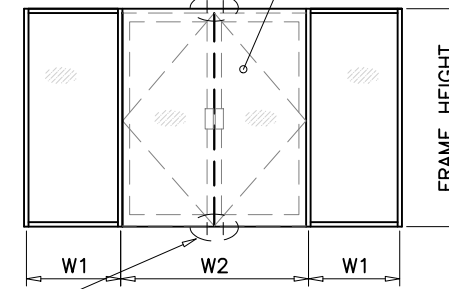
'TRULITE' DOORS  
SEE SEPARATE NOA



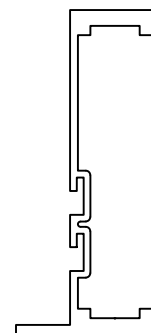
$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

ANCHORS REQD.  
SEE DOOR NOA

'TRULITE' DOORS  
SEE SEPARATE NOA

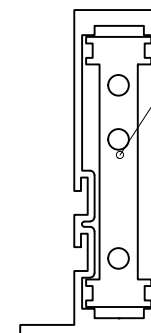


$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$



DOOR MULLION  
W/O REINF.

JAMB	Ix(IN^4)	Sx(IN^3)
3101	4.5480	1.8932



3104 ALUM. REINF. OR  
3104R ALUM. REINF.

DOOR MULLION  
W/ ALUM. REINF.

JAMB	Ix(IN^4)	Sx(IN^3)
3101	4.5480	1.8932
3104	2.7385	1.4483
TOTAL	7.2865	

STEP 3: MULLION LOAD CAPACITIES

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PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI

**Resistor**  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

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STAMP:

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
No. 55983



March 10th, 2022

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code

NOA-No. 21-1216.10

Expiration Date 03/31/2025

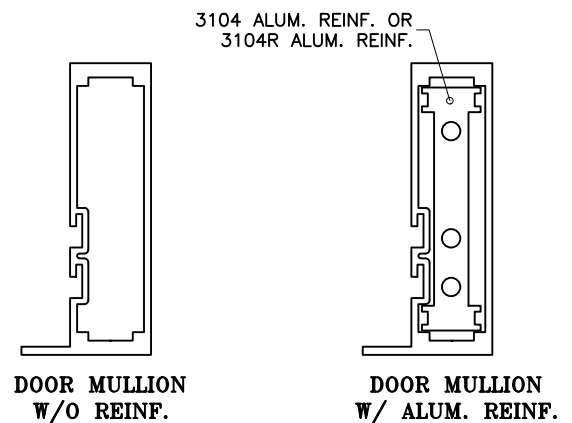
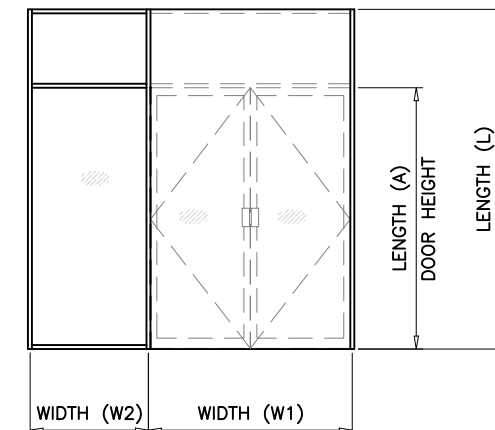
By Manuel Perez  
Miami-Dade Product Control

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
60"	30"	96"	102"	78.3	87.0
	33"			75.0	87.0
	36"			71.9	87.0
	39"			69.0	87.0
	42"			66.4	87.0
	48"			61.7	87.0
	54"			57.6	87.0
	72"			71.0	87.0
72"	33"	96"	102"	68.3	87.0
	36"			65.7	87.0
	39"			63.3	87.0
	42"			61.1	87.0
	48"			57.1	87.0
	54"			53.6	87.0
	60"			62.6	87.0
	60"			60.0	87.0
60"	36"	96"	108"	57.7	87.0
	39"			55.5	87.0
	42"			53.5	87.0
	48"			49.8	86.2
	54"			46.7	80.8
	72"			56.5	87.0
	72"			54.4	87.0
	72"			52.5	87.0
72"	36"	96"	108"	50.6	87.0
	39"			49.0	84.7
	48"			45.9	79.4
	54"			43.2	74.8
	60"			50.9	87.0
	60"			48.9	84.7
	60"			47.1	81.5
	60"			45.4	78.5
60"	42"	96"	114"	43.8	75.8
	48"			40.9	70.8
	54"			38.4	66.5
	72"			45.8	79.3
	72"			44.2	76.5
	72"			42.7	73.8
	72"			41.3	71.4
	72"			39.9	69.1
72"	42"	96"	114"	37.5	65.0
	48"			35.4	61.3

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
60"	30"	96"	120"	42.1	72.9
	33"			40.5	70.1
	36"			39.1	67.6
	39"			37.7	65.2
	42"			36.4	63.0
	48"			34.1	59.0
	54"			32.0	55.5
	72"			37.8	65.4
72"	33"	96"	120"	36.5	63.2
	36"			35.3	61.1
	39"			34.2	59.1
	42"			33.1	57.3
	48"			31.2	54.0
	60"			40.0	70.0
	60"			39.0	67.0
	60"			37.0	65.0
60"	36"	96"	108"	36.0	63.0
	39"			35.0	61.0
	42"			33.0	58.0
	48"			31.0	54.0
	54"			31.0	54.0
	72"			35.0	61.0
	72"			34.0	60.0
	72"			33.0	58.0
72"	36"	96"	108"	32.0	56.0
	39"			31.0	53.0
	48"			30.0	52.0

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
60"	30"	90"	96"	87.0	87.0
	33"			87.0	87.0
	36"			84.2	87.0
	39"			80.8	87.0
	42"			77.8	87.0
	48"			72.2	87.0
	54"			67.4	87.0
	72"			83.4	87.0
72"	33"	90"	96"	80.1	87.0
	36"			77.0	87.0
	39"			74.2	87.0
	42"			71.6	87.0
	48"			66.9	87.0
	54"			62.7	87.0
	60"			73.8	87.0
	60"			70.8	87.0
60"	36"	90"	102"	68.1	87.0
	39"			65.5	87.0
	42"			63.1	87.0
	48"			58.9	87.0
	54"			55.1	87.0
	72"			66.6	87.0
	72"			64.1	87.0
	72"			61.9	87.0
72"	36"	90"	102"	59.8	87.0
	39"			57.8	87.0
	48"			54.2	87.0
	54"			51.0	86.4
	60"			59.4	87.0
	60"			57.1	87.0
	60"			55.0	87.0
	60"			53.0	87.0
60"	42"	90"	108"	51.2	87.0
	48"			47.8	82.8
	54"			44.9	77.7
	72"			53.4	87.0
	72"			51.6	87.0
	72"			49.8	86.2
	72"			48.2	83.4
	72"			46.6	80.7
72"	42"	90"	108"	43.9	75.9
	48"			41.4	71.6

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
60"	30"	90"	114"	48.7	84.3
	33"			46.9	81.2
	36"			45.2	78.2
	39"			43.6	75.5
	42"			42.2	73.0
	48"			39.5	68.3
	54"			37.1	64.3
	72"			43.7	75.6
72"	33"	90"	114"	42.2	73.1
	36"			40.8	70.7
	39"			39.5	68.4
	42"			38.3	66.3
	48"			36.1	62.5
	54"			34.1	59.1
	60"			40.6	70.3
	60"			39.1	67.7
60"	36"	90"	120"	37.7	65.3
	39"			36.5	63.1
	42"			35.3	61.0
	48"			33.1	57.2
	54"			31.1	53.9
	72"			36.3	62.9
	72"			35.1	60.8
	72"			34.0	58.9
72"	36"	90"	120"	33.0	57.0
	39"			32.0	55.3
	48"			30.2	52.2



