

Burlington Design Advisory Board

645 Pine Street
Burlington, VT 05401
www.burlingtonvt.gov/DPI/DAB
Phone: (802) 865-7188

Matthew Bushey
Ron Wanamaker
Emily Morse
Jay White
vacant
Kathleen Ryan, Alt
Rob Brewer, Alt



DESIGN ADVISORY BOARD Tuesday November 23, 2021 3:00 PM

Physical location: 645 Pine Street, Front Conference Room, Burlington VT 05401
and

Zoom: <https://us02web.zoom.us/j/84683952489?pwd=RUhpcUE3ZWMyKzIURnFSanpTdldyUT09>

Password: 543898

Webinar ID: 846 8395 2489

Telephone: +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833

Agenda

Session I – 3:00 PM – 3:30 PM

- 1. ZP-21-606; 111 North Winooski Avenue (RM, Ward 2C) Michael Alvanos / Daniel & Holly Trahan**
Demolition of rear structure (barn) and construction of 6 new apartments at the rear of the property with associated parking and landscape improvements. (Mary O'Neil, Project Manager)

Session II – 3:30-4:00 PM

- 2. ZP 21-509; 72-76 Elmwood Avenue (RM, Ward 2C) Michael Alvanos / PBGC LLC. Continued review~**
Construct 3 unit detached residence and related site improvements. (Mary O'Neil, project manager.)

Session III – 4:00 PM – 4:15 PM

- 3. Draft 2022 DAB meeting schedule**
Review and approve DAB meeting schedule for 2022

Non-Discrimination

The City of Burlington will not tolerate unlawful harassment or discrimination on the basis of political or religious affiliation, race, color, national origin, place of birth, ancestry, age, sex, sexual orientation, gender identity, marital status, veteran status, disability, HIV positive status, crime victim status or genetic information. The City is also committed to providing proper access to services, facilities, and employment opportunities. For accessibility information or alternative formats, please contact Human Resources Department at (802) 540-2505.

The programs and services of the City of Burlington are accessible to people with disabilities. Individuals who require special arrangements to participate are encouraged to contact the Department of Permitting & Inspections at least 72 hours in advance so that proper accommodations can be arranged. For information call 865-7188.

Non-Discrimination

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DRAFT

DESIGN ADVISORY BOARD

January - December 2022

Regularly Scheduled Meetings - 2nd and 4th Tuesdays

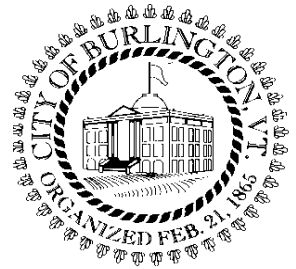
Date of Meeting	Day of Week	Time	Location	Application Deadline Wed 4pm
January 11, 2022	Tuesday	3:00 PM	DPI Conference Room	December 29, 2022
January 25, 2022	Tuesday	3:00 PM	DPI Conference Room	January 12, 2022
February 8, 2022	Tuesday	3:00 PM	DPI Conference Room	January 26, 2022
February 22, 2022	Tuesday	3:00 PM	DPI Conference Room	February 9, 2022
March 15, 2022	Tuesday	3:00 PM	DPI Conference Room	March 2, 2022
March 29, 2022	Tuesday	3:00 PM	DPI Conference Room	March 16, 2022
April 12, 2022	Tuesday	3:00 PM	DPI Conference Room	March 30, 2022
April 26, 2022	Tuesday	3:00 PM	DPI Conference Room	April 13, 2022
May 10, 2022	Tuesday	3:00 PM	DPI Conference Room	April 27, 2022
May 24, 2022	Tuesday	3:00 PM	DPI Conference Room	May 11, 2022
June 14, 2022	Tuesday	3:00 PM	DPI Conference Room	June 1, 2022
June 28, 2022	Tuesday	3:00 PM	DPI Conference Room	June 15, 2022
July 12, 2022	Tuesday	3:00 PM	DPI Conference Room	June 29, 2022
July 26, 2022	Tuesday	3:00 PM	DPI Conference Room	July 13, 2022
August 9, 2022	Tuesday	3:00 PM	DPI Conference Room	July 27, 2022
August 23, 2022	Tuesday	3:00 PM	DPI Conference Room	August 10, 2022
September 13, 2022	Tuesday	3:00 PM	DPI Conference Room	August 31, 2022
September 27, 2022	Tuesday	3:00 PM	DPI Conference Room	September 14, 2022
October 11, 2022	Tuesday	3:00 PM	DPI Conference Room	September 28, 2022
October 25, 2022	Tuesday	3:00 PM	DPI Conference Room	October 12, 2022
November 8, 2022	Tuesday	3:00 PM	DPI Conference Room	October 26, 2022
November 22, 2022	Tuesday	3:00 PM	DPI Conference Room	November 9, 2022
December 13, 2022	Tuesday	3:00 PM	DPI Conference Room	November 30, 2022
December 27, 2022	Tuesday	3:00 PM	DPI Conference Room	December 21, 2022

Date adjustment for
Town Meeting Day

Department of Permitting and Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
www.burlingtonvt.gov/pz
Phone: (802) 865-7188
Fax: (802) 865-7195

*William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Layne Darfler, Planning Technician
Alison Davis, Zoning Clerk
Theodore Miles, Zoning Specialist
Charlene Orton, DPI Administrator*



MEMORANDUM

To: The Design Advisory Board
From: Mary O'Neil, AICP, Principal Planner
RE: ZP21-509 72-76 Elmwood Avenue
Date: November 23, 2021

File: 21-509
Location: 72-76 Elmwood Avenue
Zone: RM **Ward:** 2C
Parking District: Neighborhood
Date application accepted: June 24, 2021
Request to defer for redesign and survey: July 23, 2021
Revised plans received: October 26, 2021, November 15, 2021.
First DAB Review: November 9, 2021
Applicant/ Owner: Michael Alvanos / PBGC LLC (Bill Bissonette)
Request: Build three unit detached residential structure on the site of the former Free Methodist Church. One existing single family residence remains on site. (Planned Unit Development)



Background:

- **Zoning Permit 20-0702CA;** Demolition of remaining foundation from fire totaled building. February 21, 2020; permit relinquished without action.
- **Non-Applicability of Zoning Permit Requirements;** rebuilding wheelchair ramp on east side of church (rear entrance); temporary ramp. August 2014.
- **Zoning Permit 85-263;** erect a picket fence, 4' high along the west and south boundaries. Construct storage shed on the east end of the property. June 1985.
- **Zoning Permit 81-596;** demolish a storage shed and rebuild 8' x12' which will replace existing storage shed. July 1981.
- **Zoning Permit 78-730;** Erect a steel storage shed in the rear of the church. May 1978.
- **Zoning Permit 76-419;** Replace front stairs and the sill in the rear of the building, erect a new floor for the porch. October 1975.
- **Zoning Permit n.n.;** erect a 6' x 45' chain link fence on the east and west property lines of 76 Elmwood Avenue and 16 Grant Street. July 1974.

Overview:

Burlington's Free Methodist Church was largely lost to a fire January 15, 2015. The rectory, a single family home on the same site, survived. The parcel has changed hands a number of times, and is now proposed for redevelopment; retaining the existing home, and added a detached three unit residential building.

At the DAB meeting 11.9.2021, the application review was tabled with a request for the following:

1. Provide screening for the parking area from the street;
2. Introduce barriers to prevent parking creep onto green space;
3. Introduce some design element to prevent rain and snow slide on north and south elevations;
4. Differentiate the first floor with a change of material, color or plane; and
5. Recommendations included in the staff report.

Revised plans were submitted 11.15.2021.



Part 1: Land Division Design Standards

Not applicable.

Part 2: Site Plan Design Standards
Sec. 6.2.2 Review Standards

(a)Protection of Important Natural Features:

This site remains unchanged since the 2015 fire. The foundation, which was permitted to be removed has remained and that permit relinquished without exercise. Lot coverage is existing/non-conforming at 71.5%.

(b) Topographical Alterations:

No topographical alterations are noted in the plans. Any retaining wall over 3' in height will require review by the City Engineer.

(c)Protection of Important Public Views:

There are no identified important public views from or through this site.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

The 1917 Free Methodist Church was listed on the Vermont State Register of Historic Resources; however since it has been lost, the historic designation no longer applies. The rear structure was not identified in that listing.

(e) Supporting the Use of Renewable Energy Resources:

No part of this application precludes the use of wind, water, solar, geothermal or other renewable energy resource.

(f) Brownfield Sites:

This is not an identified Brownfield site on Vermont's Department of Environmental Conservation website.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

All entries are now placed within a modest overhang, assuring a modicum of shelter for residents. An Erosion Prevention and Sediment Control Plan will be required for the site disturbance.

There is room for snow storage either north or east of the parking area.

(h) Building Location and Orientation:

The new building will shoulder-up to Elmwood Avenue; filling the emptiness left by the loss of the Church. In placement it fills the hole in the streetscape and maintains the development pattern and rhythm of structures along the street. A principal entrance fronting onto Elmwood Avenue has been introduced consistent with these regulations:

Principal buildings shall have their main entrance facing and clearly identifiable from the public street.

(i) Vehicular Access:

Vehicular access will continue as pre-existing, from Elmwood Avenue. The site plan calls for an expanded curb cut. Any change to the existing access will require a curb cut permit from the Department of Public Works.

(j) Pedestrian Access:

There is a public sidewalk immediately in front of this parcel. The site plan illustrates a walkway to the entrance areas, under the roof overhang.

(k) Accessibility for the Handicapped:

There is no elevator included in the plan. A single handicap parking space with an access aisle is illustrated. This space is located furthest from entrances to the new building; however if intended for the existing single family home is appropriately sited. Conformance to ADA standards is under the jurisdiction of the building inspector.

(l) Parking and Circulation:

The site plan illustrates 8 on site parking spaces, meeting the minimum parking requirement for the Neighborhood Parking District. There is sufficient room for cars to back out and re-enter Elmwood Avenue from the parking area.

In the Neighborhood Parking District, 1 long-term bicycle parking space is required for every two bedrooms. For this three unit building with 12 bedrooms, 6 long term bike parking spaces will be needed. A bicycle shed has been included in this revision.

(m) Landscaping and Fences:

Existing trees and fencing are shown on the site plan. New landscaping has been illustrated west of the parking area, which will successfully screen it from public view. Other than grass and an existing fence, no other landscaping is proposed.

A small feature wall is designed for the building entrance, with the street address visible. **Section 7.1.3** of the Comprehensive Development Ordinance exempts street identification from the sign regulations, providing the numerals are a minimum of 3" and maximum of 10" in height, and the area of the numerals does not exceed two square feet. The applicant shall

confirm. Walls in excess of 3' in height require review by the City engineer. (Section 6.2.2. (b)).

(n) Public Plazas and Open Space:

A Planned Unit Development requires that there be identified some open space for tenants to enjoy. **(11.1.5 Approval Requirements), (g) Open space or common land shall be assured and maintained in accordance with the conditions as prescribed by the DRB.**

The site plan defines several areas of green space which may be programmed for seating, light recreation, or gardening by the residents; although the placement of the mechanical pad forecloses the larger of these. Thought should be given to providing an area for resident outdoor use.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

Recessed can lighting is evident under the entrance overhang. Specification sheets and illumination levels have been provided, and are consistent with the residential nature of the project.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

The site plan does reveal mechanical equipment placed on a pad east of the new building. Any condensing units, mini-splits, or other external mechanical equipment must be illustrated on the site plan/building elevations and screened as appropriate.

Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be placed underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

The applicant needs to disclose the location of trash/recycling facilities. If a dumpster is proposed, it must be identified on the site plan, meeting required setbacks and be enclosed on all four sides to prevent blowing trash. The representative architect shared that he thought roll-off containers would be stored in the existing shed. Confirmation is needed.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.

If any mechanical equipment is proposed, the applicant must reveal the type and location so any adverse impacts may be assessed.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

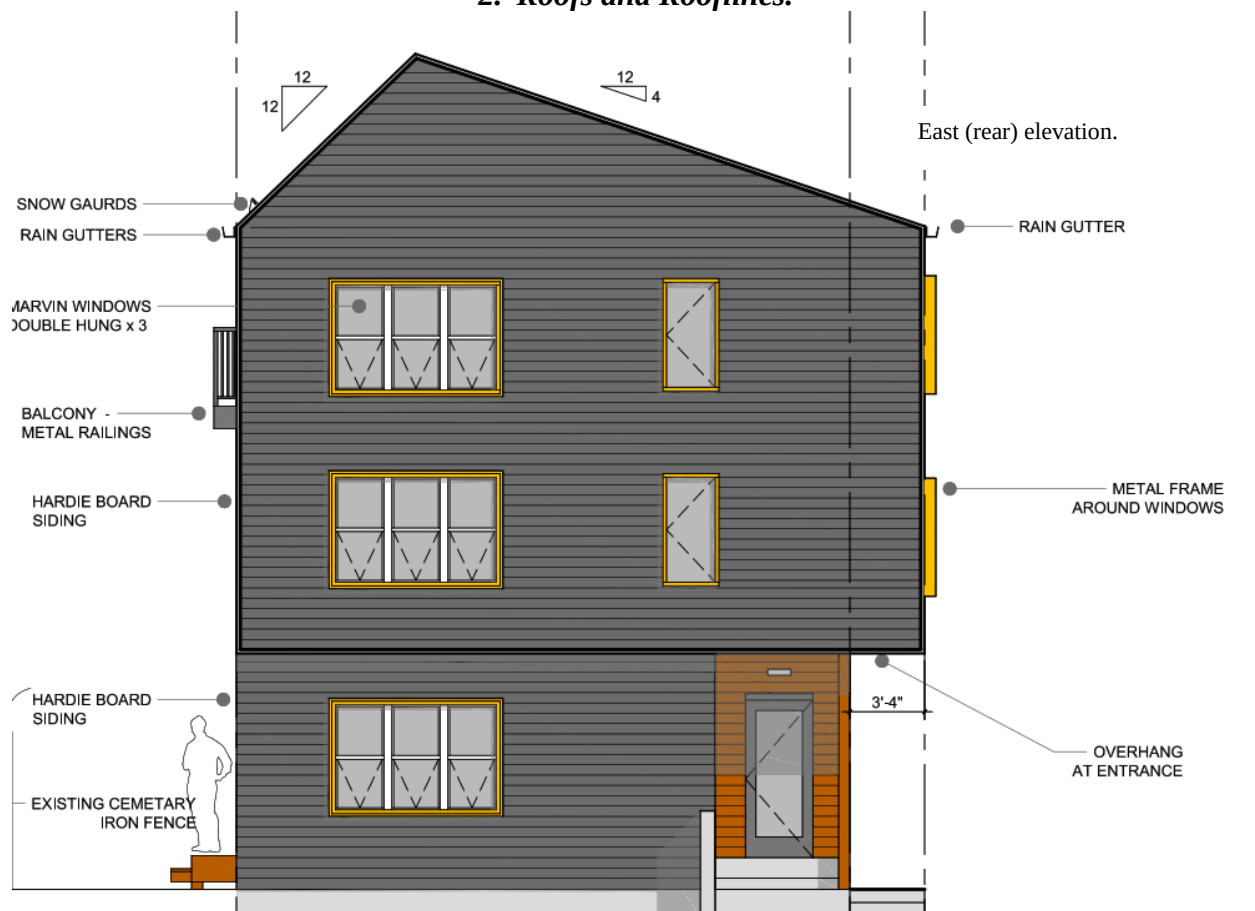
(a) Relate development to its environment:

1. Massing, Height and Scale:

72-76 Elmwood Avenue has only one abutting neighbor; 68 Elmwood Avenue. It is a gable-and-eaves front 2 ½ story residential building. Across the street on the corner of Peru Street is a modified Dutch Colonial, and the much grander St. Joseph's rectory.

Although presenting eaves-front to the street, the height and massing of the proposed building is consistent with other structures in the immediate area.

2. Roofs and Rooflines.



The proposed building has a modified cat-slide roof with dual pitch and zero eave extrusion. Responding to DAB comments, snow guards and rain gutters have been added on the north and south elevations. In style it reads as a modern infill.

3. Building Openings

Fenestration is a mix of triple and double ganged windows and single casements. Sliding doors are noted on the north elevation first floor and third floors.



(b) Protection of Important Architectural Resources:

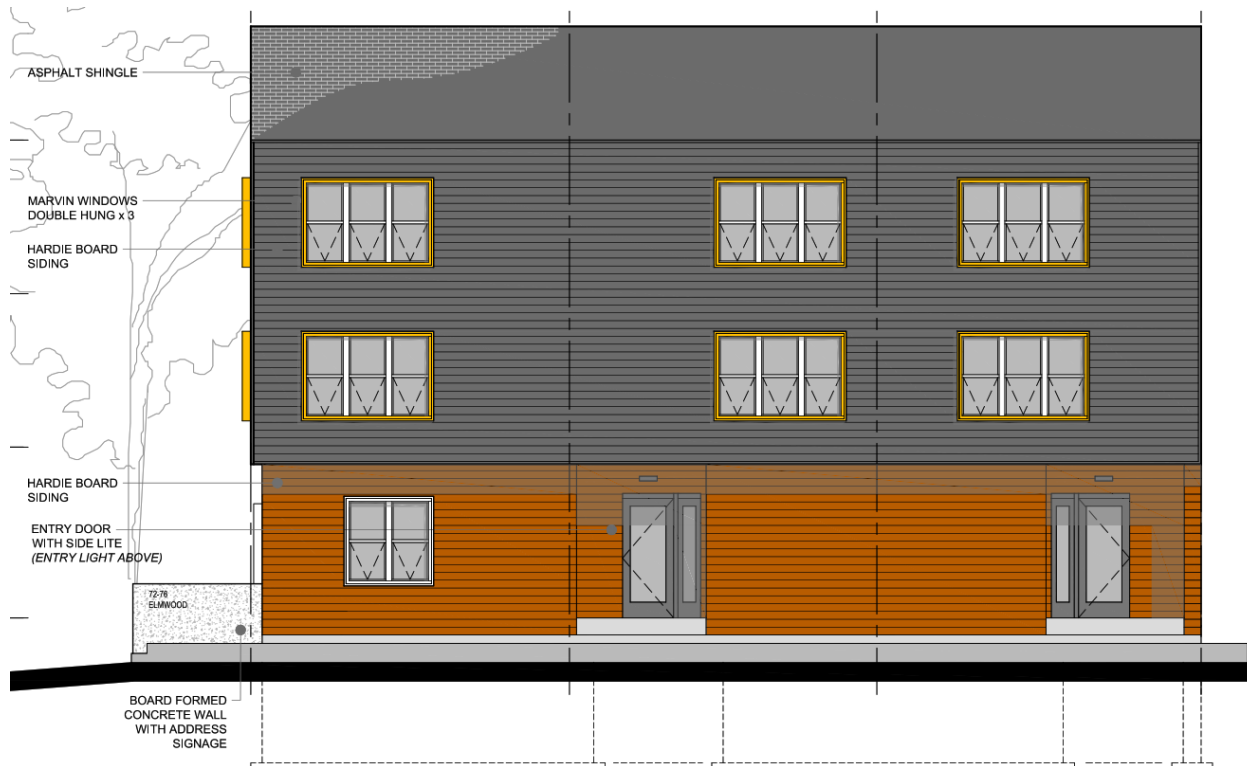
Not applicable.

(c) Protection of Important Public Views:

See Section 6.2.2 (c), above.

(d) Provide an active and inviting street edge:

As designed, the building lacks typical façade articulation such as bays, horizontal and vertical façade articulation, porches, patios, articulated bases, step-backs or other street level details. Windows are stacked, however, providing a measure of arrangement. The plan is modernistic with a simplified form and little detailing. The only interest provided is the angular and asymmetrical roof line, and “framed” window surrounds. Revisions include a differentiated first floor south and west entry, as requested by the Design Advisory Board.



(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Plans include fiber cement siding, with metal frame surrounds on windows and an asphalt shingle roof. All are considered acceptable for new construction.

(f) Reduce energy utilization:

All new construction must meet the Buidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.

(g) Make advertising features complementary to the site:

Not applicable.

(h) Integrate infrastructure into the building design:

See Section 6.2.2. (p), above.

(i) Make spaces secure and safe:

Development shall observe all applicable building and life safety code as defined by the building inspector and/or fire marshal. Building entrances shall be visible and adequately lit, and intercom systems for multi-family housing should be incorporated where possible to maximize personal safety.

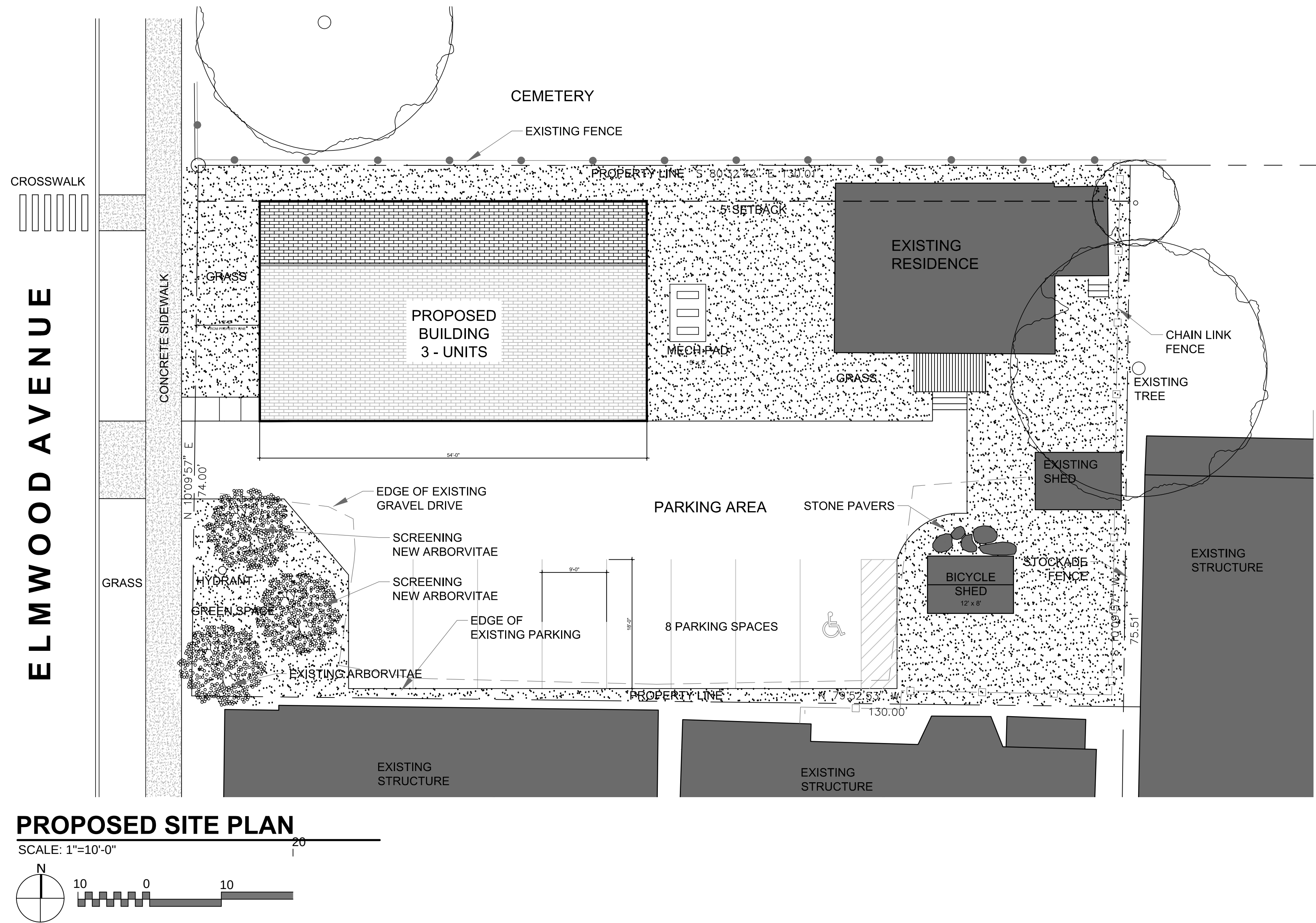
Section 5.4.8 Historic Buildings and Sites

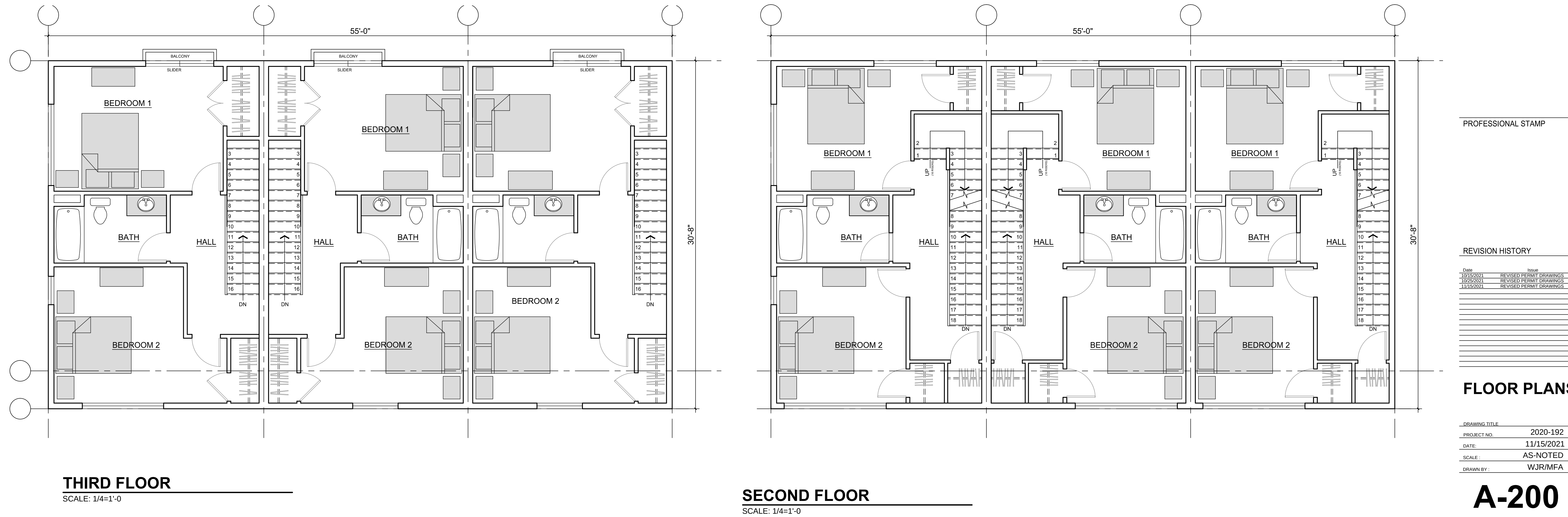
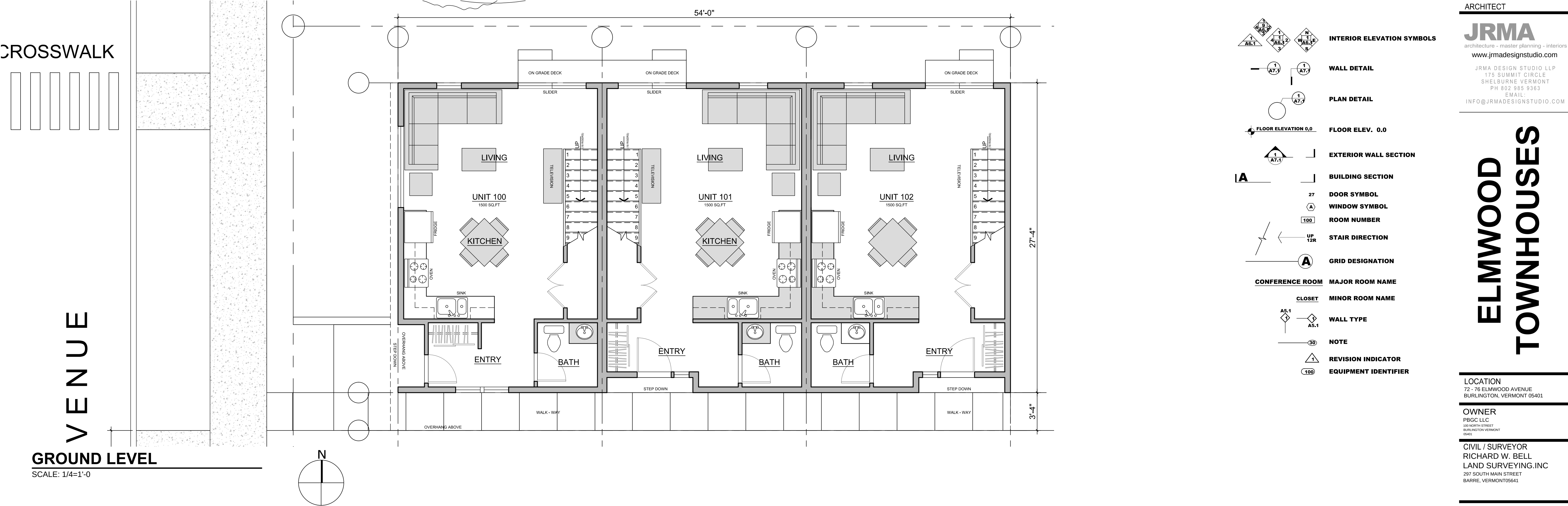
Not applicable.

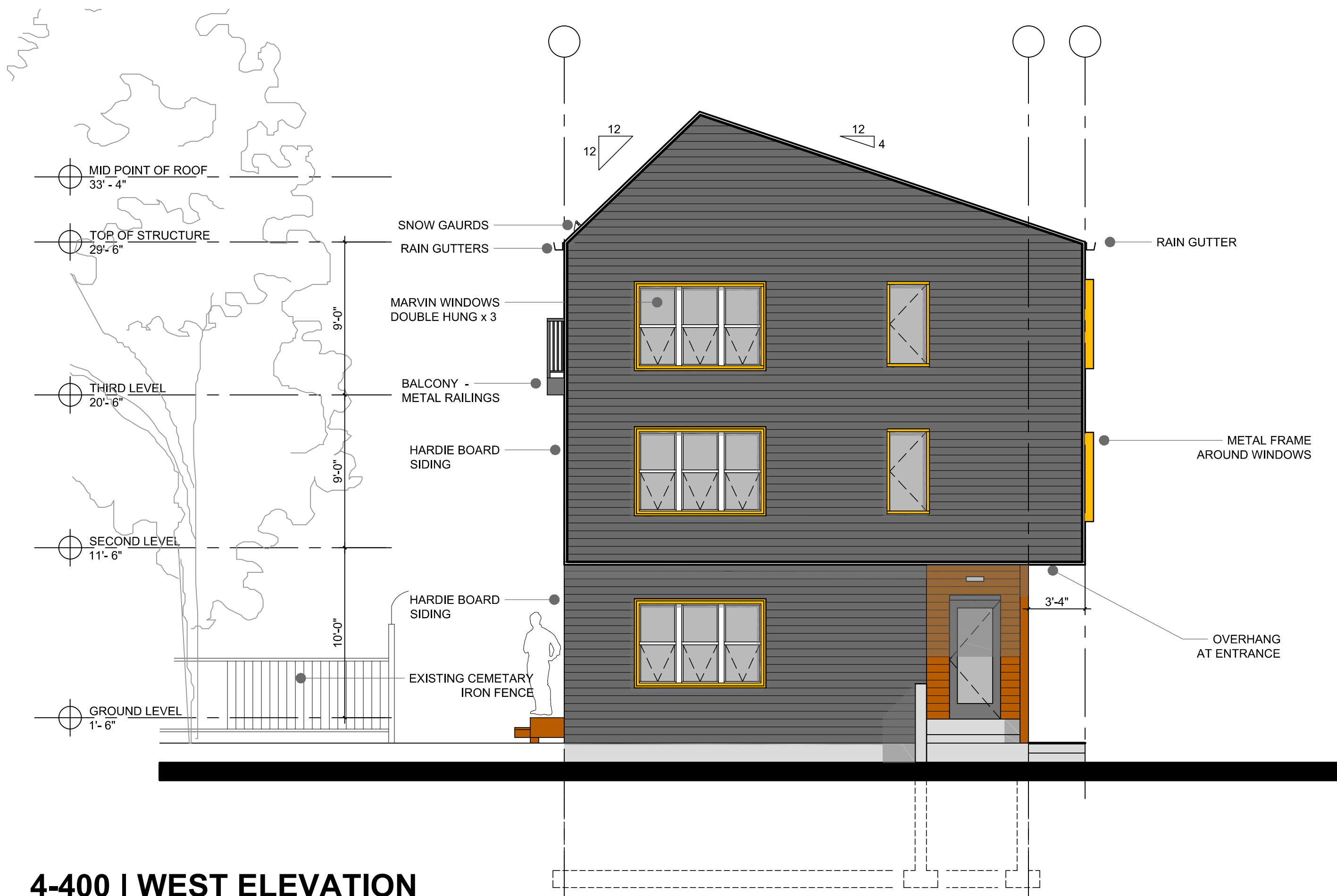
Items for the Board's consideration:

- Any intended mechanical equipment (HVAC, Condensing Units, mini-splits, etc) shall be illustrated on the site plan/building elevations as appropriate. No mechanical equipment shall be allowed on the primary (westerly) elevation. Screening may be required elsewhere.
- Building elevations and the site plan must identify meters, utility connections, and mailboxes.
- The location of trash and recycling facilities shall be identified. Any dumpster shall be fully enclosed to prevent blowing trash.
- Bike parking shall be provided. In the Neighborhood Parking District, 1 long term bicycle parking space shall be provided for every 2 bedrooms. For the new three unit building, 6 long term bike parking spaces are required. The applicant shall confirm that the proposed Bicycle Shed will accommodate this requirement.
- Plans for the Bicycle Shed and Condensing equipment shall be provided.
- Plan L-100 sets the north elevation of the new building exactly 5' from the property line. Plan A-200 places decks within the 5' setback. Unless the applicant can establish that the average north setback (taken from 68 Elmwood Avenue) is less than 5', the decks are an encroachment into a minimum required setback and cannot be included.

