

# HISTORIC AND DESIGN REVIEW COMMISSION

August 01, 2018

**HDRC CASE NO:** 2018-365  
**ADDRESS:** 205 OSTROM  
**LEGAL DESCRIPTION:** NCB 6938 BLK LOT 1&2  
**ZONING:** R-4 CD, H, RIO-1  
**CITY COUNCIL DIST.:** 1  
**DISTRICT:** River Road Historic District  
**APPLICANT:** Tobias Stapleton  
**OWNER:** SEADC LLC  
**TYPE OF WORK:** Construction of a two story, rear addition; construction of a two story, rear accessory structure and rehabilitation of the primary historic structure  
**APPLICATION RECEIVED:** July 17, 2018  
**60-DAY REVIEW:** September 14, 2018  
**REQUEST:**

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Perform rehabilitative scopes of work to the primary historic structure.
2. Construct a rear, two story addition and perform exterior modifications to the primary historic structure.
3. Construct a rear, two story, accessory structure.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 3, Guidelines for Additions*

### 1. Massing and Form of Residential Additions

#### A. GENERAL

- i. Minimize visual impact*—Site residential additions at the side or rear of the building whenever possible to minimize views of the addition from the public right-of-way. An addition to the front of a building would be inappropriate.
- ii. Historic context*—Design new residential additions to be in keeping with the existing, historic context of the block. For example, a large, two-story addition on a block comprised of single-story homes would not be appropriate.
- iii. Similar roof form*—Utilize a similar roof pitch, form, overhang, and orientation as the historic structure for additions.
- iv. Transitions between old and new*—Utilize a setback or recessed area and a small change in detailing at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.

#### B. SCALE, MASSING, AND FORM

- i. Subordinate to principal facade*—Design residential additions, including porches and balconies, to be subordinate to the principal facade of the original structure in terms of their scale and mass.
- ii. Rooftop additions*—Limit rooftop additions to rear facades to preserve the historic scale and form of the building from the street level and minimize visibility from the public right-of-way. Full-floor second story additions that obscure the form of the original structure are not appropriate.
- iii. Dormers*—Ensure dormers are compatible in size, scale, proportion, placement, and detail with the style of the house. Locate dormers only on non-primary facades (those not facing the public right-of-way) if not historically found within the district.
- iv. Footprint*—The building footprint should respond to the size of the lot. An appropriate yard to building ratio should be maintained for consistency within historic districts. Residential additions should not be so large as to double the existing building footprint, regardless of lot size.
- v. Height*—Generally, the height of new additions should be consistent with the height of the existing structure. The maximum height of new additions should be determined by examining the line-of-sight or visibility from the street. Addition height should never be so contrasting as to overwhelm or distract from the existing structure.

### 3. Materials and Textures

#### A. COMPLEMENTARY MATERIALS

- i. Complementary materials*—Use materials that match in type, color, and texture and include an offset or reveal to distinguish the addition from the historic structure whenever possible. Any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure.
- ii. Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alternations and Maintenance section for additional specifications regarding metal roofs.
- iii. Other roofing materials*—Match original roofs in terms of form and materials. For example, when adding on to a building with a clay tile roof, the addition should have a roof that is clay tile, synthetic clay tile, or a material that appears similar in color and dimension to the existing clay tile.

### 4. Architectural Details

#### A. GENERAL

- i. Historic context*—Design additions to reflect their time while respecting the historic context. Consider character-defining features and details of the original structure in the design of additions. These architectural details include roof form, porches, porticos, cornices, lintels, arches, quoins, chimneys, projecting bays, and the shapes of window and door openings.
- ii. Architectural details*—Incorporate architectural details that are in keeping with the architectural style of the original structure. Details should be simple in design and compliment the character of the original structure. Architectural details that are more ornate or elaborate than those found on the original structure should not be used to avoid drawing undue attention to the addition.
- iii. Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for additions. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the addition is new.

*Historic Design Guidelines, Chapter 4, Guidelines for New Construction*

### 5. Garages and Outbuildings

#### A. DESIGN AND CHARACTER

- i. Massing and form*—Design new garages and outbuildings to be visually subordinate to the principal historic structure in terms of their height, massing, and form.
- ii. Building size* – New outbuildings should be no larger in plan than 40 percent of the principal historic structure footprint.
- iii. Character*—Relate new garages and outbuildings to the period of construction of the principal building on the lot through the use of complementary materials and simplified architectural details.
- iv. Windows and doors*—Design window and door openings to be similar to those found on historic garages or outbuildings in the district or on the principle historic structure in terms of their spacing and proportions.
- v. Garage doors*—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.

#### B. SETBACKS AND ORIENTATION

- i. Orientation*—Match the predominant garage orientation found along the block. Do not introduce front-loaded garages or garages attached to the primary structure on blocks where rear or alley-loaded garages were historically used.
- ii. Setbacks*—Follow historic setback pattern of similar structures along the streetscape or district for new garages and outbuildings. Historic garages and outbuildings are most typically located at the rear of the lot, behind the principal building. In some instances, historic setbacks are not consistent with UDC requirements and a variance may be required.

### **FINDINGS:**

- a. The structure located at 205 Ostrom was constructed circa 1935 and is located within the River Road Historic

District. The structure features architectural elements that are indicative of the Minimal Traditional Style that can be found in the district. The house features many of its original materials including wood siding and wood windows. However, modifications to the form of the historic structure have resulted in the removal and enclosing of the front porch, which now presents itself as a screened porch. Despite these modifications, staff finds the house to be a contributing resource within the River Road Historic District due to its construction date and architectural style. At this time, the applicant is requesting a Certificate of Appropriateness for rehabilitation, the construction of a two story, rear addition and a two story, rear accessory structure.

- b. DESIGN REVIEW COMMITTEE – This request was reviewed by the Design Review Committee on May 3, 2018, where committee members noted that fenestration on the second story should be comparable to that on the first floor, that the roof form of the original structure should remain as is, that windows should feature profiles that match those found in the district, and that additional fenestration details should be provided. This request was reviewed a second time by the DRC on May 23, 2018. At that meeting, committee members noted that the updates met previous committee recommendations and that trees should be shown on the site plan. The applicant made changes based on the feedback, including location and detailing of windows and architectural details.
- c. DESIGN REVIEW COMMITTEE – This request was reviewed a third time by the Design Review Committee on June 26, 2018. At that meeting, committee members noted that the reduced heights were appropriate and that the design was appropriate. This request was reviewed a fourth time by the Design Review Committee on July 24, 2018. At that meeting, commissioners noted that the updated construction documents were sufficient for final approval. Commissioners also asked that all meets and bounds be noted on the site plan.
- d. CONCEPTUAL APPROVAL – This project received conceptual approval at the June 6, 2018, Historic and Design Review Commission hearing with the following stipulations:
  - i. That the applicant provide information regarding new windows when returning for final approval. **The applicant has submitted information regarding new, wood windows.**
  - ii. That shed roofs or small traditionally detailed awnings could be added above doors on the proposed addition. **The applicant has submitted construction documents noting this addition.**
  - iii. That an up-to-date site plan be provided which demonstrates tree preservation on the site. **The applicant has submitted a site plan noting the location of existing trees.**
  - iv. ARCHAEOLOGY- An archaeological investigation is required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning the archaeological investigation. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology. **The applicant has coordinated with OHP archaeologists regarding archaeology requirements.**
  - v. That the overall height of the proposed addition be reduced. **The applicant has noted that the proposed addition’s roof has been reduced by a total of 2’ – 7”.**
  - vi. That stabilization of the historic structure begin. **The applicant has not begun stabilization efforts at this time.**
- e. ADDITION – The Guidelines for Additions 1.A. states that additions should be sited to minimize visual impact from the public right of way, should be designed to be in keeping with the historic context of the block, should utilize a similar roof form and should feature a transition between the old and the new. The applicant has sited the proposed addition at the rear of the primary historic structure and has proposed a width that is subordinate to that of the primary historic structure.
- f. ROOF FORM – The applicant has proposed for the rear addition to feature side gabled roofs, consistent with the roof form found on the historic structure and throughout the district. While the proposed roof form is consistent with the Guidelines, staff finds that an increase roof pitch would be more consistent with those found on neighboring historic structures.
- g. TRANSITION – The Guidelines note that all additions should feature a transition between the old and the new. The applicant has proposed transitions that include insets from the wall planes of the historic structure. This is consistent with the Guidelines for Additions 1.A.
- h. SCALE, MASS & FORM – Regarding scale, mass and form, the applicant has proposed an addition that features two stories in height. While the primary historic structure on the lot features one story in height, the applicant has positioned the proposed addition toward the rear of the lot away from the block face of adjacent streets. Staff finds that the proposed height will not interrupt the block face or perceived massing found along adjacent blocks. The applicant has provided a line of sign diagram providing sight references from various points in front of the primary historic structure.
- i. ARCHITECTURAL DETAILS – Generally, the proposed addition features architectural details that are

consistent with those of the original structure which was constructed in the Minimal Traditional style. The applicant has added small awnings above entrances to provide additional façade depth.

- j. **MATERIALS** – The applicant has proposed materials that include wood siding, refurbished wood windows and an asphalt shingle roof. Generally, the proposed materials are appropriate. The applicant has provided information regarding the proposed wood windows. Staff finds the profile of the proposed windows to be consistent with those found on the historic structure.
- k. **WINDOW MATERIALS** – As noted in finding i, the applicant has provided staff with specifications of the proposed new windows. In addition to this, the applicant has noted the repair of historic windows.
- l. **ACCESSORY STRUCTURE** – To the west of the primary historic structure, the applicant has proposed to construct a two story, rear accessory structure. The proposed accessory structure feature an overall profile and massing that is subordinate to the proposed addition, features appropriately detailed garage doors and features architectural detailing that’s consistent with the historic examples found throughout the River Road Historic District. The applicant has decreased the overall height of the accessory to 24’ – 2”. Staff finds the proposed accessory structure appropriate and consistent with the Guidelines.
- m. **DRIVEWAYS** – The applicant has proposed to introduce one new curb cut on the property to exist with an existing curb cut that is located on Ostrom Drive. The Guidelines for Site Elements note that historic profiles are to be used for the creation of curb cuts and that typical driveway widths are to be used, typically no wider than ten feet in historic districts; however, there are examples in the immediate area of curb cut and driveway widths that are wider than ten feet in width. Staff finds that the proposed driveway location is appropriate.
- n. **ARCHAEOLOGY** – The project area is within the River Improvement Overlay District and the River Road Local Historic District. A review of historic archival maps shows the Upper Labor Acequia crossing the property. Therefore, Archaeological investigations may be required.

## **RECOMMENDATION:**

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

- i. That foundation and roof repair for the historic structure be completed within sixty (60) days of the approval date. Failure to meet this stipulation will result in the revocation of the issued Certificate of appropriateness.
- ii. **ARCHAEOLOGY**- Archaeological investigations may be required. The archaeological scope of work should be submitted to the Office of Historic Preservation archaeologists for review and approval prior to beginning the archaeological investigation. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

## **CASE MANAGER:**

Edward Hall



lex Viewer

we ed by ArcGIS Server

Printed: Jul 26, 2018

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CF: OUTLINE DETAILS/MATERIALS IN NARRATIVE.

MG: CONCERNS REGARDING PROFILE OF TWO SIDE WINDOWS ON PROPOSED ACCESSORY STRUCTURE; WINDOWS SHOULD FEATURE PROFILE THAT MATCHES THOSE FOUND IN DISTRICT.

NI: CONTINUE TO USE WINDOW PROPORTIONS FOUND ON FRONT OF ACCESSORY THROUGHOUT.

CF: REVISE REAR ELEVATION OR PROVIDE CLARIFICATION ON DESIGN SOLUTION.

NI: PROVIDE DETAIL OF PROPOSED DOORS IN EXISTING ADDITION LOCATION.



CITY OF SAN ANTONIO  
**OFFICE OF HISTORIC  
 PRESERVATION**

**Historic and Design Review Commission  
 Design Review Committee  
 Report & Recommendation**

DATE: 5/23/18 HDRC Case# \_\_\_\_\_

ADDRESS: 205 Ostrom Meeting Location: \_\_\_\_\_

APPLICANT: Toby Stapleton

DRC Members present: Michael Guarino, Daniel Lazzarone

Staff present: Con Edwards

Others present: Barbara Witte-Howell

REQUEST: 2-story addition / selective demolition.

COMMENTS/CONCERNS: Revised proposal based on previous feedback.  
Discussion about window groupings. Check with zoning  
re: parking requirements. Has met previous recommendations.  
Architectural details should provide more depth on facade.  
Intends to match details in existing residence. Show  
preserved trees on site plan.

**COMMITTEE RECOMMENDATION:** APPROVE [ ] DISAPPROVE [ ]  
**APPROVE WITH COMMENTS/STIPULATIONS:**

\_\_\_\_\_  
 Committee Chair Signature (or representative)

\_\_\_\_\_  
 Date



CITY OF SAN ANTONIO  
**OFFICE OF HISTORIC  
 PRESERVATION**

**Historic and Design Review Commission  
 Design Review Committee  
 Report & Recommendation**

DATE: JULY 24, 2018 HDRC Case# 2018-365

ADDRESS: 205 OSTROM Meeting Location: 1901 S ALAMO

APPLICANT: TOBIAS STAPLETON

DRC Members present: MICHAEL GUARINO, JOHN LAFFOON, JEFF FETZER, CURTIS FISH

Staff present: EDWARD HALL

Others present: \_\_\_\_\_

REQUEST: CONSTRUCTION OF A TWO STORY REAR ADDITION, TWO STORY

ACCESSORY STRUCTURE, REHAB OF HISTORIC STRUCTURE

COMMENTS/CONCERNS: JS: CONSTRUCTION DOCUMENTS PER ASB ARE

SUFFICIENT TO RECEIVE A PERMIT. OVERVIEW OF UPDATES, LF: MEETS

AND BOUNDS SHOULD BE SHOWN ON THE SITE PLAN, PINS, BOUNDARIES,

LABELS, LEGAL DESCRIPTION, ETC. MG: UPDATED CONSTRUCTION DOCUMENT

INCLUDE MORE INFORMATION THAN PREVIOUSLY SUBMITTED DOCUMENTS.

MG: NO CONCERN REGARDING SCALE OF GARAGE, LF: COMFORTABLE

WITH DESIGN - CONSTRUCTION DOCUMENTS ARE COMPLETE. JF: LOWER

BACK WALL WOULD BE MORE APPROPRIATE.

**COMMITTEE RECOMMENDATION:** APPROVE [ ] DISAPPROVE [ ]  
 APPROVE WITH COMMENTS/STIPULATIONS:

\_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Committee Chair Signature (or representative)

\_\_\_\_\_  
 Date

# SEADC LLC

205 Ostrom Drive  
San Antonio  
TX 78212  
425-305-8044  
Updated  
7/13/18

## Written Narrative

Dear Sir/Madam

In relation to the proposed dwellings at 205 Ostrom Drive please find below our written narrative.

Proposed works, upon receipt of permission of the various departments in the City of San Antonio.

1. Demolish portions of the abandoned building and other structures on the Lot 1 & 2
2. Construction of Accessory building
3. Renovation and extension of existing structure

In response to the DRC and the Conceptual hearing we have made the following adjustments.

Added in More detail to 80% DD , With Recycle Plan again

From DRC: 6/26/18

Added Gable end roof vents

Included Schedule

Show Registered PLAT Dimensions from county records on site survey (plan is currently within the grandfathered building extents)

Previous DRC Review Modifications:

1. Added Trees and plants to the site plan/sight line plan
2. Updated the Sight lines drawings with elevation window changes
3. Driveway modified in line with DSD requirements and TXDOT 90-75 residential
4. Window Mullion on double window increased on all elevations and window schedule, inline with existing
5. Fascia and Soffit details updated to show overhangs and replicated this from renovation to addition
6. Relocated windows upstairs and downstairs on north and south elevation so there are more visually appealing
7. Added front Porch Drawing for renovation of same
8. modified window on plan for accessory building
9. Adjusted window locations on floor plans for the ground floor and second floor addition

Previous Changes from DRC review:

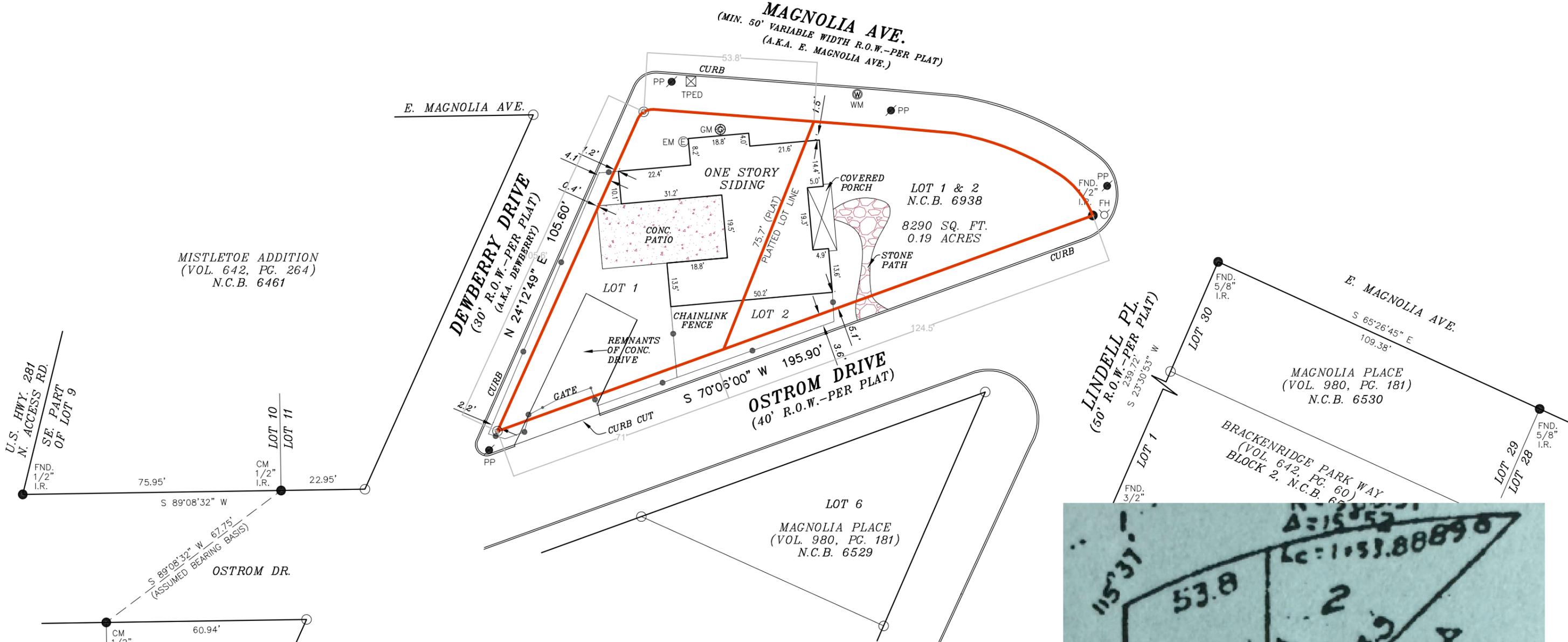
1. Created a Selective demolition plan
2. Updated the Sight lines drawings
3. Indented the rear addition to create an obvious delineation between the old & new
4. Got rid of all the trees from the drawings and bushes
5. Updated the Window details to reflect a cleaner view
6. Grey scaled out the existing building on proposed drawings
7. Added a Window and Door schedule and inserted as is pictures to clarify that we are matching existing
8. Added in window on accessory building on bottom inline with others on house
9. Created draft floor plans for the ground floor and second floor addition
10. Added Dimensions on the drawings

From Conceptual approval hearing we have made the following changes:

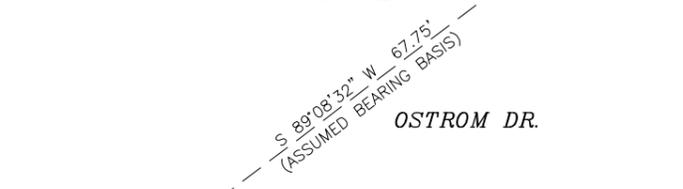
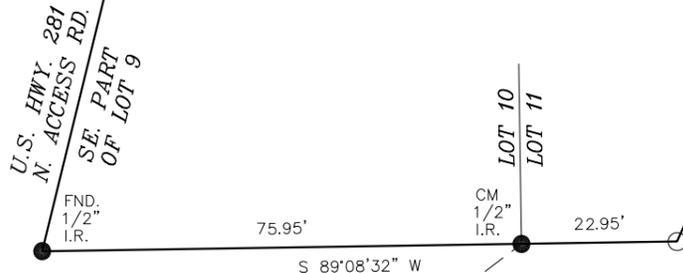
1. Additional information relating to the windows
2. Added traditionally detailed awnings above doors
3. Added Landscaping plan which clearly shows the tree's to remain
4. Archaeology letter that was accepted in my last submission from my talks with the City Archaeologist
5. Reduced Overall building height by 2'-7" also decreased Accessory Building height

We are proceeding forward with this design and renovation of a building condemned by two certified Structural Engineers at risk because the HDRC will not recognise their input even though they requested the reports for validation.

Kind Regards, Toby Stapleton



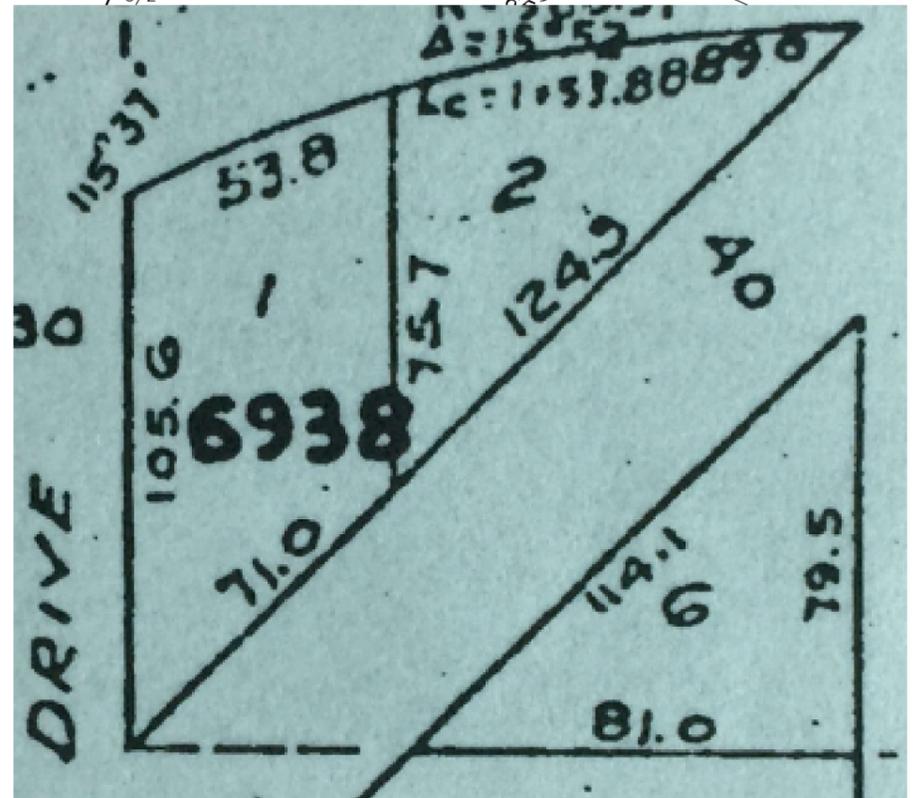
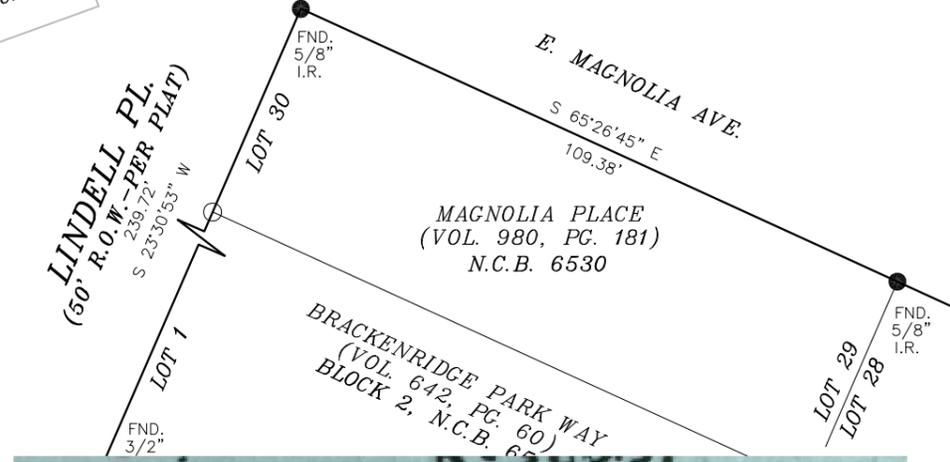
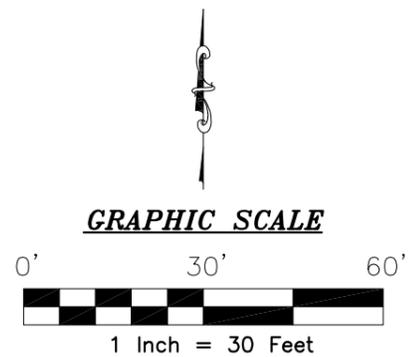
MISTLETOE ADDITION  
(VOL. 642, PG. 264)  
N.C.B. 6461



MISTLETOE ADDITION  
(VOL. 642, PG. 264)  
N.C.B. 6461

**LEGEND**

- These standard symbols will be found in the drawing.
- BOUNDARY LINE
  - PLATTED LOT LINE
  - CHAINLINK FENCE
  - ⊙ SET IRON ROD
  - CALCULATED POINT
  - FOUND IRON ROD
  - ⊠ TELEPHONE PEDESTAL
  - ⊕ WATER METER
  - ⊖ ELECTRIC METER
  - ⊙ GAS METER
  - POWER POLE
  - ⊕ FIRE HYDRANT
  - (PLAT) RECORDED ON PLAT
  - (F.M.) FIELD MEASURED
  - CM CONTROL MONUMENT



Property ID: 385787 Legal Description NCB 6938 BLK Lots 1 & 2  
Geographical ID: 06938-000-0010 Zoning: R-4 CD

**SURVEYOR'S NOTE:**  
THE ORIGINAL PLAT RECORD IS WITHOUT BEARINGS. THE BEARING SHOWN HERE ARE ASSUMED. THIS REPRESENTATION IS SURVEYORS BEST INTERPRETATION OF RECORD INFORMATION.  
At date of this survey, the property is in FEMA designated ZONE X as verified by FEMA map Panel No: 48029C 0405 G effective date of SEPTEMBER 29, 2010. Exact designations can only be determined by a Elevation Certificate. This information is subject to change as a result of future FEMA map revisions and/or amendments.

The survey is hereby accepted with the discrepancies, conflicts, or shortages in area or boundary lines, encroachments, protrusions, or overlapping of Improvements shown.



# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
ST780 Project No.	USA205

### Approvals

CUSTOMER	Mai & Toby	Date	
Mechanical Engineer		Date	
Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CSA		Date	
PROJECT MANAGEMENT			
Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control P/BAE		Date	

### Revisions

No.	Date	Description
01	May 2018	ISSUE FOR REVIEW
01	June 2018	ISSUE FOR CONSTRUCTION

### Registration

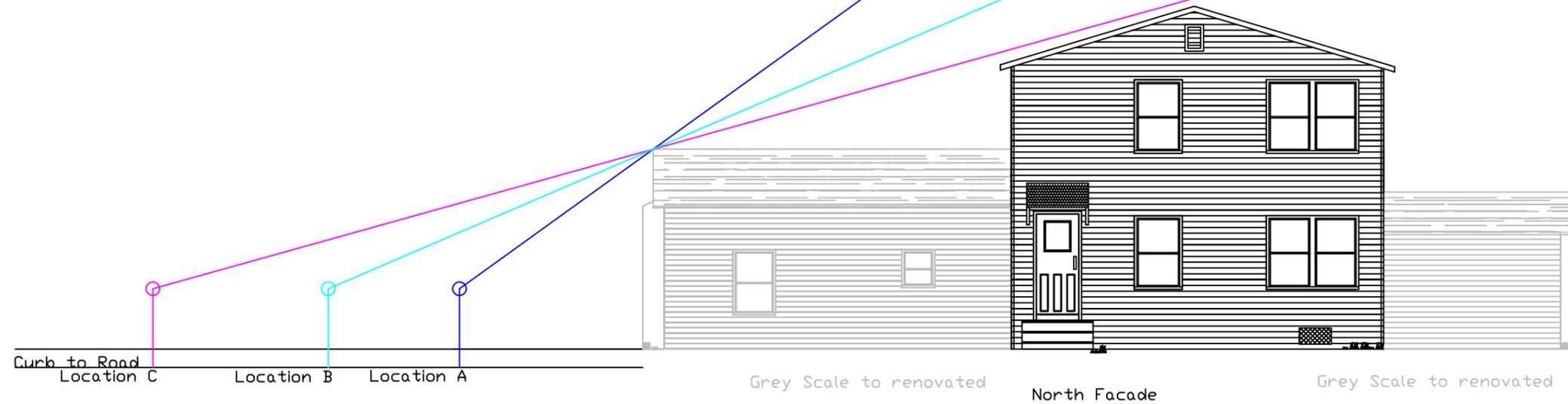
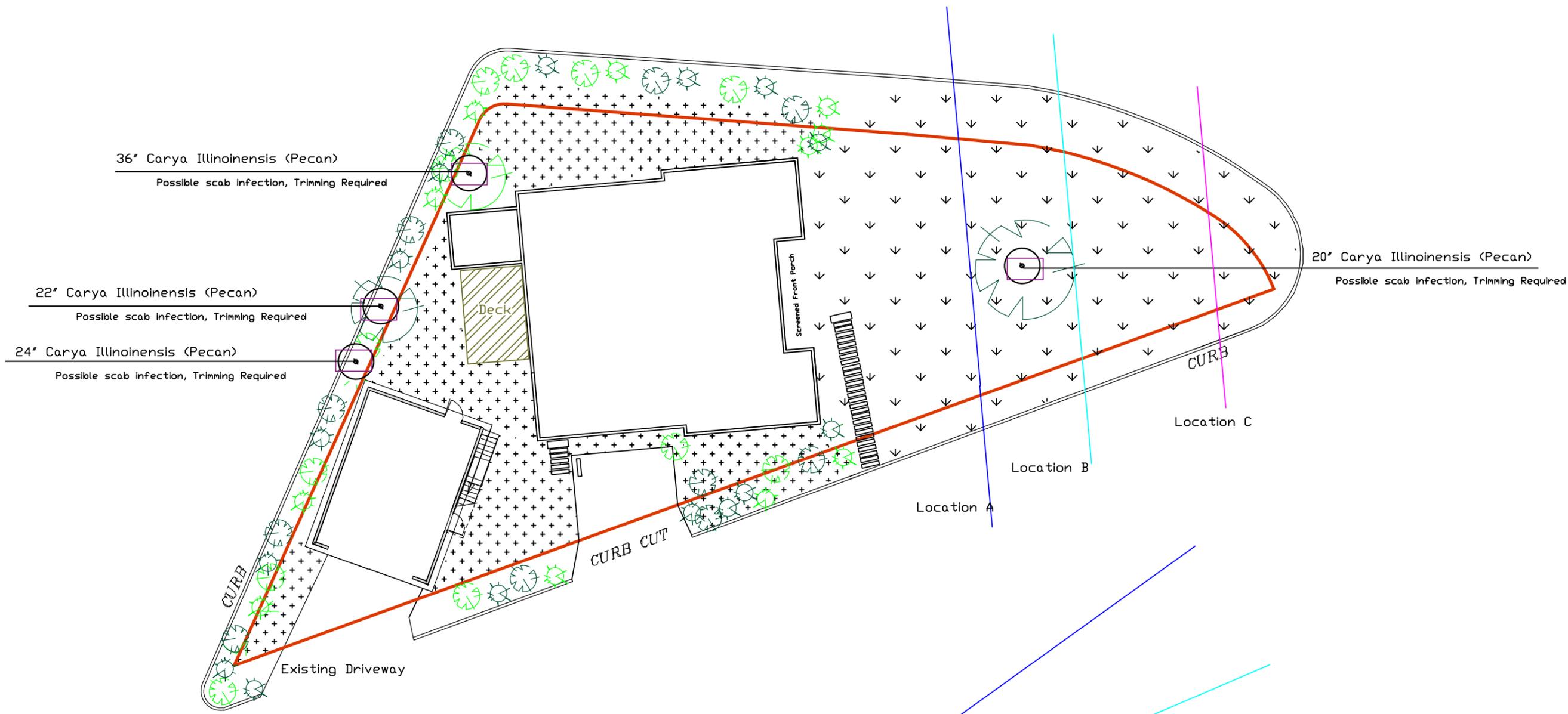


### Bar Code

### Sheet Title/Number

Sight Lines  
From Curb

EB-101



Add 4% for driveways





# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

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Drawn	TS
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Sheet Project No.	USA205

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Mechanical Engineer		Date	
Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CSA		Date	

### PROJECT MANAGEMENT

Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control PM/E		Date	

### Revisions

No.	Date	Description
01	JUNE 2018	ISSUE FOR CONSTRUCTION

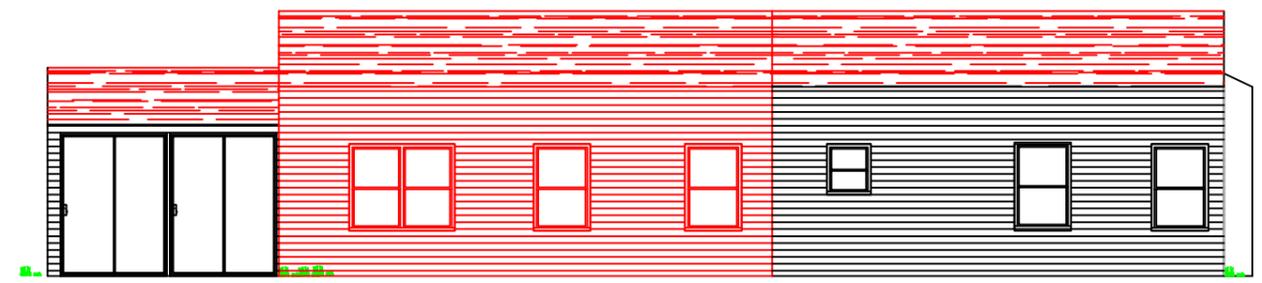
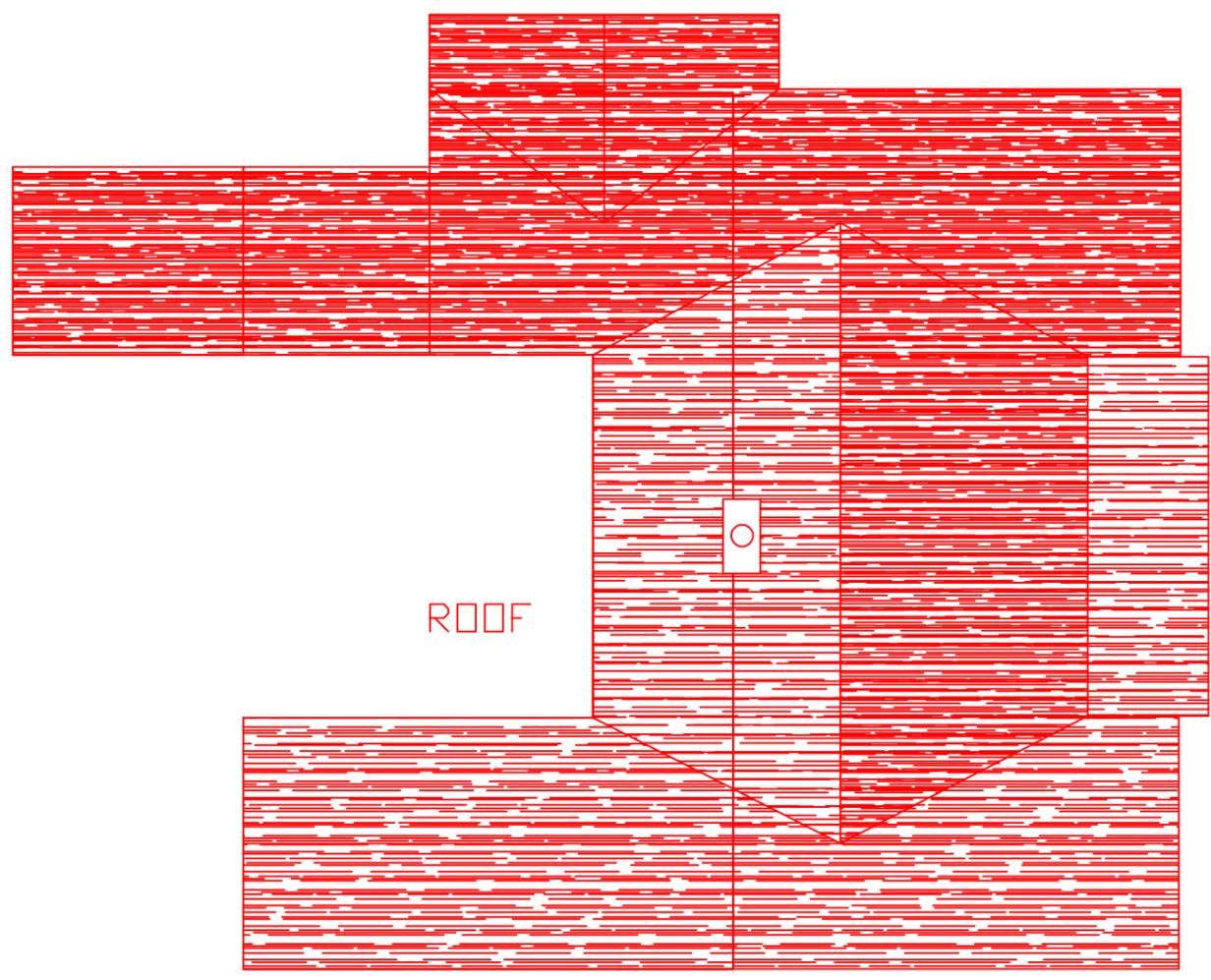
### Registration



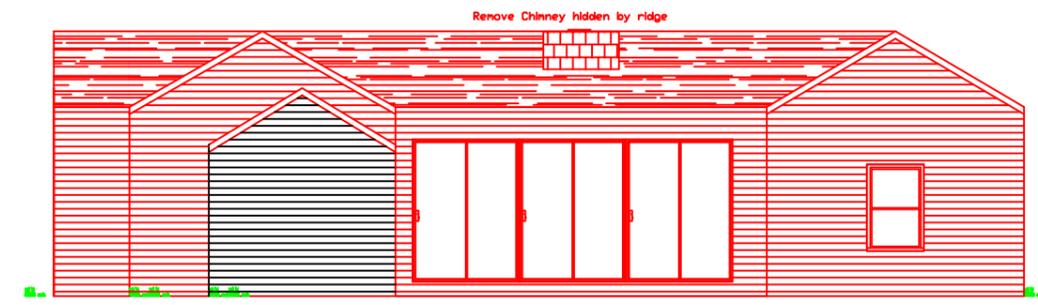
### Bar Code

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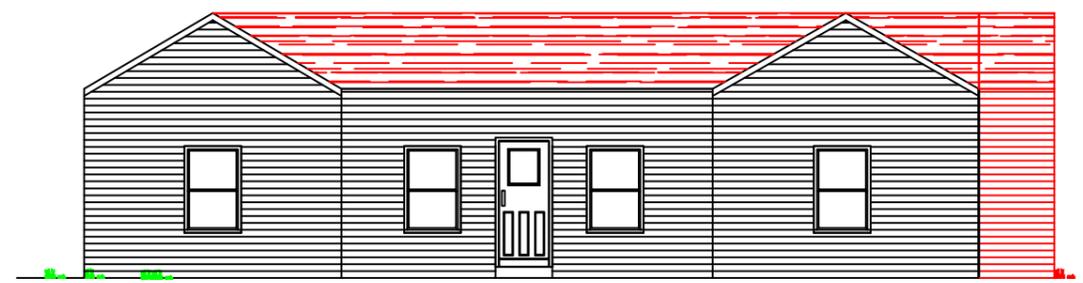
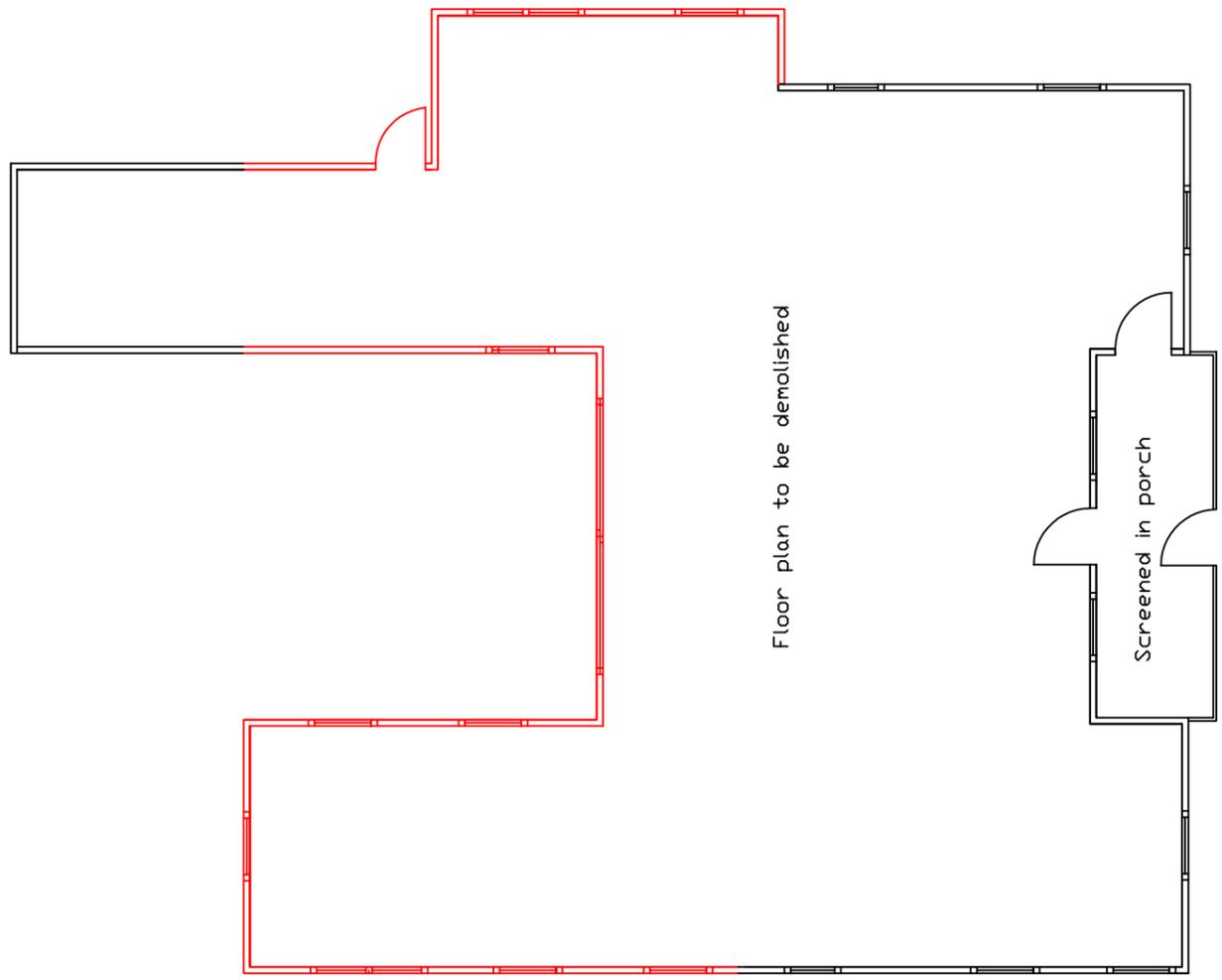
Existing Building  
SELECTIVE  
DEMOLITION  
EB-101



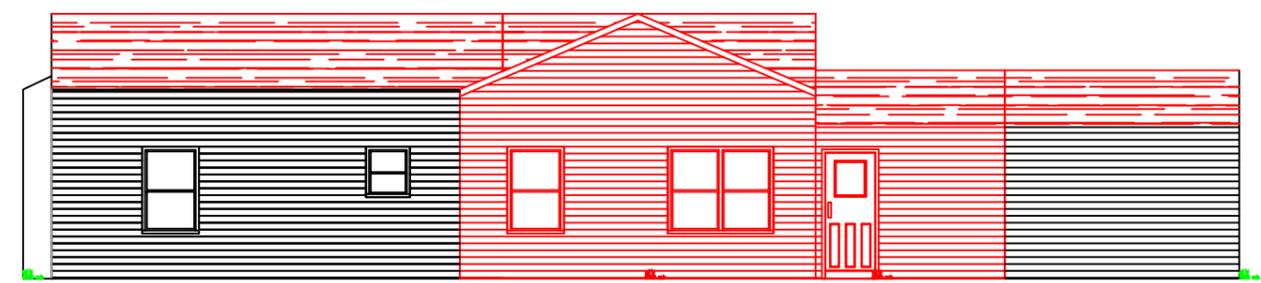
South Facade



West Facade / Rear of House



East Facade Front Facing



North Facade  
SELECTIVE DEMO IN RED



# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

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Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
91785 Project No.	USBA205

### Approvals

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Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
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CSA		Date	
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Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control/FREE		Date	

### Revisions

No.	Date	Description
01	May 2018	ISSUE FOR REVIEW
01	June 2018	ISSUE FOR CONSTRUCTION

### Registration

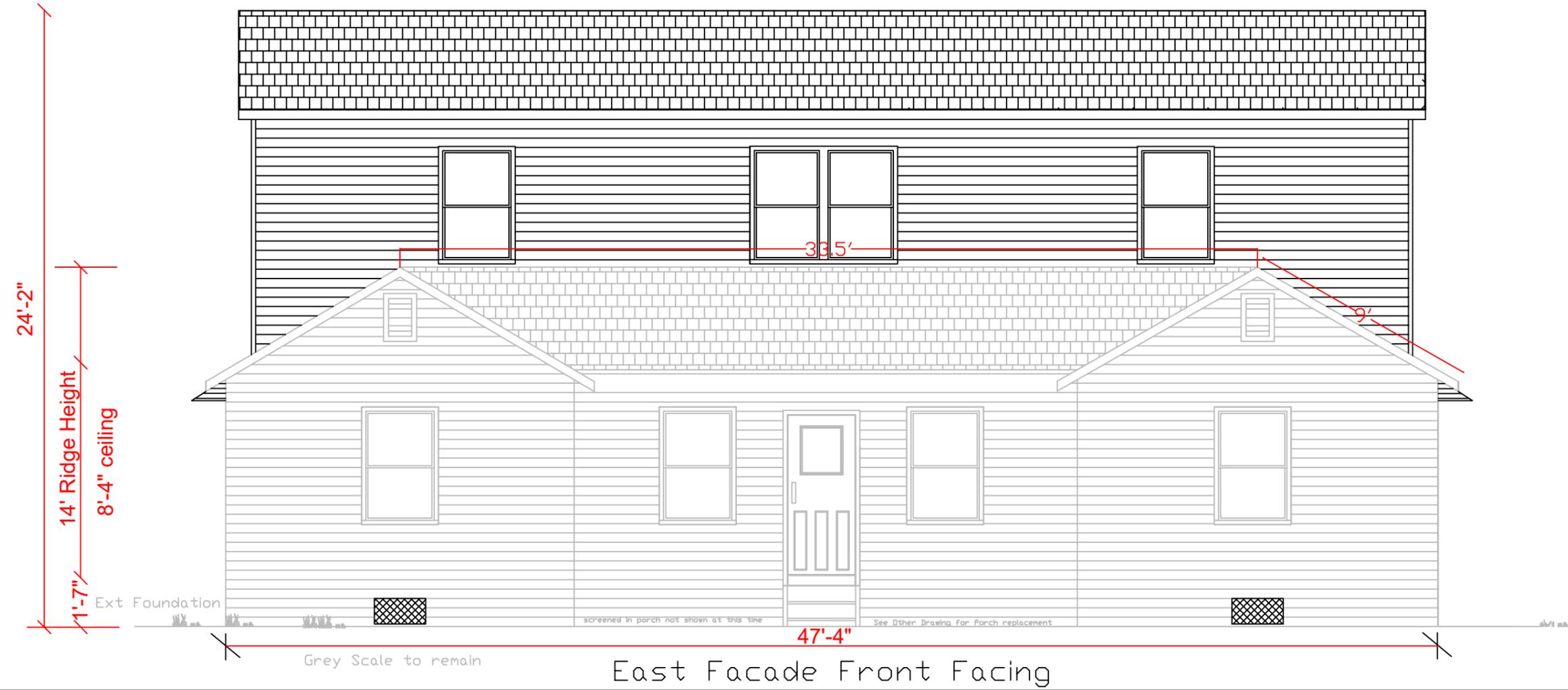
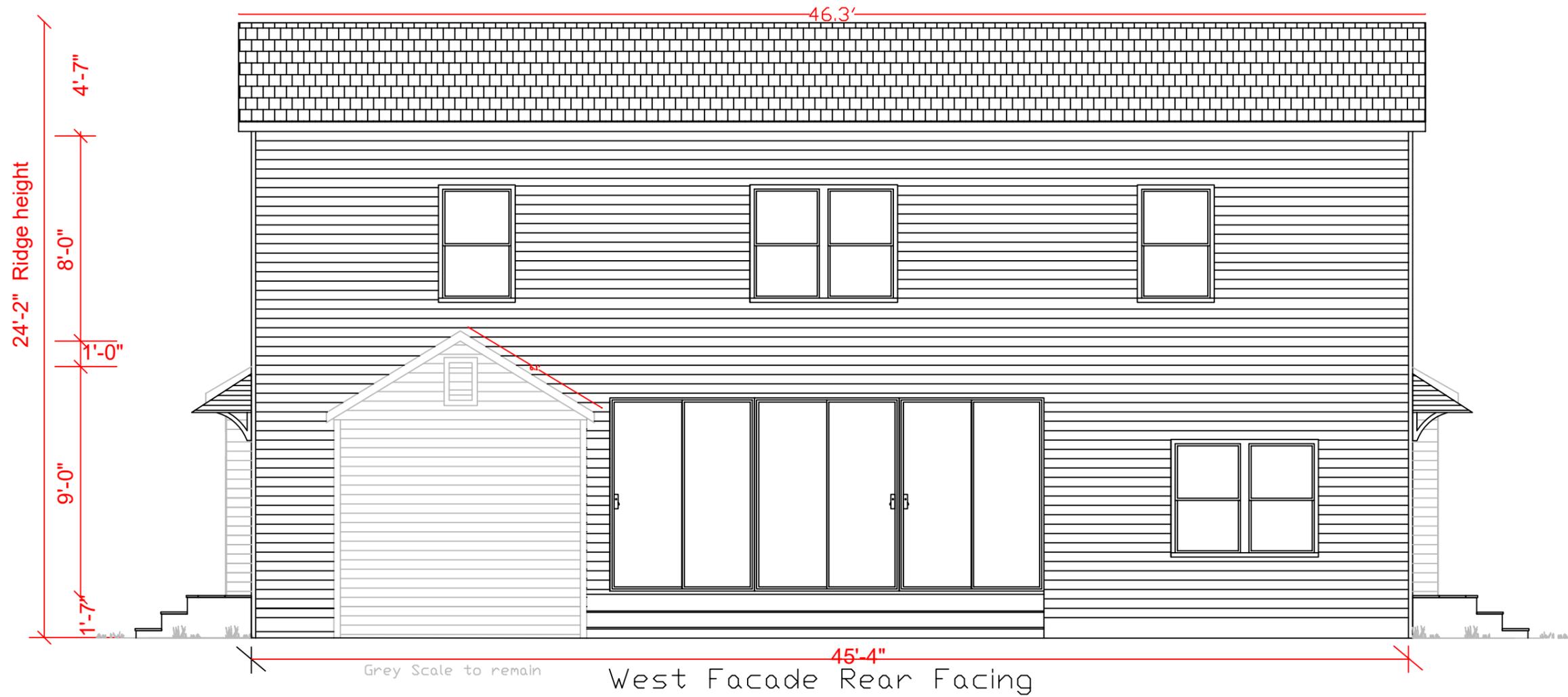