JAMB	Ix(IN^4)	Sx(IN^3)
3101	4.5480	1.8932

JAMB	Ix(IN^4)	Sx(IN^3)
3101	4.5480	1.8932
3104	2.7385	1.4483
TOTAL	7.2865	

STEP 3: MULLION LOAD CAPACITIES

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PRODUCT:  
**Resistor**  
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**Resistor**  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:  
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FLORIDA REGISTRATION  
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STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
March 10th, 2022

PRODUCT CONTROL APPROVAL:  
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 21-1216.10  
Expiration Date 03/31/2025  
By *Manuel Perez*  
Miami-Dade Product Control

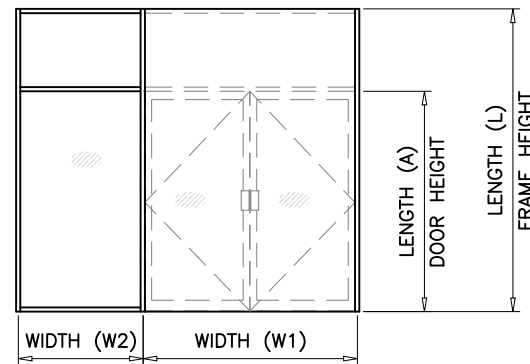


DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
60"	30"	84"	90"	87.0	87.0
	33"			87.0	87.0
	36"			87.0	87.0
	39"			87.0	87.0
	42"			87.0	87.0
	48"			82.7	87.0
54"	77.3	87.0			
72"	30"	84"	90"	87.0	87.0
	33"			87.0	87.0
	36"			87.0	87.0
	39"			84.9	87.0
	42"			81.9	87.0
	48"			76.6	87.0
54"	71.9	87.0			
60"	30"	84"	96"	87.0	87.0
	33"			84.0	87.0
	36"			80.7	87.0
	39"			77.7	87.0
	42"			74.8	87.0
	48"			69.7	87.0
54"	65.3	87.0			
72"	30"	84"	96"	79.0	87.0
	33"			76.1	87.0
	36"			73.4	87.0
	39"			70.9	87.0
	42"			68.5	87.0
	48"			64.2	87.0
54"	60.4	87.0			
60"	30"	84"	102"	70.0	87.0
	33"			67.3	87.0
	36"			64.8	87.0
	39"			62.4	87.0
	42"			60.3	87.0
	48"			56.4	87.0
54"	53.0	87.0			
72"	30"	84"	102"	62.8	87.0
	33"			60.7	87.0
	36"			58.6	87.0
	39"			56.7	87.0
	42"			54.9	87.0
	48"			51.7	87.0
54"	48.8	83.9			

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
60"	30"	84"	108"	56.8	87.0
	33"			54.7	87.0
	36"			52.7	87.0
	39"			50.9	87.0
	42"			49.2	85.1
	48"			46.1	79.8
54"	43.4	75.1			
72"	30"	84"	108"	50.9	87.0
	33"			49.2	85.1
	36"			47.6	82.4
	39"			46.1	79.8
	42"			44.7	77.4
	48"			42.1	72.9
54"	39.9	69.0			
60"	30"	84"	114"	46.9	81.2
	33"			45.2	78.3
	36"			43.7	75.5
	39"			42.2	73.0
	42"			40.8	70.6
	48"			38.3	66.3
54"	36.1	62.5			
72"	30"	84"	114"	42.0	72.6
	33"			40.6	70.3
	36"			39.3	68.0
	39"			38.1	66.0
	42"			37.0	64.0
	48"			34.9	60.4
54"	33.1	57.2			
60"	30"	84"	120"	39.3	68.1
	33"			38.0	65.7
	36"			36.7	63.4
	39"			35.4	61.3
	42"			34.3	59.4
	48"			32.2	55.8
54"	30.4	52.6			
72"	30"	84"	120"	35.1	60.8
	33"			34.0	58.8
	36"			33.0	57.0
	39"			32.0	55.3
	42"			31.0	53.7
	48"			29.3	50.8

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
60"	30"	80"	90"	87.0	87.0
	33"			87.0	87.0
	36"			87.0	87.0
	39"			87.0	87.0
	42"			86.6	87.0
	48"			80.7	87.0
54"	75.5	87.0			
72"	30"	80"	90"	87.0	87.0
	33"			87.0	87.0
	36"			85.1	87.0
	39"			82.2	87.0
	42"			79.4	87.0
	48"			74.4	87.0
54"	70.0	87.0			
60"	30"	80"	96"	84.6	87.0
	33"			81.3	87.0
	36"			78.3	87.0
	39"			75.5	87.0
	42"			72.9	87.0
	48"			68.1	87.0
54"	64.0	87.0			
72"	30"	80"	96"	76.1	87.0
	33"			73.4	87.0
	36"			70.9	87.0
	39"			68.6	87.0
	42"			66.4	87.0
	48"			62.5	87.0
54"	58.9	87.0			
60"	30"	80"	102"	67.8	87.0
	33"			65.2	87.0
	36"			62.9	87.0
	39"			60.7	87.0
	42"			58.7	87.0
	48"			55.0	87.0
54"	51.7	87.0			
72"	30"	80"	102"	60.7	87.0
	33"			58.7	87.0
	36"			56.8	87.0
	39"			55.0	87.0
	42"			53.3	87.0
	48"			50.2	87.0
54"	47.5	82.2			

DOOR MULLION LOAD CAPACITY – PSF AT DOUBLE DOOR WITH TRANSOM					
NOMINAL DIMS.				WITHOUT REINFORCING	WITH REINFORCING
WIDTH (W1)	WIDTH (W2)	LENGTH (A)	LENGTH (L)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
60"	30"	80"	108"	55.3	87.0
	33"			53.3	87.0
	36"			51.5	87.0
	39"			49.7	86.1
	42"			48.1	83.2
	48"			45.1	78.1
54"	42.5	73.6			
72"	30"	80"	108"	49.5	85.6
	33"			47.9	82.8
	36"			46.4	80.2
	39"			44.9	77.8
	42"			43.6	75.5
	48"			41.2	71.2
54"	39.0	67.5			
60"	30"	80"	114"	45.9	79.5
	33"			44.3	76.7
	36"			42.8	74.1
	39"			41.4	71.6
	42"			40.0	69.3
	48"			37.6	65.1
54"	35.5	61.4			
72"	30"	80"	114"	41.0	71.0
	33"			39.7	68.7
	36"			38.5	66.6
	39"			37.3	64.6
	42"			36.2	62.7
	48"			34.3	59.3
54"	32.5	56.2			
60"	30"	80"	120"	38.7	66.9
	33"			37.3	64.6
	36"			36.1	62.4
	39"			34.9	60.4
	42"			33.8	58.5
	48"			31.8	55.0
54"	30.0	51.9			
72"	30"	80"	120"	34.5	59.7
	33"			33.4	57.8
	36"			32.4	56.0
	39"			31.4	54.4
	42"			30.5	52.9
	48"			28.9	50.0



STEP 3: MULLION LOAD CAPACITIES

**Trulite**  
GLASS & ALUMINUM SOLUTIONS™  
http://www.trulite.com  
403 WESTPARK COURT, Suite 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132

PRODUCT:  
**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI  
**Resistor**  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