DRAWING TITLE	
OBJECT NO.	2020-1
DATE:	11/15/20
SCALE :	AS-NOTE
DRAWN BY :	WJR/MF

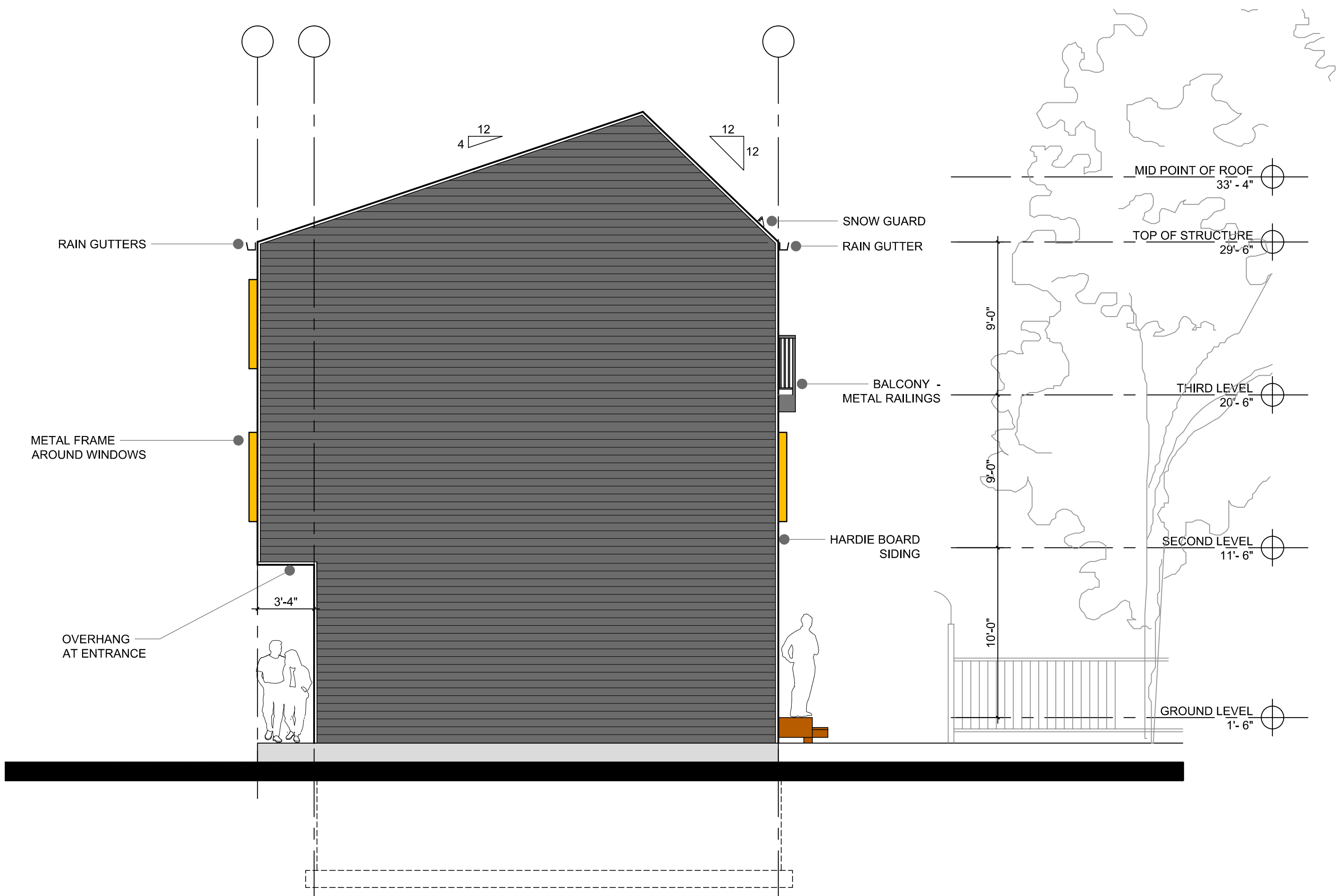






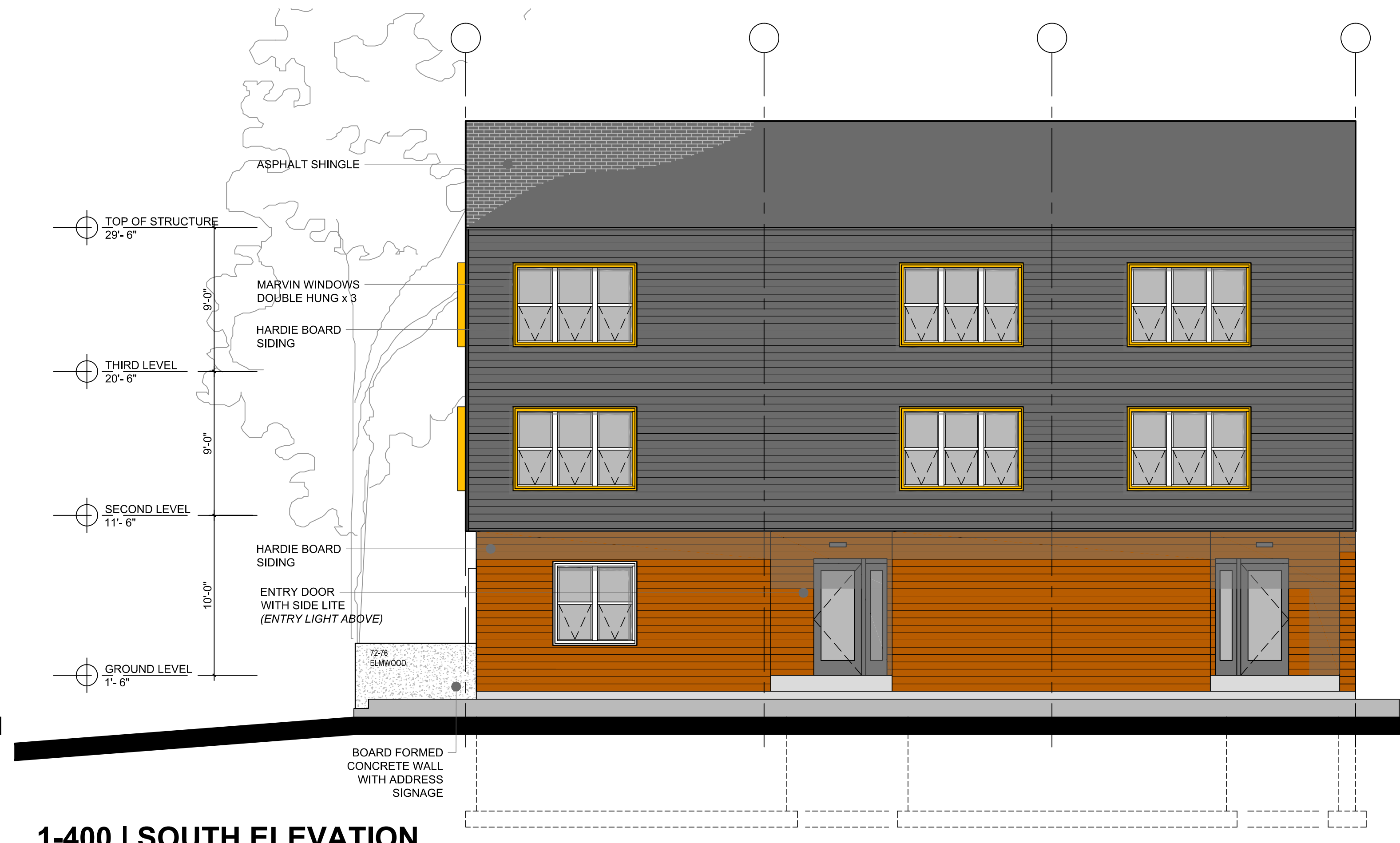
4-400 | WEST ELEVATION

SCALE: 3/16" = 1'-0



2-400 | EAST ELEVATION

SCALE: 3/16" = 1'-0



1-400 | SOUTH ELEVATION

SCALE: 3/16" = 1'-0



3-400 | NORTH ELEVATION

SCALE: 3/16" = 1'-0

ARCHITECT

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JRMA DESIGN STUDIO LLP

175 SUMMIT CIRCLE

SHELBURNE VERMONT

PH 802 985 9363

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ELMWOOD TOWNHOUSES

LOCATION

72 - 76 ELMWOOD AVENUE

BURLINGTON, VERMONT 05401

OWNER

PBGC LLC

300 NORTH STREET

BURLINGTON VERMONT

05401

CIVIL / SURVEYOR

RICHARD W. BELL

LAND SURVEYING, INC

297 SOUTH MAIN STREET

BARRE, VERMONT 05641

GENERAL NOTES:

PROFESSIONAL STAMP

REVISION HISTORY

Date	Issue
10/15/2021	REVISED PERMIT DRAWINGS
10/25/2021	REVISED PERMIT DRAWINGS
11/15/2021	REVISED PERMIT DRAWINGS

ELEVATIONS

DRAWING TITLE	2020-192
PROJECT NO.	10/15/2021
DATE:	AS-NOTED
SCALE:	WJR/MFA
DRAWN BY:	

A-400

DESCRIPTION

The HLB6 is a 6-inch ultra-thin LED lens downlight with remote driver / junction box suitable for new construction and remodel applications. Field selectable color temperature and high color rendering provide excellent color performance. Simplified installation in drywall or suspended ceilings eliminates recessed cans saving time and money. Installed from below the ceiling in as little as 2" plenum height, can be used in direct contact with insulation and is airtight. Use for general area lighting in low to medium height ceilings where energy savings, long life and economy are required.

SPECIFICATION FEATURES

HOUSING

- Die cast aluminum mounting frame with integral flange provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing spillage.

GASKET

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.32 spacing criteria, useful for general area illumination

LED ARRAY

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 4 SDCM providing color uniformity
- Field selectable color temperature, select 2700, 3000, 3500, 4000 or 5000 K CCT
- Meets ENERGY STAR® color angular uniformity requirements, deviation is less than 0.005 u' v'

REMOTE DRIVER / JUNCTION BOX

- Aluminum driver / junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors, 2-in, 2-out plus (2) ground
- (2) 1/2" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box

HALO

Catalog #	Type
Project	
Comments	Date
Prepared by	



HLB6

6-inch Ultra-thin LED Lens Downlight with Remote Driver / Junction Box

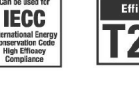
Up to 1100 Lumens

Field Selectable CCT



2700K • 3000K • 3500K
4000K • 5000K

ENERGY DATA	
Lumens	900 Series
Input Voltage	120V
Input Current	132 (mA)
Input Power	16.0 (W)
Efficiency	66 (LPW)
Inrush (A)	2.1 A @ 14mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° ~ +40°C
Sound Rating	≤ 25dBA



Refer to ENERGY STAR® Certified Products List.
Can be used in comply with California Title 24
High Efficiency requirements.
Certified to California Appliance Efficiency
Database under JAB.

TD518318EN

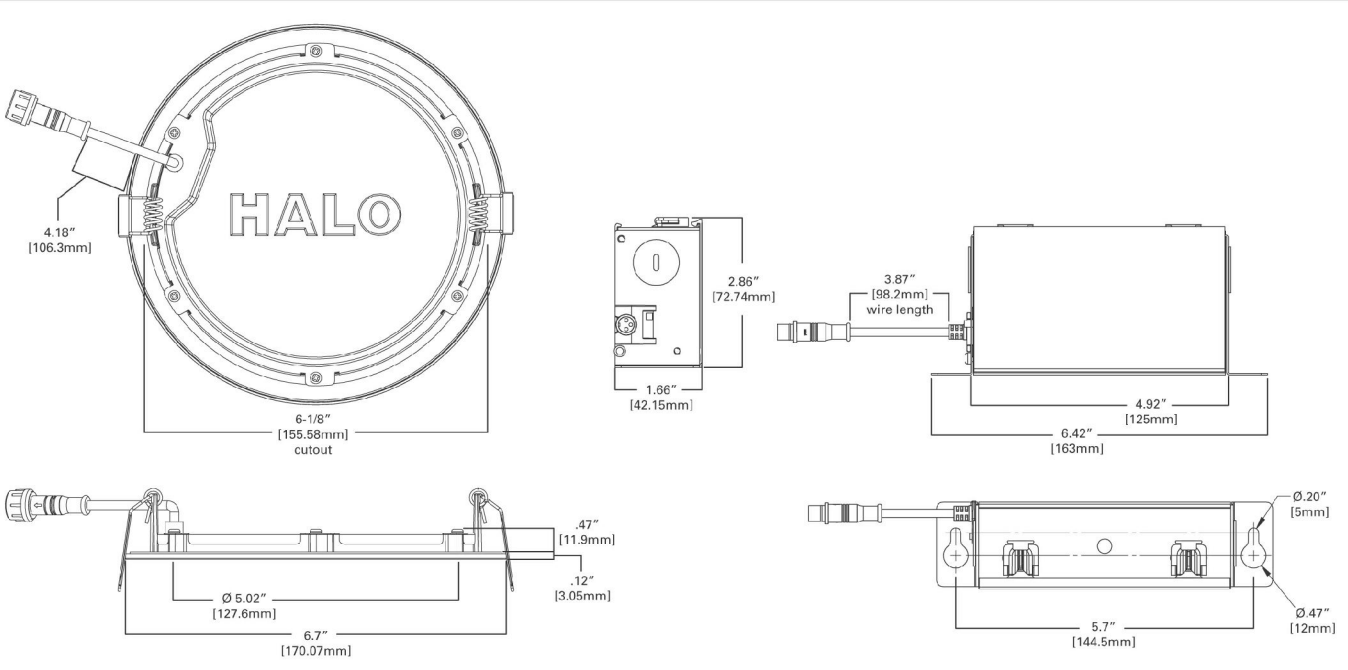
August 29, 2018 3:28 PM

LIGHTING SPEC.

LIGHTING SPEC.

HALO

DIMENSIONS



HLB6 Series

ORDERING INFORMATION

SAMPLE NUMBER: HLB6099FS1EMWR

Product	Lumens	CRI / CCT	Driver	Finish	Packaging	Accessories
HLB6	6-inch ultra-thin LED lens downlight with remote driver / junction box	90-90 CRI minimum (nominal)	15-120V 60Hz, LE & TE phase cut 5% dimming	WW= matte white flange	Re recyclable 4-color unit carton suitable for point of purchase merchandising display	HLBNCMF - 6" raw construction mounting frame

PHOTOMETRIC DATA

HLB6099FS1EMWR-3000K		
Luminaires lumens	1061	
Input watts	16	
LER (LPW)	66.3	
Spacing Criteria	0-180	1.31
	90-270	1.31
	Diagonal	1.41
Beam angle (degrees)	112.2	
Field angle (degrees)	161.3	
Zonal lumen	Lumens	% Lumens
0-30	294	27.7
0-40	486	45.8
0-60	851	80.2
0-90	1061	100

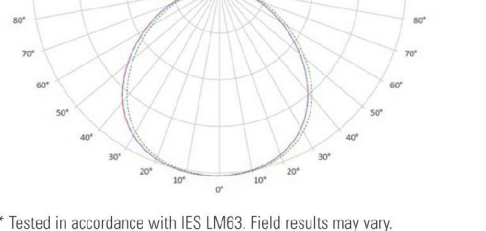
Color Metric Summary - 3000K

TM-30-15	R1 = 90.9
	R2 = 106.7
CR/ICE	Ra = 94.1
	R9 = 68.4

CCT - Range of 2700K - 5000K

Product Specifications

PRODUCT SPECIFICATIONS			
Lumens	1061		
Watts	16		
Lumens Per Watt (Efficacy)	66.3		
Color Accuracy (CRI)	92		
Light Color (CCT)	3000K		
Correlated Color Temperature (CCT)			
2700K	3000K	4000K	5000K
Warm white	Soft white	Bright white	



* Tested in accordance with IES LM-83. Field results may vary.



Eaton
1121 Highway 76 South
Piquette, CA 95470
P: 773-885-4300
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.



RENDERING FROM ELMWOOD

NOT TO SCALE

ARCHITECT

JRMA

architecture - master planning - interiors

www.jrma-design-studio.com

JRMA DESIGN STUDIO LLP
175 SUMMIT CIRCLE
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INFO@JRMADESIGNSTUDIO.COM

ELMWOOD TOWNHOUSES

LOCATION

72 - 76 ELMWOOD AVENUE
BURLINGTON, VERMONT 05401

OWNER

PBGC LLC
300 NORTH STREET
BURLINGTON VERMONT
05401

CIVIL / SURVEYOR

RICHARD W. BELL
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BARRRE, VERMONT 05641

GENERAL NOTES:

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REVISION HISTORY

Date	Issue
10/15/2021	REVISED PERMIT DRAWINGS
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RENDERING & SPECS

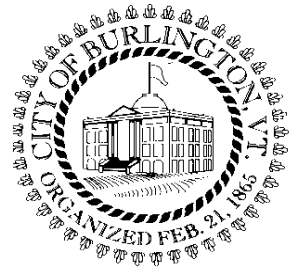
DRAWING TITLE	
PROJECT NO.	2020-192
DATE	11/15/2021
SCALE	AS-NOTED
DRAWN BY	WJR/MFA

A-900

Department of Permitting and Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
www.burlingtonvt.gov/pz
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Fax: (802) 865-7195

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Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Vacant, Planning Technician
Vacant, Zoning Clerk
Theodore Miles, Zoning Specialist
Charlene Orton, DPI Administrator



MEMORANDUM

To: The Design Advisory Board
From: Mary O'Neil, AICP, Principal Planner
RE: 111 North Winooski Avenue ZP21-606
Date: November 23, 2021

File: ZP21-606

Location: 111 North Winooski Avenue

Zone: RM **Ward:** 2C

Parking District: Neighborhood

Date application accepted: August 10, 2021 NPA meetings held October 14, 2021 and November 11, 2021.)

Applicant/ Owner: Michael Alvanos / Dan Trahan

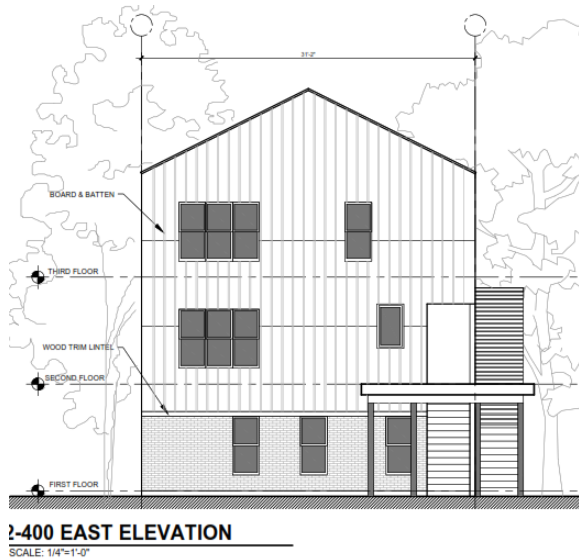
Request: Demolish rear barn; construct 6 unit apartment building with associated parking and landscaping behind existing duplex.

Background:

- **Non-applicability of Zoning Permit Requirements 12-0870NA;** grade existing gravel driveway. No change to dimension. March 2012.
- **Zoning Permit 10-1128CA;** remove 30 inches of slate along roof edge and install painted steel. June 2010.



Overview: 111 North Winooski Avenue is a Greek Revival residence with two units, and a rear carriage barn in a state of failure. Both the house and barn are listed on the Vermont State Register of Historic Resources. The property was owned for many decades by a property owner who was pursued by Code Enforcement in an effort to spur increased essential maintenance on his buildings. The property transferred ownership in 2006, and is now proposed for redevelopment in the rear, with demolition of the barn. A detached structure with 6 units is proposed.



The applicant has attended two NPA meetings to introduce the project; a requirement when adding 5 or more residential units.

Part 1: Land Division Design Standards

No land division is proposed. Not applicable.

Part 2: Site Plan Design Standards

Sec. 6.2.2 Review Standards

(a) Protection of Important Natural Features:

The proposed site plan identified 2 box elders on the north property line intended for retention. At least one other mature tree is proposed to be removed. The applicant shall further define the landscaping plan, particularly on tree removal and

new landscaping installation.

(b) Topographical Alterations:

None are identified.

(c) Protection of Important Public Views:

There are no protected public views from or through this parcel. Not applicable.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

See Section 5.4.8, below.

(e) Supporting the Use of Renewable Energy Resources:

There is nothing in the application that alludes to the use of water, solar, wind, geothermal or other renewable energy resource.

(f) Brownfield Sites:

This is not a listed Brownfield on the Vermont DEC website.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and

site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

The plan requires EPSC/Stormwater review. The applicant has been forwarded a link to prepare the necessary information for Stormwater program review.

Entrances to all units are under cover (first floor units under the staircase; second floor entries within a building recess.)

(h) Building Location and Orientation:

The new detached structure is located behind the existing duplex, and presents its entry stairs to the east.

(i) Vehicular Access:

Vehicular access will continue as existing; a direct access drove from North Winooski Avenue.

(j) Pedestrian Access:

There is a public sidewalk in front of 111 North Winooski Avenue. Tenants of the new detached structure may walk from the parking area directly to the public sidewalk. A designated pedestrian path should be introduced between the parking area and sidewalk.

(k) Accessibility for the Handicapped:

ADA access is under the jurisdiction of the building inspector.

(l) Parking and Circulation:

This parcel falls within the Mixed Use Multi Modal Parking District, which eliminates minimum parking requirements up to a depth of 200'. While there are no minimum standards, the applicant is providing 8 parking spaces. A TDM is not required as the project does not add 10 or more residential units.

(m) Landscaping and Fences:

As noted, a landscaping plan articulating any tree cutting or new plantings shall be provided. The applicant shall also relocate the fence within the identified property boundaries.

(n) Public Plazas and Open Space:

Not applicable.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

Recessed lights are proposed above entry doors. Residential in illumination levels, they are acceptable.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be placed underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.

The plan does not identify any trash or recycling facilities, meters, mailboxes, utility connections or HVAC equipment. All shall be illustrated on elevations and/or site plans as appropriate. Screening may be appropriate.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

The three story structure (with first floor partially recessed into the terrain) is less than the 35' maximum height allowed by the zoning ordinance. It is not dissimilar than the 2 ½ story structures that line the avenue.

2. Roofs and Rooflines.

A modified gable roof is proposed; more modern in appearance without boxed eaves and an overhang.

3. Building Openings

Window and door arrangements reflect internal room layout; with ganged windows and/or sliders at living and bedrooms, and single windows at lower level bedrooms and bathrooms. There is a loose symmetry to all elevations.

(b) Protection of Important Architectural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8. The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

See Section 5.4.8.

(c) Protection of Important Public Views:

Not applicable.

(d) Provide an active and inviting street edge:

The new building will sit behind the existing duplex, so street views will be limited. The appearance is clean and fresh; siding materials are differentiated between the ground floor and upper floors, providing some interest.

(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Vertical board and batten siding is proposed; with fiberglass windows, a brick veneered ground floor and asphalt shingled roof. All are considered of acceptable durability for new construction.

(f) Reduce energy utilization:

All new construction shall meet the Guidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.

(g) Make advertising features complementary to the site:

Not applicable.

(h) Integrate infrastructure into the building design:

See Section 6.2.2. (p), above.

(i) Make spaces secure and safe:

Building entrances/entry points shall be visible and adequately lit, and intercom systems for multi-family housing should be incorporated where possible, to maximize personal safety.

Sec. 5.4.8 Historic Buildings and Sites

The City seeks to preserve, maintain, and enhance those aspects of the city having historical, architectural, archaeological, and cultural merit. Specifically, these regulations seek to achieve the following goals:

To preserve, maintain and enhance Burlington's historic character, scale, architectural integrity, and cultural resources;

To foster the preservation of Burlington's historic and cultural resources as part of an attractive, vibrant, and livable community in which to live, work and visit;

To promote a sense of community based on understanding the city's historic growth and development, and maintaining the city's sense of place by protecting its historic and cultural resources; and,

To promote the adaptive re-use of historic buildings and sites.

(a) Applicability:

These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.



Both the duplex and the carriage barn are listed on the Vermont State Register. See attached narrative.

(b) Standards and Guidelines:

The following development standards, following the Secretary of the Interior's Standards for the Treatment of Historic Properties, shall be used in the review of all applications involving historic buildings and sites subject to the provisions of this section and the requirements for Design Review in Art 3, Part 4. The Secretary of the Interior's Standards are basic principles created to help preserve the distinctive character of a historic building and its site. They are a series of concepts about maintaining, repairing and replacing historic features, as well as designing new additions or making alterations. These Standards are intended to be applied in a reasonable manner, taking into consideration economic and technical feasibility.

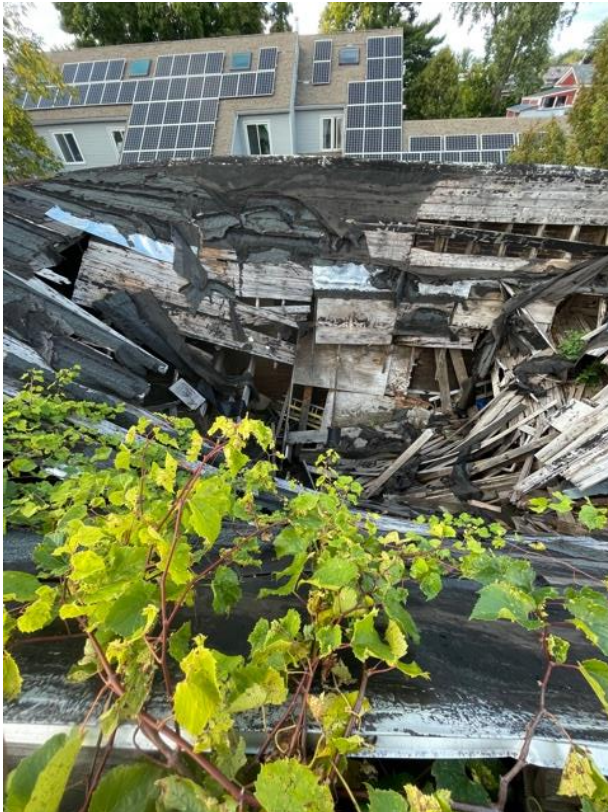
- 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

The principal structure (duplex) remains in residential use. The rear carriage barn has fallen into significant decay under a previous owner, as noted in Housing documents filed with the

city. The state register narrative points to use as a “shop” for the barn. Submitted photographs reveal a building now in collapse with no identified use.

The replacement structure is intended for residential use, consistent with the principal use of the parcel.

2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.*



The carriage barn had an important connection to the context of the site; however in the state of failure without the opportunity of rehabilitation, that important information is lost.

3. *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*

There is no attempt to introduce conjectural features. The new detached building reads entirely as a modern addition to the property.

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

None identified.

5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

The duplex is not included in this application, and it will remain intact. The carriage barn has deplorably fallen into collapse. Photographs will be retained within the zoning file to document what has remained after decades of neglect.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.*

The application does not propose a reconstruction of the carriage barn; rather a new structure for residential purposes. Submitted photographs within this project folder and earlier

documentation will provide an opportunity for future residents, historians and property owners to understand what previously existed on the site.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Although building demolition and removal is the most extreme of physical treatments, it appears the building has already succumbed to extreme of deferred maintenance.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

None have been identified at this site. If any archaeological resources are discovered during building demolition/construction, appropriate authorities shall be notified for appropriate assessment, evaluation, and management.

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.*

The replacement building will be clearly differentiated from the historic principal structure in its more modern vocabulary and detailing.

10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

The unlikely removal of the new detached structure will render the principal structure intact and easily discernable as historic. There is little chance the carriage barn, however, can be resurrected to complete the historic building context.

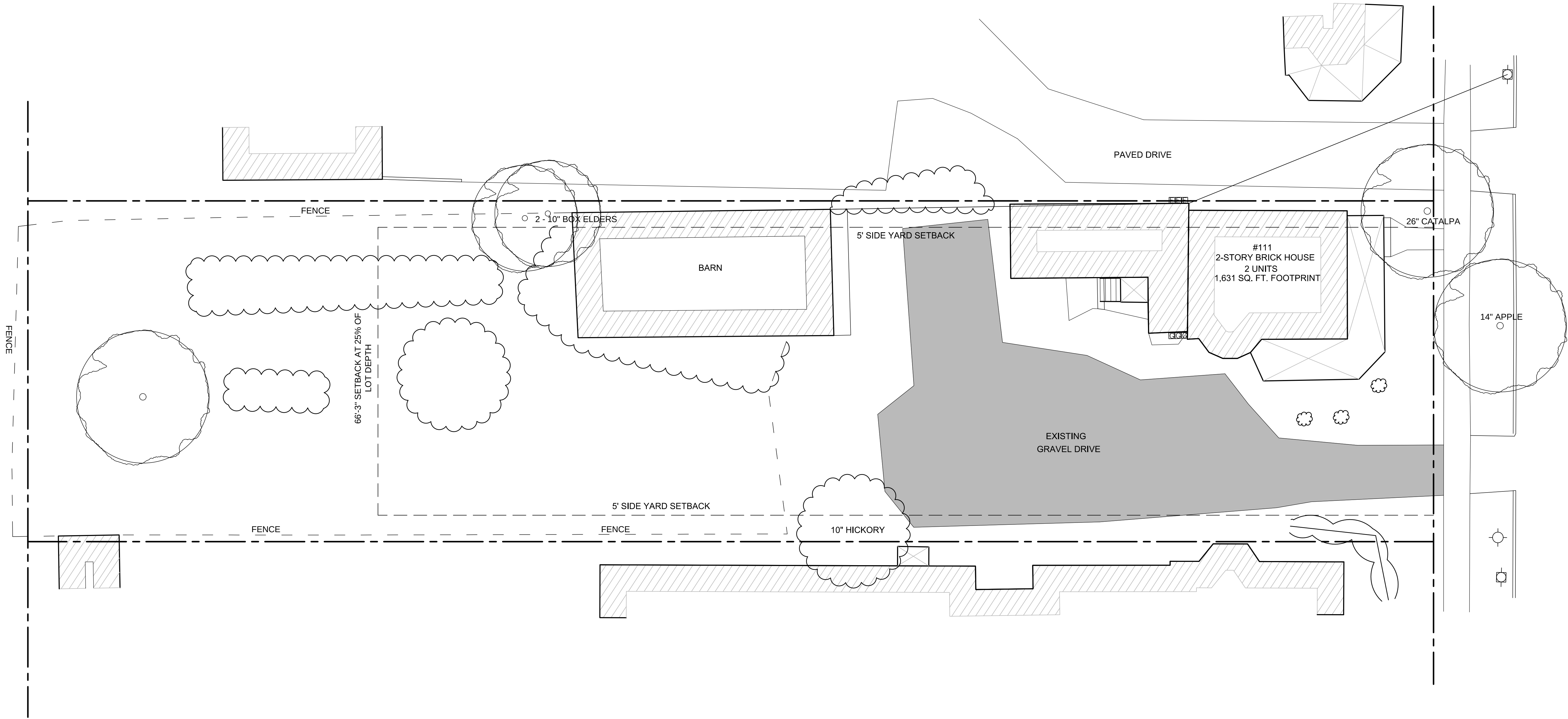


North side of carriage barn. Photo taken from abutting property, parking area.

Items for the Board's consideration:

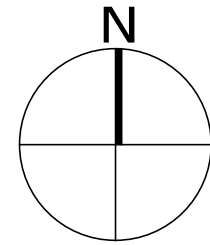
1. A landscaping plan, with tree removal and new plantings identified is required.

2. Review by the Stormwater program is required, with completion of an Erosion Prevention and Sediment Control Plan.
3. An identified pedestrian walkway shall be introduced between the parking area and the public sidewalk.
4. The fence shall be relocated onto the subject property, as the survey has indicated it is placed outside the parcel in some instances.
5. The addition of 5 or more units spurs the requirement for Inclusionary zoning. At least one new unit must be affordable. The applicant is encouraged to consult with the Housing Trust Fund manager to define rental levels and associated details.



EX100 - EXISTING CONDITIONS

SCALE: 1"=10'-0"



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Date Issue
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Drawing Title

**EXISTING
CONDITIONS**

Project No: 2021-203

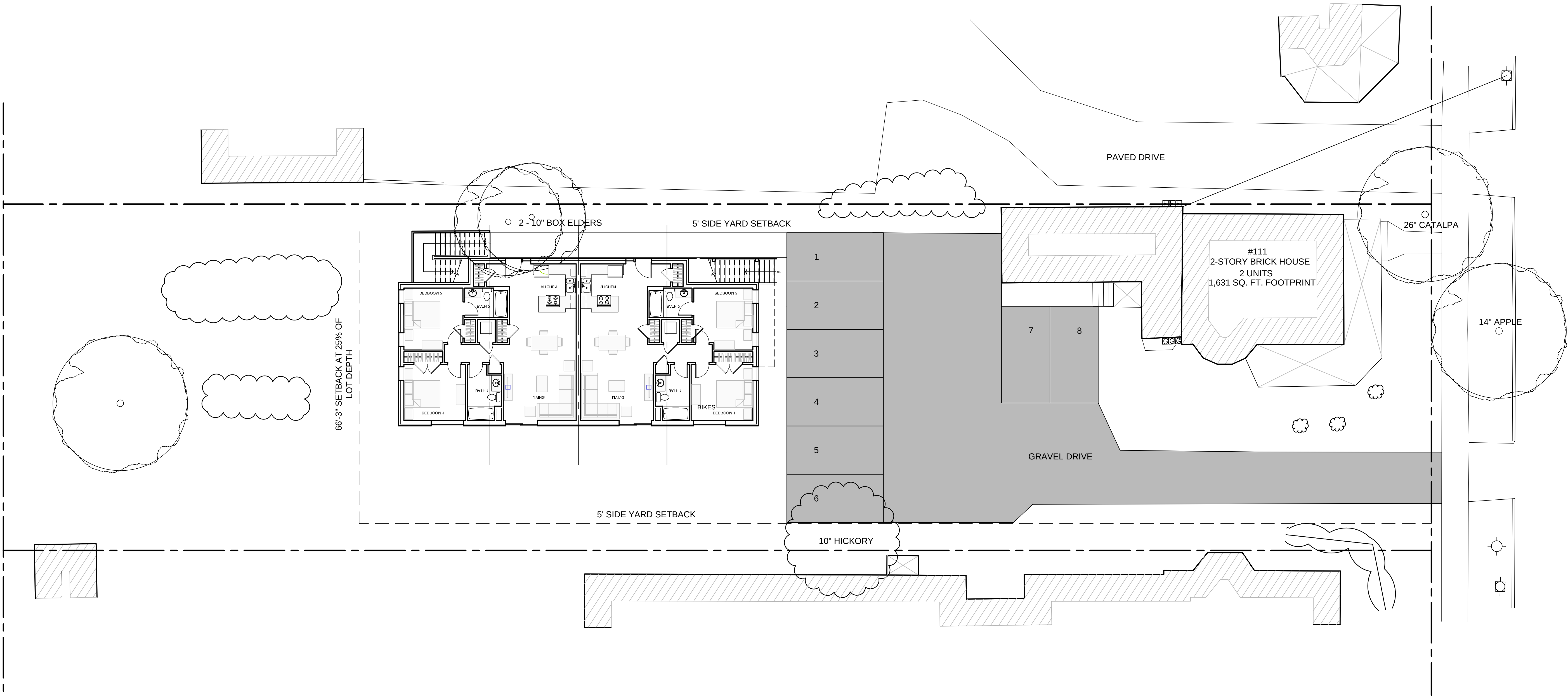
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Drawn by: WJR/MFA

EX-100

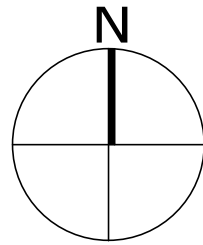
2021 08 04 SCHEMATIC DESIGN



NORTH WINOOSKI AVENUE

C200 - PROPOSED SITE PLAN

SCALE: 1"=10'-0"



ZONING DIMENSIONAL CRITERIA			
	ZONING BY-LAW	EXISTING	ALLOWED
DISTRICT	MEDIUM DENSITY	MEDIUM DENSITY	MEDIUM DENSITY
MAX. RESIDENTIAL DENSITY	20 UNITS / ACRE 2,178 SQ. FT. / UNIT	2 UNITS	8 UNITS
MAX. BUILDING HEIGHT	35 FT.		35 FT.
MIN. LOT SIZE	N/A	17,157 SQ. FT.	17,157 SQ. FT.
MIN. FRONTAGE	30 FT.	64.5 FT.	64.5 FT.
FRONT YARD SETBACK	AVERAGE OF 2 ADJACENT LOTS	6 - 8 FT.	EXISTING
REAR SETBACK	25% OF LOT DEPTH - MIN. 20 FT.	0 - 5 FT.	66.25 FT.
SIDE SETBACK	10% OF LOT WIDTH OR AVE. OF 2 ADJACENT LOTS	0 - 5 FT.	0 - 5 FT.
BUILDINGS	-----	1,313 SQ. FT.	3,285 SQ. FT.
WALKWAYS	-----	48 SQ. FT.	287 SQ. FT.
DRIVEWAY	-----	2,845 SQ. FT.	3,232 SQ. FT.
TOTAL LOT COVERAGE		4,206 SQ. FT.	6,804 SQ. FT.
LOT COVERAGE	40%	24.5%	39.6%
DECKS/PORCHES	10%	380 SQ. FT. - 2%	380 SQ. FT. - 2%
PARKING	2 PER UNIT	8 +/-	8
BICYCLE PARKING	1 PER 2 BEDROOMS	-----	10

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PROPOSED
SITE PLAN

Project No: 2021-203

Date: 08/04/2021

Scale: AS-NOTED

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C-200

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Drawing Title

GROUND LEVEL

Project No: 2021-203

Date: 08/04/2021

Scale: AS-NOTED

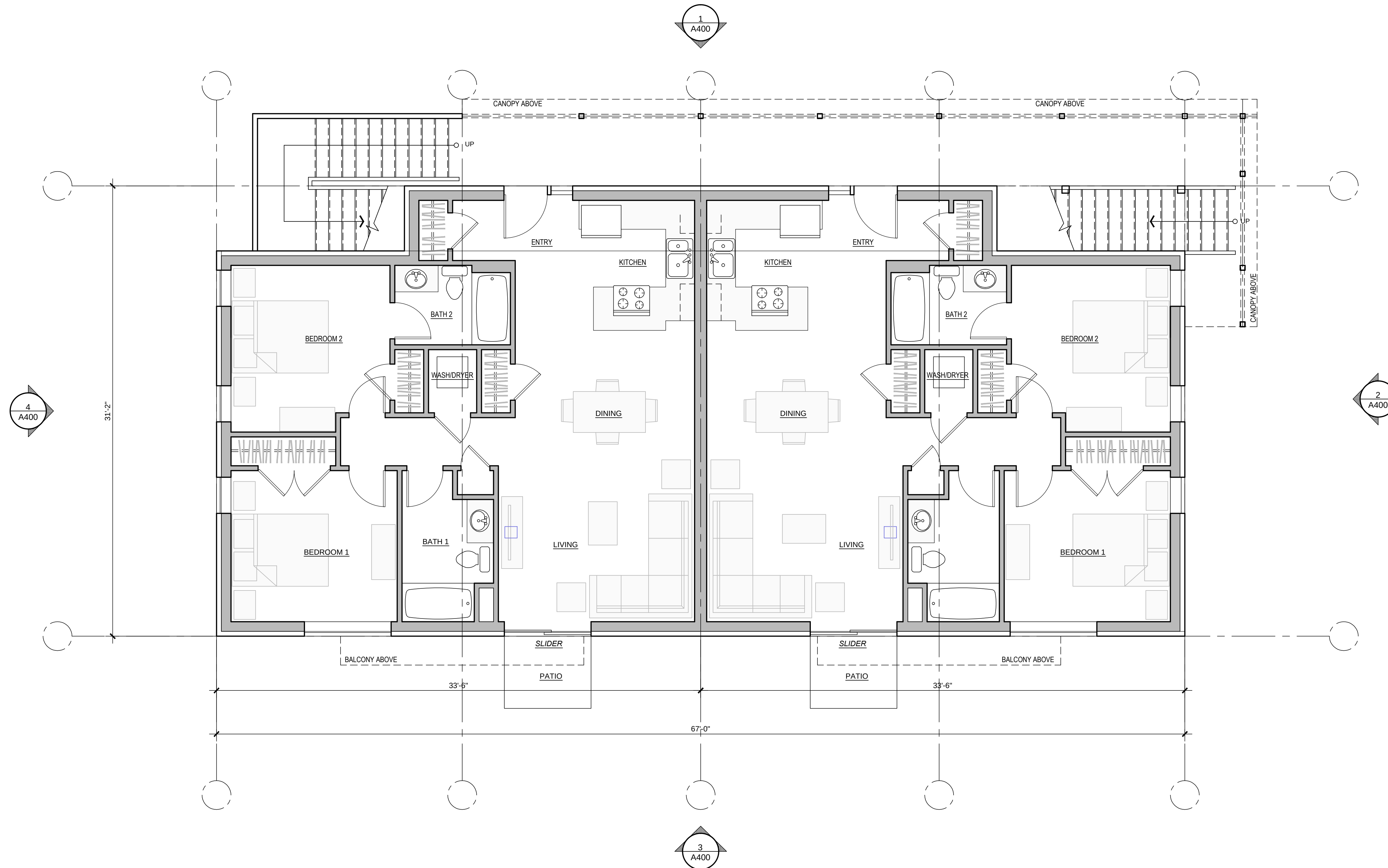
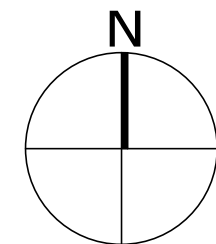
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A- 201

2021 08 04 SCHEMATIC DESIGN

A201 - GROUND FLOOR PLAN

SCALE: 1/4"=1'-0"



