MexicanTown Bakery

Window Proposal

August, 2023
Location: Mexicantown Bakery Vernor Hwy.
Detroit, MI 48209

Architect of records:

Arcos STUDIO
ACCESSS + EQUITY BY DESIGN

Design Architect:

Design Think Tank.

ePLANS Permit Number:
BLD2023 - 01140

The process of bread and coffee production was the main inspiration as a design element, taking into account its different stages: bakeing and Brewing.

Having fire, metal and clay as key elements in the final result of the design.

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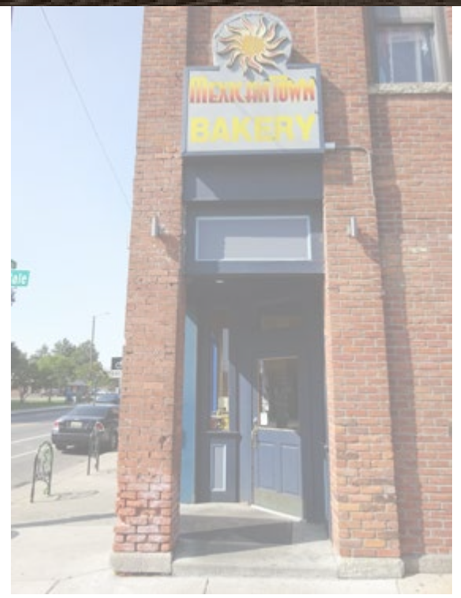
Design Think Tank.

Current Photographs
Facades



New 1st Floor
proposed window

South Facede
Front

Vernor St Scope

East Facade

Existing Conditions
First Floor

East Facade

Corner View
South & East Walls

The main objective of the new window proposal is to enlarge and give natural light to the space, with the intention of using the same window on the main facade and creating a corner with better ambience and symetry on the first floor.

The Project
First Floor

Corner View
South Wall

The project willl use a new steel structure to carry the weight of the existing wall and will replicate the same measurements and adjustments to the window on the front facade, using materials sush as wood, glass and similar paint.

Corner View
East Wall

Renovation Areas:
New Window

Detailed Scope of Work
First Floor

Proposal

Corner View:
South & East Wall

1. Improvement of natural lighting.

2. Symmetry at the main entrance.

3. Improvement of the general confort of the building.

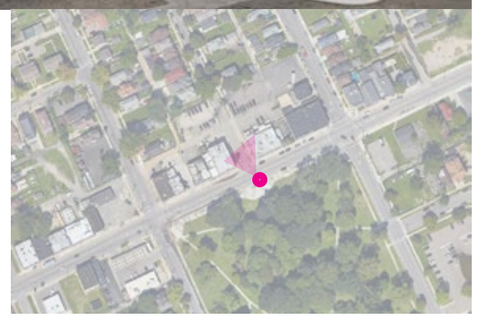
4. Is decorative and essenctial for proper ventilation.