Bar Code

Sheet Title/Number

Elevations  
North & South

EL-101





# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

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Sheet Project No.	USA205

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CSA		Date	

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Project Manager		Date	
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Development Manager		Date	
Project Manager		Date	
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Quality Control/FREE		Date	

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01	June 2018	ISSUE FOR CONSTRUCTION

### Registration

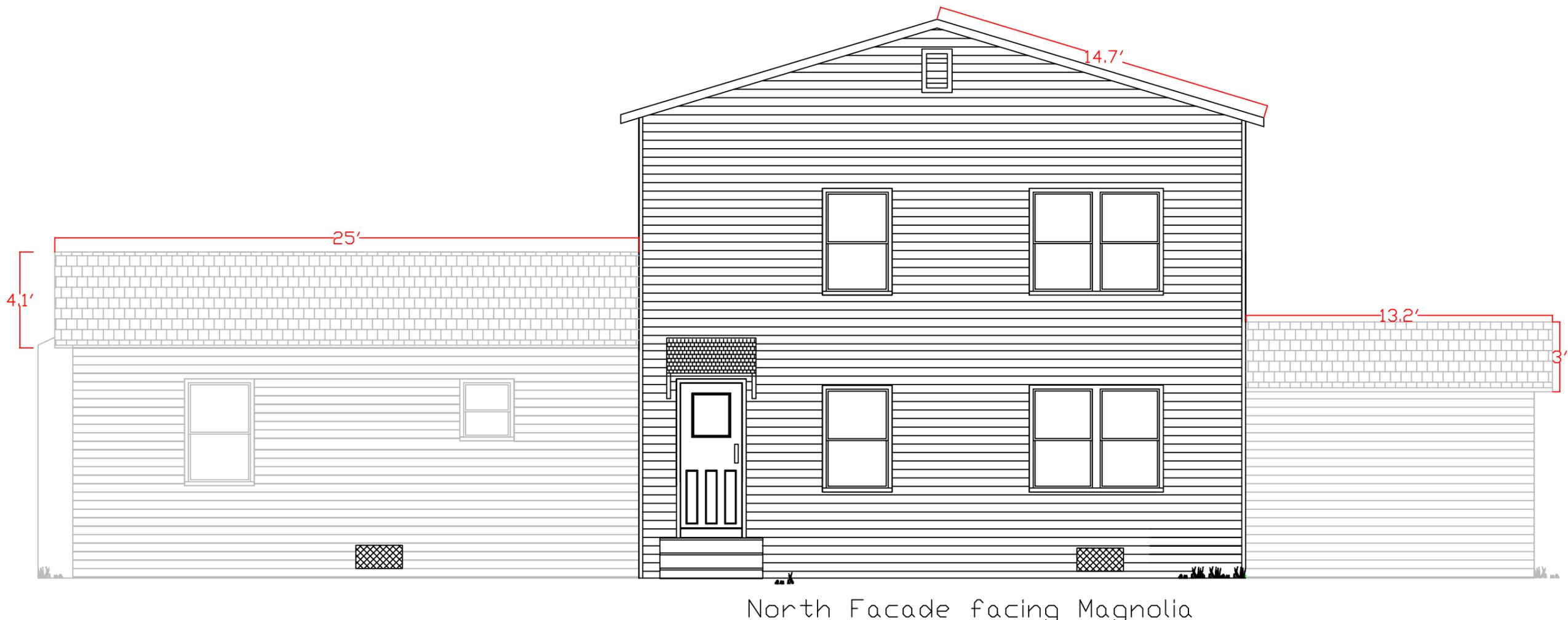
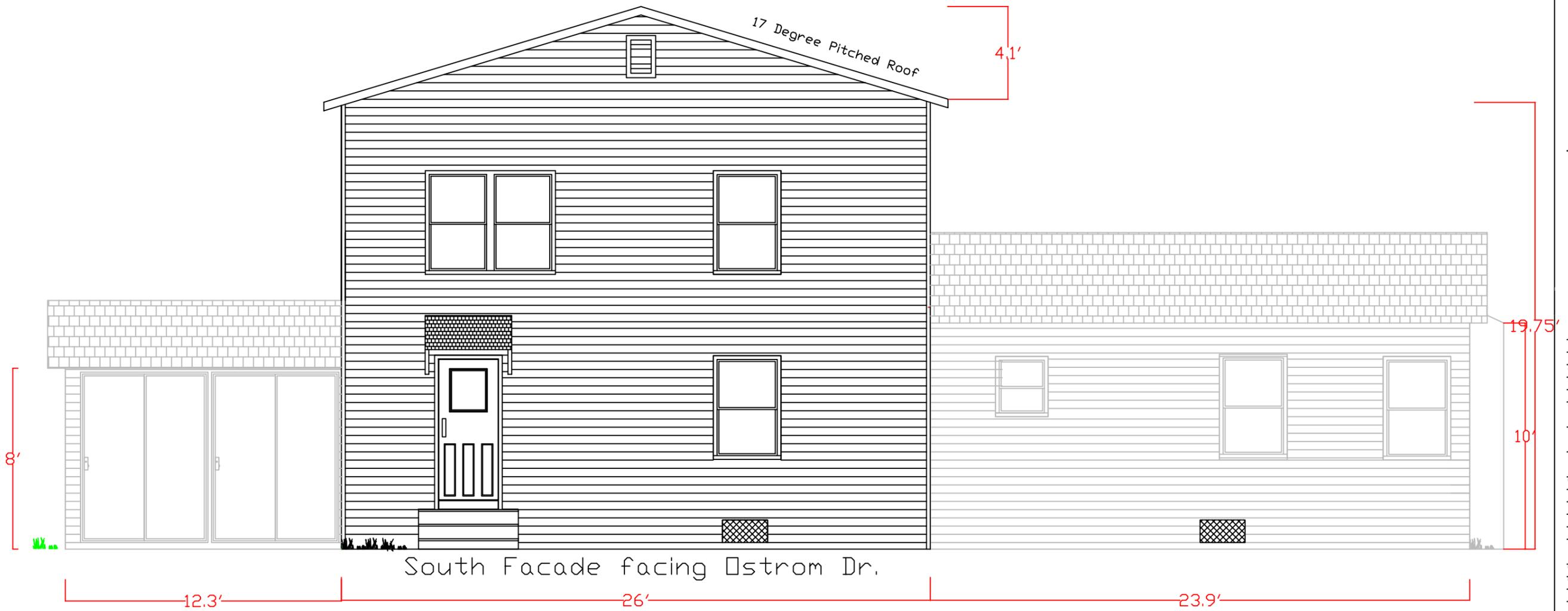


Bar Code

Sheet Title/Number

Elevations  
North & South

EL-102





# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
51785 Project No.	USBA205

### Approvals

CUSTOMER	Mai & Toby	Date	
Mechanical Engineer		Date	
Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CSA		Date	
PROJECT MANAGEMENT			
Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control FREE		Date	

### Revisions

No.	Date	Description
01	June 2018	ISSUE FOR CONSTRUCTION

### Registration

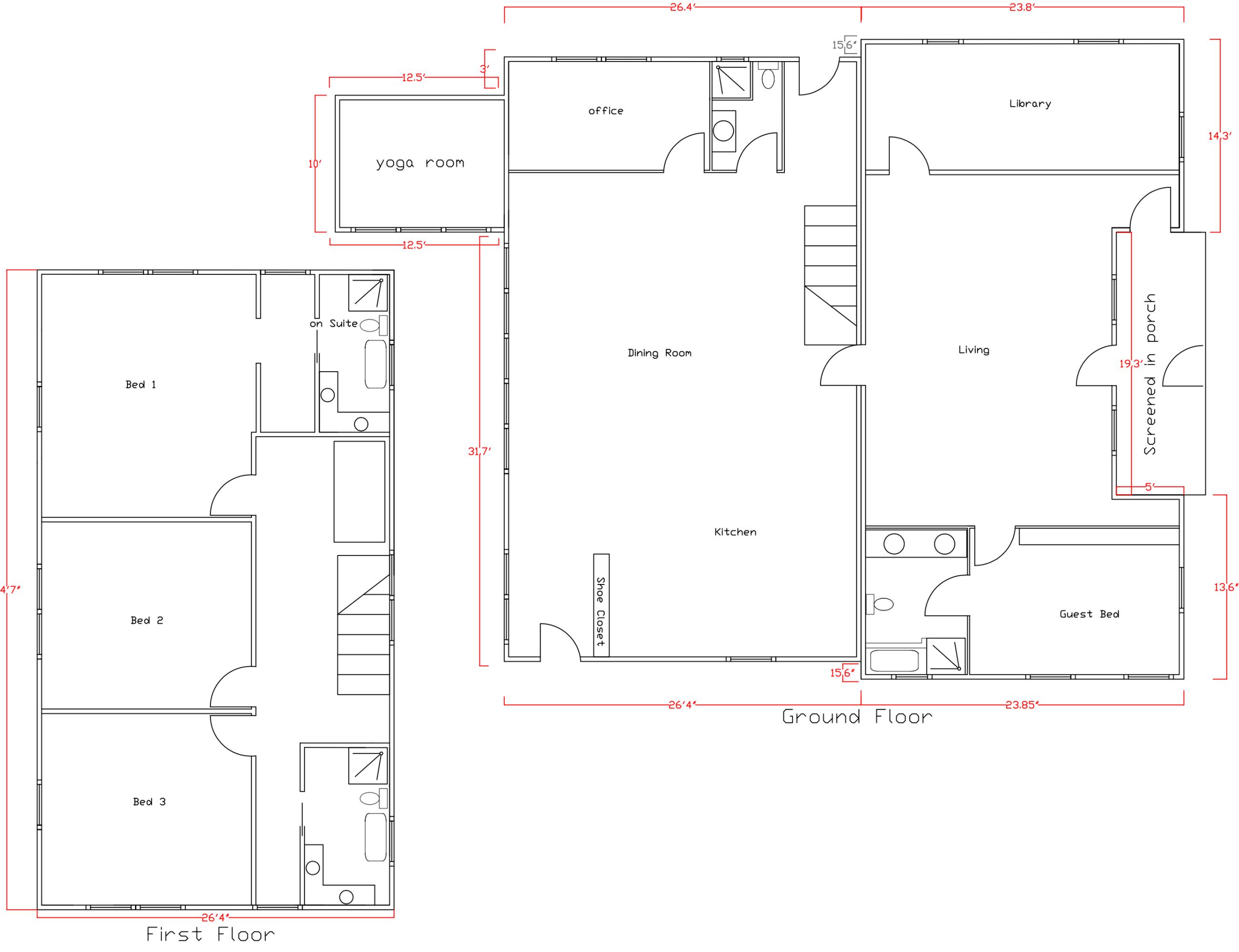


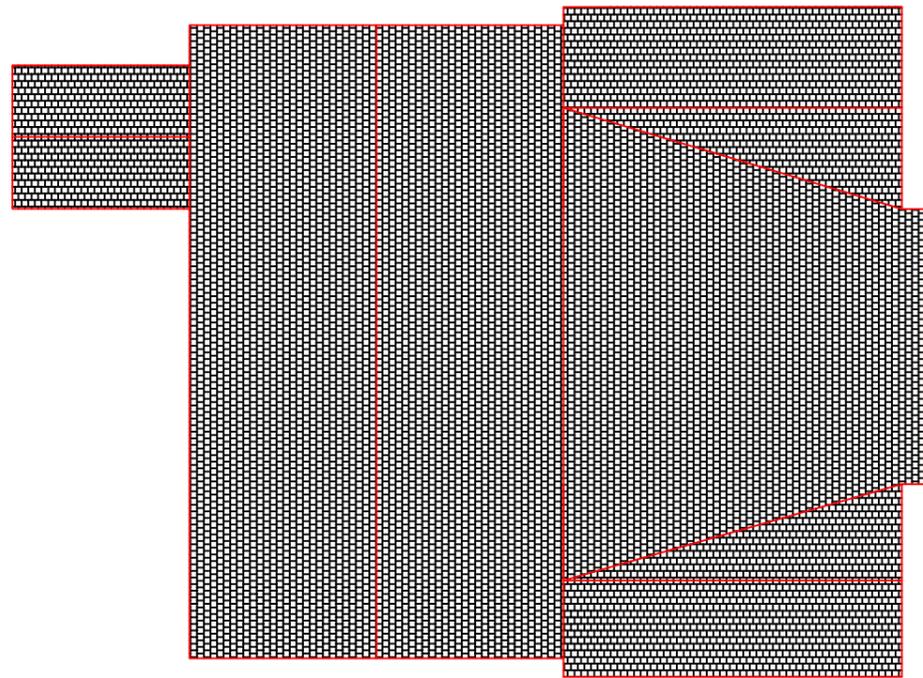
Bar Code

Sheet Title Number

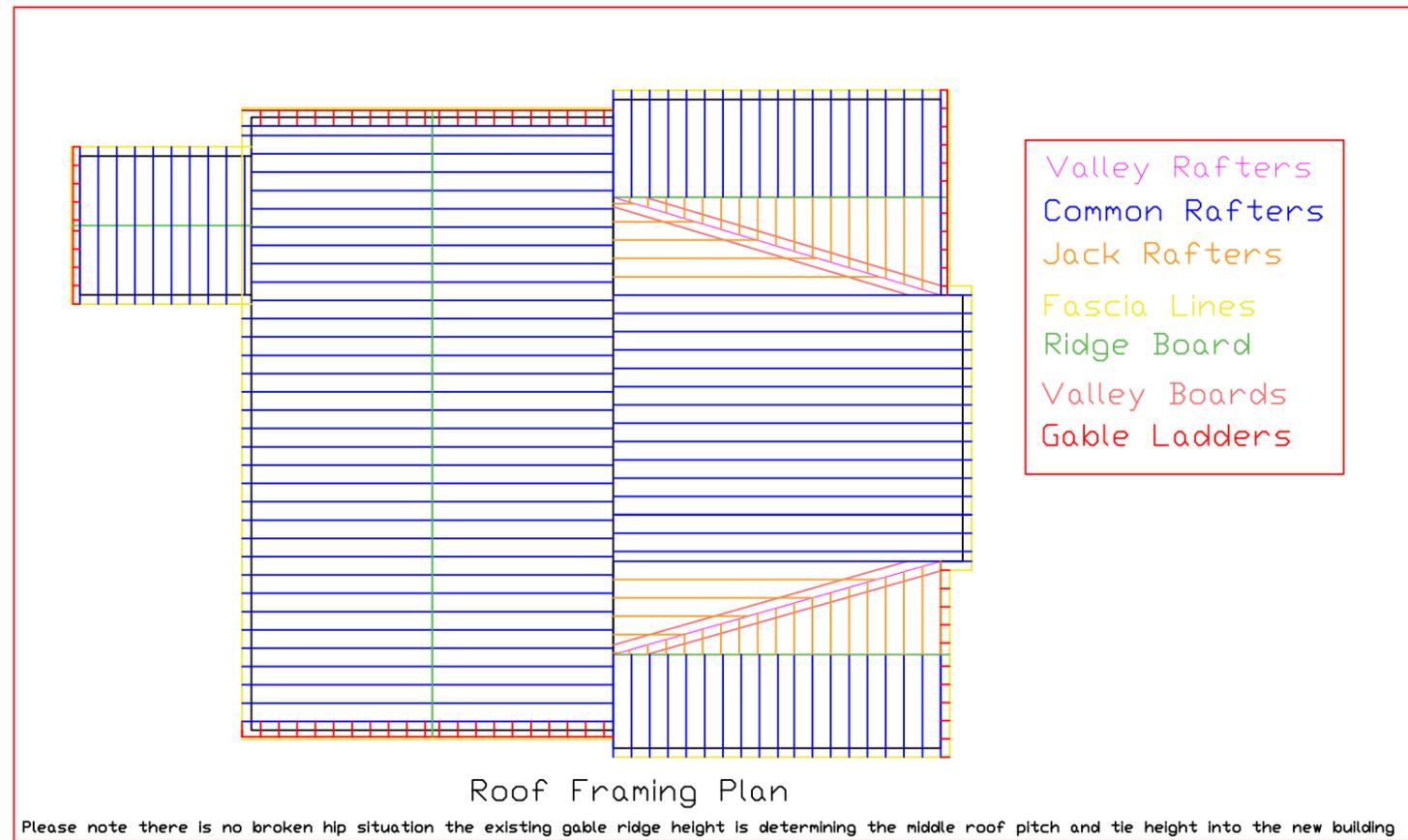
Plans  
GF & FF

PL-121



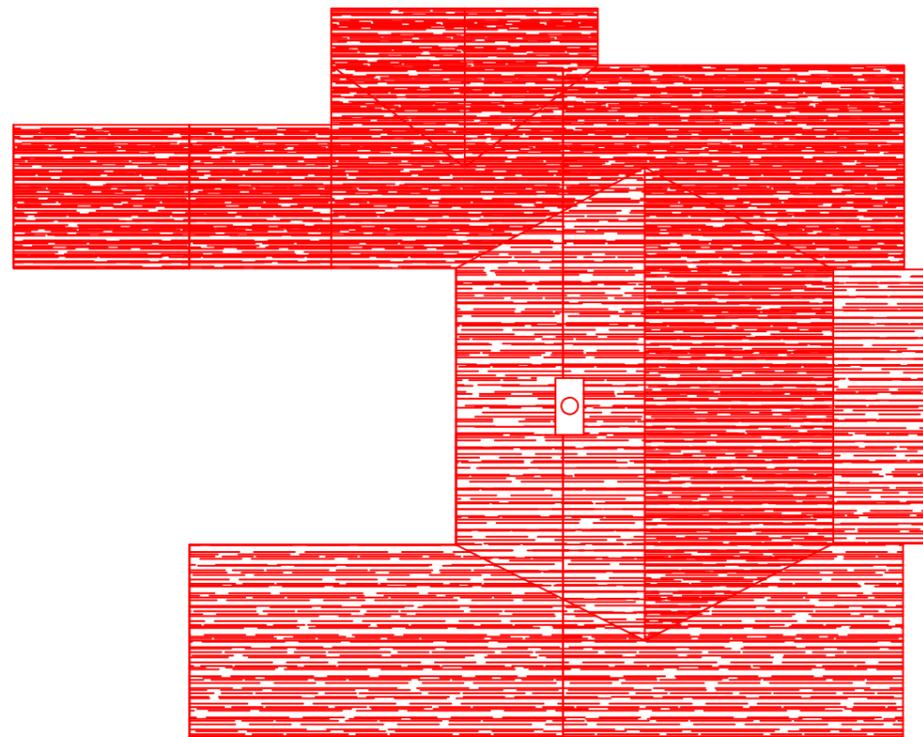


Proposed Roof Plan  
See Submittal on Shingle type



Roof Framing Plan

Please note there is no broken hip situation the existing gable ridge height is determining the middle roof pitch and tie height into the new building



Existing roof complete removal required

Traditional favorites that feel like home.

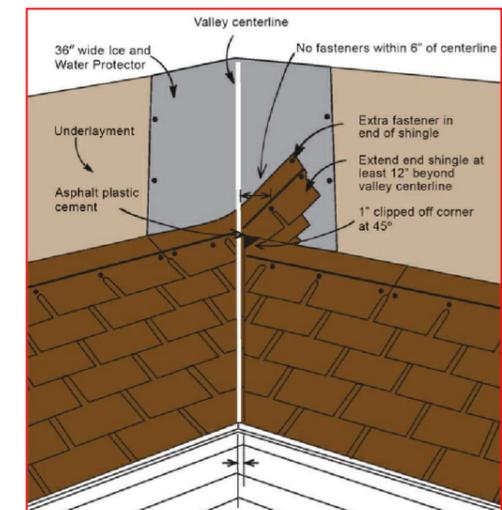
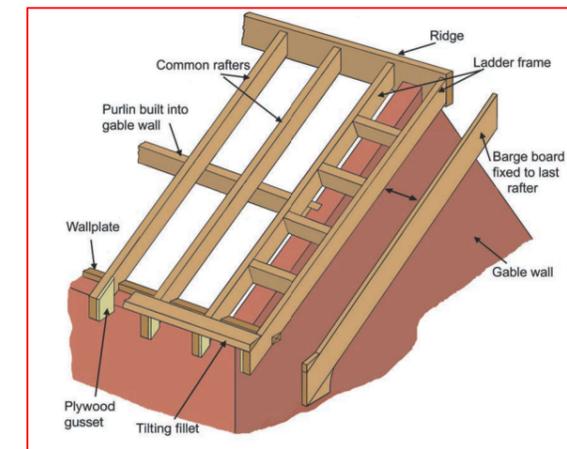
Oakridge® Color Availability

This Color for 205 Ostrom Drive



Estate Gray®

Color Availability Map



The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2016 10:38:59 AM
Design Project No.	TABR
Sheet Project No.	USA205

Approvals

CUSTOMER	Mai & Toby	Date
Mechanical Engineer		Date
Structural Engineer		Date
Electrical Engineer		Date
Engineering Manager		Date
Security Manager		Date

PROJECT MANAGEMENT

Project Planner		Date
Project Manager		Date
Senior Project Manager		Date
Development Manager		Date
Project Manager		Date
Quality Control Reviewer		Date
Quality Control PPM		Date

Revisions

No.	Date	Description
01	June 2016	ISSUE FOR CONSTRUCTION

Registration



Bar Code

Sheet Title Number

Roof Layout



The Island River Road

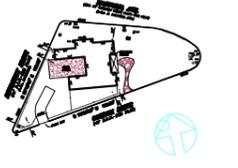
205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team	
Design	TS
Drawn	TS
Checked	TS
Date	May 2016 10:38:59 AM
Design Project No.	TABR
Sheet No.	USA205

Approvals	
CUSTOMER	Mai & Toby
Mechanical Engineer	
Structural Engineer	
Electrical Engineer	
Engineering Manager	
Security Manager	
CSA	
PROJECT MANAGEMENT	
Project Planner	
Project Manager	
Senior Project Manager	
Development Manager	
Project Manager	
Quality Control Reviewer	
Quality Control PPM	

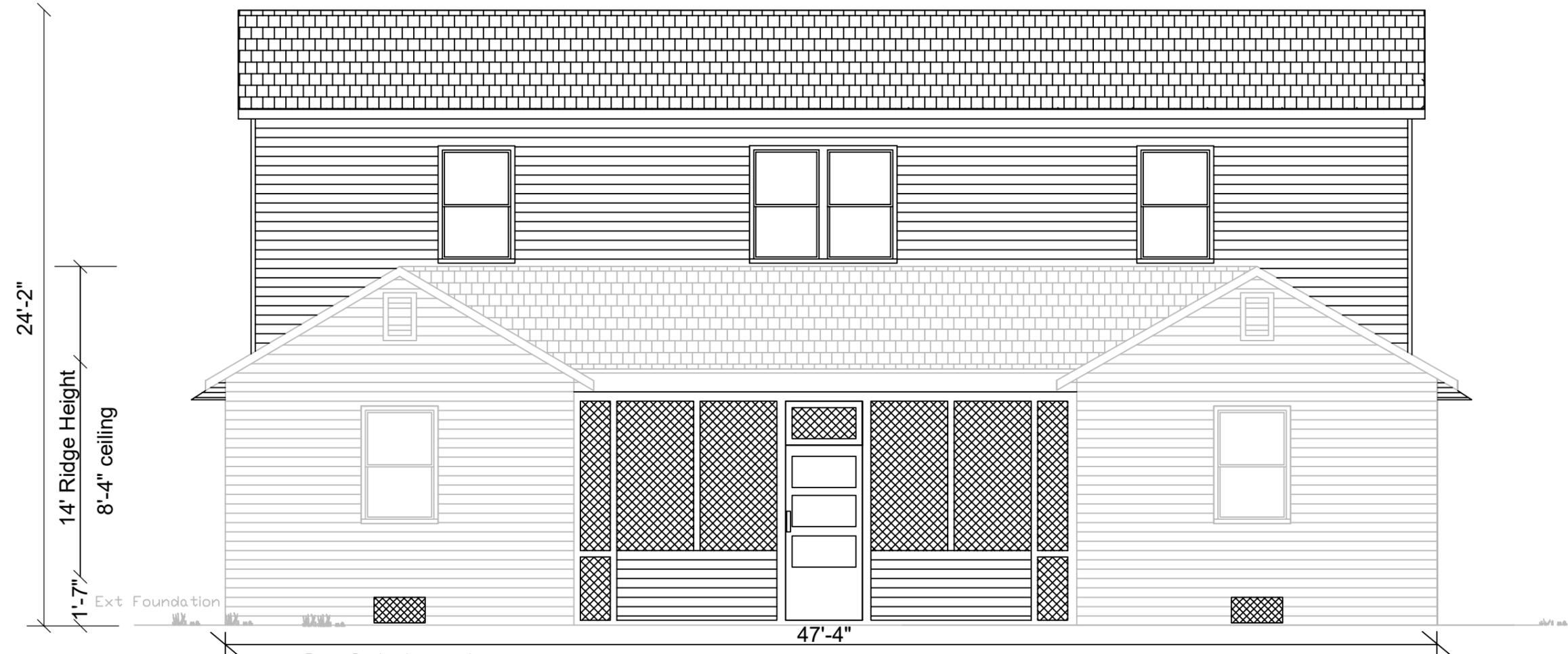
Revisions		
No.	Date	Description
01	May 2016	ISSUE FOR REVIEW
02	June 2016	IFC Rev to add door awning

Registration	

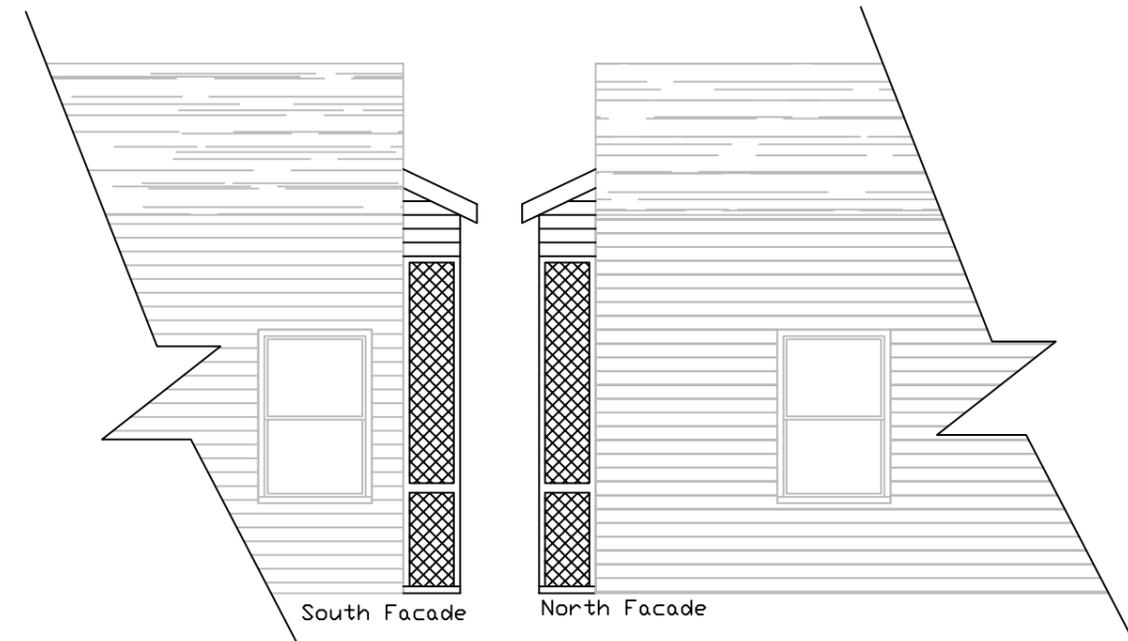


Bar Code	

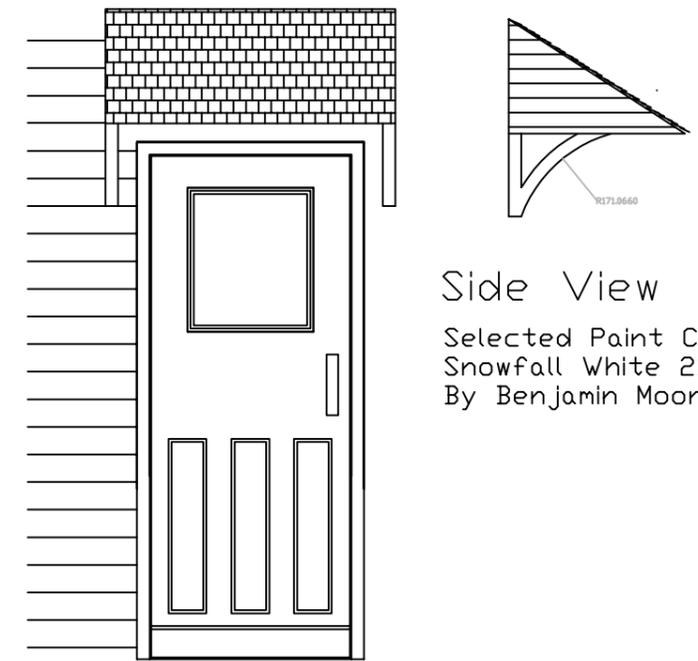
Screened in Porch  
& Shed roofs awning  
Details  
**SP-104**



Grey Scale to remain  
East Facade Front Facing  
Screened in Porch Replacement



Screened in Porch Side View



Side View  
Selected Paint Color :  
Snowfall White 2144-70  
By Benjamin Moore

Door Awning's Typical ea. door  
Shingle to match existing



# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
ST1785 Project No.	USBA205

### Approvals

CUSTOMER	Mai & Toby	Date	
Mechanical Engineer		Date	
Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CSA		Date	
PROJECT MANAGEMENT			
Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control P/B/E		Date	

### Revisions

No.	Date	Description
01	June 2018	ISSUE FOR CONSTRUCTION

### Registration

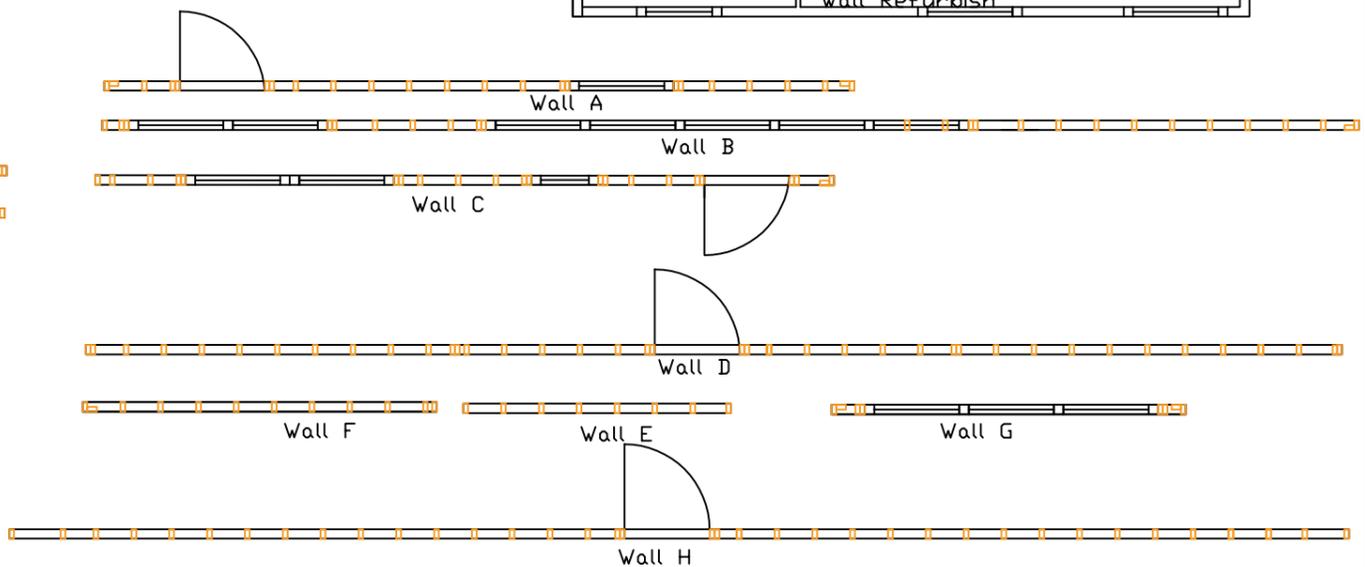
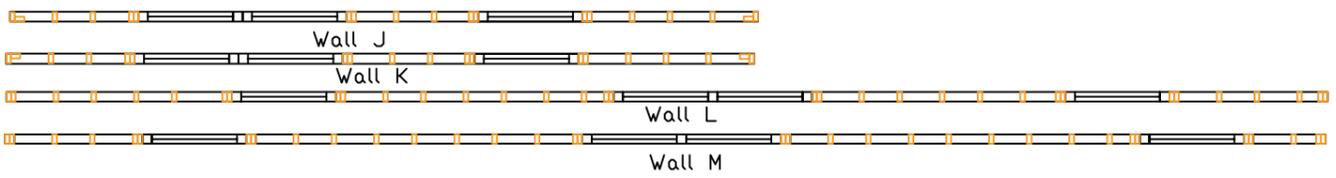
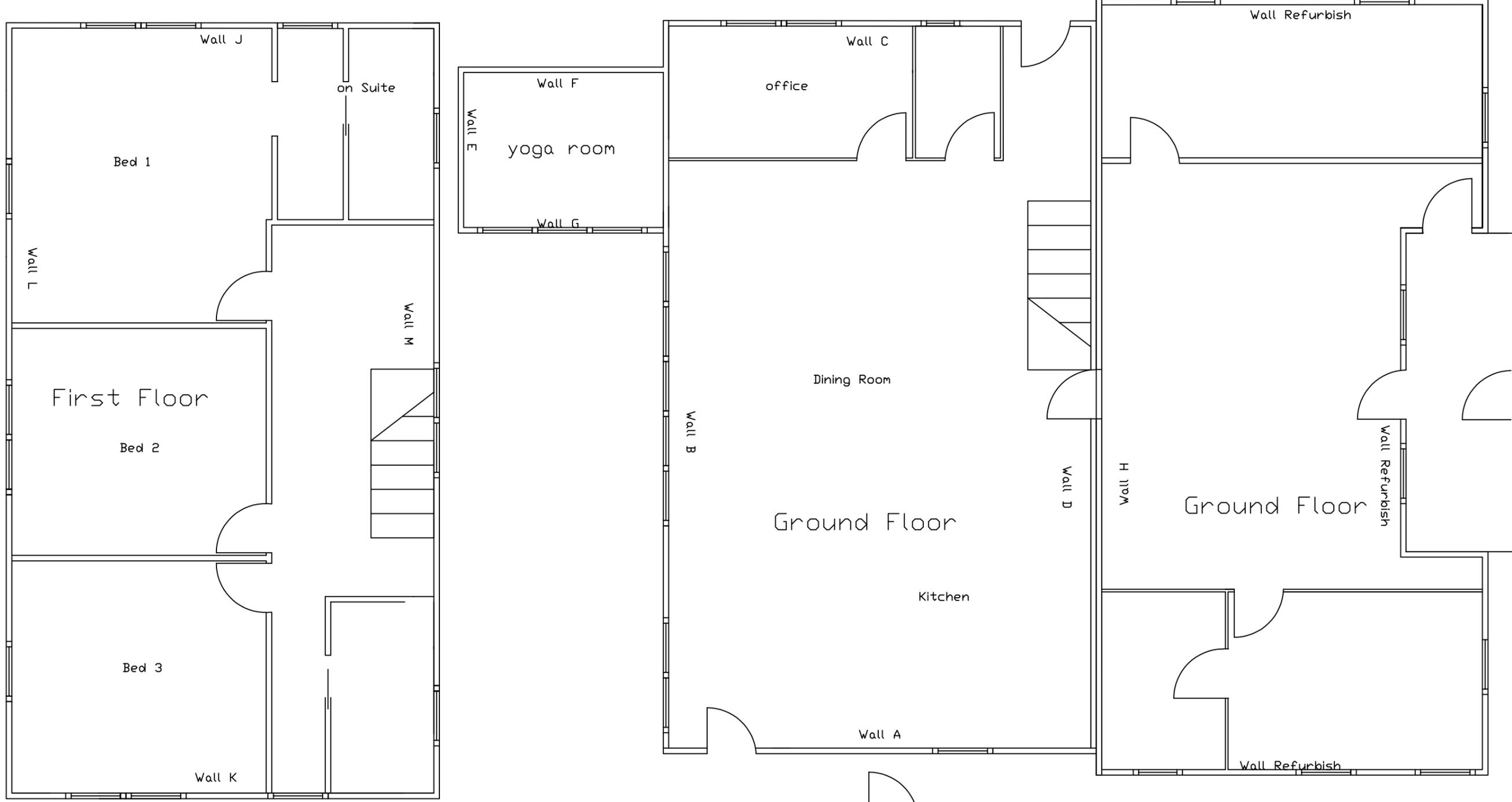


### Bar Code

### Sheet Title Number

Framing Plan  
GF & FF

PL-121



All studs 4"x2" CLS Timber on 16" Centers, With exception of crippers as needed for Lintel support



# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
Sheet Project No.	USA209

### Approvals

CUSTOMER	Date
Mai & Toby	
Mechanical Engineer	Date
Civil/Structural Engineer	
Electrical Engineer	
Engineering Manager	
Security Manager	
CSA	

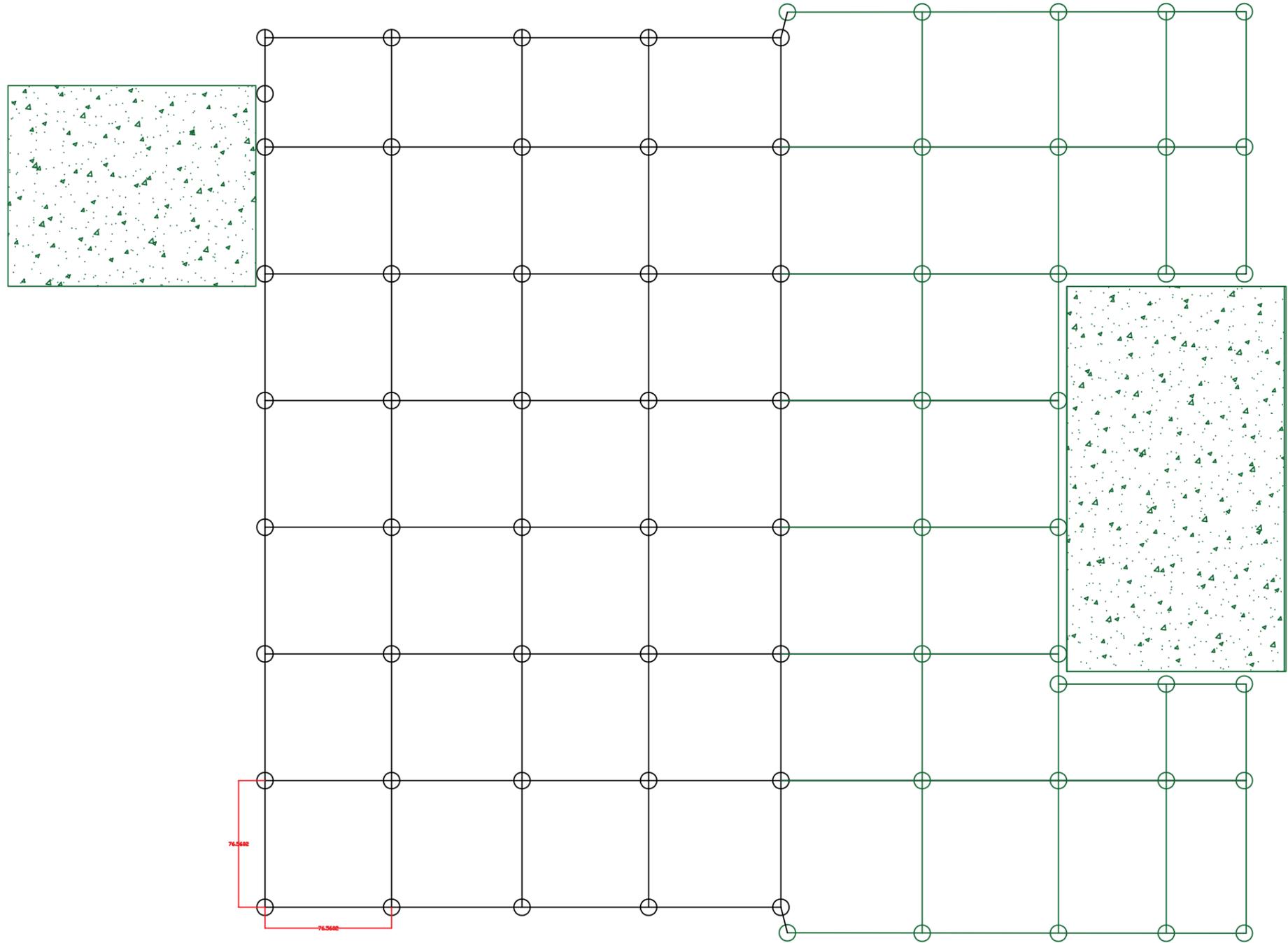
### PROJECT MANAGEMENT

Project Planner	Date
Project Manager	
Senior Project Manager	
Development Manager	
Project Manager	
Quality Control Reviewer	
Quality Control P/B/E	

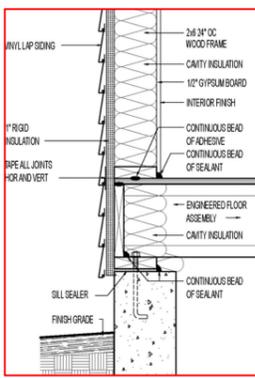
### Revisions

No.	Date	Description
01	June 2018	ISSUE FOR CONSTRUCTION

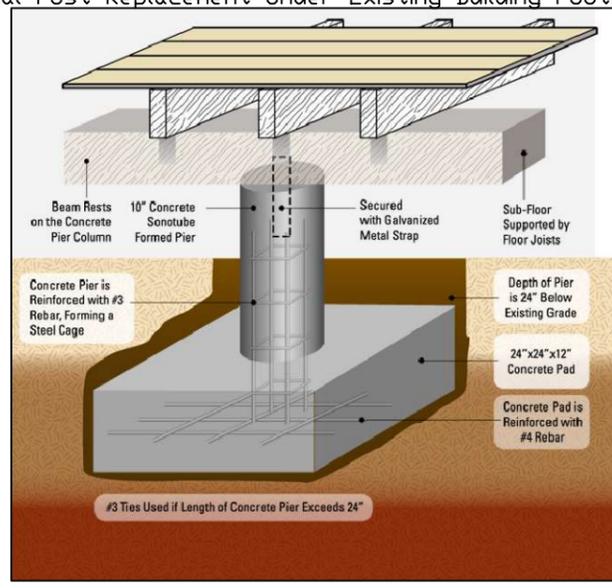
### Registration



Sole Plate 4"x2" Treated Lumber Bolted at Concrete Post As shown in the detail.