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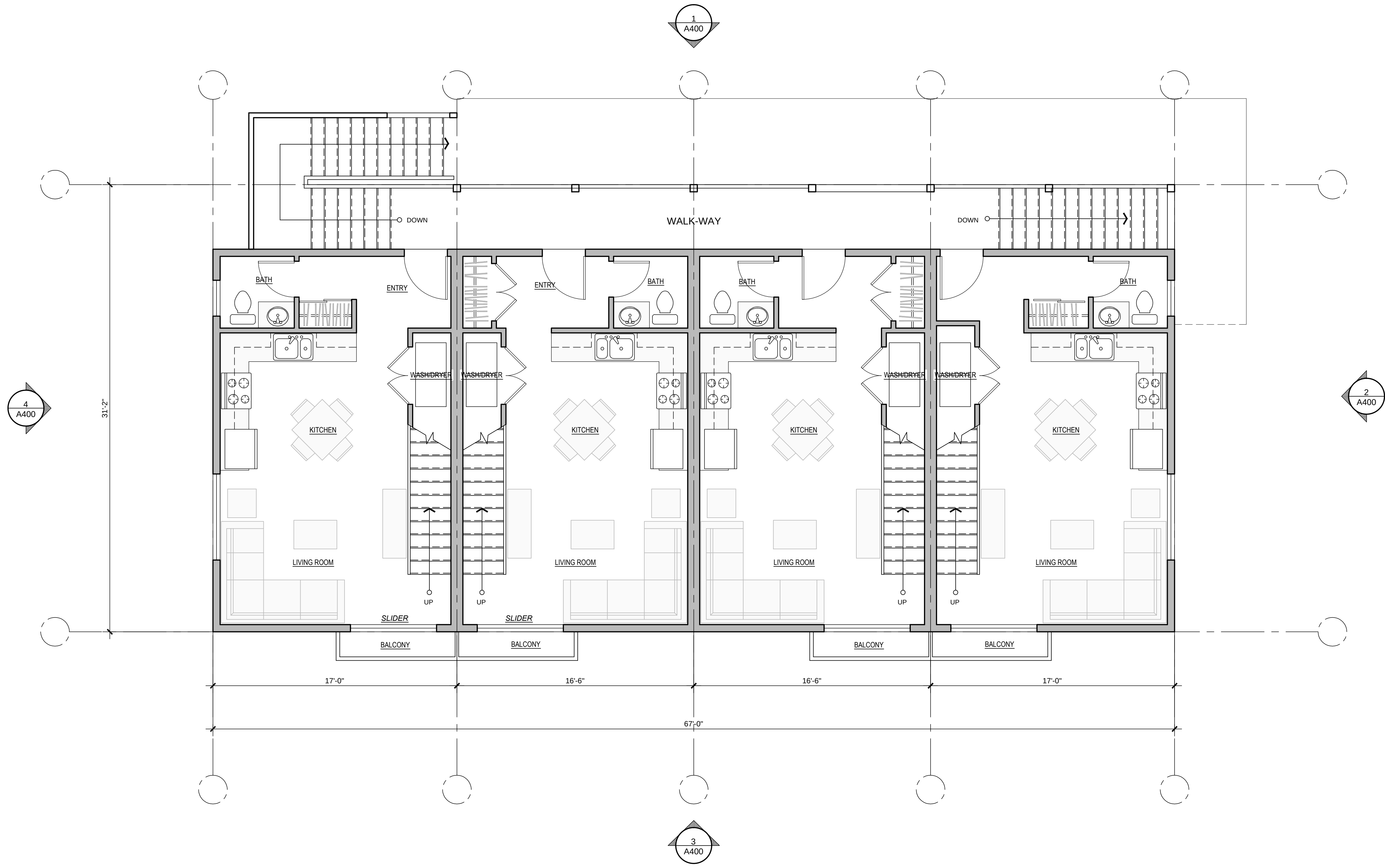
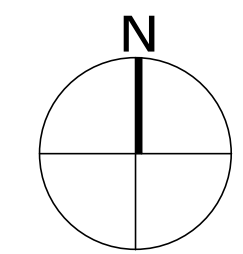
Drawing Title

SECOND LEVEL

Project No:	2021-203
Date:	08/04/2021
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A202 - SECOND FLOOR PLAN

SCALE: 1/4"=1'-0"



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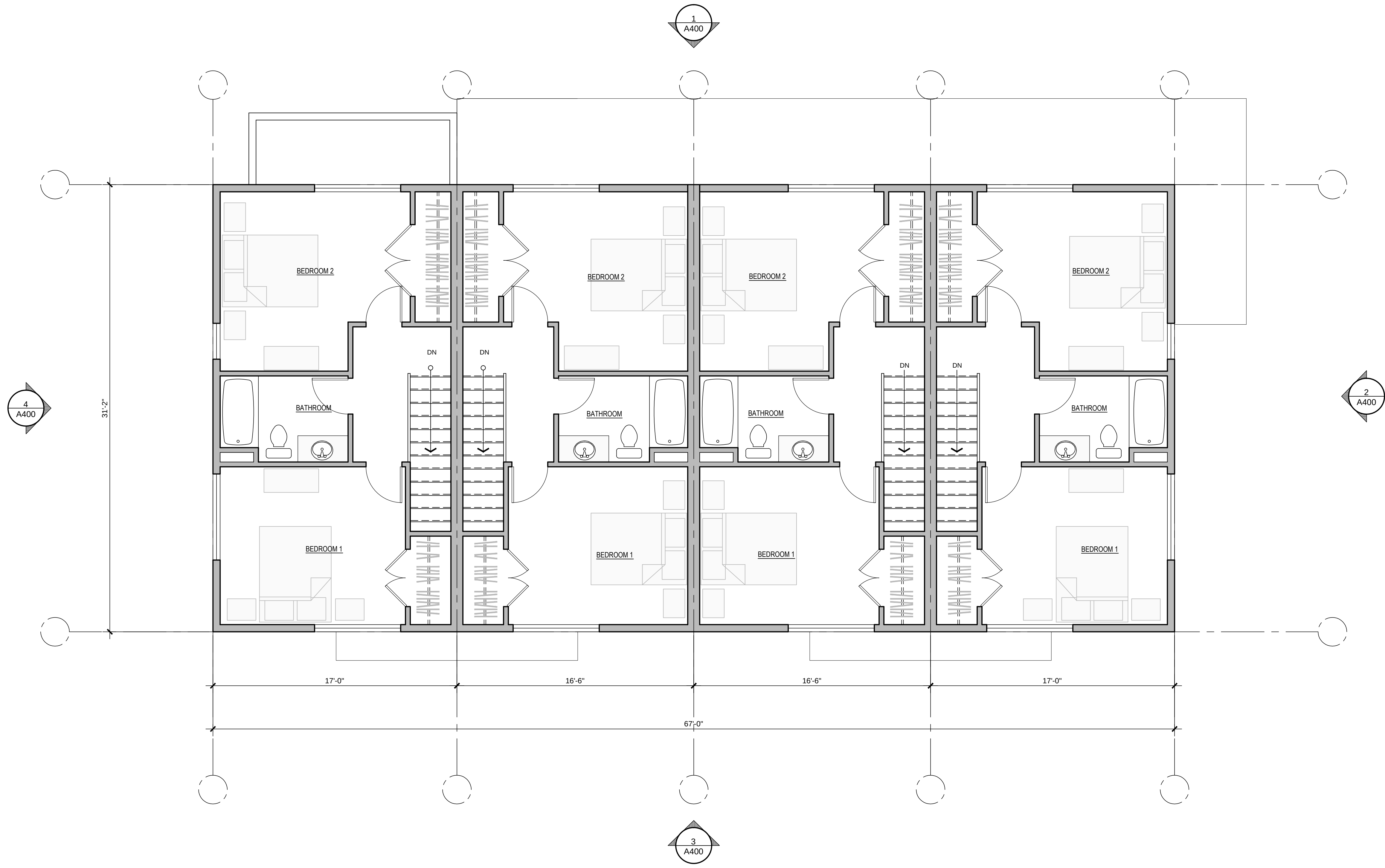
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08/04/21	SCHEMATIC DESIGN

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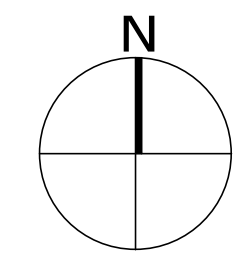
THIRD LEVEL

Project No:	2021-203
Date:	08/04/2021
Scale:	AS-NOTED
Drawn by:	WJR/MFA

A- 203



A203 - THIRD FLOOR PLAN
SCALE: 1/4"=1'-0"

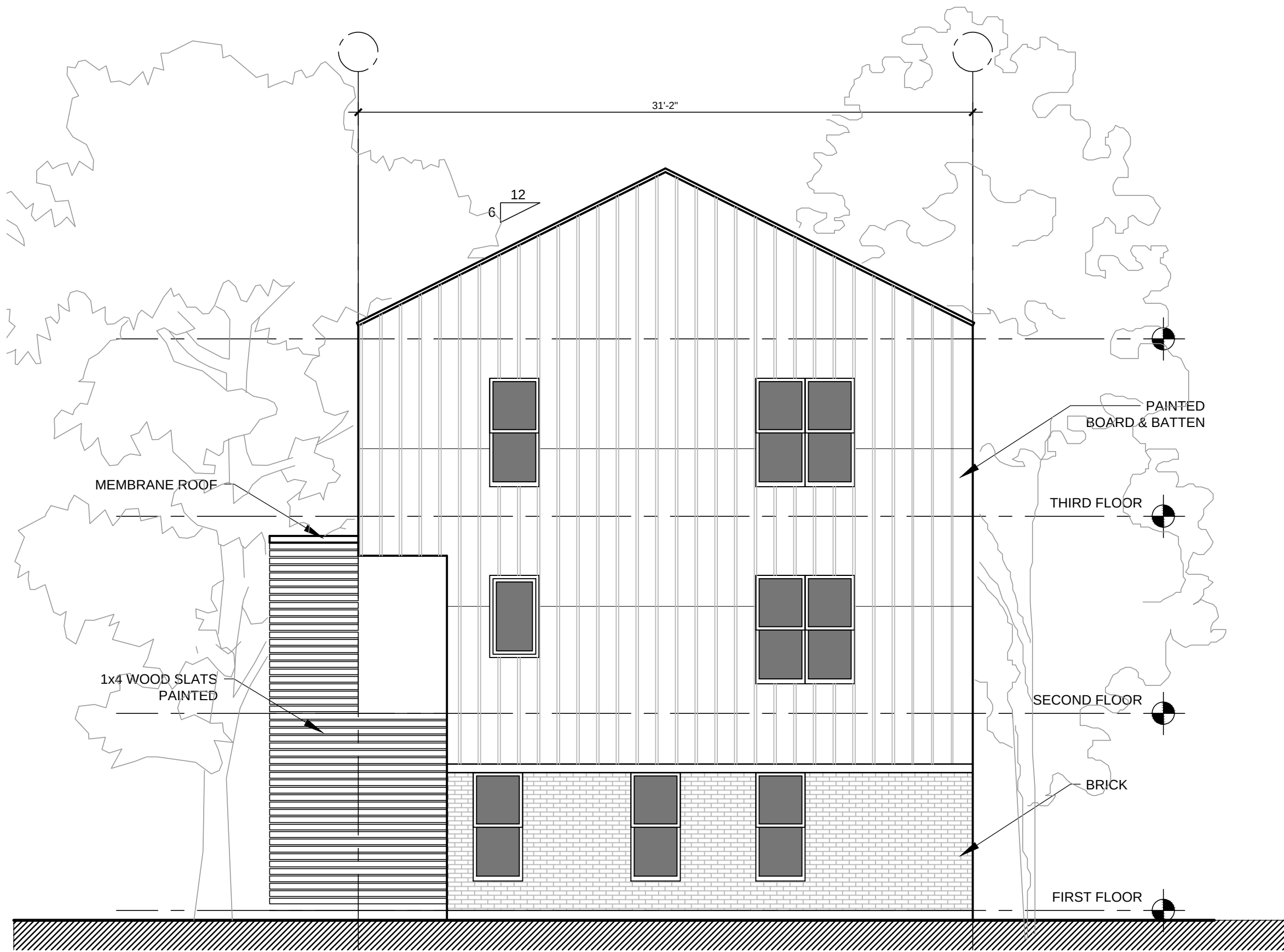


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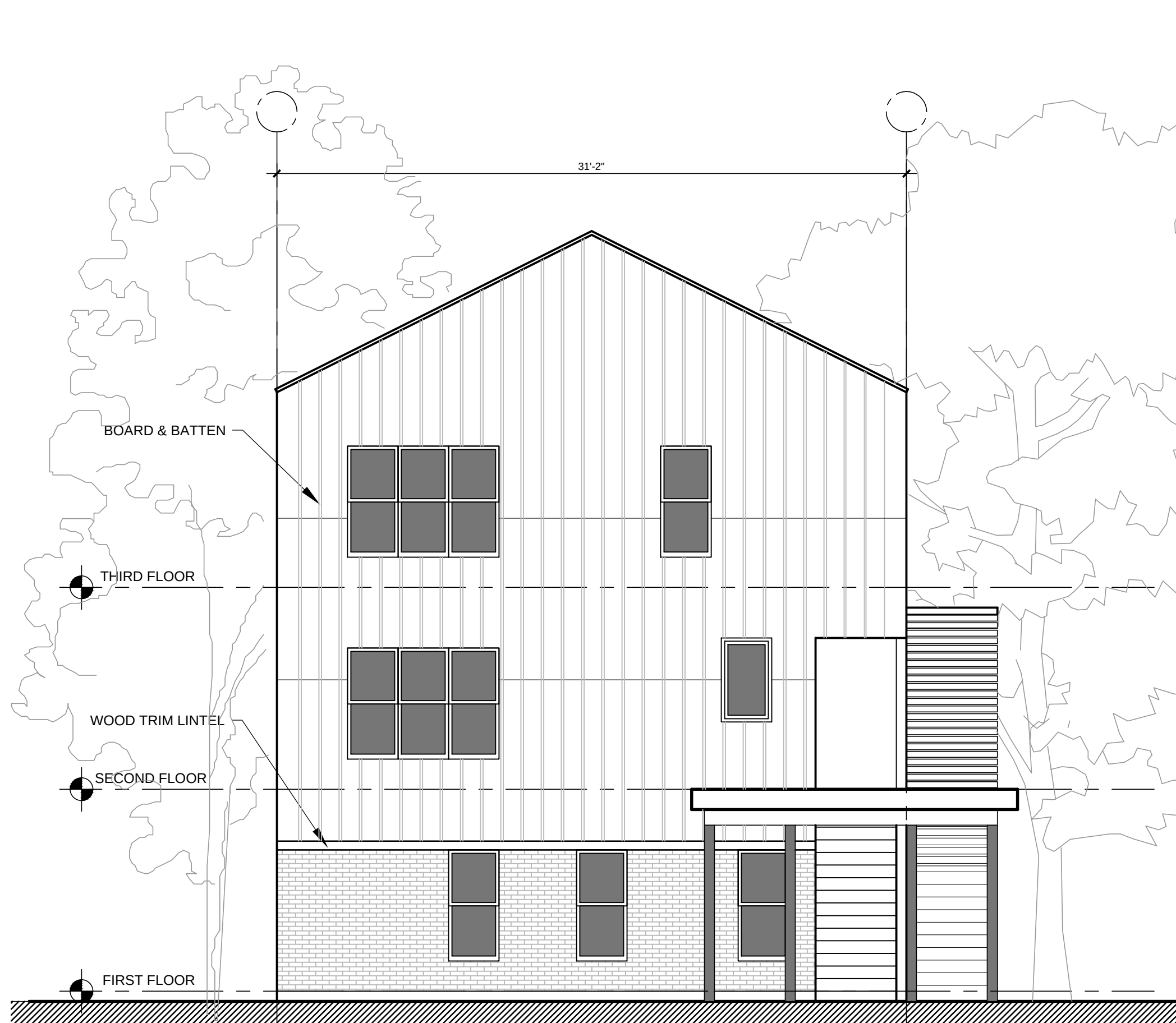
1-400 SOUTH ELEVATION

SCALE: 1/4"=1'-0"



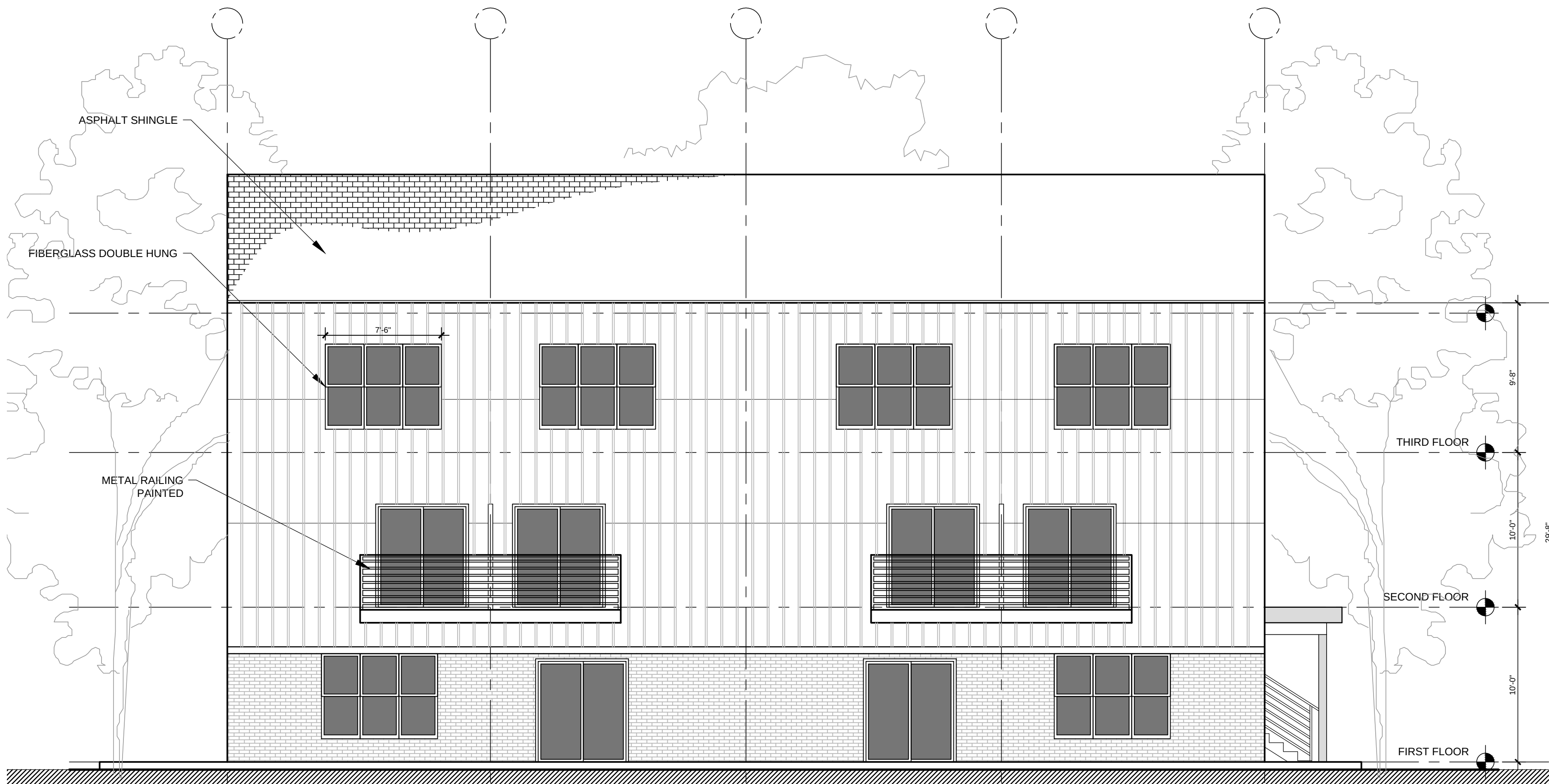
4-400 WEST ELEVATION

SCALE: 1/4"=1'-0"



2-400 EAST ELEVATION

SCALE: 1/4"=1'-0"



3-400 NORTH ELEVATION

SCALE: 1/4"=1'-0"

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Drawing Title

ELEVATIONS

Project No: 2021-203

Date: 08/04/2021

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A- 400

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Introduction

Marvin® thanks you for choosing high performance Ultrex® products for your home. Whether you selected the rich wood interiors of the Elevate collection, or the clean lines of the Essential collection, the energy efficient Low E insulated glass and durable Ultrex construction will provide you windows and doors you'll appreciate for years.

How To Use This Manual

This owner's manual was created to help keep your Marvin products looking beautiful and performing well for years to come. Take a few minutes to carefully read through this manual. You'll find photos that will help identify your Marvin products, general information on cleaning, and answers to common questions. Included is an annual checklist with recommended maintenance tips that can keep your Marvin products performing perfectly for years to come.



For questions on service or maintenance not covered in this manual please contact your local Marvin dealer or visit our website at marvin.com.

Warranty

Marvin is committed to bringing you products of the highest quality and value. Our made-to-order manufacturing philosophy is one example of our commitment. Our warranty is another.

Please visit the warranty section of our website marvin.com/warranty for full warranty details on your product.



Elevate collection products shown in images unless noted otherwise.



Annual Window and Door Checklist

Use this checklist as a maintenance reminder for your windows and doors to help keep your product operating properly and prevent future problems. Once a year should be sufficient.

- ☐ Safety first: use caution on ladders, and wear protective eyewear and clothing. When working with primers, paints, stains, cleaning solutions, etc., make sure that you use and dispose of these materials according to local codes or manufacturer’s instructions.
- ☐ Inspect weather strip for damage or loss of performance. Contact the local Marvin retailer if your weather strip requires replacement. Take care when using paints, stains, or varnishes. These products contain solvents which, when coming in even momentary contact with weather strip, can cause it to become brittle and require replacement.
- ☐ Examine window and/or door interior and exterior finishes. Periodic cleaning and touchup can extend the life of your finish.
- ☐ Inspect exterior caulking around the outer edges of the window or door frame. Trim off any loose caulking and reseal any gaps with a good quality caulk.
- ☐ Check all hardware (locks, opening mechanisms, etc.) for smooth operation.
- ☐ Inspect exposed hardware screws; tighten if loose.
- ☐ Clean sand, dirt, or dust from door and window hinges, sills, and tracks.
- ☐ When soiled, wash the exterior of your doors and windows with an approved cleaning solution found at marvin.com/cleaning.

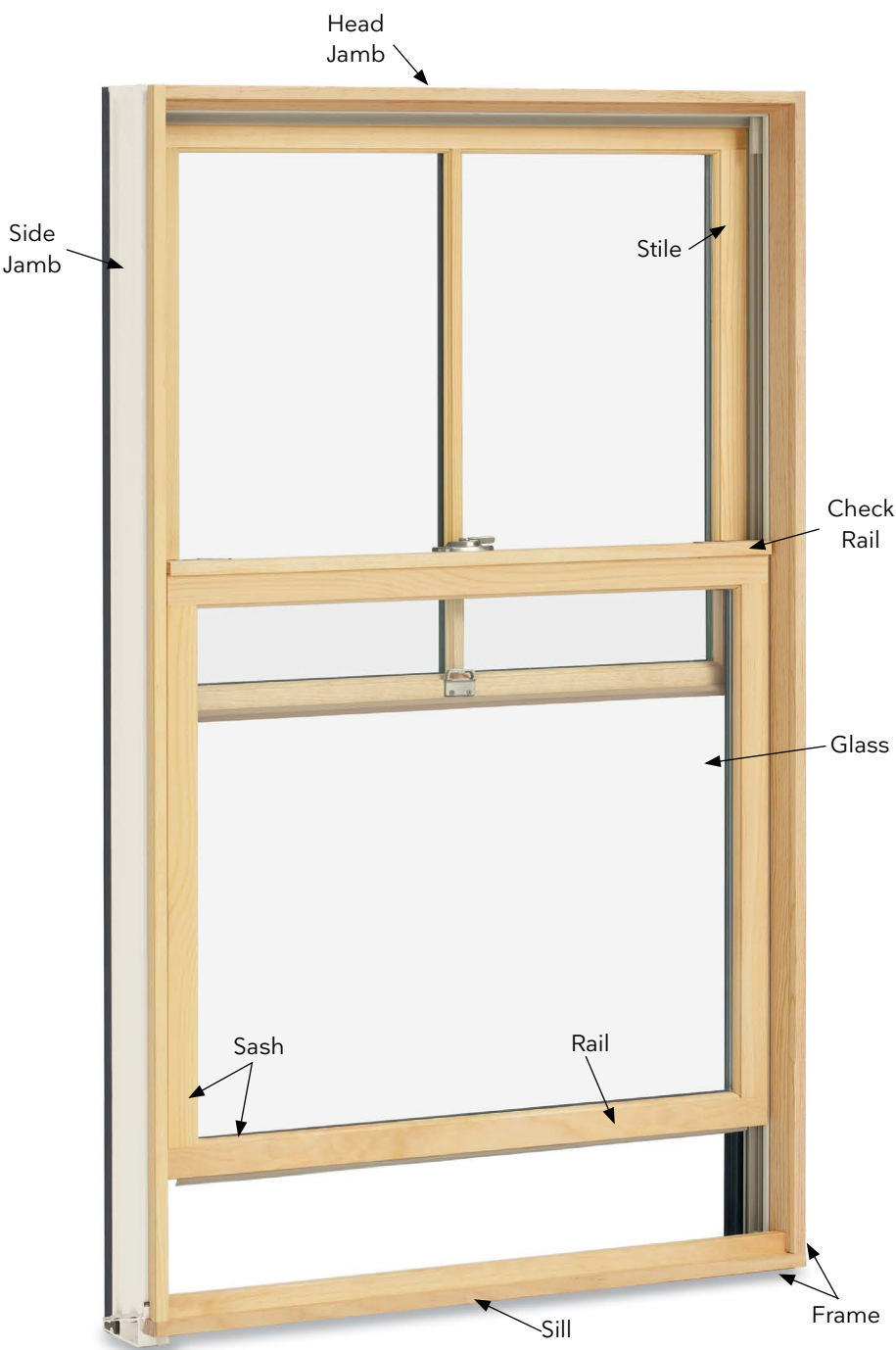
Hazard Notations

Please familiarize yourself with the following hazard notations used throughout this manual.

Caution	Warning	Seek Assistance	Tips/Hints
			
Mistake or misuse could cause damage to the window or result in faulty installation and unit performance.	Mistake or misuse could result in personal injury and/or severe damage to unit, equipment, and/or structure.	Information on alternative procedures, definitions, helpful hints.	Help from another individual is necessary to perform the task safely and correctly.

Window Part Identification

In the following pages you'll find operation and maintenance information on Marvin® window products. Refer to the product illustrations for the names of your particular windows, and use the illustration below to help identify window components.



Window Products



Casement



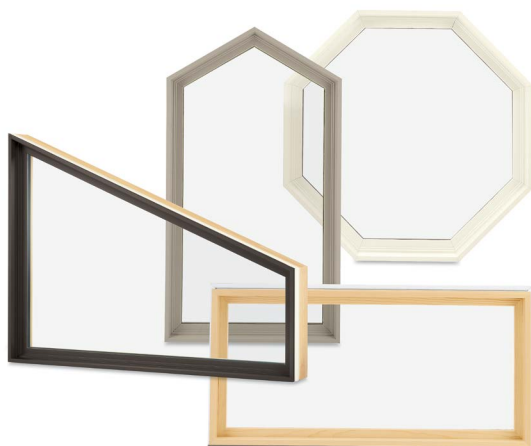
Awning



Double Hung



Glider



Polygon



Round Top

Door Products



Sliding Patio Door



Sliding French Door



Inswing French Door



Outswing French Door

Glass

Condensation

Before reading this section, pour yourself a nice tall glass of ice water. During cold winters, there is a large temperature difference between the interior and exterior of your home. When the temperature drops outdoors, the glass on your windows tend to have a lower surface temperature than other surfaces in your home and is the first place that you'll notice condensation in your home. This is not due to any defect in your window or door, it's simply a sign of needing to reduce the humidity in your home.

Warm air is capable of holding more moisture than cool air. As warm vapor-filled air comes in contact with a cool surface it loses its ability to hold moisture. When moisture-laden air reaches its dew point, moisture condenses on the nearest cool surface. Generally the most obvious surfaces in your home where you'll notice condensation are on your windows or the glass of ice water sitting in front of you.

Condensation on your windows is an unsightly problem. The last thing you want is a fog blocking the view. But the problem goes deeper than that-if condensation is a chronic occurrence in your home, chances are that you have excessive humidity. If water is accumulating on glass, chances are it is accumulating on other harder to see surfaces such as wall and roof cavities. If left uncontrolled, excess moisture can have serious consequences, including:

- Mold or mildew
- Wood rot and warping
- Roof ice build-up
- Damp, ineffective insulation
- Discolored, blistered or bubbling paint
- Damaging moisture inside walls and attic

Excessive interior humidity is more likely to occur in newer or recently remodeled homes with tight, energy efficient construction, causing a build up of moisture to the interior. Information on excessive humidity and how to reduce condensation on your windows can be found on the Internet by searching for "window condensation".

Mildew Removal



Warning:

To prevent personal injury during mildew removal, always wear protective eyewear, skin protection, and keep the area well ventilated.

Exterior Mildew

Mildew thrives in warm, moist environments and will grow best under these conditions. However mildew can grow to some degree under most climatic conditions. Mildew growth is usually brown or black in color and, for this reason, may be mistaken for dirt on the exterior of your window or door.

Exterior mildew may be removed with an approved cleaning solution found at [marvin.com/cleaning](https://www.marvin.com/cleaning) applied with a soft bristle brush using medium pressure. Rinse the finish well with clear water after cleaning. Make sure the area is clean and reapply if the discoloration persists.

Note: Stronger concentrations of cleaner may damage the exterior surface or finish.

Interior Mildew

If your home has excessive interior moisture, you may experience some discoloration on building materials in various parts of your home, including the lower portions of your windows or doors. This discoloration may be the result of mildew growth and can be removed with an approved cleaning solution found at [marvin.com/cleaning](https://www.marvin.com/cleaning). Wear protective eyewear and skin protection, and keep the area well ventilated. Make sure the surface is clean and reapply if the discoloration persists.

Note: In some cases where the interior finish has been damaged it may be necessary to refinish the damaged area.

Cleaning the Glass

The best method to clean the glass on your Marvin® window is to first soak the glass surface with clean water to loosen dirt or debris. Use an approved cleaning solution found at marvin.com/cleaning and apply cleaner with a non-abrasive applicator. Immediately after washing the glass, remove all of the cleaning solution with a squeegee, taking care not to allow any metal surface of the cleaning equipment to touch the glass surface. Make sure that no abrasive particles are trapped between the glass and the cleaning material. Window and door gaskets, sealants, and frames are susceptible to deterioration if cleaning solutions are not rinsed and dried immediately after cleaning.



Caution:

Do not use razor blades, knives, or scrapers for cleaning glass surfaces.

Tempered Glass

Certain Marvin windows use tempered glass for safety reasons. Tempered glass is heated and cooled at an accelerated rate, adding strength and shatter resistance. You may notice a slight amount of distortion – this is normal and due to the tempered glass fabrication process. The logo in the corner of each piece of tempered glass is required by code and safety regulations.

Glass Breakage



Warning:

Should the glass in your window or door happen to break, make sure you use the appropriate personal protection equipment to remove the broken glass; eyeglasses or goggles, sturdy gloves, and heavy protective clothing. Dispose of broken glass in a secure container. Failure to properly handle and dispose of glass could result in injury. Contact your Marvin retailer for information on sash or panel replacement.

Glass Care DO's and DON'Ts

DO	DON'T
• Clean glass when dirt and residue appear	• Use scrapers of any size or type for cleaning glass
• Determine if coated glass surfaces are exposed	• Allow dirt and residue to remain on glass for an extended period of time
• Exercise special care when cleaning coated glass surfaces	• Clean tinted or coated glass in direct sunlight
• Avoid cleaning tinted and coated glass surfaces in direct sunlight	• Allow water or cleaning residue to remain on the glass or adjacent materials
• Start cleaning at the top of the building and continue to lower levels	• Begin cleaning without rinsing excessive dirt and debris
• Soak the glass surface with clean water to loosen dirt and debris	• Use abrasive cleaning solutions or materials
• Use an approved cleaning solution found at marvin.com/cleaning	• Allow metal parts of cleaning equipment to contact the glass
• Dry all cleaning materials with approved cleaners	• Trap abrasive particles between the cleaning materials and the glass surface
• Clean one small window and check to see if procedures have caused any damage	• Allow splashed materials to dry on the glass surface

Finishing the Interior on Elevate Products

If you have brand new, bare wood Marvin® Elevate collection products, you must finish it immediately to prevent possible damage to the wood. Make sure bare wood interior door surfaces are clean and dry. Remove any handling marks, debris, or effects of exposure to moisture by sanding lightly with fine sandpaper and wiping clean before applying your choice of finish. Marvin uses a rubber-like material between glass panes and wood sash frames to ensure a weather tight seal. Occasionally, an excess of this silicone sealant, called “squeeze out,” appears around the edge of the glass. You can safely scrape off squeeze out with a plastic putty knife without damaging the weather tightness of your unit. It is extremely important that you do not paint locks, hardware, weather strip, or jamb liners. Also, use paints, stains, and varnishes with care; they contain solvents which may come in contact with plastics and vinyl weather strip, cause these materials to lose their flexible qualities.



Caution:

Do not apply paint to Marvin factory pre-finish without first contacting your Marvin dealer for proper instructions.

Painting

When painting Elevate collection product interiors, use only a high quality oil base or latex paint. To provide a good adhesion of paint, a compatible prime coat should be applied. Paint with panels open (or removed) and do not close until thoroughly dry. Apply one coat of primer and two coats of top quality paint according to the paint manufacturer's instructions.

Staining



Prior to staining it may be desirable to apply a wood conditioner to obtain a more even finish. Follow the manufacturer's recommended instructions.

When painting Elevate collection product interiors, apply stain according to the manufacturer's instructions. Apply as many coats of stain as necessary to achieve the desired color. After the stain is thoroughly dry, apply at least two coats of sealer (i.e. varnish or polyurethane).

Ultrex® and Maintenance

Marvin Elevate and Essential collection products feature Ultrex, an advanced glass fiber reinforced material, with a finish coat applied during the fabrication process. This factory applied durable finish allows the exterior to withstand extreme temperatures and atmospheric pollutants, while retaining its color and gloss. This translates into a beautiful, low-maintenance exterior. Surface dirt can be removed by washing with an approved cleaning solution found at marvin.com/cleaning and rinsing with clear water. Use a soft brush, such as a long-handled car washing brush, to remove any bugs, grime, dirt, or dust. Before using more aggressive cleaners on stubborn stains, test the solution on an inconspicuous area before washing. A thorough clear water rinse should follow.

Cleaning Ultrex

For regular cleaning and maintenance of Ultrex, use an approved cleaning solution found at marvin.com/cleaning.

The approved cleaning solutions, when used as directed, can be used on Ultrex materials.

The approved cleaning solutions are not recommended for use with any abrasive materials or applicators. Extreme pressure or scrubbing action is not recommended. In addition, the approved cleaning solutions may leave a residue on the Ultrex surface following their use.



Caution:

No solvents, paint thinner, or other chemicals of any type are recommended for use with Ultrex, as they may affect the functionality and appearance of the coating.

Repairing Ultrex

You will need to supply:

- Utility knife
- Quality exterior grade primer
- Putty knife
- 120-150 grit sandpaper
- Epoxy putty
- 320-400 grit sandpaper

Note: Consult your Marvin® representative for information on locally available epoxy putty.

1. Using a utility knife carefully cut around the damaged Ultrex area to remove any jagged edges or loose fibers.
2. Follow manufacturer's instructions for mixing/blending of epoxy. Fill the damaged area thoroughly by pressing epoxy in with a putty knife and remove excess.
3. Once the epoxy has set and cured, sand the repaired area with 120 -150 grit sandpaper, until the desired profile/ depth has been achieved. Finish sanding with 320-400 grit sandpaper.
4. Lightly sand the surrounding area to remove the factory finish with 320-400 grit sandpaper. Coat the repaired and surrounding area with a quality primer per epoxy manufacturer's instructions. When primer has dried and cured, cover with a quality exterior grade acrylic latex coating (See Painting Ultrex).

Painting Ultrex

You will need to supply:

- Foam paint brush
- 320-400 grit sandpaper
- Masking tape
- Quality exterior grade acrylic latex paint



Spot test a small area using the following procedures. After the seven to ten day Acrylic latex paint cure time check to see if the paint has adhered to the unit. If the paint has not adhered to the surface, recheck the surface preparation procedures.

1. Thoroughly sand the factory finish with 320-400 grit sandpaper.
2. Wash the surface with water and an approved cleaning solution found at [marvin.com/cleaning](https://www.marvin.com/cleaning) to remove contaminants, rinse with clear water and dry thoroughly.
3. Mask any window components that will not be painted.
4. Coat the Ultrex with a quality exterior grade acrylic latex paint.
5. Acrylic latex products gain full adhesion after seven to ten days cure.

Note: If the finish is scratched, peeled or otherwise compromised down to the Ultrex substrate see "Repairing Ultrex" section.

Screen Care and Maintenance

The most effective method of cleaning the screens on your windows and doors is to remove the screens, lay them on a flat clean area (such as a sidewalk), and spray off any dust or debris with water from your garden hose. Allow the screens to completely air dry before replacing in the window or door. If you live in a cold climate, it is recommended that in the winter you remove the screen from your doors. The mesh may collect snow and ice, causing it to sag. Please see individual sections for instructions on screen removal.

Note: Certain size screens have a factory bow in the frame; this is to ensure a snug fit and is NOT a defect.

Caution:



Marvin screens are designed to stand up to everyday use. However, these screens were not intended to act as a safety device. Do not allow children to sit or play on window sills, or to push or fall against window screens, as this could result in a fall through the window or door opening.

Every screen installed on a Marvin product has a non-removable label affixed to it that states:



Warning:

Screen will not stop child from falling out window. Keep child away from open window.

Maintenance, Operation, and General Service

In the following pages you'll find maintenance information on individual Marvin products. Refer to the product illustrations for the names of your particular windows or doors.

Information in this section includes maintenance tips and operational tips, such as removing the window sash. Read completely through the instructions before beginning to work on your windows to make sure you have any necessary tools and parts.

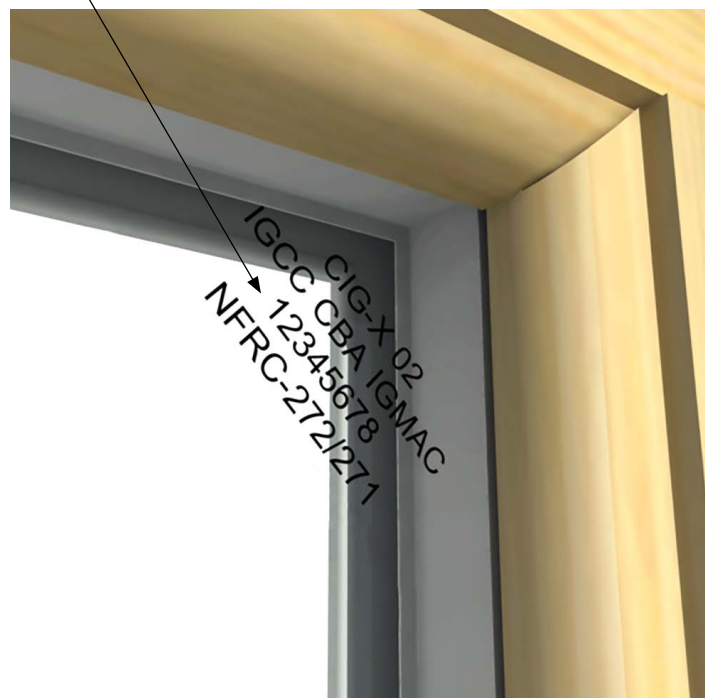
Exterior finishes on doors can be cared for in the same manner as Marvin windows. See interior and exterior maintenance information. Take care with your door's sill—make sure you prevent damage by not getting any paint, solvent, or chemicals on sills. See individual door sections for any specialized sill care.