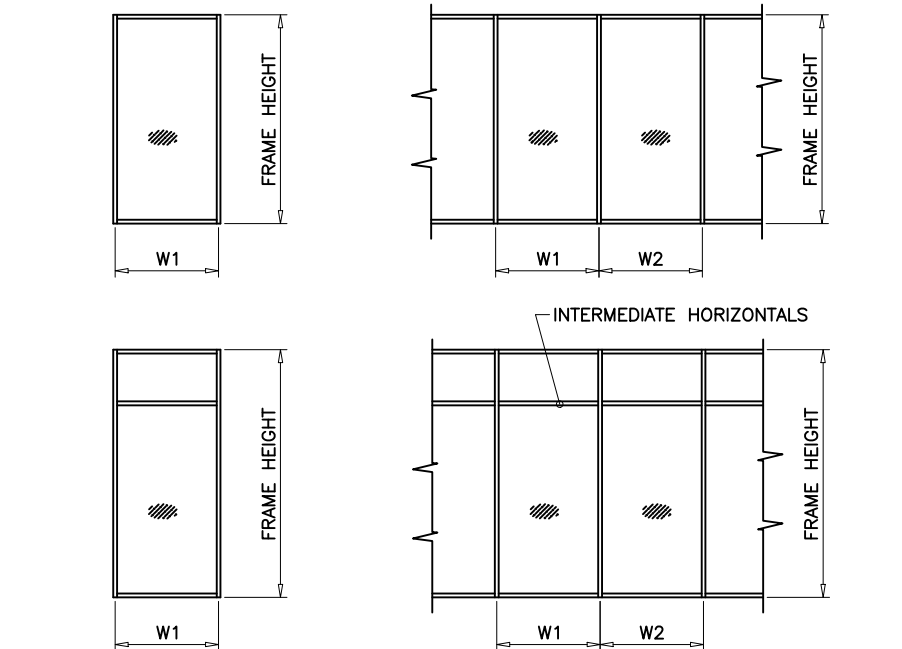
ENGINEER:  
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT  
12781 Miramar Parkway #301  
Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcyengineering.com  
www.MCYEngineering.com

STAMP:  
YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
No 55983  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
March 10th, 2022

PRODUCT CONTROL APPROVAL:  
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 21-1216.10  
Expiration Date 03/31/2025  
By *Manuel Perez*  
Miami-Dade Product Control

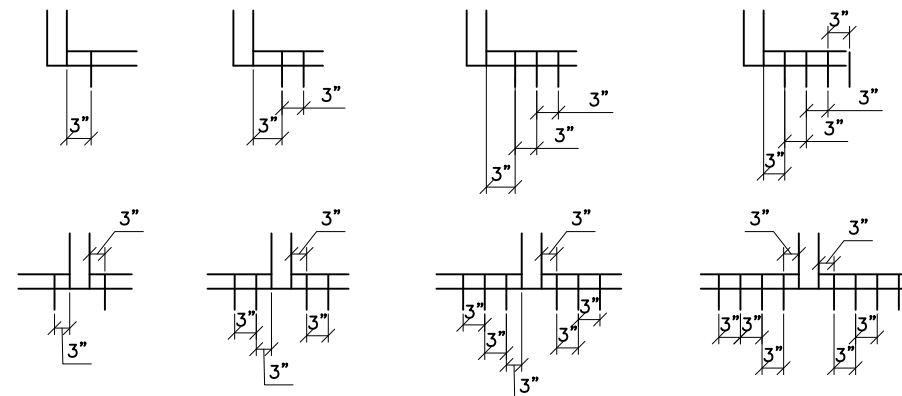
ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHORS TYPE 'A'			TYPE 'B' & 'C'	
WIDTH (W)	FRAME HEIGHT	'A2'	'A3'	'A4'	'B1'/'C1'	'B2'/'C2'
24"	66"	100.0	100.0	100.0	100.0	100.0
30"		100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0
42"		100.0	100.0	100.0	100.0	100.0
48"		100.0	100.0	100.0	100.0	100.0
54"		95.4	100.0	100.0	95.8	100.0
60"		85.8	100.0	100.0	86.2	100.0
66"		78.0	100.0	100.0	78.3	100.0
72"		71.5	100.0	100.0	71.8	100.0
72"		72"	100.0	100.0	100.0	100.0
30"	100.0		100.0	100.0	100.0	100.0
36"	100.0		100.0	100.0	100.0	100.0
42"	100.0		100.0	100.0	100.0	100.0
48"	98.3		100.0	100.0	98.8	100.0
54"	87.4		100.0	100.0	87.8	100.0
60"	78.7		100.0	100.0	79.0	100.0
66"	71.5		100.0	100.0	71.8	100.0
72"	65.6		91.8	100.0	65.8	100.0
72"	78"		100.0	100.0	100.0	100.0
30"		100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0
42"		100.0	100.0	100.0	100.0	100.0
48"		90.8	100.0	100.0	91.2	100.0
54"		80.7	100.0	100.0	81.0	100.0
60"		72.6	100.0	100.0	72.9	100.0
66"		66.0	92.4	100.0	66.3	100.0
72"		60.5	84.7	100.0	60.8	100.0
72"		84"	100.0	100.0	100.0	100.0
30"	100.0		100.0	100.0	100.0	100.0
36"	100.0		100.0	100.0	100.0	100.0
42"	96.3		100.0	100.0	96.7	100.0
48"	84.3		100.0	100.0	84.6	100.0
54"	74.9		100.0	100.0	75.2	100.0
60"	67.4		94.4	100.0	67.7	100.0
66"	61.3		85.8	100.0	61.6	100.0
72"	56.2		78.7	100.0	56.4	94.0
72"	90"		100.0	100.0	100.0	100.0
30"		100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0
42"		89.9	100.0	100.0	90.3	100.0
48"		78.7	100.0	100.0	79.0	100.0
54"		69.9	97.9	100.0	70.2	100.0
60"		62.9	88.1	100.0	63.2	100.0
66"		57.2	80.1	100.0	57.5	95.8
72"		52.4	73.4	94.4	52.7	87.8
72"		96"	100.0	100.0	100.0	100.0
30"	100.0		100.0	100.0	100.0	100.0
36"	98.3		100.0	100.0	98.8	100.0
42"	84.3		100.0	100.0	84.6	100.0
48"	73.8		100.0	100.0	74.1	100.0
54"	65.6		91.8	100.0	65.8	100.0
60"	59.0		82.6	100.0	59.3	98.8
66"	53.6		75.1	96.5	53.9	89.8

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)							
NOMINAL DIMS.		ANCHORS TYPE 'A'			TYPE 'B' & 'C'		
WIDTH (W)	FRAME HEIGHT	'A2'	'A3'	'A4'	'B1'/'C1'	'B2'/'C2'	
24"	102"	100.0	100.0	100.0	100.0	100.0	
30"		100.0	100.0	100.0	100.0	100.0	
36"		92.5	100.0	100.0	92.9	100.0	
42"		79.3	100.0	100.0	79.7	100.0	
48"		69.4	97.2	100.0	69.7	100.0	
54"		61.7	86.4	100.0	62.0	100.0	
60"		55.5	77.7	100.0	55.8	92.9	
60"		108"	100.0	100.0	100.0	100.0	100.0
30"			100.0	100.0	100.0	100.0	100.0
36"			87.4	100.0	100.0	87.8	100.0
42"	74.9		100.0	100.0	75.2	100.0	
48"	65.6		91.8	100.0	65.8	100.0	
54"	58.3		81.6	100.0	58.5	97.5	
60"	52.4		73.4	94.4	52.7	87.8	
60"	114"		100.0	100.0	100.0	100.0	100.0
30"			99.4	100.0	100.0	99.8	100.0
36"			82.8	100.0	100.0	83.2	100.0
42"		71.0	99.4	100.0	71.3	100.0	
48"		62.1	86.9	100.0	62.4	100.0	
54"		55.2	77.3	99.4	55.4	92.4	
54"		120"	100.0	100.0	100.0	100.0	100.0
30"			94.4	100.0	100.0	94.8	100.0
36"			78.7	100.0	100.0	79.0	100.0
42"			67.4	94.4	100.0	67.7	100.0
48"	59.0		82.6	100.0	59.3	98.8	
54"	52.4		73.4	94.4	52.7	87.8	
54"	126"		60.0	60.0	60.0	60.0	60.0
30"			60.0	60.0	60.0	60.0	60.0
36"			60.0	60.0	60.0	60.0	60.0
42"			60.0	60.0	60.0	60.0	60.0
48"		56.2	60.0	60.0	56.4	60.0	
54"		49.9	60.0	60.0	50.2	60.0	
54"		132"	60.0	60.0	60.0	60.0	60.0
30"			60.0	60.0	60.0	60.0	60.0
36"			60.0	60.0	60.0	60.0	60.0
42"			60.0	60.0	60.0	60.0	60.0
48"	53.6		60.0	60.0	53.9	60.0	
54"	49.9		60.0	60.0	50.2	60.0	
54"	138"		60.0	60.0	60.0	60.0	60.0
30"			60.0	60.0	60.0	60.0	60.0
36"			60.0	60.0	60.0	60.0	60.0
42"			58.6	60.0	60.0	58.9	60.0
48"		51.3	60.0	60.0	51.5	60.0	
54"		144"	60.0	60.0	60.0	60.0	60.0
30"			60.0	60.0	60.0	60.0	60.0
36"			60.0	60.0	60.0	60.0	60.0
42"			56.2	60.0	60.0	56.4	60.0
48"			49.2	60.0	60.0	49.4	60.0