Typical Post Replacement Under Existing Building Footprint



Bar Code

Sheet Title Number

### Pile/Post Plan

ST-4Q



# The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2016 10:38:59 AM
Design Project No.	TABR
ST1760 Project No.	USA205

### Approvals

CUSTOMER	Mai & Toby	Date	
Mechanical Engineer		Date	
Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CSA		Date	
PROJECT MANAGEMENT			
Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control PPM		Date	

### Revisions

No.	Date	Description
01	May 2016	ISSUE FOR REVIEW
01	June 2016	ISSUE FOR CONSTRUCTION

### Registration

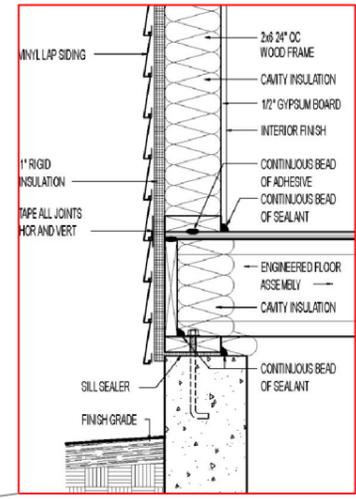
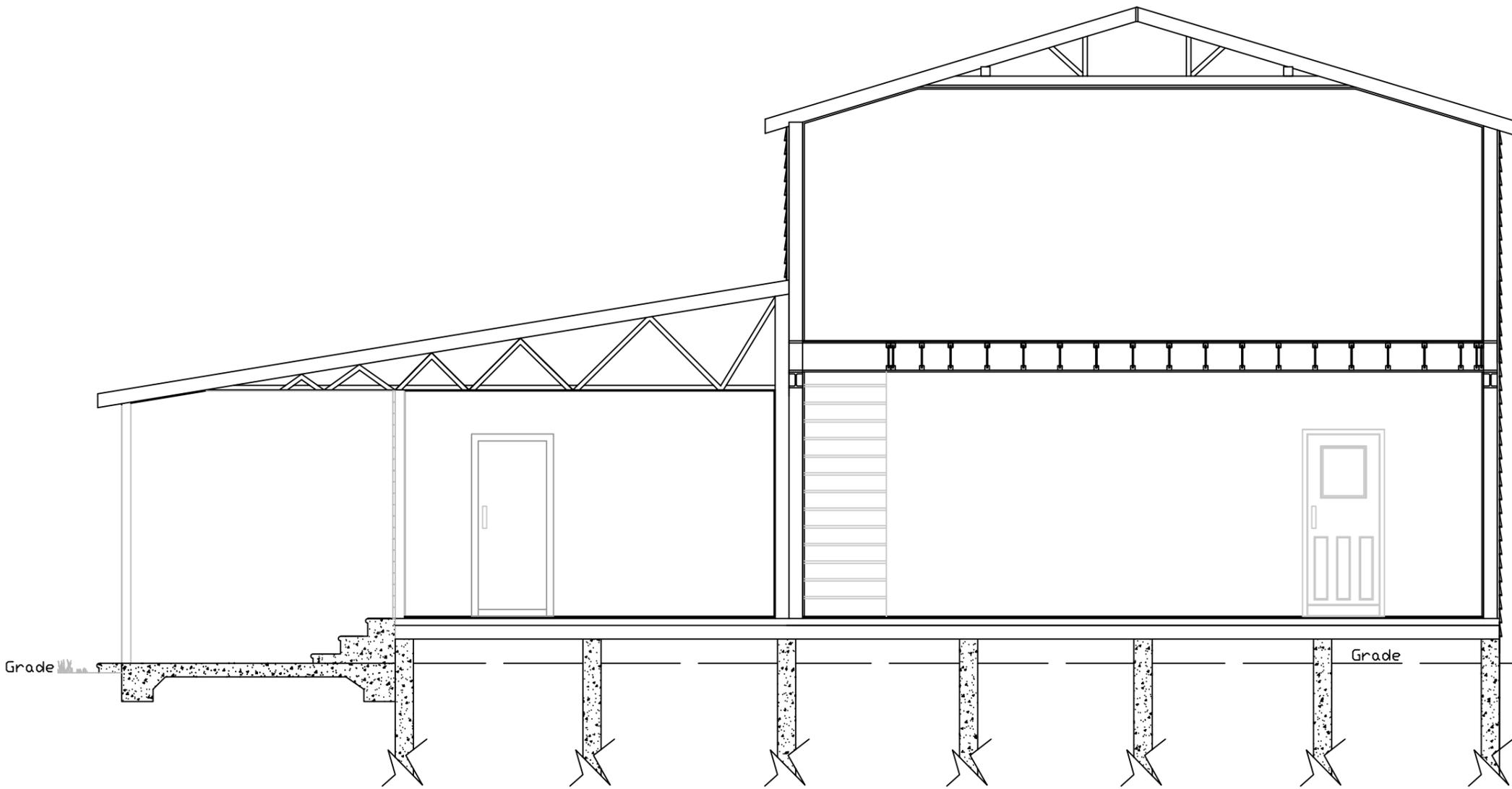


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### Sheet Title Number

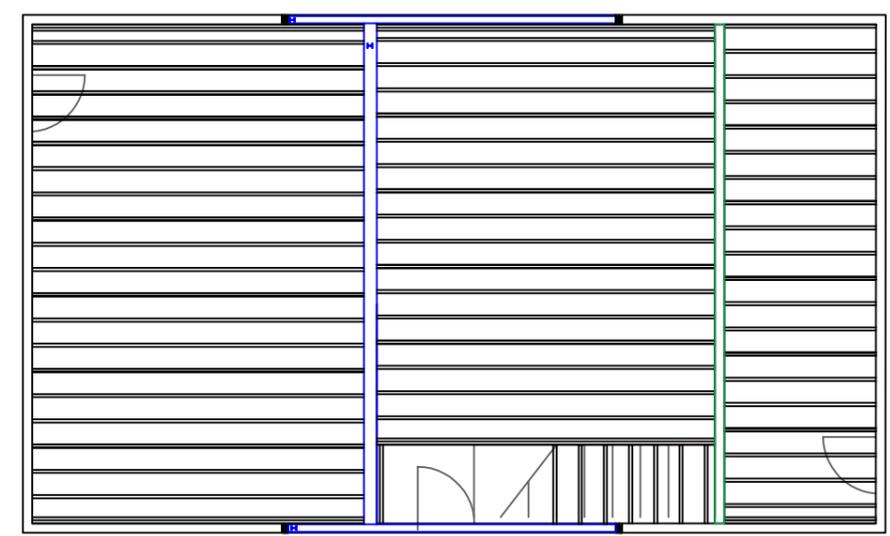
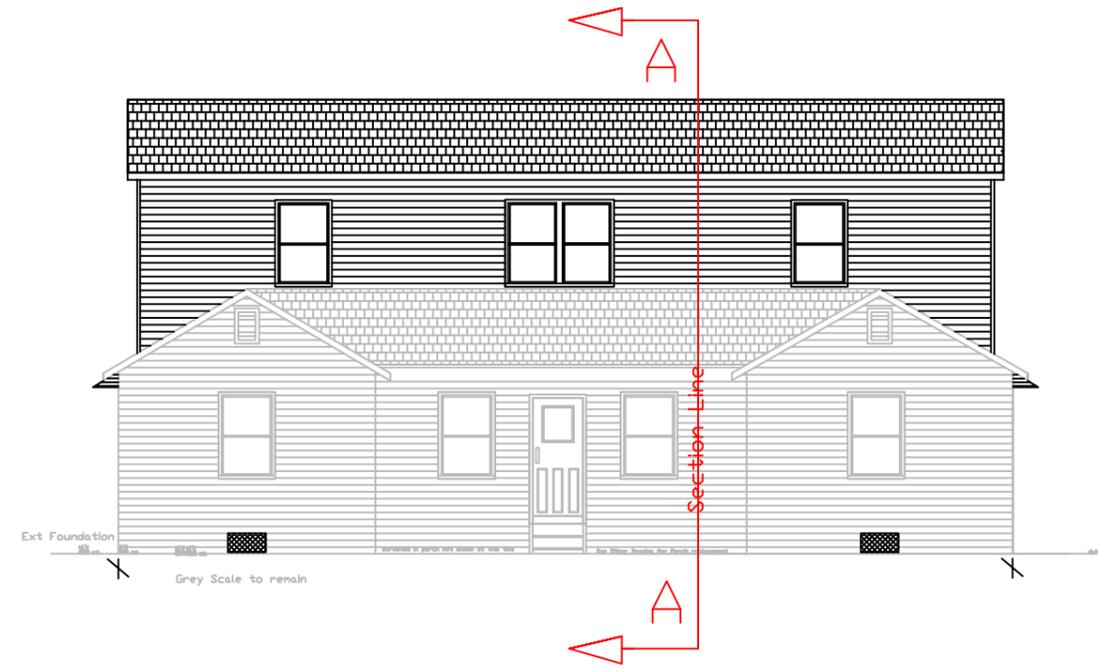
Elevations  
North & South

EL-101



Typical Detail

## Section A-A



### 1st Floor Joist Plan

I Steel Truss  
□ Interior Load bearing Wall

**I** V 10 x 19, Height 10.24', Width 4.020', Web Thickness 0.250", Flange Thickness 0.395", Sectional Area 5.6, Weight 19lb/ft, Moment of Inertia Ix 96.3 Iy 4.3, Elastic Section Modulus Sx 18.8 Sy 2.1



205 Ostrom Drive San Antonio, TX 78212  
T: 425-305-8044 C: 210-300-5385

### The Island River Road

205 Ostrom Drive  
SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	MN
Date	May 2018 10:28:09 AM
Design Project No.	T188R
31790 Project No.	USA009

#### Approvals

CUSTOMER	Mai & Toby	Date	
Mechanical Engineer		Date	
Civil/Structural Engineer		Date	
Electrical Engineer		Date	
Engineering Manager		Date	
Security Manager		Date	
CIA		Date	

#### PROJECT MANAGEMENT

Project Planner		Date	
Project Manager		Date	
Senior Project Manager		Date	
Development Manager		Date	
Project Manager		Date	
Quality Control Reviewer		Date	
Quality Control FREE		Date	

#### Revisions

No.	Date	Description
01	June 2018	ISSUE FOR CONSTRUCTION

#### Registration

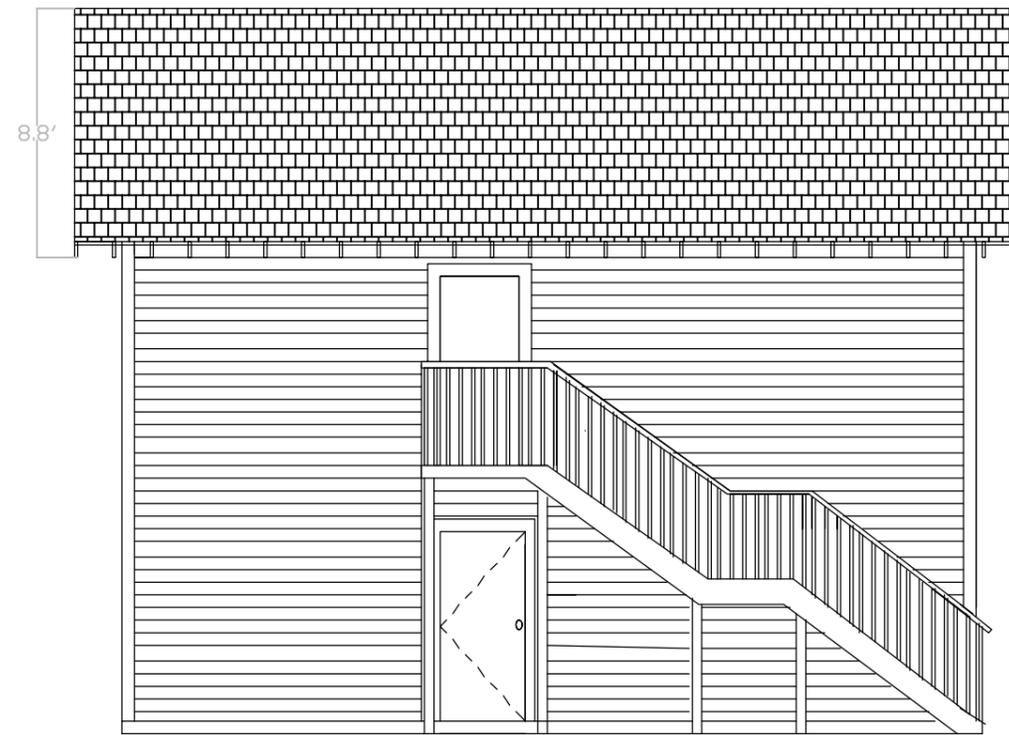


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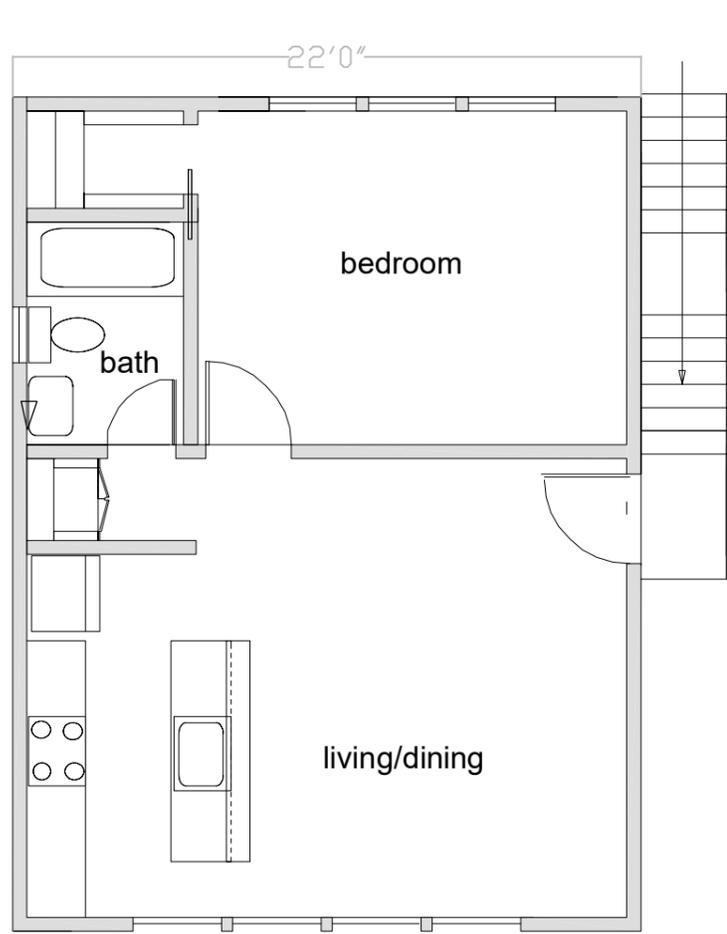
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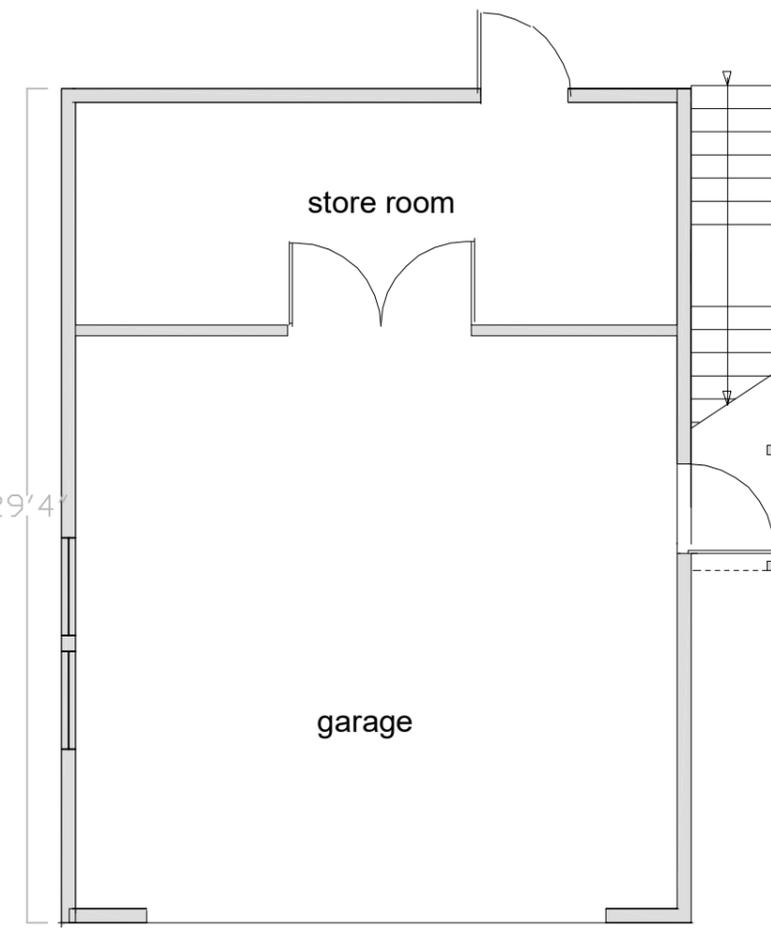
Front Elevation Facing OStrom



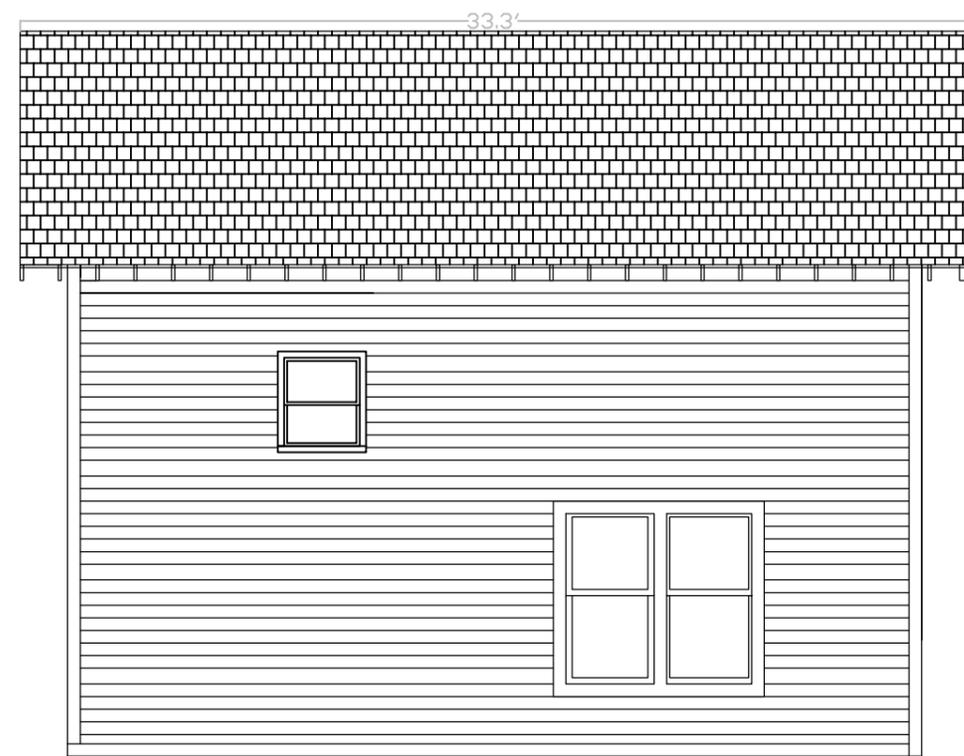
Side Elevation Facing rear of House



First Floor Accessory Building



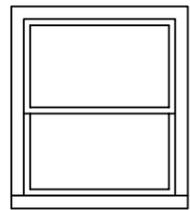
Ground Floor Accessory Building



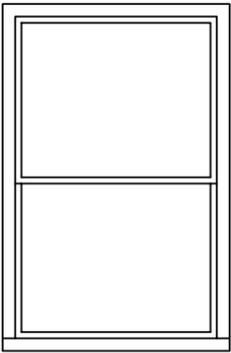
Side Elevation Facing Dewberry

Issued for Design App  
Accessory Building

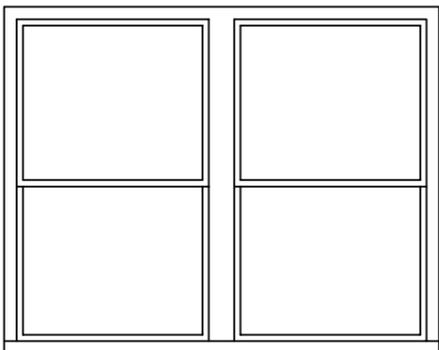
NC-103



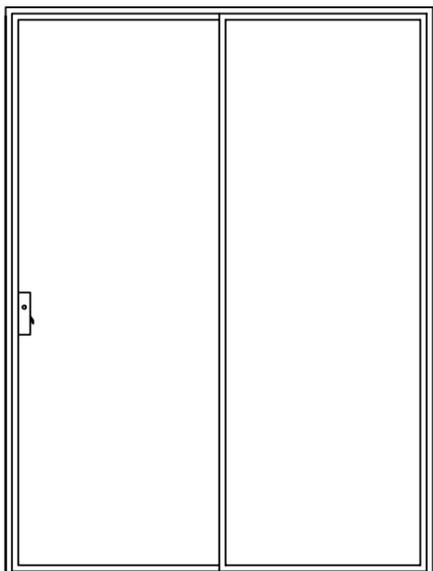
Bathroom Typ.



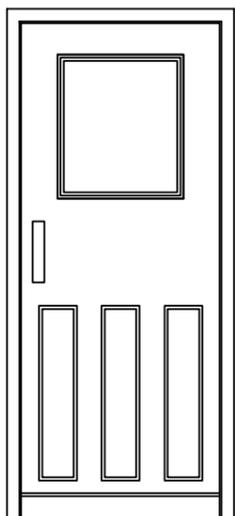
Double Hung Sash Typ.



Twin Double Hung Sash Typ.

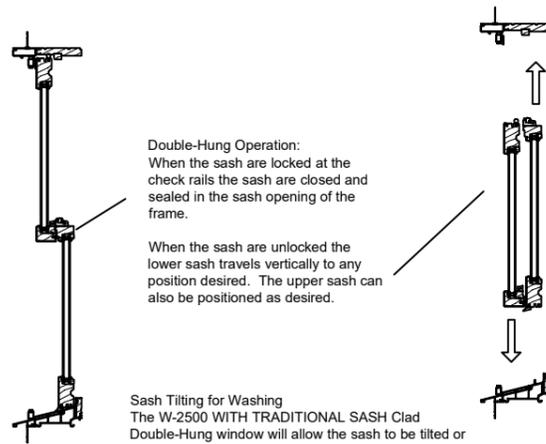


Sliding Glass door Typ.



Entrance door Typ.

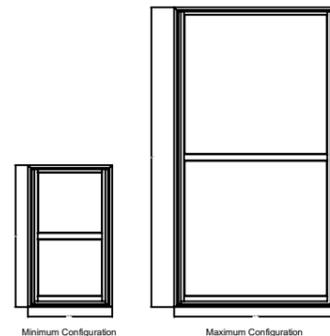
Existing Condition Windows to Match



Double-Hung Operation: When the sash are locked at the check rails the sash are closed and sealed in the sash opening of the frame.

When the sash are unlocked the lower sash travels vertically to any position desired. The upper sash can also be positioned as desired.

Sash Tilting for Washing The W-2500 WITH TRADITIONAL SASH Clad Double-Hung window will allow the sash to be tilted or removed for easy cleaning.



Minimum Configuration		Standard Width				Maximum Configuration	
21 3/8"	25 3/8"	29 3/8"	33 3/8"	37 3/8"	41 3/8"		
Standard Height		48"	60"	72"	84"		
Nominal Width		27 1/4"	31 1/4"	35 1/4"	39 1/4"		
Nominal Height		36 1/4"	48 1/4"	60 1/4"	72 1/4"		

Clear Opening Formulas

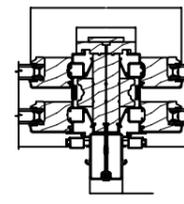
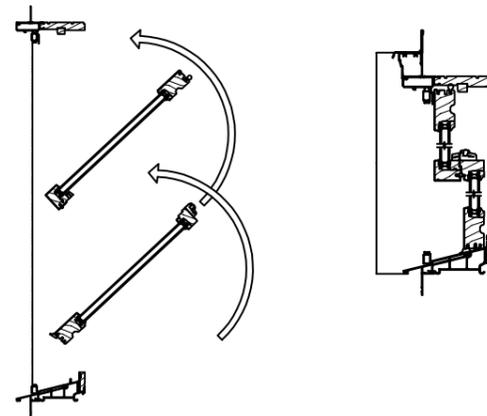
Vertical (Frame Height / 2) - 3 15/16"

Horizontal Frame Width - 3 9/16"

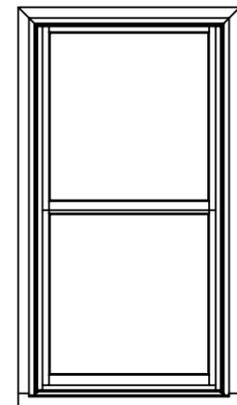
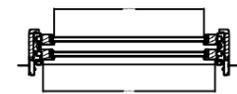
Daylight Opening Formulas

Vertical (Frame Height / 2) - 3 5/16"

Horizontal Daylight Opening = (Frame Width - 5 11/32")



Twin Operating Double-Hung



Standard Sash

We are working with JELD WEN (Roger Bianco) to match the existing windows at 205 Ostrom Drive as well as meeting the requirements set out by the HDRC

W-2500 WITH TRADITIONAL SASH WOOD CLAD-WOOD WINDOW DOUBLE-HUNG

Selected Paint Color : Snowfall White 2144-70 By Benjamin Moore

Roger Bianco Architectural Consultant "Creating Value Reducing Risk" JELD-WEN, Inc. Houston | San Antonio | Texas Gulf Coast (832)-418-7875



The Island River Road

205 Ostrom Drive SAN ANTONIO, TEXAS 78212

Design Team

Design	TS
Drawn	TS
Checked	SN
Date	May 2018 10:38:59 AM
Design Project No.	TABR
51785 Project No.	USA205

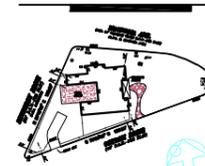
Approvals

CUSTOMER	Mai & Toby	Date
Mechanical Engineer		Date
Structural Engineer		Date
Electrical Engineer		Date
Engineering Manager		Date
Security Manager		Date
CSA		Date

Revisions

No.	Date	Description
01	May 2018	ISSUE FOR REVIEW
01	June 2018	Rev add window details

Registration



Bar Code

Sheet Title Number

Door & Window Schedule

WS-501

## *This Color for 205 Ostrom Drive*



Estate Gray†

Color Availability Map





**Our Land**

**#1 #1**

Two Car Garage immediate neighbor #1



**Our Land**

**#2 #2**

Two Car Garage immediate neighbor #2

We have included these slides as an objector said there was no two car garages in River Road. You can see from the three roads that border our property there are...

Another Two Car Garage  
immediate neighbor #3



Our Land

We have included these slides as an objector said there was no two car garages in River Road. You can see from the three roads that border our property there are Three shown with another right next to # 3

## View from Proposed Accessory Building

View from our Curb Cut of a double garage and a two story house in background.

Our Proposed Roof Height  
Main Building ~~26'9"~~ 24'2"  
Compared to this two story  
house, please note all the  
houses in these areas are higher  
than our island lot



Our Proposed Roof Height  
Main Building ~~26'9"~~ 24'2"  
Accessory building Roof Height  
~~24'9"~~ 24'2"



Approx.  
30ft

Please note this house is  
approx. 5' above our sites grade.  
As it sits on a hill that slopes up  
to the highway.

Our Proposed Roof Height  
Main Building ~~26'9"~~ 24'2"



Two Neighboring  
houses on Magnolia



## OHP Archaeology have no objections to demolition

### Archaeology Plan

In talks with Matthew Elverson of the OHP Archaeological dept. as well as forwarding the stipulation by HDRC, he has requested that my plan be limited to informing him 48hrs in advance of deep trench excavation on site.

He does not see that demolition is a concern but new trenching would need to be looked at.

Contact: [Matthew.elverson@sanantonio.gov](mailto:Matthew.elverson@sanantonio.gov) 21021042

By way of the conversation with Matthew Elverson the HDRC should note that we have fulfilled the plan and will act on it as shown above.

- HDRC Ask: ARCHAEOLOGY- Archaeological investigations may be required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning the archaeological investigation. The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.



205 Ostrom Drive  
Photo from Dewberry and  
Magnolia Intersection





5690 Easterling #4, San Antonio, Texas 78251  
TX 78212

REF: 205 Ostrom Drive, SA

**Mr. Stapleton,**

**Upon inspection of the building it is in our opinion that approximately 70-80% the flooring, window frames and other wood materials appear to be rotted or infested. The structural engineers' reports clearly confirm and steel my opinion that this building is rotten inside and out. When houses experience this many years of neglect, the wooden materials are subject to great scrutiny. When infested, they require tremendous chemical treatment to ensure we are not potentially contaminating another site. More important in this case is our inability to remove the materials as the rot destroys the materials during removal process, prior to even going on the trucks. What we can suggest upon review once the building is opened/demolished is the following, relating to somewhat solid wood that will be separated by your demo contractor.**

### Lumber and Other Wood Scraps:

Ground into wood chips and mulch that can be used for:

- Landscape mulch
- Tree root zone protection
- Erosion control
- Walk paths
- Soil amendment



**Plumbing fixtures and copper (though there looks to have at quite a bit removed or stolen) will be assessed for standard recycling procedures. Any fixtures found to be unique and or antique will be made available to sources for restoration in areas of historical value such as the Monta Visa area.**

**By our count we saw there are 20 wooden windows some hidden behind those "industrial looking shutters". Windows and associated hardware (weights, pulleys, etc) will be assessed for historical value. Again, those items will be made available to sources catering to historical preservation. Along with the metal shutters and other**

miscellaneous metals, nails are automatically separated from scrap wood during grinding. We will collect the separated nails and other discarded metals and deliver them to a metal recycler(s) for fair market value.

The roof looks like multiple layers placed on top of each other. With the wood rot and hence the sagging, we can suggest the following.

### Roofing Tiles and Asphalt Roofing Shingles:

Ground and used as:

- Aggregate
- Fill



Again, I'm sorry that I was unable to speak at your last hearing. I was fully prepared to go over any questions about the above plan proposals. I hope the committee reviews the proposed salvage/recycle plan and see's that we can be a service to the community as well as the environment. When you get another opportunity to go before the committee, with advanced notice, I will do my utmost to be present to answer any questions. As you paid the non-refundable retainer, I will not be charging you for the subsequent committee meeting attendance. I can certainly appreciate your dedication to this project and personally appreciate your commitment to recycle and salvage of all parts materials.

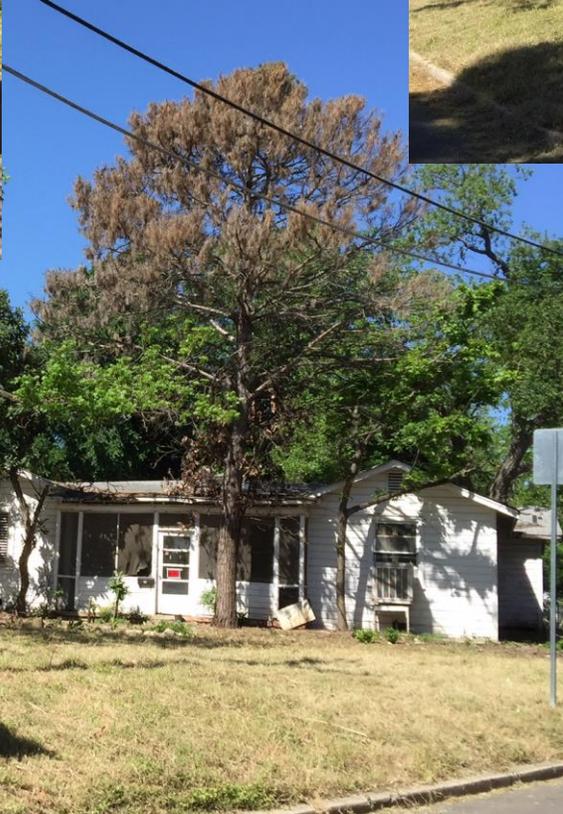
I'm not familiar with any HDRC recycle plan(s) on structures. Therefore can not elaborate on their concerns or what they wanted to see. Recycling, while a fantastic concept, cannot be realized on all materials. However, we will help you through this process!

Thank you for the retainer and we hope this is enough information for the amount of recycling we can do. We will obviously have a much better grasp of quantities and quality as we begin the process.

Sincerely,

John Cammack, President/Owner

**NOTE:** while in the garage area, there were a number of needles and evidence of feces (human and/or animal). Extra care should be taken when in proximity of this area.



205 Ostrom Drive Updated  
Pics of cleared brush from house

205 Ostrom Drive  
Photo from Magnolia &  
Lindell Intersection



205 Ostrom Drive  
Photo from Ostrom &  
Dewberry Intersection



205 Ostrom Drive  
Interior Photo's  
23 Years Abandoned



205 Ostrom Drive  
Interior Photo's  
23 Years Abandoned



**HardiePlank®**

Sleek and strong, HardiePlank® lap siding is not just our best-selling product – it's the most popular brand of siding in America.

With a full spectrum of colors and textures, homeowners can enjoy protection from the elements and the versatility to make their dream home a reality. From Victorians to Colonials, HardiePlank lap siding sets the standard in exterior cladding.

HardieTrim®  
5/4 x 3.5 in.  
Arctic White

HardiePlank®  
6.25 in. Smooth  
Arctic White

A classic look for  
**THE HOME OF THEIR DREAMS.**

### SELECT CEDARMILL<sup>®\*</sup>

Woodstock Brown



### SMOOTH\*

Countryside Red



<b>Thickness</b>	5/16 in.					
<b>Length</b>	12 ft. planks					
<b>Width</b>	5.25 in.	6.25 in.	7.25 in.	8.25 in.	9.25 in.	12 in.
<b>Exposure</b>	4 in.	5 in.	6 in.	7 in.	8 in.	10.75 in.
<b>ColorPlus Pcs./Pallet</b>	324	280	252	210		
<b>Prime Pcs./Pallet</b>	360	308	252	230	190	152
<b>Pcs./Sq.</b>	25.0	20.0	16.7	14.3	12.5	9.3

### CUSTOM BEADED CEDARMILL<sup>®</sup>

Light Mist



### CUSTOM BEADED SMOOTH

Heathered Moss



<b>Thickness</b>	5/16 in.					
<b>Length</b>	12 ft. planks					
<b>Width</b>	8.25 in.					
<b>Exposure</b>	7 in.					
<b>ColorPlus Pcs./Pallet</b>	210					
<b>Prime Pcs./Pallet</b>	240					
<b>Pcs./Sq.</b>	14.3					

### CUSTOM COLONIAL ROUGHSAWN<sup>®</sup>

Mountain Sage



### CUSTOM COLONIAL SMOOTH<sup>®</sup>

Timber Bark



<b>Thickness</b>	5/16 in.					
<b>Length</b>	12 ft. planks					
<b>Width</b>	8 in.					
<b>Exposure</b>	6.75 in.					
<b>ColorPlus Pcs./Pallet</b>	216					
<b>Prime Pcs./Pallet</b>	240					
<b>Pcs./Sq.</b>	14.9					

\*6.25 in. and 8.25 in. also available in coastal colors. 9.25 in. and 12 in. only available primed.



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**Section Details**

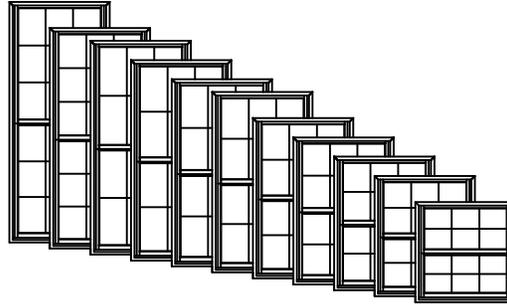
Operator:	
Vertical.....	12
Horizontal.....	13
In-Sash Picture/Transom:	
Vertical.....	14
Horizontal.....	15



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GENERAL INFORMATION

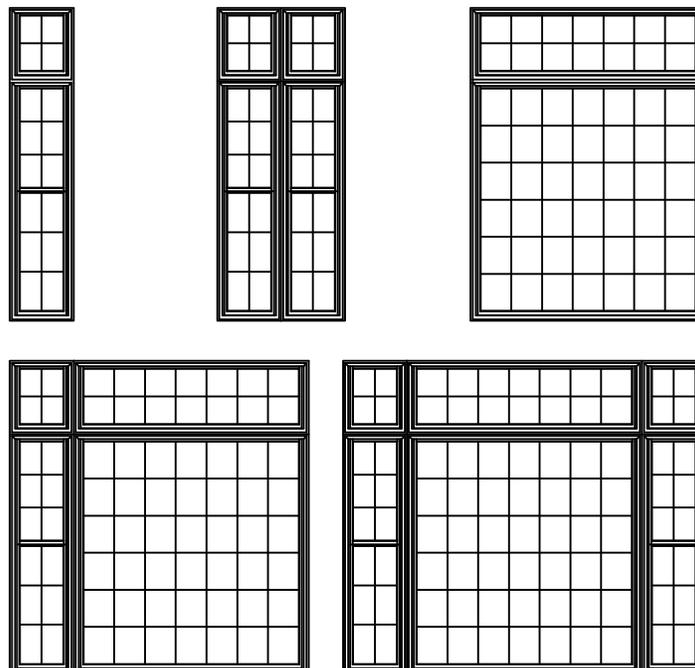
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W-2500 Clad Double-Hung windows feature fully operating upper and lower sash. Counterbalancing is achieved with helical spring extension systems hidden in weatherable PVC jamb liners. Operating units are supplied with cam-type sash locks installed. There are several hardware finish options. Refer to the Specifications for available finish options.

### Multiple Assemblies

W-2500 Clad Double-Hung windows may be mulled beside other clad double-hung or clad picture windows, or below clad transom windows, to fulfill a wide variety of needs.

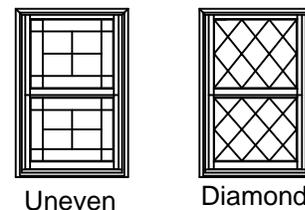
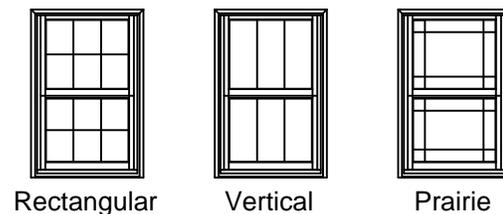


## LITE CUT INFORMATION

W-2500 Clad Double-Hung windows are available with removable grilles in 7/8" Full Surround or Beaded SDL only, 5/8" flat or 23/32" contour Grilles Between the Glass (GBG) and Simulated Divided Lites (SDL). Standard lite cuts are rectangular.

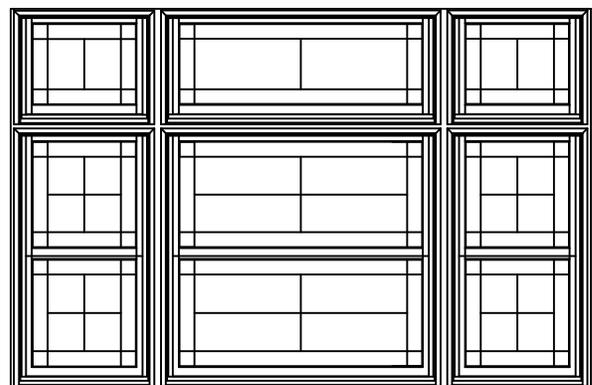
### Lite Cut Options

Special lite cut patterns can include a wide variety of straight line and radius patterns. The illustrations shown here represent just a few of the possibilities. Rectangular, horizontal, vertical and Prairie lite patterns are available in all standard size clad double-hung windows. Uneven, diamond, radius and Gothic lite cuts are available, subject to approval. Approvals are based on the ability to fulfill the design requirement while maintaining the construction integrity of the finished product.



### Bar Alignment

Alignment of divided lite muntin bars from one window to the next is often required by fine architectural design. Wood grilles, GBG's, and Simulated Divided Lites may be specified with muntin bars aligned.





UNIT SIZING, ROUGH OPENINGS & MASONRY OPENINGS

General Notes:

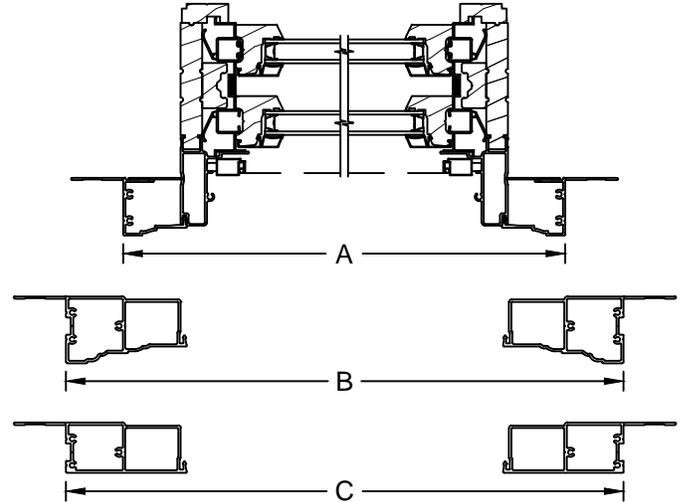
Unit size is always the maximum size of the window with or without trim and does not include nail fin.

Masonry Opening:

Masonry opening is always 1/2" over (height and width) the unit size or the outside of the trim of the window.

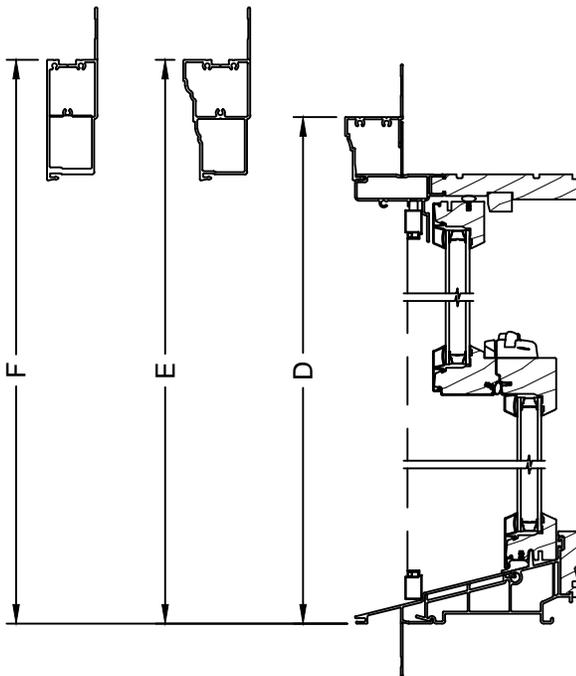
Rough Opening:

Rough opening is always 3/4" over frame size of the window.



Horizontal exterior trim offerings below are the same with or without sill nose.

Horizontal Sections		
Trim Option	Dimension	Frame +
Brickmould	A	3"
Adams Casing	B	6"
3 1/2" Flat Casing	C	6"



Vertical exterior trim offerings without sill nose. Trim on 3 sides.

Vertical Sections (w/o Sill Nose)		
Trim Option	Dimension	Frame +
Brickmould	D	3"
Adams Casing	E	6"
3 1/2" Flat Casing	F	6"



**OPENING FORMULAS**

Clear Opening Formulas:

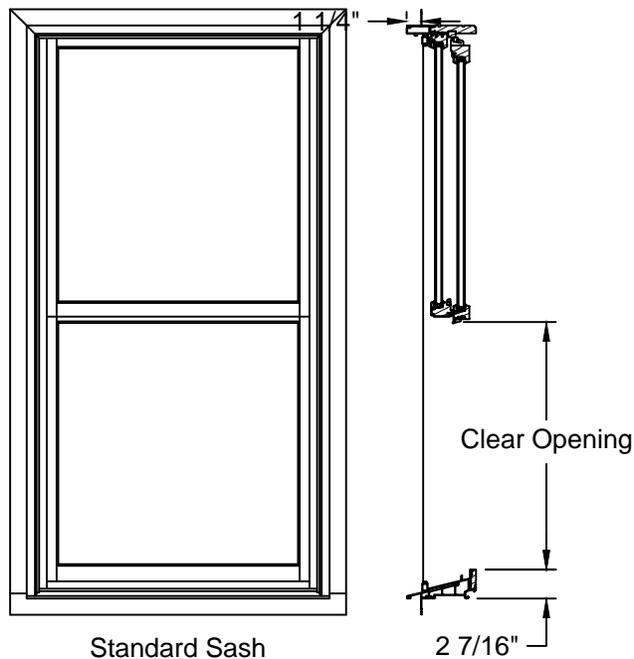
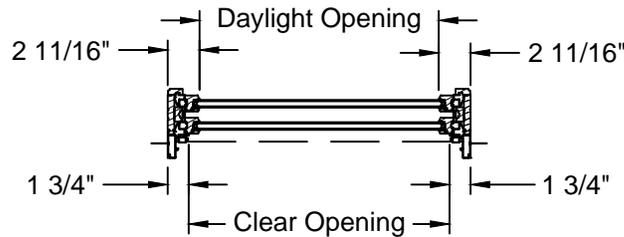
Vertical (Standard)  
Clear Opening = (Frame Height / 2) - 3 15/16"

Equal Cap Sizes  
Clear Opening = Frame Width - 3 9/16"

Daylight Opening Formulas:

Vertical  
Daylight Opening = (Frame Height / 2) - 3 5/16"

Horizontal  
Daylight Opening = (Frame Width - 5 11/32")

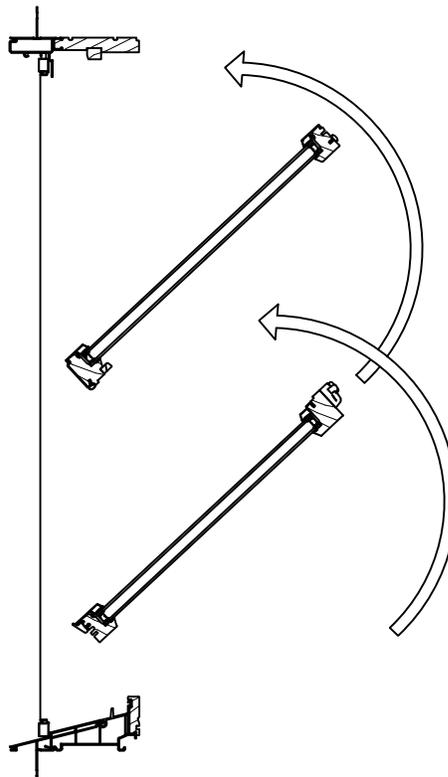
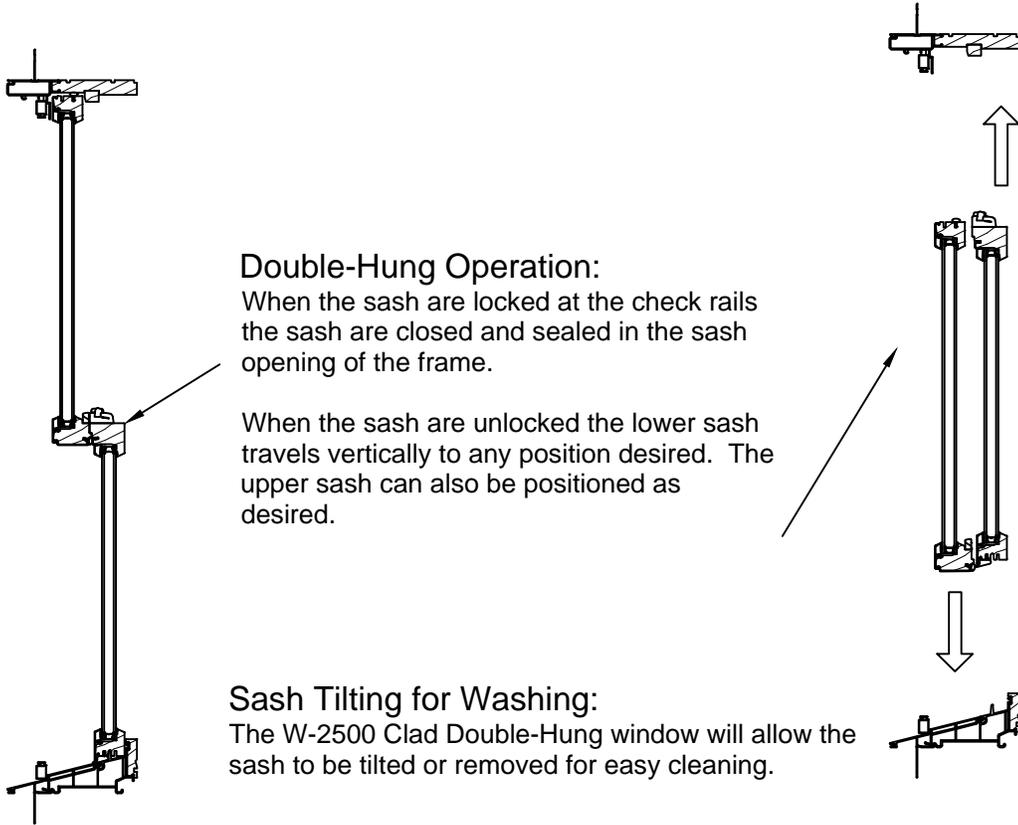


**Standard Sash Options**

Consult the Design Data Tables for clear opening information. For dimensional units, contact Jeld-Wen - Bend Window Division, Technical Services Department for clear opening information.



**OPERATION & SASH TILTING**

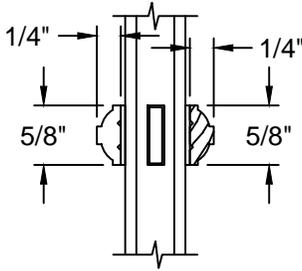




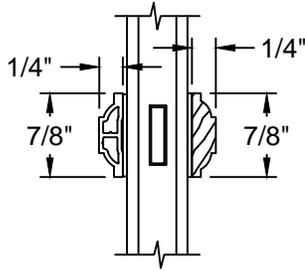
SDL & GBG OPTIONS

Exterior ← → Interior

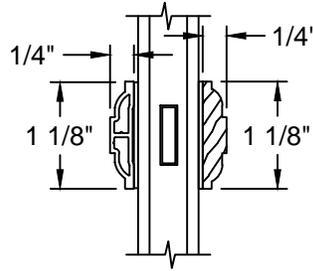
SDL Options



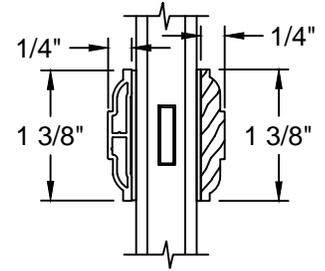
5/8" Bead SDL



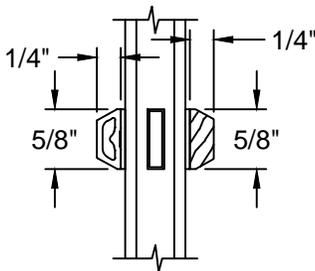
7/8" Bead SDL



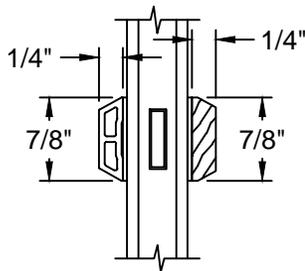
1 1/8" Bead SDL



1 3/8" Bead SDL

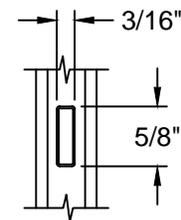


5/8" Putty SDL

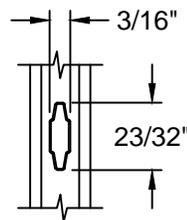


7/8" Putty SDL

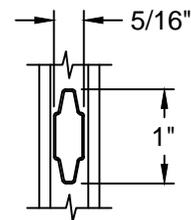
GBG Options



5/8" Grille



23/32" Grille

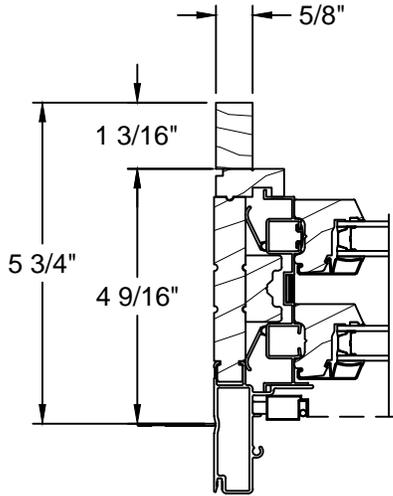


1" Grille

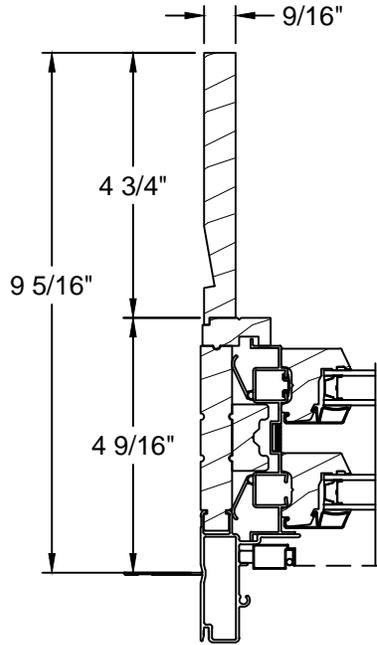
Note: Various Combinations of the SDL Bars Shown are Available



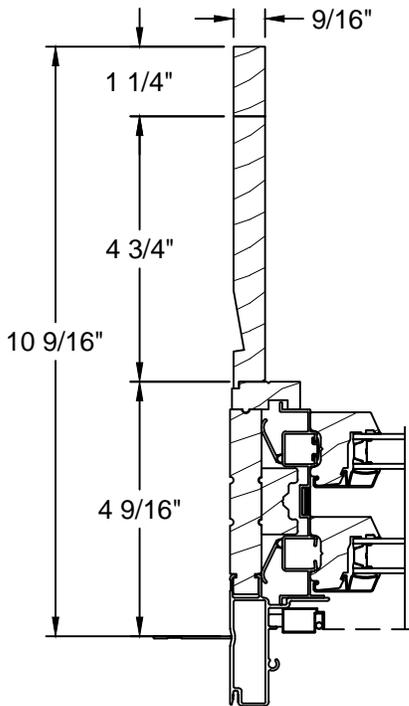
JAMB EXTENDER & PREP FOR STOOL OPTIONS



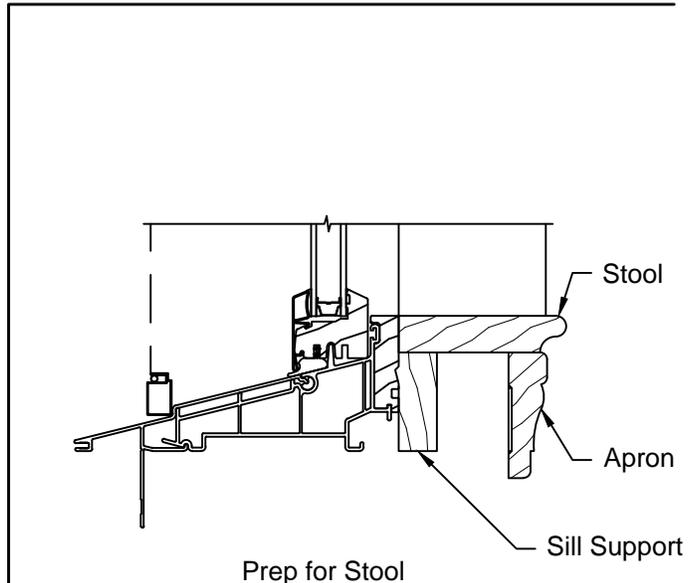
5 3/4" Wall  
4/4 (21/32") Jamb Thickness  
(Option)



9 5/16" Wall  
Max 1-PC  
Jamb Extender



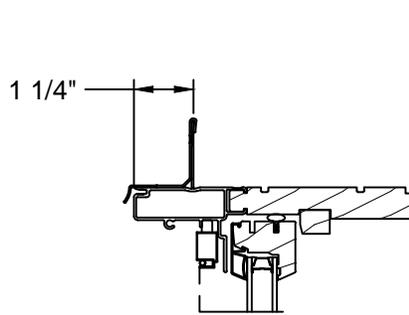
10 9/16" Wall  
Max Wall Depth



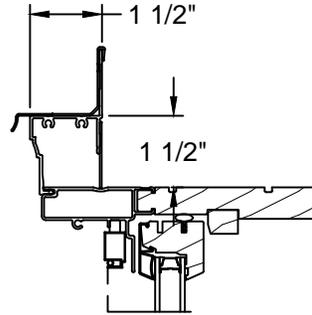
Note: Stool, apron, and sill support are applied by trim carpenter after window is installed and are not provided by JELD-WEN. Unit is shipped without sill jamb extenders.