If you are having problems not explained in this manual, or if the solution seems inappropriate for your problem, contact your local Marvin retailer.



When contacting your Marvin retailer it may be helpful to provide them with the "Glass Part Number" etched on the upper right corner of the glass.

Glass Part Number



Casement

Operation and Maintenance

The roto-gear is the operating mechanism that crank to open and close casement and awning windows. Casement locks seal the window tightly closed. Excessive cranking when closing window does not improve the seal and may damage roto-gear.

Roto-gears should be lubricated once a year with white lithium grease (available at any hardware store) to keep operation smooth. The hinge joints and locking mechanism should be lubricated on occasion with a silicone based spray. Be sure to clean off all dirt, debris or sand before lubricating.



Caution:

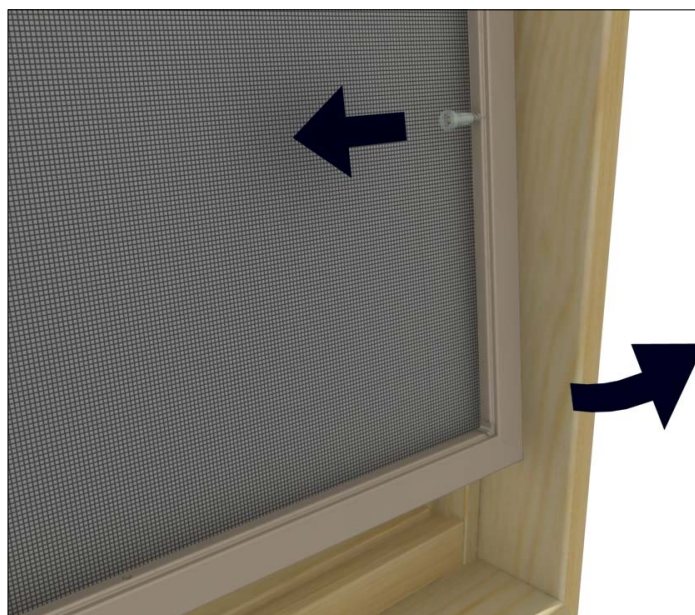
Excessive lubrication may cause damage to the window's finish. Make sure that any excess is immediately removed.



The sash tracks should be occasionally cleaned out with a soft bristle brush. If the casement window is less than 24 1/4" (622 mm) in width, roto-gear arms and assembly may differ from those shown.

Removing and Installing the Screen

To remove casement/awning screen, grasp screen plungers. Pull plungers to release. Tilt screen toward you, and lift screen from channel. To install casement/awning screen, reverse above procedure.



Awning

Operation and Maintenance



Awning hinges, roto-gear operator arms, and sash guides can be oiled with a few drops of light household oil or silicone spray. Operating hardware should be lubricated during your annual inspection. Simply crank open the window and lubricate hardware with white lithium grease. Interior and exterior finishes can be cared for in the same manner as any other Marvin® product.



Caution:

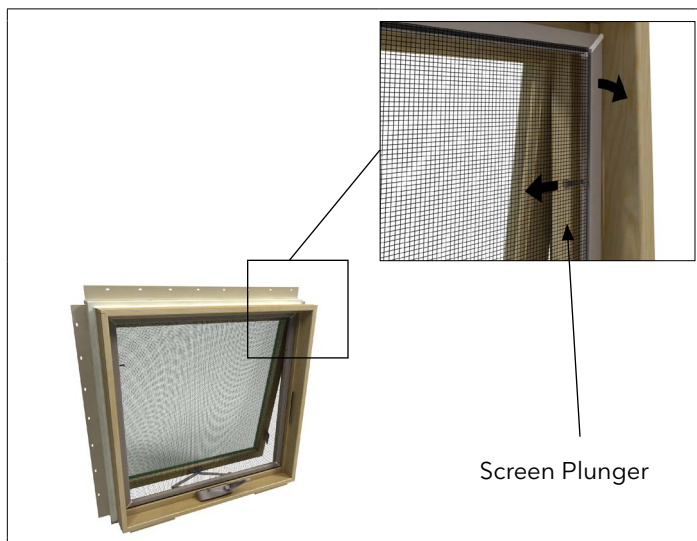
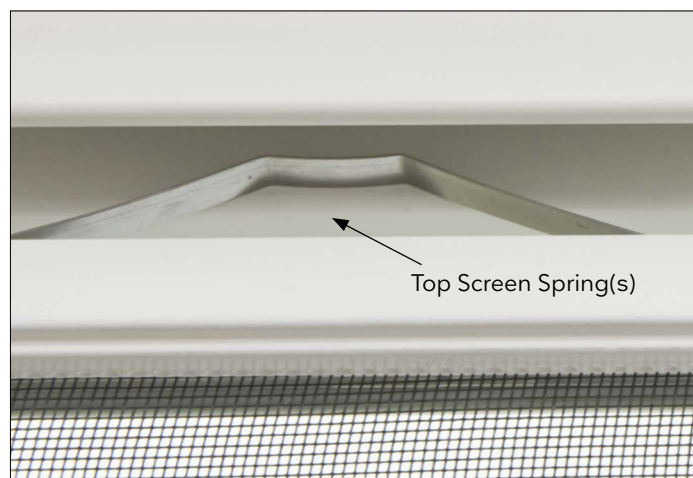
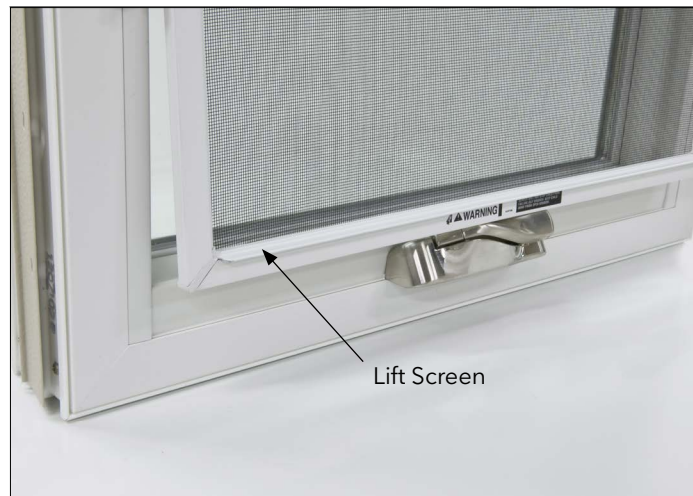
Excessive lubrication may cause damage to the window's finish. Make sure that any excess is immediately removed.



Essential Casement and Awning Screen Removal

To remove Essential Casement/Awning screen, lift the screen at the bottom to compress the springs at the top. Pull the bottom of the screen out and remove from frame.

Note: Essential product shown.



Double Hung

Operation and Maintenance

Periodically clean the jamb liners where the sash slides. Keep them dirt and grease free by washing with a gentle dish detergent. Check the exterior caulking on your double hung windows annually.

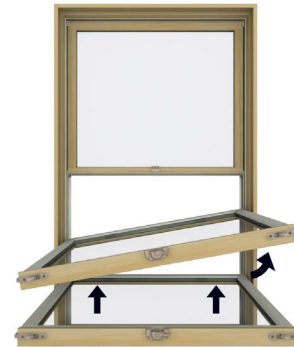
How to Tilt Double Hung Sash (for ease of cleaning)

1. To tilt the bottom sash inward, unlock and raise the sash about 3" (76 mm). Grasp both tilt latches (found on the check rail), slide inward and tilt the sash toward you to a horizontal position. See illustrations below.
2. To tilt the top sash inward, lower the sash about 6" (152 mm). Grasp both tilt latches (found on the top rail), slide inward and tilt the sash toward you to a horizontal position. See illustrations below.



How to Remove the Double Hung Sash

1. To completely remove the sash from the frame, hold the sash at 90 degrees to the frame as shown. Release the sash pivot pins from the clutch assemblies by first raising the entire sash 1"- 2" (25-51 mm). Then raise just one side of the sash further until the sash pivot pins clear the jambs, remove to interior.

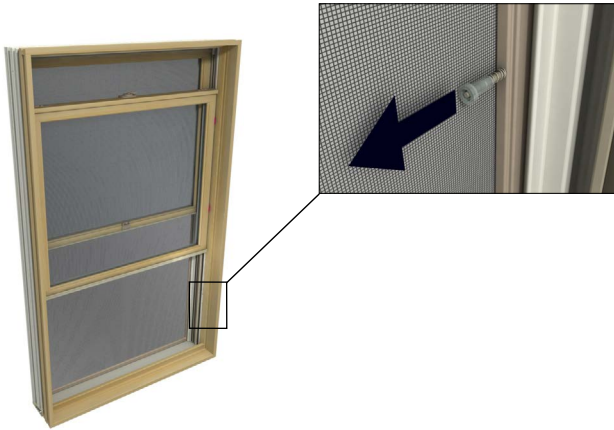


Installing a Double Hung Sash

1. To install the top sash, hold the sash horizontally at 90 degrees to the frame. Guide the sash pivot pins into the exterior sash track on the jambs above the clutch assemblies, lower both sash pins onto the clutch cams making sure the bottom of the sash is level when pins are completely engaged. Slide each tilt latch release toward the center of the unit and gently ease the sash into position. Release each latch into the exterior sash track, lower the sash slightly then raise to the fully closed position. Check operation of sash.
2. To install the bottom sash repeat the installation procedure used for installing the top sash. Utilize the interior sash track and lower sash into the closed position, check operation of sash and lock.

Removing the Double Hung Screen

To remove the screen to the interior, grasp the lower screen plungers and pull to release as shown in illustration. Push screen outward and pull down slightly. Turn the screen sideways and bring into dwelling.



Resetting a Slipped Clutch Assembly



Caution:

Clutches are under extreme spring tension.

Measure the clutch dimension from sill on the opposing balance assembly for the same sash and temporarily mark that dimension on the jamb carrier that contains the released clutch, must be within 1/8" (3 mm). Using a flat screwdriver, rotate the balance clutch cam in the clutch assembly to the released position. Hold the screwdriver firmly and slide the clutch assembly down the jamb carrier to the mark. Rotate the balance clutch cam to the open locked position (cam opening up). Release the screwdriver carefully from the clutch assembly (it must lock in place or damage will occur). Compare clutch heights from the sill for the sash affected. They **MUST** be within 1/8" (3 mm) of each other or damage may occur when sash are reinstalled, adjust height as needed.



Glider

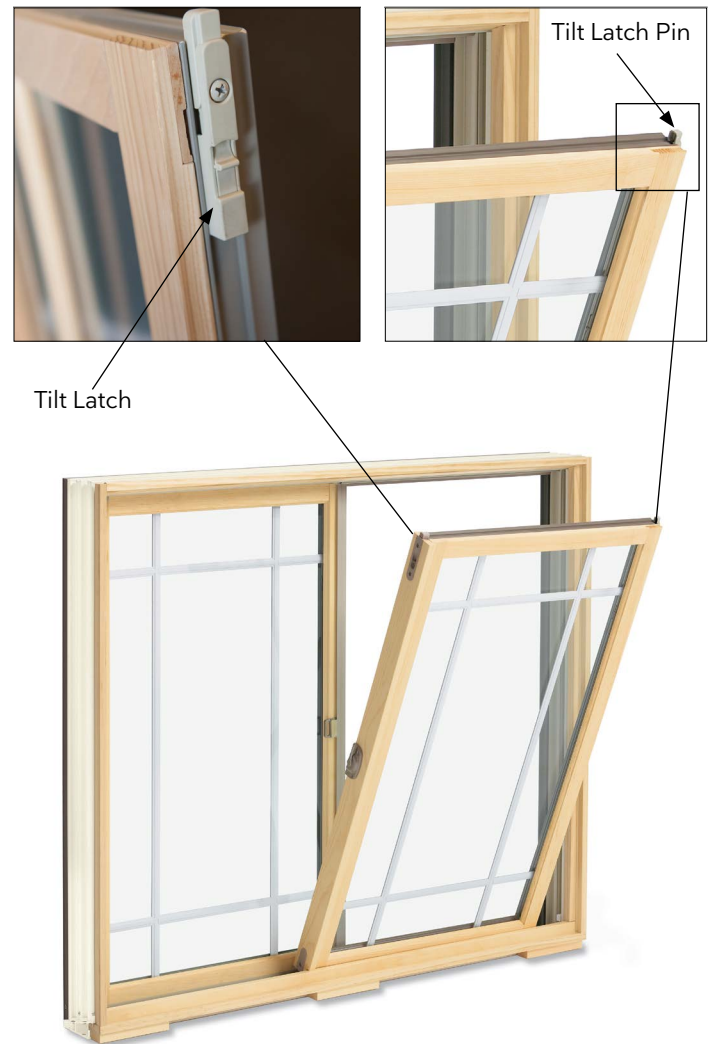
Operation and Maintenance

Periodically clean the tracks where the sash must slide. Keep them dirt and grease free, and spray them lightly with furniture wax to prevent sticking. Be sure to wipe off any excess wax.

Sash Removal

Slide the operating sash to stationary side of the unit (approximately 2"-3" (51-76 mm) from stationary jamb). With latches depressed, located at the top of the sash, tilt the sash inward until it clears the unit frame; lift the sash off the sill track. To replace the sash, reverse the above procedures.

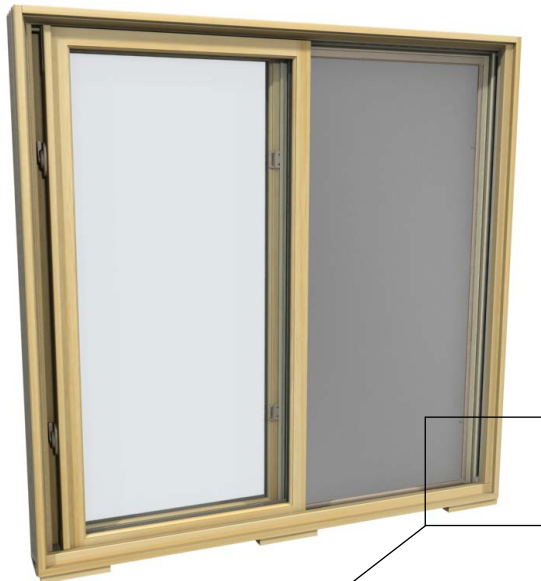
Note: Only the operating sash of a Glider can be removed from the frame.



Removing and Installing the Screen

To remove the screen grasp and pull inward on both plunger bolts and push outward on the screen. Grasp the frame of the screen and pull down slightly on the screen until it clears the screen channel. Turn the screen sideways and bring it in through the bottom sash opening. To replace the screen reverse the above procedure.

Replace the screen with the operator sash completely open and position the screen on the exterior of the window with the springs toward the meeting stile of the unit. Making sure the springs are seated in the screen channel, pull on side tabs until the screen clears the frame. Pull screen in toward the interior until the jamb stile of the screen aligns with screen channel; release pin.



Note: Pull pin away from frame, then push out.

Patio and Sliding French Doors

Operation and Maintenance

The Patio and Sliding French Doors require very little maintenance to keep them functioning efficiently. Most problems can be eliminated by keeping the sill clean, ensuring smooth door operation. Chemicals, solvents, paints and other harsh substances should never come in contact with the sill. Remove any paint, grease, or caulk with 50% isopropyl alcohol. Door handles can be wiped down with a damp cloth to remove fingerprints and smudges.

It is very seldom that door rollers, lock, and hinges require lubrication. Occasionally use spray lubricant to keep operation smooth (rollers are visible underneath the operator panel). If you live in a cold climate, it is recommended that you remove the screen door in the winter. The screen mesh may collect snow and ice, causing it to sag.

OXXO Operation

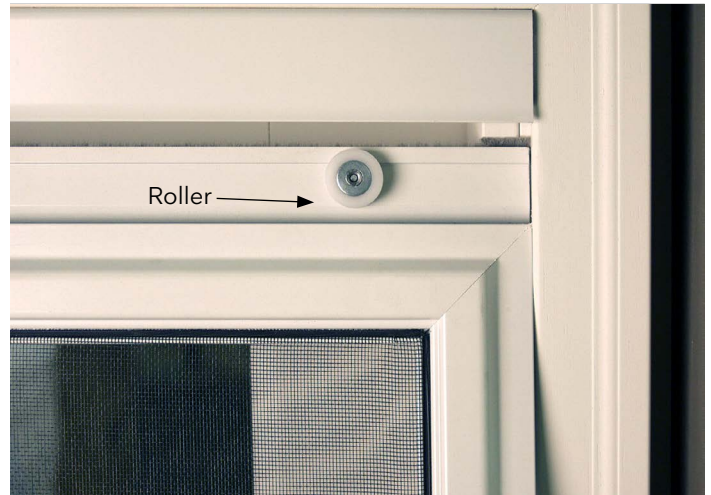
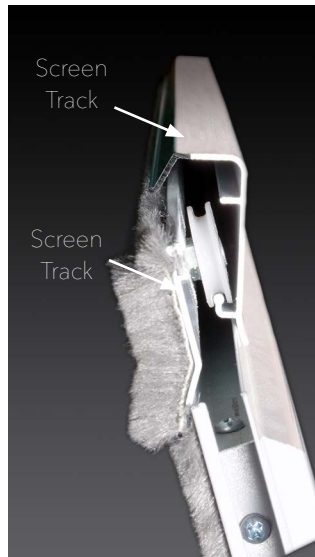
Opening - unlock the primary operator panel from the secondary operator panel, slide open. To unlock the secondary operator panel flip the two actuators, then slide open.

Closing - shut the secondary operator panel first, then flip the two actuators. The secondary operator panel must be locked before trying to shut and lock the primary operator panel.

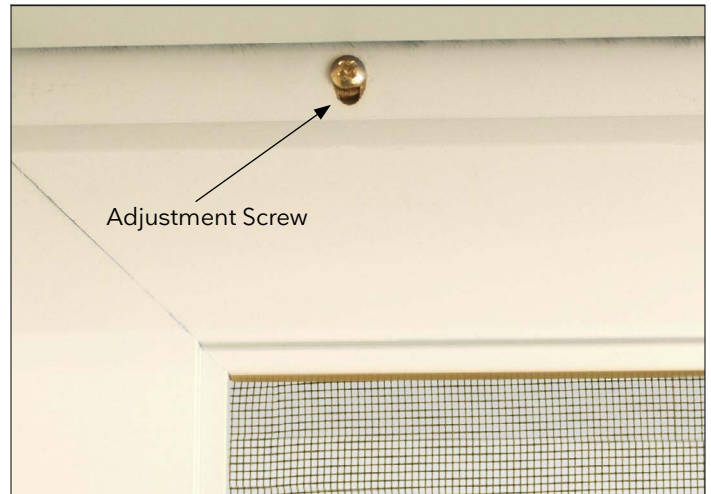
Removing the Screen

To remove the screen panel, unlock and partially open the screen door. From the exterior, pry the screen panel guide up with a putty knife starting at one corner. Pull the guide off the track working your way toward the other end. Once the bottom of the screen panel is completely released from the sill track, pivot the bottom of the screen out and push the top of panel approximately 5 degrees toward the head jamb.

This will release the screen panel rollers from the head jamb screen track. Remove the panel from the door.



The screen can be adjusted from the interior by loosening or tightening the top roller screw nearest the locking jamb. Adjust the screen so that it is parallel to the locking jamb or casing. An even reveal should be achieved along the entire height of the jamb.



Installing the Screen

To reinstall the screen, hold the screen panel with the top rollers facing you. While tilting the bottom of the screen panel away from the door, lift the rollers into the screen track and pull the panel toward your body to engage the rollers in the track. Make sure the rollers are seated in the track by moving the screen panel back and forth. Once you are sure the rollers are fully seated, pivot the screen panel into position toward the sill and place the bottom screen panel guide into the sill track by lifting it with your fingers or by lifting with a stiff putty knife.

Removing Sliding Door Panels

Removing door panels is a relatively complicated procedure. If you need them removed, please contact your Marvin retailer for a service person to remove the panel for you, or reference our detailed installation or panel removal instructions online at marvin.com.

Swinging French Door

Operation and Maintenance

The French door requires very little maintenance. To maintain sill appearance, wash with a mild soap and water solution.

Remove fresh paint splashes, grease or caulk with 50% isopropyl alcohol. If door panels need to be removed for moving or other reasons, please contact your Marvin® retailer for either detailed instructions or for a service person to remove the panel for you.

Keep the sill weep area clear of debris and sealants.

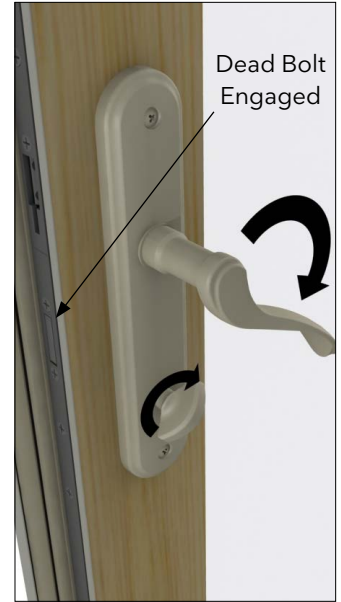


Handle Operation for Multi-Point Lock

Always close and lock your passive panel first and the operating panel (with thumb turn) second. Marvin's multi-point hardware has locking bolts at the head and base of the door. Lifting the handle 45 degrees upward will set the head and foot bolts in place for a secure seal. A 90 degrees turn of the key from the outside or the thumb turn on the inside will lock the dead bolt in the handle assembly. When the dead bolt is unlocked, downward pressure on the handle will release the bolts to latch and the door will open. Securely lock by engaging the dead bolt, head and foot bolts; using only one or the other does not offer full security.

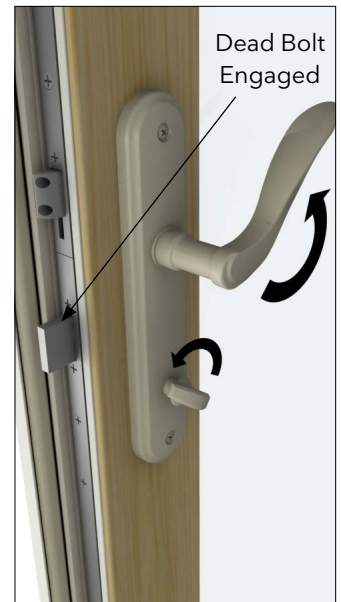
Unlocked Position

Head Bolt Retracted



Locked Position

Head Bolt Engaged



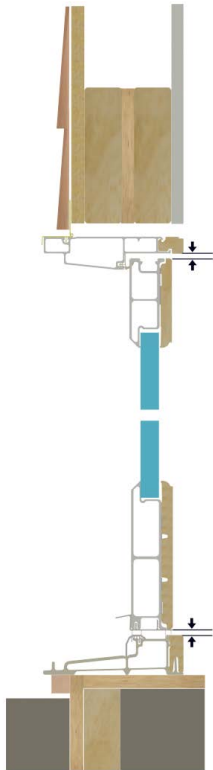
Hinge Adjustment Procedure

Note: (Inswing door shown) For Outswing door view panel clearance from exterior.

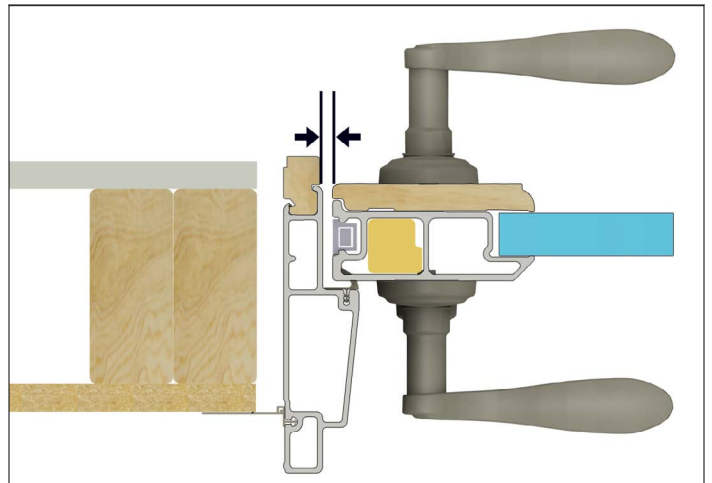
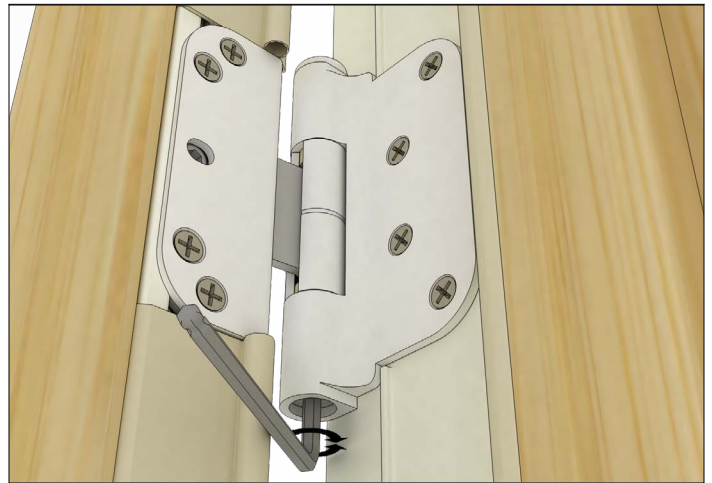
It may be necessary to make minor adjustments to your Marvin Inswing French Door after it has been permanently installed, the adjustable hinge system allows or adjustments to be made.

IMPORTANT: Adjustable hinges are not intended to compensate for an improperly installed unit.

1. Adjustment should only be made when panel misalignment is visible or causes poor operation of door/lock. Make any adjustments in small increments, check results, readjust or proceed as required.



2. Check panel clearance at sill and head jamb. The panel should have 1/8-5/32" (3-4 mm) clearance at head jamb and 5/16-3/8" (8-10 mm) at bottom and 1/8-5/32" (3-4 mm) at side. Align panel vertically as needed by rotating the hinge adjustment screw with a 5/32" hex key, starting with the bottom hinge and working towards the top hinge. Repeat the process as necessary adjusting one rotation at a time. Check results, readjust or proceed as required. See Illustration.



3. Check alignment with locking jamb; panel should have 3/16" (5 mm) clearance along the jamb. Rotate horizontal adjustment screw clockwise to increase, counterclockwise to decrease jamb/panel clearance at the appropriate hinge i.e. if increasing clearance at top, bottom hinge may have to be adjusted to decrease clearance to avoid hinge binding. See Illustration.

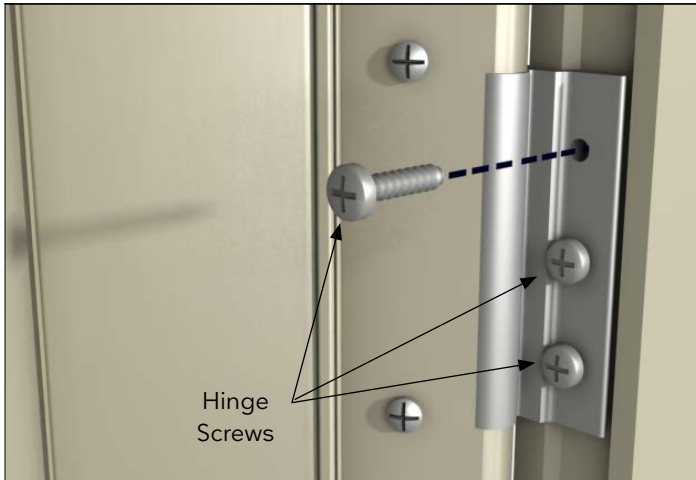


4. After panel alignment is corrected, recheck latch and dead bolt operation.

Inswing Door

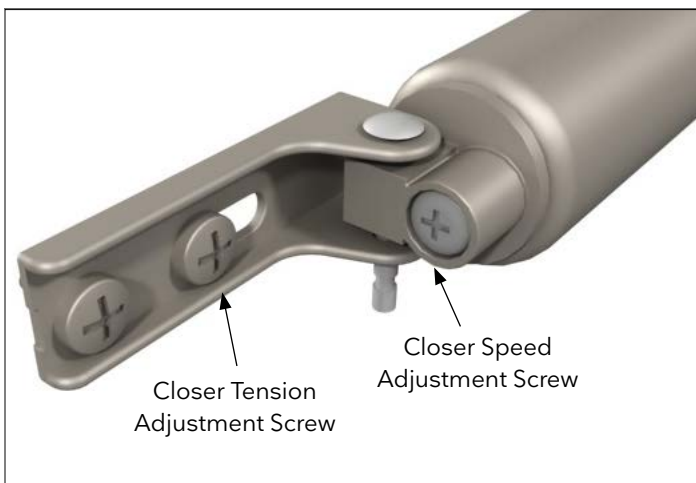
Screen Removal

In cold climates, removal of the screen door is recommended during winter months to avoid snow and ice from collecting, causing the mesh to sag. To remove the swinging screen door, first open the active screen panel and disconnect the auto closer. Remove the #6 x 1/2" screw attaching the closer to the head jamb bracket. Then remove the hinge pins from the active screen panel hinges, remove the panel from the hinges and store. On XX configurations, open the passive screen panel and remove the hinge pins in the same manner as the active.



Adjust Closer Tension

Adjust the closer tension on swinging screen doors by loosening the two screws attaching the door bracket to the screen panel. Slide the bracket and closer left or right as needed and tighten screws. Adjust the closer speed by tightening or loosening the adjusting screw located at the rear of the cylinder assembly.



Care of PVD Finishes

Hardware with a Physical Vapor Deposition (PVD) Finish

PVD finished products have undergone a state of the art process known as Physical Vapor Deposition. A layer of hard-wearing metals are deposited onto the solid brass substrate which means it has been given a tough finish to resist fading and discoloration by direct sunlight, humidity, and most other environmental factors, even in coastal areas.

To help retain the appearance of PVD products for many years to come, a little periodic maintenance is required to remove any atmospheric deposits from the surface of the product.

- Once every two months clean the surface of the product thoroughly with a soft cloth moistened with light soapy water.
- To remove heavier deposits, an approved cleaning solution found at marvin.com/cleaning may be used with a moistened cloth. Remove traces of water and cleaner and dry thoroughly with a soft cloth.
- When using any proprietary cleaner always follow the advice given by the manufacturers in handling cleaning materials.

Do not use any abrasive cleaning materials or solvents when cleaning PVD products.



Since we opened as a family-owned and -operated lumber and cedar company in 1912, Marvin has designed products to help people live better. We remain committed to bringing beauty and simplicity into people's lives with windows and doors that stand the test of time.

[MARVIN.COM](https://www.marvin.com)



Cambridge®

IKO.COM



The Trusted Solution
for a Beautiful Roof.

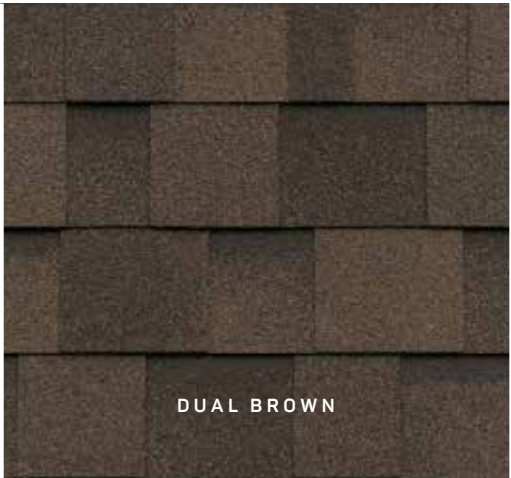
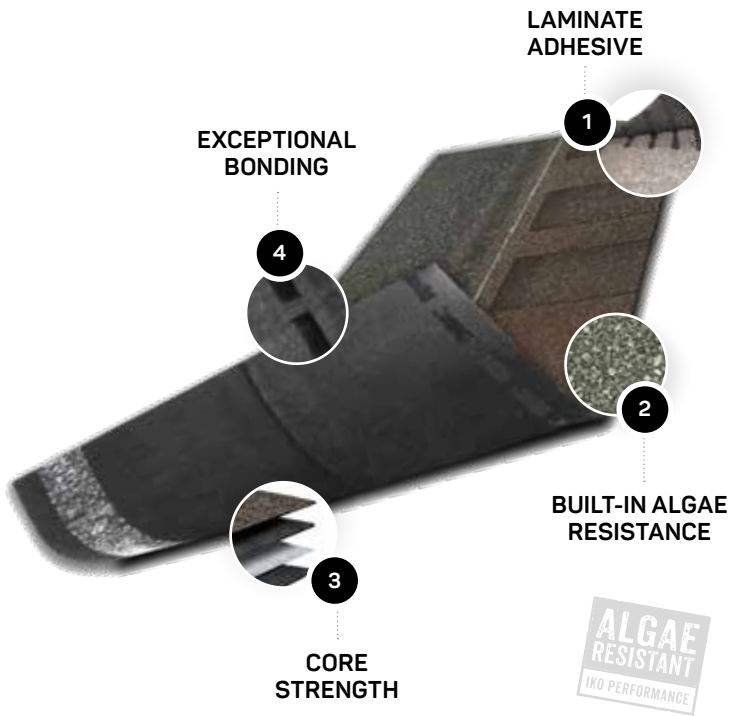


BEAUTY You Can See. QUALITY You Can Feel.

NOW THAT IT'S TIME TO REPLACE YOUR ROOF, WHY TAKE ANYTHING FOR GRANTED? We never do. Since 1951, IKO has been protecting American homes and families just like yours against the elements.

Whether it's elegant and sophisticated or laid-back and casual, or somewhere in-between, **IKO Cambridge® Architectural shingles** come in a wide range of stunning color blends to express your personality, reflect your taste and potentially boost your home's resale value too.

Their modern, laminated two-piece design provides the depth, dimension and texture of genuine wood shakes for an upscale appearance without the upscale price tag. Now unleash your exterior designer and dress up your home with an exciting new look, for less than you might expect.



PERFORMANCE You Can Trust.

- 1

LAMINATE ADHESIVE. Five strips of our tough, construction-grade adhesive are used to laminate the shim to the tooth.
- 2

BUILT-IN ALGAE RESISTANCE. Special colorfast granules embedded in the shingles’ surface help inhibit the growth of blue-green algae that can cause unattractive black stains, streaks and discoloration.
- 3

CORE STRENGTH. Our resilient fiberglass mat is coated top and bottom with weathering asphalt, then surfaced with colored granules. It’s heavy-duty for exceptional durability and structural integrity.
- 4

EXCEPTIONAL BONDING. IKO’s FastLock® sealant on the shingles’ bottom edge gets extra-tacky when activated by the sun’s heat. This creates a strong bond to help ensure maximum protection against wind uplift, blow-off and water penetration.

THE IKO ADVANTAGE

Limited Warranty¹	Limited Lifetime
Iron Clad Protection¹	10 Years
Limited Wind Warranty¹	110 mph (177 km/h)
Limited High-Wind Warranty Upgrade¹,²	130 mph (210 km/h)
Blue-Green Algae Resistant¹	Yes

PRODUCT SPECIFICATIONS³

Length	40 7/8 in (1038 mm)
Width	13 3/4 in (349 mm)
Exposure	5 7/8 in (149 mm)
Coverage per Bundle	33 1/3 ft² (3.1 m²)
(3 bundles = 1 full square = 100 sq ft coverage)	

STANDARDS⁴

ASTM D3462, ASTM D3018, ASTM D3161 – Class F, ASTM D7158 – Class H, ASTM E108/UL 790 – Class A.

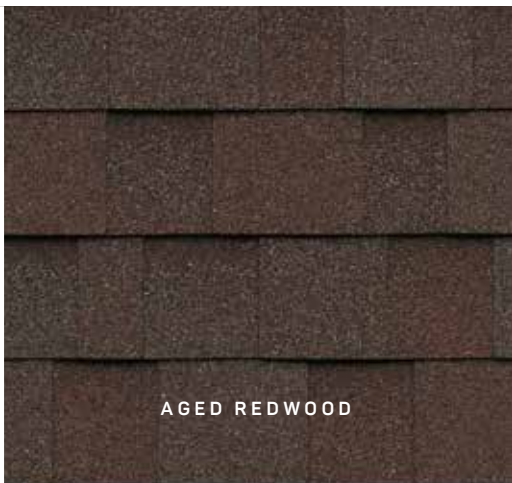
Note: Product and color availability may vary by region. Products with Miami Dade NOA, FBC product approval and Texas Department of Insurance listings are available. Please contact IKO for details. ¹See Limited Warranty at IKO.com for complete terms, conditions, restrictions and application requirements. Shingles must be applied in accordance with application instructions and local building code requirements. ²High-wind application is required. ³All values shown are approximate. ⁴Products are developed with reference to these standards.



HARVARD SLATE



EARTHTONE CEDAR



AGED REDWOOD



BEACHWOOD
AVAILABLE IN SELECT MARKETS



DOVE WHITE
AVAILABLE IN SELECT MARKETS

IMPORTANT! To ensure complete satisfaction, please view several full-size shingles and an actual roof installation prior to final color selection as the shingle swatches and photography shown online, in our brochures and in our **ROOFViewer®** tool may not accurately reflect shingle color and do not fully represent the entire color blend range, nor the impact of sunlight.

Shingles are your home’s first line of defense, but they protect, perform and look their best installed with the recommended **IKO Proformax Integrated Roofing Accessories** shown below.



DECK PROTECTION	SYNTHETIC UNDERLAYMENT	ROOF STARTERS	CAPPING SHINGLES
1. IKO GoldSeam[™] Roof Sealing Tape 1a. Apply where the fascia and eaves meet. 1b. Apply over seams when sealing the deck using synthetic underlayment. StormShield[®] 1c. Apply under shingled roofs to prevent water infiltration due to ice dams and wind-driven rain.	2. Stormtite[™] It's IKO's economical synthetic underlayment choice. Stronger than conventional felts, Stormtite installs easily, even in cool weather, due to its light weight. Stormtite is the perfect combination of strength and flexibility.	3. Leading Edge Plus[™] or EdgeSeal[™] Apply starter shingles with IKO's own high-strength thermally activated sealant or use the double-sided starter roll at eaves and rakes to help ensure wind resistance at that critical first course of shingles.	4. Hip & Ridge 12[™] These perforated traditional hip and ridge shingle offerings are available in colors that pair with our most popular laminate shingles. Installation is super easy by simply bending and nailing in place.



To find out more about Cambridge[®] Architectural shingles or additional IKO products, please talk to an IKO sales representative or a professional roofing contractor, or contact IKO directly.

United States 1-888-IKO-ROOF (1-888-456-7663)
Canada 1-855-IKO-ROOF (1-855-456-7663)

The information in this literature is subject to change without notice. We assume no responsibility for errors that may appear in this literature.