Detailed Scope of Work
Site Strategy

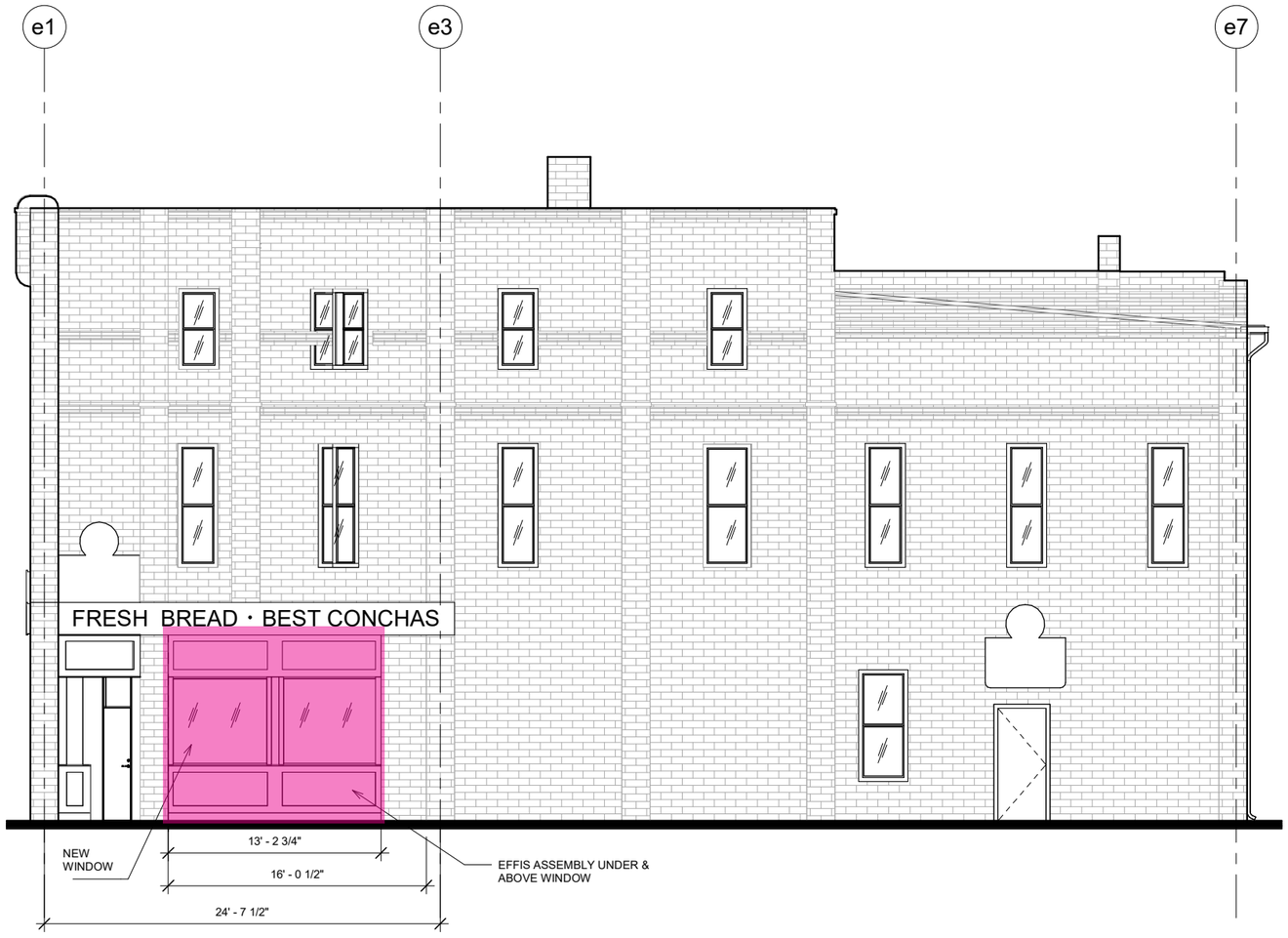
View looking West

View looking South

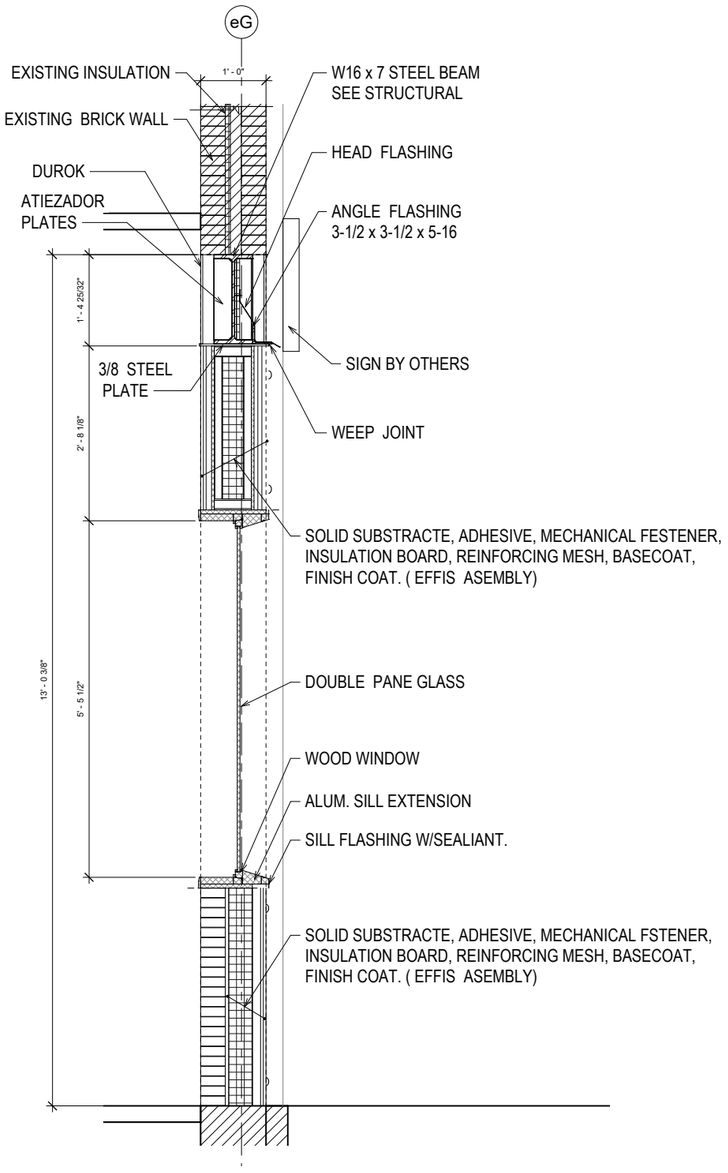
Proposed new window to give continuity and extension to the corner along Vernor St and Clarkdale St.