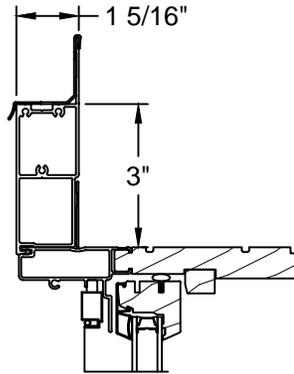
TRIM OPTIONS



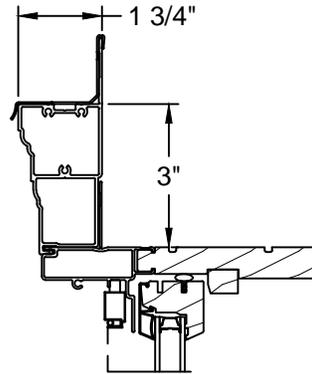
Standard



Brickmould

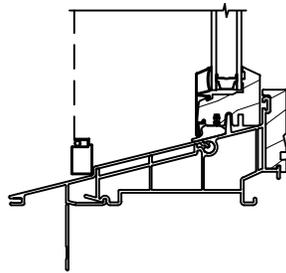


3 1/2"  
Flat Casing

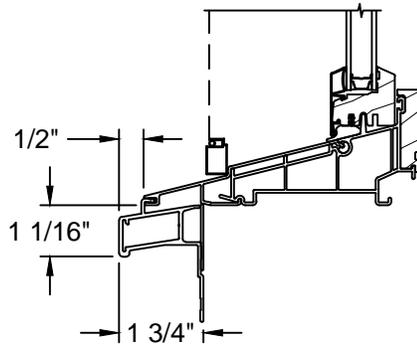


Adams  
Casing

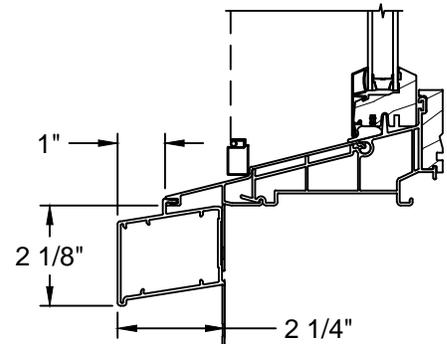
Sill Nose Options



Sill with Nail Fin



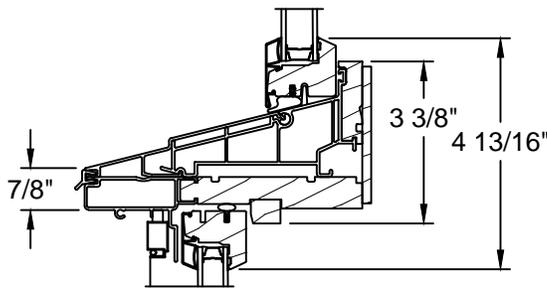
Sill with Standard Casing



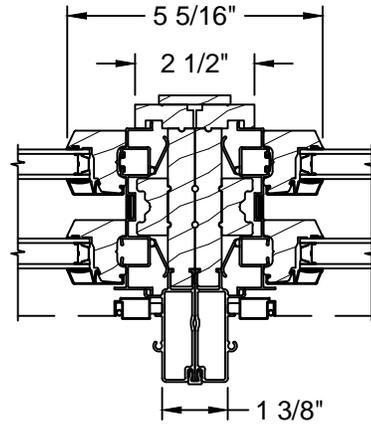
Sill with 2" Sill Nose Casing



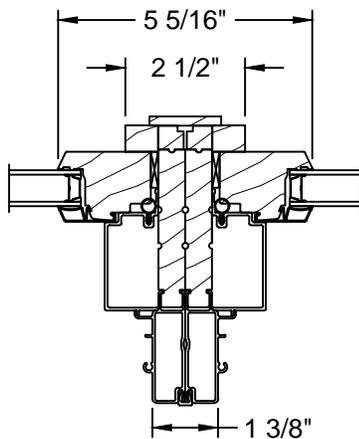
MULLION OPTIONS



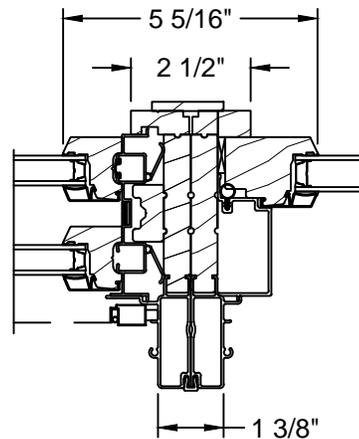
Operating Double-Hung with In-Sash  
Picture/Transom



Twin Operating Double-Hung



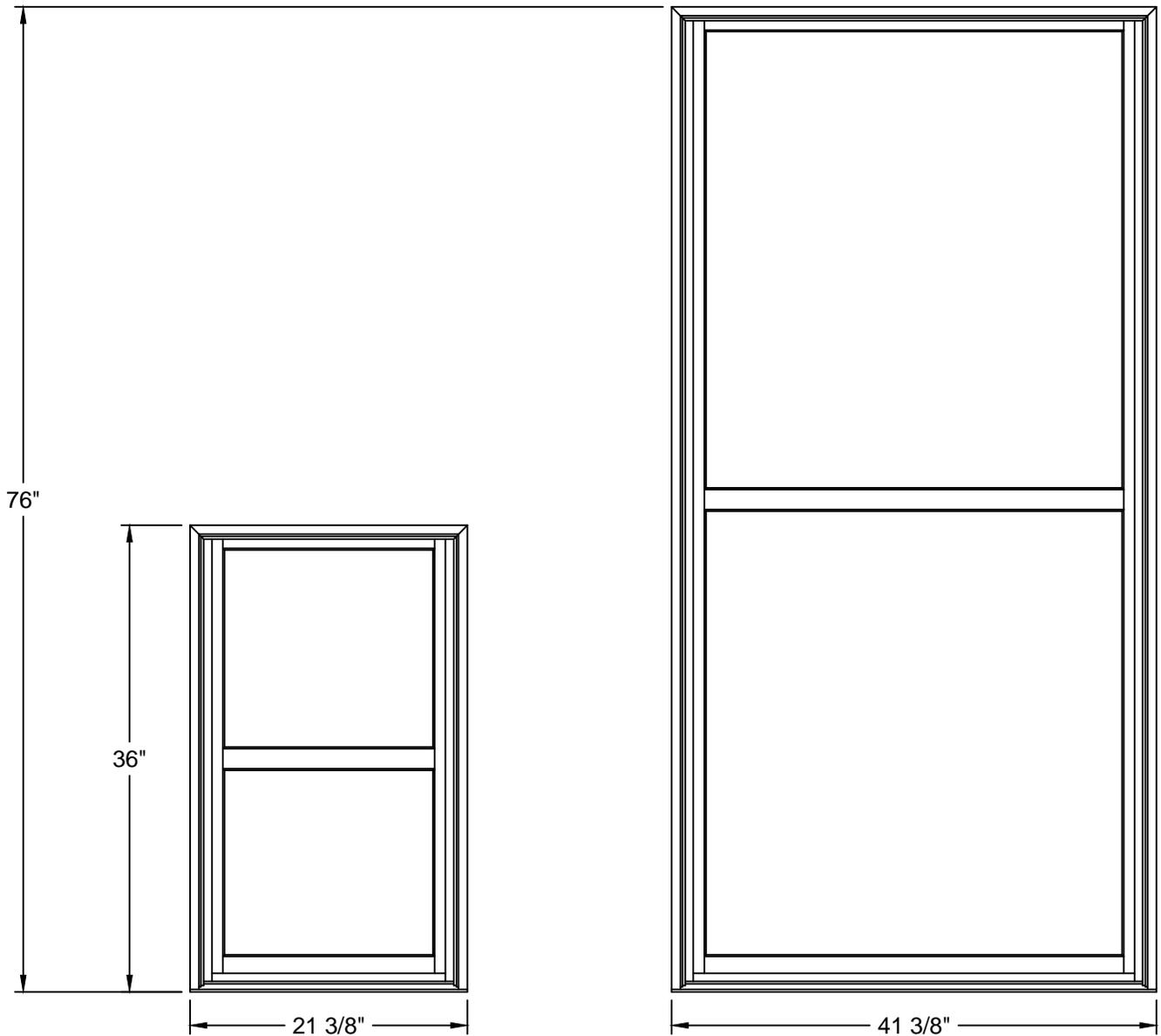
In-Sash Picture/Transom Beside In-Sash  
Picture/Transom



Operating Double-Hung Beside In-Sash  
Picture/Transom



MIN-MAX SIZING



Standard Widths For The W-2500 Clad Double-Hung Window Unit:  
21 3/8", 25 3/8", 29 3/8", 33 3/8", 37 3/8", 41 3/8".

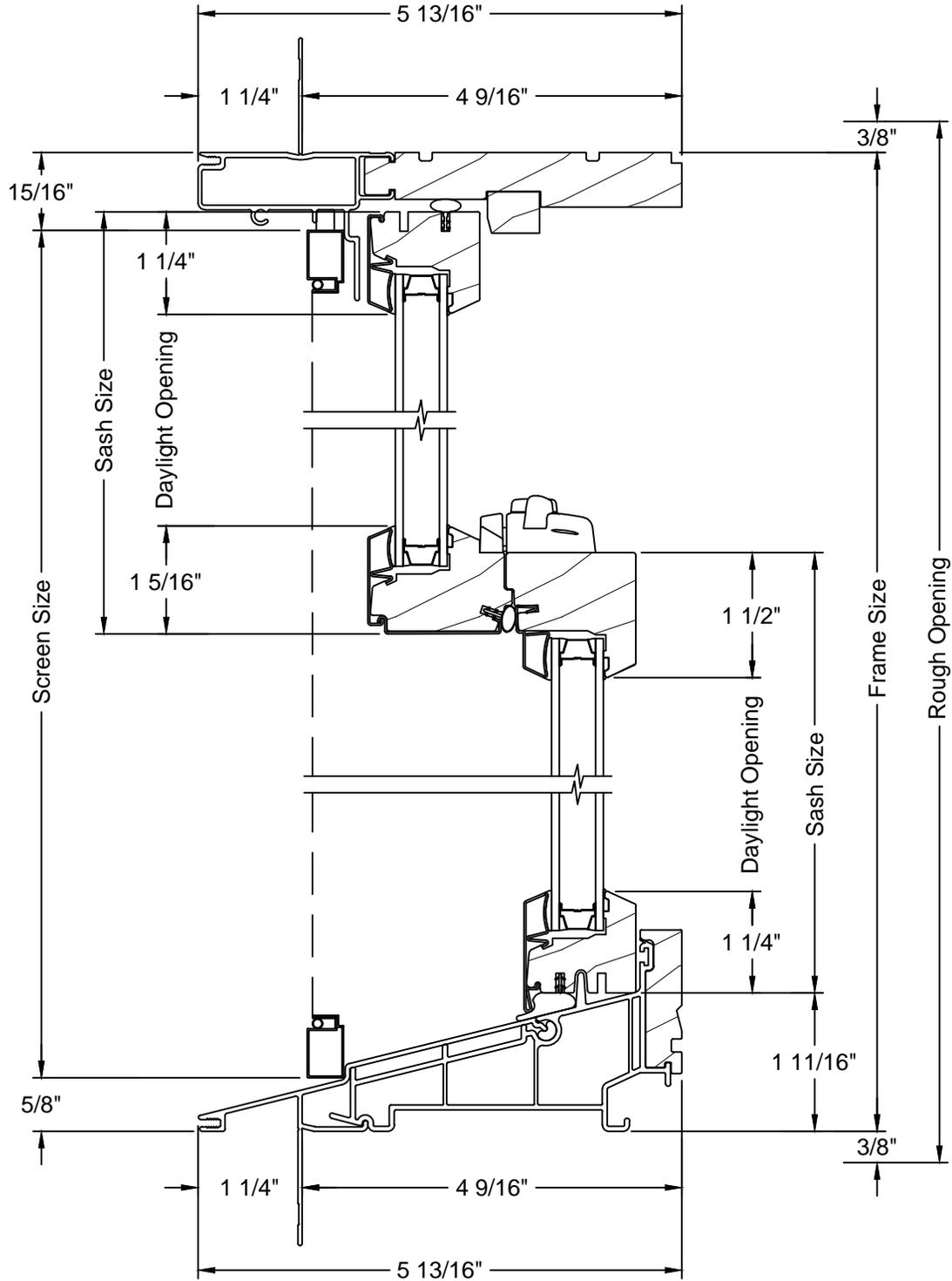
Standard Heights For The W-2500 Clad Double-Hung Window Unit:  
36", 40", 48", 52", 56", 60", 64", 68", 72", 76".

Nominal Widths For The W-2500 Clad Double-Hung Window Unit:  
19 1/4", 23 1/4", 27 1/4", 31 1/4", 35 1/4".

Nominal Heights For The W-2500 Clad Double-Hung Window Unit:  
36 1/4", 41 1/4", 47 1/4", 53 1/4", 59 1/4", 65 1/4", 71 1/4".

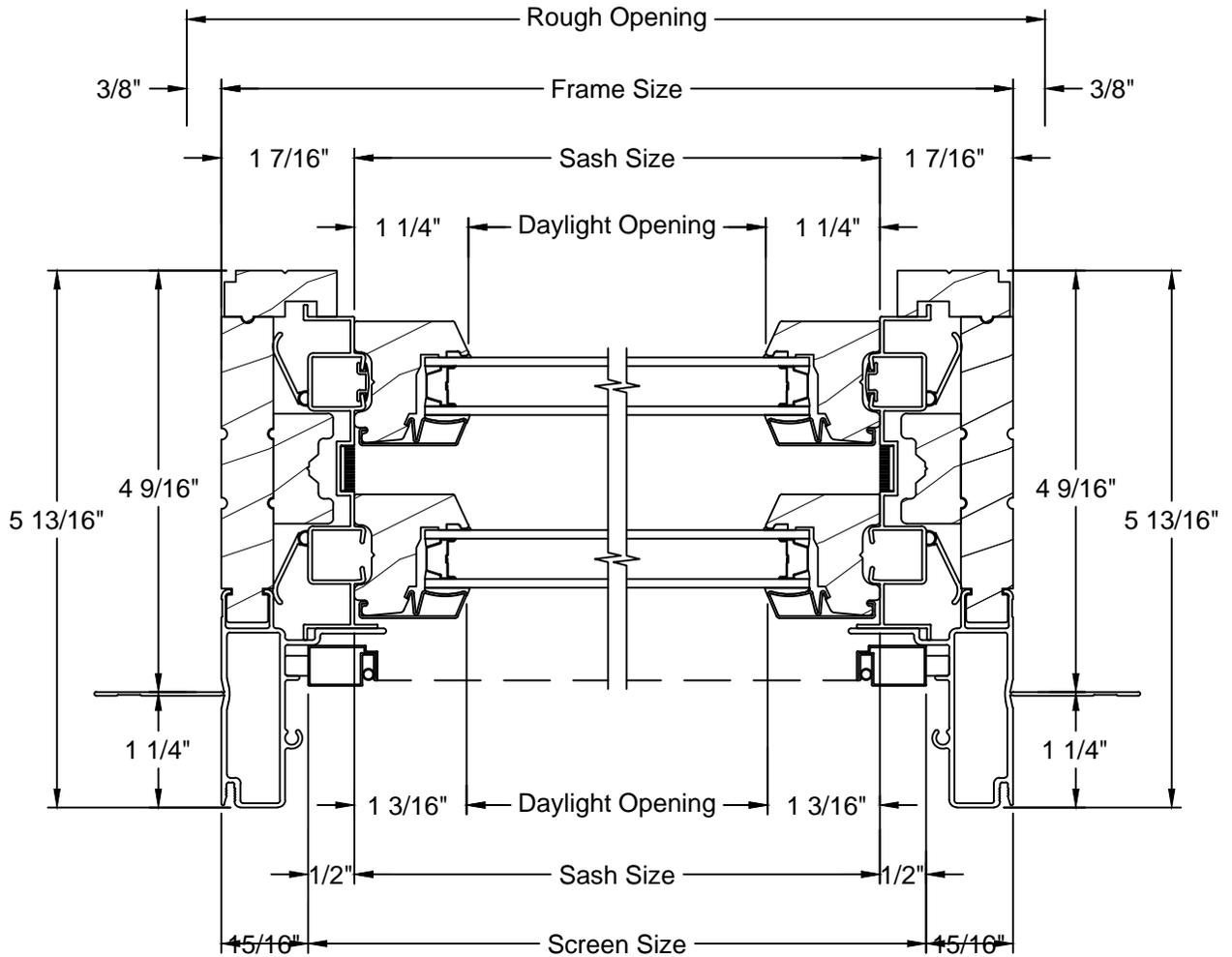


OPERATOR - VERTICAL SECTION



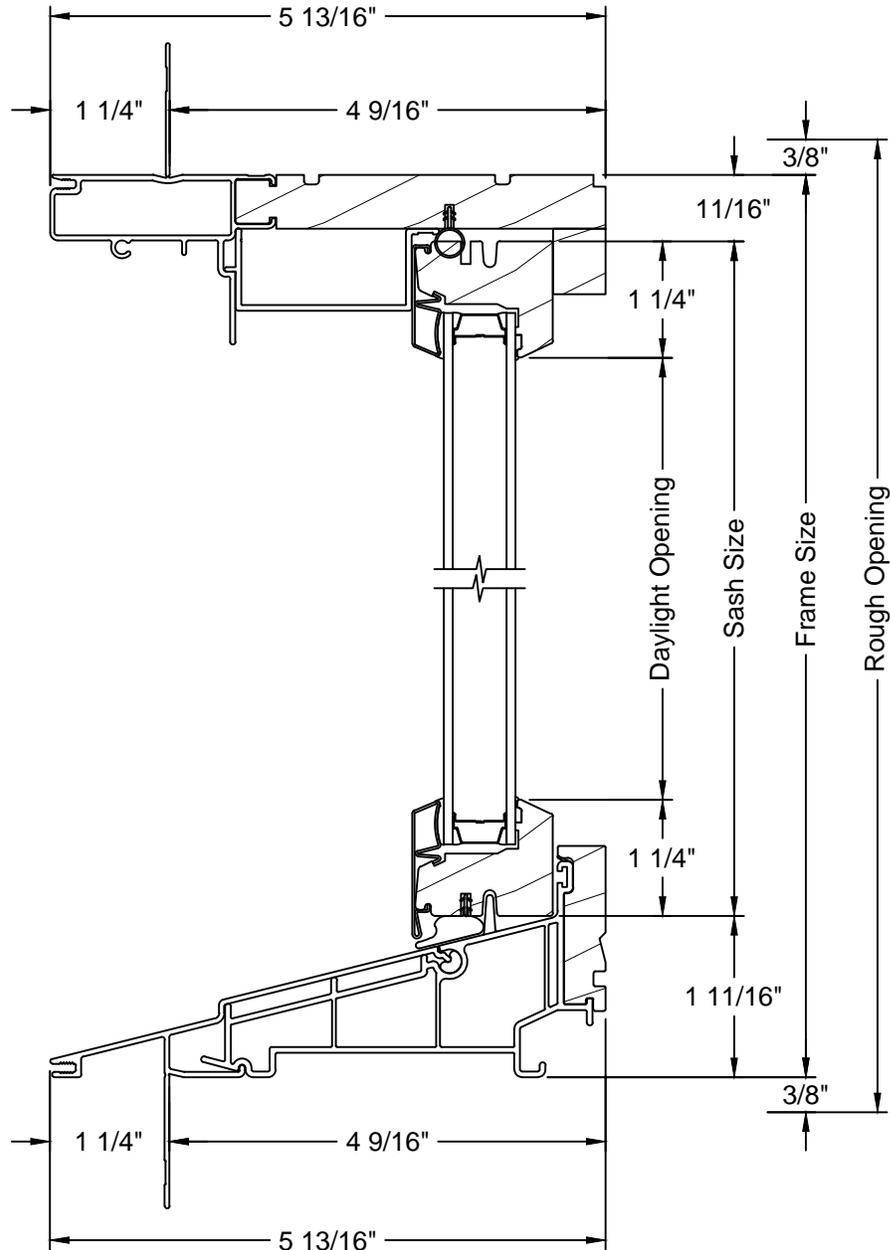


OPERATOR - HORIZONTAL SECTION



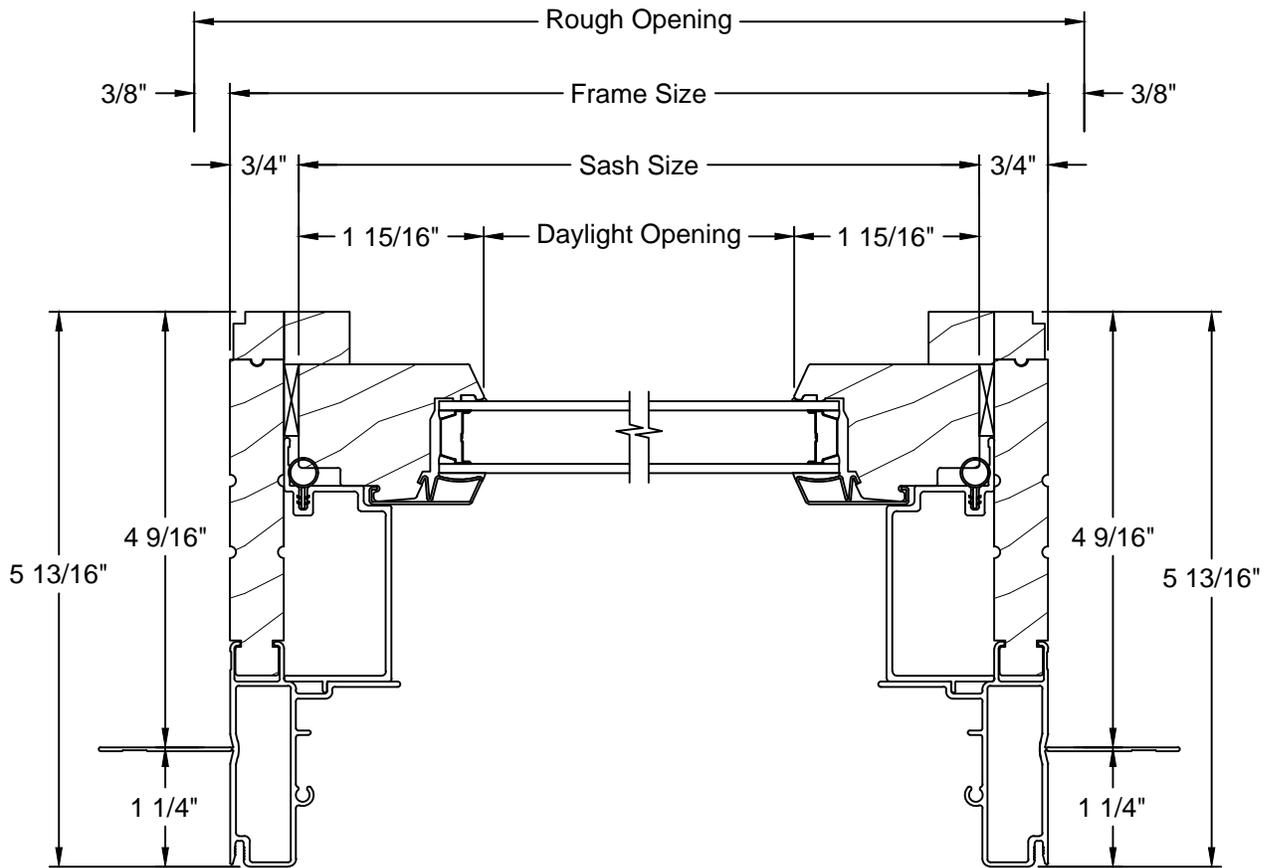


IN-SASH PICTURE/TRANSOM - VERTICAL SECTION





IN-SASH PICTURE/TRANSOM - HORIZONTAL SECTION

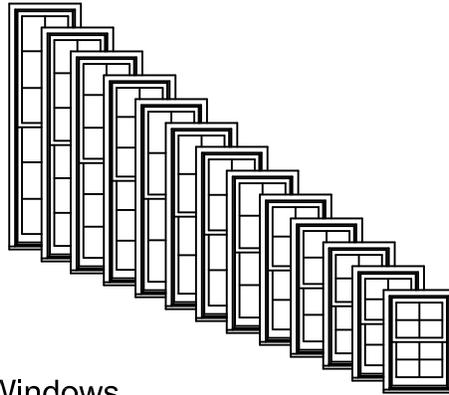






GENERAL INFORMATION

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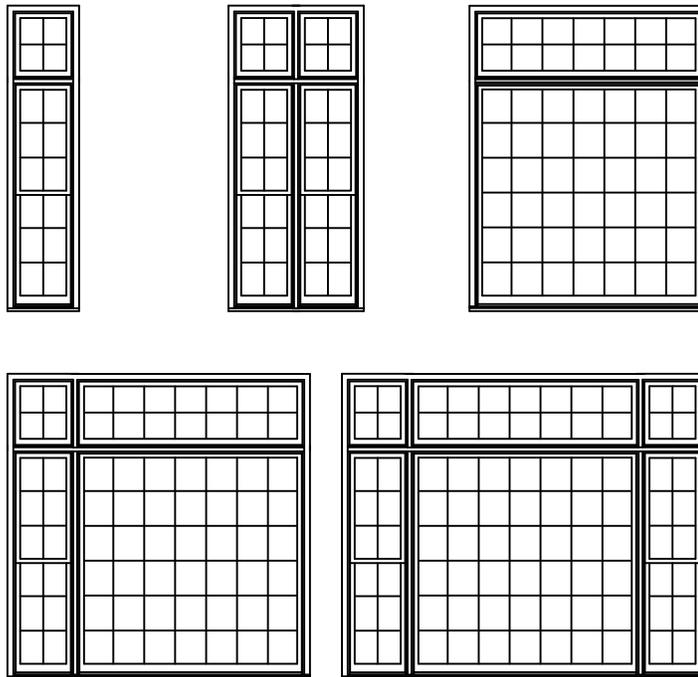
**Dimensional Windows**

W-2500 Wood Double-Hung windows may be specified as "dimensional", by adjusting the desired rough opening width or height in 1/8" increments from standard.

W-2500 Wood Double-Hung windows feature fully operating upper and lower sash. Counterbalancing is achieved with compression spring extension systems hidden in weatherable PVC jamb liners. Operating units are supplied with cam-type sash locks installed. There are several hardware finish options. Refer to the Specifications for available finish options.

**Multiple Assemblies**

W-2500 Wood Double-Hung windows may be mullied beside other wood double-hungs or wood picture windows, or below wood transom windows, to fulfill a wide variety of needs. Factory assembled mulls are limited in height (100"), width (114"), and a total area (75 square feet).

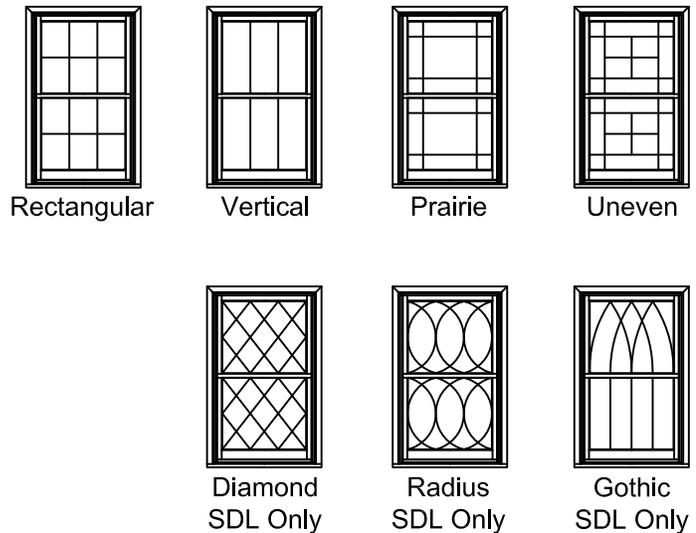


## LITE CUT INFORMATION

W-2500 Wood Double-Hung windows are available with removable grilles in 7/8", 1-1/8" and 1-3/8" widths, grilles between glass (GBG), and Simulated Divided Lites. Standard lite cuts are rectangular, and conform to the layouts noted in the charts on the next page. To use the chart, refer to the appropriate table by the type of window and type of bars or grilles the section drawings illustrate. Then simply cross reference the frame Height and Width to determine the standard lite cut.

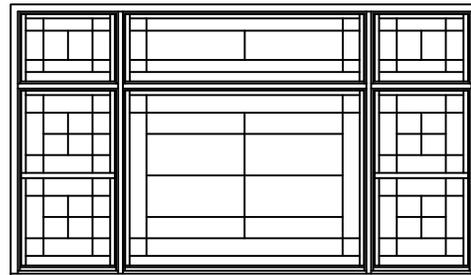
### Lite Cut Options

Special lite cut patterns can include a wide variety of straight line and radius patterns. The illustrations shown here represent just a few of the possibilities. Rectangular, horizontal, vertical and Prairie lite patterns are available in all standard size Wood Double-Hung windows. Uneven, diamond, radius and Gothic lite cuts are available, subject to approval. Approvals are based on the ability to fulfill the design requirement while maintaining the construction integrity of the finished product.

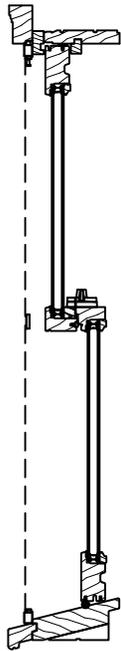


### Bar Alignment

Alignment of divided lite muntin bars from one window to the next is often required by fine architectural design. Wood grilles, GBG's, and Simulated Divided Lites may be specified with muntin bars aligned.

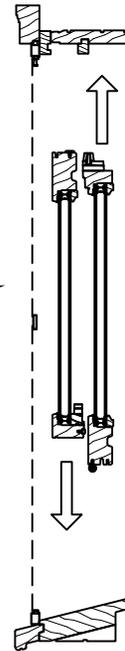


OPERATION & SASH TILTING



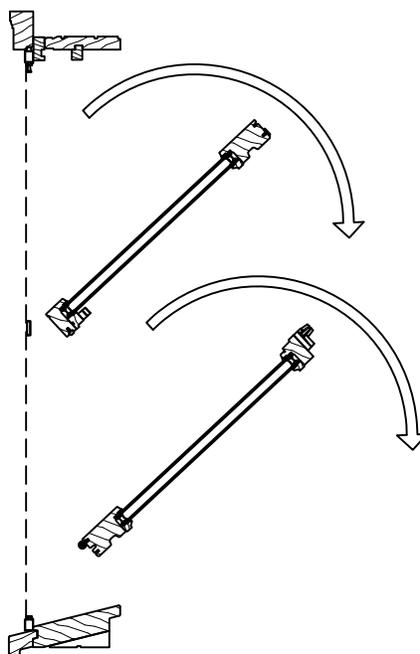
**Double-Hung Operation:**  
When the sash are locked at the check rails the sash are closed and sealed in the sash opening of the frame.

When the sash are unlocked the lower sash travels vertically to any position desired. The upper sash can also be positioned as desired.



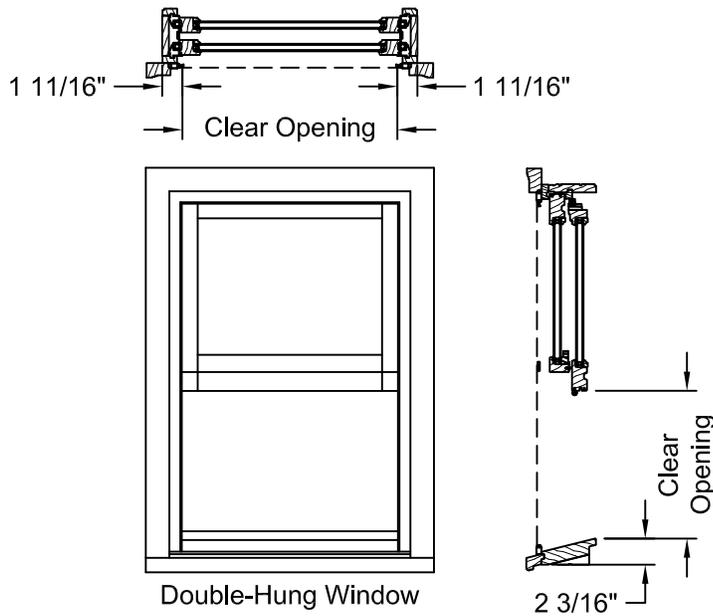
**Sash Tilting for Washing**

The Tradition Plus Double-Hung window will allow the sash to be tilted or removed for easy cleaning.





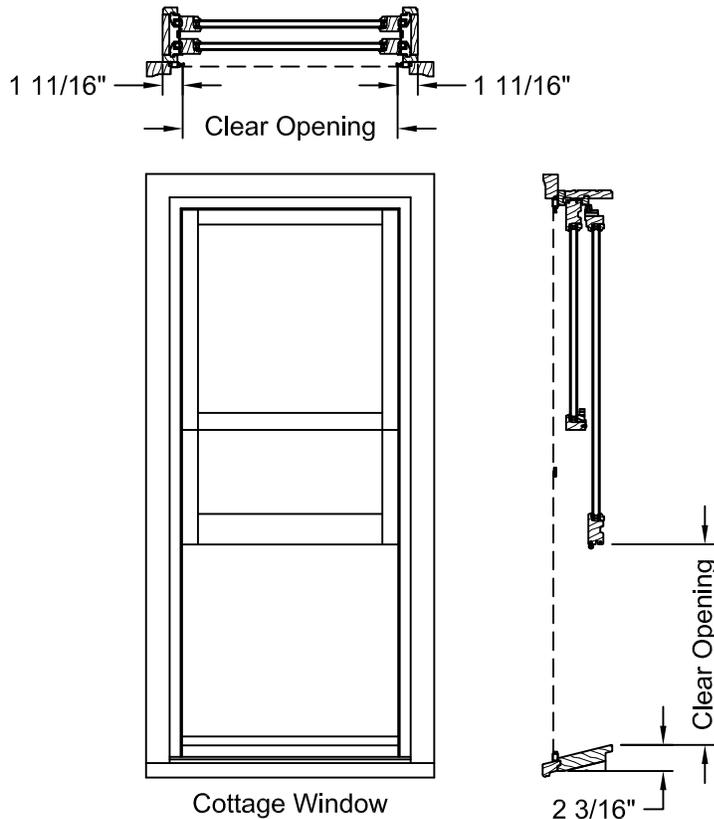
CLEAR OPENING LAYOUT



Double-Hung  
Clear Opening Formula

Interior Glazed Sash  
Vertical  
(Frame Height / 2) - 4 13/16" = Clear Opening

Horizontal  
Frame - 3 9/32" = Clear Opening



**Cottage & Reverse Cottage**

Consult the Design Data Tables for clear opening information. For dimensional units, contact Jeld-Wen - Bend Window Division Technical Services Department for Clear Opening information.

UNIT SIZING & MASONRY OPENINGS

**General Notes:**

Unit size is always the maximum size of the window with or without trim.

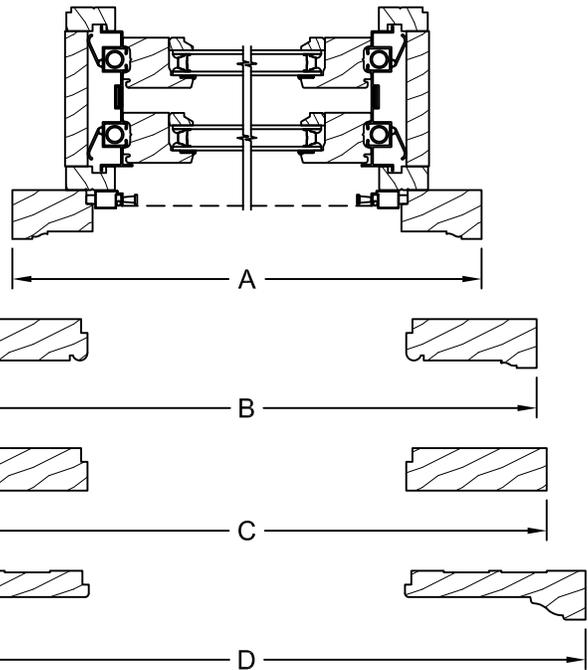
**Masonry Opening:**

Masonry opening is 1/2" over (height and width) the unit size or the outside of the trim of the window.

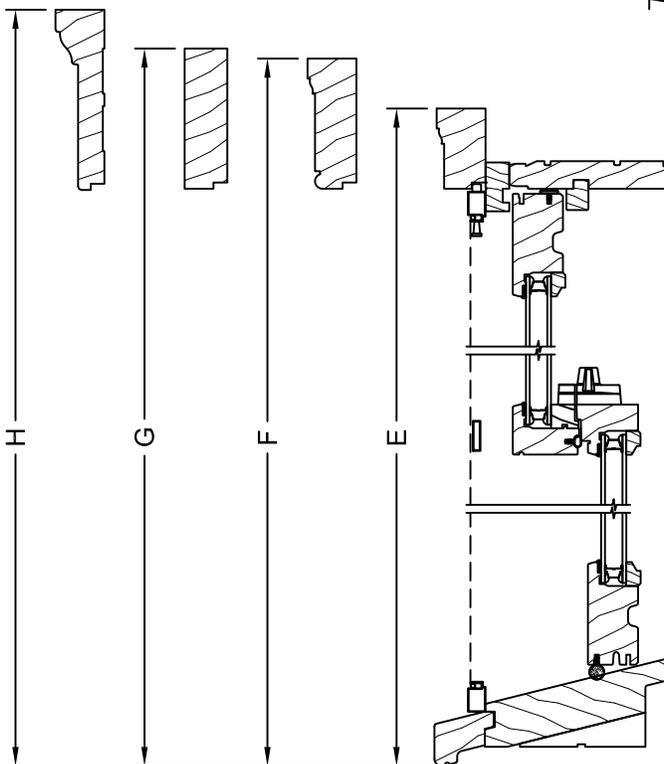
**Rough Opening:**

Rough opening is always 3/4" over frame size of the window.

Horizontal exterior trim offerings below are the same with or without sill nose.



Horizontal Sections		
	D	
		2
		2
	D	



Vertical exterior trim offerings with standard sill nosing. Trim on 3 sides.

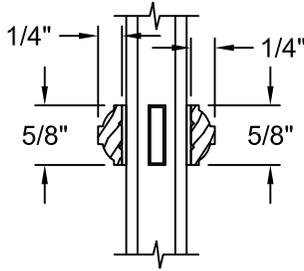
Vertical Sections (w/ Sill Nose)		
	D	
		2
		2
		4