1.866.259.6263
meridianbrick.com

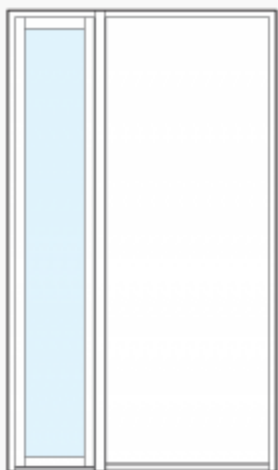
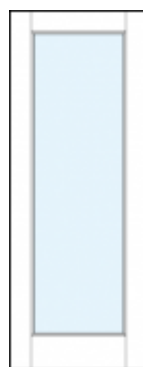


CHOCOLATE WIRECUT
Salisbury Architectural Series

TMF1000-103A

Application:	Exterior
Architectural Style:	Modern
Layout:	ES103
Product Series:	Tru&Modern Flush (TMF) Series
Door Style:	TMF1000
Profile:	Square Stick (SS) Sticking
Sidelite Style:	FL100

SIDELIGHT



DESCRIPTION

The HLB6 is a 6-inch ultra-thin LED lens downlight with remote driver / junction box suitable for new construction and remodel applications. Field selectable color temperature and high color rendering provide excellent color performance. Simplified installation in drywall or suspended ceilings eliminates recessed cans saving time and money. Installs from below the ceiling in as little as 2" plenum height, can be used in direct contact with insulation and is airtight. Use for general area lighting in low to medium height ceilings where energy savings, long life and economy are required.

SPECIFICATION FEATURES

HOUSING

- Die cast aluminum mounting frame with integral flange provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing pixilation.

GASKET

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.32 spacing criteria, useful for general area illumination

LED ARRAY

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 4 SDCM providing color uniformity
- Field selectable color temperature, select 2700, 3000, 3500, 4000 or 5000 K CCT
- Meets ENERGY STAR® color angular uniformity requirements, deviation is less than 0.006 u' v'

REMOTE DRIVER / JUNCTION BOX

- Aluminum driver / junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors, 2-in, 2-out plus (2) ground
- (2) 1/2" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box

- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral keyhole mounting slots facilitate direct mounting to building structure or new construction mounting frame

DRIVER

- 120V 60 Hz constant current driver provides noise free operation
- Continuous, flicker-free dimming from 100% to 5% with select leading or trailing edge 120V phase cut dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting

INSTALLATION

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes, cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leaks
- Housing is less than 1/2" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

OPTIONAL MOUNTING FRAME

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough in and provides cutout guidance for drywall contractor
- Provides tool-less attachment of remote driver / junction box

Catalog #		Type
Project		
Comments		Date
Prepared by		

COMPLIANCE

- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

WARRANTY

- Five year limited warranty, consult website for details. www.eaton.com/lighting/legal



HLB6

6-Inch Ultra-thin LED Lens Downlight with Remote Driver / Junction Box

Up to 1100 Lumens Field Selectable CCT



2700K • 3000K • 3500K
4000K • 5000K

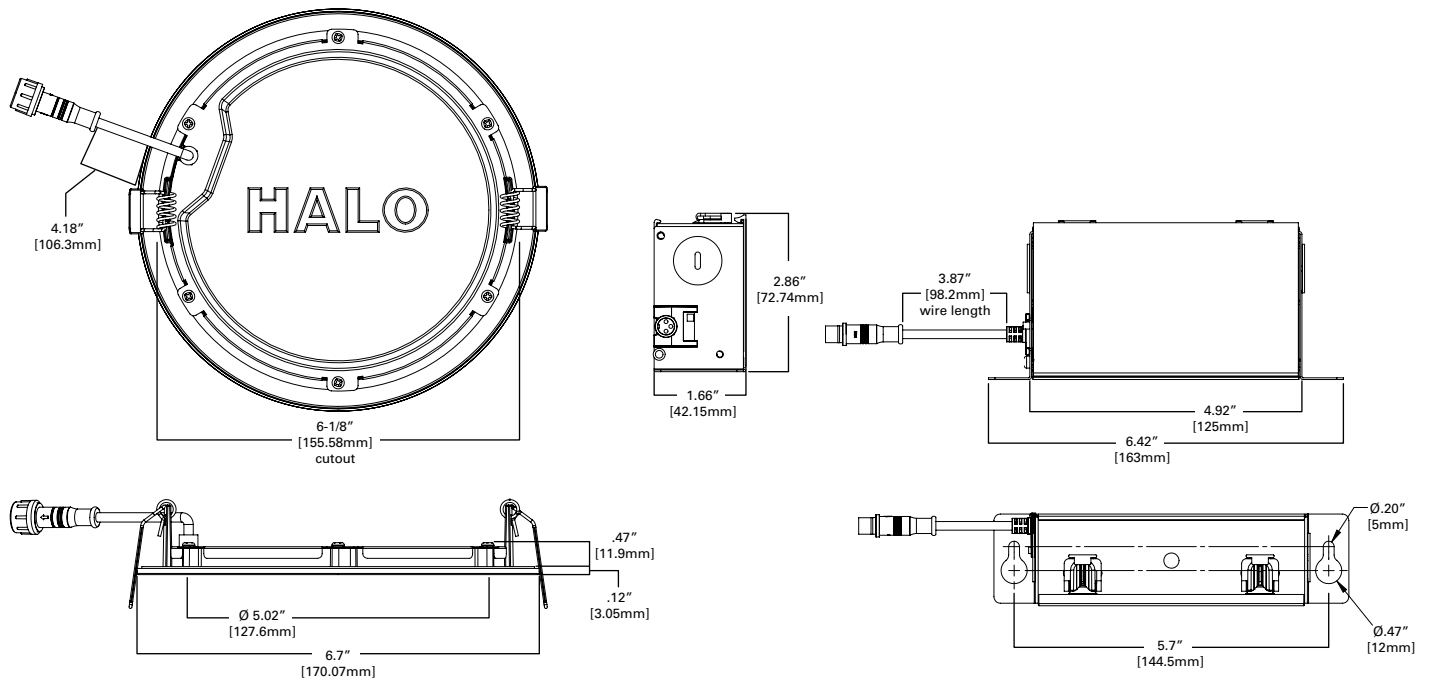
ENERGY DATA

Lumens	900 Series
Input Voltage	120V
Input Current	132 (mA)
Input Power	16.0 (W)
Efficiency	66 (LPW)
Inrush (A)	2.1 A @ 14mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 20dba



Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JA8.





ORDERING INFORMATION

SAMPLE NUMBER: HLB6099FS1EMWR

Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Accessories
HLB6 = 6-Inch ultra-thin LED lens downlight with remote driver / junction box	09 =900 lumen (nominal)	9FS =90 CRI minimum, field selectable 2700, 3000, 3500, 4000 or 5000 K CCT	1E = 120V 60Hz, LE & TE phase cut 5% dimming	MW = matte white flange	R = recyclable 4-color unit carton suitable for point of purchase merchandizing display	HL6NCMF = 6" new construction mounting frame

PHOTOMETRIC DATA

HLB6099FS1EMWR-3000K		
Luminaire lumens	1061	
Input watts	16	
LER (LPW)	66.3	
Spacing Criteria	0-180	1.31
	90-270	1.31
	Diagonal	1.41
Beam angle (degrees)	112.2	
Field angle (degrees)	161.3	
Zonal lumen	Lumens	% Lumens
0-30	294	27.7
0-40	486	45.8
0-60	851	80.2
0-90	1061	100

Color Metric Summary - 3000K

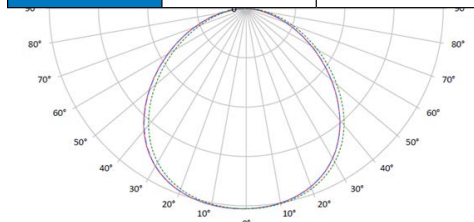
TM-30-15	R _t = 90.9
	R _g = 100.7
CRI/CIE	R _a = 94.1
	R _g = 68.4

CCT - Range of 2700K- 5000K



Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	1061
Watts	16
Lumens Per Watt (Efficacy)	66.3
Color Accuracy (CRI)	92
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
4500K	6500K



* Tested in accordance with IES LM63. Field results may vary.

	CCT	Lumens	Power (W)	LPW
6in HLB	2700K	1037.3	16	64.8
	3000K	1061	16	66.3
	3500K	1078.9	16	67.4
	4000K	1094.9	16	68.4
	5000K	1103.4	16	69

HardieTrim® Boards Products Description

HardieTrim® boards come finished with either the PrimePlus® factory primer and sealer or with ColorPlus® Technology. The ColorPlus® coating is a factory-applied, oven-baked finish available on a variety of James Hardie® siding and trim products. See your local dealer for details and availability of products, colors, and accessories.

HARDIETRIM® 5/4, 4/4 BOARDS

HardieTrim® 5/4, 4/4 board is a decorative non-load bearing trim product. HardieTrim 5/4 board is 1 in. thick, HardieTrim 4/4 board is 3/4 in thick, and both can be purchased in 10 ft. and 12 ft. lengths, based on local availability. In addition to frieze, rake, window, door, and corner details, HardieTrim 5/4, 4/4 boards may be used to construct light blocks, column wraps and decorative scroll work. Available in commonly-used nominal widths from 4 in to 12 in.

HARDIETRIM® BATTEN BOARDS

HardieTrim® Batten Boards are a decorative non-load bearing trim product. HardieTrim® Batten Boards are 3/4 in. thick, 2 1/2 in. wide, and come on 12 ft. lengths. See your local dealer for details and availability of product colors and accessories.



HardieTrim 5/4, 4/4 board - Smooth



HardieTrim Batten board -
Rustic and Smooth (not shown)



HardiePanel vertical siding with
HardieTrim Batten board for the Board
& Batten look.

A Complete James Hardie Exterior –
Close-up on trim products.



ColorPlus TIP: HardieTrim 4/4, 5/4 boards with ColorPlus Technology is shipped with a protective laminate slip sheet. James Hardie recommends keeping the protective sheet in place during cutting and fastening to reduce damage to the boards. Remove the protective sheet only after installing the boards and filling the nail holes with a colored touch-up pen.



WARNING

DO NOT caulk nail heads when using ColorPlus products.
Refer to the ColorPlus touch-up section

Installation of HardieTrim® 5/4, 4/4 & NT3® Back Grooved Boards

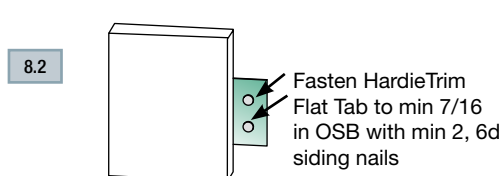
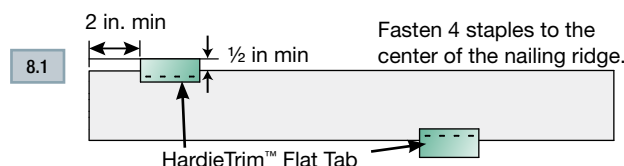
CONCEALED FASTENING TABS

For Corners, Band Boards, Windows, and Door Applications: HardieTrim® boards can be installed with Flat Tabs (JH sku no. 280154) and Corner Tabs (JH sku no. 280155) which provide concealed fastening. Only Flat and Corner Tabs can be used with HardieTrim® boards to create a concealed fastening. Additional framing may be required to ensure the Flat and Corner Tabs are fastened properly to the structure. Special attention should be paid to the framing when using a sheathing that does not have fastener holding equivalent to OSB or Plywood sheathing.

Step 1: Attach Flat Tabs to the back side of the trim with 4 18 ga. ½ in L x ¼ in W narrow crown corrosion resistant staples, equally spaced in one row, positioned no closer than ½ in from trim edges, using a pneumatic staple gun. (Figure 8.1)

Step 2: For wood frame construction, attach the trim to the building using 2, 6d siding nails fastened through the Flat Tabs. ET&F or equivalent fasteners may be used to attach the Flat Tabs to steel frame construction. (Figures 8.2)

Fastener spacing will vary based on application. Refer to specific sections in these instructions for required fastener spacing by application (window, band board, etc.). (Figures 8.14)



Installation of HardieTrim tabs in Coastal Regions:

James Hardie requires that stainless steel staples & fasteners be used when installing HardieTrim™ Tabs in coastal regions.

Installation of HardieTrim Tabs over Pressure Treated Lumber:

HardieTrim™ tabs shall not come in direct contact with ACQ or CA preservative-treated wood. Refer to the General Fastening section of this document for further information.

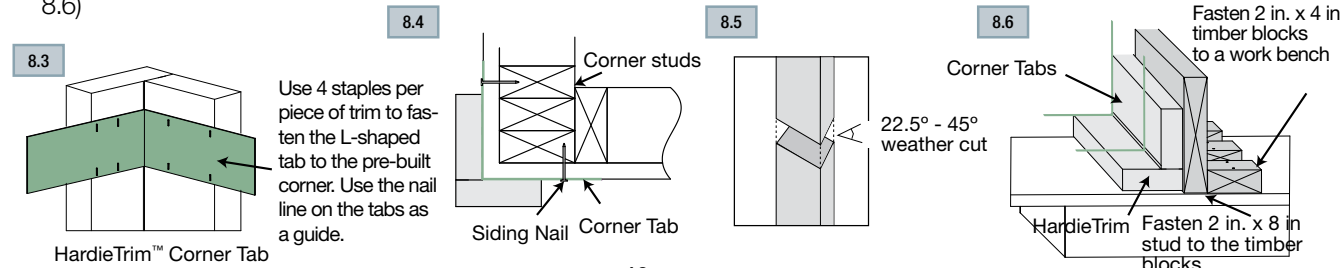
HardieTrim NT3® ColorPlus® boards with back grooves:

Remove the laminate sheet as soon as possible after attaching the trim to the building.

TRIMMING CORNERS

HardieTrim® boards are installed around corners by pre-building the corner off the wall with the Corner Tabs (JH sku no. 280155).

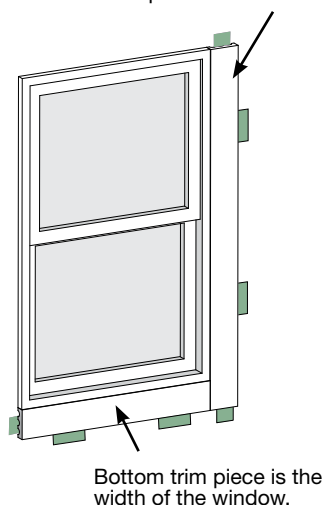
- Attach Corner Tabs to the back side of the trim with 8 18 ga. 1/2 in. L x 1/4 in W narrow crown corrosion resistant staples using a pneumatic staple gun. Ensure the Corner Tabs are fastened tight and straight to the trim boards. (Figures 8.3)
- For wood frame construction, attach the trim to the building with 2, 6d siding nails fastened through the Corner Tabs. ET&F or equivalent fasteners may be used to attach the Corner Tabs to steel frame construction. (Figures 8.4)
- Attach a Corner Tab 1 in. from each edge and every 20 in o.c.
- TIP: Creating a jig for the work station is recommended to ensure the corners are fastened securely and straight. (Figures 8.6)



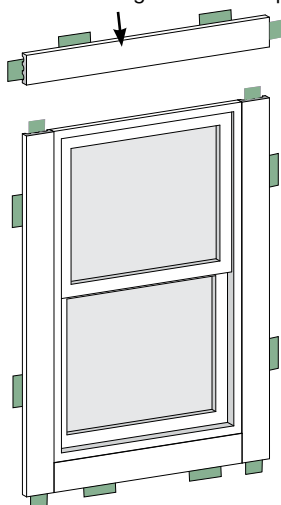
TRIM APPLICATION FOR WINDOWS, DOORS & OTHER OPENINGS

Trim the opening prior to the installation of the siding (Figure 8.7). Place a Flat Tab at the end of each trim board and one tab every 16 in OC. Attach the trim boards and Flat Tabs around the opening as shown in Figures 8.7 and 8.8.

8.7 Side trim pieces go to the top of the window.

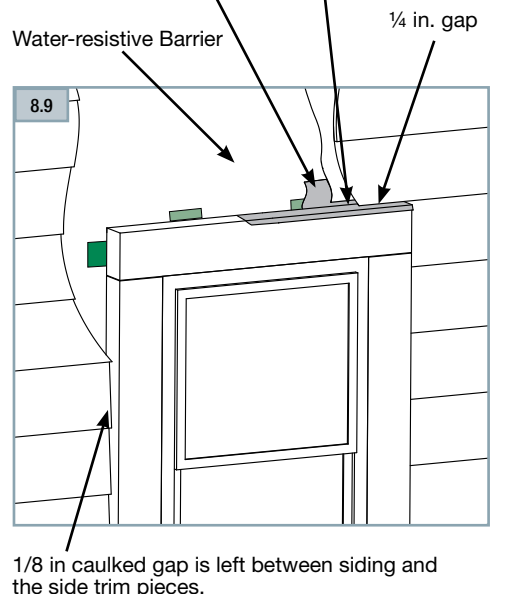


8.8 Header piece spans the window including the side trim pieces.



Flashing needs to be tucked under the water resistive barrier and over the Flat Tabs.

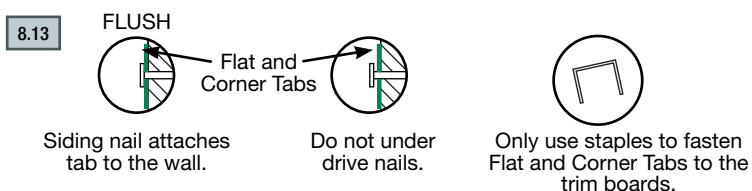
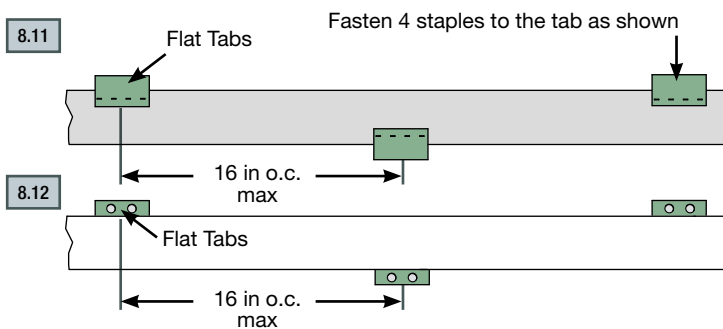
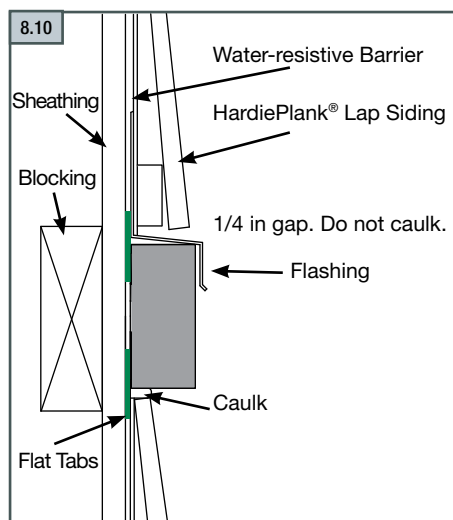
Do not caulk between the siding and the flashing.



NOTE: Follow your window/door manufacturers installation instructions.

BAND BOARD

A flashing is required over the trim and Flat Tabs. (Figure 8.10) Terminate ends of the Band Board into Trim or Siding or miter cut the edges of the trim at the corners of the building. Place a Flat Tab at the end of each trim board and one tab every stud at a maximum of 16 in. o.c. The Flat Tabs should be attached to the trim in an alternating pattern to the top and bottom of the band board (Figures 8.11 and 8.12).



Installation of HardieTrim® 5/4, 4/4 & NT3® Back Grooved Boards

FASTENER TABLE

8.14

Application	Framing Material Tab is nailed into	Fastener (tab to framing)	Fastener (tab to Hardietrim)	Max Tab Spacing (inches on center)
Flat Tab	Wood Stud (minimum G=0.42)	One 6d corrosion resistant siding nail installed through center of flange into framing	Four 18 ga. X 1/2" long X 1/4" wide corrosion resistant crown staples, equally spaced in one row	16
	Minimum APA rated 7/16" OSB	Two 4d ring shank corrosion resistant siding nails equally spaced installed through flange into framing		
	Minimum 20 gauge steel	One No. 8 X 1" long X 0.323" head diameter screw (corrosion resistant) installed through flange into framing		
Corner Tab	Wood Stud (minimum G=0.42)	On each flange, Install one 6d corrosion resistant siding nail through flange into framing	For each piece of trim, install Four 18 ga. X 1/2" long X 1/4" wide corrosion resistant crown staples, equally space in two rows	20
	Minimum APA rated 7/16" OSB	On each flange, Install two 4d ring shank corrosion resistant siding nails through flange into framing		
	Minimum 20 gauge steel	On each flange, Install one No. 8 X 1" long X 0.323" head diameter screw (corrosion resistant) through flange into framing		

Wind-Borne Debris Region: "Supplemental fasteners may be necessary when installing tabs in a Wind-Borne Debris Region, please call Technical Services 800-942-7343 with any questions."

RECOGNITION: HardieTrim boards may be installed as an equal alternative to conventional trim permitted for use in; the 1997 Uniform Building Code, Section 601.5.5; the 1997 Standard Building Code, Section 1404.1; the 1999 BOCA National Building Code, Section 1407.2.2; 2003 International Building Code, Section 1402.1, the 2003 International Residence Code for One - and Two - Family - Dwellings, Section R703.1. the 2003 International Residence Code for One - and Two - Family - Dwellings, Section R703.1. and the 1998 International One-and -Two -Family Dwelling Code, Section 601.1.

OUTSIDE CORNERS

Corners made from HardieTrim® 5/4, 4/4 boards can be pre-assembled before they're installed. Pre-assembled corners look better and generally make the installation go more quickly. To join two pieces of HardieTrim 5/4, 4/4 boards for a corner, drive 2 in. 16 ga. corrosion-resistant finish nails 1/2 in. from the edge and spaced 16 in. apart along the edge.

To fasten 4 in. corners to the wall, drive a pair of finish nails or siding nails, (one nail into each face of the corner) with the nails spaced 16 in. apart. For 6 in. corners, drive a pair of finish nails or siding nails into each face spaced 16 in. apart. Nails should be kept 3/4 in. from the edges of the board and 1 in. from the ends.

When walls are more than 10 ft high, splice corner boards together using weather cuts of at least a 22.5° angle. The angle of the weather cut must slope downward and away from the building. Then nail both boards to the building with the same attachment schedule as for pre-assembled corners, except that 4 in. HardieTrim 5/4, 4/4 boards that should get two nails per side every 16 in. Only install trim by butting to it with the siding. Do not install any trim product over James Hardie® siding.

8.15

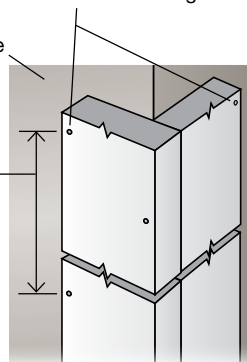
Pre-built corner installation 4 in. boards

A pair of nails (one in each face) attach the corner to the building.

Water-resistive barrier

16 in. (max.)

Keep nails at least 1 in. from ends and 3/4 in. from edges.



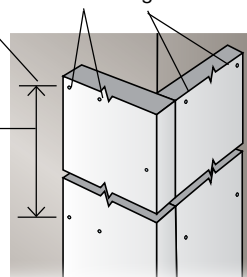
Pre-built corner installation 6 in. boards

Two nails in each face attach the corner to the building.

Water-resistive barrier

16 in. (max.)

Keep nails at least 1 in. from ends and 3/4 in. from edges.



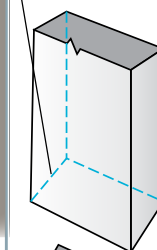
NOTE: All weather cut joints should be touched up prior to installation.

8.16

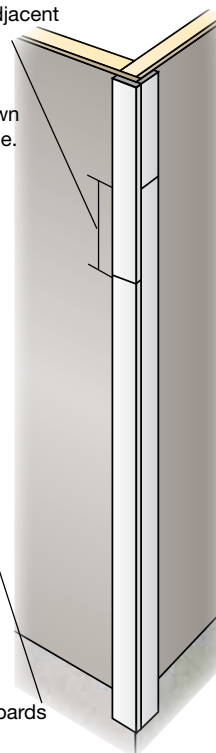
Weather cuts

Keep weather cuts at least 12 in. apart on adjacent corner boards.

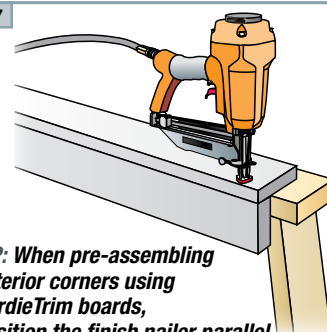
Angle slopes down and to the outside.



Join lengths of boards with angled cuts at least 22.5°



8.17



TIP: When pre-assembling exterior corners using HardieTrim boards, position the finish nailer parallel with the trim



WARNING

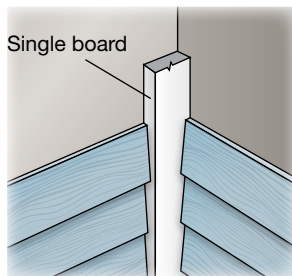
Use only 2 in. 16-ga. finish nails to pre-assemble HardieTrim 5/4 boards corners.

INSIDE CORNERS

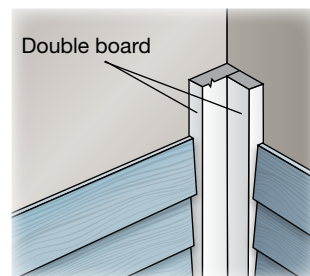
Inside corners can be made with either a single HardieTrim 5/4, 4/4 board in the corner, or with one board on each wall depending on the desired look.

8.18

Single board



Double board



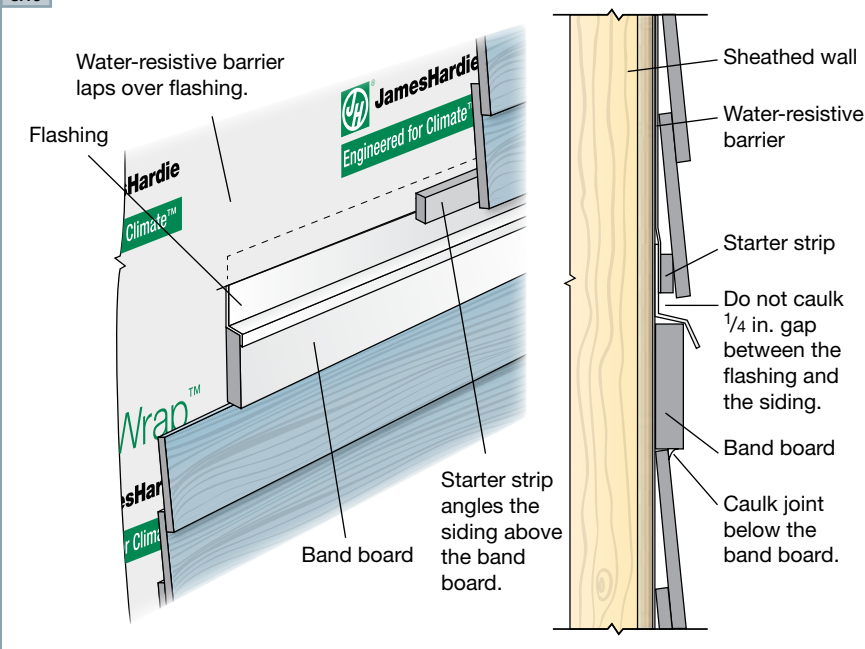
Installation of HardieTrim® 5/4, 4/4 & NT3® Back Grooved Boards

BAND BOARD

A Band board is a decorative horizontal trim used to break up the field of siding on a building. Any width of HardieTrim® 5/4, 4/4 boards can be used for band board depending on the type of detail desired. If installing a band board, pay special attention to flashing details and allow for potential shrinkage of solid rim joists in the walls that the band board may be attached to.

Caulk between the underside of the band board and the siding below. Do not caulk between the flashing and siding above the band board, and maintain a 1/4 in. gap between the two. Also make sure that the water-resistive barrier laps over the flashing for a continuous

8.19



drainage plane. If running lap siding or shingle siding above the band board, a starter strip should be installed first to maintain the correct siding angle. Small Periodic gaps should be left in the starter strip to provide an escape route for excess moisture that may drain down behind the siding.

Use bevel-cut splice joints of at least 22.5° to join long lengths of HardieTrim 5/4, 4/4 boards. To attach band board to the building, drive two recommended fasteners every 16 in. for 4 in. and 6 in. boards. For 8 in. boards, use three fasteners every 16 in., and use four fasteners every 16 in. for 12 in. boards.

HARDIETRIM BOARDS FASTENER SPECIFICATIONS

The Fastener Specifications table shows fastener options for a variety of different nailing substrates. Please refer to the applicable ESR report online (see back page) to determine which fastener meets your wind load design criteria.

Fastening Substrate	Approved Fastener	Fastening Types	Nailing Patterns
wood studs	10	7 Trim Screw, 2 in	Pre-built corners
over minimum 7/16 in OSB	10	10 16 gauge, 2 in	4 in. 1 nail every 16 in to attach boards together
steel studs	7 12 11	11 AST-075-0200G	6 in. 1 nail every 16 in to attach boards together
Pre-built corners	10	12 [AKN100-0150NA] .100 in x .25 in x 1.5 in	2 nails every 16 in for each board
			Site-built corners & other areas (eg. windows, etc.)
			4 in. & 6 in. 2 nails every 16 in
			8 in. 3 nails every 16 in
			12 in. 4 nails every 16 in

● indicates recommended fasteners

TIP: James Hardie recommends using stainless steel finish nails when installing HardieTrim (Trim, Battens, Fascia, etc.) products.

WINDOW AND DOOR TRIM

Windows and doors must be installed per the manufacturer's instructions. Window flanges or flashings must be properly installed and lapped correctly under the water-resistive barrier prior to the installation of HardieTrim® 5/4, 4/4 boards. Once the HardieTrim 5/4, 4/4 boards is put on, proper flashing must be installed above the trim and lapped under the water-resistive barrier correctly.

Install HardieTrim 5/4, 4/4 boards around doors and windows using the "cap over" method, which means that the header or horizontal top piece of the trim extends and caps over the vertical jamb pieces on both sides. For windows, the bottom trim piece or sill trim fits in between the jambs.

For cap-over trim installation:

1. Start by measuring the length of the bottom edge of the window, not including the flange.
2. Cut a piece of trim to that length and install it.
3. Next measure from the bottom of the installed trim to the top of the window.
4. Cut two pieces of trim to that length and install them on either side of the window.
5. For the cap, measure the distance between the outside edges of the side trim pieces. Cut a piece of trim to length and install it.

For doors the process is the same except that it starts with the side pieces, step three.

8.20 Window and door trim

Side trim pieces go to the top of the window.



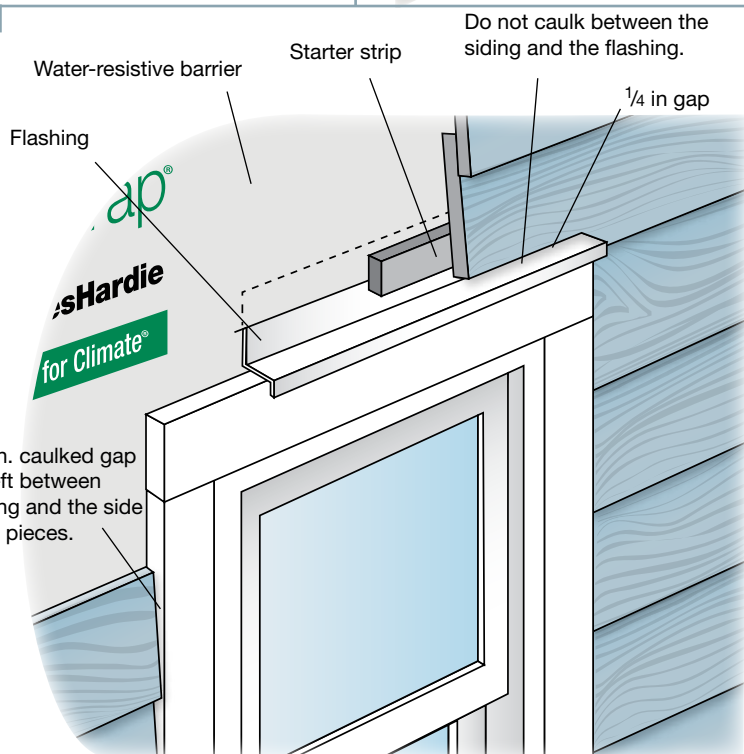
Bottom trim piece is the width of the window.

8.21

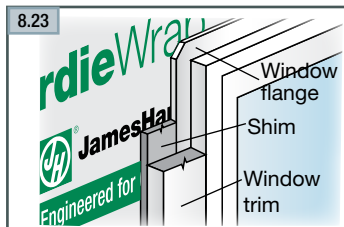
Header piece spans the window including the side trim pieces.



8.22



8.23



TIP: For trimming around windows and doors with attachment flanges, install a shim strip to build out the wall even with the flange. This strip lets the trim sit flat and parallel with the wall.

Installation of HardieTrim® 5/4, 4/4 & NT3® Back Grooved Boards

INSTALLING RAKE AND FASCIA BOARD

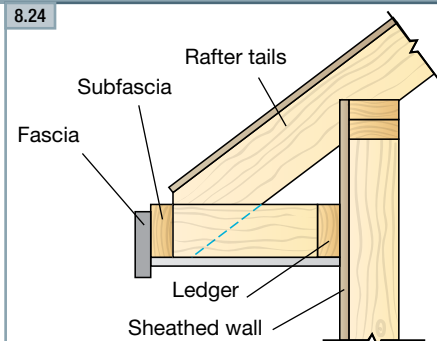
HardieTrim boards can be fastened directly over a 2x sub-fascia or directly to rafter tails. Check local building code for relevant codes. James Hardie recommends that the fascia be no more than 2 in. larger than the subfascia, e.g. over a nominal 2 x 6 subfascia, install an 8 in. fascia board (7¼ in. actual) fascia. On longer fascia runs, join HardieTrim boards with weather/bevel cuts.



WARNING

Use only 2 in. 16-ga. finish nails to pre-assemble HardieTrim 5/4, 4/4 board corners.

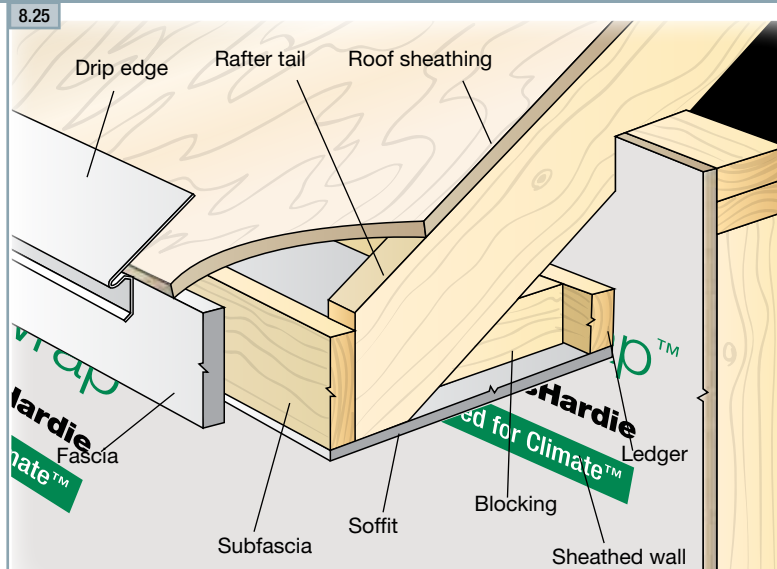
8.24



DRIP EDGE

After the fascia is installed, a vinyl, coated aluminum or galvanized drip-edge flashing must be installed to the roof sheathing overlapping the fascia board. The drip edge helps protect the top edge of the fascia board and it minimizes water ingress into the soffit and/or cornice cavity. Choose a drip edge design that effectively channels water away from the face of the fascia and into gutters if present.

8.25



Installation of HardieTrim® Battens

General
Product
Information

Working
Safety

Tools for
Cutting and
Fastening

General
Installation
Requirements

General
Fastener
Requirements

Finishing and
Maintenance

HardieWrap®
Weather Barrier

HardieTrim®
Boards/Battens

HardieSoft®
Panels

HardiePlank®
Lap Siding

HardieShingle®
Siding

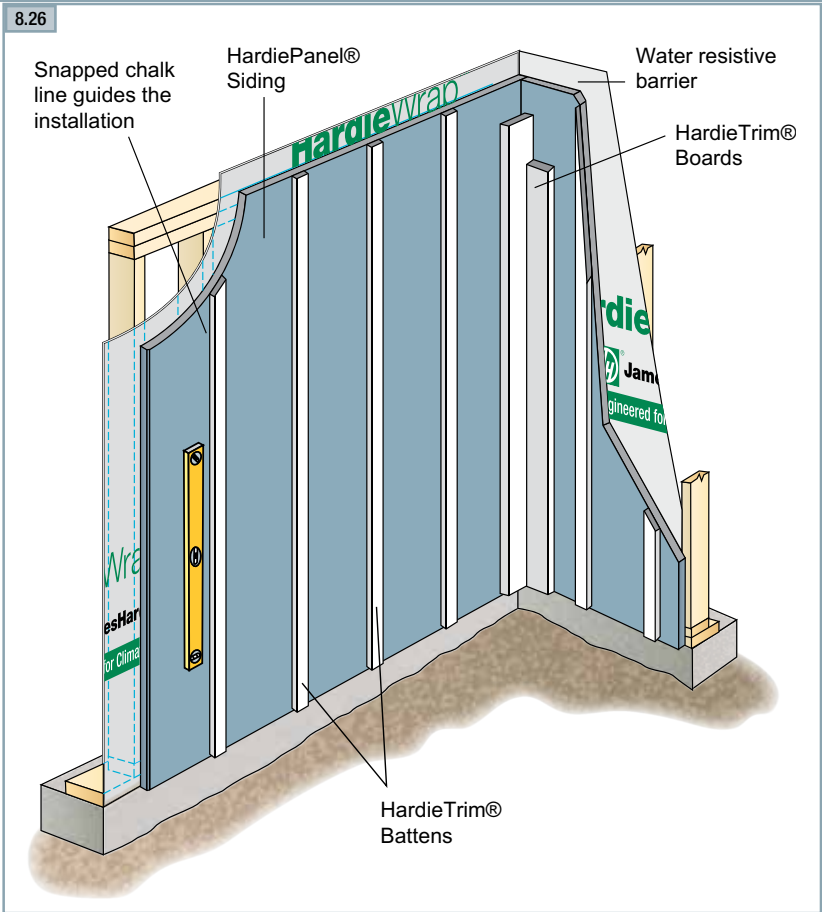
HardiePanel®
Vertical Siding

Appendix/
Glossary

ESR-1844 &
2290 Report

GETTING STARTED

HardieTrim® Battens are intended to be used with HardiePanel® vertical siding to achieve a board and batten look. HardieTrim Battens must be attached to wood or steel backing using an approved fastener from the table below. When installing HardieTrim Battens, determine layout and mark where battens will be attached. To ensure that HardieTrim Battens are installed vertically and parallel to each other, either snap chalk lines or use a level. When attaching battens ensure that fasteners are a minimum of 3/4 in. from edges, 1 in. from ends, and a maximum of 16 in. o.c.