WIDTH (W) = W1 (JAMB)

WIDTH (W) =  $\frac{W1 + W2}{2}$



- B1, C1**      **A2, B2, C2**      **A3**      **A4**
- ANCHORS TYPES:** SEE SHEET 10 FOR DESCRIPTION
- B1** = (1) ANCHOR TYPE 'B' AT EACH SIDE OF MULLION OR JAMB  
**C1** = (1) ANCHOR TYPE 'C' AT EACH SIDE OF MULLION OR JAMB
- A2** = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB  
**B2** = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION OR JAMB  
**C2** = (2) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION OR JAMB
- A3** = (3) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
- A4** = (4) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION OR JAMB
- MAXIMUM SPACING FOR HEAD AND SILL ANCHORS NOT TO EXCEED 24" O.C.

STEP 4: ANCHOR LOAD CAPACITY



GLASS & ALUMINUM SOLUTIONS™

http://www.trulite.com

403 WESTPARK COURT, Suite 201  
 PEACHTREE CITY, GA 30269  
 p. 800-432-8132

PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
 STOREFRONT WALL-LMI



REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:



**MCY ENGINEERING, INC.**  
 GLAZING CONSULTANT

12781 Miramar Parkway #301  
 Miramar, FL 33027  
 P: 305-271-0117  
 Email: mcy@mcyengineering.com  
 www.MCYEngineering.com

STAMP:

YIPING WANG, P.E.  
 FLORIDA REGISTRATION  
 PE #55983  
 C.A.N. 128677



March 10th, 2022

PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code

NOA-No. 21-1216.10

Expiration Date 03/31/2025

By *Manuel Perez*  
 Miami-Dade Product Control

PRODUCT:

## Resistor 3100 ALUMINUM STOREFRONT WALL-LMI

Resistor  
PRODUCT SERIES

REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

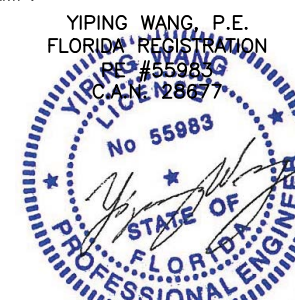
ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12781 Miramar Parkway #301  
Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcyengineering.com  
www.MCYEngineering.com

STAMP:



March 10th, 2022

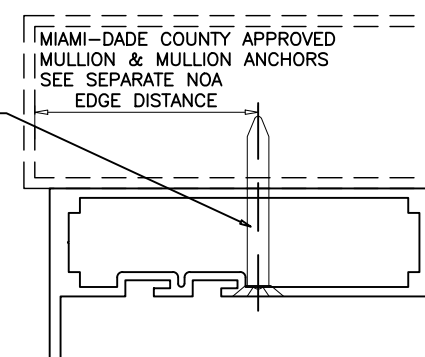
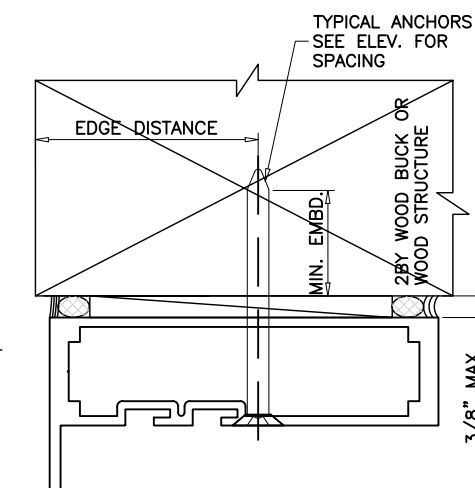
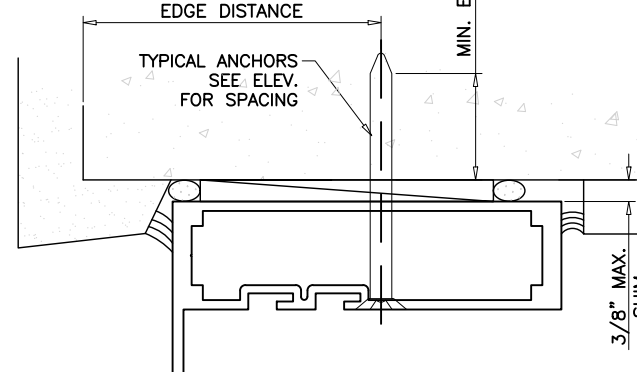
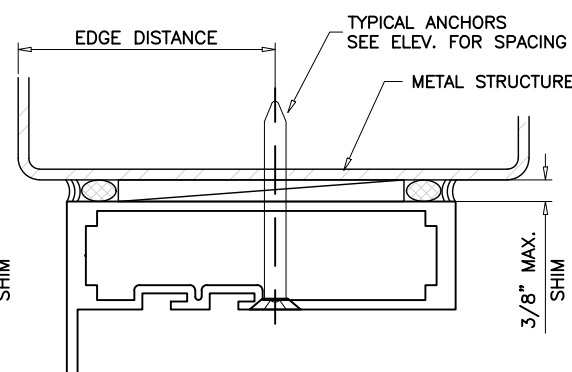
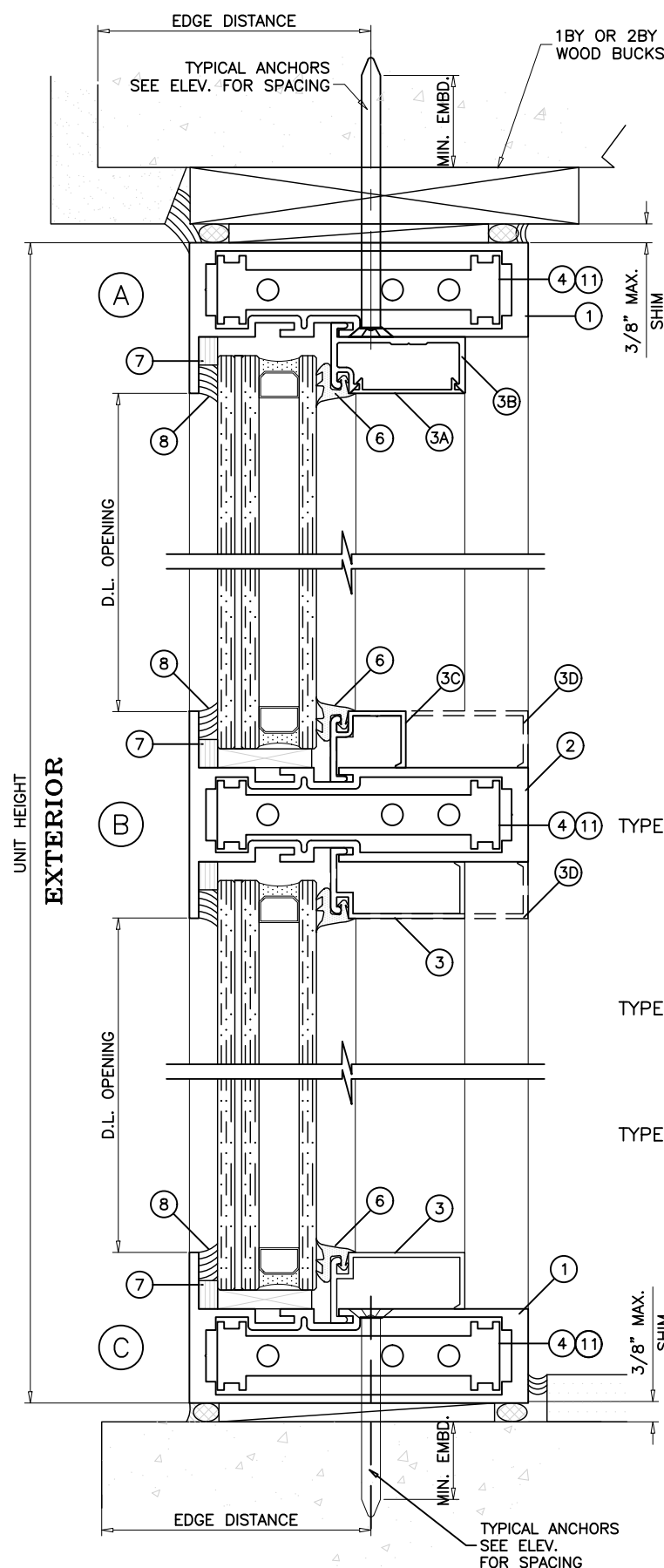
PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code

NOA-No. 21-1216.10

Expiration Date 03/31/2025

By Manual Perez  
Miami-Dade Product Control



NOTE:  
MULLIONS SHOWN IN DASHED LINES ARE NOT PART OF THIS APPROVAL.