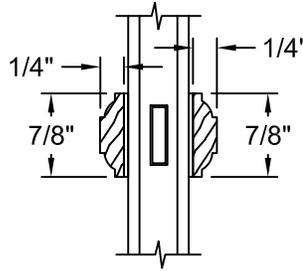
SDL & GBG OPTIONS

Exterior ← → Interior

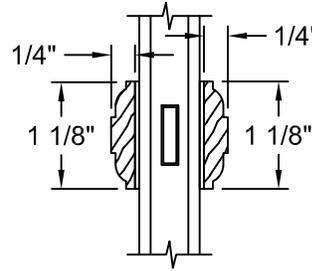
SDL Options



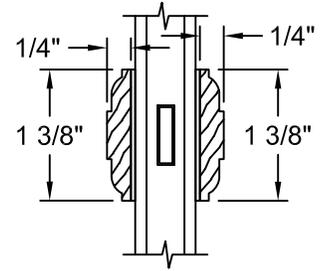
5/8" Bead SDL



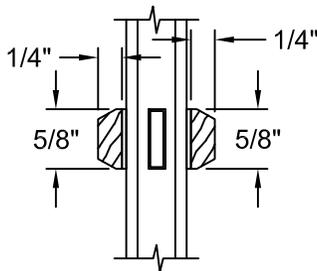
7/8" Bead SDL



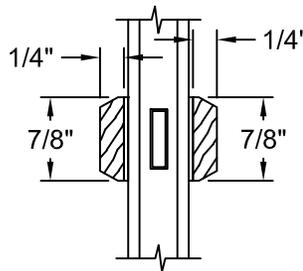
1 1/8" Bead SDL



1 3/8" Bead SDL

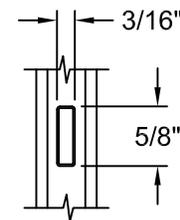


5/8" Putty SDL

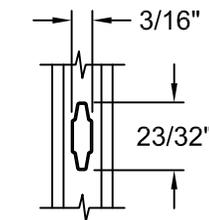


7/8" Putty SDL

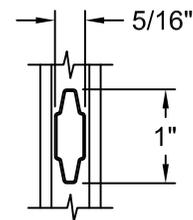
GBG Options



5/8" Grille



23/32" Grille



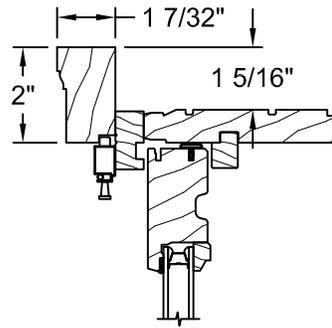
1" Grille

Note: Various Combinations of the SDL Bars Shown are Available

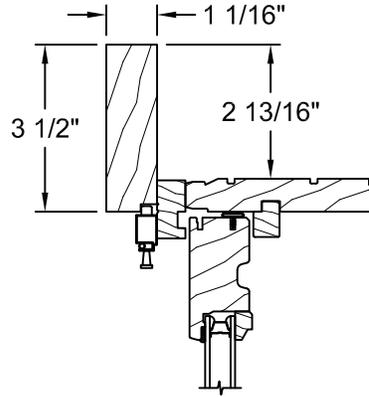


TRIM OPTIONS

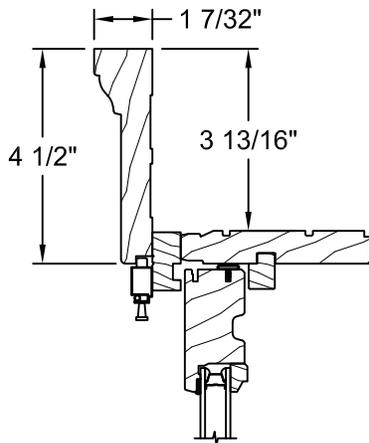
Exterior Trim



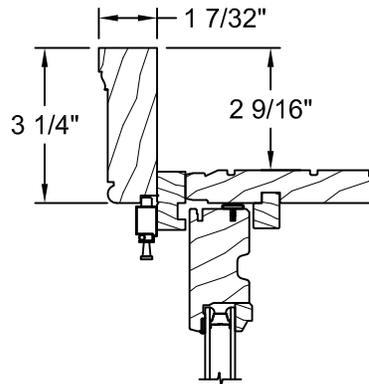
Brickmould



3 1/2" Flat Casing

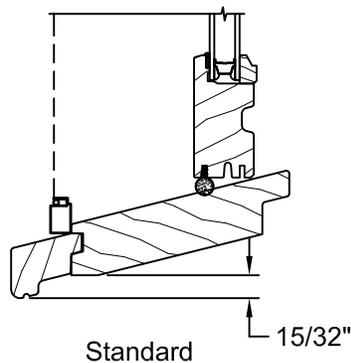


1 X 4 Backband

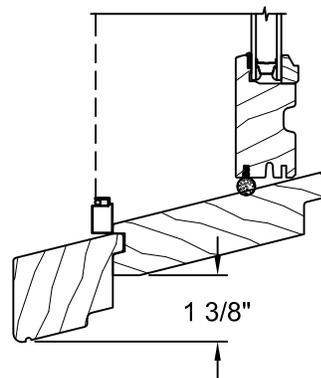


Williamsburg

Sill Options



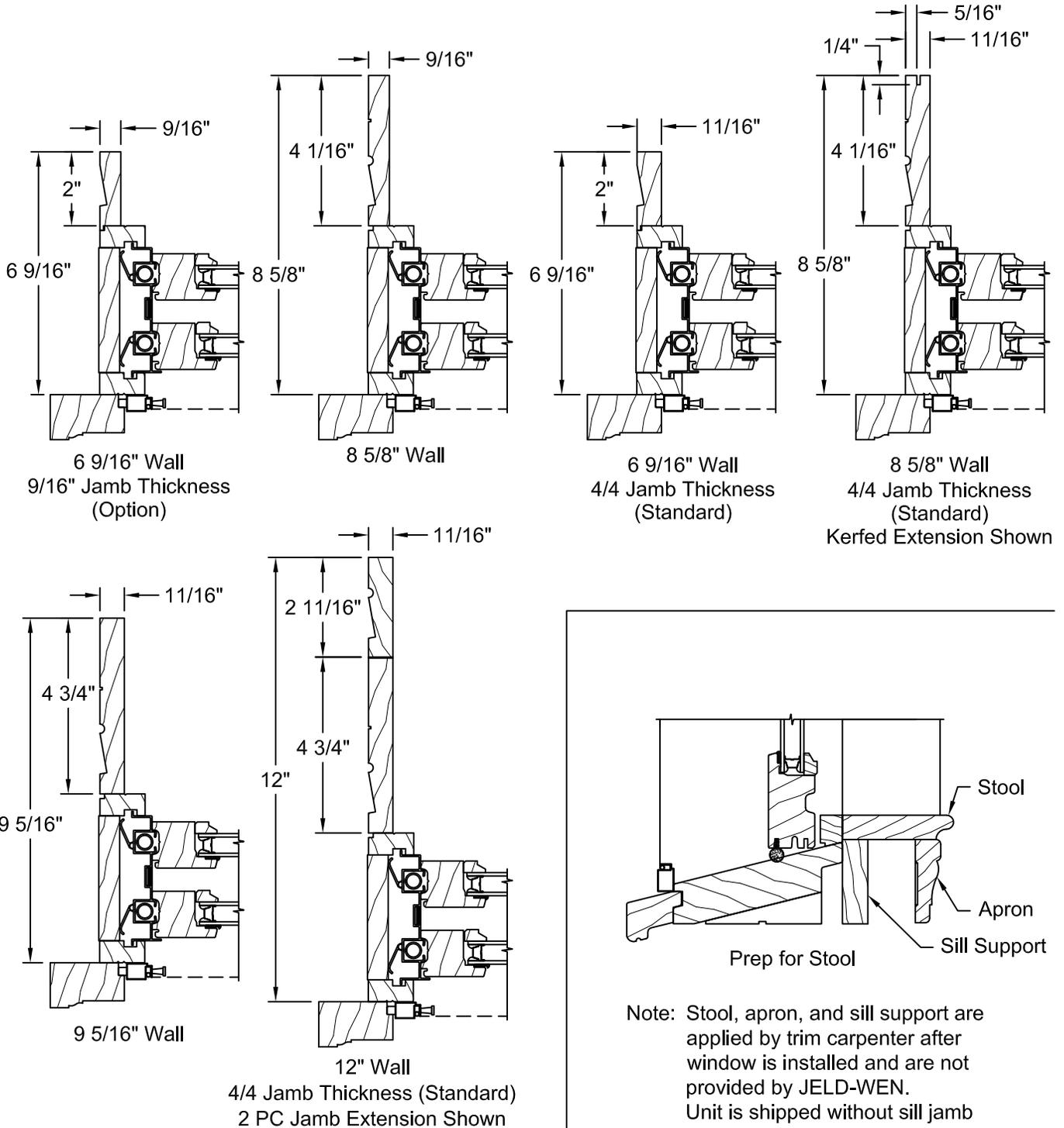
Standard



2" Nosing

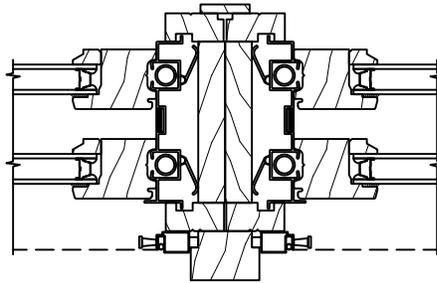


JAMB EXTENDER & PREP FOR STOOL OPTIONS

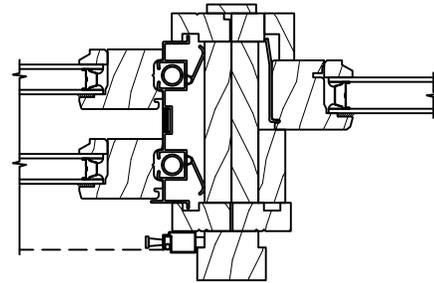




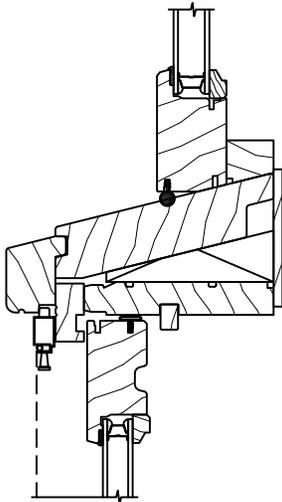
MULLION OPTIONS



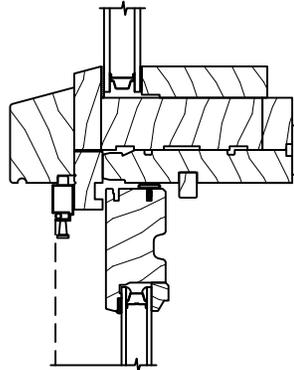
Twin Operating Double-Hung



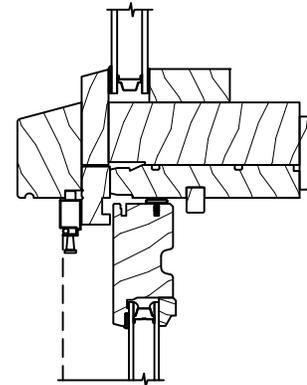
Double-Hung with  
Double-Hung Picture



Double-Hung Transom  
Over Double-Hung



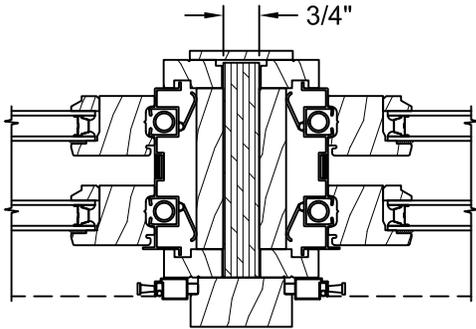
Direct Set Geometric  
Over Double-Hung



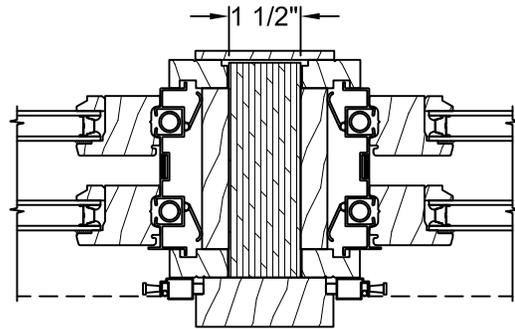
Direct Set Radius  
Over Double-Hung



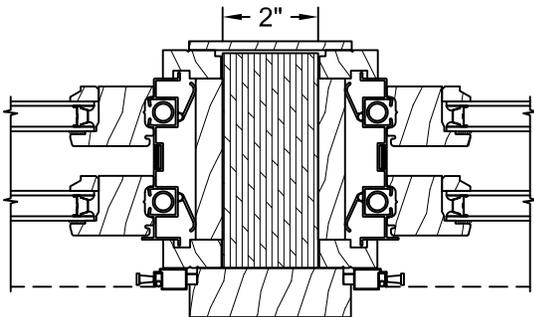
MULLION OPTIONS



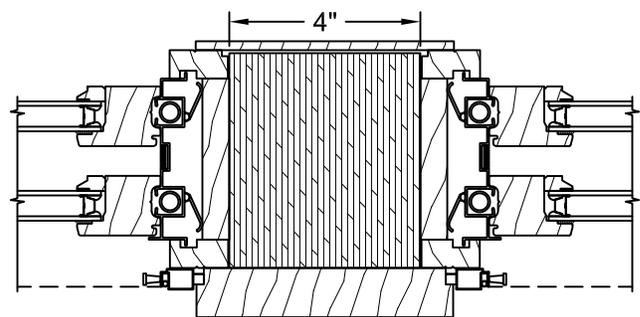
3/4" Wood Spread Mull



1 1/2" Wood Spread Mull



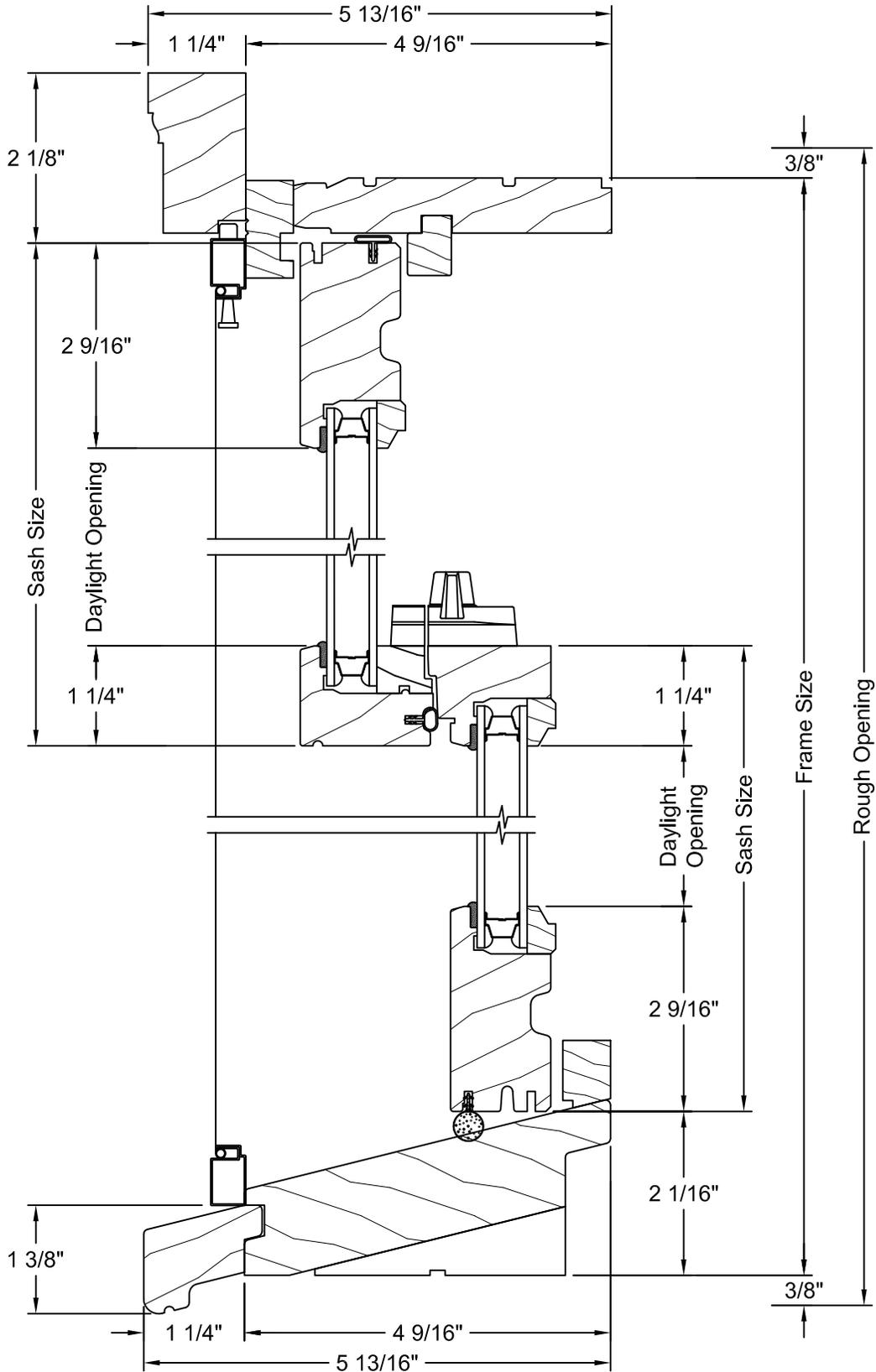
2" Wood Spread Mull



4" Wood Spread Mull

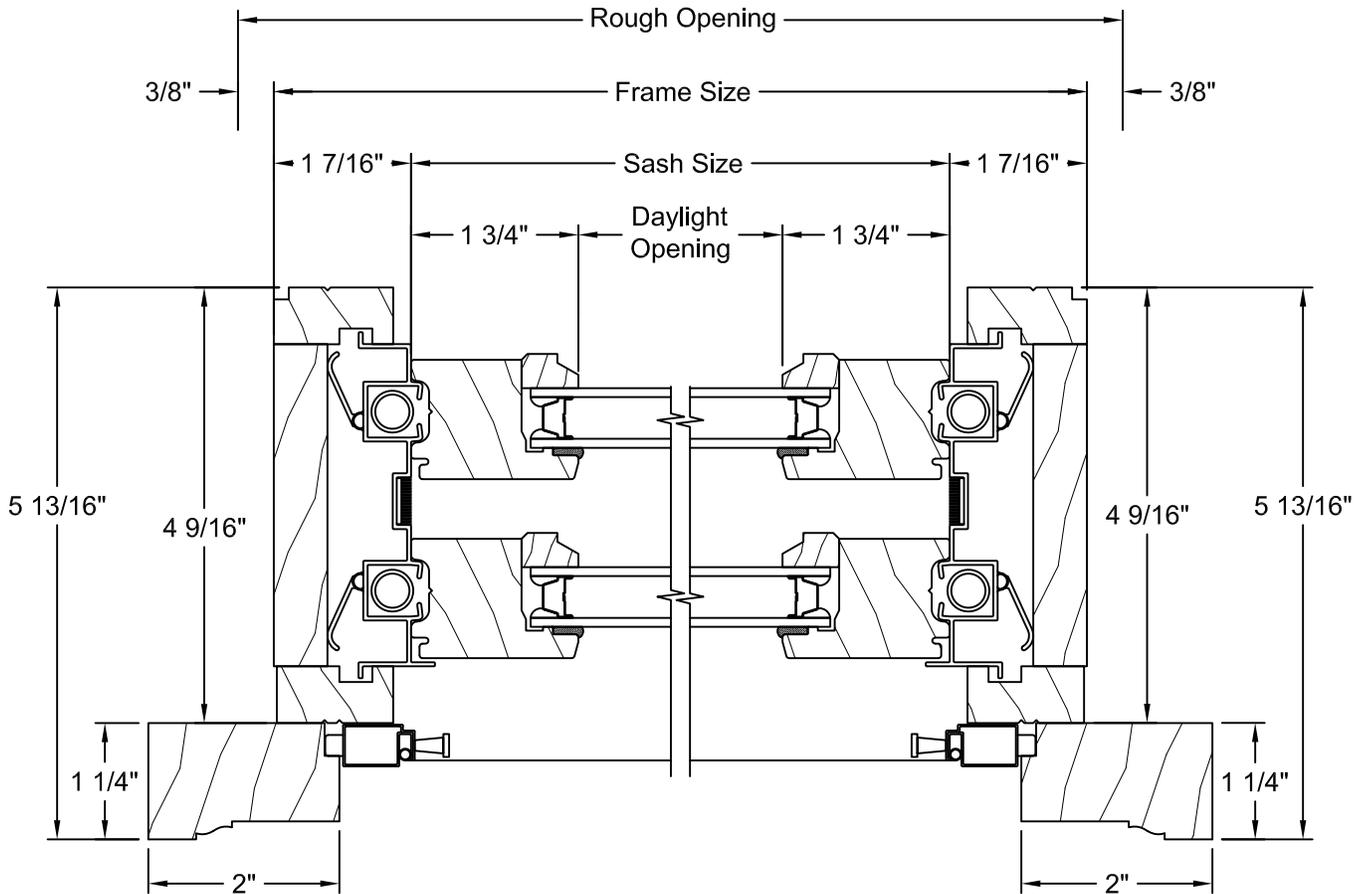


OPERATOR - VERTICAL SECTION



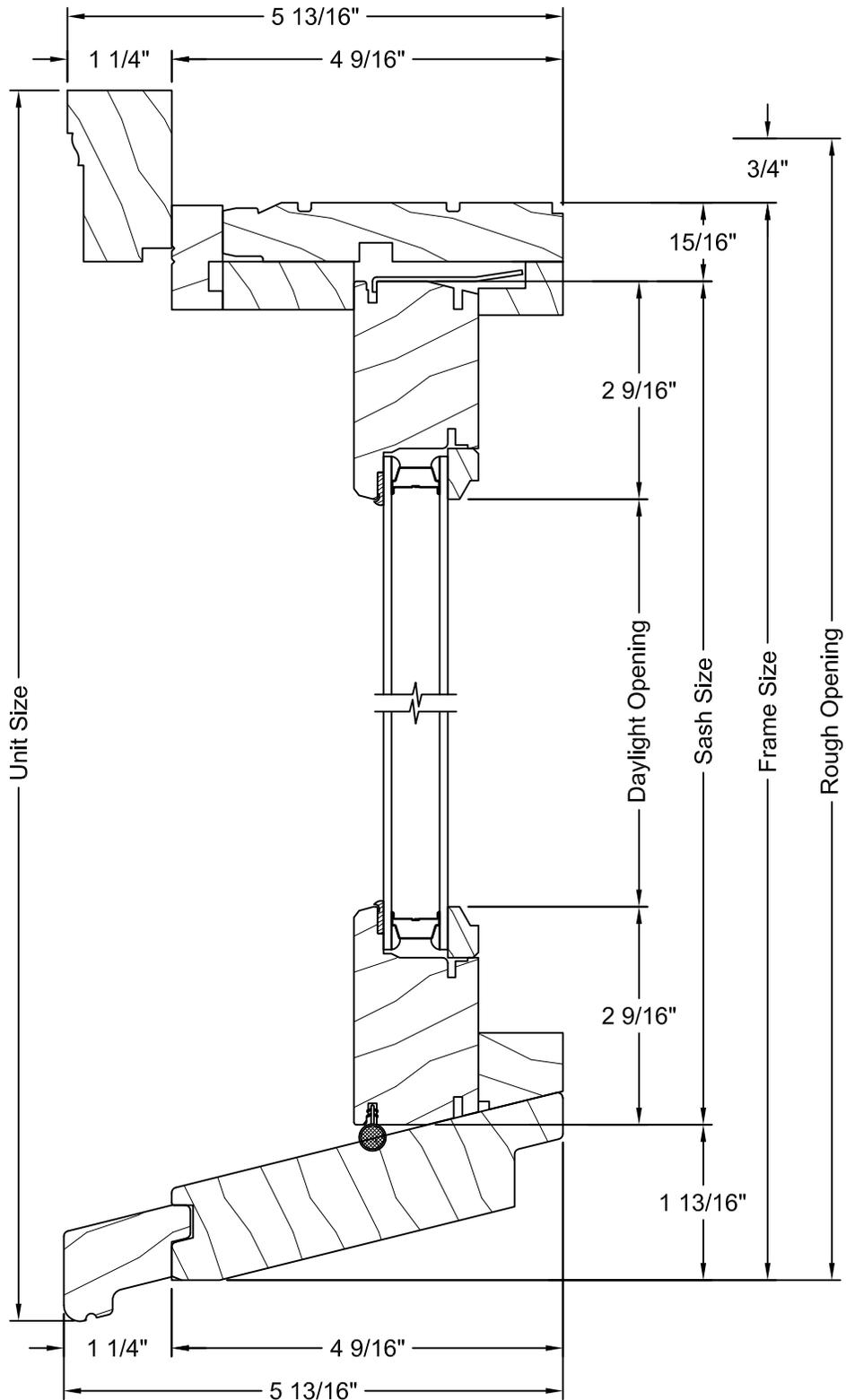


OPERATOR - HORIZONTAL SECTION



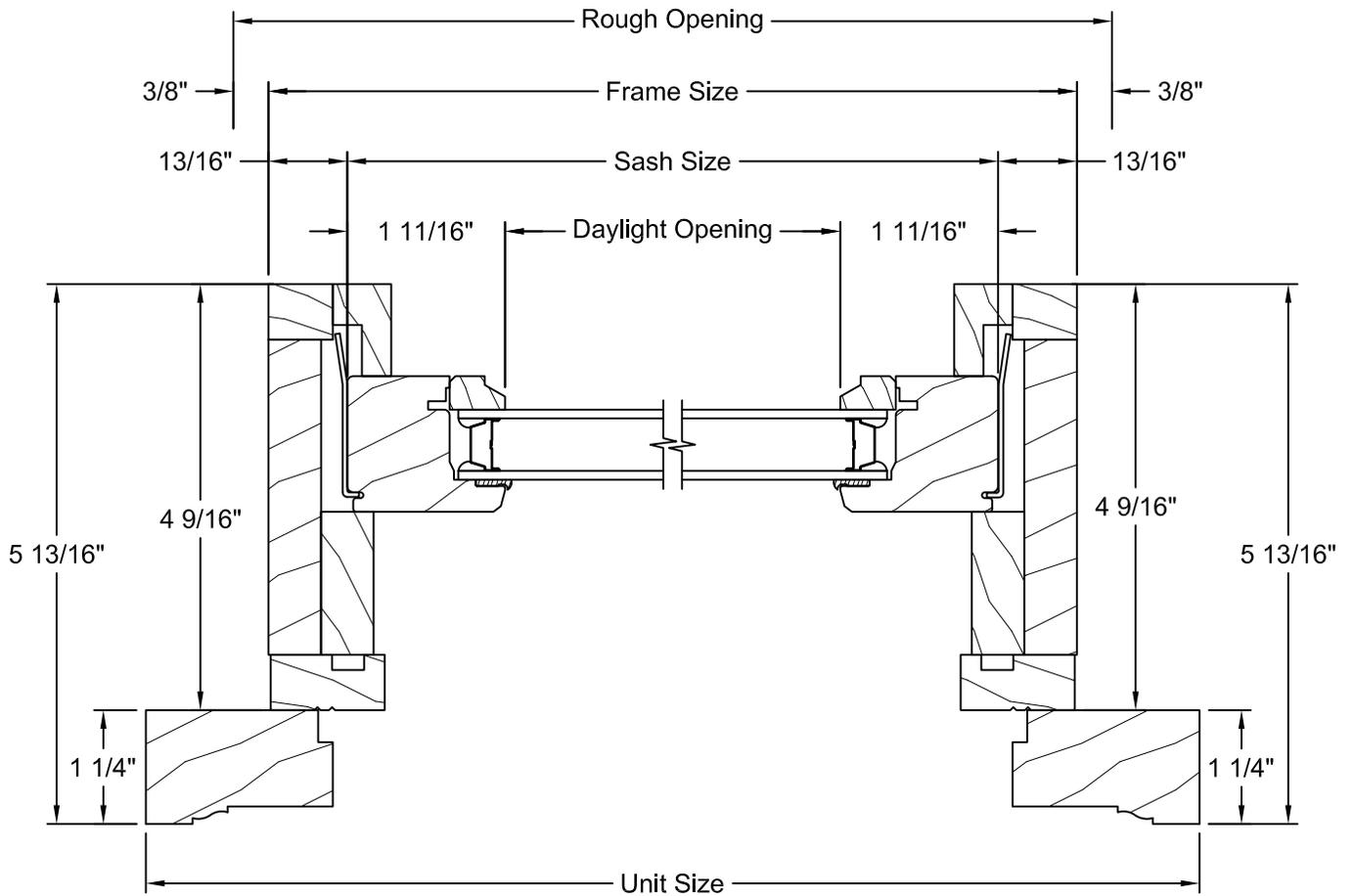


PICTURE - VERTICAL SECTION



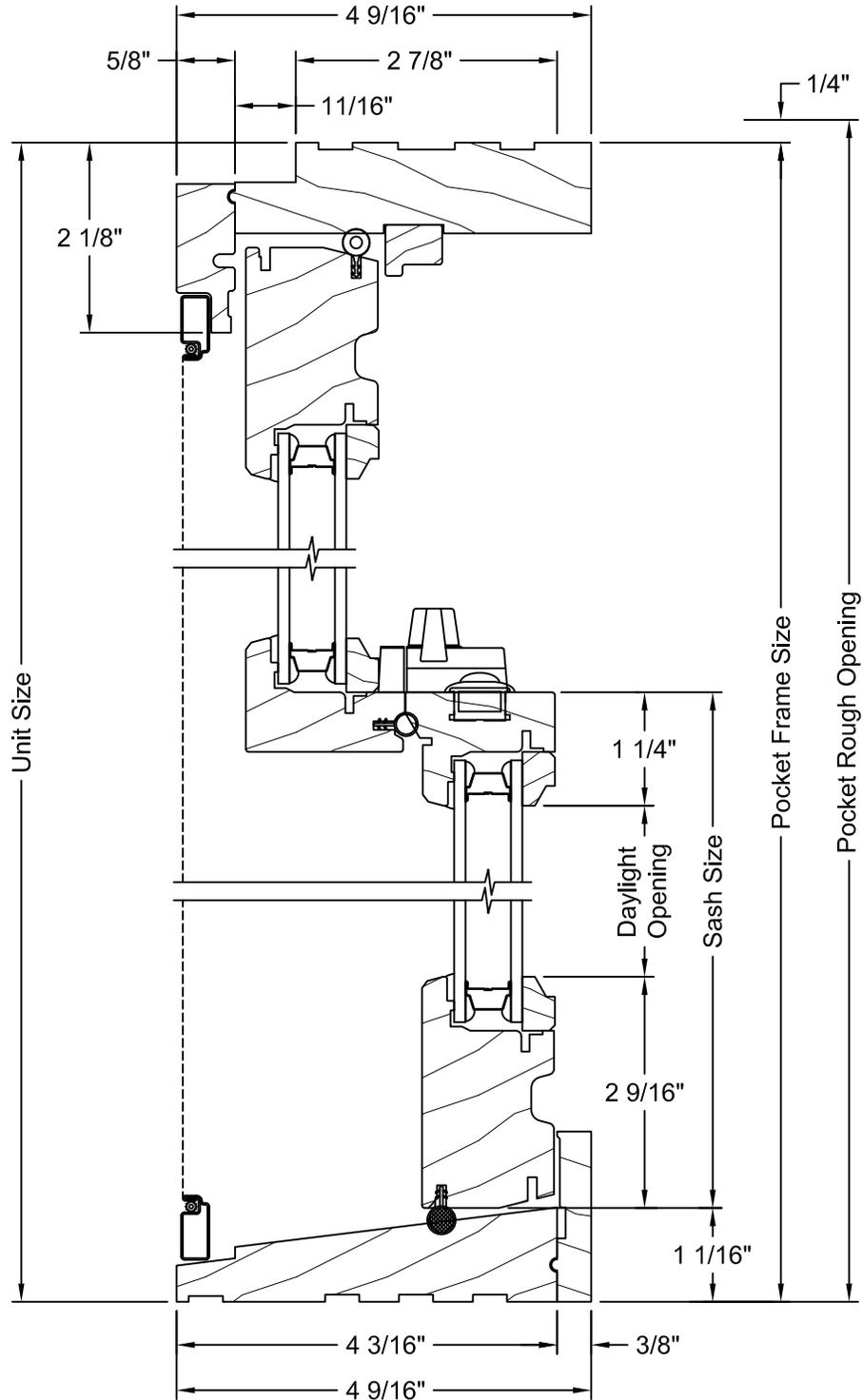


PICTURE - HORIZONTAL SECTION



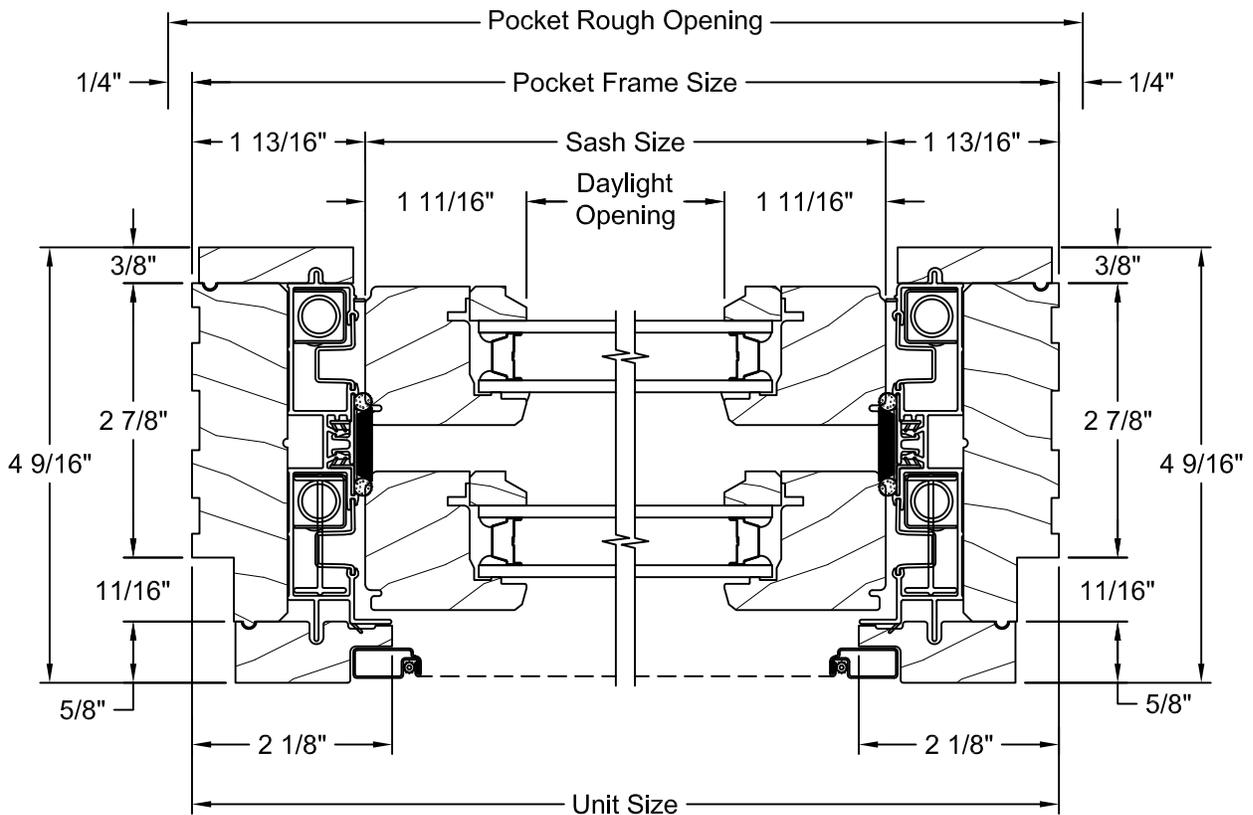


POCKET OPERATOR - VERTICAL SECTION



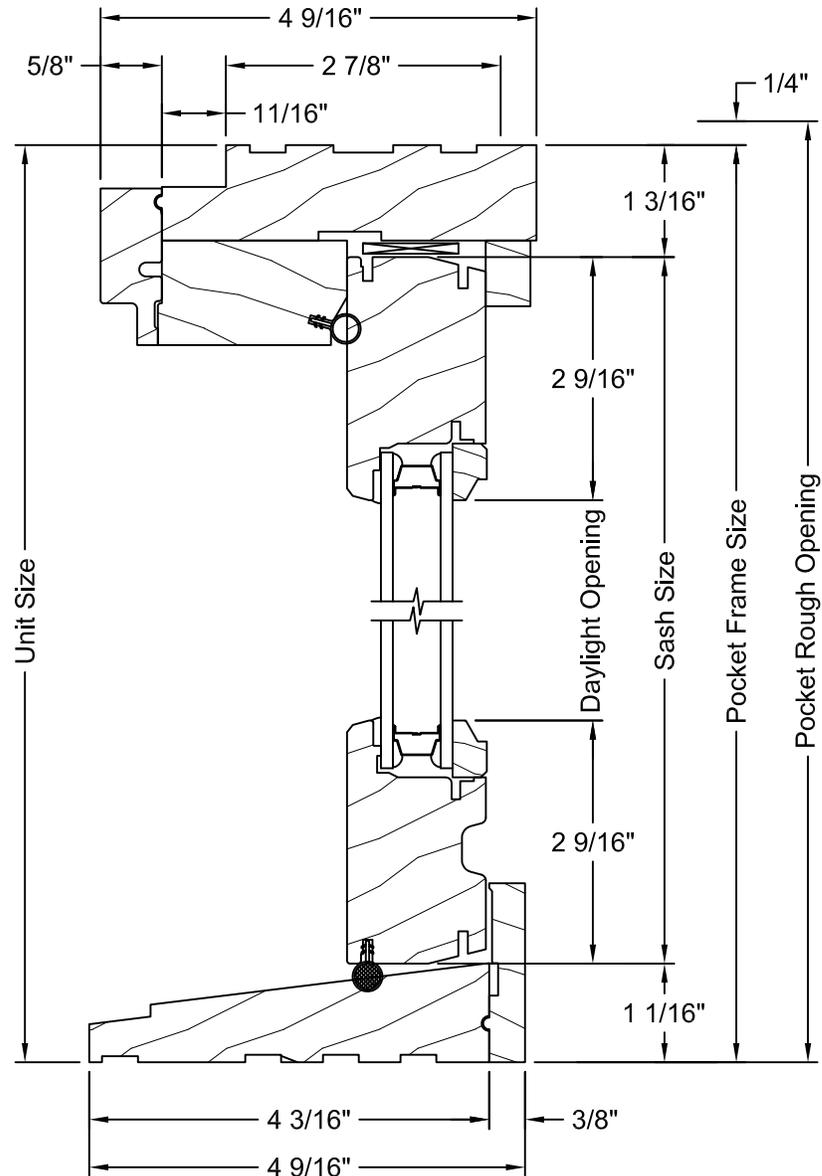


POCKET OPERATOR - HORIZONTAL SECTION



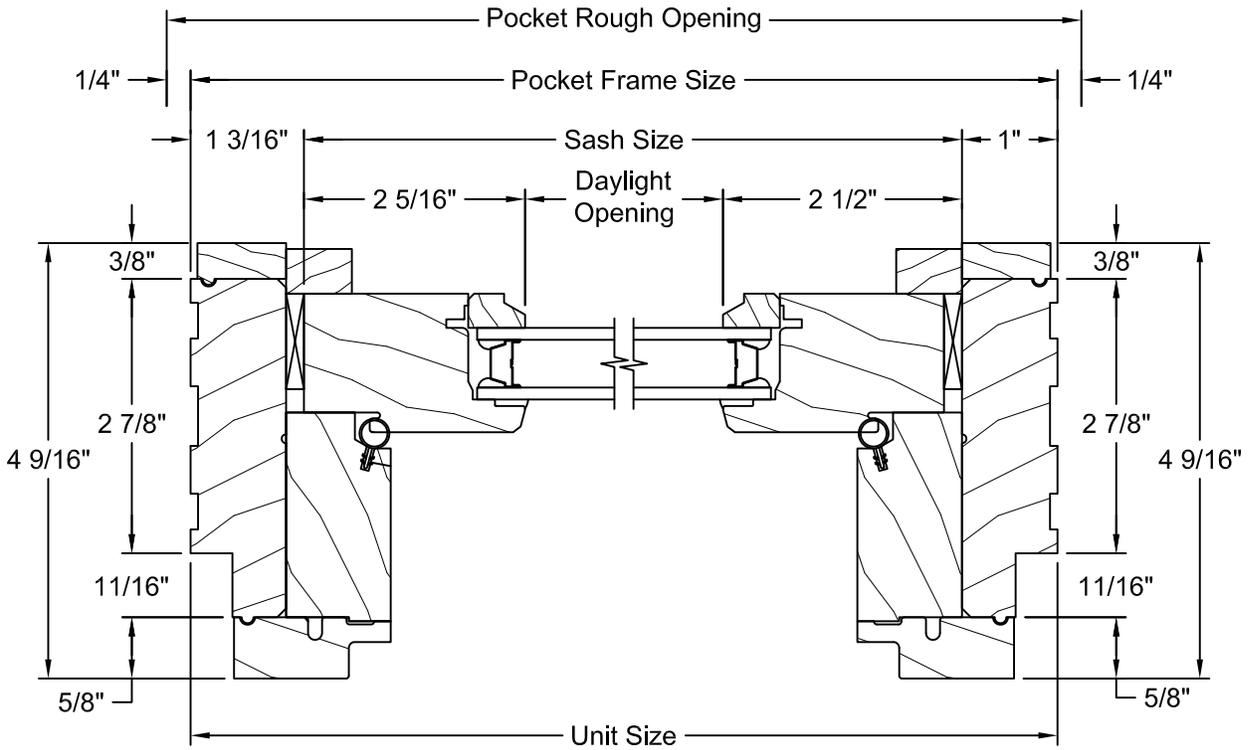


POCKET PICTURE - VERTICAL SECTION





POCKET PICTURE - HORIZONTAL SECTION



205 Ostrom Drive, Structural Engineer Reports Both in agreement that the house cannot be restored

In the following pages as requested by the HDRC Board I was asked to hire a structural engineer.

I hired PK Brown Associates and they determined **“the entire structure should be completely demolished”**.

A Second Structural Engineer Mr. Calvetti was asked by a neighbor to do an exterior only visual inspection, his results from exterior were loose and vague and again the HDRC asked that I perform a 2<sup>nd</sup> structural inspection.

To alleviate the neighbors’ concerns I engaged Mr. Calvetti and allowed him access to the interior, please see his report below and here are some highlights : **“I did not feel comfortable venturing very far into its interior” “not Salvageable” “a closer look revealed a severely damaged structure” “ near collapse” “Severely compromised” “Piers, beams, exposed walls studs and roof framing were severely jeopardized” “I do not believe this structure is a realistic candidate for such repair and restoration”**



River Road HDRC  
205 Ostrom Street

August 17, 2017  
Page 3

Therefore, as much as I believe in the restoration of historical structures, I do not believe this structure is a realistic candidate for such repair and restoration.

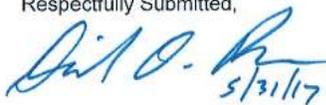
If you have any comments or questions, please don't hesitate to contact my office.

  
Lawrence Calvetti, P.E., SECB



Based on the on-site observations and our structural experience, it is our opinion that the existing house structure is unsafe for habitation, the structural members are too badly deteriorated to be repaired, and the entire structure should be completely demolished. If you have any questions, please contact me.

Respectfully Submitted,

  
5/31/17

David O. Brown, P.E.  
Principal  
PAUL-KOEHLER-BROWN  
Texas Firm Reg. No. F-11103  
512-231-8910  
[dbrown@pkbrown.com](mailto:dbrown@pkbrown.com)





8217 Shoal Creek Blvd., Suite 106, Austin, Texas 78757  
(512) 231-8910 Voice (512) 231-8915 Fax

May 31, 2017

Mr. Toby Stapleton  
1800 Broadway Apt. #1228  
San Antonio, Texas 78215

RE: Existing House at  
205 Ostrom Drive  
San Antonio, Texas 78212  
Parcel ID: 6938 Lot: 1 & 2

Dear Mr. Stapleton:

At your request, Paul-Koehler-Brown Consulting Structural Engineers provided structural engineering site investigation services for the home at 205 Ostrom Drive in San Antonio, Texas. This inspection was performed by Travis Lowe in our office. The purpose of this investigation was to review the condition of the structure and determine if it is feasible to repair or salvage the existing structure.

### **House Construction**

It is our understanding that the house was built in 1935 with additional renovations occurring in 1970. The original foundation is a wooden post (pier) and beam foundation system, and the later addition used a concrete slab on-grade for a patio and sitting room. The original floor system is composed of wood decking over wood beams and joists that are supported on the wooden timber posts. The wooden posts appear to be composed of cedar and many still had some bark attached. The walls are typical wood stud wall framing. The roof was conventional "stick framing" with wood joists and rafters. It could be seen that the shingle roofing system consisted of multiple layers, due to adding additional shingle layers without removing the previous roof before installing the new roof.

### **Findings**

Due to age and apparent lack of maintenance for many years, the house is severely deteriorated. It is our understanding that the house has been abandoned for the past 23 years and the lack of any maintenance or climate control over a long period of time has contributed to the deterioration of the house. Wood decomposition was evident all over the interior and exterior house. Signs of dry rot, fungus, and wood worm or termite infestation could be seen in the wood framing throughout the house. This deterioration is widespread and has reduced the structural integrity of the

wooden members. Section loss could be seen in the wood framing. Floors were collapsed in some areas. Wall sheathing had cracks between sheathing panels and large sections were deteriorated or missing. In addition, parts of the ceiling and roof were collapsed at various locations. Daylight could be seen coming through holes in the roof. Some areas of the roof were sagging from what appeared to be buildup of material on the roof, like tree branches, or from the deterioration of the wooden framing below due to rot, fungus, etc. Most of the house has been subjected to water intrusion due to the deterioration and collapse of portions of the roof. It also appeared that both types of foundations present at the house were adversely affected by shrink/swell movement of the underlying soil. The cracking in the concrete portion of the foundation was caused by expansive clay soils, where the soil becomes saturated and expands, then subsequently dries out and shrinks with seasonal moisture changes. The movement caused by the expansive soil conditions is also evident in the wood portion of the foundation, demonstrated by various wooden piers that extend at an angle from the ground as well as cracking and separation in the concrete foundation. Also, floor beams were found to be shifted away from their wooden pier foundation supports. The movement in the foundation also caused cracks in the wall framing and sheathing. There are many deficiencies in the structural integrity of the foundations, walls, and roof elements.

Based on the on-site observations and our structural experience, it is our opinion that the existing house structure is unsafe for habitation, the structural members are too badly deteriorated to be repaired, and the entire structure should be completely demolished. If you have any questions, please contact me.

Respectfully Submitted,

*David O. Brown*  
5/31/17



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512-231-8910  
[dbrown@pkbrown.com](mailto:dbrown@pkbrown.com)

Attachments: Photos

August 16, 2017

River Road HDRC  
Office of Historic Preservation  
1901 S. Alamo  
San Antonio, TX 78204

RE: Residence Structure  
205 Ostrom Street  
San Antonio, Texas 78211

Director and Commission Members:

#### INTRODUCTION

On July 13, 2017 I conducted a visual inspection of the exterior of the above referenced structure. I made a report of the limited observations I made of the structures exterior. In the report I stated that an inspection of the interior would be very beneficial in providing a more informed opinion of the structures integrity. That opportunity was granted by the owner Mr. Toby Stapleton and I revisited the structure on August 16, 2017.

For orientation, front of the structure (based on entry door) faces nearly east. It is a single story, wood framed structure. The main structure is U-shaped with one leg on the south, the cross leg on the east and the other leg on the north. The area on the west is covered between the north and south leg. Extending west from the north leg is a garage addition. The U-shaped structure has a wood pier and beam foundation. The entry porch and the infilled west area has a slab-on-grade foundation.

I began my observation at the south exterior wall and worked my way around the perimeter of the structure counterclockwise. I then made observation of the interior.

#### OBSERVATIONS

##### EXTERIOR:

##### South Leg:

The foundation piers were severally rotted and those on the west end leaning to the south. The west half of the exterior wall was bowed outwards between the top and bottom of the wall. While most of the beams over the piers were in

relatively good condition, they are undersized for the span between piers. There is much wood rot at the roof eave and some wall boards.

Cross Leg and Entry:

This portion of the structure is in relatively good condition with very little wood rot except the exposed eaves.

North Leg:

While my earlier exterior observations of this portion of the structure didn't reveal any significant damage, a closer look revealed a severely damaged structure. Piers, beams, exposed wall studs and roof framing were severely jeopardized. Vegetation growing on and over the walls and roof has added in some of the deterioration.

The extension to this leg is in near collapse.

INTERIOR:

The interior of the south leg and cross leg was in relatively good condition. Portions of the ceiling material had been water soaked due to holes in the roof and collapsed. The bow in a portion of the south wall was noted. Most of the roof framing and floor framing were in good condition. However water leaking into a large portion of the north leg's interior has severely compromised the integrity of floor boards, floor and roof framing and wall studs.

DISCUSSION

South Leg:

It could be possible to restore this portion of the structure but with difficulty. The bowed portion of the wall would need to be replaced which means the roof would need to be supported while this was done. The entire leg would need to be supported while new piers and beams are installed however the leg is wracked horizontally due to the drift of the west end of the leg when the piers failed and leaned south. To correct this without removing portions of the roof, floor and walls would be very complicated and potentially dangerous.

North Leg:

This leg has so much rotted and damaged framing that the only safe repair would be to demolish and rebuild it. The base of some interior walls are so deteriorated they are more or less hanging from the ceiling. Some appear to be near falling over. I did not feel comfortable venturing very far into its interior.

Cross Leg:

This portion of the structure is reasonably repairable.

The roof on the west side, framed between the north and south legs and the slab beneath, are not salvageable.

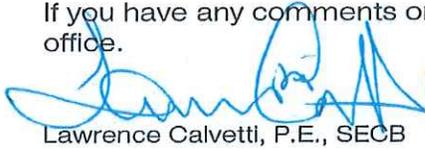


River Road HDRC  
205 Ostrom Street

August 17, 2017  
Page 3

Based upon my latest observations of the foundation, the interior and exterior walls, and the roof and floor framing, I believe the only portion of this structure that could be reasonably repaired is the entry and what I've called the cross leg. Therefore, as much as I believe in the restoration of historical structures, I do not believe this structure is a realistic candidate for such repair and restoration.

If you have any comments or questions, please don't hesitate to contact my office.



Lawrence Calvetti, P.E., SECB



17 Aug 2017



## Supporting Demolition

- **Engaged Neighborhood at multiple board meetings.**
- Hired a local Architect that lives in the neighborhood, to generate a sympathetic design to replace abandoned (23yrs) building.
- **Engaged the local neighborhood historic committee**
  - **Received two letters of support of demolition from neighborhood committee**
- Identified that the house has undergone significant and irreversible changes , not caused by the owner. Establishing a Loss of Significance
- **Received 2 Structural Engineers Reports condemning the building**
- Received 3 Builders Letters stating that they can not renovate the building
- **Received 3 Real Estate letters, 1 clearly stating they could not list on MLS, 2 stating that the listing would be nearly impossible to sell at a profit based on HDRC Demolition Decline & Structural Letters on public record condemning the building.**



## Structural Engineer's (2) Findings Support Demolition

- Per a request by the HDRC a **Structural Engineer (Paul Koehler Brown)** was retained and the report was issued, stating “the entire structure should be completely demolished”
- A neighbor hired another Structural Engineer (**Calvetti and Associates**) to do an exterior observation from the road that was inconclusive
- To alleviate the neighbors' & HDRC concerns as requested by Edward Hall & HDRC Committee, I engaged (no fee) Mr. Calvetti and allowed him access to the interior, please see his report below and here are some highlights : “I did not feel comfortable venturing very far into its interior” “not Salvageable” “a closer look revealed a severely damaged structure” “near collapse” “Severely compromised” “Piers, beams, exposed walls studs and roof framing were severely jeopardized” “I do not believe this structure is a realistic candidate for such repair and restoration”
- Mr. Calvetti attended the HDRC committee meeting and Spoke to encourage demolition again for no fee.



# HDRC Findings on Structural Reports that Support Demolition

- HDRC Opinion based on reviewing both Structural Engineers Reports
  - “The HDRC finds that Neither Report Recommends Repair”

Based on the on-site observations and our structural experience, it is our opinion that the existing house structure is unsafe for habitation, the structural members are too badly deteriorated to be repaired, and the entire structure should be completely demolished. If you have any questions, please contact me.

Respectfully Submitted,

*David O. Brown*  
5/31/17

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512-231-8910  
[dbrown@pkbrown.com](mailto:dbrown@pkbrown.com)



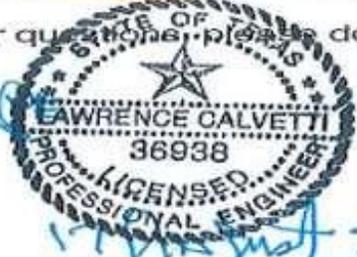
River Road HDRC  
205 Ostrom Street

August 17, 2017  
Page 3

Therefore, as much as I believe in the restoration of historical structures, I do not believe this structure is a realistic candidate for such repair and restoration.

If you have any comments or questions, please don't hesitate to contact my office.

*Lawrence Calvetti*  
Lawrence Calvetti, P.E., SECB



*11/17/2017*



## HDRC Findings from Site Visit Support Structural Engineers

- Site visit by HDRC Board members, **Opinion is Loss of Significance**

EG: APPEARANCE IS CONSISTENT WITH THE ENGINEER'S REPORT; OPINION

IS OF LOSS OF SIGNIFICANCE. EG: LOSS OF STRUCTURAL INTEGRITY. JG:

COMPLETE LOSS OF STRUCTURAL INTEGRITY - MATERIALS COULD BE SALVAGED.

EG + JG: SAFETY HAZARD AS THE STRUCTURE.

**COMMITTEE RECOMMENDATION:**      APPROVE [ ]      DISAPPROVE [ ]

**APPROVE WITH COMMENTS/STIPULATIONS:**

---



Committee Chair Signature (or representative)

---

Date



## HDRC Findings from Site Visit Supportive of Demolition

- Site visit by HDRC Board members

EG: STABILITY OF THE WOOD IS QUESTIONABLE - PROBABLE LOSS OF ALL STRUCTURAL INTEGRITY; VERY LITTLE OF THE STRUCTURE IS SALVAGEABLE.

AMG: SOME WALLS HAVE OBVIOUS STRUCTURAL ISSUES.

AK: WOULD LIKE TO SEE REPORTS ON STRUCTURAL INTEGRITY OF FOUNDATION.

EG: THE CONDITIONS OF THE ROOF STRUCTURE IS CONCERNING.

EG + JG: SUPPORTIVE OF DEMOLITION - SALVAGE PLAN IS NECESSARY; WINDOWS AND SIDING. FUNGUS IS A MAJOR PROBLEM WITH STRUCTURE.



## HDRC Findings from Committee Chair Site Visit

- Site visit by HDRC Chair
- Approval for Conceptual demolition/design
- The record does not clearly reflect the neighborhood members that are in support of demolition

COMMENTS/CONCERNS: MG: QUESTIONS REGARDING APPEARANCE OF  
EACH STRUCTURE - WILL THEY APPEAR AS SINGLE-FAMILY? (YES) - PER JL.  
MG: WHAT MATERIALS ARE BEING CONSIDERED? JL: WOOD SIDING, BOARD  
AND BATTEN SIDING. MG: ASSUMING THAT THE PROPOSED DEMOLITION  
IS APPROPRIATE, THIS SOLUTION FOR NEW CONSTRUCTION ON THE SITE  
IS AN APPROPRIATE SOLUTION. THE SCALE IS APPROPRIATE. ANY  
CONCERNS WOULD BE REGARDING THE EXISTING HISTORIC STRUCTURE  
AND ANY CONTRIBUTING CHARACTERISTICS.

COMMITTEE RECOMMENDATION: APPROVE  DISAPPROVE   
APPROVE WITH COMMENTS/STIPULATIONS:

APPROVED FOR CONCEPTUAL

Committee Chair Signature (or representative)

4/25/17  
Date



2000 2000 2000 2000 2000 2000 2000 2000 2000 2000  
2000 2000 2000 2000 2000 2000 2000 2000

Mr. [Name]

Mr. [Name]  
[Address]  
[City, State, Zip]

Re: [Project Name]  
2000 2000 Dr.  
[Address]  
[City, State, Zip]

Dear Mr. [Name]:

On [Date], we were contacted by [Name] regarding the structural analysis and design of the [Project Name]. The project is located at [Address]. The structure is a [Description of Structure]. The design is based on [Code/Standard]. The analysis shows that the structure is adequate for the intended use. The design includes [Details of Design].

### House Construction

The house was constructed using conventional "stick framing" for the roof. The roof structure consists of [Description of Roof Structure]. The roof is supported by [Description of Support Structure]. The walls are constructed using [Description of Wall Construction]. The foundation is [Description of Foundation]. The house is located on [Description of Site]. The construction was completed on [Date].