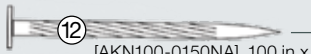
ColorPlus® TIP:

HardieTrim Battens with ColorPlus® Technology are shipped with a protective laminate slip sheet. James Hardie recommends keeping the protective sheet in place during cutting and fastening to reduce damage to the boards. Remove the protective sheet only after installing the boards and filling the nail holes with a colored touch-up pen. Finish nails are required for ColorPlus products.



HARDIETRIM BATTENS FASTENER SPECIFICATIONS

The Fastener Specifications table shows fastener options for a variety of different nailing substrates. Please refer to the applicable ESR report online (see back page) to determine which fastener meets your wind load design criteria.

Fastening Substrate	Approved Fastener	Fastener Types
wood studs	10	 screw Trim Screw, 2 in
over minimum 7/16 in OSB	10	 finish nail 16 gauge, 2 in
	11	 ET&F finish nail AST-075-0200G
steel studs	7 12 11	 ET&F [AKN100-0150NA] .100 in x .25 in x 1.5 in

● Indicates recommended fasteners. Required for ColorPlus Products.

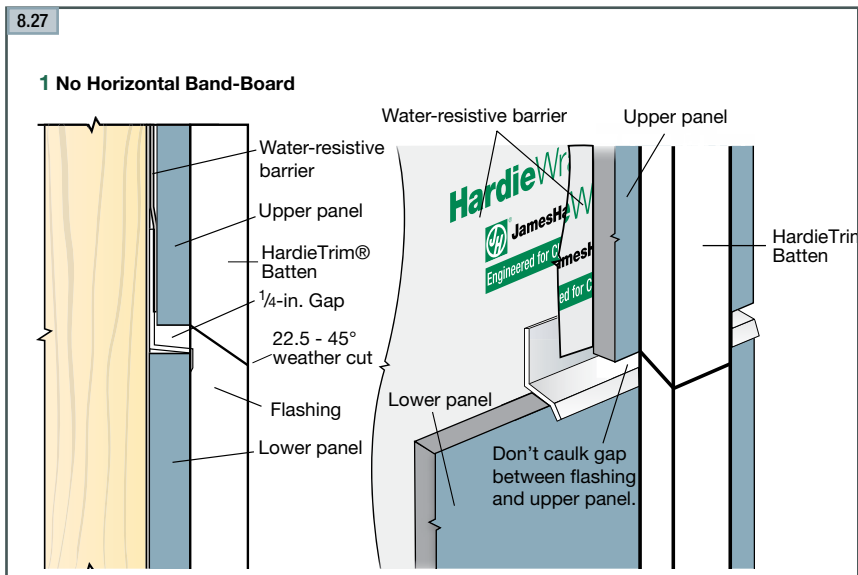
TIP: James Hardie recommends using stainless steel finish nails when installing HardieTrim (Trim, Battens, Fascia, etc.) products.

Installation of HardieTrim® Battens (cont.)

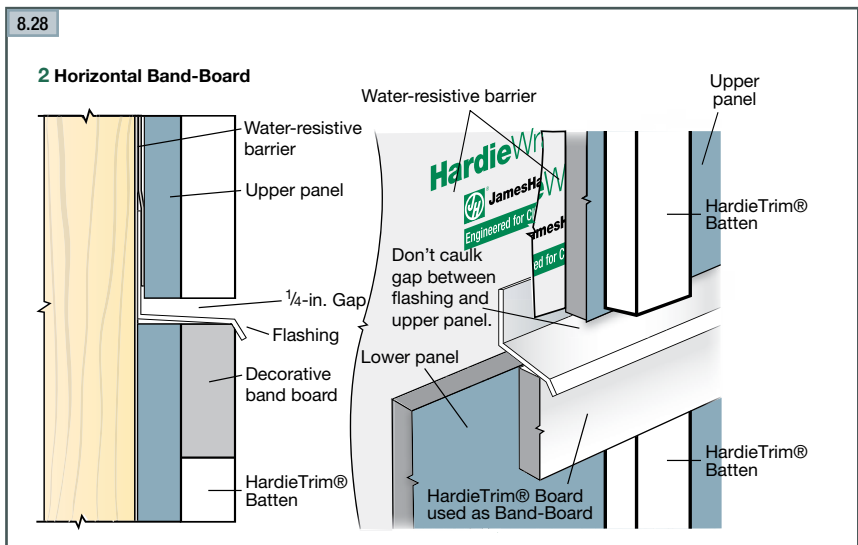
HORIZONTAL JOINT TREATMENT

Horizontal HardieTrim® Batten joints must occur at the same location as horizontal joints in HardiePanel® siding. Install horizontal HardieTrim Batten joints by using one of the following options:

1. If HardieTrim Battens are going to be installed over horizontal panel joints without the use of a horizontal band board, follow the procedure as illustrated in fig. 8.27. Start installing HardieTrim Battens by creating a weather-cut of at least a 22.5° angle, making a joint at the same location as the panel joint. Attach the bottom batten. Make sure the top batten has a matching weather-cut and then install top batten.



2. If HardieTrim Battens are to be installed over horizontal panel joints with the use of a horizontal band board, follow the procedure as illustrated in fig. 8.28. If HardieTrim Battens are to be installed horizontally, they must be installed in the same manner as in fig. 8.28. Make sure the horizontal Z-flashing is installed over both the lower panel and the horizontal band board. Attach the bottom batten tight to the bottom edge of the band board. Next, leaving a minimum 1/4 in. gap above the horizontal Z-flashing, install the top batten.



WARNING

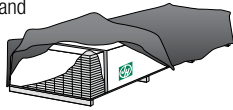
Do not bridge floors with HardieTrim Battens and/or HardiePanel Siding. A horizontal joint should always be created between floors.



IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



CUTTING INSTRUCTIONS

OUTDOORS

1. Position cutting station so that airflow blows dust away from the user and others near the cutting area.
2. Cut using one of the following methods:
 - a. Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
 - b. Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
 - c. Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

- DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.
- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
 - For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
 - For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
 - Go to jameshardiepros.com for additional cutting and dust control recommendations.

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

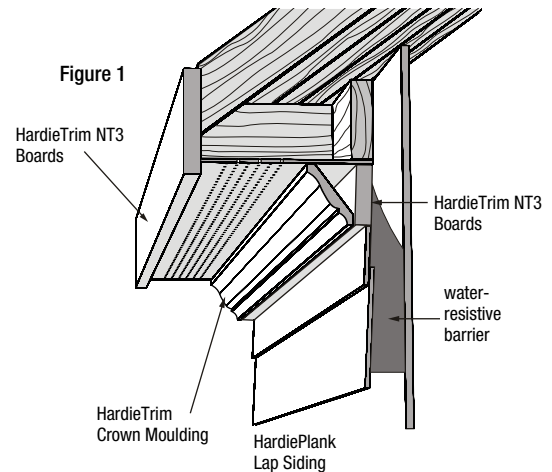
If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

HardieTrim® boards are decorative non-load bearing trim products.

Do not use HardieTrim boards to replace any structural component.

TABLE OF CONTENTS

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HardieTrim™ Tabs	Page 7-8
FINISHING	Page 9



GENERAL REQUIREMENTS

- Wood or steel must be provided for attaching HardieTrim boards.
- Follow all applicable codes when installing HardieTrim boards.
- DO NOT install HardieTrim boards, such that they may remain in contact with standing water.



FLASHING/CLEARANCE REQUIREMENTS NO-COVER

HardieTrim may be installed with a minimum 1/4 in. clearance when installed vertically to grade, decks, paths, steps, and driveways

Maintain a minimum 2 in. horizontal clearance between James Hardie trim products and decks, paths, steps and driveways.

At the juncture of the roof and vertical surfaces, flashing and counter flashing shall be installed per the roofing manufacturer's instructions. Provide a 2 in. clearance between the roofing and the bottom edge of the trim.

Figure 2

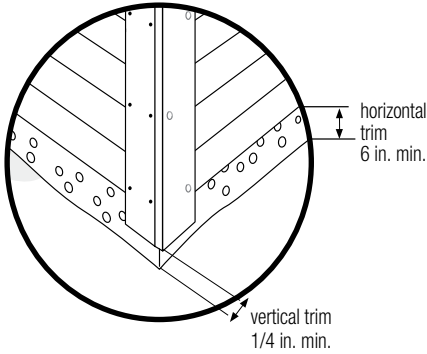


Figure 3

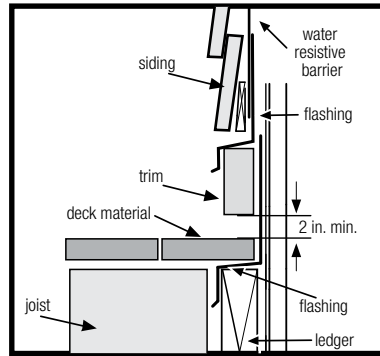
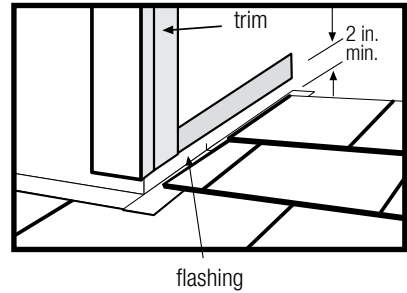
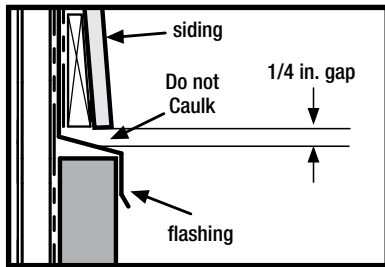


Figure 4



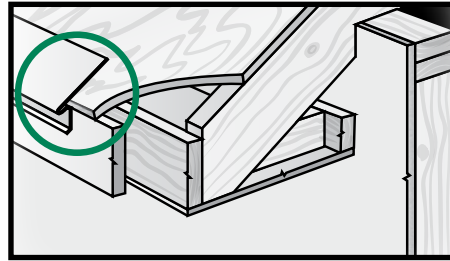
Maintain a 1/4 in. clearance between the bottom of James Hardie products and horizontal flashing. Do not caulk gap.

Figure 5



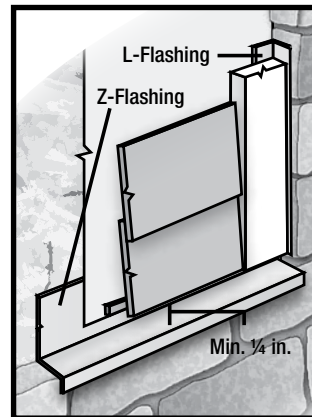
Drip Edge

Figure 6 for fascia installation see page 6



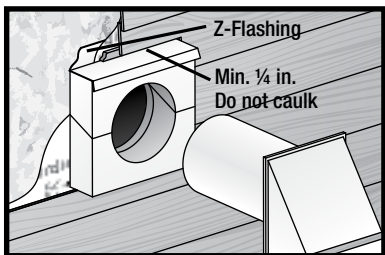
Mortar/Masonry

Figure 7



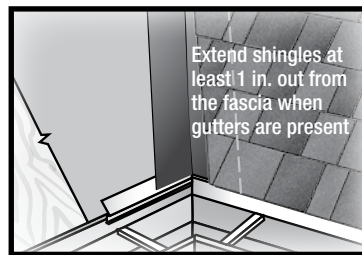
Block Penetration Recommended in HZ10

Figure 8



Valley/Shingle Extension

Figure 9

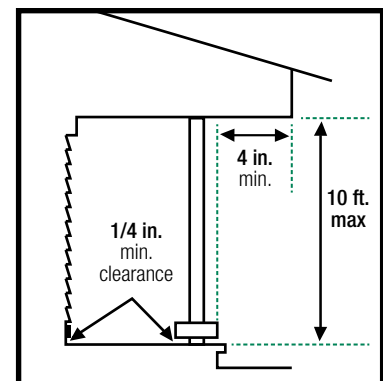


CLEARANCE REQUIREMENTS UNDER-COVER

Maintain a 1/4 in. clearance for HardieTrim boards installed under cover. Under cover is defined as:

- Not more than 10 feet below a roof overhang, and
- Not less than 4 inches horizontally from the edge of the roof overhang

Figure 10





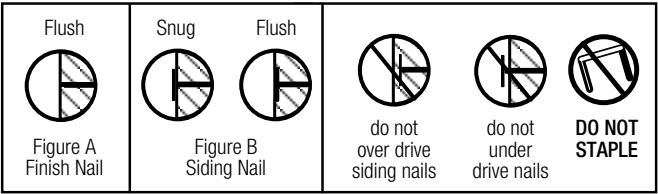
GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5."

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the trim. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).



FACE NAILING REQUIREMENTS

Use 2 in. minimum 16 ga. finish nails to attach HardieTrim boards to wood frame construction. ET&F or equivalent fasteners or screws may be used to attach HardieTrim boards to steel frame construction.

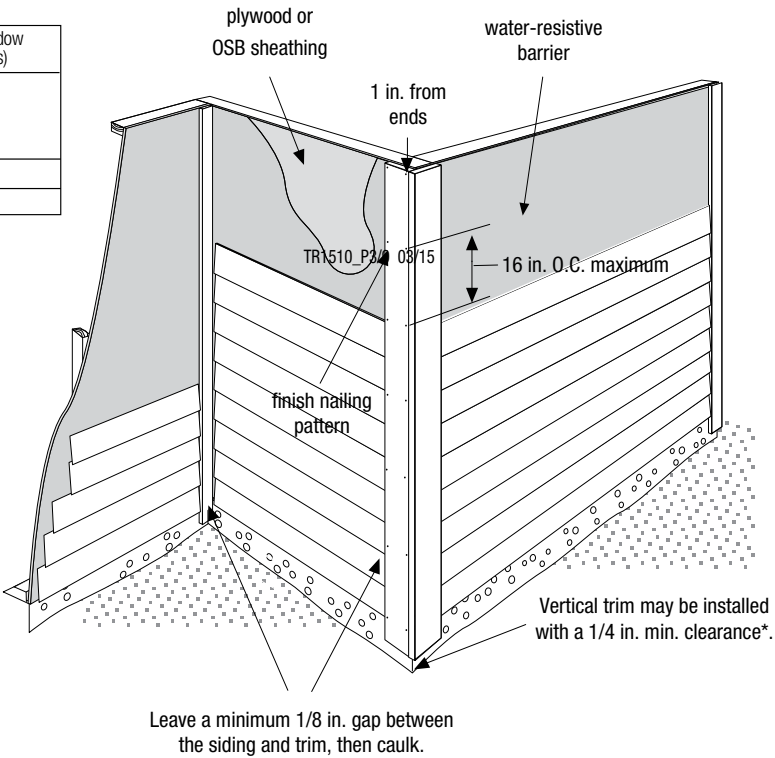
Fastening instructions are similar for all applications. When using finish nails, position nails no closer than 1/2 in. from the edges of the trim and for all other fasteners no closer than 3/4 in. Fasteners must be no closer than 1 in. from ends of trim and spaced a maximum of 16 in. O.C. Ensure trim is adequately fastened.

James Hardie recommends using stainless steel finish nails when installing HardieTrim products.

Minimum fastener guide for finish nailing:

	Pre-built corner	Site Built Corners	Other areas (e.g. window trim, and band boards)
4 in.	1 nail every 16 in. to attach boards together + 1 nail every 16 in. each board	2 nails every 16 in.	2 nails every 16 in.
6 in.	1 nail every 16 in. to attach boards together + 2 nails every 16 in. each board		
8 in.	-	3 nails every 16 in.	3 nails every 16 in.
12 in.	-	4 nails every 16 in.	3 nails every 16 in.

Use a 2 in. finish nail to fasten trim together. Longer finish nails may bend.



*Follow all applicable codes when installing HardieTrim boards



INSTALLATION

TRIMMING CORNERS

When installing corners or other vertical trim, position boards on the wall and attach (figure 12).

Pre-Built Corners

Alternatively, corners can be pre-built off the wall using 2 in. finishing nails. Each side of the pre-built corner must be secured to the wall (figure 13).

Figure 12

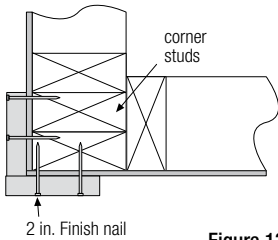
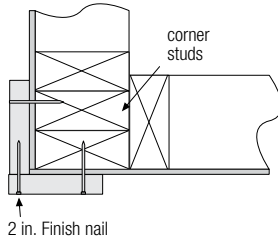


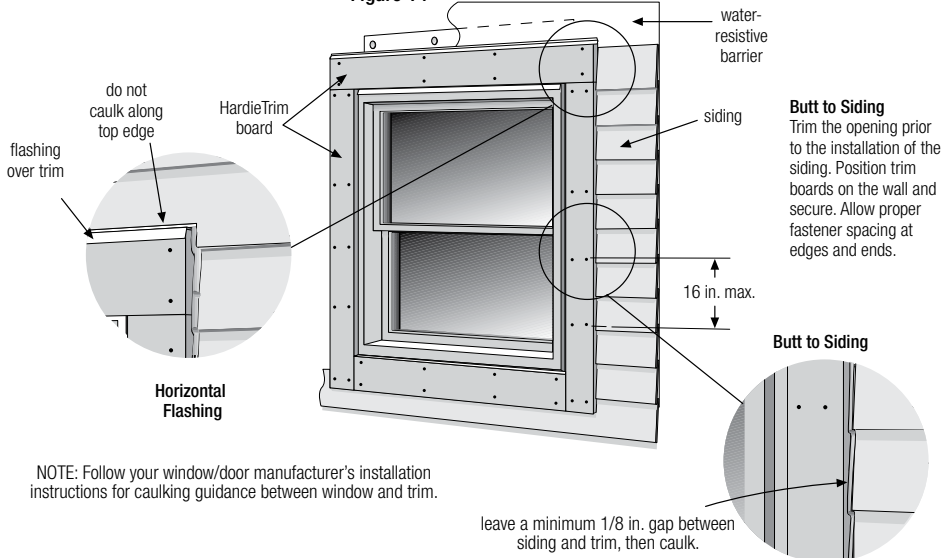
Figure 13



TRIM APPLICATION FOR WINDOWS, DOORS & OTHER OPENINGS

Flashing over trim is required per code for all installation methods. (figure 14)

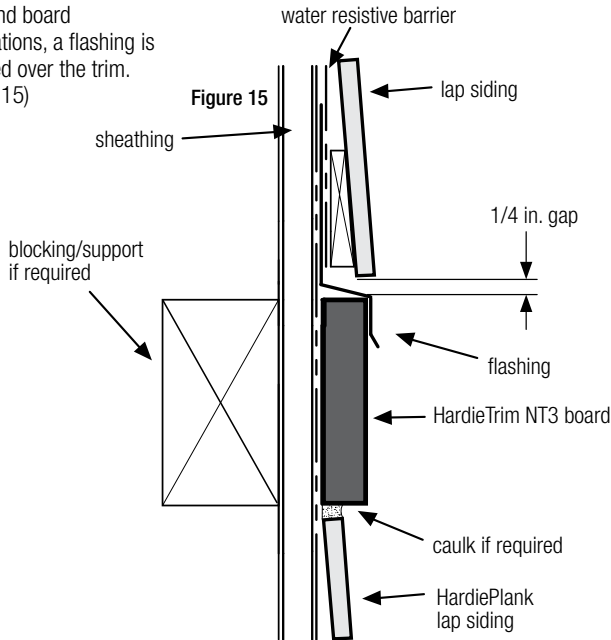
Figure 14



BAND BOARD

For band board applications, a flashing is required over the trim. (figure 15)

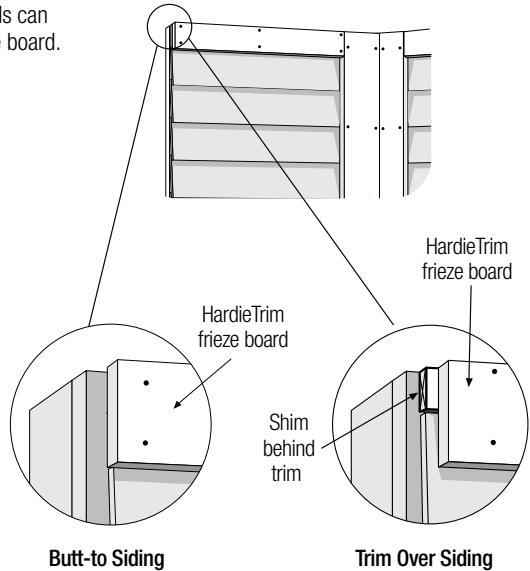
Figure 15



FRIEZE BOARDS

HardieTrim boards can be used as frieze board. (figure 16)

Figure 16



BATTEN BOARDS

HORIZONTAL PANEL JOINTS

At horizontal panel joints HardieTrim battens must be installed according to option 1 or 2 below. When installing HardieTrim Battens horizontally, they must be installed as a panel joint according to option 2.

Option 1

Figure 17 - No horizontal band board - Make a 22.5 - 45 degree weather cut, in the HardieTrim batten, just above the 1/4 in. clearance between panels.

Option 2

Figure 18 - Horizontal Band Board - Install a horizontal band board at the top of the bottom panel. Butt the lower batten to the band board and start the top batten at the bottom edge of the top panel. Maintain a 1/4 in. clearance above horizontal flashing.

Figure 17

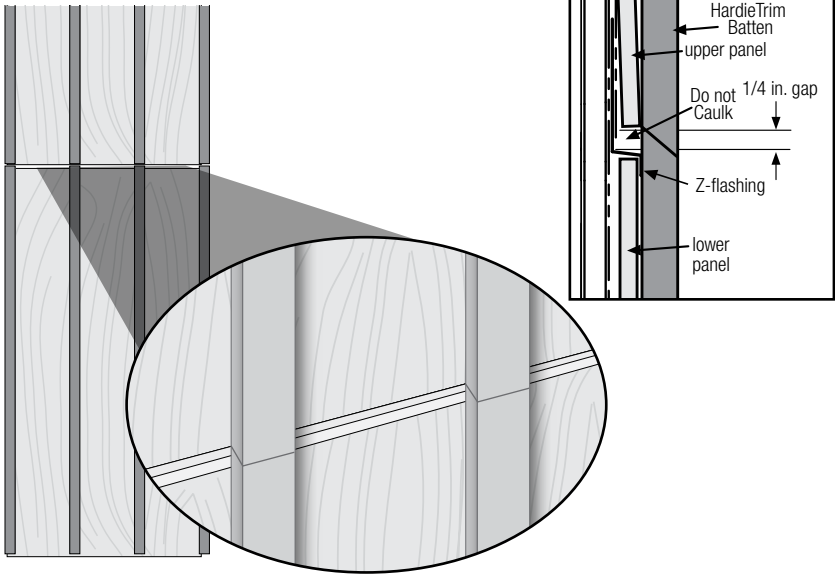
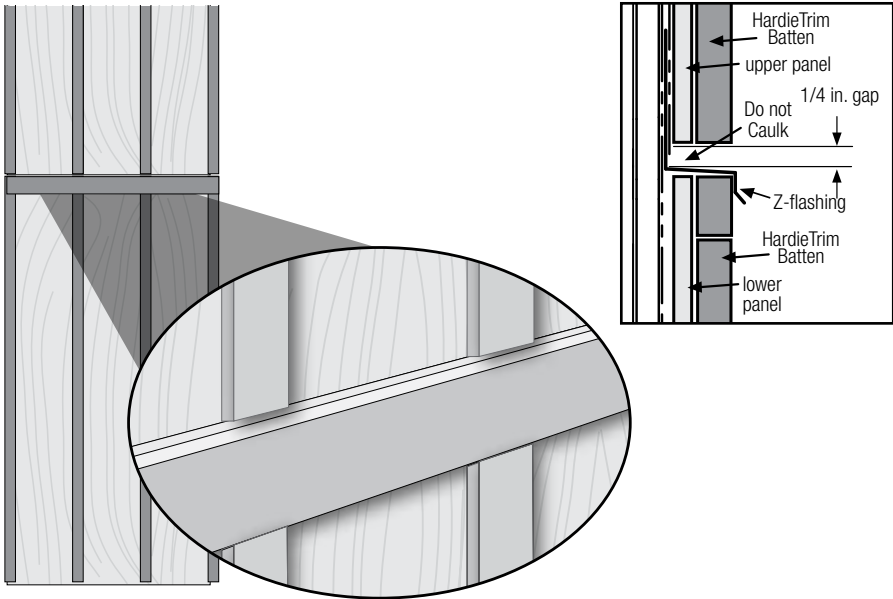


Figure 18





FASCIA

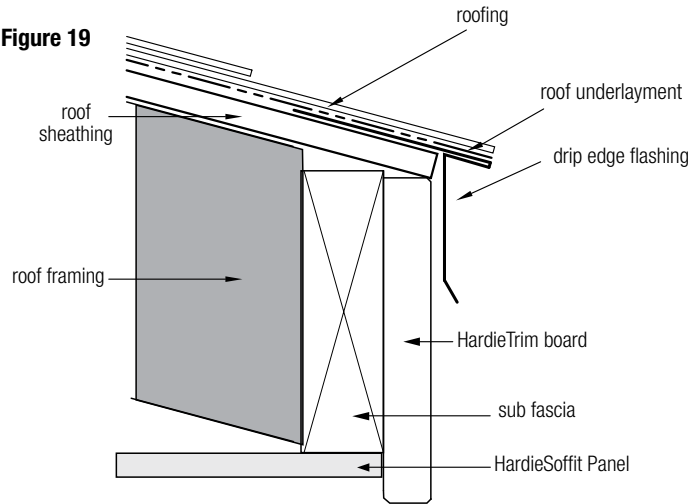
Do not use HardieTrim to replace any structural component

HardieTrim boards can be fastened directly over a 2x sub-fascia or directly to rafter tails. Check local building code for relevant codes.

Option 1

Over sub-fascia: (figure 19)

When installing HardieTrim boards over solid 2x sub-fascia use minimum 2 in., 16 gauge corrosion resistant finish nails. *(see fastener guide below)*



Gutters:

James Hardie recommends the use of rain gutters whenever possible.

Do not attach gutters directly to HardieTrim

Use gutter hangers that attach through the roof sheathing into a rafter tail or other structural member.

Soffit

When installing HardieSoffit additional framing/blocking may be needed depending on application. Refer to HardieSoffit installation instructions for guidance.

Option 2

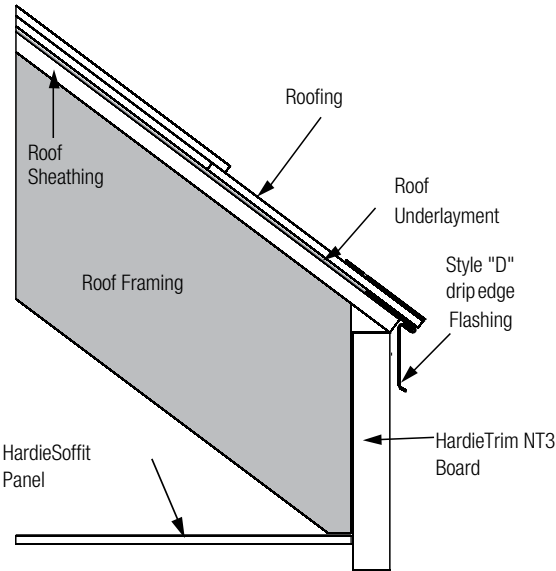
Direct to rafter tails: (figure 20)

When installing HardieTrim NT3 boards without the presence of a 2x sub-fascia, a minimum 8d siding corrosion resistant nails must be used to attach HardieTrim NT3 boards DO NOT use finish nails. *(refer to fastener guide below)*.

Fascia Fastener Guide

HardieTrim Board	FASTENER SPACING	
	Direct to Rafter (min 8d siding)	Over 2x Sub-fascia (Minimum 2 in. 16 ga. Finish nails)
6 in.	2 nails every rafter spaced max 24 in. O.C.	2 nails spaced maximum 16 in. O.C.
8 in.	3 nails every rafter spaced max 24 in. O.C.	3 nails spaced maximum 16 in. O.C.
10 in.		4 nails spaced maximum 16 in. O.C.

Figure 20



HARDIETRIM® TABS

FASTENER REQUIREMENTS

For Corners, Band Boards, Windows, and Door Applications:

HardieTrim NT3 boards may be installed with HardieTrim™ Flat Tabs and HardieTrim™ Corner Tabs which provide concealed fastening. Only HardieTrim Flat and Corner Tabs can be used with HardieTrim NT3 boards to create a concealed fastening.

Step 1: Attach HardieTrim Flat Tabs to the back side of the trim using four, 18 ga. 1/2 in. L x 1/4 in. W narrow crown corrosion resistant staples, equally spaced in one row, positioned no closer than 1/2 in. from trim edges using a pneumatic staple gun. (figures 21, 22)

Step 2: For wood frame construction, attach the trim to the building with minimum 2, 6d siding nails fastened through the HardieTrim Flat Tabs (figure 23). ET&F or equivalent fasteners may be used to attach the HardieTrim Flat Tabs to steel frame construction.

Fastener spacing will vary based on application. Refer to fastener table on page 9. Refer to specific sections in these instructions for required fastener spacing by application (window, band board, etc.)

For Fascia, Rake, and Frieze board Applications:

HardieTrim tabs cannot be used in fascia, rake, or frieze board applications. Follow Face nailing fastening specifications.

Installation of HardieTrim tabs in Coastal Regions:

James Hardie requires that stainless steel staples & fasteners be used when installing HardieTrim Tabs in coastal regions.

Installation of HardieTrim Tabs over Pressure Treated Lumber: HardieTrim tabs **shall not** come in direct contact with ACQ or CA preservative-treated wood. Refer to the General Fastening section of this document for further information.

HardieTrim boards with ColorPlus Technology: Remove the laminate sheet as soon as possible after attaching the trim to the building.

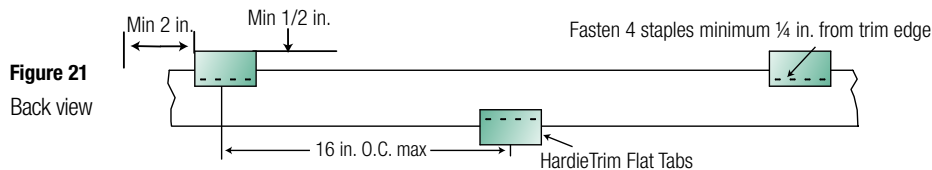


Figure 23

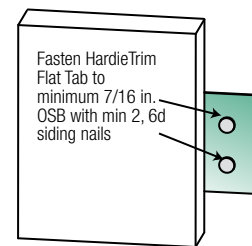
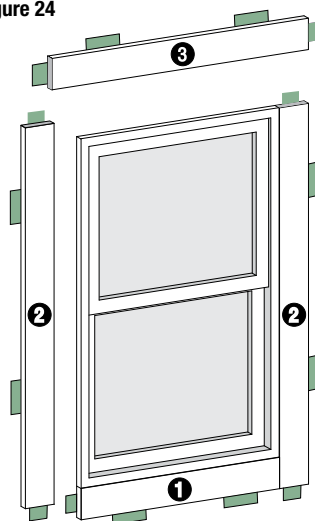
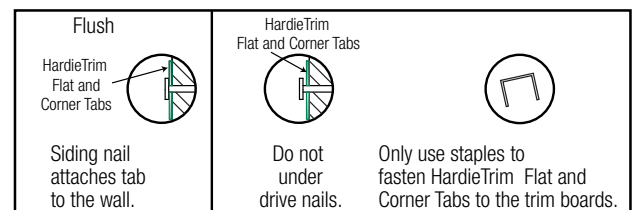


Figure 24



Trim Application for Windows, Doors & Other Openings

Trim the opening prior to the installation of the siding. Place a Flat Tab at the end of each trim board and one tab every 16 in. OC. Attach the trim boards and Flat Tabs around the opening as shown in figure 24. Use 16 ga. galvanized 2 in. long finish nails to ensure proper fastening if needed.



NOTE: Follow your window/door manufacturers installation instructions for caulking guidance between window and trim.



Visit jameshardiepros.com for the most recent version.

TR1510_P7/9 09/19

TRIMMING CORNERS

When using HardieTrim tabs prebuild outside corners off the wall.

- Attach HardieTrim Corner Tabs to the back side of the trim using eight(8) - 18 ga. 1/2 in. L x 1/4 in. W narrow crown corrosion resistant staples using a pneumatic stapler. Ensure the HardieTrim Corner Tabs are fastened tight and straight to the trim boards. (figure 25)
- For wood frame construction, attach trim to building using min. 6d siding nails fastened through the HardieTrim Corner Tabs attached to minimum 7/16 in. OSB *. (figure 26)
- Attach a HardieTrim Corner Tab 1 in. from each ends and every 20 in. O.C.
- TIP: Creating a jig for the work station is recommended to ensure corners are fastened securely and straight. (figure 27)

Figure 25

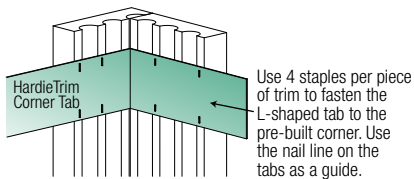


Figure 26

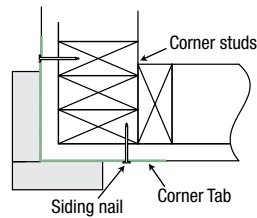
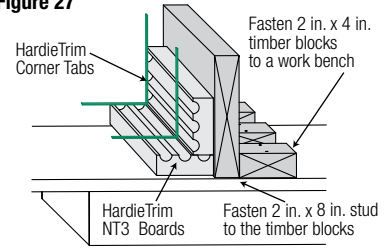


Figure 27



BAND BOARD

Terminate ends of the Band Board into Trim or Siding or miter cut the edges of the trim at the corners of the building. Place a HardieTrim Flat Tab at the end of each trim board and one tab every stud at a maximum of 16 in. O.C. The HardieTrim Flat Tabs should be attached to the trim in an alternating pattern to the top and bottom of the band board (figures 21, 22). Use 16 ga. galvanized 2 in. long finish nails to ensure proper fastening if needed.

Trim Tab Fastener Table

Application	Framing Material Tab is nailed into	Fastener (tab to framing)	Fastener (tab to trim)	Max Tab Spacing (inches on center)
Flat Tab	Wood Stud (minimum G=0.42)	One 6d corrosion resistant siding nail installed through center of tab into framing	Four 18 ga. X 1/2 in. long X 1/4 in. wide corrosion resistant crown staples, equally spaced in one row	16
	Minimum APA rated 7/16 in. OSB	Two 4d ring shank corrosion resistant siding nails equally spaced installed through tab into framing		
	Minimum 20 gauge steel	One No. 8 X 1 in. long X 0.323 in. head diameter screw (corrosion resistant) installed through flange into framing		
Corner Tab	Wood Stud (minimum G=0.42)	On each flange, install one 6d corrosion resistant siding nail through tab into framing	For each piece of trim, install Four 18 ga. X 1/2 in. long X 1/4 in. wide corrosion resistant crown staples, equally space in two rows	20
	Minimum APA rated 7/16 in. OSB	On each flange, install two 4d ring shank corrosion resistant siding nails through tab into framing		
	Minimum 20 gauge steel	On each flange, install one No. 8 X 1 in. long X 0.323 in. head diameter screw (corrosion resistant) through tab into framing		



FINISHING

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie Products. James Hardie products must be painted within 180 days for primed product and 90 days for unprimed. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

COLORPLUS TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie® ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coat, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE SIDING AND TRIM PRODUCTS WITH COLORPLUS TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

TR1510_P9/9 09/19

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: HardieTrim boards may be installed as an equal alternative to conventional trim permitted for use in; 2006, 2009, 2012 & 2015 International Building Code, Section 1403, and the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, Section R703.



HardieTrim® Boards

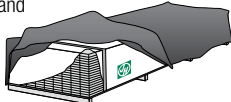
EFFECTIVE SEPTEMBER 2019

These instructions are to be used for HardieTrim® HZ™ Boards ONLY and are **ONLY VALID** in the following states: WA, OR, CA, NV, UT, ID, CO, WY, MT, AZ, NM.

IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



CUTTING INSTRUCTIONS

OUTDOORS

1. Position cutting station so that airflow blows dust away from the user and others near the cutting area.
2. Cut using one of the following methods:
 - a. Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
 - b. Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
 - c. Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

- DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.
- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
 - For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
 - For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
 - Go to jameshardiepros.com for additional cutting and dust control recommendations.

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

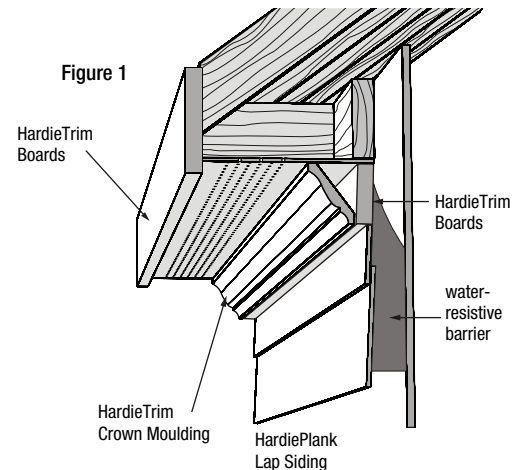
If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

HardieTrim® boards are decorative non-load bearing trim products.

Do not use HardieTrim boards to replace any structural component.

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GENERAL REQUIREMENTS

- Wood or steel must be provided for attaching HardieTrim boards.
- Follow all applicable codes when installing HardieTrim boards.
- DO NOT install HardieTrim boards, such that they may remain in contact with standing water.
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie Products.





FLASHING/CLEARANCE REQUIREMENTS NO-COVER

HardieTrim may be installed with a minimum 1/4 in. clearance when installed vertically to grade, decks, paths, steps, and driveways

Maintain a minimum 1 in. horizontal clearance between James Hardie trim products and decks, paths, steps and driveways.