WOOD BUCKS AND METAL STRUCTURE NOT BY TRULITE. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

### TYPICAL ANCHORS

AT WINDOW WALL SYSTEM: SEE ELEV. FOR SPACING

TYPE 'A' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
1-3/8" MIN. PENETRATION INTO WOOD  
THRU 1BY BUCKS INTO CONC. OR HOLLOW BLOCK  
1-1/4" MIN. EMBED INTO CONC. OR HOLLOW BLOCK  
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK

TYPE 'B' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
DIRECTLY INTO CONC. OR HOLLOW BLOCK  
1-5/8" MIN. EMBED INTO CONC. OR HOLLOW BLOCK  
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK

TYPE 'C' - #14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)  
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (1/8" THK. MIN.)  
INTO METAL STRUCTURES  
STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

### TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.  
INTO WOOD STRUCTURE = 1" MIN.  
INTO METAL STRUCTURE = 3/4" MIN.

### TYPICAL ANCHORS

AT ALTERNATE WINDOW SHAPES: SEE SHEET 2 FOR SPACING

TYPE 'D' - 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)  
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
1-3/8" MIN. PENETRATION INTO WOOD  
THRU 1BY BUCKS INTO CONC. OR HOLLOW BLOCK  
1-1/4" MIN. EMBED INTO CONC. OR HOLLOW BLOCK  
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK

DIRECTLY INTO CONC. OR HOLLOW BLOCK  
1-5/8" MIN. EMBED INTO CONC. OR HOLLOW BLOCK  
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK

TYPE 'D' - 5/16" DIA. SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)  
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (1/8" THK. MIN.)  
INTO METAL STRUCTURES  
STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)  
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

### TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 3-1/8" MIN.  
INTO WOOD STRUCTURE = 1" MIN.  
INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.  
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

THIS PRODUCT MAY BE INSTALLED INSIDE OR OUTSIDE GLAZED

### BILL OF MATERIALS

ITEM #	QTY.	PROFILE	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	AS REQD.	3101	FRAME HEAD/JAMB/JAMB	ALUM. 6063-T6	TRULITE
2	AS REQD.	3102	INTERMEDIATE VERTICAL/HORIZONTAL	ALUM. 6063-T6	TRULITE
3	AS REQD.	3103	GLASS STOP	ALUM. 6063-T5	TRULITE
3A	AS REQD.	3303	GLASS STOP COVER	ALUM. 6063-T6	TRULITE
3B	AS REQD.	3304	OPEN BACK GLASS STOP	ALUM. 6063-T6	TRULITE
3C	AS REQD.	3003	GLASS STOP	ALUM. 6063-T6	TRULITE
3D	AS REQD.	3103Z	GLASS STOP	ALUM. 6063-T6	TRULITE
4	AS REQD.	3104/ 3104CLIP	SHEAR BLOCK/ MULLION REINFORCING	ALUM. 6063-T6	TRULITE
4A	AS REQD.	ST310	0.625" X 4" STEEL BAR, MULLION REINFORCING	STEEL BAR	5/8" X 4"
5	2/LITE	H62F	SETTING BLOCK (INSUL. LAM. GLASS) DUROMETER 85 +/-5	EPDM	1-1/4" X 1/4" X 4" LONG
5A	2/LITE	H62D	SETTING BLOCK (9/16" LAM. GLASS) DUROMETER 85 +/-5	EPDM	1/2" X 1/4" X 4" LONG
6	AS REQD.	RG-1	WEDGE IN GASKET DUROMETER 60 +/-5	EPDM	-
7	AS REQD.	V2100/ VK1826	GLAZING FOAM TAPE	-	1/4" X 3/8"
8	AS REQD.	DOWSIL 995/ 983	GLAZING SEALANT	SILICONE	DOW
9	2/CORNER	23163	#12-14 X 3/4" FHPMS TYPE 23	ZINC STL.	-
10	2/CORNER	23233	1/4-20 X 1-1/2" PHMS TYPE 23	STAINLESS STL.	-
11	AS REQD.	3104C/ 3104R	SHEAR BLOCK/ MULLION REINFORCING	ALUM. 6063-T6	TRULITE



http://www.trulite.com

403 WESTPARK COURT, Suite 201  
PEACHTREE CITY, GA 30269  
p. 800-432-8132

PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
**STOREFRONT WALL-LMI**



REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

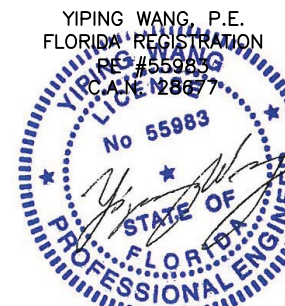
ENGINEER:



**MCY ENGINEERING, INC.**  
GLAZING CONSULTANT

12781 Miramar Parkway #301  
Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcyengineering.com  
www.MCYEngineering.com

STAMP:



March 10th, 2022

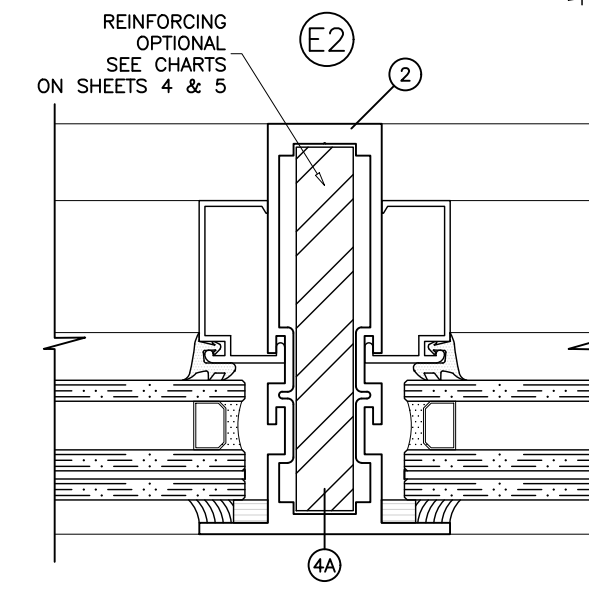
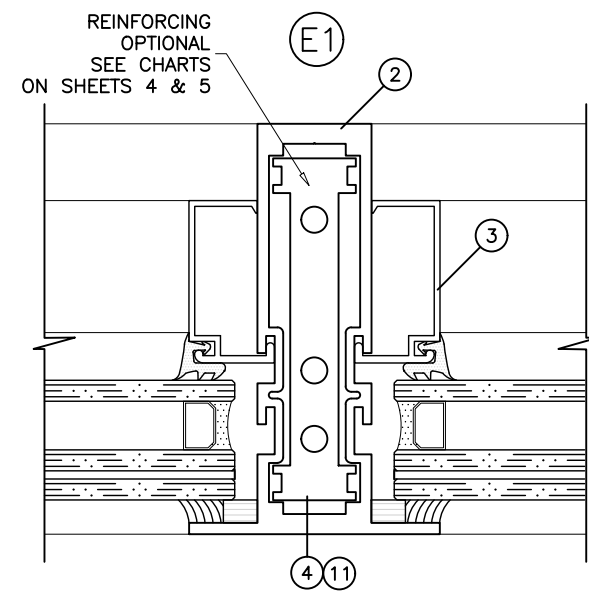
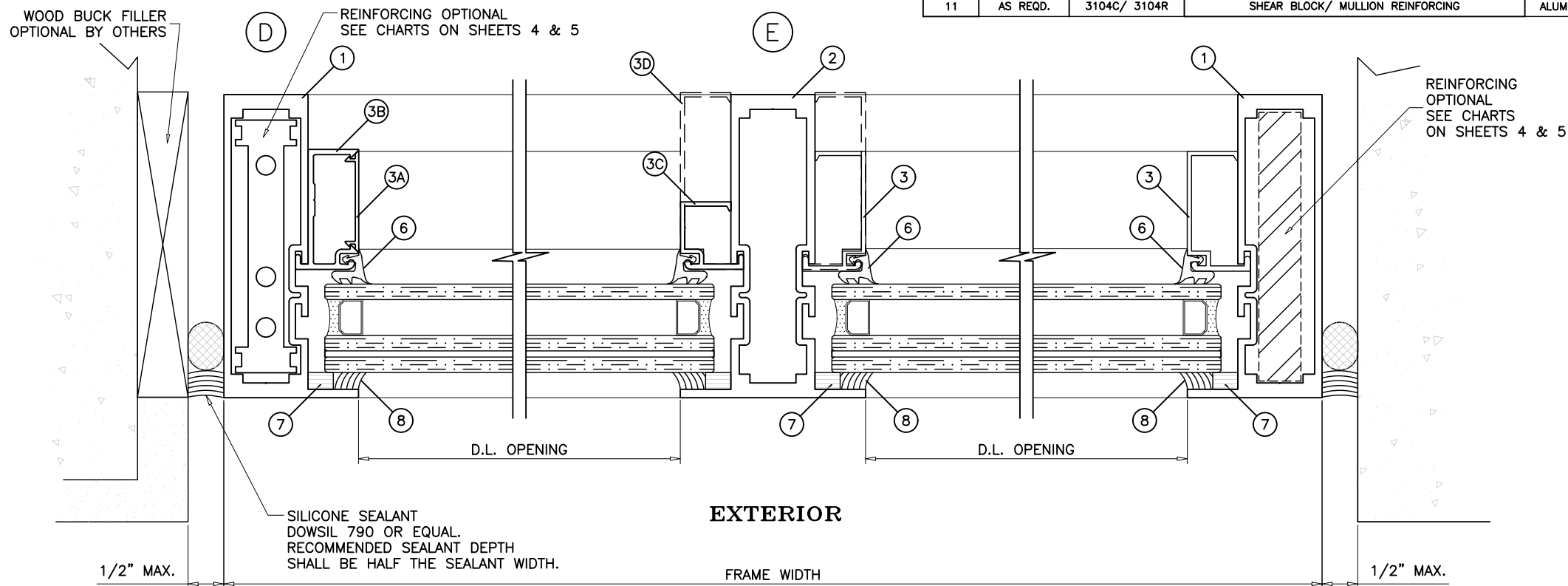
PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code

NOA-No. 21-1216.10

Expiration Date 03/31/2025

By *Manuel Perez*  
Miami-Dade Product Control



ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.

REINFORCING OPTIONAL SEE CHARTS ON SHEETS 4 & 5

REINFORCING OPTIONAL SEE CHARTS ON SHEETS 4 & 5

SILICONE SEALANT DOWSIL 790 OR EQUAL. RECOMMENDED SEALANT DEPTH SHALL BE HALF THE SEALANT WIDTH.

PRODUCT:

## Resistor 3100 ALUMINUM STOREFRONT WALL-LMI



REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:

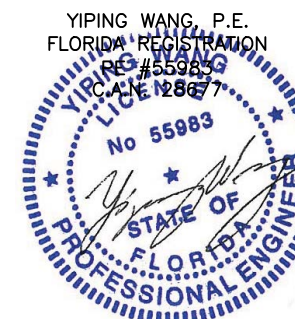


### MCY ENGINEERING, INC.

GLAZING CONSULTANT

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Miramar, FL 33027  
P: 305-271-0117  
Email: mcy@mcycengineering.com  
www.MCYEngineering.com

STAMP:



March 10th, 2022

PRODUCT CONTROL APPROVAL:

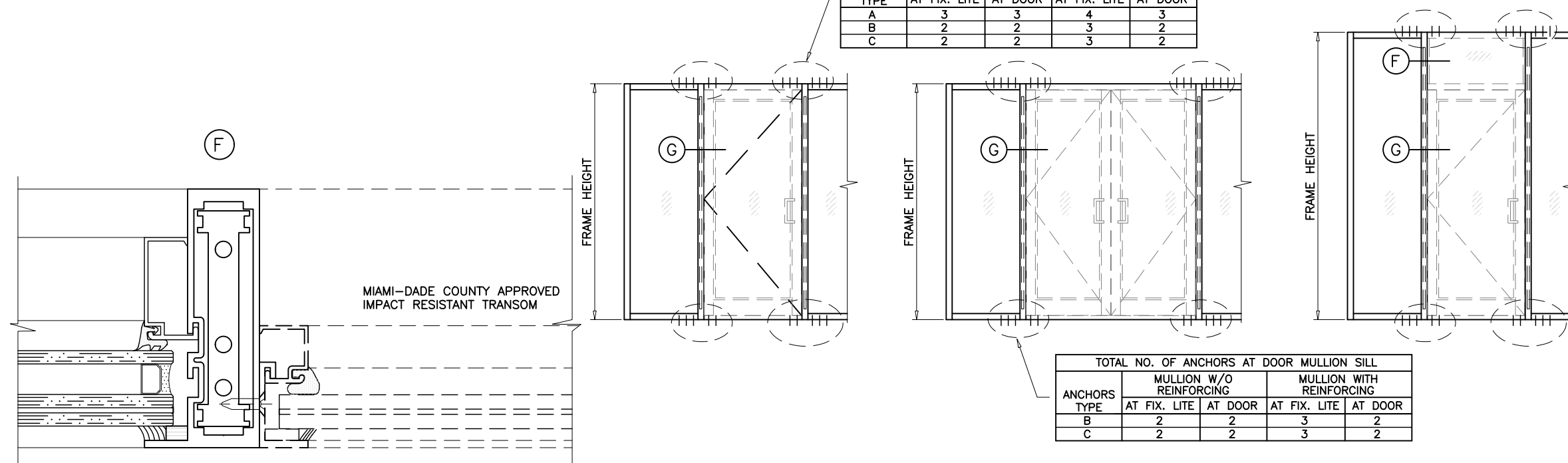
### PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 21-1216.10

Expiration Date 03/31/2025

By Manuel Perez  
Miami-Dade Product Control

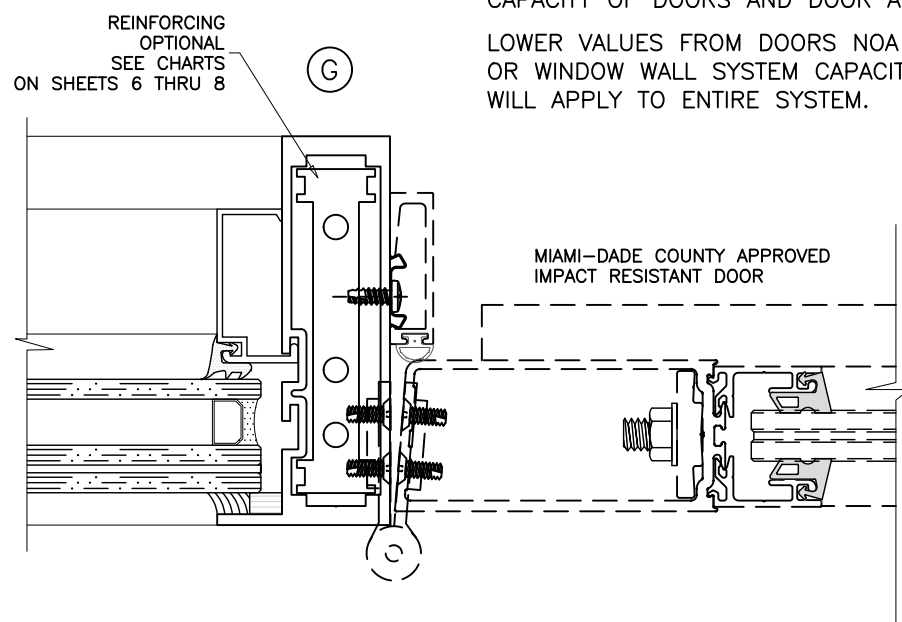
ANCHORS TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD			
	MULLION W/O REINFORCING		MULLION WITH REINFORCING	
	AT FIX. LITE	AT DOOR	AT FIX. LITE	AT DOOR
A	3	3	4	3
B	2	2	3	2
C	2	2	3	2