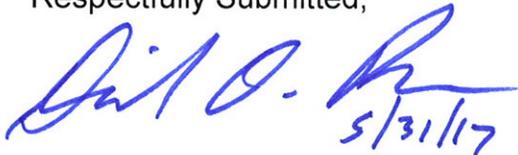
### Findings

During the inspection, we observed that the roof structure was in good condition. The walls and foundation were also in good condition. There were no significant findings. The house appears to be well-maintained and structurally sound.

wooden members. Section loss could be seen in the wood framing. Floors were collapsed in some areas. Wall sheathing had cracks between sheathing panels and large sections were deteriorated or missing. In addition, parts of the ceiling and roof were collapsed at various locations. Daylight could be seen coming through holes in the roof. Some areas of the roof were sagging from what appeared to be buildup of material on the roof, like tree branches, or from the deterioration of the wooden framing below due to rot, fungus, etc. Most of the house has been subjected to water intrusion due to the deterioration and collapse of portions of the roof. It also appeared that both types of foundations present at the house were adversely affected by shrink/swell movement of the underlying soil. The cracking in the concrete portion of the foundation was caused by expansive clay soils, where the soil becomes saturated and expands, then subsequently dries out and shrinks with seasonal moisture changes. The movement caused by the expansive soil conditions is also evident in the wood portion of the foundation, demonstrated by various wooden piers that extend at an angle from the ground as well as cracking and separation in the concrete foundation. Also, floor beams were found to be shifted away from their wooden pier foundation supports. The movement in the foundation also caused cracks in the wall framing and sheathing. There are many deficiencies in the structural integrity of the foundations, walls, and roof elements.

Based on the on-site observations and our structural experience, it is our opinion that the existing house structure is unsafe for habitation, the structural members are too badly deteriorated to be repaired, and the entire structure should be completely demolished. If you have any questions, please contact me.

Respectfully Submitted,



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[dbrown@pkbrown.com](mailto:dbrown@pkbrown.com)



Attachments: Photos

Photos:



00000 000 00r000000 0000 00000000 00r000000



00000 20000 00r 000 00000d00000 0000 000000000 00d 00000 000000000000



Photograph of concrete foundation under wooden structure.



Close-up photograph of concrete foundation showing a crack and a piece of broken concrete.



Photograph of the floor surface in the area of the damaged door.



Photograph of the wall structure in the area of the damaged door.





Photograph showing significant damage to the roof's wooden framing.



Photograph showing signs of Fungus Infestation for Roof's Wooden Framing

**End of Photos**



**JamesHardie**

Siding | Trim



Achieve authentic character and  
**UNCOMPROMISING PERFORMANCE.**



**SOUTH**  
Product  
Catalog



It's time to  
**BUILD SOMETHING TIMELESS.**



Installed on over 8 million homes\* from coast to coast, James Hardie® fiber cement siding products are designed to resist the most extreme conditions while romancing the senses. Enjoy the warm, natural character of wood with unprecedented peace of mind. It's easy to see what makes James Hardie the market leader.

### UNIQUE FORMULATION

We use the highest quality raw materials and proprietary additives for enhanced strength and moisture protection.

### FINISHING TECHNOLOGY

Baked-on color delivers a beautiful finish that resists fading and makes a lasting impression.

### COMPLETE EXTERIOR™

Offers homeowners an unrivaled collection of design options with exceptional warranties through a single, trusted manufacturer.

\*Estimate based on total James Hardie siding sales through 2016 and average housing unit size.

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# HardieZone® System

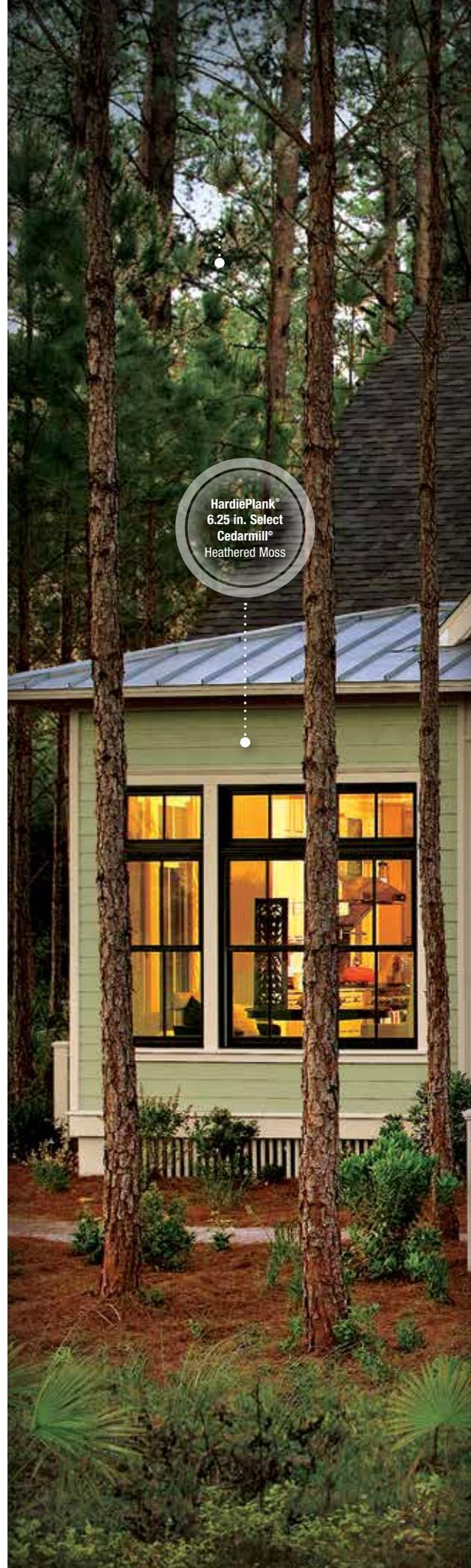
Only James Hardie fiber cement products are Engineered for Climate®. In the northern U.S. and Canada, HZ5® products resist shrinking, swelling and cracking even after years of wet or freezing conditions. HZ10® products help protect homes from hot, humid conditions, blistering sun and more.

With James Hardie siding and trim, homeowners have an exterior that's tougher than the elements and easy on the eyes.

## NO MATTER WHAT NATURE BRINGS



HardiePlank®  
6.25 in. Select  
Cedarmill®  
Heathered Moss



**FT10**

HardieShingle®  
7 in. Straight  
Edge Panel  
Mountain Sage

HardieTrim®  
5/4 x 3.5 in.  
Smooth  
Navajo Beige

## TOUGHER THAN THE ELEMENTS



Stands up to storms  
and harsh weather



Water resistant  
to protect against  
swelling, warping  
and cracking;  
also resists  
mold damage



Won't be eaten by  
animals or insects



Fire resistant



Helps reduce time  
and money spent on  
maintenance

Resist the elements  
**WITH IRRESISTIBLE CHARM.**

# Unique Formulation

## HZ10® Substrate

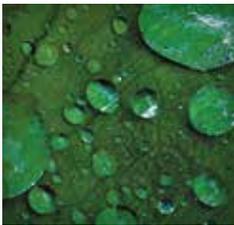
Not all fiber cement is the same. James Hardie HZ10 products contain the highest quality raw materials. Our unique formulation, combined with innovative product design and manufacturing processes, create a substrate that is specifically engineered to resist moisture, cracking, shrinking and swelling for increased durability and workability.

### PROPRIETARY ENHANCEMENTS CREATE DURABLE JAMES HARDIE® SIDING



#### Perfect balance of strength and workability

Our balance of high-quality Portland cement, sand and cellulose fiber delivers the best combination of strength and workability.



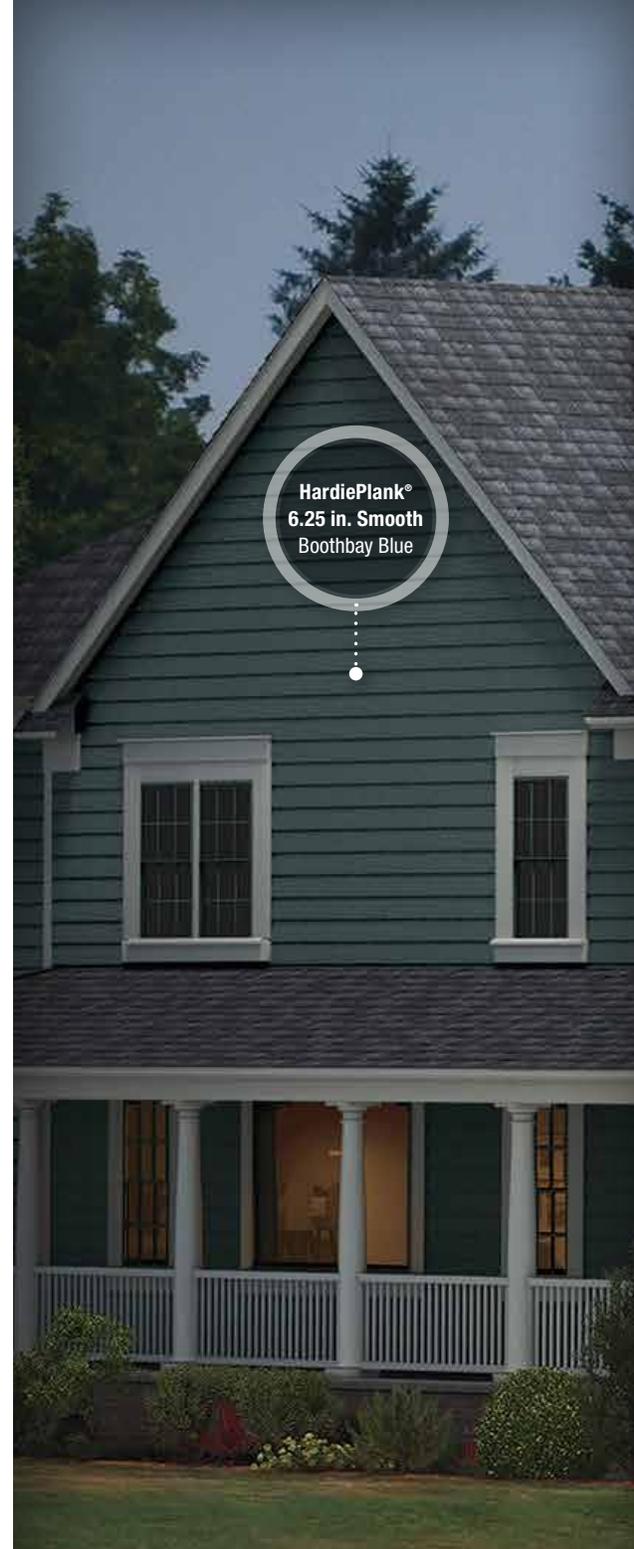
#### Enhanced moisture resistance for unmatched durability

Patented and proprietary additives are chemically bonded within the HZ10 substrate matrix to provide durable moisture resistance.



#### Increased dimensional stability

Our siding is engineered at the microscopic level to create a fiber cement composite with superior dimensional stability that helps protect against shrinking and splitting.



Integrity is ingrained  
**IN EVERYTHING WE DO.**

HardieTrim®  
5/4 x 5.5 in.  
Arctic White



### UNMATCHED INVESTMENT IN MANUFACTURING SCALE AND PRODUCT INNOVATION

- Largest manufacturer of fiber cement in North America
- 5x more capacity than our largest competitor
- More than 100 process and product quality checks
- 100+ scientists and engineers provide dedicated resources for continuous innovation in manufacturing and product development
- More U.S. fiber cement patents than any competitor

### YOUR RETURNS ON OUR INVESTMENT

- Superior siding and trim performance for beauty that lasts
- Consistency in appearance from board to board
- Natural-looking profiles for authentic character



# Finishing Technology

## Gold Primer

A quality primer is the first step to ensuring that the paint color you select beautifully expresses a home's true character now – and for years to come. Our distinctive gold primer is climate-tested and engineered for use with paint on James Hardie fiber cement siding products. It helps to provide consistent, long-lasting paint adhesion, even in the most demanding conditions.



---

## ColorPlus® Technology

Our advanced ColorPlus® Technology finishes deliver the ultimate in aesthetics and performance. Our products aren't simply painted at the factory. Multiple coats of color are baked onto the board, giving homes a durable, rich, consistent color no field-applied house paint can match.



- Superior finish adhesion
- Superior color retention
- Superior UV resistance
- Year-round installation



**HardieShingle®**  
7 in. Staggered  
Edge Panel  
Iron Gray

**HardieTrim®**  
5/4 x 3.5 in.  
Arctic White

**HardiePlank®**  
7.25 in. Select  
Cedarmill®  
Monterey Taupe

For timeless beauty  
**BEGIN WITH THE FINISH.**



**ColorPlus®  
Technology**  
Sandstone Beige



**HardieSoffit®  
Panels**



**HardiePlank®  
Lap Siding**



**HardiePanel®  
Vertical Siding &  
HardieTrim®  
Batten Boards**

Exceptional warranties through a  
***SINGLE, TRUSTED MANUFACTURER.***

# James Hardie Complete Exterior™

ColorPlus®  
Technology  
Monterey Taupe

HardieShingle®  
Siding

HardieTrim®  
Boards

Top to bottom, our exterior product line is defined by excellent performance, aesthetics and design options.

Provide protection from the elements, showcase a homeowner's individual style and install peace of mind with exceptional warranties through a single, trusted manufacturer.

**HardiePlank®**

Sleek and strong, HardiePlank® lap siding is not just our best-selling product – it's the most popular brand of siding in America.

With a full spectrum of colors and textures, homeowners can enjoy protection from the elements and the versatility to make their dream home a reality. From Victorians to Colonials, HardiePlank lap siding sets the standard in exterior cladding.

HardieTrim®  
5/4 x 3.5 in.  
Arctic White

HardiePlank®  
6.25 in. Smooth  
Arctic White

A classic look for  
**THE HOME OF THEIR DREAMS.**

**SELECT CEDARMILL<sup>®\*</sup>**

*Woodstock Brown*



**SMOOTH\***

*Countryside Red*



<b>Thickness</b>	5/16 in.					
<b>Length</b>	12 ft. planks					
<b>Width</b>	5.25 in.	6.25 in.	7.25 in.	8.25 in.	9.25 in.	12 in.
<b>Exposure</b>	4 in.	5 in.	6 in.	7 in.	8 in.	10.75 in.
<b>ColorPlus Pcs./Pallet</b>	324	280	252	210		
<b>Prime Pcs./Pallet</b>	360	308	252	230	190	152
<b>Pcs./Sq.</b>	25.0	20.0	16.7	14.3	12.5	9.3

**CUSTOM BEADED CEDARMILL<sup>®</sup>**

*Light Mist*



**CUSTOM BEADED SMOOTH**

*Heathered Moss*



<b>Thickness</b>	5/16 in.	
<b>Length</b>	12 ft. planks	
<b>Width</b>	8.25 in.	
<b>Exposure</b>	7 in.	
<b>ColorPlus Pcs./Pallet</b>	210	
<b>Prime Pcs./Pallet</b>	240	
<b>Pcs./Sq.</b>	14.3	

**CUSTOM COLONIAL ROUGHSAWN<sup>®</sup>**

*Mountain Sage*



**CUSTOM COLONIAL SMOOTH<sup>®</sup>**

*Timber Bark*



<b>Thickness</b>	5/16 in.	
<b>Length</b>	12 ft. planks	
<b>Width</b>	8 in.	
<b>Exposure</b>	6.75 in.	
<b>ColorPlus Pcs./Pallet</b>	216	
<b>Prime Pcs./Pallet</b>	240	
<b>Pcs./Sq.</b>	14.9	

\*6.25 in. and 8.25 in. also available in coastal colors. 9.25 in. and 12 in. only available primed.

# HardiePanel®

HardiePanel® vertical siding delivers style and substance. When combined with HardieTrim® boards, it achieves the rustic board-and-batten look that defines cottage charm. The covered seams contribute to a well-insulated home.

Its crisp, clean lines make HardiePanel vertical siding a smart choice for strong, contemporary designs.



HardieTrim®  
Batten Boards  
Smooth

HardiePanel®  
Smooth

True to the tradition of  
**PERFORMANCE AND BEAUTY.**



### SELECT CEDARMILL®

*Navajo Beige*

<b>Thickness</b>	5/16 in.		
<b>Size</b>	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
<b>Pcs./Pallet</b>	50	50	50
<b>Pcs./Sq.</b>	3.2	2.8	2.5



### SMOOTH

*Evening Blue*

<b>Thickness</b>	5/16 in.		
<b>Size</b>	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
<b>Pcs./Pallet</b>	50	50	50
<b>Pcs./Sq.</b>	3.2	2.8	2.5



### STUCCO

*Navajo Beige*

<b>Thickness</b>	5/16 in.		
<b>Size</b>	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
<b>Pcs./Pallet</b>	50	50	50
<b>Pcs./Sq.</b>	3.2	2.8	2.5



### SIERRA 8

*Not available with ColorPlus Technology*

<b>Thickness</b>	5/16 in.		
<b>Size</b>	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
<b>Pcs./Pallet</b>	50	50	50
<b>Pcs./Sq.</b>	3.2	2.8	2.5

\*4 ft. x 9 ft. HardiePanel vertical siding only available primed.

**HardieShingle®**

Restore the look of a grand Cape Cod or add distinction to a handsome bungalow. HardieShingle® siding embodies the enchanting look of cedar shingles with lower maintenance.

Better than the real thing, HardieShingle siding resists rotting, curling, warping and splitting.

**HardieTrim®**  
4/4 x 7.25 in.  
Arctic White

**HardieShingle®**  
7 in. Straight  
Edge Panel  
Light Mist

Achieve the handcrafted  
**LOOK OF CEDAR.**



**STAGGERED EDGE PANEL**

*Sandstone Beige*

**Thickness** 1/4 in.  
**Length** 48 in.  
**Height** 15.25 in.  
**Exp.** 6 in.  
**Pcs./Pallet** 100  
**Sq./Pallet** 2  
**Pcs./Sq.** 50



**STRAIGHT EDGE PANEL**

*Iron Gray*

**Thickness** 1/4 in.  
**Length** 48 in.  
**Height** 15.25 in.  
**Exp.** 7 in.  
**Pcs./Pallet** 86  
**Sq./Pallet** 2  
**Pcs./Sq.** 43



**INDIVIDUAL SHINGLES**

*Monterey Taupe*

**Thickness** 1/4 in.  
**Length** 4.2 in. 5.5 in. 6.75 in. 7.25 in. 10 in.  
**Height** 15.25 in.  
**Exp.** 7 in.  
**Pcs./Pallet** 630  
**Sq./Pallet** 2  
**Pcs./Sq.** 315



**HALF ROUNDS**

*Not available with ColorPlus Technology*

**Thickness** 1/4 in.  
**Length** 48 in.  
**Height** 15.25 in.  
**Exp.** 7 in.  
**Pcs./Pallet** 86  
**Sq./Pallet** 2  
**Pcs./Sq.** 43

# HardieTrim®

Form meets function at every angle with HardieTrim® boards. With an authentic look, HardieTrim boards provide design flexibility for columns, friezes, doors, windows and other accent areas.

Better than wood, it complements your long-lasting, lower maintenance James Hardie siding – adding punctuation to your design statement.

HardieTrim®  
5/4 x 3.5 in.  
Khaki Brown

HardiePlank®  
6.25 in. Smooth  
Navajo Beige

The performance you require  
**THE DISTINCTIVENESS YOU DESIRE.**

## HARDIETRIM® BOARDS

### 4/4 RUSTIC GRAIN®

Autumn Tan



### 4/4 SMOOTH

Autumn Tan



<b>Thickness</b>	.75 in.					
<b>Length</b>	12 ft. boards					
<b>Width</b>	1.65 in.*	3.5 in.	5.5 in.	7.25 in.	9.25 in.	11.25 in.
<b>Pcs./Pallet</b>	405	322	184	138	115	92

### 5/4 RUSTIC GRAIN®

Autumn Tan



### 5/4 SMOOTH

Autumn Tan



<b>Thickness</b>	1 in.					
<b>Length</b>	12 ft. boards					
<b>Width</b>	3.5 in.	5.5 in.	7.25 in.	9.25 in.	11.25 in.	
<b>Pcs./Pallet</b>	238	136	102	85	68	

### CROWN MOULDING

Arctic White



<b>Thickness</b>	.75 in.	
<b>Length</b>	12 ft. boards	
<b>Width</b>	3.25 in.	5.25 in.
<b>Pcs./Pallet</b>	50	48

## HARDIETRIM® BATTEN BOARDS

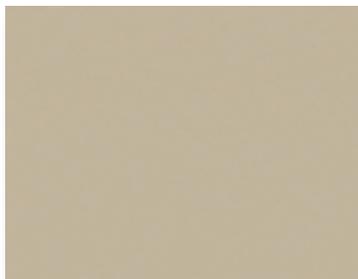
### RUSTIC GRAIN®

Autumn Tan



### SMOOTH

Autumn Tan



<b>Thickness</b>	.75 in.
<b>Length</b>	12 ft. boards
<b>Width</b>	2.5 in.
<b>Pcs./Pallet</b>	437

\*1.65 in. boards only available primed

Products are available primed or with ColorPlus Technology finishes. For more details on availability of sizes, textures and additional HardieTrim Moulding profiles in your area, visit [jameshardiepros.com](http://jameshardiepros.com)

**HardieSoffit**<sup>®</sup>

HardieSoffit<sup>®</sup>  
16 in. Vented  
Smooth  
Arctic White

A home is only as strong as its weakest point. HardieSoffit<sup>®</sup> panels reinforce your work by protecting the vulnerable gap between eaves and exterior walls.

Available in vented, non-vented and a range of pre-cut sizes, these panels complete your design and protect it from moisture and pests.

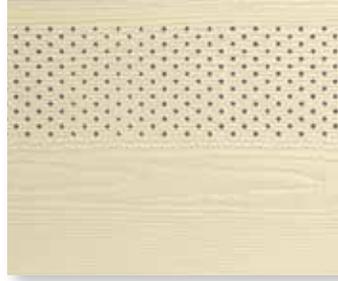
#### VENTILATION BENEFITS

Using vented soffit improves ventilation in the attic space and reduces the chance of water vapor condensation that can lead to issues such as mold and mildew growth, stained ceilings and damage to the framing of the house.

In warm climates, HardieSoffit panels allow hot, humid air to escape, which not only helps prevent condensation in the attic, but can also help reduce air conditioning costs.

In cool climates, HardieSoffit panels help prevent condensation from forming on the interior side of the roof sheathing and reduce the chances of roof-damaging ice dams.

For complete confidence  
**EVERY DETAIL MATTERS.**



**VENTED SMOOTH & CEDARMILL<sup>®</sup>**

*Sail Cloth*

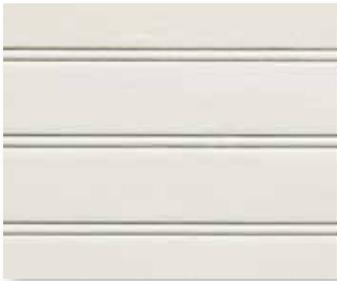
<b>Thickness</b>	1/4 in.		
<b>Length</b>	12 ft.	12 ft.	8 ft.
<b>Width</b>	12 in.	16 in.	24 in.
<b>ColorPlus Pcs./Pallet</b>	216	156	108
<b>Prime Pcs./Pallet</b>	200	150	100



**NON-VENTED SMOOTH & CEDARMILL<sup>®</sup>**

*Sail Cloth*

<b>Thickness</b>	1/4 in.			
<b>Length</b>	12 ft.	12 ft.	8 ft.	8 ft.*
<b>Width</b>	12 in.	16 in.	24 in.	48 in.
<b>ColorPlus Pcs./Pallet</b>	216	156	108	
<b>Prime Pcs./Pallet</b>	200	150	100	50



**BEADED PORCH PANEL\*\***

*Arctic White*

<b>Thickness</b>	1/4 in.
<b>Length</b>	8 ft.
<b>Width</b>	48 in.
<b>Pcs./Pallet</b>	50

Using the proper amount of vented HardieSoffit panels is crucial to a building's ventilation performance. James Hardie has taken the guess work out of soffit ventilation by providing the table below illustrating the minimum amount of vented HardieSoffit panels recommended for your attic space.\*\*\*

ATTIC SQ. FT.	LINEAR FT. OF VENTED SOFFIT
200	10
300	14
400	19
500	24
600	29
700	34
800	38
900	43
1000	48
1100	53
1200	58
1300	62
1400	67
1500	72
1600	77
1700	82
1800	86
1900	91
2000	96
2100	101
2200	106
2300	110
2400	115
2500	120
2600	125
2700	130
2800	134
2900	139
3000	144
3100	149

\*These 48 in. x 8 ft. panels only available primed.

\*\*Beaded Porch Panel is available in all 11 standard soffit colors, as well as Cool Breeze.

\*\*\*Linear Feet of Vented Soffit calculation is based on 2012 International Residential Code (IRC) Section 806.2, Exception 2, with a 50% upper attic and 50% lower attic split of required ventilation, using soffit with a net free ventilation of 5 square inches per linear foot. This Exception is also approved in 2015 IRC Section 806.2. Always consult a building design professional to confirm attic ventilation meets local building code requirements.



Cast your homes in  
**THE MOST ROMANTIC LIGHT.**

Khaki Brown

Cobble Stone

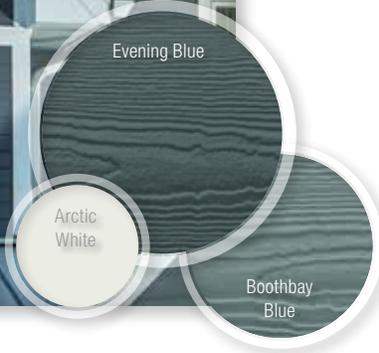
Timber Bark

**SUBTLE BLENDS**

# Color Inspiration



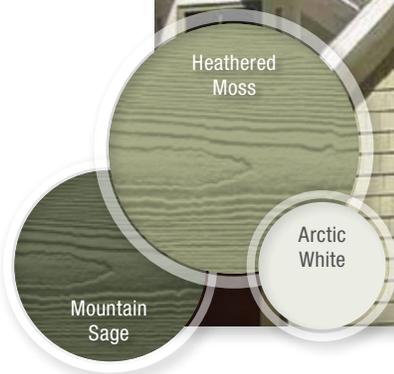
## COOL TONES



Use deeper body colors for a warm, welcoming feeling. Make homes appear larger with soft contrasts between siding and trim. The right color combinations leave lasting impressions. Our color specialists designed the rich ColorPlus finish collection to help you express what's special about every home you build.



## COMPLEMENTARY



## WARM TONES



# Express the true nature of a home's character with **ColorPlus® Technology**

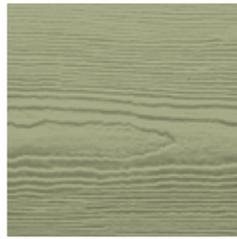
## PLANK, PANEL, BATTEN AND SHINGLE COLORS



ARCTIC WHITE



COBBLE STONE



HEATHERED MOSS



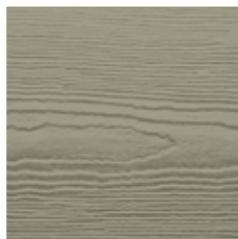
PEARL GRAY



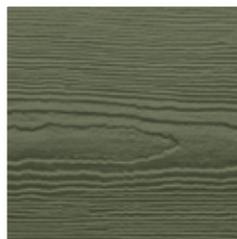
LIGHT MIST



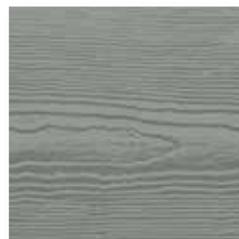
SAIL CLOTH



MONTEREY TAUPE



MOUNTAIN SAGE



GRAY SLATE



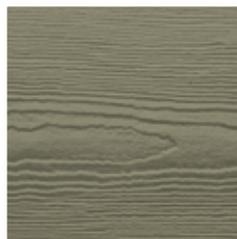
BOOTHBAY BLUE



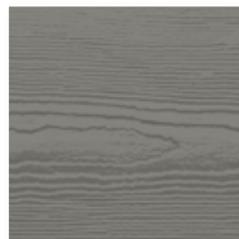
WOODLAND CREAM



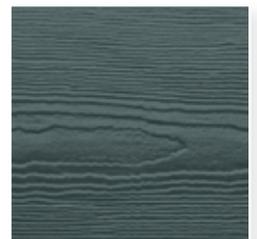
AUTUMN TAN



WOODSTOCK BROWN



AGED PEWTER



EVENING BLUE



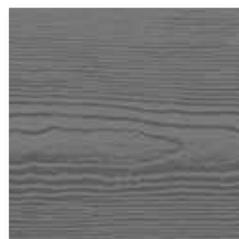
NAVAJO BEIGE



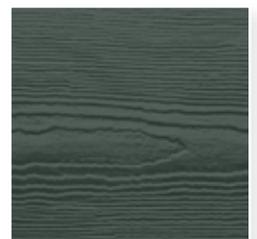
KHAKI BROWN



TIMBER BARK



NIGHT GRAY



IRON GRAY



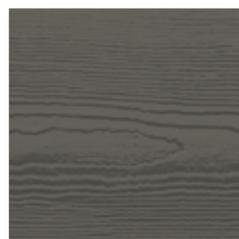
SANDSTONE BEIGE



CHESTNUT BROWN



COUNTRYLANE RED



RICH ESPRESSO



## TRIM AND SOFFIT COLORS



ARCTIC WHITE



SANDSTONE BEIGE



MONTEREY TAUPE



SAIL CLOTH



AUTUMN TAN



WOODSTOCK BROWN



NAVAJO BEIGE



KHAKI BROWN



TIMBER BARK



COBBLE STONE



PEARL GRAY

## PLANK COASTAL COLORS\*



CORAL  
COAST



TERRA  
COTTA



PINK  
SAND



COOL  
BREEZE



AQUA  
MARINE

\*Coastal colors are available exclusively in HardiePlank lap siding, Smooth and Select CedarMill in 8.25 in. and 6.25 in. widths only.

Explore our color palettes and differentiate your homes with stunning curb appeal. These distinctive tones are drawn from natural environments, complementing your design with the look of America's idyllic neighborhoods.

No exterior cladding can prevent 100% of water intrusion. Your homes should have an additional line of defense. HardieWrap® weather barrier provides a superior balance of water resistance and breathability, keeping the area within the wall drier. This helps prevent moisture accumulation that may lead to mold and mildew growth.

## INSTALLATION ADVANTAGES

- Thicker, more durable material for easier, quicker installation
- Superior tear resistance helps prevent water infiltration
- Can be installed with staples in place of cap nails for cost savings
- Provides a higher level of performance, no matter what type of cladding you specify



We've got performance covered  
**FROM THE INSIDE OUT.**



### WEATHER BARRIER

Thickness	11 mil.			
Length	100 ft.	100 ft.	150 ft.	150 ft.
Width	3 ft.	9 ft.	9 ft.	10 ft.

### PRO-FLASHING

Thickness	20 mil.		
Length	75 ft.	75 ft.	75 ft.
Width	4 in.	6 in.	9 in.

### FLEX FLASHING

Thickness	60 mil.	
Length	75 ft.	75 ft.
Width	6 in.	9 in.

### SEAM TAPE

Thickness	3.2 mil.
Length	164 ft.
Width	1-7/8 in.



To learn more about our weather barrier's advantages, visit [jameshardiepros.com](http://jameshardiepros.com)

# Finishing Touches

## ColorPlus Technology Accessories

### TOUCH-UP KITS

Specially formulated to match ColorPlus Technology finishes, our Touch-up Kits offer resistance to aging, color change and chalking. Included in the kits, Touch-up Pens conceal nailheads and very small nicks and scratches.



### COLOR-MATCHED CAULK

OSI® QUAD® MAX sealant offers a high performance sealant solution to color match James Hardie ColorPlus products.



## Trim Accessories

### FLAT TABS

Reduce nail holes and improve the aesthetic of trim applications around windows, doors and band boards.

### CORNER TABS

Use corner tabs to reduce the appearance of nail holes that would detract from the finished look of corner trim installations.



Find useful job-site tips in our industry-leading Best Practices Guide. For the latest installation instructions, visit [jameshardiepros.com](http://jameshardiepros.com)



HardieTrim®  
5/4 x 3.5 in.  
Arctic White

HardiePlank®  
7.25 in. Select  
Cedarmill®  
Timber Bark

As unforgettable  
**AS IT IS UNCOMPROMISING.**



## See the James Hardie Difference



James Hardie invented fiber cement. Over 8 million homes\* later, we continue to set the standard in premium, high-performance exterior cladding. Our products deliver uncompromising durability and finish quality for a beautiful, lower maintenance exterior.

Our unrivaled investment in R&D and constant innovations in product design, manufacturing and distribution allow us to remain steps ahead of the competition. With the support of our employees, partners and exceptional warranties, we're committed to protecting your customers' homes while helping your business grow.

\*Estimate based on total James Hardie siding sales through 2016 and average housing unit size.

# Warranty

Protect your homes with North America's #1 brand of siding backed by exceptional warranties. Unlike other brands, James Hardie doesn't prorate our siding and trim warranty coverage. We stand behind our siding 100% for 30 years and trim for 15 years.

ColorPlus Technology finishes come with a 15-year limited warranty.

## James Hardie Non-Prorated Siding Substrate Warranty Coverage



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For decades, our fiber cement products have been used to create better places to live. Each new home stands as a testament to our uncompromising quality. That proven track record has earned the loyalty of millions of homeowners and the endorsements of trusted authorities across the building industry.\*



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**HardiePlank lap siding** is backed by the **Good Housekeeping Seal**

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8.25 in.  
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**JamesHardie**

Siding | Trim



# Fiberglass-Based Asphalt Shingles & Accessories

## Guide Specifications

**PROJECT ARCHITECT RESPONSIBILITY:** The Project Architect is responsible for the design and specification of the roofing system, including the selection of materials, the design of the roof structure, and the coordination of the installation process. The Project Architect shall ensure that the roofing system meets the requirements of the applicable building codes and standards. The Project Architect shall also be responsible for the preparation of the contract documents, including the specifications, drawings, and conditions of contract. The Project Architect shall coordinate with the contractor to ensure that the roofing system is installed in accordance with the specifications and drawings. The Project Architect shall also be responsible for the inspection and acceptance of the roofing system.

### SECTION 07 31 13.13 - FIBERGLASS-BASED ASPHALT SHINGLES & ACCESSORIES

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- 1.1.1 Fiberglass-based asphalt shingles
- 1.1.2 Asphalt shingle underlayment
- 1.1.3 Asphalt shingle starter strip
- 1.1.4 Asphalt shingle ridge cap
- 1.1.5 Asphalt shingle edge treatment
- 1.1.6 Asphalt shingle accessories
- 1.1.7 Miscellaneous roof items

##### 1.2 RELATED SECTIONS

- 1.2.1 Section 05 11 00 - Cast-in-place concrete
- 1.2.2 Section 05 20 00 - Masonry
- 1.2.3 Section 05 22 00 - Reinforced concrete
- 1.2.4 Section 05 30 00 - Metal Decking
- 1.2.5 Section 05 31 00 - Metal Roofing
- 1.2.6 Section 05 32 00 - Reinforced concrete
- 1.2.7 Section 05 33 00 - Reinforced concrete

##### 1.3 REFERENCES

- 1.3.1 American National Standards Institute (ANSI) - Standard for Fiberglass-based Asphalt Shingles
- 1.3.2 International Building Code (IBC) - Minimum Requirements for Roofing
- 1.3.3 International Residential Code (IRC) - Minimum Requirements for Roofing











































# Fiberglass-Based Asphalt Shingles & Accessories

## Guide Specifications

- Driveway
  - Driveway shingles shall be installed as recommended.
  - 2□ Minimum driveway shingles shall be installed over a prepared substrate or over a driveway membrane. Minimum recommended slope.
  - Minimum driveway shingles shall be installed over a prepared substrate or over a driveway membrane.
  - 4□ Minimum driveway shingles shall be installed in a 2 in. thick bed of sand or gravel over a prepared substrate or over a driveway membrane.
  - Minimum driveway shingles shall be installed in a 2 in. thick bed of sand or gravel over a prepared substrate or over a driveway membrane.

- Roofing
  - Minimum roof shingles shall be installed over a prepared substrate or over a roof membrane.
  - 2□ Minimum roof shingles shall be installed over a prepared substrate or over a roof membrane. Minimum recommended slope.

- D□ Roof Deck
  - Roof deck shall be prepared in accordance with the manufacturer's recommendations.
  - 2□ Roof deck shall be prepared in accordance with the manufacturer's recommendations.
  - Roof deck shall be prepared in accordance with the manufacturer's recommendations.

- Underlayment
  - Underlayment shall be installed in accordance with the manufacturer's recommendations.
  - 2□ Underlayment shall be installed in accordance with the manufacturer's recommendations.
  - Underlayment shall be installed in accordance with the manufacturer's recommendations.

### 3.4 SHINGLE INSTALLATION

- Owens Corning™ shingles shall be installed in accordance with the manufacturer's recommendations.
- Shingles shall be installed over a prepared substrate or over a roof membrane.
- Shingles shall be installed in accordance with the manufacturer's recommendations.
- D□ Shingles shall be installed in accordance with the manufacturer's recommendations.



# Fiberglass-Based Asphalt Shingles & Accessories

## Guide Specifications

1. The shingles shall be Owens Corning™ 30-year warranty fiberglass-based asphalt shingles, 4 in. wide by 12 in. long, with a minimum weight of 215 lbs./100 sq. yd. The shingles shall be installed in accordance with the manufacturer's instructions.

2. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

### 3.5 LOW SLOPE ROOFING SYSTEM INSTALLATION

1. The shingles shall be Owens Corning™ 30-year warranty fiberglass-based asphalt shingles, 4 in. wide by 12 in. long, with a minimum weight of 215 lbs./100 sq. yd. The shingles shall be installed in accordance with the manufacturer's instructions.

2. A 1/2 in. thick Owens Corning™ 30-year warranty fiberglass-based asphalt shingles, 4 in. wide by 12 in. long, with a minimum weight of 215 lbs./100 sq. yd. shall be installed over the shingles.

3. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

4. The shingles shall be installed over a smooth, clean, and dry substrate.

5. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

### 3.6 VENT INSTALLATION

1. The shingles shall be Owens Corning™ 30-year warranty fiberglass-based asphalt shingles, 4 in. wide by 12 in. long, with a minimum weight of 215 lbs./100 sq. yd. The shingles shall be installed in accordance with the manufacturer's instructions.

2. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

3. The shingles shall be installed over a smooth, clean, and dry substrate.

4. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

5. The shingles shall be installed over a smooth, clean, and dry substrate.

6. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

### 3.7 PROTECTION

1. The shingles shall be installed over a smooth, clean, and dry substrate.

2. The shingles shall be installed over a smooth, clean, and dry substrate.

3. The shingles shall be installed over a smooth, clean, and dry substrate.

4. The shingles shall be installed over a smooth, clean, and dry substrate. The substrate shall be prepared in accordance with the manufacturer's instructions.

5. The shingles shall be installed over a smooth, clean, and dry substrate.

6. The shingles shall be installed over a smooth, clean, and dry substrate.

7. The shingles shall be installed over a smooth, clean, and dry substrate.



# Oakridge® & TruDefinition® Oakridge® Shingles

Installation Instructions

Instrucciones Para La Instalación De Tejas Oakridge®



# Oakridge® & TruDefinition® Oakridge® Shingles

## Application Instructions

Before installing this product, check local building codes for their roofing requirements.

These shingles are designed for new or re-roofing work over any properly built and supported wood roof deck having adequate nail holding capacity and a smooth surface. Check local building codes.

### Precautionary Note:

The manufacturer will not be responsible for problems resulting from any deviation from the recommended application instructions and the following precautions:

**Roof Top Loading:** Lay shingle bundles flat. Do not bend over the ridge.

**Roof Deck:** • 6" Minimum roof deck boards • Minimum  $\frac{3}{8}$ " plywood • Minimum  $\frac{7}{16}$ " OSB

Regardless of deck type used, the roofing installer must:

1. Install the deck material in strict compliance with the deck manufacturer's instructions.
2. Prevent the deck from getting wet before, during and after installation.

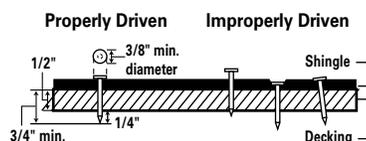
**Eave Flashing:** Use Owens Corning® self-sealing ice and water barrier on the eaves in all regions of the country where roofs are susceptible to leaks from ice and water backup.

**Ventilation:** Must meet local building codes.

**Handling:** Use extra care in handling shingles when the temperature is below 40°F.

**Storage:** Store in a covered ventilated area at a maximum temperature of 110°F. Bundles should be stacked flat. Protect shingles from weather when stored at the job site. Do not store near steam pipes, radiators, etc.

**Fastener requirement:** Use galvanized steel, stainless steel, or aluminum nails minimum 12 gauge shank with  $\frac{3}{8}$ " diameter head. Owens Corning Roofing recommends that fasteners comply with ASTM F 1667. Check local building codes.



**All Fasteners** must penetrate at least  $\frac{3}{4}$ " into the wood deck or completely through sheathing.

**Notice:** Owens Corning Roofing recommends the use of nails as the preferred method of attaching shingles to wood decking or other nailable surface.

## Instrucciones de aplicación

Antes de colocar este producto, verifique los códigos locales de construcción para conocer los requisitos de su techo.

Estas tejas han sido diseñadas para la construcción de techos nuevos o el arreglo de techos existentes sobre plataformas de madera correctamente construidas y que poseen una capacidad de sujeción de clavos y una superficie lisa. Consulte los códigos de construcción locales.

### Aviso importante:

El fabricante no se hará responsable por los problemas que surjan como consecuencia de no seguir exactamente las instrucciones de instalación recomendadas y de los siguientes avisos importantes:

**Carga sobre los techos:** Coloque los paquetes de tejas de manera plana sobre el techo. No los doble sobre la cumbrera.

**Plataforma del techo:** • 6 pulgadas de mínimo sobre la estructura base del techo •  $\frac{3}{8}$  pulg. como mínimo de madera triplay •  $\frac{7}{16}$  pulg. como mínimo para paneles de fibra orientada. Cualquiera que sea el tipo de superficie utilizada, el instalador del techo debe:

1. Instalar el material de la plataforma siguiendo estrictamente las instrucciones del fabricante.
2. Evitar que la plataforma se moje antes, durante y después de la instalación.

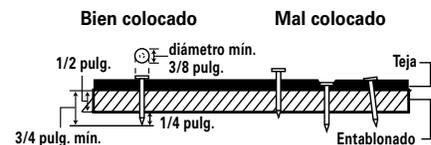
**Tapajuntas para aleros:** Utilice la barrera autosellante resistente al agua y al hielo de Owens Corning en los aleros de todas las regiones del país en las que los techos estén expuestos a filtraciones por causa de la acumulación de agua y hielo.

**Ventilación:** Debe cumplir con los códigos de construcción locales.

**Uso:** Tenga mucho cuidado al usar y colocar las tejas cuando la temperatura sea inferior a los 40°F.

**Almacenamiento:** Almacene en un área cubierta y ventilada a una temperatura que no sobrepase los 110°F/43°C. Almacenar en forma plana. Proteja las tejas del clima cuando las almacene en el lugar de trabajo. No las almacene cerca de tuberías de vapor, radiadores, etc.

**Requisito de sujetador:** Use clavos de acero galvanizado, acero inoxidable o de aluminio, de calibre 12 como mínimo, con un diámetro de cabeza de  $\frac{3}{8}$  pulg. Owens Corning Roofing recomienda que los sujetadores cumplan con la norma ASTM F 1667. Consulte los códigos de construcción locales.



**Todos los sujetadores** deben penetrar al menos  $\frac{3}{4}$  pulg. en la plataforma del techo de madera o atravesar completamente los revestimientos de madera triplay.

**Aviso:** Owens Corning Roofing recomienda el uso de clavos como método preferido para fijar tejas a superficies de madera u otras superficies aptas para clavos.

### CAUTION

**ROOF SURFACE MAY BE SLIPPERY:** Especialmente when wet or icy. Use a fall protection system when installing. Wear rubber soled shoes. Walk with care.

**FALLING HAZARD:** Secure area below work and materials on roof. Unsecured materials may slide on roof. Place on level plane or secure to prevent sliding. Wear a hard hat.

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

### CUIDADO

**EL TECHO PUEDE ESTAR RESBALOSO:** Especialmente cuando está mojado o cubierto de hielo. Al realizar la instalación, utilice un sistema de protección contra las caídas. Utilice zapatos con suela de goma. Camine con cuidado.

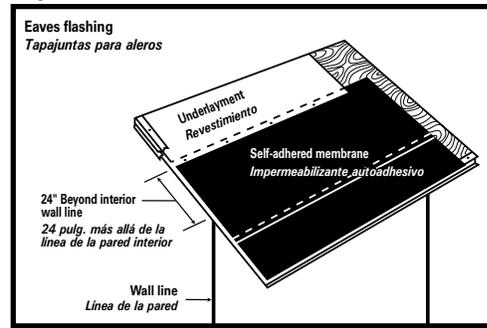
**PELIGRO DE CAÍDA DE OBJETOS:** Asegure el área que se encuentra debajo de la zona de trabajo y los materiales que están sobre el techo. Los materiales que no estén sujetos pueden caerse del techo. Colóquelos en un lugar sin pendiente o sujételos para que no se caigan. Use un casco resistente.

**ADVERTENCIA:** Este producto contiene una sustancia química considerada cancerígena en el estado de California.

# 1 Specialty Eave Flashing:

Use Owens Corning® self-sealing ice and water barrier on the eaves in all regions of the country where roofs are susceptible to leaks from ice and water backup. Apply starting at the eave edge and extend upslope a minimum of 24 inches from the interior wall line. See Fig. 1.

**Fig. 1 Specialty Eave Flashing**  
*Tapajuntas especial para aleros*



# 1 Tapajuntas especial para aleros:

Utilice la barrera autosellante resistente al agua y al hielo de Owens Corning en los aleros de todas las regiones del país en las que los techos estén expuestos a filtraciones por causa de la acumulación de agua y hielo. Para la instalación, comience en el borde del alero y extienda hacia arriba un mínimo de 24 pulgadas desde la línea de la pared interior. Ver la Fig. 1.

# 2 Underlayment: Standard Slope (4" in 12" or more)

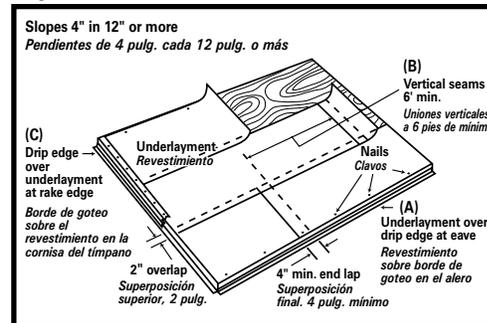
Application of underlayment, metal drip edges, and eaves flashing: See Fig. 2.

(A) Apply one layer of underlayment over metal drip edge at eaves. Use only enough fasteners to hold in place.

(B) Overlap successive courses 2". Overlap course ends 4". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

**Fig. 2 Underlayment Standard Slope**  
*Pendiente estándar del revestimiento*



# 2 Revestimiento: Pendiente estándar (4 pulg. cada 12 pulg. o más)

Instalación del revestimiento, bordes de goteo metálicos y tapajuntas de aleros: Ver la Fig. 2.

(A) Instale una sección del revestimiento sobre el goterón metálico del alero. Utilice la cantidad estrictamente necesaria de sujetadores para mantenerla en su lugar.

(B) Sobreponga las hileras siguientes 2 pulg. Sobreponga los extremos de las hileras 4 pulg. Los empalmes laterales deben escalonarse a 6 pies de distancia.

(C) Instale el borde de goteo de metal sobre el revestimiento en la cornisa.

# 3 Underlayment: Low Slope (2" in 12" to less than 4" in 12")

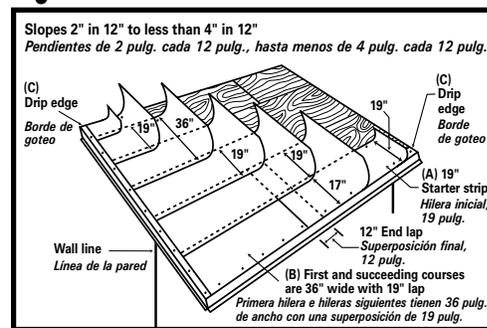
Application of underlayment, metal drip edges, and eaves flashing: See Fig. 3.

(A) Apply 19" starter strip of underlayment over metal drip edge at eaves. Use only enough fasteners to hold it in place.

(B) Use 36" strip of underlayment for remaining courses, overlapping each course 19". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

**Fig. 3 Underlayment Low Slope**  
*Pendiente baja del revestimiento*



# 3 Revestimiento: Pendiente baja (2 pulg., a menos de 4 pulg. cada 12 pulg.)

Instalación del revestimiento, bordes de goteo metálicos y tapajuntas de aleros: Ver la Fig. 3.

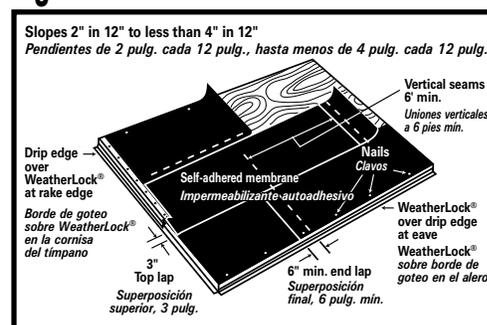
(A) Instale una sección inicial de 19 pulg. de revestimiento sobre el goterón metálico del alero. Utilice la cantidad estrictamente necesaria de sujetadores para mantenerla en su lugar.