At the juncture of the roof and vertical surfaces, flashing and counter flashing shall be installed per the roofing manufacturer's instructions. Provide a 1 in. clearance between the roofing and the bottom edge of the trim.

Figure 2

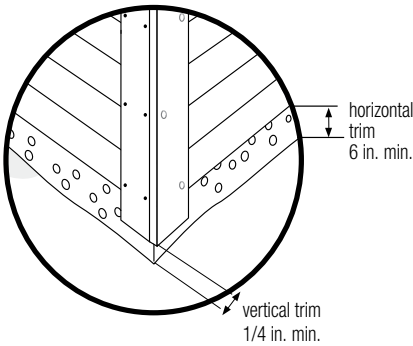


Figure 3

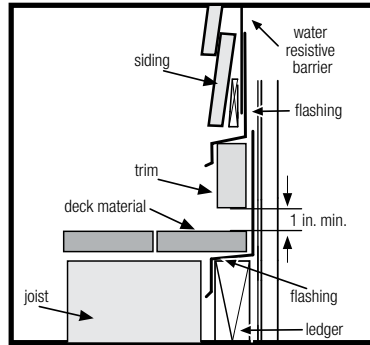
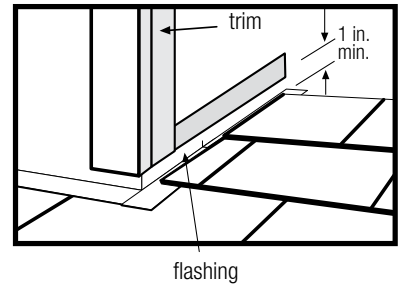
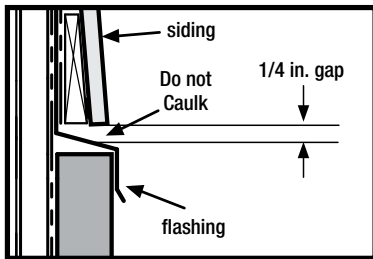


Figure 4



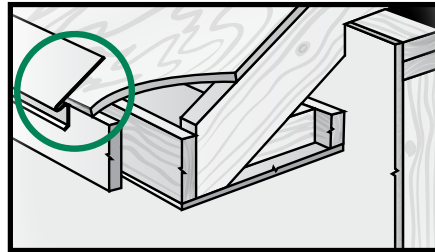
Maintain a 1/4 in. clearance between the bottom of James Hardie products and horizontal flashing. Do not caulk gap.

Figure 5



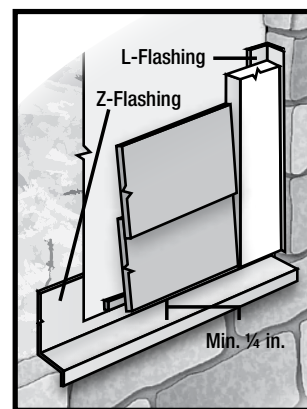
Drip Edge

Figure 6 for fascia installation see page 6



Mortar/Masonry

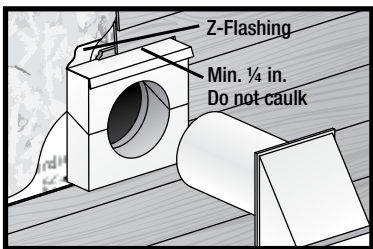
Figure 7



Block Penetration

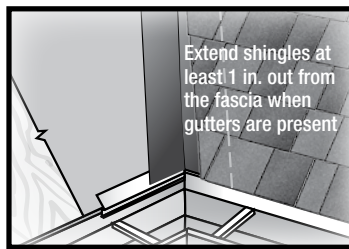
(recommended in HZ10)

Figure 8



Valley/Shingle Extension

Figure 9

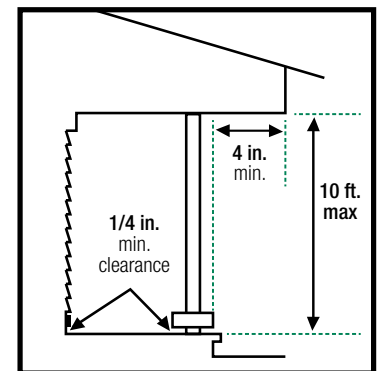


CLEARANCE REQUIREMENTS UNDER-COVER

Maintain a 1/4 in. clearance for HardieTrim boards installed under cover. Under cover is defined as:

- Not more than 10 feet below a roof overhang, and
- Not less than 4 inches horizontally from the edge of the roof overhang

Figure 10





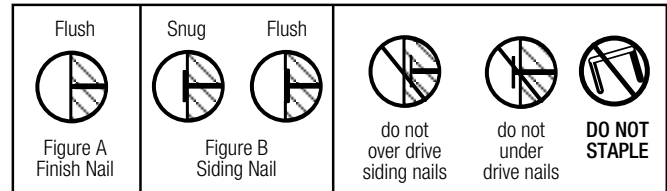
GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5."

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the trim. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).



FACE NAILING REQUIREMENTS

Use 2 in. minimum 16 ga. finish nails to attach HardieTrim boards to wood frame construction. ET&F or equivalent fasteners or screws may be used to attach HardieTrim boards to steel frame construction.

Fastening instructions are similar for all applications. When using finish nails, position nails no closer than 1/2 in. from the edges of the trim and for all other fasteners no closer than 3/4 in. Fasteners must be no closer than 1 in. from ends of trim and spaced a maximum of 16 in. O.C. Ensure trim is adequately fastened.

James Hardie recommends using stainless steel finish nails when installing HardieTrim products.

Minimum fastener guide for finish nailing:

	Pre-built corner	Site Built Corners	Other areas (e.g. window trim, and band boards)
4 in.	1 nail every 16 in. to attach boards together + 1 nail every 16 in. each board	2 nails every 16 in.	2 nails every 16 in.
6 in.	1 nail every 16 in. to attach boards together + 2 nails every 16 in. each board		
8 in.	-	3 nails every 16 in.	3 nails every 16 in.
12 in.	-	4 nails every 16 in.	3 nails every 16 in.

Use a 2 in. finish nail to fasten trim together. Longer finish nails may bend.

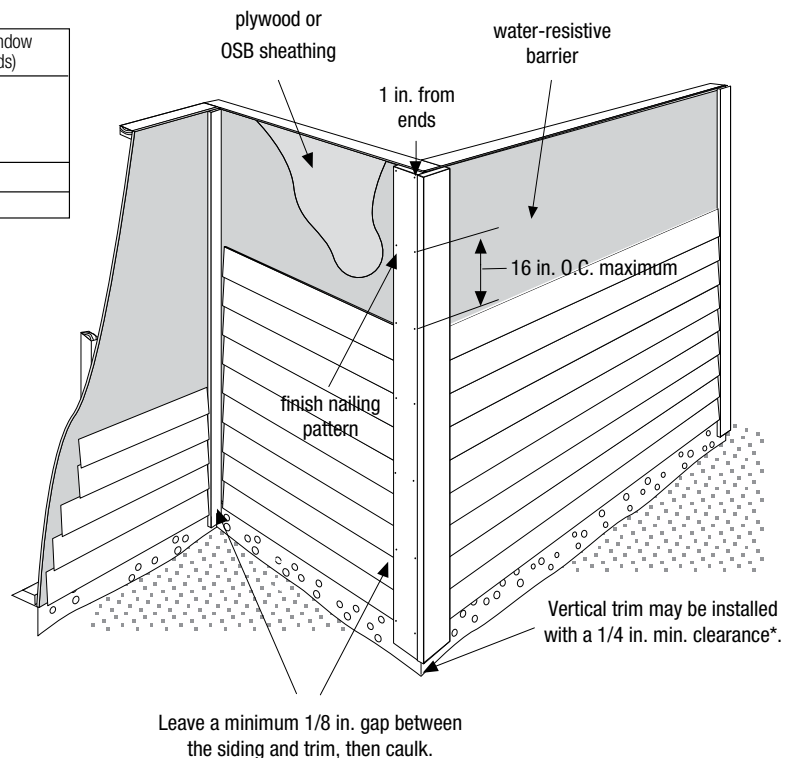


Figure 11

*Follow all applicable codes when installing HardieTrim boards





INSTALLATION

TRIMMING CORNERS

When installing corners or other vertical trim, position boards on the wall and attach (figure 12).

Pre-Built Corners

Alternatively, corners can be pre-built off the wall using 2 in. finishing nails. Each side of the pre-built corner must be secured to the wall (figure 13).

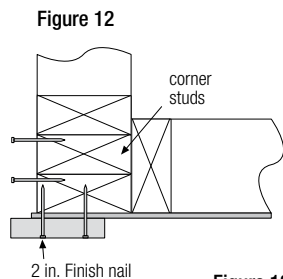
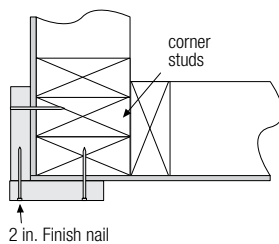
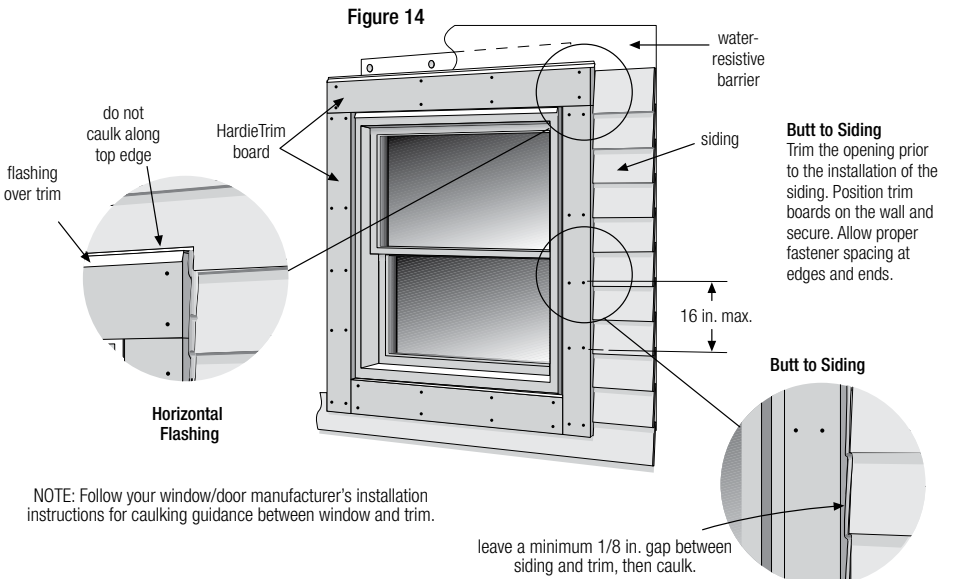


Figure 13



TRIM APPLICATION FOR WINDOWS, DOORS & OTHER OPENINGS

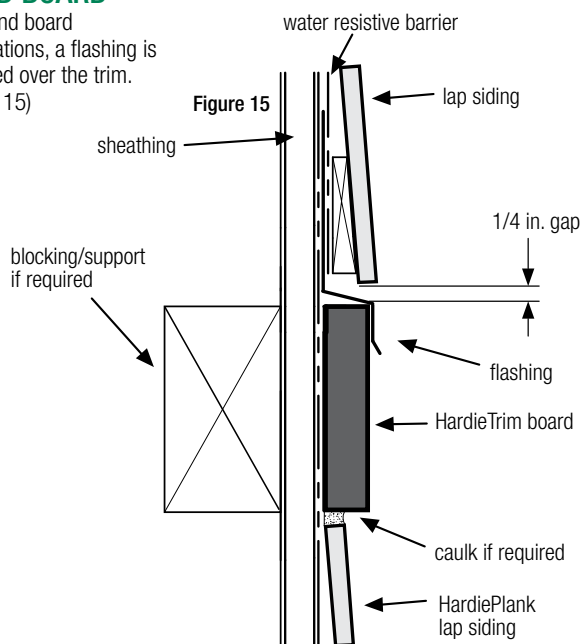
Flashing over trim is required per code for all installation methods. (figure 14)



NOTE: Follow your window/door manufacturer's installation instructions for caulking guidance between window and trim.

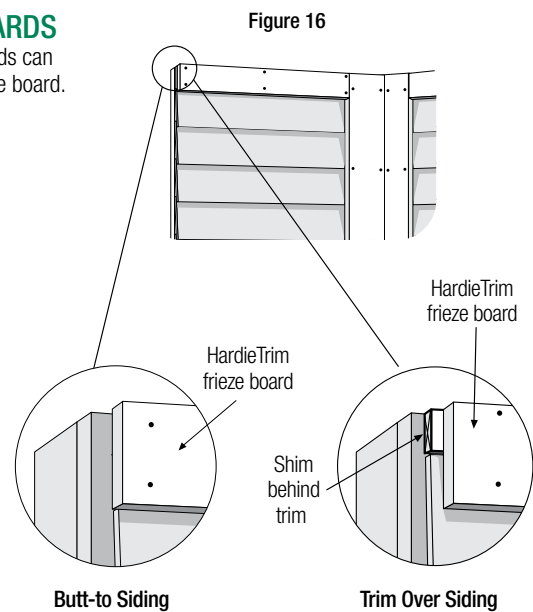
BAND BOARD

For band board applications, a flashing is required over the trim. (figure 15)



FRIEZE BOARDS

HardieTrim boards can be used as frieze board. (figure 16)





BATTEN BOARDS

HORIZONTAL PANEL JOINTS

At horizontal panel joints HardieTrim battens must be installed according to option 1 or 2 below. When installing HardieTrim Battens horizontally, they must be installed as a panel joint according to option 2.

Option 1

Figure 17 - No horizontal band board - Make a 22.5 - 45 degree weather cut, in the HardieTrim batten, just above the 1/4 in. clearance between panels.

Option 2

Figure 18 - Horizontal Band Board - Install a horizontal band board at the top of the bottom panel. Butt the lower batten to the band board and start the top batten at the bottom edge of the top panel. Maintain a 1/4 in. clearance above horizontal flashing.

Figure 17

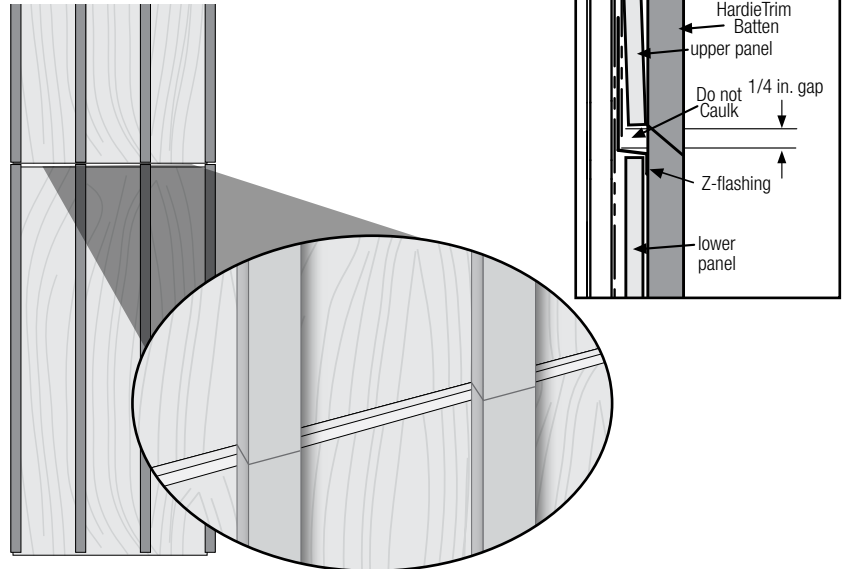
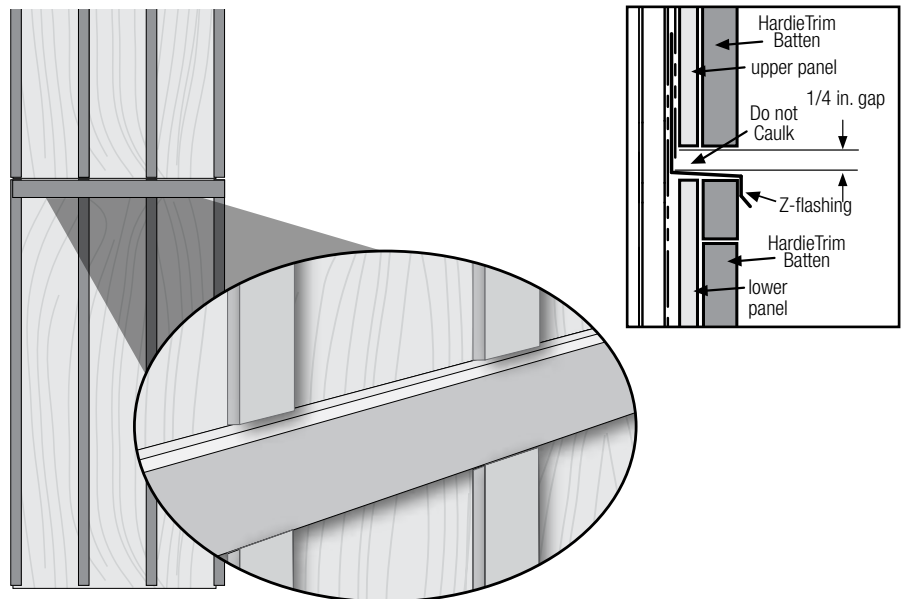


Figure 18





FASCIA

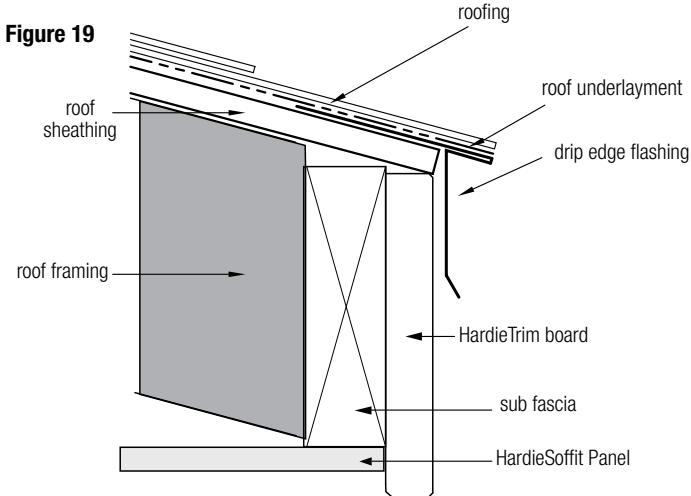
HardieTrim board is a decorative non-load bearing trim product. Do not use HardieTrim to replace any structural component.

HardieTrim boards can be fastened directly over a 2x sub-fascia or directly to rafter tails. Check local building code for relevant codes.

Option 1

Over sub-fascia: (figure 19)

When installing HardieTrim boards over solid 2x sub-fascia use minimum 2 in., 16 gauge corrosion resistant finish nails. (see fastener guide below)



Gutters:

James Hardie recommends the use of rain gutters whenever possible.

Do not attach gutters directly to HardieTrim

Use gutter hangers that attach through the roof sheathing into a rafter tail or other structural member.

Soffit

When installing HardieSoffit additional framing/blocking may be needed depending on application. Refer to HardieSoffit installation instructions for guidance.

Option 2

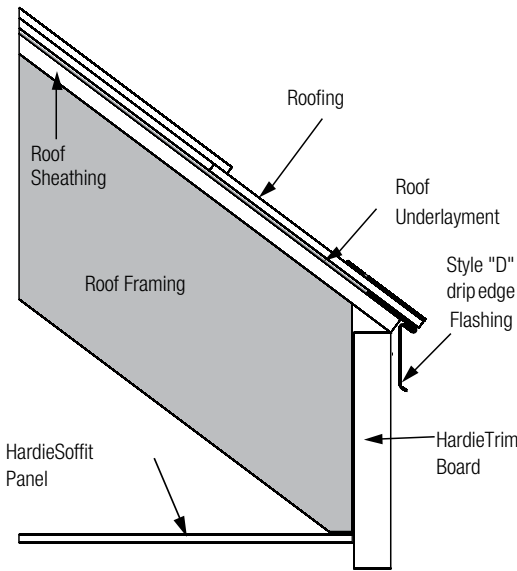
Direct to rafter tails: (figure 20)

When installing HardieTrim boards without the presence of a 2x sub-fascia, a minimum 8d siding corrosion resistant nails must be used to attach HardieTrim boards DO NOT use finish nails. (refer to fastener guide below).

Fascia Fastener Guide

HardieTrim Board	FASTENER SPACING	
	Direct to Rafter (min 8d siding)	Over 2x Sub-fascia (Minimum 2 in. 16 ga. Finish nails)
6 in.	2 nails every rafter spaced max 24 in. O.C.	2 nails spaced maximum 16 in. O.C.
8 in.	3 nails every rafter spaced max 24 in. O.C.	3 nails spaced maximum 16 in. O.C.
10 in.		4 nails spaced maximum 16 in. O.C.

Figure 20





HARDIETRIM® TABS

FASTENER REQUIREMENTS

For Corners, Band Boards, Windows, and Door Applications:

HardieTrim boards may be installed with HardieTrim™ Flat Tabs and HardieTrim™ Corner Tabs which provide concealed fastening. Only HardieTrim Flat and Corner Tabs can be used with HardieTrim boards to create a concealed fastening.

Step 1: Attach HardieTrim Flat Tabs to the back side of the trim using four, 18 ga. 1/2 in. L x 1/4 in. W narrow crown corrosion resistant staples, equally spaced in one row, positioned no closer than 1/2 in. from trim edges using a pneumatic staple gun. (figures 21, 22)

Step 2: For wood frame construction, attach the trim to the building with minimum 2, 6d siding nails fastened through the HardieTrim Flat Tabs (figure 23). ET&F or equivalent fasteners may be used to attach the HardieTrim Flat Tabs to steel frame construction.

Fastener spacing will vary based on application. Refer to fastener table on page 9. Refer to specific sections in these instructions for required fastener spacing by application (window, band board, etc.)

For Fascia, Rake, and Frieze board Applications:

HardieTrim tabs cannot be used in fascia, rake, or frieze board applications. Follow Face nailing fastening specifications.

Installation of HardieTrim tabs in Coastal Regions:

James Hardie requires that stainless steel staples & fasteners be used when installing HardieTrim Tabs in coastal regions.

Installation of HardieTrim Tabs over Pressure Treated Lumber: HardieTrim tabs **shall not** come in direct contact with ACQ or CA preservative-treated wood. Refer to the General Fastening section of this document for further information.

HardieTrim boards with ColorPlus Technology: Remove the laminate sheet as soon as possible after attaching the trim to the building.

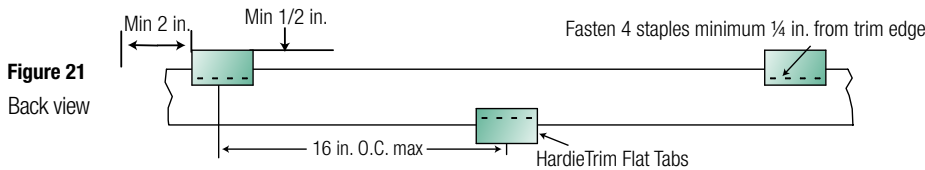


Figure 23

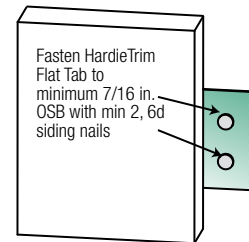
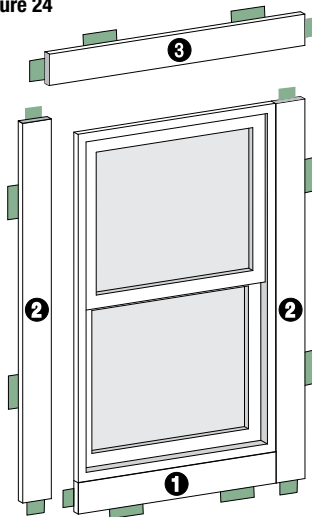


Figure 24



Trim Application for Windows, Doors & Other Openings

Trim the opening prior to the installation of the siding. Place a Flat Tab at the end of each trim board and one tab every 16 in. OC. Attach the trim boards and Flat Tabs around the opening as shown in figure 24. Use 16 ga. galvanized 2 in. long finish nails to ensure proper fastening if needed.

Flush	HardieTrim Flat and Corner Tabs	
Siding nail attaches tab to the wall.	Do not under drive nails.	Only use staples to fasten HardieTrim Flat and Corner Tabs to the trim boards.

NOTE: Follow your window/door manufacturers installation instructions for caulking guidance between window and trim.





TRIMMING CORNERS

When using HardieTrim tabs prebuild outside corners off the wall.

- Attach HardieTrim Corner Tabs to the back side of the trim using eight(8) - 18 ga. 1/2 in. L x 1/4 in. W narrow crown corrosion resistant staples using a pneumatic stapler. Ensure the HardieTrim Corner Tabs are fastened tight and straight to the trim boards. (figure 25)
- For wood frame construction, attach trim to building using min. 6d siding nails fastened through the HardieTrim Corner Tabs attached to minimum 7/16 in. OSB *. (figure 26)
- Attach a HardieTrim Corner Tab 1 in. from each ends and every 20 in. O.C.
- TIP: Creating a jig for the work station is recommended to ensure corners are fastened securely and straight. (figure 27)

Figure 25

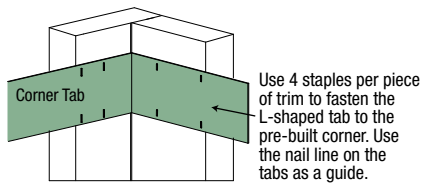


Figure 26

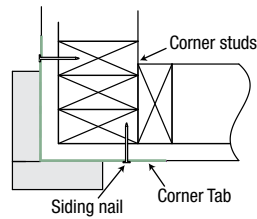
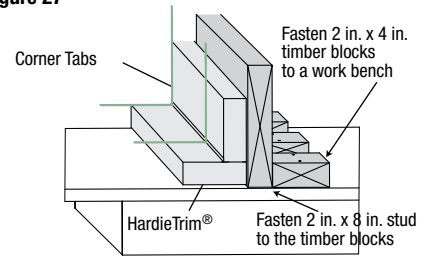


Figure 27



BAND BOARD

Terminate ends of the Band Board into Trim or Siding or miter cut the edges of the trim at the corners of the building. Place a HardieTrim Flat Tab at the end of each trim board and one tab every stud at a maximum of 16 in. O.C. The HardieTrim Flat Tabs should be attached to the trim in an alternating pattern to the top and bottom of the band board (figures 21, 22). Use 16 ga. galvanized 2 in. long finish nails to ensure proper fastening if needed.

Trim Tab Fastener Table

Application	Framing Material Tab is nailed into	Fastener (tab to framing)	Fastener (tab to trim)	Max Tab Spacing (inches on center)
Flat Tab	Wood Stud (minimum G=0.42)	One 6d corrosion resistant siding nail installed through center of tab into framing	Four 18 ga. X 1/2 in. long X 1/4 in. wide corrosion resistant crown staples, equally spaced in one row	16
	Minimum APA rated 7/16 in. OSB	Two 4d ring shank corrosion resistant siding nails equally spaced installed through tab into framing		
	Minimum 20 gauge steel	One No. 8 X 1 in. long X 0.323 in. head diameter screw (corrosion resistant) installed through flange into framing		
Corner Tab	Wood Stud (minimum G=0.42)	On each flange, install one 6d corrosion resistant siding nail through tab into framing	For each piece of trim, install Four 18 ga. X 1/2 in. long X 1/4 in. wide corrosion resistant crown staples, equally space in two rows	20
	Minimum APA rated 7/16 in. OSB	On each flange, install two 4d ring shank corrosion resistant siding nails through tab into framing		
	Minimum 20 gauge steel	On each flange, install one No. 8 X 1 in. long X 0.323 in. head diameter screw (corrosion resistant) through tab into framing		





FINISHING

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie Products. James Hardie products must be painted within 180 days for primed product and 90 days for unprimed. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

COLORPLUS TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie® ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coat, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE SIDING AND TRIM PRODUCTS WITH COLORPLUS TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

TR1509_P9/9 09/19

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

! WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in: the 2006, 2009, & 2012 International Residential Code for One- and Two-Family Dwellings, and the 2006, 2009, & 2012 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida listing FL#889, Dade County, Florida NOA No. 02-0729.02, U.S. Dept. of HUD Materials Release 1263c, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

DOUBLE HUNG

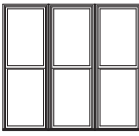
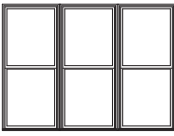
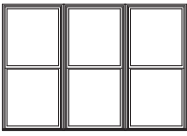
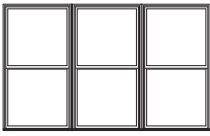
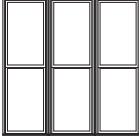
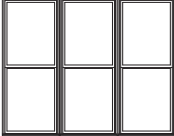
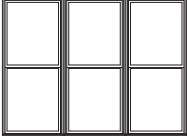
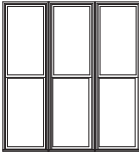
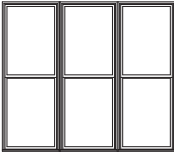
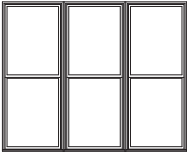
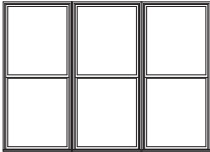
MO (mm)	1' - 6" (457)	2' - 0" (610)	2' - 6" (762)	2' - 8" (813)	3' - 0" (914)	3' - 6" (1067)	4' - 0" (1219)
RO (mm)	1' - 6" (457)	2' - 0" (610)	2' - 6" (762)	2' - 8" (813)	3' - 0" (914)	3' - 6" (1067)	4' - 0" (1219)
FS (mm)	1' - 5 1/2" (445)	1' - 11 1/2" (597)	2' - 5 1/2" (749)	2' - 7 1/2" (800)	2' - 11 1/2" (902)	3' - 5 1/2" (1054)	3' - 11 1/2" (1207)
DLO (mm)	12 9/16" (319)	18 9/16" (471)	24 9/16" (624)	26 9/16" (675)	30 9/16" (776)	36 9/16" (929)	42 9/16" (1081)
MO (mm)	1' - 11 3/4" (603)	2' - 0" (610)	2' - 6" (762)	2' - 8" (813)	3' - 0" (914)	3' - 6" (1067)	4' - 0" (1219)
RO (mm)	2' - 5 3/4" (756)	2' - 6" (762)	2' - 5 1/2" (749)	2' - 11 1/2" (902)	2' - 11 1/2" (902)	3' - 5 1/2" (1054)	3' - 11 1/2" (1207)
FS (mm)	2' - 5 3/4" (756)	2' - 6" (762)	2' - 5 1/2" (749)	2' - 11 1/2" (902)	2' - 11 1/2" (902)	3' - 5 1/2" (1054)	3' - 11 1/2" (1207)
DLO (mm)	11 5/16" (287)	11 5/16" (287)	11 5/16" (287)	14 5/16" (363)	14 5/16" (363)	17 5/16" (440)	20 5/16" (516)
MO (mm)	3' - 5 3/4" (1060)	3' - 6" (1067)	3' - 5 1/2" (1054)	3' - 11 3/4" (1213)	3' - 11 3/4" (1213)	4' - 5 3/4" (1365)	4' - 6" (1372)
RO (mm)	3' - 5 3/4" (1060)	3' - 6" (1067)	3' - 5 1/2" (1054)	3' - 11 3/4" (1213)	3' - 11 3/4" (1213)	4' - 5 3/4" (1365)	4' - 6" (1372)
FS (mm)	3' - 5 3/4" (1060)	3' - 6" (1067)	3' - 5 1/2" (1054)	3' - 11 3/4" (1213)	3' - 11 3/4" (1213)	4' - 5 3/4" (1365)	4' - 6" (1372)
DLO (mm)	17 5/16" (440)	17 5/16" (440)	17 5/16" (440)	20 5/16" (516)	20 5/16" (516)	23 5/16" (592)	26 5/16" (668)
MO (mm)	4' - 5 3/4" (1365)	4' - 6" (1372)	4' - 5 1/2" (1359)	4' - 11 3/4" (1518)	4' - 11 3/4" (1518)	5' - 5 3/4" (1670)	5' - 6" (1676)
RO (mm)	4' - 5 3/4" (1365)	4' - 6" (1372)	4' - 5 1/2" (1359)	4' - 11 3/4" (1518)	4' - 11 3/4" (1518)	5' - 5 3/4" (1670)	5' - 6" (1676)
FS (mm)	4' - 5 3/4" (1365)	4' - 6" (1372)	4' - 5 1/2" (1359)	4' - 11 3/4" (1518)	4' - 11 3/4" (1518)	5' - 5 3/4" (1670)	5' - 6" (1676)
DLO (mm)	23 5/16" (592)	23 5/16" (592)	23 5/16" (592)	26 5/16" (668)	26 5/16" (668)	29 5/16" (744)	32 5/16" (821)
MO (mm)	5' - 5 3/4" (1670)	5' - 6" (1676)	5' - 5 1/2" (1664)	5' - 11 3/4" (1822)	5' - 11 3/4" (1822)	6' - 5 3/4" (1975)	6' - 6" (1981)
RO (mm)	5' - 5 3/4" (1670)	5' - 6" (1676)	5' - 5 1/2" (1664)	5' - 11 3/4" (1822)	5' - 11 3/4" (1822)	6' - 5 3/4" (1975)	6' - 6" (1981)
FS (mm)	5' - 5 3/4" (1670)	5' - 6" (1676)	5' - 5 1/2" (1664)	5' - 11 3/4" (1822)	5' - 11 3/4" (1822)	6' - 5 3/4" (1975)	6' - 6" (1981)
DLO (mm)	29 5/16" (744)	29 5/16" (744)	29 5/16" (744)	32 5/16" (821)	32 5/16" (821)	35 5/16" (897)	38 5/16" (973)
MO (mm)	6' - 5 3/4" (1975)	6' - 6" (1981)	6' - 5 1/2" (1969)	6' - 11 3/4" (2127)	6' - 11 3/4" (2127)	7' - 5 3/4" (2285)	7' - 6" (2291)
RO (mm)	6' - 5 3/4" (1975)	6' - 6" (1981)	6' - 5 1/2" (1969)	6' - 11 3/4" (2127)	6' - 11 3/4" (2127)	7' - 5 3/4" (2285)	7' - 6" (2291)
FS (mm)	6' - 5 3/4" (1975)	6' - 6" (1981)	6' - 5 1/2" (1969)	6' - 11 3/4" (2127)	6' - 11 3/4" (2127)	7' - 5 3/4" (2285)	7' - 6" (2291)
DLO (mm)	35 5/16" (897)	35 5/16" (897)	35 5/16" (897)	38 5/16" (973)	38 5/16" (973)	41 5/16" (1053)	44 5/16" (1133)

DOUBLE HUNG

2 Wide

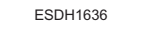
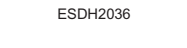
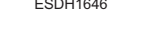
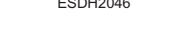
MO (mm)	3' - 0" (914)	4' - 0" (1219)	5' - 0" (1524)	5' - 4" (1626)	6' - 0" (1829)	7' - 0" (2134)	8' - 0" (2438)
RO (mm)	3' - 0" (914)	4' - 0" (1219)	5' - 0" (1524)	5' - 4" (1626)	6' - 0" (1829)	7' - 0" (2134)	8' - 0" (2438)
FS (mm)	2' - 11 1/2" (902)	3' - 11 1/2" (1207)	4' - 11 1/2" (1511)	5' - 3 1/2" (1600)	5' - 11 1/2" (1816)	6' - 11 1/2" (2121)	7' - 11 1/2" (2426)
1' - 11 3/4" (603) 2' - 0" (610) 2' - 11 1/2" (697)	 ESDH1620	 ESDH2020	 ESDH2620	 ESDH2820	 ESDH3020	 ESDH3620	 ESDH4020
2' - 5 3/4" (756) 2' - 6" (762) 2' - 5 1/2" (749)	 ESDH1626	 ESDH2026	 ESDH2626	 ESDH2826	 ESDH3026	 ESDH3626	 ESDH4026
2' - 11 3/4" (908) 3' - 0" (914) 2' - 11 1/2" (902)	 ESDH1630	 ESDH2030	 ESDH2630	 ESDH2830	 ESDH3030	 ESDH3630	 ESDH4030
3' - 5 3/4" (1060) 3' - 6" (1067) 3' - 5 1/2" (1054)	 ESDH1636	 ESDH2036	 ESDH2636	 ESDH2836	 ESDH3036	 ESDH3636	 ESDH4036
3' - 11 3/4" (1213) 4' - 0" (1219) 3' - 11 1/2" (1207)	 ESDH1640	 ESDH2040	 ESDH2640	 ESDH2840	 ESDH3040	 ESDH3640	 ESDH4040
4' - 5 3/4" (1365) 4' - 6" (1372) 4' - 5 1/2" (1359)	 ESDH1646	 ESDH2046	 ESDH2646	 ESDH2846	 ESDH3046	 ESDH3646	 ESDH4046
4' - 11 3/4" (1518) 5' - 0" (1524) 4' - 11 1/2" (1511)	 ESDH1650	 ESDH2050	 ESDH2650	 ESDH2850	 ESDH3050 E	 ESDH3650 E	 ESDH4050 E
5' - 5 3/4" (1670) 5' - 6" (1676) 5' - 5 1/2" (1664)	 ESDH1656	 ESDH2056	 ESDH2656	 ESDH2856	 ESDH3056 E	 ESDH3656 E	 ESDH4056 E
5' - 11 3/4" (1822) 6' - 0" (1829) 5' - 11 1/2" (1816)	 ESDH1660	 ESDH2060	 ESDH2660 E	 ESDH2860 E	 ESDH3060 E	 ESDH3660 E	 ESDH4060 E
6' - 5 3/4" (1975) 6' - 6" (1981) 6' - 5 1/2" (1969)	 ESDH1666	 ESDH2066	 ESDH2666 E	 ESDH2866 E	 ESDH3066 E	 ESDH3660 E	 ESDH4066 E

3 Wide

MO (mm)	4' - 6" (1372)	6' - 0" (1829)	7' - 6" (2286)	8' - 0" (2438)	9' - 0" (2743)
RO (mm)	4' - 6" (1372)	6' - 0" (1829)	7' - 6" (2286)	8' - 0" (2438)	9' - 0" (2743)
FS (mm)	4' - 5 1/2" (1359)	5' - 11 1/2" (1816)	7' - 5 1/2" (2273)	7' 11 1/2" (2413)	8' - 11 1/2" (2731)
1' - 11 3/4" (603) 2' - 0" (610) 2' - 5 3/4" (756) 2' - 6" (762) 2' - 5 1/2" (749)	 ESDH1620	 ESDH2020	 ESDH2620	 ESDH2820	 ESDH3026
2' - 5 3/4" (756) 2' - 6" (762) 2' - 5 1/2" (749)	 ESDH1626	 ESDH2026	 ESDH2626	 ESDH2826	 ESDH3026
2' - 11 3/4" (908) 3' - 0" (914) 2' - 11 1/2" (902)	 ESDH1630	 ESDH2030	 ESDH2630	 ESDH2830	 ESDH3030
3' - 5 3/4" (1060) 3' - 6" (1067) 3' - 5 1/2" (1054)	 ESDH1636	 ESDH2036	 ESDH2636	 ESDH2836	 ESDH3036
3' - 11 3/4" (1213) 4' - 0" (1219) 3' - 11 1/2" (1207)	 ESDH1640	 ESDH2040	 ESDH2640	 ESDH2840	 ESDH3040
4' - 5 3/4" (1365) 4' - 6" (1372) 4' - 5 1/2" (1359)	 ESDH1646	 ESDH2046	 ESDH2646	 ESDH2846	 ESDH3046
4' - 11 3/4" (1518) 5' - 0" (1524) 4' - 11 1/2" (1511)	 ESDH1650	 ESDH2050	 ESDH2650	 ESDH2850	 ESDH3050 E
5' - 5 3/4" (1670) 5' - 6" (1676) 5' - 5 1/2" (1664)	 ESDH1656	 ESDH2056	 ESDH2656	 ESDH2856	 ESDH3056 E
5' - 11 3/4" (1822) 6' - 0" (1829) 5' - 11 1/2" (1816)	 ESDH1660	 ESDH2060	 ESDH2660 E	 ESDH2860 E	 ESDH3060 E
6' - 5 3/4" (1975) 6' - 6" (1981) 6' - 5 1/2" (1969)	 ESDH1666	 ESDH2066	 ESDH2666 E	 ESDH2866 E	 ESDH3066 E

DOUBLE HUNG

4 Wide

MO (mm)	6' - 0" (1829)	8' - 0" (2438)
RO (mm)	6' - 0" (1829)	8' - 0" (2438)
FS (mm)	5' - 11 1/2" (1816)	7' - 11 1/2" (2426)
1' - 11 3/4" (603)		
2' - 0" (610)	ESDH1620	ESDH2020
2' - 5 3/4" (756)		
2' - 6" (762)	ESDH1626	ESDH2026
2' - 11 3/4" (908)		
3' - 0" (914)	ESDH1630	ESDH2030
3' - 5 3/4" (1060)		
3' - 6" (1067)	ESDH1636	ESDH2036
3' - 11 1/2" (1207)		
4' - 0" (1219)	ESDH1640	ESDH2040
4' - 5 3/4" (1365)		
4' - 6" (1372)	ESDH1646	ESDH2046
4' - 11 3/4" (1518)		
5' - 0" (1524)	ESDH1650	ESDH2050
5' - 5 3/4" (1670)		
5' - 6" (1676)	ESDH1656	ESDH2056
5' - 11 1/2" (1816)		
6' - 0" (1829)	ESDH1660	ESDH2060
6' - 5 3/4" (1975)		
6' - 6" (1981)	ESDH1666	ESDH2066

GBG available in standard Rectangular lite cut, shown. Other GBG lite cuts shown on page 3.