Brochure/ Cut Sheets
Elements



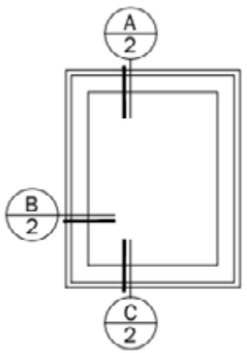
1 SOUTH ELEVATIONS
3/16" = 1'-0"



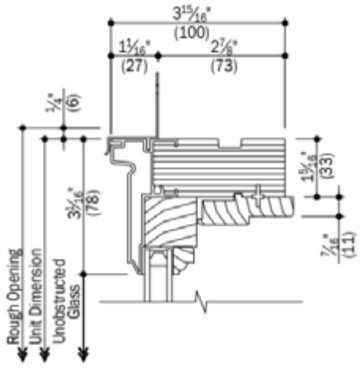
New Window Section

Andersen ARCHITECTURAL COLLECTION

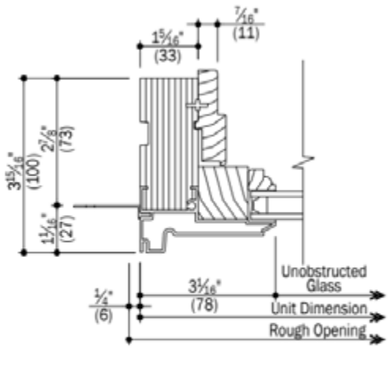
Casement & Awing field applied joins:



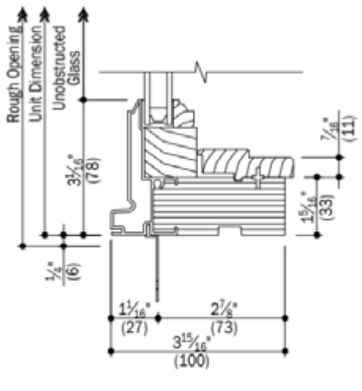
1 Piece
Fixed Casement



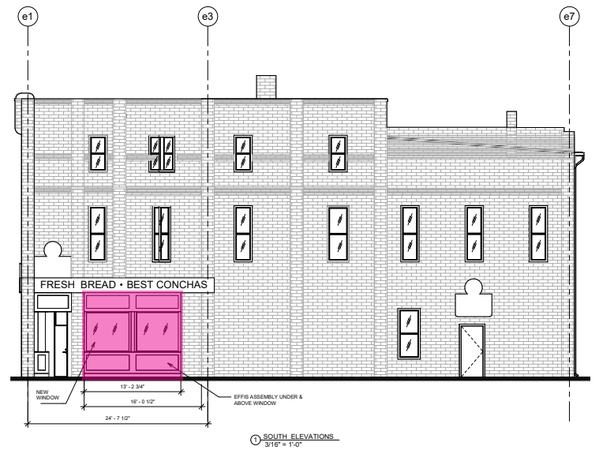
A 2 Head
1 Piece Stationary



B 2 Jamb
1 Piece Stationary

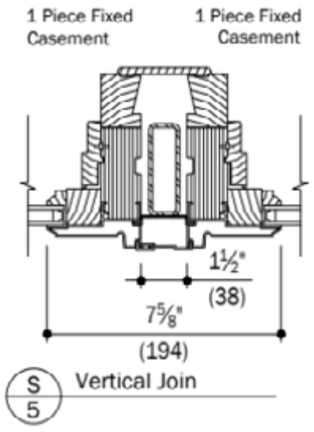


C 2 Sill
1 Piece Stationary



1 SOUTH ELEVATIONS
3/16" = 1'-0"

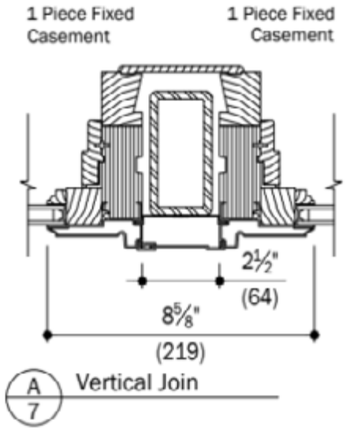
1"x3" Field applied steel reinforced join:



S 5 Vertical Join

Vertical Join Section Detail Lookup Chart	Awning	Casement	French Casement	Stationary Casement	Auxiliary
Awning	J/5				T/5
Casement	K/5	M/5			U/5
French Casement		N/5	Q/5		V/5
Stationary Casement	L/5	P/5	R/5	S/5	A/6

2"x4" Field applied steel reinforced join:



A 7 Vertical Join

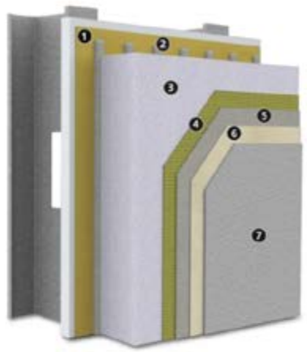
Vertical Join Section Detail Lookup Chart	Awning	Casement	French Casement	Stationary Casement	Auxiliary
Awning	N/6				B/7
Casement	P/6	R/6			C/7
French Casement		S/6	U/6		D/7
Stationary Casement	Q/6	T/6	V/6	A/7	B/7

sto

Building with conscience.

StoTherm® ci

Decorative cladding with continuous insulation and StoGuard® Air and Water-resistive Barrier combined with Sto high performance finishes



Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C 1177, Exterior or Exposure I wood-based sheathing (plywood or OSB), cement board in compliance with ASTM C1325, or code compliant concrete, concrete masonry or portland cement plaster, existing strucuturally sound, uncoated brick or other masonry wall construction.	
1)	Air Barrier and Water-resistive Barrier: StoGuard
2)	Adhesive options: Sto TurboStick®, Sto BTS® Plus, Sto BTS Xtra, Sto Primer/Adhesive-B, or Sto Primer/Adhesive
3)	Insulation: Sto EPS Insulation Board
4)	Reinforcement: Sto Mesh (embedded in Sto base coat)
5)	Base Coat options: Sto BTS Plus, Sto BTS Xtra, Sto RFP, Sto Primer/Adhesive-B , or Sto Primer/Adhesive
6)	Primer: StoPrime Sand (optional)
7)	Finish: choose among, • Sto Textured Finishes • StoCast Fnishes • Sto Signature and Sto Specialty Finishes
System Accessory: StoSeal STPE Sealant for use as an exterior weather seal around wall penetrations, at dynamic joints in wall construction, and as an interior air seal for air barrier continuity	

System Description

StoTherm ci is a decorative and protective exterior wall cladding that combines superior air and weather tightness with excellent thermal performance and durability. It incorporates continuous exterior insulation and StoGuard Air and Water-resistive Barrier with Sto's high performance finishes in a fully tested wall cladding assembly.

Uses

StoTherm ci can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, and air and moisture control are essential in the climate extremes of North America.