(B) Use una sección de revestimiento de 36 pulg. para el resto de las hileras, sobreponiendo cada hilera 19 pulg. Los empalmes laterales deben escalonarse a 6 pies de distancia.

(C) Instale el borde de goteo de metal sobre el revestimiento en la cornisa.

Or WeatherLock® self-adhered underlayment or equivalent with a standard over lap of 3" and metal drip edge. See Fig. 3A.

**Fig. 3A Underlayment Low Slope**  
*Pendiente baja del revestimiento*



o membrana autoadherente WeatherLock® o equivalente con una superposición estándar de 3 pulg. y borde de escurrimiento. Ver la Fig. 3A.

## 4 Shingle Fastening:

Place fasteners  $6\frac{1}{8}$ " from bottom edge of each shingle and 1" from each end.

**Standard Pattern** Use four fasteners. See Fig. 4.

**Six Nail Pattern** Use six fasteners. See Fig. 4A.

**Mansard or Steep Slope Fastening Pattern.** Place fasteners  $6\frac{1}{8}$ " from bottom edge to secure both layers of the shingle. See Fig. 4B.

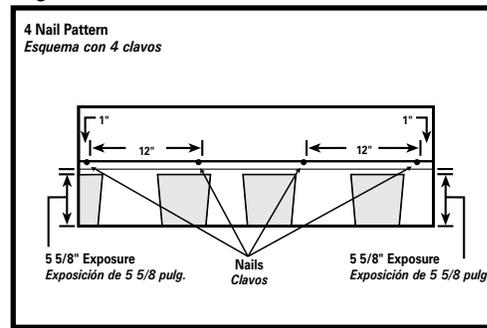


**REQUIRED:** For slopes exceeding 60 degrees or 21 inches per foot, use six fasteners and four spots of asphalt roof cement per shingle. Apply immediately; one 1" diameter spot of asphalt roof cement **under** each shingle tab. Center asphalt roof cement 2" up from bottom edge of shingle tab. See Fig. 4B.

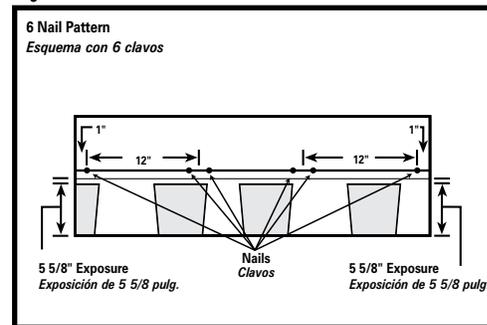
**Roof Cement** where required must meet ASTM D-4586 Type I or II (Asbestos Free).

**Six nail fastening pattern is required for maximum wind warranty. In addition, Owens Corning® Starter Shingles are required along the eave and rake. (See Starter Shingle instructions for details.)**

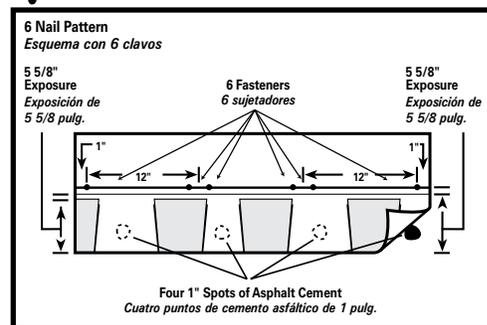
**Fig. 4 Standard Fastening Pattern**  
*Esquema de instalación estándar*



**Fig. 4A Six Nail Fastening Pattern**  
*Esquema de instalación con seis clavos*



**Fig. 4B Mansard or Steep Slope Fastening Pattern**  
*Esquema de instalación en pendientes pronunciadas o mansardas*



## 4 Sujeción de las tejas:

Coloque los sujetadores a  $6\frac{1}{8}$  pulg. a partir del borde inferior de cada teja y a 1 pulg. de cada extremo.

**Esquema estándar.** Utilice cuatro sujetadores. Ver la Fig. 4.

**Esquema con seis clavos** Para 6 sujetadores. Ver la Fig. 4A.

**Esquema de instalación en pendientes pronunciadas o mansardas.** Coloque los sujetadores a  $6\frac{1}{8}$  pulg. del borde inferior para ajustar ambas capas de la teja. Ver la Fig. 4B.



**REQUISITO:** Para pendientes de más de 60 grados o 21 pulg. por pie, utilice seis sujetadores y cuatro cantidades pequeñas de cemento asfaltado por teja. Instale inmediatamente una sección con 1 pulg. de diámetro de cemento asfaltado **debajo** de cada lengüeta de las tejas. Asegúrese de que el cemento asfaltado esté centrado 2 pulg. por encima del borde inferior de la lengüeta de la teja. Ver la Fig. 4B.

Cuando sea necesario utilizar **cemento para techos**, éste debe cumplir con la norma ASTM D-4586 Tipo I ó II (sin asbestos).

**El esquema de fijación de seis clavos es obligatorio para la garantía máxima contra vientos. Además, es necesario instalar las tejas para la hilera inicial de Owens Corning® en las cornisas de tímpano y los aleros. (Consulte las instrucciones de las tejas para la hilera inicial para obtener información detallada).**

## 5 Shingle Application:

These shingles are applied with a 6½" offset, with 5⅝" exposure, over prepared roof deck, starting at the bottom of the roof and working across and up. This will blend shingles from one bundle into the next and minimize any normal shade variation. Application with offsets of 4" or 8" are also acceptable.

Caution must be exercised to assure that end joints are no closer than 2" from fastener in the shingle below and that side laps are no less than 4" in succeeding courses. Refer to course application steps for specific instructions.

### Starter Course:

Use an Owens Corning® Starter shingle product or trim 5⅝" from the starter course shingle. Trim 6½" off the rake of the starter course shingle and flush with the drip edge along the rake and eaves edge, and continue across the roof. Use 5 fasteners for each shingle, placed 2" to 3" up from eaves edge. See Fig. 5. **(If no drip edge is used, shingles must extend a minimum of ½" and no more than 1" from rake and eaves edge.)**

### First Course:

Apply first course starting with the full shingle even with the starter course. See Fig. 5A. Fasten securely according to fastening instructions. See Fig. 4.

### Second Course:

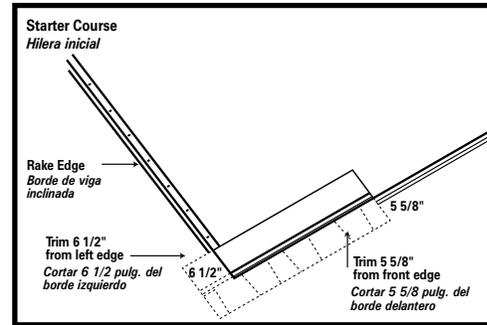
Remove 6½" from the left end of this shingle and apply the remaining piece over and above the first course shingle and flush with edge of the first course with 5⅝" exposure. See Fig. 5B. Fasten securely according to fastening instructions. See Fig. 4.

### Third Course:

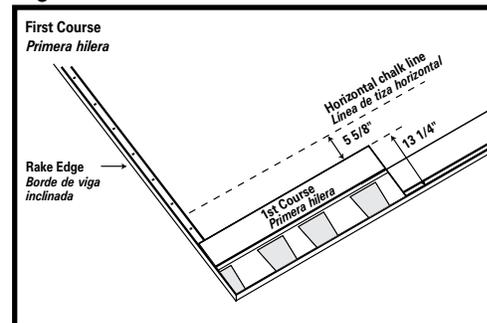
Remove 13" from the left end of this shingle and apply the remaining piece over and above the second course shingle flush with edge of the second course with 5⅝" exposure. See Fig. 5C. Fasten securely according to fastening instructions. See Fig. 4.

(continued on next page)

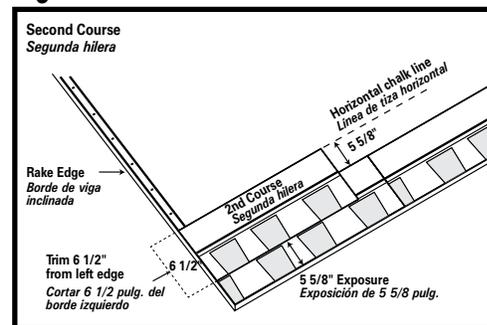
**Fig. 5 Shingle Application**  
*Instalación de tejas*



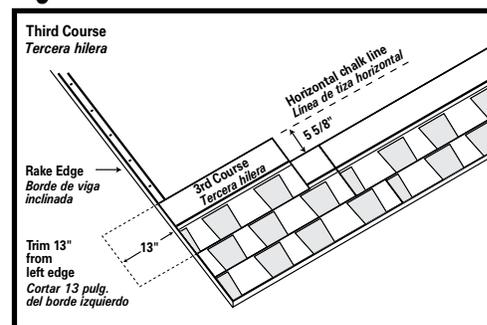
**Fig. 5A Shingle Application**  
*Instalación de tejas*



**Fig. 5B Shingle Application**  
*Instalación de tejas*



**Fig. 5C Shingle Application**  
*Instalación de tejas*



## 5 Instalación de las tejas:

Estas tejas se instalan con un desplazamiento de 6½ pulg., con una superficie expuesta de 5⅝ pulg., sobre plataformas de techos preparadas. La colocación comienza por la parte inferior del techo y se realiza en forma transversal hacia arriba. De esta manera, las tejas de un paquete se mezclan con las del siguiente y se reducen al mínimo las variaciones normales de tonalidad. También se pueden instalar tejas con un desplazamiento de 4 ó 8 pulg.

Asegúrese de que las uniones de los extremos no se encuentren a menos de 2 pulg. del sujetador de la teja que se encuentra más abajo, y que las superposiciones laterales no sean de menos de 4 pulg. en las hileras siguientes. Consulte los pasos de instalación de hileras para ver las instrucciones específicas.

### Hilera inicial:

Utilice un rollo de inicio o corte 5⅝ pulg. de la teja de la hilera inicial. Corte 6½ pulg. desde la viga inclinada en la teja de la hilera inicial y extienda más allá de la viga inclinada y el borde del alero, y continúe a lo ancho del techo. Utilice 5 sujetadores para cada teja, colocados a una distancia de entre 2 y 3 pulg. del borde del alero. Ver la Fig. 5. **(Si no utiliza un borde de goteo, las tejas deben extenderse un mínimo de ½ pulg. y un máximo de 1 pulg. de la viga inclinada y el borde del alero.)**

### Primera hilera:

Coloque la primera hilera comenzando con la teja entera alineada con la hilera inicial. Ver la Fig. 5A. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

### Segunda hilera:

Quite 6½" pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la primera hilera y al ras del borde de la primera hilera, con 5⅝ pulg. de exposición. Ver la Fig. 5B. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

### Tercera hilera:

Quite 13 pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la segunda hilera y al ras del borde de la segunda hilera, con 5⅝ pulg. de exposición. Ver la Fig. 5C. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

(continúa en la página siguiente)

## 5 Shingle Application (cont.):

### Fourth Course:

Remove 19½" from the left end of this shingle and apply the remaining piece over and above the third course shingle and flush with edge of the third course with 5⅝" exposure. See Fig. 5D. Fasten securely according to fastening instructions. See Fig. 4.

### Fifth Course:

Remove 26" from the left end of this shingle and apply the remaining piece over and above the fourth course shingle and flush with edge of the fourth course with 5⅝" exposure. See Fig. 5E. Fasten securely according to fastening instructions. See Fig. 4.

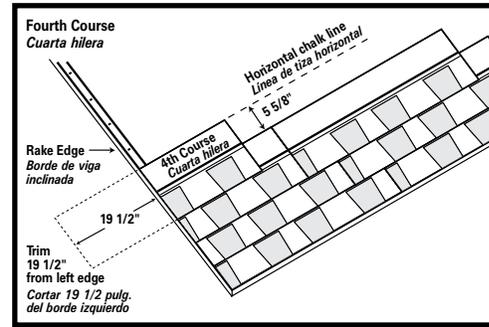
### Sixth Course:

Remove 32½" from the left end of this shingle and apply the remaining piece over and above the fifth course shingle and flush with edge of the fifth course with 5⅝" exposure. See Fig. 5F. Fasten securely according to fastening instructions. See Fig. 4.

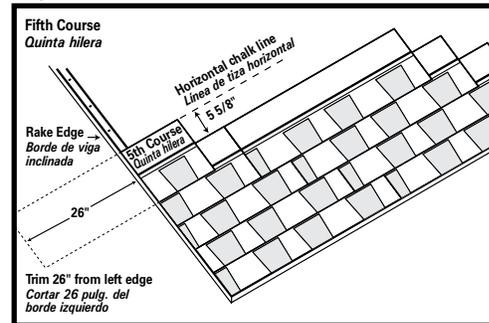
### Succeeding Courses:

For succeeding courses, repeat first through sixth course. See Fig. 5G.

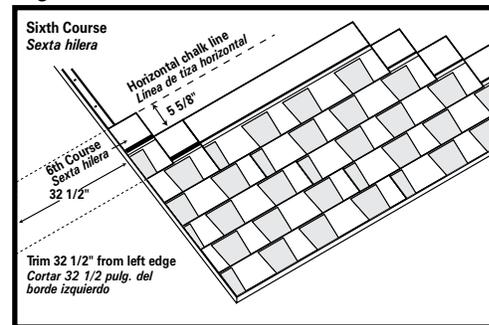
**Fig. 5D** Shingle Application  
Instalación de tejas



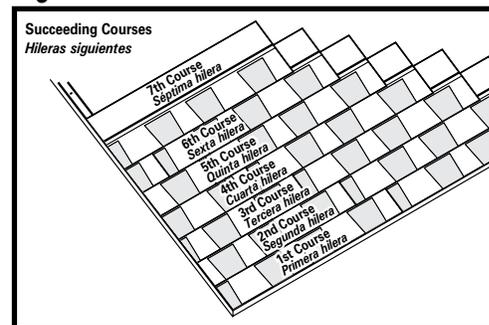
**Fig. 5E** Shingle Application  
Instalación de tejas



**Fig. 5F** Shingle Application  
Instalación de tejas



**Fig. 5G** Shingle Application  
Instalación de tejas



## 5 Instalación de las tejas (cont.):

### Cuarta hilera:

Quite 19½ pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la tercera hilera y al ras del borde de la tercera hilera, con 5⅝ pulg. de exposición. Ver la Fig. 5D. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

### Quinta hilera:

Quite 26 pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la cuarta hilera y al ras del borde de la cuarta hilera, con 5⅝ pulg. de exposición. Ver la Fig. 5E. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

### Sexta hilera:

Quite 32½ pulg. del borde izquierdo de esta teja y aplique la pieza restante sobre y por encima de la teja de la quinta hilera y al ras del borde de la quinta hilera, con 5⅝ pulg. de exposición. Ver la Fig. 5F. Sujete firmemente de acuerdo con las instrucciones de sujeción. Ver la Fig. 4.

### Hileras siguientes:

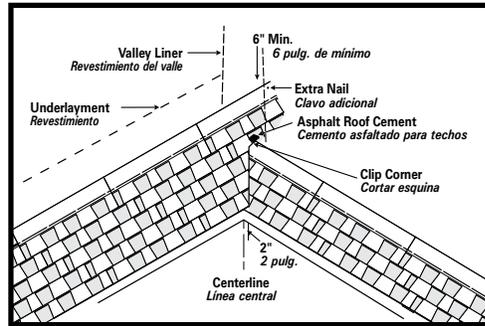
Para las hileras siguientes, repita los pasos que se indican desde la primera hasta la sexta hilera. Ver la Fig. 5G.

## 6 Valley Construction: Closed-Cut Valley

See Fig. 6.  
A closed-cut valley can be used as an alternative to woven and open valley and is applied as follows:

Lay a 36" wide valley liner of self-adhered membrane underlayment or equivalent. A 36" wide minimum 50 lb. smooth surface roll roofing can also be used as a valley liner. Lay all shingles on one side of valley and across center line of valley a minimum of 12". Fasten a minimum of 6" away from center line on each side of valley. Strike a chalk line 2" from the center line of the unshingled side. Apply shingles on the unshingled side up to the chalk line and trim, taking care not to cut the underlying shingles. Clip upper corners of these shingles, cement and fasten. Both woven and metal valleys are acceptable alternatives.

**Fig. 6** Closed-Cut Valley Construction  
Construcción del valle con corte cerrado



## 6 Construcción del valle: Valle cerrado

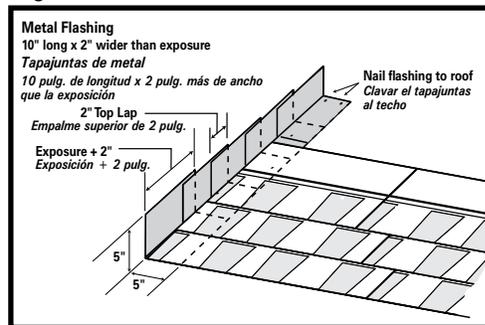
Ver la Fig. 6.  
Un valle con corte cerrado puede ser usado como alternativa a un valle tejido o abierto y se coloca de la siguiente manera:

Coloque en el valle un impermeabilizante autoadhesivo o equivalente con 36 pulg. de ancho. Para revestir el valle, también se puede utilizar un rollo de techado de 36 pulg. de ancho y un mínimo de 50 libras. Coloque todas las tejas sobre un lado del valle y a través de la línea central del valle al menos 12 pulg. Sujete a un mínimo de 6 pulg. de la línea central a cada lado del valle. Marque una línea de tiza a 2 pulg. de la línea central del lado que no tiene tejas. Coloque las tejas del lado que no tiene tejas hasta la línea de tiza y recorte, con cuidado de no cortar las tejas que se encuentran debajo. Una los extremos superiores de estas tejas, coloque cemento y sujete. Se pueden utilizar valles de tejido o metal.

## 7 Step Flashing:

Use 10" long and 2" wider than expected exposure corrosion-resistant metal where roof planes butt against vertical sidewalls or chimneys. See Fig. 7.

**Fig. 7** Step Flashing  
Tapajuntas escalonado



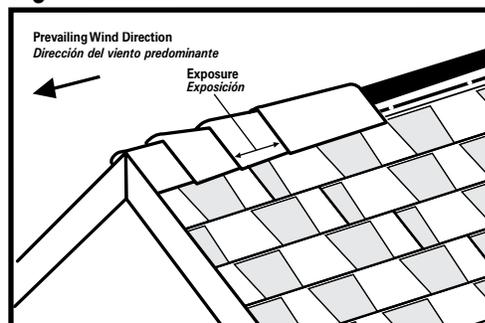
## 7 Revestimeto escalonado:

Utilice metal resistente a la corrosión con una exposición de 10 pulg. de longitud y de 2 pulg. más de ancho que la exposición esperada en los puntos en los que los planos del techo se unan a las paredes laterales verticales o a chimeneas. Ver la Fig. 7.

## 8 Hip & Ridge Application:

Use corresponding Owens Corning® Hip & Ridge shingles to best complement shingle color. Follow specific application instructions as printed on the Hip & Ridge shingle package. See Fig. 8.

**Fig. 8** Hip & Ridge Application  
Instalación de caballetes y cumbreras



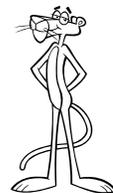
## 8 Aplicación para caballete y cumbrera

Utilice Owens Corning® tejas para caballetes y cumbreras. Siga las instrucciones de instalación del paquete de caballetes y cumbreras. Ver la Fig. 8.



**OWENS CORNING ROOFING AND ASPHALT, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO, USA 43659

**1-800-GET-PINK®**  
[www.owenscorning.com/roofing](http://www.owenscorning.com/roofing)



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# Deck Defense®

High Performance Roof Underlayment  
Moisture protection for your home.



## Block water damage.

When it comes to your new roof, don't take chances. Ask for the moisture protection that Owens Corning® Deck Defense® *High Performance Roof Underlayment* can provide.

New *Deck Defense* underlayment's durable synthetic construction provides an immediate line of defense—so strong it can protect your roof for up to 6 months\* of UV exposure. It also acts as a secondary water-shedding barrier for your roof once shingles are installed. In addition, unlike standard felt underlayment, it comes with a 30-Year Limited Warranty:

A roof is a big investment. That's why it's important to make sure it's done right from the beginning to help ensure it's protected from water damage in the attic. One of the first steps to a high-performing roof is using underlayment in conjunction with shingles to help shield your home from moisture infiltration.



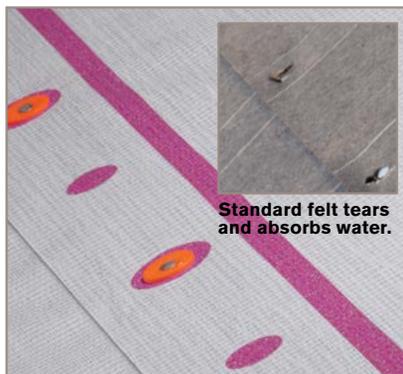
### Repels and protects

- Offers long-term moisture protection for your roof compared to standard felt underlayment
- Acts as a non-absorbent, secondary water-shedding barrier
- Reduces water intrusion when exposed



### Guards and withstands

- Helps shield your home during roof installation
- Protects the roof deck for up to 6 months\*\* of UV exposure
- 30-Year Limited Warranty\*



### Endures and performs

- Durable synthetic construction resists tearing when walked on
- Stays intact in high winds\*\*
- Designed to reduce the chance for tears that can cause leaks compared to felt underlayment



### Easy installation

- Extra-wide roll provides up to 5 times more coverage per roll than standard #30 felt underlayment
- Preprinted nailing pattern and overlap lines speed installation



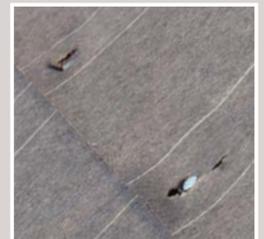
### High-traction, slip-resistant surface

- Specially engineered textured and coated top layer provides traction for a secure work area compared to other leading synthetic underlayments



## Deck Defense® vs. Organic Felt underlayment — the right choice is clear.

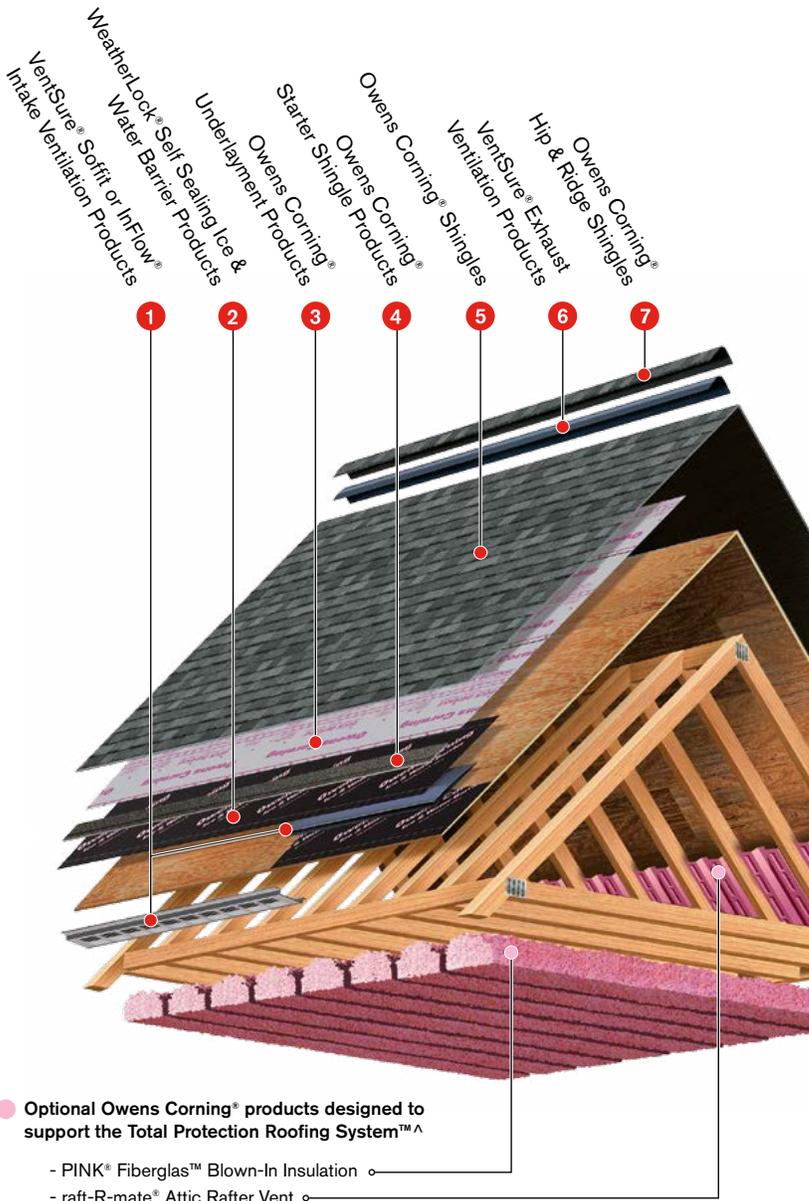
	Deck Defense® Underlayment	Conventional #30 Organic Felt
<b>Construction</b>	100% Engineered Polyolefin	Asphalt/Organic Felt
<b>Roll Size</b>	1,000 sq. ft., 48" wide	200 sq. ft., 36" wide
<b>Weight Per Square</b>	3.3 lbs. <sup>1</sup>	20 lbs.
<b>UV Exposure</b>	Can be left exposed for up to 6 months**	Needs to be covered immediately
<b>Warranty</b>	30-Year Limited Warranty*	No warranty
<b>Weather Performance</b>	Does not curl or wrinkle when exposed to moisture	May curl, wrinkle and crack when exposed to moisture
<b>Slip Resistance</b>	Unique woven technology and coated surface aides in traction, even when wet	May become slick or wrinkled in wet conditions, leading to an unsafe walking surface
<b>Nailing Pattern</b>	Nailing aids for proper application, both in standard and high wind areas	No nailing guides
<b>Durability</b>	Repels and sheds water	Absorbs water and moisture
<b>Surface Temperature</b>	Light gray color reduces roof temperature when exposed	Black color absorbs heat and increases roof temperature
<b>Tear Resistance</b>	Resistant to tearing, even when walked on or in high winds	Often tears during installation and fastening, causing leaks and rework



# The most important part of the roof? All of them.



It takes more than just shingles to protect your home. It takes an integrated system of components and layers designed to withstand the forces of nature outside while controlling temperature and humidity inside. The Owens Corning® Total Protection Roofing System™<sup>^</sup> gives you the assurance that all of your Owens Corning® roofing components are working together to help increase the performance of your roof — and to enhance the comfort and enjoyment of those who live beneath it.



● Optional Owens Corning® products designed to support the Total Protection Roofing System™<sup>^</sup>

- PINK® Fiberglas™ Blown-In Insulation ○
- raft-R-mate® Attic Rafter Vent ○

<sup>^</sup> Excludes non-Owens Corning® roofing products such as flashing, fasteners and wood decking.

\* See actual warranty for complete details, limitations and requirements.

\*\* Special application required for extended exposure. See installation instructions.

† For non-asphaltic roofing materials, check with the manufacturer as to the suitability of using Deck Defense® High Performance Roof Underlayment. Install following the roofing manufacturer's application instructions.

‡ Applies for all areas that recognize Miami-Dade County Product Control Section.

‡ Underlayment is tested as part of a roof assembly that includes wood decking, underlayment and asphalt shingles.

# International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

1 Excludes core weight.

2 Includes core weight.

## Product Attributes

### Warranty Length

30-Year Limited\*

### Application

Engineered for asphalt, tile and metal roof assemblies†

## Typical Values

Length	250 ft.
Width	48 in.
Nominal Weight per Roll	36 lbs. <sup>2</sup>
Coverage (with 3-in. overlap)	937 sq. ft.
Exposed Color	Light gray
Surface Construction	Coated textured poly

## Applicable Standards and Codes

ASTM D226

ASTM D4869

ASTM E108/UL 790 (Class A Fire Resistance)‡

Florida Product Approval

ICC-ES AC188

ICC-ESR 3229\*

Miami-Dade County Product Approval\*\*

Want to know more about Owens Corning® products or find an Owens Corning Roofing Preferred Contractor in your area? It's easy to reach us:

**1-800-GET-PINK®**  
**www.owenscorning.com/roofing**



**OWENS CORNING ROOFING AND ASPHALT, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO, USA 43659

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(All Plants)

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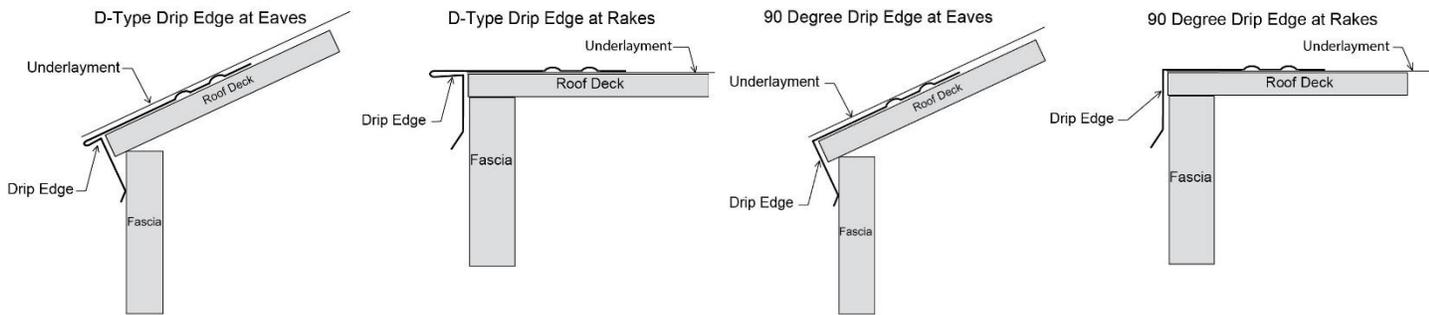


**Issue Description:**

...

**Recommendations:**

...



**Florida Building Code:**

...

**Disclaimer of Liability**

...



OWENS CORNING SCIENCE AND TECHNOLOGY, LLC

...

1-800-GET-PINK®

www.owenscorning.com

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# Owens Corning™ Roofing Shingle Products

HELPING YOU ACHIEVE LEED® CERTIFICATION

INNOVATIONS FOR LIVING®



Owens Corning™ Roofing Products help protect from the elements and severe weather for commercial, institutional and high-rise residential buildings with a broad array of aesthetically appealing roofing products. This document applies to the LEED New Construction and Major Renovations, LEED Commercial Interiors, LEED Core & Shell, LEED for Schools and LEED for Existing Buildings, Operations & Maintenance products. As you pursue LEED Certification, rely on the products and expertise of Owens Corning.

LEED Certification and the awarding of credits, is based on the overall project design, properly designed building systems and construction assemblies, and the performance of the project as a whole. Roofing Shingle Products can be components in many roofing systems and assemblies. All components and assemblies should be considered when seeking credits within a given category. Owens Corning™ Shingle Products contribute to the categories listed below.

## Owens Corning™ Roofing Shingle Products:

- Berkshire® Collection
- Woodmoor® Shingles
- Woodcrest® Shingles
- TruDefinition® Duration® Designers Color Collection
- TruDefinition® Duration® Shingles
- TruDefinition® Duration STORM® Shingles
- TruDefinition® Duration MAX™ Shingles
- TruDefinition® Oakridge® Shingles
- TruDefinition® WeatherGuard® HP Shingles
- Duration® Premium Cool Shingles
- Duration® Premium Shingles
- Supreme® Shingles

**Table 1 (Chart continued on next page)**

Contribution to LEED Requirement

LEED Credit Category	LEED Requirement	Owens Corning™ Product Contribution
<b>Energy and Atmosphere (EA)</b> Prerequisite 2: Minimum Energy Performance	10% performance improvement for new buildings or 5% better performance for renovated existing buildings, with baseline building performance rating calculated per method in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 for whole building simulation.	Owens Corning™ Roofing Products, Duration® Premium Cool Shingles, TruDefinition® Duration® Oakridge® and Supreme® Shasta White Shingles can help to reduce building energy demand. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency.
Credit 1: Optimize Energy Performance (1-19 points)	Improve building performance rating compared with the baseline building performance rating, calculated per Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 a whole project simulation model, with points awarded per energy cost savings in LEED table.	Owens Corning™ Roofing Products, Duration® Premium Cool Shingles, TruDefinition® Duration® Oakridge® and Supreme® Shasta White Shingles can help to reduce building energy demand. The overall contribution depends on the building system or construction assembly where the product is used. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency.
Credit 2: Construction Waste Management (1-2 points)	Develop and implement a waste management plan, quantifying material diversion by weight (Remember that salvage may include the donation of materials to charitable organizations such as Habitat for Humanity.) Recycle and/or salvage at least 50% (by weight) of construction, demolition, and land clearing waste (1 point) Recycle and/or salvage an additional 25% (75% total by weight) of the construction, demolition, and land clearing debris (1 point)	Owens Corning™ Roofing Preferred Contractor Shingle Recycling Program available in specific markets.

**Table 1 (Continued)**

Contribution to LEED Requirement

LEED Credit Category	LEED Requirement	Owens Corning™ Product Contribution
<b>Materials &amp; Resources (MR)</b> Credit 4: Recycled Content (1-2 points)  Credit 5: Regional Material (1-2 points)	Materials with recycled content such that the sum of post-consumer recycled content plus ½ of the pre-consumer content constitutes at least 10% (1 point) or 20% (2 points), based on cost, of the total value of the materials in the project.  Materials/products extracted and manufactured (or fraction thereof) within 500 miles of project site for a minimum of 10% (1 point) or 20% (2 points), based on cost, of the total materials value (fractional quantities contribute as percentage by weight).	Owens Corning™ Shingle Products contain varying levels of pre-consumer recycled content, depending on product and manufacture location. See Table 2  Owens Corning™ Shingle products are made in many locations, providing regionally available product manufactured and sourced within a 500 mile radius of project locations in many areas of the country. Owens Corning™ Roofing plant locations are shown in Fig. 1. Contact 1-800-GET-PINK® for additional information.
<b>Innovation in Design (ID)</b> (1-4 points)	Credit can be achieved through any combination of the Innovation in Design and Exemplary Performance.	Refer to individual product data sheets or check with the local sales representative for product applications.

Note: No individual material enables a credit point to be taken within LEED because each category is dependent on the aggregate of all materials and their proportionate relationship to the total dollar cost of all materials.

**Table 2**

Manufacturing Facility	Shingles Product	Pre-Consumer Recycle Content Available for LEED NC Credit
Atlanta	Supreme® Shingles Oakridge® Shingles	11%
Brookville	Oakridge® Shingles TruDefinition® Duration® Shingles	7% 7%
Medina	Supreme® Shingles	9%
Memphis	Supreme® Shingles Oakridge® Shingles	15% 4%
Summit	Supreme® Shingles Oakridge® Shingles	20% 8%

Recycled content is a yearly average based on tons of recycled material purchased divided by the nominal square weight times the squares provided.

**Figure 1**

Owens Corning™ Roofing Shingle Product Plant Locations



To view other Owens Corning™ products that help contribute to LEED certification please visit <http://sustainability.owenscorning.com/> and download Pub. No. 10011611.



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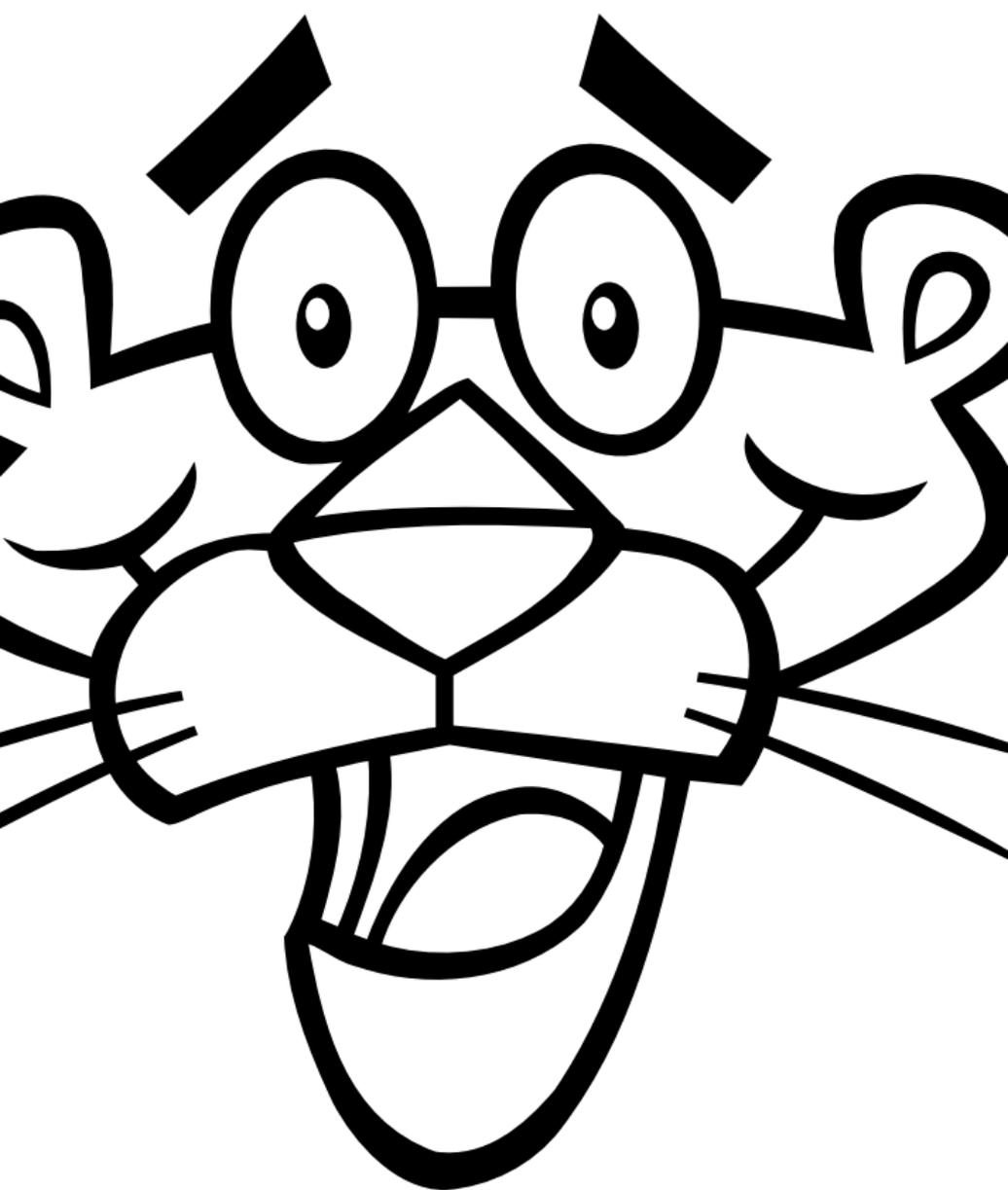
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# Standard Product Limited Warranty

on Roofing Shingles





# Standard Product Limited

This warranty includes limitations on its trans

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.**

## Introduction

Thank you for your recent purchase of Owens Corning® roofing shingles manufactured by Owens Corning Roofing and Asphalt, LLC ("Owens Corning"). We believe we manufacture the highest quality and most attractive shingles available anywhere, and that is why we stand behind them with one of the best warranties in the industry. We have attempted to write this warranty in clear, plain English, so you will fully understand the warranty we are making to you. If anything in this warranty is not clear to you, please call us at 1-800-ROOFING or visit our web site at [www.owenscorning.com/roofing](http://www.owenscorning.com/roofing).

## Who Is Covered

To be entitled to the benefits of this warranty: (1) your property must be located in the United States or Canada and (2) you must be either (a) the original consumer purchaser (the property owner, not the installer or contractor) of one of our shingle products listed in the **"Limited Warranty Information Table"** at the end of this warranty or (b) the first person to whom the original purchaser transfers this warranty along with ownership of the structure on which the shingles are installed (either person described in (a) or (b), "Owner"). (For detail regarding transferring this warranty, please see **"Transferability of This Warranty"** below.)

## What Is Covered

We warrant that your Owens Corning® shingles are free from any manufacturing defects that (1) materially affect the shingles' performance on your roof during the *TRU PROtection*® coverage period or (2) cause leaks during the balance of the applicable warranty period after the *TRU PROtection*® coverage period has expired. (To determine the length of the *TRU PROtection*® coverage period and the balance of the applicable warranty period, please see **"How Long Are You Covered"** below and the **"Limited Warranty Information Table"** at the end of this warranty.)

This warranty applies only to those shingles purchased after January 1, 2018 and before the date a later warranty applicable to the shingles comes into effect.

## How Long Are You Covered

**ALL IMPLIED WARRANTIES APPLICABLE TO YOUR SHINGLES ARE LIMITED IN DURATION TO THE TRU PROTECTION® COVERAGE PERIOD APPLICABLE TO SUCH SHINGLES, AS PROVIDED BY THIS WARRANTY, UNLESS A SHORTER PERIOD IS PERMITTED BY APPLICABLE LAW. SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

The length of your warranty depends on the type of Owens Corning® shingles you purchased. See the **"Limited Warranty Information Table"** at the end of this warranty for the specific warranty period that applies to your shingles.

- TRU PROtection*® Coverage Period—From the installation of the shingles through the *TRU PROtection*® coverage period, Owens Corning will compensate you for the cost, as reasonably determined by Owens Corning, to repair, replace or recover the defective shingles. Owens Corning reserves the right to arrange directly for the repair or replacement of your Products instead of compensating you directly. This compensation is limited as follows:
  - If Owens Corning decides to replace the shingles, Owens Corning will compensate you only for the cost of replacement Owens Corning® shingles and the labor directly required to replace the defective shingles, both as reasonably determined by Owens Corning.
  - If Owens Corning decides to repair or recover the shingles, Owens Corning will compensate you only for the cost of the labor directly required to repair or recover the defective shingles as reasonably determined by Owens Corning.
  - TRU PROtection*® coverage period does not apply to wind and algae coverage. Please see **"What About Wind Resistance"** and **"What About Algae Resistance"** below for applicable coverage.
- Prorated Period—Once the *TRU PROtection*® coverage period for the Owens Corning® shingles purchased has expired, the prorated period will begin. During this prorated period, we will provide prorated compensation of

# Warranty on Roofing Shingles.

ferability.

the cost of the defective Owens Corning® shingles but no other costs (for example, the cost of labor) will be covered. We will prorate the amount of our compensation to you to adjust for the number of years of use you have enjoyed from the original installation date through the date of your claim. For example: If you have a 25-year warranty, and you make your claim anytime in the 15th year of the warranty, our compensation to you will be reduced by 14/25ths of the Owens Corning® shingle cost at the time of purchase. For lifetime shingle coverage (for as long as Owner owns the home on which the shingles are installed), see the **“Limited Lifetime<sup>^</sup> Shingle Proration<sup>^</sup> Table”**. Owens Corning reserves the right to arrange directly for the repair or replacement of your Products instead of compensating you directly.

- Other Types of Structures—The coverage for all Owens Corning® shingles offered by this warranty depends on the structure on which the shingles are installed and the owner of the structure. Lifetime coverage for all Owens Corning® shingles applies only to single-family detached homes where the owner of the roof is the resident occupying the home. In the instance of shingles purchased or installed on property owned by others (for example, corporations, governmental agencies, partnerships, trusts, religious organizations, schools, condominiums, homeowners' association, or cooperative housing arrangements) or installed on any other structures (for example, apartment buildings or any other type of building or premises not used by individual homeowners as their residence), the warranty period for lifetime shingles will be 40 years from the original installation date of the shingles, and the *TRU PROtection*® coverage period will be five years. For lifetime shingle coverage (for as long as Owner owns the home on which the shingles are installed), see the **“Limited Lifetime<sup>^</sup> Shingle Proration<sup>^</sup> Table”**.

**Limited Lifetime<sup>^</sup> Shingle Proration<sup>^</sup> Table**

Structure/Owner	TRU PROtection® Period Years 1–10	Prorated Period Years 11–40	Prorated Period Years 41 and Beyond
Single family detached home owned by individuals	100% <sup>++</sup>	80% reduced by 2% every year thereafter until year 40	20%
Structure/Owner	Years 1–5	Years 6–40	Years 41 and Beyond
Any other types of structures or owners	100% <sup>++</sup>	87.5% <sup>^</sup> reduced by 2.5% every year thereafter until year 40	No coverage

<sup>^</sup> For as long as owner owns home.

<sup>++</sup> Of costs covered under this warranty.

<sup>^</sup> Proration is calculated annually, based on the original installation date. There are no partial year prorations.

- Exceptions—All of Owens Corning's obligations of compensation under this warranty (whether for repair, replacement, recovery or refunding a prorated portion of the cost of the defective shingles) are subject to the limitations provided by this warranty. Any replacement Owens Corning products will be warranted only for the remainder of the original warranty period. Owens Corning will not provide compensation for any underlayment, metalwork, flashings or other related work, and we will not compensate for the cost to remove or dispose of your shingles.
- What About Wind Resistance—Your shingles contain asphalt sealant that requires direct warm sunlight for several days (“Thermal Sealing”) in order to seal properly. If your shingles are installed during a period of cool weather, they may not adequately seal until the season changes or the weather warms, and if your shingles never receive direct sunlight or are not exposed to adequate surface temperatures, they may never achieve Thermal Sealing. Prior to your shingles achieving Thermal Sealing, your shingles are more vulnerable to blow-offs and wind damage. This is the fundamental nature of shingles and not a manufacturing defect, and we are not responsible for any blow-offs or wind damage that might occur prior to Thermal Sealing having occurred. After your shingles have achieved Thermal Sealing, however, they will be covered under this warranty if they experience blow-offs or wind damage in winds (including gusts) up to the levels and for the period from the original installation date (“Wind Warranty Period”) listed in the **“Limited Warranty Information Table”** at the end of this warranty.

**HOWEVER, THE COVERAGE AGAINST SHINGLE BLOW-OFFS OR WIND DAMAGE IS IN EFFECT FOR A PERIOD OF 15 YEARS FOR LIFETIME SHINGLES AND FIVE YEARS FOR ALL OTHER SHINGLES FROM THE ORIGINAL DATE OF INSTALLATION.**

Owens Corning will be liable only for the reasonable cost of replacing blown-off shingles (to include material and labor during the applicable *TRU PROtection*<sup>®</sup> warranty period) and the reasonable cost of manually sealing the unsealed shingles remaining on the roof.

Owens Corning is not responsible where the damage or blow offs are caused by damage to the underlying structure.

6. **What About Algae Resistance**—If the shingles that you purchased were not specifically labeled as “Algae Resistant” (“AR”), then any discoloration caused due to algae is not covered by this warranty as explained in **“What Is Not Covered”** below. However, if you did purchase AR shingles, they are covered for the period described in the **“Limited Warranty Information Table”** at the end of this warranty following the date of installation (“AR Warranty Period”) against brown-black staining caused due to growth of cyanobacteria *Gloeocapsa magma* algae. We do not cover the effects of other growth, such as mold, lichen and green algae. If brown-black staining occurs during the AR Warranty Period, you will be entitled to the following remedy:
  - A. **Remedy for Algae Growth**—If your AR shingles are discolored due to cyanobacteria algae growth during the first year of the AR Warranty Period, we will compensate you for the cost, including labor (such cost not to exceed the initial cost of the AR shingles plus the initial cost of installation), as reasonably determined by Owens Corning, to repair, replace or recover the affected AR shingles. For purposes of this AR shingle warranty, the term “repair” as used above refers to cleaning or otherwise removing any algae growth from affected AR shingles. Decisions regarding whether your AR shingles should be repaired, replaced or recovered will be made solely by Owens Corning.
  - B. **Proration**—If your AR shingles have been installed longer than 1 year, labor will not be covered, and our compensation will be limited to a prorated amount of the original purchase price of the affected AR shingles. We will prorate your compensation to take into account the number of full years of use that you have enjoyed from the original installation date through the date of your claim. For example: If you make your claim anytime in the 4th year of the AR warranty and the AR Warranty Period is 10 years, our compensation to you will be in the amount of the original purchase price of the affected AR shingles, reduced by 3/10ths of the original purchase price of the affected AR shingles.

#### **Transferability of This Warranty (Note: Based on Original Installation Date)**

This warranty is not transferable except as follows: You may only transfer this warranty 1 time, anytime during the life of the warranty, to the purchaser of the structure on which the shingles are installed. For this warranty to transfer and the second Owner to obtain the benefits of this warranty, the second Owner must, within 60 days after the date of the real estate transfer, contact 1-800-ROOFING and submit together: (1) proof of purchase of the Owens Corning<sup>®</sup> shingles, and (2) the installation date and ownership history.

1. If the transfer takes place within the *TRU PROtection*<sup>®</sup> coverage period (see the **“Limited Warranty Information Table”**), the second Owner is entitled to the same coverage as the original Owner.
2. If the transfer occurs after the *TRU PROtection*<sup>®</sup> coverage period (see the **“Limited Warranty Information Table”**), the balance of the warranty period (other than the AR Warranty Period and Wind Warranty Period) will automatically be reduced to a 2-year period after the date of ownership change. If there is a manufacturing defect that causes leaks during this 2-year period, our compensation to the second Owner will be based only on the original cost of the defective shingles reduced by the amount of use the second Owner and the original Owner have enjoyed from the original installation date through the date of your claim.
3. The AR Warranty Period and Wind Warranty Period are fully transferrable. The second Owner will receive the balance of the coverage outlined in the **“Limited Warranty Information Table”** based upon the original installation date.