ANCHORS TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION SILL			
	MULLION W/O REINFORCING		MULLION WITH REINFORCING	
	AT FIX. LITE	AT DOOR	AT FIX. LITE	AT DOOR
B	2	2	3	2
C	2	2	3	2

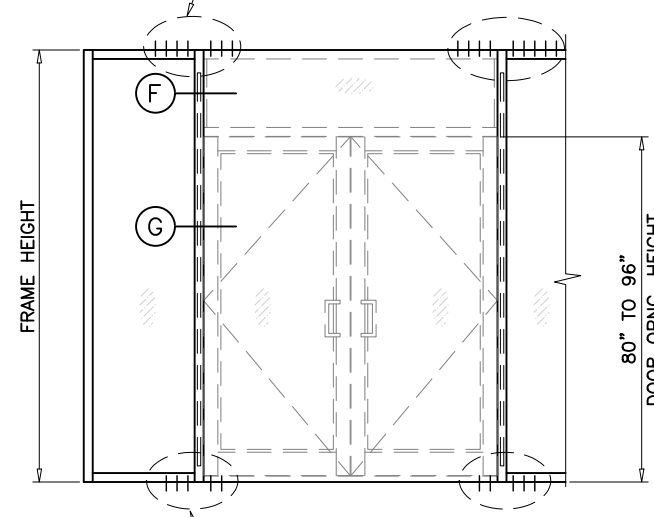
CHARTS SHOWN ABOVE APPLY TO ABOVE CASES ONLY.

ANCHORS TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION HEAD			
	MULLION W/O REINFORCING		MULLION WITH REINFORCING	
	AT FIX. LITE	AT DOOR	AT FIX. LITE	AT DOOR
A	4	3	5	4
B	2	2	3	3
C	2	2	3	3



SEE SEPARATE NOA FOR DESIGN LOAD CAPACITY OF DOORS AND DOOR ANCHORS.

LOWER VALUES FROM DOORS NOA OR WINDOW WALL SYSTEM CAPACITY CHARTS WILL APPLY TO ENTIRE SYSTEM.



ANCHORS TYPE	TOTAL NO. OF ANCHORS AT DOOR MULLION SILL			
	MULLION W/O REINFORCING		MULLION WITH REINFORCING	
	AT FIX. LITE	AT DOOR	AT FIX. LITE	AT DOOR
B	2	2	3	2
C	2	2	3	2

PRODUCT:

**Resistor**  
**3100 ALUMINUM**  
STOREFRONT WALL-LMI

**Resistor**  
PRODUCT SERIES

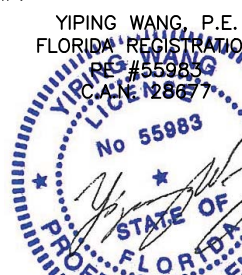
REV#	DATE/REMARKS
REV4	03.09.2022 UPDATE INTERLAYER

ENGINEER:

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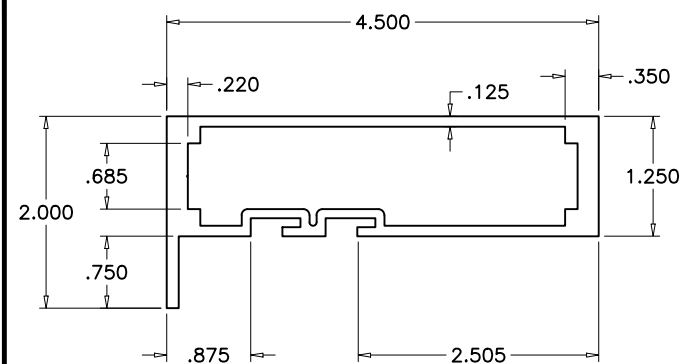
PRODUCT CONTROL APPROVAL:

**PRODUCT REVISED**  
as complying with the Florida  
Building Code

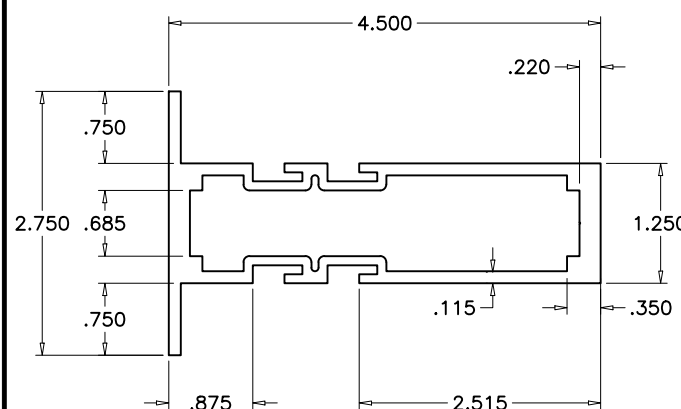
NOA-No. 21-1216.10

Expiration Date 03/31/2025

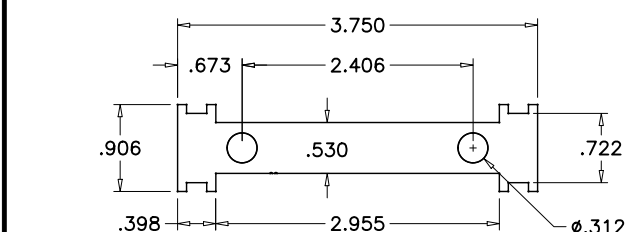
By *Manuel Perez*  
Miami-Dade Product Control



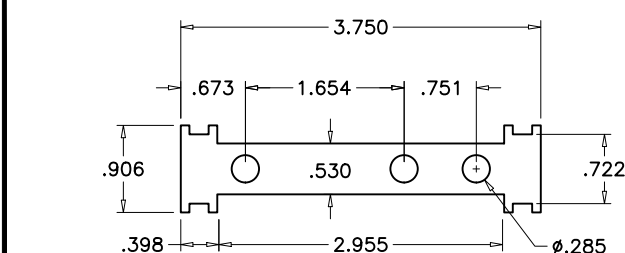
① #3101 - FRAME HEAD/SILL/JAMB



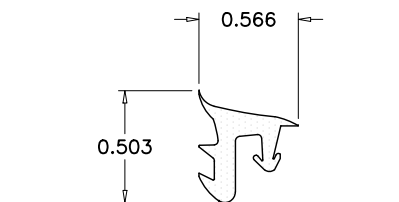
② #3102 - INTERMEDIATE VERTICAL/HORIZONTAL



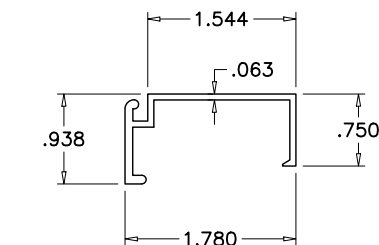
④ #3104CLIP-SHEAR BLOCK/#3104-ALUM.MULLION REINF.



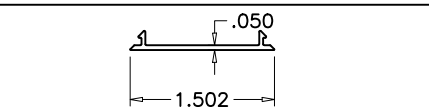
⑪ #3104C-SHEAR BLOCK/ #3104R-ALUM.MULLION REINF.