Features	Benefits
Design versatility	Aesthetic and curb appeal easy to achieve
Continuous exterior insulation, no mechanical fasteners	Energy efficient, reduced heating and cooling costs
Lightweight	Reduced structural costs
Continuous air and water-resistive barrier	Protects against mold and moisture problems
ICC-ES listed and evaluated	Fully tested building code compliant assembly

Properties

Weight (not including sheathing and frame)	< 2 psf (10 kg/m2)
Thickness (insulation)	1 to 12 inches (25 – 305 mm)
R-value (not including sheathing and frame)	3.6 – 43.2 ft²•h•°F / Btu (0.63 – 7.60 m²•K / W)
Wind Load Resistance	Tested up to ± 188 psf (9.00 kPa)
Compliance	• IBC, IRC, IECC-2015, 2018 • ASHRAE 90.1-2019
Construction Types and Fire Resistance	• I-V, NFPA 285 tested for types I-IV • ASTM E119 tested for 1&2 hour walls

Warranty

10, 12, or 15 year Limited Warranty, depending on options selected

Maintenance

Requires periodic cleaning to maintain appearance, repair to cracks and impact damage if they occur, recoating to enhance appearance of weathered finish. Sealants and other façade components must be maintained to prevent water infiltration.

Limitations

Minimum insulation board thickness 1 inch (25 mm). Maximum insulation board thickness 12 inches (305 mm), 6 inches (152mm) if StoCast Finishes are used on Types I-IV (Noncombustible) construction.
Fire resistance rated assemblies limited to 4 inch (102 mm) maximum insulation board thickness.
Structural back-up wall must be level to ¼ inch in 10 ft (6mm in 3.0m)
Wind load resistance: ± 188 psf (9.00 kPa) ultimate loads achieved. Ultimate wind load resistance also depends on sheathing, sheathing attachment, and stiffness of supporting construction. Design for maximum allowable deflection of L/240.
Impact resistance: supplemental reinforcing mesh layers, cement board overlay or other design adjustments may be prudent for areas adjacent to heavy pedestrian traffic or other areas of high impact or abuse. Refer to Sto Guide Details.
For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.
Insulation material is flammable. Keep away from flame, ignition sources, high heat, and temperatures in excess of 165°F [74° C]).
Dark finish colors with LRV (Light Reflectance Value) < 20 are not recommended.
Air Barrier, insulation board, and base coat materials are not intended for prolonged weather exposure. Allow 180 days maximum between application of air and water-resistive barrier and insulation board.
Refer to specific component product bulletins and packaging for other limitations that may apply involving use, handling, and storage of component materials.

Sustainable Design

Air Quality and VOC Compliance

All finish coatings, adhesives, air barrier detail components and coatings meet US EPA (40 CFR 59) and South Coats AQMD (Rule 1113) emission standards for Building Envelope Coatings: VOC less than 50 g/L

Sustainability

The system has high potential for LEED and other sustainability program credits based on efficient and effective use of a continuous air barrier and continuous exterior insulation and the resulting reductions in energy use and greenhouse gas emissions. The use of light weight metal studs and light weight finishes has positive impacts on life cycle energy use by reducing dead loads and structural support requirements when compared to mass wall and full thickness/weight veneer units.

Regulatory Compliance and Standards Testing

ICC ESR No. 1748 covering StoTherm ci	Complies with 2015 and 2018 IBC, IRC and IECC
ICC ESR No. 1233 covering StoGuard	Complies with 2015 and 2018 IBC, IRC and IECC
ASHRAE 90.1-2019[1]	Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements
ASTM E 2357[2]	Air and Water-resistive Barrier system meets air leakage resistance criteria of ≤ 0.04 cfm/ft² at 1.57 psf (0.2 L/s•m² at 75 Pa)
NFPA 285[3]	Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 12 inches (305 mm) of Sto EPS insulation board, 6 inches (152mm) for StoCast Finishes (refer to ICC-ESR 1748 for details)
ASTM E 119[4]	Meets requirements for use over fire-resistance-rated wall assemblies with maximum 4 inches (102mm) thick insulation board (refer to ICC ESR-1748 for details)

1. *Energy Standard for Buildings Except Low-Rise Residential Buildings*
2. *Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies*
3. *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*
4. *Standard Test Methods for Fire Test of Building Construction and Materials*

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