#### **What Is Not Covered**

Our warranty does not cover damage to the Owens Corning<sup>®</sup> shingles due to any cause not expressly covered in this warranty. After our shingles leave our manufacturing facility, they are subjected to conditions and handling beyond our control that could affect their performance. This warranty does not cover any problems with non-defective shingles caused by conditions or handling beyond our control. Some examples of conditions not covered by this warranty include:

1. Acts of God, such as hail, strong storms or winds (including gusts) over the maximum wind speed listed in the **“Limited Warranty Information Table”** at the end of this warranty, ice damming above the area covered by leak barriers or flashings or snow or water infiltration through exhaust vents.
2. Damage to or failure of the shingles as a result of damage to or the failure of the underlying roofing structure, or failure and/or rusting of roof nails.
3. Foot traffic on your roof or damage caused by objects (e.g., tree branches) falling on your roof.
4. Improper or faulty installation of your shingles—installation must be in accordance with our written installation instructions and comply with local building codes.
5. Shading, variations in the color of your shingles or discoloration caused by algae, fungi, lichen or cyanobacteria (unless covered under the section **“What About Algae Resistance”** above).
6. Damage caused by improper or inadequate roof ventilation or roof drainage, unvented attics or enclosed roof rafter assemblies. Some exceptions may apply. If you have questions, please contact us at 1-800-ROOFING.
7. Settlement of the structure of your property or buckling or cracking of the deck over which your shingles are installed.
8. Leaks caused by pre-existing conditions, structural failures or damaged areas on or near the roof that are not part of the roofing system, such as chimneys that have loose or cracked mortar, skylight seams or soil pipe boots that allow water to enter the structure or roofing system.
9. Damage to the shingles caused by alterations made after completion of application, including structural changes, equipment installation, power washing, painting or the application of cleaning solutions, coatings, or other modifications.
10. Any damage due to debris, resins or drippings from foliage.
11. Improper storage, handling or other conditions beyond our control.
12. Damages caused by, or the cost to repair or replace, any non-Owens Corning® shingles.
13. Improperly designed or installed gutter or downspout systems.
14. Any costs that you incur that are not authorized in advance by Owens Corning.

### **Replacement Shingle Variations**

As a result of our ongoing efforts to improve and enhance our shingle product line, we must reserve the right to discontinue or modify our shingles, including their colors. We are not liable to you if you make a warranty claim in the future and any replacement shingles you receive vary in color either because of normal weathering or changes in our product line. You should understand that if we replace any of your shingles under this warranty, we reserve the right to provide you with substitute shingles that are comparable only in quality and price to your original shingles.

### **Compensation**

Under the terms of this warranty, the manner of compensation is at Owens Corning's sole discretion and may be arranged by Owens Corning directly or issued in the form of cash settlement or material credit for Owens Corning® products to an existing supplier of Owens Corning® roofing materials. All costs must be pre-approved by Owens Corning.

### **Claims Process & Right of Inspection**

To make a claim under this warranty, you must do so within 30 days after you discover the problem. To fully evaluate your claim, we may ask you to provide, at your expense, pictures of your shingles or shingle samples for us to test. You must do so in order to be eligible to make a claim under this warranty. To make a claim or if you have any questions, call us at 1-800-ROOFING or visit us at [www.owenscorning.com/roofing](http://www.owenscorning.com/roofing). If you repair or replace your Owens Corning products before Owens Corning has made a determination on your claim, your claim may be denied. Owens Corning shall have a reasonable time after notification of a claim to inspect the roof. If requested by Owens Corning, the owner shall provide Owens Corning with reasonable access to the roof, during normal business hours, for the purpose of conducting an inspection of the roofing products.

### **No Modifications to This Warranty**

The terms of this warranty may not be waived or modified (whether by a statement, omission, course of dealing or any act), except by a writing signed by an officer of Owens Corning or a licensed attorney in the Owens Corning legal department or

by the Owens Corning Technical Inspection Leader. Other than such an officer, attorney or technical inspection leader, nobody (regardless of whether an Owens Corning employee, a contractor, an installer or otherwise) has authority to act on behalf of Owens Corning (for example to waive or modify this warranty, to make representations or warranties or to undertake any liability). This warranty represents the entire agreement between the parties and replaces all other communications, warranties, representations and guarantees.

### **Mandatory Arbitration**

To the extent permitted by applicable law, Owens Corning and you agree to arbitrate all disputes and claims arising out of or relating to this warranty or Owens Corning® shingles ("Dispute"). This warranty evidences a transaction in interstate commerce, and the Federal Arbitration Act governs the interpretation and enforcement of this provision. A party who intends to seek arbitration must first send to the other, by certified mail, a written notice of intent to arbitrate ("Notice"). The Notice to Owens Corning should be addressed to: One Owens Corning Parkway, Toledo, Ohio 43659 ("Arbitration Notice Address"). The Notice must (a) describe the nature and basis of the claim or dispute; and (b) set forth the specific relief sought ("Demand"). If the parties do not reach an agreement to resolve the claim within 30 days after Notice is received, you or Owens Corning may commence an arbitration proceeding. All issues are for the arbitrator to decide, including the scope of this arbitration clause, but the arbitrator is bound by the terms of this warranty. The arbitration shall be governed by the Commercial Dispute Resolution Procedures and the Supplementary Procedures for Consumer Related Disputes (collectively, "AAA Rules") of the American Arbitration Association ("AAA"), as modified by this warranty, and shall be administered by the AAA.

### **YOU AND OWENS CORNING HEREBY WAIVE THE RIGHT TO A TRIAL BY JURY.**

The arbitrator may award injunctive relief only in favor of the individual party seeking relief and only to the extent necessary to provide relief warranted by that party's individual claim.

### **YOU AND OWENS CORNING MAY BRING CLAIMS AGAINST THE OTHER ONLY IN EACH PARTY'S INDIVIDUAL CAPACITY, AND NOT AS A PLAINTIFF OR CLASS MEMBER IN ANY PURPORTED CLASS OR REPRESENTATIVE PROCEEDING.**

Further, you agree that the arbitrator may not consolidate proceedings of more than one person's claims, and may not otherwise preside over any form of a representative or class proceeding.

### **Governing Law and Forum**

This warranty and all Disputes are governed by United States Federal laws and laws of Ohio. Subject to the "Arbitration" provision in this warranty, if there are any Disputes that cannot be arbitrated, then the parties consent to the exclusive jurisdiction and venue of the state and federal courts in Ohio with respect to such Disputes.

### **Savings and Severability**

To the extent that this warranty is inconsistent with applicable law, this warranty is hereby modified to be consistent with such applicable law. If an arbitrator or court determines that any term in this warranty is illegal or unenforceable, the parties intend for the arbitrator or court to interpret or modify this warranty to effect the original intent of the parties as closely as possible while rendering the term and this warranty fully legal and enforceable. If a term in this warranty cannot be rendered legal and enforceable accordingly, the parties intend for the arbitrator or court to sever the illegal or unenforceable term from this warranty, leaving the remainder of this warranty enforceable.

### **Limitations**

THIS WARRANTY IS YOUR EXCLUSIVE WARRANTY FROM OWENS CORNING AND REPRESENTS THE SOLE REMEDY TO ANY OWNER OF OWENS CORNING® SHINGLES. OWENS CORNING MAKES NO OTHER REPRESENTATIONS, WARRANTIES OR GUARANTEES OF ANY KIND OTHER THAN THOSE STATED EXPLICITLY IN THIS WARRANTY.

YOUR REMEDY FOR DEFECTIVE SHINGLES IS FULLY DESCRIBED IN THE ABOVE SECTION, "**HOW LONG ARE YOU COVERED**". YOU ARE NOT ENTITLED TO ANYTHING MORE THAN WHAT IS DESCRIBED IN THAT SECTION UNLESS OTHERWISE COVERED BY AN OPTIONAL OWENS CORNING ENHANCED WARRANTY. OWENS CORNING HAS NO REASON TO KNOW ANY PARTICULAR PURPOSE FOR WHICH YOU ARE BUYING SHINGLES.

OWENS CORNING IS NOT RESPONSIBLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, PUNITIVE, OR OTHER DAMAGES OF ANY KIND, INCLUDING DAMAGE TO YOUR STRUCTURE OR TO YOUR STRUCTURE'S CONTENTS, WHETHER FOR BREACH OF THIS WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHER CLAIMS DERIVED IN TORT OR FOR ANY OTHER CAUSE.

SOME STATES OR PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

**FOR CANADA ONLY** — The terms in this warranty, except to the extent lawfully permitted, do not exclude, restrict, or modify but are in addition to any provincial laws.

### Limited Warranty Information Table

	Warranty Length	TRU PROtection <sup>®</sup> Coverage Period	Wind Warranty Protection	Wind Warranty Period	AR <sup>1</sup> Warranty Period
Berkshire <sup>†</sup>	Lifetime <sup>Δ</sup>	10 YRS	130 MPH	15 YRS	15 YRS
Devonshire <sup>®</sup>	Lifetime <sup>Δ</sup>	10 YRS	130 MPH	15 YRS	10 YRS
Woodmoor <sup>®</sup>	Lifetime <sup>Δ</sup>	10 YRS	110/130 MPH <sup>**</sup>	15 YRS	10 YRS
Woodcrest <sup>®</sup>	Lifetime <sup>Δ</sup>	10 YRS	110/130 MPH <sup>**</sup>	15 YRS	10 YRS
WeatherGuard <sup>®</sup> HP <sup>‡</sup>	Lifetime <sup>Δ</sup>	10 YRS	110/130 MPH <sup>***</sup>	15 YRS	10 YRS
Duration <sup>®</sup> Series <sup>††</sup>	Lifetime <sup>Δ</sup>	10 YRS	130 MPH	15 YRS	10 YRS
Oakridge <sup>†††</sup>	Lifetime <sup>Δ</sup>	10 YRS	110/130 MPH <sup>***</sup>	15 YRS	10 YRS
Supreme <sup>®</sup>	25 YRS	5 YRS	60 MPH	5 YRS	10 YRS
Classic <sup>®</sup>	20 YRS	3 YRS	60 MPH	5 YRS	

<sup>Δ</sup>For as long as owner owns home.

<sup>†</sup> Berkshire<sup>®</sup> Hip & Ridge is required for 15-year Algae Resistance Limited Warranty.

<sup>††</sup> Includes TruDefinition<sup>®</sup> Duration<sup>®</sup>, TruDefinition<sup>®</sup> Duration STORM<sup>®</sup>,<sup>‡</sup> TruDefinition<sup>®</sup> Duration<sup>®</sup> Designer Colors Collection, TruDefinition<sup>®</sup> Duration MAX<sup>®</sup>, TruDefinition<sup>®</sup> Duration<sup>®</sup> COOL, Duration<sup>®</sup> Premium Cool and Duration<sup>®</sup> Premium shingles.

<sup>†††</sup> Includes TruDefinition<sup>®</sup> Oakridge<sup>®</sup> Shingles.

<sup>‡</sup> WeatherGuard<sup>®</sup> HP Shingles require WeatherGuard<sup>®</sup> HP Hip & Ridge Shingles and TruDefinition<sup>®</sup> Duration STORM<sup>®</sup> Shingles require ProEdge STORM<sup>®</sup> Hip & Ridge Shingles to complete a UL 2218, Class IV impact-resistant roof system.

<sup>\*\*</sup> 130 MPH is applicable only with Owens Corning<sup>®</sup> Starter Shingle products application along eaves and rakes in accordance with installation instructions.

<sup>\*\*\*</sup> 110 MPH is standard with 4-nail application. 130 MPH is applicable only with 6-nail application and Owens Corning<sup>®</sup> Starter Shingle products application along eaves and rakes in accordance with installation instructions.

<sup>1</sup> AR is available regionally. Visit [www.owenscorning.com/roofing](http://www.owenscorning.com/roofing) for availability in your zip code.

NOTE: When properly installed, Owens Corning<sup>®</sup> Hip & Ridge shingle warranty terms will match with the corresponding roofing shingle. (See specific Owens Corning<sup>®</sup> Hip & Ridge shingle installation instructions for details.)

Name of Contractor \_\_\_\_\_ Date of Installation \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Phone Number \_\_\_\_\_



# Warranty Registration & Transfer Information

## TO REGISTER THIS WARRANTY:

Visit our website at:

<http://www.owenscorning.com/roofing/warranty-101>

Click on Register a Standard Product Limited Warranty

The following information is required for registration:

Original Installation Date \_\_\_\_\_

Original Purchaser's Name \_\_\_\_\_

Owens Corning® Shingle Name/Color Installed \_\_\_\_\_

Number of Squares Installed \_\_\_\_\_

Address of Property \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Note:** Please retain proof of purchase and installation date with your important records in the event that you choose to transfer this warranty in the future, or upload these documents as you register this warranty online.

## TO TRANSFER THIS WARRANTY:

See **TRANSFERABILITY OF THIS WARRANTY** for exceptions.

### Contact 1-800-ROOFING

For this warranty to be transferred, the second Owner must contact 1-800-ROOFING within sixty (60) days after the date of the real estate transfer to obtain the benefits of this warranty. And must have the following:

- (1) Proof of purchase of the Owens Corning® Roofing System and
- (2) The installation date and ownership history

For more information, call 1-800-GET-PINK® or visit our website at: [www.owenscorning.com/roofing](http://www.owenscorning.com/roofing).

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**OWENS CORNING  
ROOFING AND ASPHALT, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO, USA 43659

**1-800-GET-PINK®**  
**[www.owenscorning.com/roofing](http://www.owenscorning.com/roofing)**

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INNOVATIONS FOR LIVING®

# Oakridge® Shingles



featuring

*Artisan Colors*



Oakridge® Artisan Color  
Flagstone†



# Oakridge® Shingles

## Make it your own.

When does a house become a home? When the place you live in begins to reflect the life you're living. When every change, both big and small, makes it more and more your own. Choosing a new roof is your opportunity to make a major impact on the look of your home – and we're here to help. Owens Corning has been a leader in the building materials industry for over 70 years. So you can be confident that your new roof will enhance and help protect your home for years to come.

## The Right Choice.™

Oakridge® Shingles are The Right Choice™ for long-lasting performance and striking beauty. In addition to a wide range of inviting, popular colors, they also offer:

- Limited Lifetime Warranty\*<sup>#</sup> (for as long as you own your home)
- 110-/130\*\*-MPH Wind Resistance Limited Warranty\*
- Algae Resistance Limited Warranty\*

Oakridge®

# Artisan Colors



*At Owens Corning Roofing, we're always looking for ways to help you express your sense of style through your home, which is why we've expanded the Oakridge® color palette with these inspiring selections.*

## **Your home is your canvas.**

Oakridge® Artisan Colors are specially designed to provide a unique blend of artistry and craftsmanship that will give your home a look that is anything but ordinary. Blacks and grays are rich and warm, earth tones capture the vibrancy of nature's brightest hues, and bold color combinations help enhance a wide variety of exterior accents and landscaping. Plus, every Oakridge® Artisan Color features greater contrast and color depth to add drama and curb appeal to your entire home.



Oakridge® Artisan Color  
Aged Cedar†

# Oakridge® Color Availability



Amber†

Not Available in Service Area 8 or 11 (see map).



Desert Tan†



Brownwood†



Teak†



Driftwood†



Onyx Black†



Estate Gray†



Sierra Gray†

Not Available in Service Area 8 or 11 (see map).



Shasta White†



Chateau Green†



Oakridge® Artisan Color  
Peppermill Gray†

# Oakridge® Artisan Colors



Aged Cedar†



Sand Castle†



Flagstone†



Twilight Black†



Peppermill Gray†

Color Availability Map



## ENERGY STAR® is for roofs too.



Similar to the energy-efficient appliances in your home, roofing products can provide energy-saving qualities. Owens Corning™ Oakridge® Roofing Shingles in Shasta White can help reduce your energy bills when installed properly. These shingles reflect solar energy, decreasing the amount of heat transferred to a home's interior – and the amount of air conditioning needed to keep it comfortable. Actual savings will vary based on geographic location and individual building characteristics. Call 1-800-GET-PINK® or 1-888-STAR-YES for more information.

## Product Attributes

### **Warranty Length\***

Limited Lifetime<sup>†</sup> (for as long as you own your home)

### **Wind Resistance Limited Warranty\***

110/130\*\* MPH

### **Algae Resistance Limited Warranty\***

10 Years

### **Tru PROtection® Non-Prorated Limited Warranty\* Period**

10 Years

## Oakridge® Shingles Product Specifications

<b>Nominal Size</b>	13¼" x 39⅜"
<b>Exposure</b>	5⅝"
<b>Shingles per Square</b>	64
<b>Bundles per Square</b>	3
<b>Coverage per Square</b>	98.4 sq. ft.

## Applicable Standards and Codes

ASTM E 108, Class A Fire

ASTM D 3462

ASTM D 3161, Class F Wind

ASTM D 228

ASTM D 7158, Class H Wind

UL 790, Class A

ASTM D 3018, Type 1



## The perfect finishing touch.

Owens Corning™ Roofing Hip & Ridge Shingles do more than just deliver added protection to the most vulnerable areas of your roof – they enhance the roofline and help define the character of your entire home.

Don't accept a generic substitute. Be sure to choose the right Owens Corning™ Roofing Hip & Ridge style and specially matched color to provide the perfect finishing touch to your new roof.





## Total Protection Roofing System™ Working together to help protect and enhance your home.



It takes more than just shingles to protect your home. The Total Protection Roofing System™<sup>1</sup> is made up of all the essential Owens Corning™ Roofing components and layers that are designed to work together to maximize your roof's performance and durability. High-quality shingles and underlayment products help guard against the weather outside, while ventilation products help balance air flow to control temperature and humidity inside the attic.

The Total Protection Roofing System™<sup>1</sup> is designed to give you the assurance that all of your Owens Corning™ Roofing components are working together to maximize the performance of your new roof – and to enhance the comfort and enjoyment of those who live beneath it.

- a** VentSure® Ventilation Products  
Help protect a roof from premature failure by helping remove heat and moisture from the attic.
- b** PINK® Fibreglas™ Blown-In Insulation  
Tiny air pockets trapped in the insulation resist the passage of heat flow.
- c** Owens Corning™ Hip & Ridge Shingles  
Help protect the ridge vent and add an attractive, finished look to a roof's hips and ridges.
- d** Owens Corning™ Shingles  
Add durable beauty to a home. Shingles are the first line of defense against the elements.
- e** Owens Corning™ Underlayment Products  
Add an extra layer of protection between the shingles and the roof deck to help prevent damage from wind-driven rain.
- f** WeatherLock® Self-Sealing Ice & Water Barrier Products  
Help guard vulnerable areas where water can do the most damage to a roof: eaves, valleys, dormers and skylights.
- g** Owens Corning™ Starter Shingle Products  
The first step in the proper installation of shingles.
- h** Owens Corning™ Undereave Ventilation Products  
Help prevent moisture buildup in the attic by working with ridge vents to keep air moving.
- i** Illuminator™ Tube Skylight  
A smart choice for bringing natural light into the home.



<sup>1</sup> Excludes non-Owens Corning™ Roofing Products such as flashing, fasteners and wood decking.

## Home sweet home.

Owens Corning Roofing wants to help make your purchase of a new roof a positive experience. Not only can we help you choose the right shingle and roofing system components, but we can also help you select the right contractor for the job. Don't worry – we know this is a big decision. We're here to help you feel confident about choosing our roofing products. After all, we're America's #1 roofing brand<sup>2</sup> for a reason.

Want design assistance or more information about Owens Corning™ Roofing products?  
Or want to find an Owens Corning™ Roofing Preferred Contractor network member?

It's easy to reach us:

1-800-GET-PINK®  
[www.roofing.owenscorning.com](http://www.roofing.owenscorning.com)

\* See actual warranty for complete details, limitations and requirements.

\*\* 130 MPH is applicable only with 6-nail application and Owens Corning™ Starter Shingle product application in eaves and rakes in accordance with installation instructions.

† Owens Corning strives to accurately reproduce photographs of shingles. Due to manufacturing variances, the limitations of the printing process and the variations in natural lighting, actual shingle colors and granule blends may vary from the photo. The pitch of your roof can also impact how a shingle looks on your home. We suggest that you view a roofing display or several shingles to get a better idea of the actual color. To accurately judge your shingle and color choice, we recommend that you view it on an actual roof with a pitch similar to your own roof prior to making your final selection. Color availability subject to change without notice. Ask your professional roofing contractor for samples of colors available in your area.

‡ 40-year Limited Warranty on commercial projects.

2 Based on 2011 Roofing Brand Awareness Survey by Owens Corning Roofing & Asphalt LLC.

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INNOVATIONS FOR LIVING™

**OWENS CORNING  
ROOFING AND ASPHALT, LLC**  
ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO, USA 43659

1-800-GET-PINK®  
[www.roofing.owenscorning.com](http://www.roofing.owenscorning.com)

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Owens Corning™ Roofing Preferred Contractors are independent contractors and are neither affiliates nor agents of Owens Corning Roofing & Asphalt, LLC, or its affiliated companies.

(Houston, Irving, Memphis)



Oakridge® Artisan Color  
Flagstone†



Menu



Search

"Let the fresh air in and keep the pests out!"

## The Bug Blocker® Industrial Screen Door Engineering Specifications

[Print This Page \(industrial-screen-door-engineering-specs\)](#)

To Provide a Bug Blocker® Industrial Screen Door for both ventilation and security. The industrial screen door is to be retrofitted into existing doorways and use 304 Stainless Steel Screen to withstand the industrial environment.

### Specifications:

Under normal circumstances the door shall be under 4' wide and 14' tall. There will be a kick plate for the bottom, perimeter seal for the two sides and top, one handle and a bottom brush seal. There is a choice of piano hinge or spring loaded hinges.

### Frame:

The frame shall be aluminum alloy 6063-T6 mill finish, with stainless steel screen permanently attached. Frames shall be aluminum extrusion, and shall be 1" x 1-1/4" wide with internal steel corners and 3/16" pins.

### Screen:

The screening shall be 304 stainless steel in either of the following configurations:

	Mesh	Wire Diameter	Opening Size	Free Area
Standard	12x12	0.023"	0.0603 in. sq.	51.8%
Fine	30x30	0.011"	0.0223 in. sq.	44.8%

MEETS FEDERAL SPECIFICATION STANDARD A-A-1037B DATED APRIL 19, 1990 FOR TYPE I, CLASS I WIRE FABRIC.

MEETS THE ASTM STANDARD SPECIFICATION FOR INDUSTRIAL WIRE CLOTH AND SCREENS, DESIGNATION E 437-85.(Revised 5/2010)

The screen shall be the Bug Blocker® as produced by Rasco Industries, Inc. or approved equal.

Interested in learning more about our [security screens and bird screen \(service-door-inserts\)](#) products? Watch our [product videos \(product-videos\)](#) or [contact us \(contact-us\)](#) today and we will be happy to provide you more information about the [overhead security doors \(overhead-screen\)](#) we offer.

([quote-order-survey-forms](#))

Survey Forms

**Overhead Screen Door**  
(overhead-screen)

**Chain-Link Security Door**  
(chainlink-security)

**Service Door Screen Insert**  
(service-door-inserts)

**Behind Rolling Screen Door**  
(behind-rolling-steel)

**Expanded Metal Security Door**  
(expanded-metal)

**Fixed-In-the-Opening Screen Panels**  
(fixed-in-the-opening-screen-panels)

**Air Inlet / Louver Screen Panel**  
(air-inlet-screen)

**Industrial Screen Door**  
(industrial-screen-door)

**Security & Food Safety Standards (food-safety-standards)**  
**Product Videos (product-videos)**

**Installation Instructions (installation-instructions)**

**Bird & Rodent Solutions (bird-rodent-blocking)**

**Concession Stand (concession-stand)**

**Dealer Section (dealer)**

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# UL Evaluation Report

## UL ER2453-01

Issued: August 2, 2013  
Revised: January 30, 2015

Visit UL's On-Line Certifications Directory: [www.ul.com/erdirectory](http://www.ul.com/erdirectory)  
for current status of Report.

UL Category Code: ULEZ

CSI MasterFormat®

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Sub-level 2: 07 30 00 – Steep Slope Roofing

Sub-level 3: 07 31 00 – Shingles and Shakes

Sub-level 4: 07 31 13 – Asphalt Shingles

### COMPANY:

OWENS CORNING  
ONE OWENS CORNING PKY  
TOLEDO, OH 43659  
(419) 248-7060  
<http://www.owenscorning.com/>

### 1. SUBJECT: Asphalt Shingles

CLASSIC®, SUPREME®

DURATION® PREMIUM, TRUDEFINITION® DURATION®, TRUDEFINITION® DURATION® STORM™, TRUDEFINITION® DURATION® MAX™, TRUDEFINITION® OAKRIDGE®, OAKRIDGE®, WOODCREST®, WOODMOOR®, TRUDEFINITION® WEATHERGUARD® HP, BERKSHIRE®, DEVONSHIRE™

WOODSTART® STARTER SHINGLE, STARTER STRIP PLUS, STARTER STRIP SHINGLE, AND TRI BUILT STARTER STRIP

BERKSHIRE® HIP & RIDGE SHINGLES, HIGH RIDGE HIP & RIDGE SHINGLES WITH SEALANT, RIZERIDGE® HIP & RIDGE SHINGLES WITH SEALANT, WEATHERGUARD® HP HIP & RIDGE SHINGLES, PROEDGE®, DURARIDGE™ HIP & RIDGE SHINGLES AND PROEDGE® STORM® HIP & RIDGE SHINGLES

### 2. SCOPE OF EVALUATION

- 2012, 2009, and 2006 *International Building Code*® (IBC)
- 2012, 2009, and 2006 *International Residential Code*® (IRC)
- ICC ES Acceptance Criteria for Quality Documentation (AC10), Dated December 2012
- ICC ES Acceptance Criteria for Alternative Asphalt Roofing Shingles (AC438), Dated March 2012



## The products were evaluated for the following properties:

- External Fire Exposure (ANSI/UL790, ASTM E108)
- Wind Resistance (ASTM D3161; ASTM D7158)
- Physical Properties (ASTM D3462, ICC-ES AC438)

### 3. REFERENCED DOCUMENTS

- ANSI/UL790 (ASTM E108), Standard Test Methods for Fire Tests of Roof Coverings
- ASTM D3161, Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)
- ASTM D7158, Standard Test Method for Wind Resistance of Asphalt Shingles (Uplift Force/Uplift Resistance Method)
- ASTM D3462, Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules
- UL Subject 2375, Outline of Investigation for Hip and Ridge Shingles (UL Fire and Wind Tests)
- ICC-ES Acceptance Criteria for Alternative Asphalt Roofing Shingles (AC438), Dated March 2012

### 4. USES

OWENS CORNING asphalt shingles are used as roof coverings for new and existing roofs.

### 5. PRODUCT DESCRIPTION

OWENS CORNING asphalt shingles are roof covering materials complying with the following properties when installed as described in this report and as shown in illustrations for application instructions which accompany each bundle of shingles. The products are three-tab shingles, laminated shingles and hip & ridge shingles. The products are available in standard and metric sizes.

**Fire Classification:** OWENS CORNING asphalt shingles covered under this Report have been tested for fire classification Class A in accordance with UL790 (ASTM E108). Shingles tested in accordance with UL790 (ASTM E108) qualify for use under [Section 1505.1](#) of the 2012, 2009 and 2006 IBC and [Section R902.1](#) of the 2012, 2009 and 2006 IRC.

**Wind Resistance:** OWENS CORNING asphalt shingles covered under this Report have been tested for wind resistance in accordance with ASTM D3161 or ASTM D7158.

Shingles tested in accordance with ASTM D3161 are classified as Class F or Class A and qualify for use under the exception to [Section 1507.2.7.1](#) of the 2012, 2009 and 2006 IBC, or the exception to [Section R905.2.4.1](#) of the 2012, 2009 and 2006 IRC.

Shingles tested in accordance with ASTM D7158 are classified as Class H and qualify for use in locations as shown in [Table 1507.2.7.1](#) of the 2012 and 2009 IBC or [Table R905.2.4.1](#) of the 2012 and 2009 IRC, where the maximum basic wind speed is 150 mph (67 m/s) or less with exposure category of B or C (ASCE 7) and a maximum building height of 60 feet (18.3 m). Installation must be in accordance with [Section 1507.2.7](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.6](#) of the 2012, 2009 and 2006 IRC, as applicable.

**Physical Properties:** OWENS CORNING asphalt shingles covered under this Report have been tested for physical properties in accordance with ASTM D3462. Shingles tested in accordance with ASTM D3462 qualify for use under [Section 1507.2.5](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.4](#) of the 2012, 2009 and 2006 IRC. Shingles have also been evaluated in accordance with ICC-ES Acceptance Criteria, AC438. When installed on new construction in accordance with this report and the OWENS CORNING installation instructions, the shingles are a Class A fire classification roof covering. When the shingles are installed over existing roof coverings, the fire classification is maintained.

### **5.1 Three-Tab Shingles – Classic® , and Supreme®:**

Classic® and Supreme® shingles are three-tab shingles manufactured with a single fiberglass mat, coated on both sides with asphalt, and surfaced on the weather-exposed side with mineral granules. The shingles are self-sealing and have a continuous bead of thermal-tab sealing adhesive above the shingle butt on the weather side. The shingles are self-sealing and have a dashed bead of thermal-tab sealing adhesive above the shingle butt on the weather side.

### **5.2 Five-Tab Shingles - Devonshire™**

Devonshire™ shingles are five-tab shingles manufactured with a single fiberglass mat, coated on both sides with asphalt, and surfaced on the weather-exposed side with mineral granules. The shingles are self-sealing and have a dashed bead of thermal-tab sealing adhesive above the shingle butt on the weather side.

### **5.3 Laminated Shingles – Duration® Premium, TruDefinition® Duration®, TruDefinition® Duration® Storm, TruDefinition® Duration® MAX, TruDefinition® Oakridge®, Oakridge®, Woodcrest®, Woodmoor®, TruDefinition® WeatherGuard® HP, Berkshire®:**

Duration® Premium, TruDefinition® Duration®, TruDefinition® Duration® Storm, TruDefinition® Duration® MAX, Oakridge®, Woodcrest®, Woodmoor®, TruDefinition® WeatherGuard® HP, Berkshire® shingles are laminated shingles manufactured with 2 layers of fiberglass mat coated with asphalt on both sides, and surfaced on the weather-exposed side with mineral granules.

### **5.4 Hip & Ridge Shingles – Berkshire® Hip & Ridge Shingles, High Ridge Hip & Ridge with Sealant, ProEdge®, ProEdge® Storm®, WeatherGuard® HP, DuraRidge™ Hip and Ridge Shingles, and RIZERidge® Hip and Ridge shingles with Sealant:**

Berkshire® Hip & Ridge Shingles, High Ridge Hip and Ridge Shingles with Sealant, ProEdge®, ProEdge Storm™, WeatherGuard® HP, DuraRidge™ Hip and Ridge Shingles and RIZERidge® Hip and Ridge shingles with Sealant are prefabricated hip and ridge shingles. ProEdge Storm™ and WeatherGuard® HP hip and ridge shingles are perforated so they can be torn into three 12 inch by 12 inch (305 mm by 305 mm) shingles. ProEdge® hip and ridge shingles and RIZERidge® Hip and Ridge shingles with Sealant are perforated so they can be torn into three 12 inch by 12 inch (305 mm by 305 mm) shingles for standard , or four 13-¼ inch by 9-<sup>27</sup>/<sub>32</sub> inch (337 mm by 250 mm) shingles for metric.

### **5.5 Starter Shingles - Starter Strip, Starter Strip Plus, Woodstart Starter Shingle, and Tri-Built Starter Strip**

Starter Strip, Starter Strip Plus, Woodstart Starter Shingle, and Tri-Built Starter Strip are prefabricated starter course shingles with factory applied sealant. Starter Strip and Tri-Built Starter Strip are 6-5/8" x 39-3/8". Starter Strip Plus and Tri-Built Starter Strip are 7-3/4" x 13-3/8". Woodstart Starter Shingles are 13-3/8" x 40".

## **6. INSTALLATION**

OWENS CORNING asphalt shingles must be installed in accordance with the applicable code, this report, and the manufacturer's published installation instructions. The shingles must be installed in accordance with [Section 1507.2](#) of the 2012, 2009 and 2006 IBC or [Section R905.2](#) of the 2012, 2009 and 2006 IRC, as applicable, except as noted in this report.

The manufacturer's published installation instructions must be available at all times on the jobsite during installation.

Minimum roof slopes must be 2:12 (16.67% slope or 9°) for the three-tab shingles described in section 5.1 and for the laminated shingles described in section 5.3 of this Report.

## **6.1 Underlayment and Ice Barriers:**

For roof slopes greater than 4:12 (33.33% slope or 18°), the roof deck must be covered with a minimum of one layer of underlayment as described in Sections 7.2 and 7.3 of this Report. Underlayment application must be in accordance with [Section 1507.2.8](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.7](#) of the 2012, 2009 and 2006 IRC, as applicable.

Roofs having slopes between 2:12 (16.67% slope or 9°) and 4:12 (33.33% slope or 18°) require two layers of the underlayment as described in Sections 7.2 and 7.3 of this Report. Underlayment application must be in accordance with [Section 1507.2.8](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.7](#) of the 2012, 2009 and 2006 of the IRC, as applicable.

In areas where there has been a history of ice forming along the eaves, causing a backup of water, as indicated by Table [R301.2 \(1\)](#), an ice barrier must be provided in accordance with [Section 1507.2.8.2](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.7.1](#) of the 2012, 2009 and 2006 IRC, as applicable.

## **6.2 Starter Shingle:**

A starter course, as described in Section 7.4 of this Report, must be attached to the eave edge using fasteners described in Section 7.5 of this Report, located 1-½ – 3 inches (38 – 76 mm) from the eave edge and spaced 8 – 10 inch (203 – 254 mm) apart, for a total of five fasteners per shingle. The starter strip must overhang the eaves and rake edges by ¼ – ¾ inch (6 – 19 mm).

## **6.3 Asphalt Shingles:**

The first course of field shingles must be installed over the starter course described in Section 7.4 of this Report.

Standard three-tab shingles must be installed with vertical joints offset 4 inches (102 mm), 5 inches (127 mm), or 6 inches (152 mm) from adjacent courses and metric-sized three-tab shingles must be installed with a 6-9/16 inch (167 mm) offset or any repeatable offset pattern greater than 4 inches (102 mm).

Duration® Premium, TruDefinition® Duration®, TruDefinition® Duration® Storm™, TruDefinition® Duration® MAX, TruDefinition® Oakridge®, Oakridge®, and TruDefinition® WeatherGuard® HP must be installed with a 6-½ inch (165 mm) offset or any repeatable offset pattern greater than 4 inches (102 mm).

The Berkshire® shingles must be installed with a 4-¾ inch (121 mm) offset.

Woodcrest® and Woodmoor® must be installed with a 5 and 5 inch (127 and 127 mm) or a 5 inch and 15 inch (127 and 381 mm) offset.

End joints must be a minimum of 2 inches (51 mm) from a fastener in the shingle below. Offset patterns between courses may vary provided side laps are a minimum of 4 inches (102 mm) in succeeding courses.

### **6.3.1 Three-Tab Shingles – Classic®, and Supreme®:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of four fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used and four 1 inch diameter spots of asphalt plastic cement per shingle (2 inches up from the bottom edge).

Fasteners must be located above the top of the cut-out and below the sealant strip,  $\frac{5}{8}$  inch (16 mm) above the tab cut-out.

Maximum exposure to the weather must be 5 inches or  $5\frac{5}{8} \pm \frac{1}{8}$  inches (127 or  $143 \pm 3$  mm). In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. A 1-in diameter (25.4 mm) spot of asphalt cement complying with ASTM D4586, Type I, Class I, should be placed under the corner (1 – 2 inches (25 – 51 mm) from each end) of each tab (two spots per tab).

### **6.3.2 Five-Tab Shingles – Devonshire™:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°) each shingle must be fastened to the roof deck using a minimum of six fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used, and ten 1 inch diameter spots of asphalt plastic cement per shingle and two spots of asphalt plastic cement under each shingle tab.

Fasteners must be located  $6\frac{1}{8}$  inches (157 mm) above the butt edge of the shingles.

Maximum exposure to the weather must be  $5\frac{5}{8} \pm \frac{1}{8}$  inches (143 ± 3 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. Two, 1-inch diameter (25.4 mm) spots of cement should be placed under each shingle (Ten per shingle).

### **6.3.3 Laminated Shingles – Duration® Premium, TruDefinition® Duration®, TruDefinition® Duration® Storm, TruDefinition® Duration® MAX:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of four fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used.

Fasteners must be located  $6\frac{1}{8}$  inches (157 mm) above the butt edge of the shingles (center of the SureNail® fastening area).

Maximum exposure to the weather must be  $5\frac{5}{8} \pm \frac{1}{8}$  inch (143 ± 3 mm)

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. Four, 1-inch diameter (25.4 mm) spots of cement should be placed under the exposed portion of the shingle, spaced 1 – 2 inches (25 – 51 mm) from each end of the shingle and two spots must be evenly spaced in between.

#### **6.3.4 Laminated Shingles – Oakridge® and TruDefinition® Oakridge®:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of four fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used, and four 1 inch diameter spots of asphalt plastic cement per shingle (2 inches up from the bottom edge).

Fasteners must be located  $6\frac{1}{8}$  inches (157 mm) above the butt edge of the shingles.

Maximum exposure to the weather must be  $5\frac{5}{8} \pm \frac{1}{8}$  inches (143 ± 3 mm)

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. Four, 1-inch diameter (25.4 mm) spots of cement should be placed under the exposed portion of the shingle, spaced 1 – 2 inches (25 – 51 mm) from each end of the shingle and two spots must be evenly spaced in between.

#### **6.3.5 Laminated Shingles – Berkshire®:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of five fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used and four 1 inch diameter spots of asphalt plastic cement per shingle and one spot of asphalt under each shingle tab, center of the shingle tab and 2 inches up from the bottom edge.

Fasteners must be located above the top of the cut-out and below the sealant strip,  $\frac{5}{8}$  inch (16 mm) above the tab cut-out.

Maximum exposure to the weather must be  $8\frac{3}{8} \pm \frac{1}{8}$  inch (213 ± 3 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. A 1-inch diameter (25.4 mm) spot of asphalt cement complying with ASTM D4586, Type I, Class I, should be placed under the corner 1 – 2 inches (25 – 51 mm) from each end of each tab (two spots per tab).

#### **6.3.6 Laminated Shingles – Woodcrest® and Woodmoor®:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of five fasteners.

For roof slopes over 21:12 (175% or 60°), nine fasteners must be used, and four, 1 inch diameter spots of asphalt plastic cement per shingle and one spot of asphalt under each shingle tab, center of the shingle tab and 2 inches up from the bottom edge.

Fasteners must be located in the center of the SureNail® fastening area.

Maximum exposure to the weather must be  $4 \pm \frac{1}{8}$  inches (102 ± 3 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. A 1-inch diameter (25.4 mm) spot of asphalt cement complying with ASTM D4586, Type I, Class I, should be placed under the corner 1 – 2 inches (25 – 51 mm) from each end of each tab (two spots per tab).

### **6.3.7 Laminated Shingles – TruDefinition® WeatherGuard® HP:**

For roof slopes of 2:12 up to 21:12 (16.67% or 9° up to 175% or 60°), each shingle must be fastened to the roof deck using a minimum of six fasteners.

For roof slopes over 21:12 (175% or 60°), six fasteners must be used.

Fasteners must be located 6-<sup>1</sup>/<sub>8</sub> inches (157 mm) above the butt edge of the shingles.

Maximum exposure to the weather must be 5-<sup>5</sup>/<sub>8</sub> ± <sup>1</sup>/<sub>8</sub> inch (143 ± 3 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. Four, 1-inch diameter (25.4 mm) spots of cement should be placed under the exposed portion of the shingle, spaced 1 – 2 inches (25 – 51 mm) from each end of the shingle and two spots must be evenly spaced in between.

### **6.4 Valley Construction and Other Flashing:**

Valleys must consist of woven, open valley or closed-cut construction and must be flashed in accordance with [Section 1507.2.9.2](#) of the 2012, 2009 and 2006 IBC or [Section R905.2.8.2](#) of the 2012, 2009 and 2006 IRC. Other flashings must be in accordance with Sections 1503.2 and [1507.2.9](#) of the 2012, 2009 and 2006 IBC, or [Sections R903.2](#) and [905.2.8](#) of the 2012, 2009 and 2006 IRC, as applicable.

### **6.5 Hip and Ridge Application:**

Hip and ridge shingles must be placed evenly over hips and ridges, and must be fastened to the roof deck using minimum two fasteners, one located on either side of the shingle, 1 inch (25.4 mm) up from the edge. Berkshire® Hip & Ridge Shingles, DuraRidge® Hip and Ridge Shingles and High Ridge Hip & Ridge with Sealant prefabricated hip and ridge shingles must be installed with a maximum exposure of 8 inches (203 mm). WeatherGuard® HP, ProEdge®, ProEdge Storm®, and RIZERidge® prefabricated hip ridge shingles must be installed with a maximum exposure of 6 inches (127 mm). Nailing for Hip and Ridge shingles are shown in application instructions.

### **6.6 Reroofing:**

The existing asphalt shingle roof covering must be inspected in accordance with the provisions and limitations of [Section 1510](#) of the 2012, 2009 and 2006 IBC or [Section R907](#) of the 2012, 2009 and 2006 IRC, as applicable. Prior to the reroofing, hip and ridge coverings must be removed.

Except as noted in this section, the shingles must be installed in accordance with Section 6.3 and 6.5 of this Report. Fasteners must be of sufficient length to penetrate <sup>3</sup>/<sub>4</sub> inch (19.1 mm) into the sheathing, or through the sheathing where the sheathing is less than <sup>3</sup>/<sub>4</sub> inch (19.1 mm) thick. Flashing and edging must comply with Section 6.4 and with [Sections 1510.5](#) and [1510.6](#) of the 2012, 2009 and 2006 IBC and [Sections R907.5](#) and [R907.6](#) of the 2012, 2009 and 2006 IRC, as applicable.

## 7. INSTALLATION MATERIALS

### 7.1 Sheathing:

The roof deck must be code-complying, minimum 3/8-inch thick (9.5 mm), exterior plywood complying with DOC PS-1; rated sheathing complying with DOC PS-2; or solid sheathing using minimum nominally 1 by 6 lumber.

### 7.2 Underlayment:

Under the IBC or IRC, underlayment must comply with ASTM D226, Type I, ASTM D4869, Type I or ASTM D6757 as specified in [Section 1507.2.3](#) of the 2012, 2009 and 2006 IBC or IRC [Section R905.2.3](#) of the 2012, 2009 and 2006 IRC

### 7.3 Self-adhering Polymer Modified Bitumen Sheet:

When used as an underlayment under shingles described herein, self-adhering polymer modified bitumen sheet must comply with ASTM D1970.

### 7.4 Starter Shingles:

The starter course shingle may consist of Woodstart® Starter Shingle, Starter Strip Plus, Starter Strip Shingle, or Tri Built Starter Strip. If self-sealing three-tab shingles are used, remove the exposed tab portion and install with factory-applied sealant adjacent to the eaves.

### 7.5 Fasteners:

Fasteners must be minimum No. 12 gage [0.105 inch (2.7 mm)], 3/8-inch diameter head (9.5 mm), galvanized, stainless steel, aluminum or copper corrosion-resistance nails. Fasteners must be of sufficient length to penetrate into the sheathing min. 3/4-inch (19.1 mm), or through the sheathing, where the sheathing is less than 3/4-inch (19.1 mm) thick. Fasteners must comply with ASTM F1667.

### 7.6 Asphalt Cement:

Asphalt cement must comply with ASTM D4586, Type I, Class I.

## 8. CONDITIONS OF USE

The OWENS CORNING Asphalt Shingles described in this Report comply with, or are suitable alternatives to, what is specified in those codes listed in Section 2 of this Report, subject to the following conditions:

- 8.1 Materials and methods of installation shall comply with this Report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this Report, this Report governs.
- 8.2 The products are manufactured at the locations listed in Table 1 of this Report under the UL LLC Classification and Follow-Up Service Program, which includes audits in accordance with quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.
- 8.3 See UL Online Certifications Directory for Prepared Roof-Covering Materials (TFWZ and TGAH).

## 9. SUPPORTING EVIDENCE

- 9.1 Manufacturer's descriptive product literature, including installation instructions.
- 9.2 UL test reports and Classification in accordance with ANSI/UL 790, Class A and UL Subject 2375. See UL Product Certification Category for Prepared Roof-Covering Materials (TFWZ).
- 9.3 UL test reports and Classification in accordance with ASTM D3462. See UL Product Certification Category for Prepared Roof-Covering Materials (TFWZ).
- 9.4 UL Test reports and Classification in accordance with ICC-ES Acceptance Criteria for Alternative Asphalt Roofing Shingles, AC438
- 9.5 UL test reports and Classification in accordance with UL 2390/ASTM D7158, Class H. See UL Product Certification Category for Prepared Roof-Covering Materials (TGAH).
- 9.6 UL test reports and Classification in accordance with ASTM D3161, Class F. See UL Product Certification Category for Prepared Roof-Covering Materials (TFWZ).
- 9.7 Quality Documentation in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

See UL's On-Line Certification Directory for the following product categories referenced above:

- [TFWZ](#)
- [TGAH](#)

## 10. IDENTIFICATION

OWENS CORNING asphalt shingles described in this Evaluation Report are identified by a marking bearing the report holder's name (OWENS CORNING), the plant identification, the product name, the UL Classification Mark and the evaluation report number ULER2453-01. The validity of this Evaluation Report is contingent upon this identification appearing on the product. . The UL Classification Mark shall indicate:

- a. UL790/ASTM E108 - Class A
- b. ASTM D3161 – Class F or Class A
- c. UL2390 (ASTM D7158) – Class H
- d. ASTM D3462
- e. ICC-ES Acceptance Criteria, AC438

## 11. USE OF UL EVALUATION REPORT

- 11.1 The approval of building products, materials or systems is under the responsibility of the applicable authorities having jurisdiction.
- 11.2 UL Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.
- 11.3 The current status of this report, as well as a complete directory of UL Evaluation Reports may be found at UL.com via our On-Line Certifications Directory: [www.ul.com/erdirectory](http://www.ul.com/erdirectory)

**Table 1 – Manufacturing Locations**

<b>LISTEE</b>	<b>LOCATION</b>	<b>FACTORY ID</b>
OWENS CORNING	5201 FOX ST DENVER CO 80216	DENVER
OWENS CORNING	704 CORRINE AVE N STATION MEMPHIS TN 38107	MEMPHIS
OWENS CORNING	1249 NEWARK TPKE KEARNY NJ 07032	KEARNY
OWENS CORNING	1901 49TH AVE N MINNEAPOLIS MN 55430	MINNEAPOLIS
OWENS CORNING	128 W 8TH ST BROOKVILLE IN 47012	BROOKVILLE
OWENS CORNING	1501 N TAMARIND ST PO BOX 5665 COMPTON CA 90224	COMPTON
OWENS CORNING	8360 MARKET ST RD HOUSTON TX 77029	HOUSTON
OWENS CORNING	201 N NURSERY RD IRVING TX 75061	IRVING
OWENS CORNING	3750 NW YEON AVE PORTLAND OR 97208	PORTLAND
OWENS CORNING	5824 S ARCHER RD SUMMIT IL 60501	SUMMIT
OWENS CORNING	4795 FREDERICK DR ATLANTA GA 30336	ATLANTA
OWENS CORNING	1035 TALLEYRAND AVE JACKSONVILLE FL 32206	JACKSONVILLE
OWENS CORNING	890 W SMITH RD MEDINA OH 44256	MEDINA
OWENS CORNING	1 FOUNDATION DR SAVANNAH GA 31408	SAVANNAH

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## River Road Neighborhood Association

To: HDRC Board Members,

May 11, 2017

The Historic Resources Committee of the RRNA has reviewed the proposed plans for new construction at 205 Ostrom in the River Road Neighborhood, and agreed that the project was appropriate for the neighborhood and would be a great improvement over the existing abandoned house at that address. We urge the HDRC Board to give this project conceptual approval.

Sincerely,

Darla Piner  
Chairman  
Historic Resources Committee  
River Road Neighborhood Association

# River Road Historic Committee

William Sibley, Darla Piner, Co-Chairs

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To the San Antonio HDRC Board,

Re: 205 Ostrom Drive

Having reviewed the plans presented to us by Tobias and Mai Stapleton, for their property located at 205 Ostrom Drive, we find them fitting and acceptable.

**We agreed with their plans for demolition of the existing structures.**

Sincerely,

W. Sibley, D. Piner; Co-Chairs

RIVER ROAD HISTORIC COMMITTEE



CITY OF SAN ANTONIO  
DEVELOPMENT SERVICES DEPARTMENT

RESIDENTIAL PERMIT APPLICATION PACKET

This packet is to provide all the information previously located in various documents in one place; to include Information Bulletin 101 with the Residential Permit to update the residential checklist containing required documents to building permit application to DSD, and to include with the new 2015 International



Floor Plan(s)

- Wall and floor/ceiling/roof sections and details. These shall include framing plans and/or framing design information as follows:
  - General - lumber size, grade, species and spacing of all wood elements.
  - Wood framed floors - spans and any intermediate girders. See IRC R502.
  - Wood framed walls – wall type (2x4's @ 16 in. o.c. as example), wall height, headers. See IRC See R602.3.
  - Wood framed roofs – Roof framing plan to include rafters and girders as a minimum. See IRC R802.2, R802.4 and R802.5.
- Exterior elevations (all sides)
- Window and door schedule or details
- Brace wall plan showing compliance with IRC R602.10. The plan shall clearly indicate the braced wall lines and the braced wall method used for compliance to expedite review.