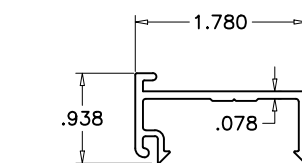
⑥ RG-1 - GLAZING GASKET



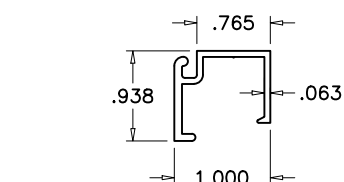
③ #3103 - GLASS STOP



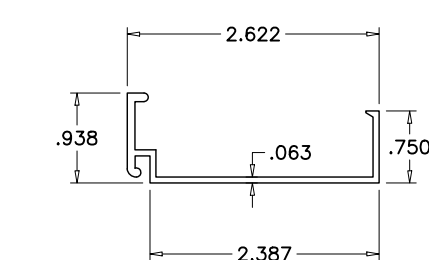
③A #3303 - GLASS STOP COVER



③B #3304 - OPEN BACK GLASS STOP



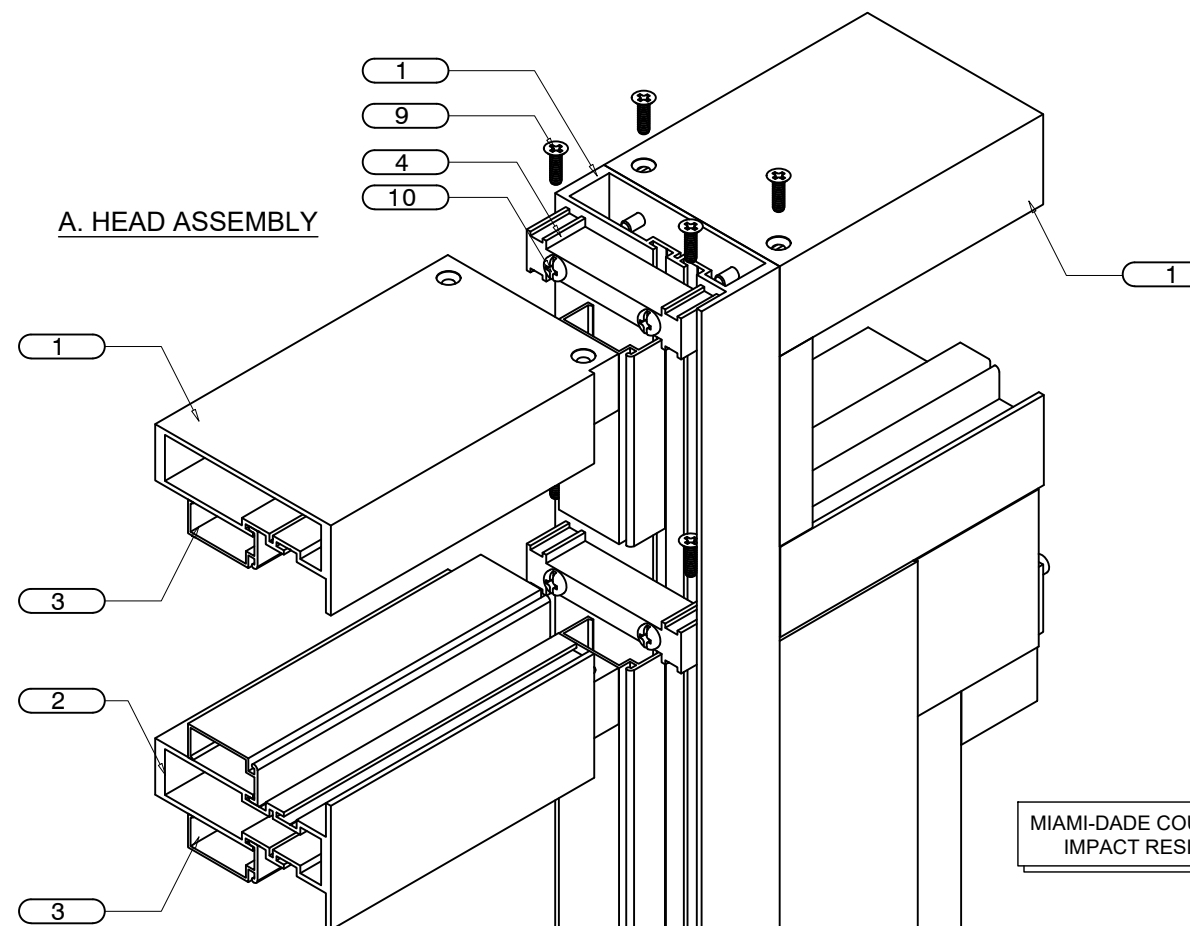
③C #3003 - GLASS STOP



③D #3103Z - GLASS STOP

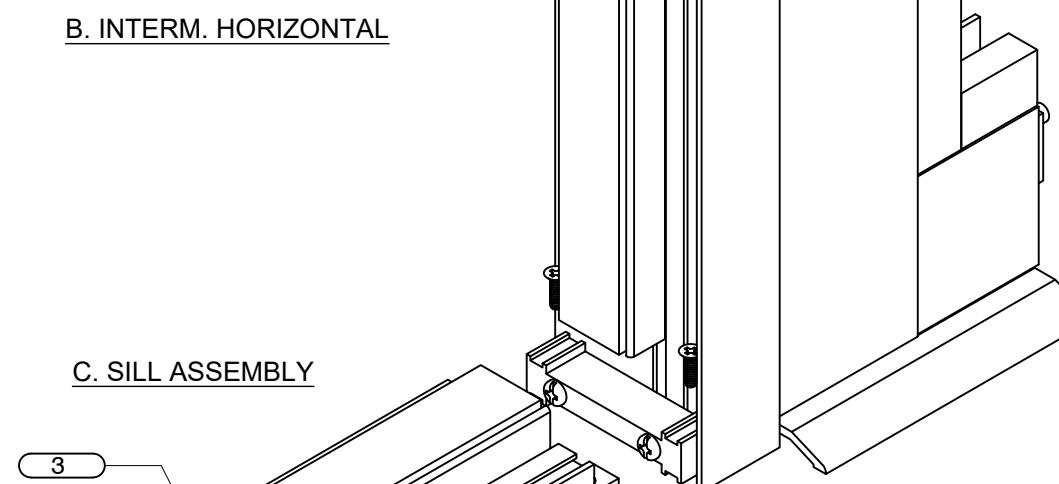
NOTE:  
DETAIL ABOVE SHOWS CONNECTION OF HORIZONTAL FRAME MEMBERS TO VERTICAL FRAMES. JAMB AND MULLION CAN BE WITH OR WITHOUT REINFORCEMENT. SEE SHEETS 4 THRU 8 FOR OPTIONS.

A. HEAD ASSEMBLY

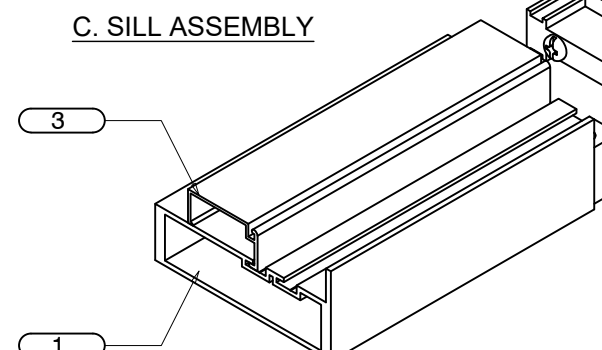


MIAMI-DADE COUNTY APPROVED  
IMPACT RESISTANT DOOR

B. INTERM. HORIZONTAL



C. SILL ASSEMBLY



GENERAL NOTE:  
1. GLASS NOT SHOWN FOR CLARITY.  
2. FRAME AND PANEL CORNERS, INSTALLATION SCREWS AND ALL METAL PARTS CONNECTIONS TO BE SEALED WITH CLEAR COLORED SEALANT.