E = These windows (in equal sash) meet National Egress Codes for fire evacuation. Local codes may differ.

Details and Elevations not to scale.

Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available on 20, 60, and 66 call number heights.

Obscure Glass option available on all units.

Units may optionally include a window opening control device tested to ASTM F2090-10, which can be released from the inside without the use of a key, tool, special knowledge, or force greater than that required for normal unit operation.

Special sized units available within product size matrix. See your Marvin retailer.

See page 52 for specific PG Ratings.

For further details and drawings visit the 'Tools and Documents' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory mullied.

MAXIMUM ROUGH OPENING not to exceed 114" x 78".

Maximum up to 6 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 96" x 96".

Maximum up to 5 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

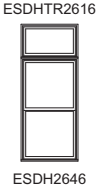
MARVIN ESSENTIAL™ COLLECTION

DOUBLE HUNG - Transoms and Multiple Assemblies

Transom Muller Over Double Hung

MO (mm)	2' - 6" (762)
RO (mm)	2' - 6" (762)
FS (mm)	2' - 5 1/2" (749)

5' - 11 3/4" (1822)
6' - 0" (1829)
5' - 11 1/2" (1816)



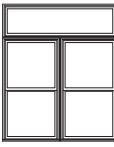
ESDHTR2616

ESDH2646

Transom Muller Over Double Hung 2 Wide

MO (mm)	5' - 0" (1524)
RO (mm)	5' - 0" (1524)
FS (mm)	4' - 11 1/2" (1511)

5' - 11 3/4" (1822)
6' - 0" (1829)
5' - 11 1/2" (1816)



ESDHTR5016

ESDH2646 / ESDH2646

Double Hung Flankers with Center Picture*

MO (mm)	10' - 0" (3048)
RO (mm)	10' - 0" (3048)
FS (mm)	9' - 11 1/2" (3035)

4' - 5 3/4" (1365)
4' - 6" (1372)
4' - 5 1/2" (1359)



ESDH2646 / ESDHP5046 / ESDH2646

Double Hung Flankers with Center Operator

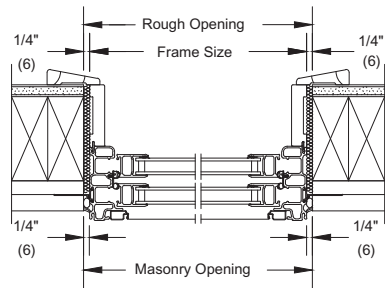
MO (mm)	7' - 6" (2286)
RO (mm)	7' - 6" (2286)
FS (mm)	7' - 5 1/2" (2273)

4' - 5 3/4" (1365)
4' - 6" (1372)
4' - 5 1/2" (1359)

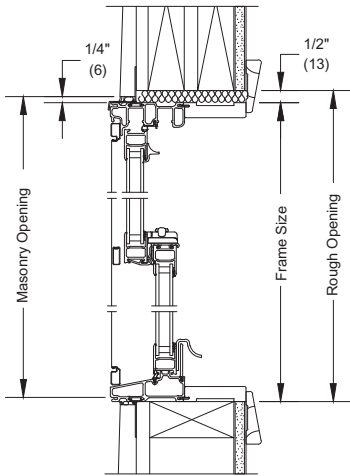


ESDH2646 / ESDH2646 / ESDH2646

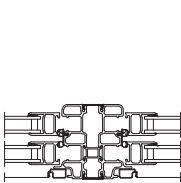
Construction Details



Jambs



Head Jamb
& Sill



Vertical Mullion



Horizontal Mullion
Transom/Operator

* This product is only available field muller.

Details and Elevations not to scale.

Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available on 20, 60, and 66 call number heights.

Obscure Glass option available on all units.

Special sized units available within product size matrix. See your Marvin retailer.

Units may optionally include a window opening control device tested to ASTM F2090-10, which can be released from the inside without the use of a key, tool, special knowledge, or force greater than that required for normal unit operation.

See page 52 for specific PG Ratings.

For further details and drawings visit the 'Tools and Documents' section at Marvin.com.

MULTIPLE ASSEMBLIES

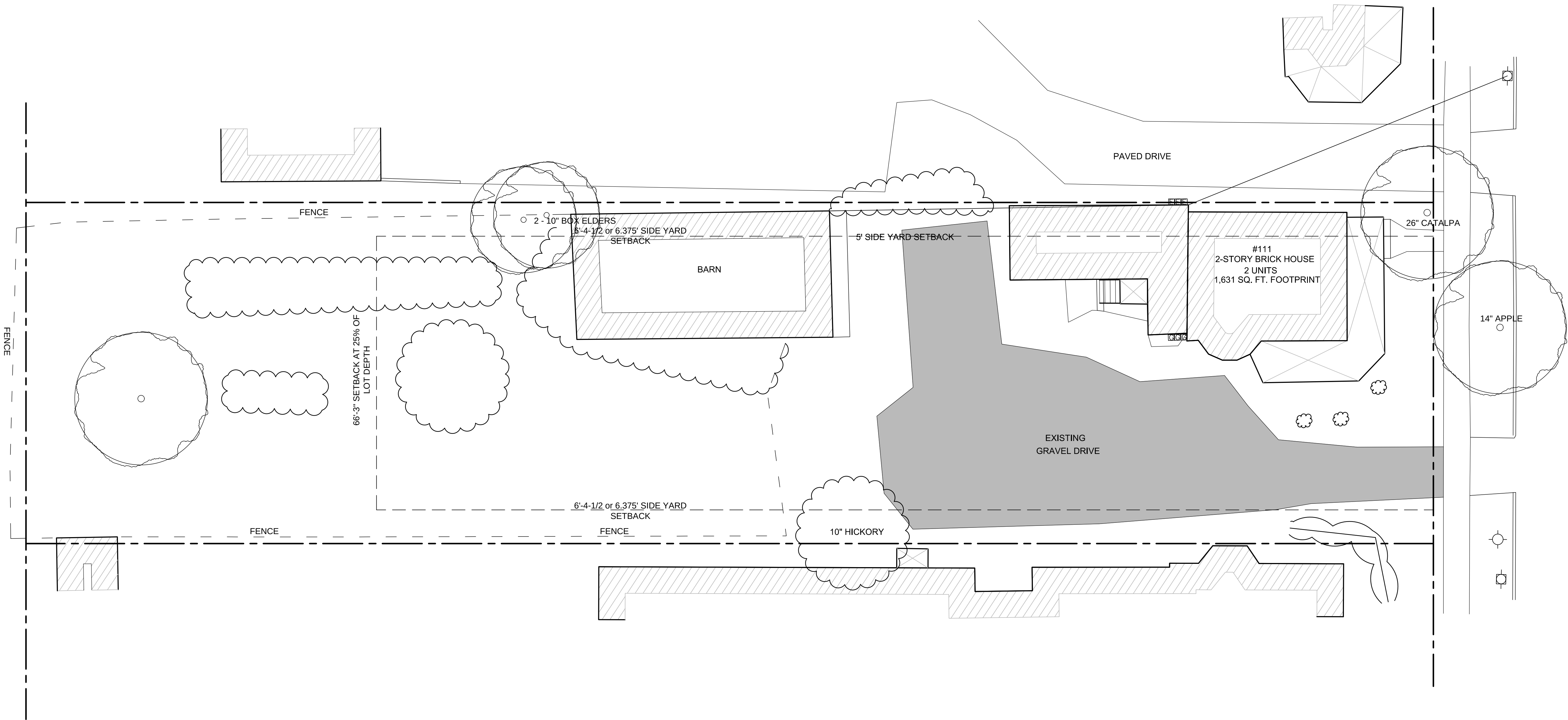
Multiple assemblies can be factory muller.

MAXIMUM ROUGH OPENING not to exceed 114" x 78". Maximum up to 6 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 96" x 96". Maximum up to 5 units wide by 5 units high.

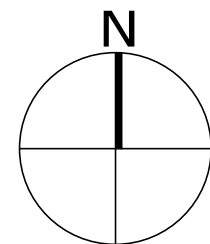
Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.



EX100 - EXISTING CONDITIONS

SCALE: 1"=10'-0"



NORTH WINOOSKI AVENUE

ARCHITECT

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www.jrma designstudio.com

JRMA DESIGN STUDIO LLP
175 SUMMIT CIRCLE
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**111 NORTH WINOOSKI AVENUE
RESIDENCES**

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

CONTRACTOR
JT CONSTRUCTION

STAMP

Date	Issue
08/04/21	SCHEMATIC DESIGN
11/04/21	SCHEMATIC DESIGN UPDATED

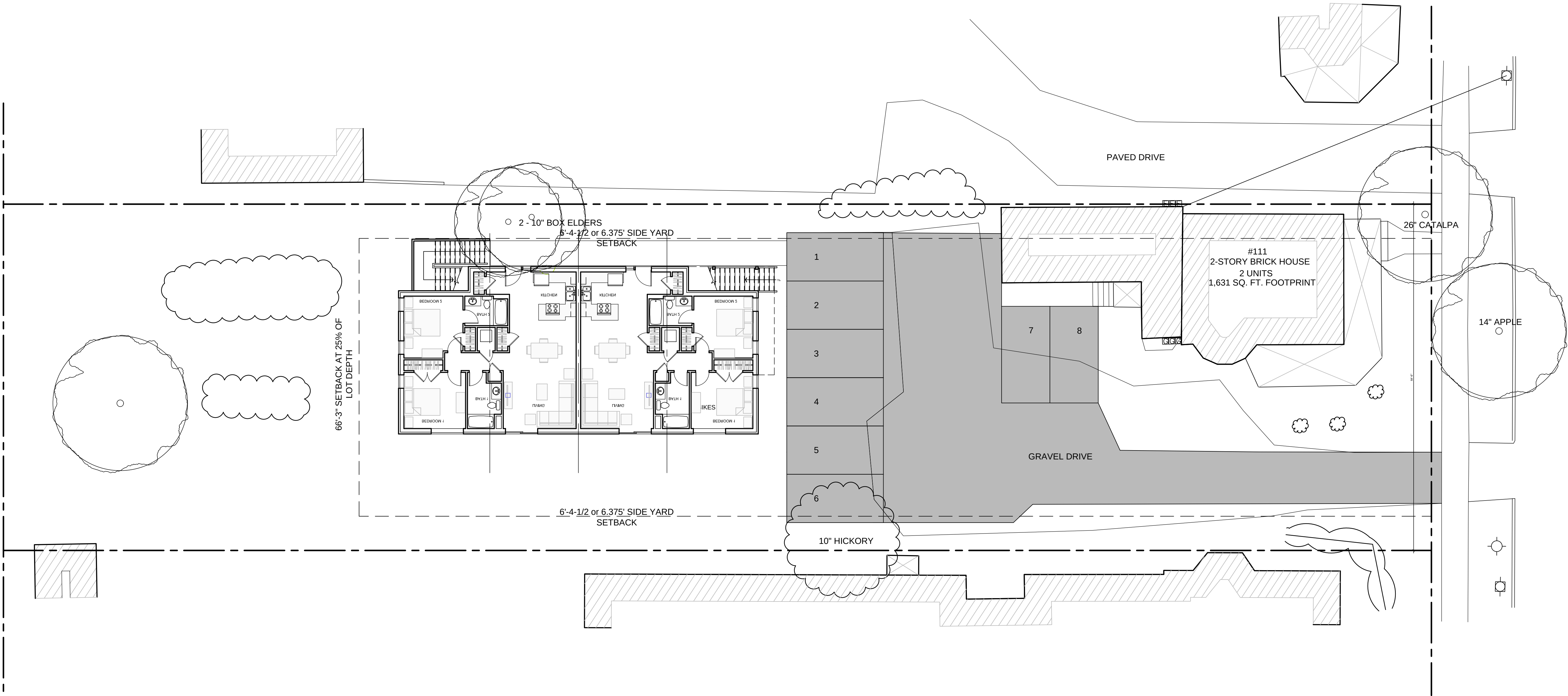
Drawing Title

**EXISTING
CONDITIONS**

Project No:	2021-203
Date:	08/04/2021
Scale:	AS-NOTED
Drawn by:	WJR/MFA

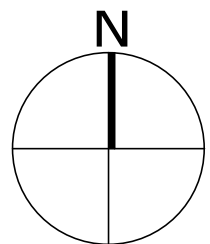
EX-100

2021 11 04 SCHEMATIC DESIGN



C200 - PROPOSED SITE PLAN

SCALE: 1"=10'-0"



ZONING DIMENSIONAL CRITERIA

	ZONING BY-LAW	EXISTING	ALLOWED
DISTRICT	MEDIUM DENSITY	MEDIUM DENSITY	MEDIUM DENSITY
MAX. RESIDENTIAL DENSITY	20 UNITS / ACRE 2,178 SQ. FT. / UNIT	2 UNITS	8 UNITS
MAX. BUILDING HEIGHT	35 FT.		35 FT.
MIN. LOT SIZE	N/A	17,157 SQ. FT.	17,157 SQ. FT.
MIN. FRONTAGE	30 FT.	64.5 FT.	64.5 FT.
FRONT YARD SETBACK	AVERAGE OF 2 ADJACENT LOTS	6 - 8 FT.	EXISTING
REAR SETBACK	25% OF LOT DEPTH - MIN. 20 FT.	0 - 5 FT.	66.25 FT.
SIDE SETBACK	10% OF LOT WIDTH OR AVE. OF 2 ADJACENT LOTS	0 - 5 FT.	6'-4 1/2" FT.
BUILDINGS	-----	1,313 SQ. FT.	3,285 SQ. FT.
WALKWAYS	-----	48 SQ. FT.	287 SQ. FT.
DRIVEWAY	-----	2,845 SQ. FT.	3,232 SQ. FT.
TOTAL LOT COVERAGE		4,206 SQ. FT.	6,804 SQ. FT.
LOT COVERAGE	40%	24.5%	39.6%
DECKS/PORCHES	10%	380 SQ. FT. - 2%	380 SQ. FT. - 2%
PARKING	2 PER UNIT	8 +/-	8
BICYCLE PARKING	1 PER 2 BEDROOMS	-----	10

ARCHITECT

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175 SUMMIT CIRCLE
SHELburnE VERMONT

111 NORTH WINOOSKI
RESIDENCES

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

CONTRACTOR
JT CONSTRUCTION

STAMP

Date Issue
08/04/21 SCHEMATIC DESIGN
11/04/21 SCHEMATIC DESIGN UPDATED

Drawing Title

PROPOSED
SITE PLAN

Project No: 2021-203
Date: 08/04/2021
Scale: AS-NOTED
Drawn by: WJR/MFA

C-200

111 NORTH WINOOSKI
RESIDENCES

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

CONTRACTOR
JT CONSTRUCTION

STAMP

Date	Issue
08/04/21	SCHEMATIC DESIGN
11/04/21	SCHEMATIC DESIGN UPDATED

Drawing Title

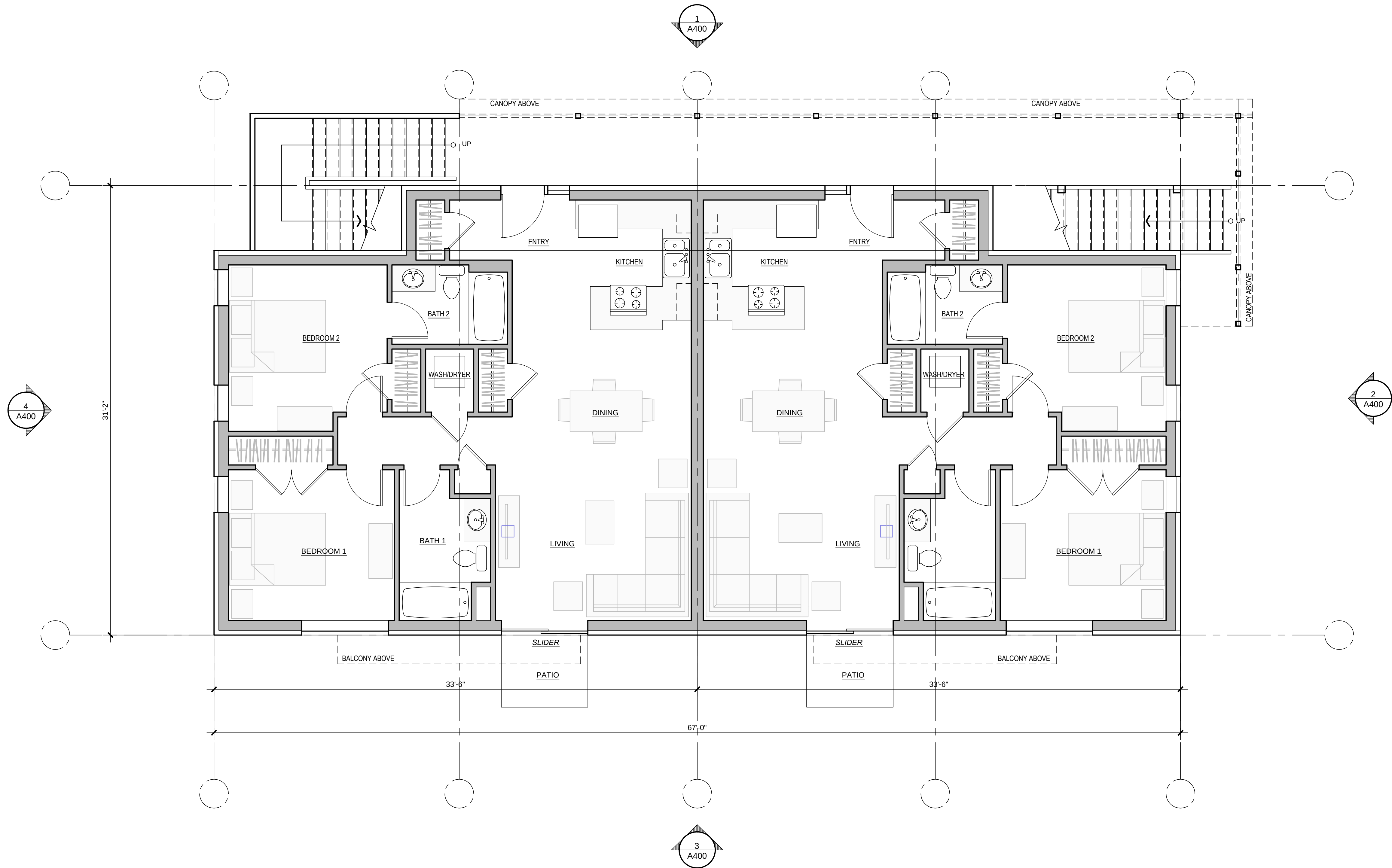
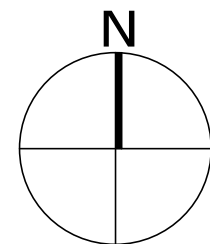
GROUND LEVEL

Project No:	2021-203
Date:	08/04/2021
Scale:	AS-NOTED
Drawn by:	WJR/MFA

A- 201

A201 - GROUND FLOOR PLAN

SCALE: 1/4"=1'-0"



2021 11 04 SCHEMATIC DESIGN

111 NORTH WINOOSKI
RESIDENCES

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111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

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JT CONSTRUCTION

STAMP

Date	Issue
08/04/21	SCHEMATIC DESIGN
11/04/21	SCHEMATIC DESIGN UPDATED

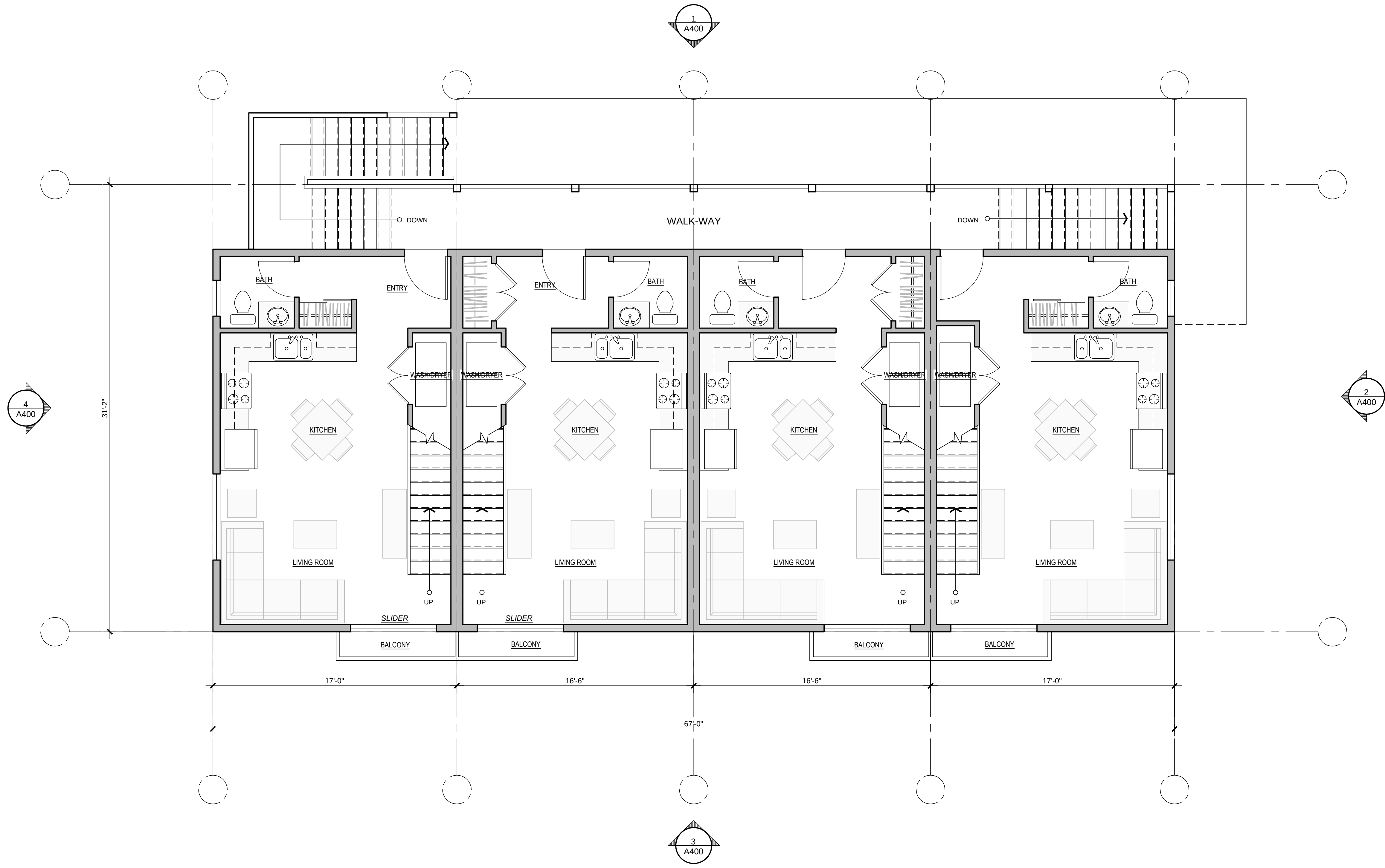
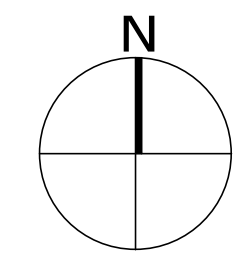
Drawing Title

SECOND LEVEL

Project No:	2021-203
Date:	08/04/2021
Scale:	AS-NOTED
Drawn by:	WJR/MFA

A202 - SECOND FLOOR PLAN

SCALE: 1/4"=1'-0"



111 NORTH WINOOSKI
RESIDENCES

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

CONTRACTOR
JT CONSTRUCTION

STAMP

Date	Issue
08/04/21	SCHEMATIC DESIGN
11/04/21	SCHEMATIC DESIGN UPDATED

Drawing Title

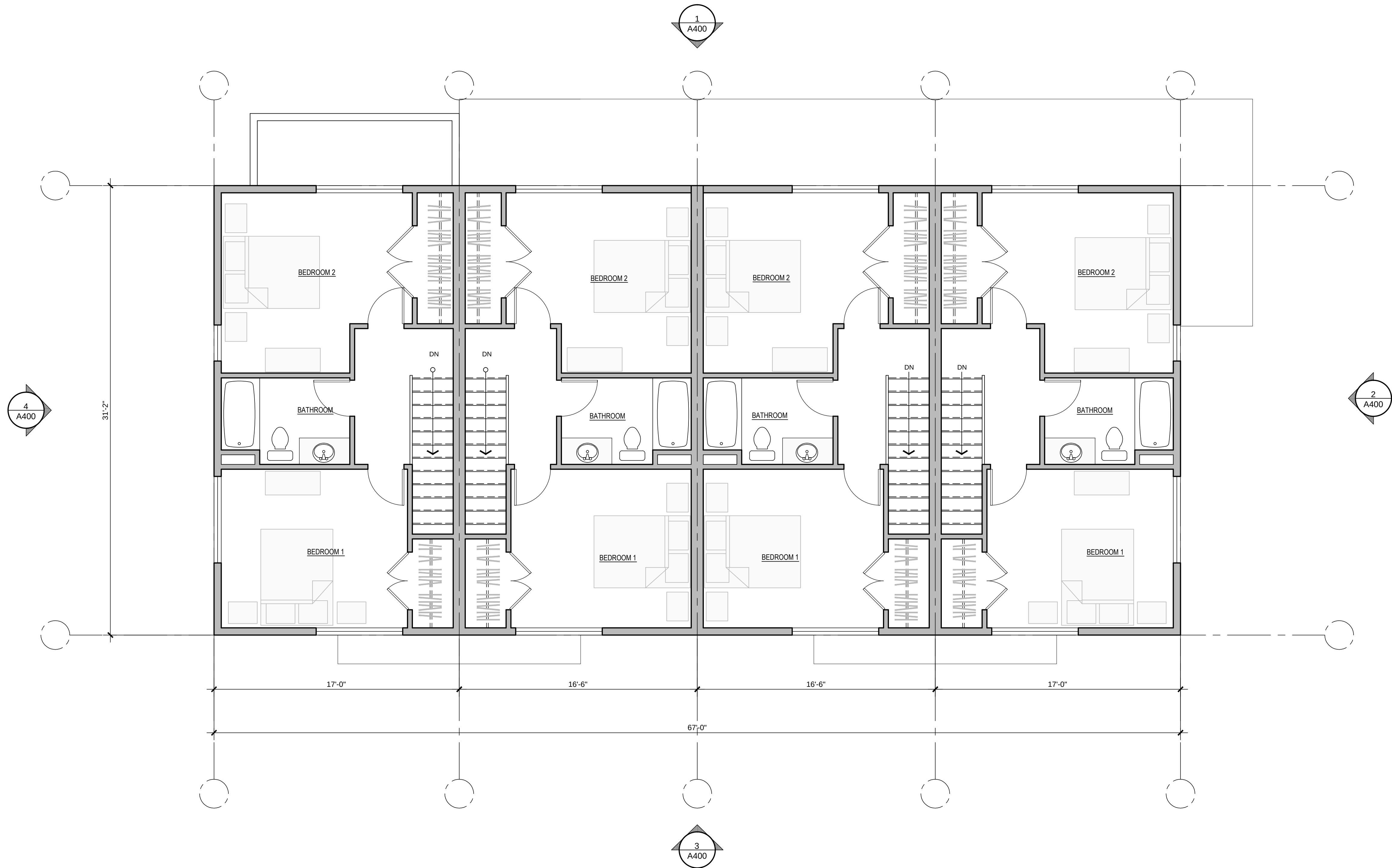
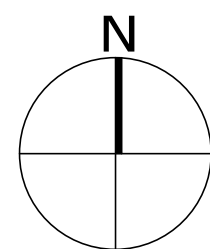
THIRD LEVEL

Project No:	2021-203
Date:	08/04/2021
Scale:	AS-NOTED
Drawn by:	WJR/MFA

A- 203

A203 - THIRD FLOOR PLAN

SCALE: 1/4"=1'-0"

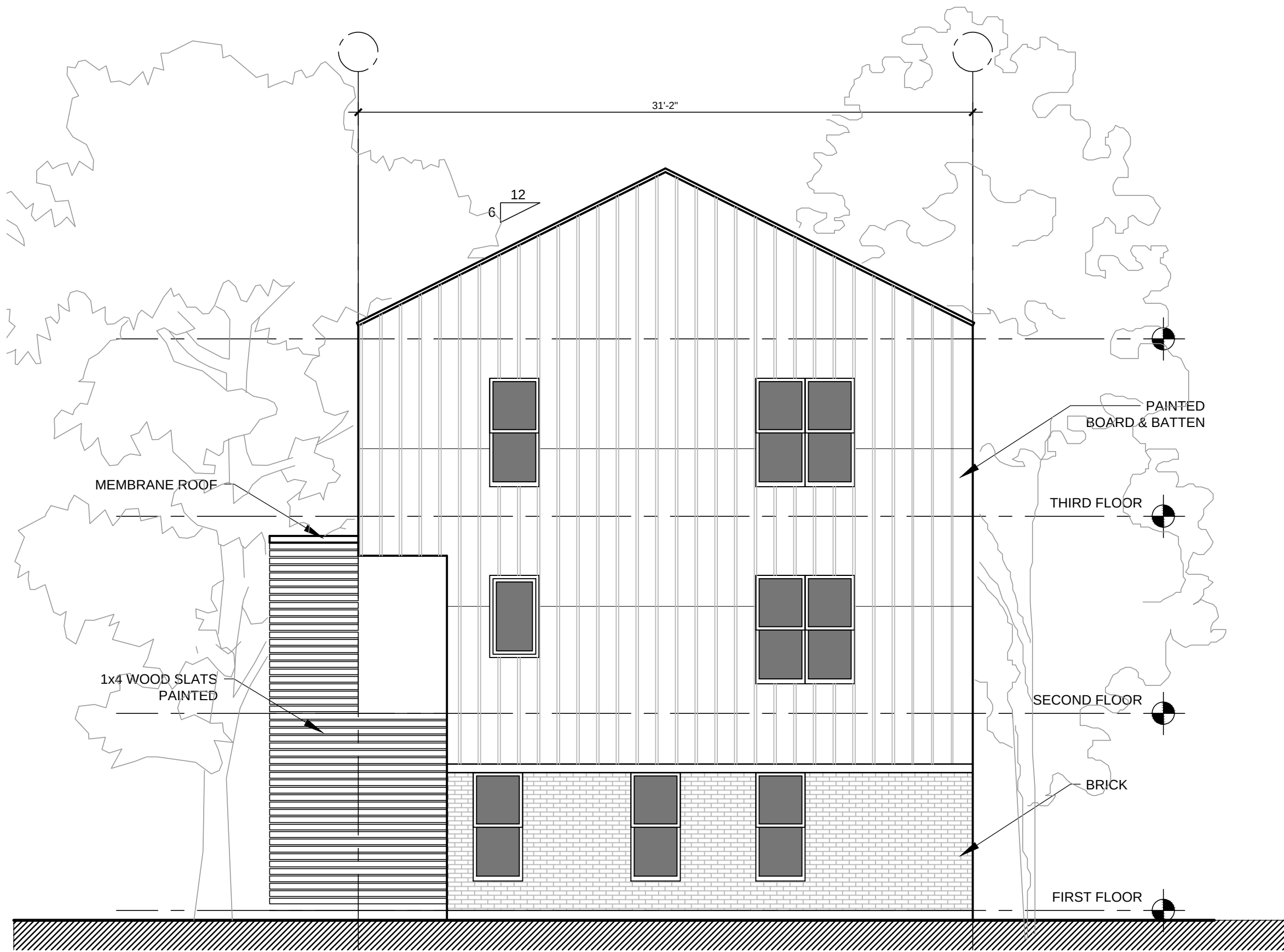


2021 11 04 SCHEMATIC DESIGN



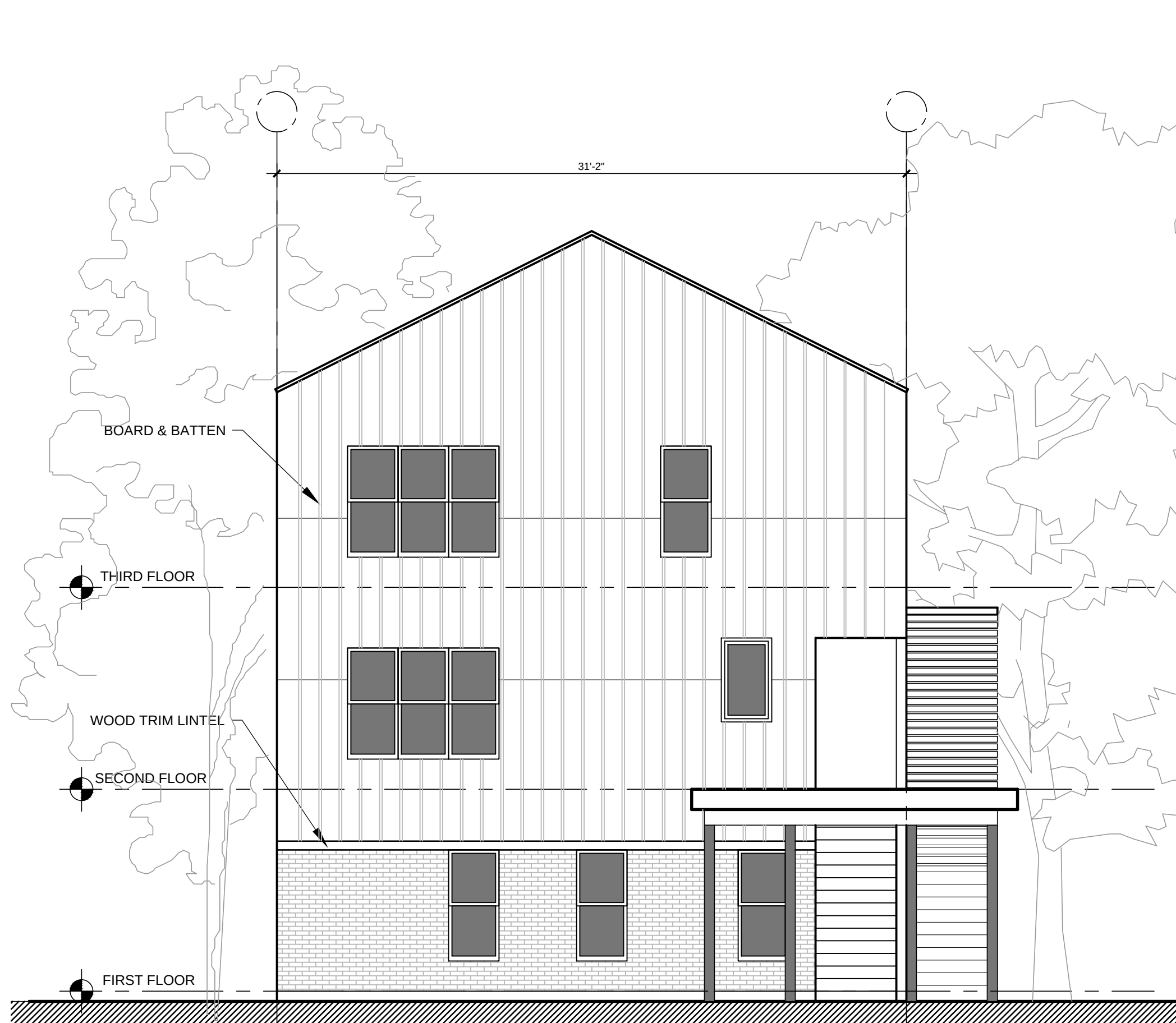
1-400 NORTH ELEVATION

SCALE: 1/4"=1'-0"



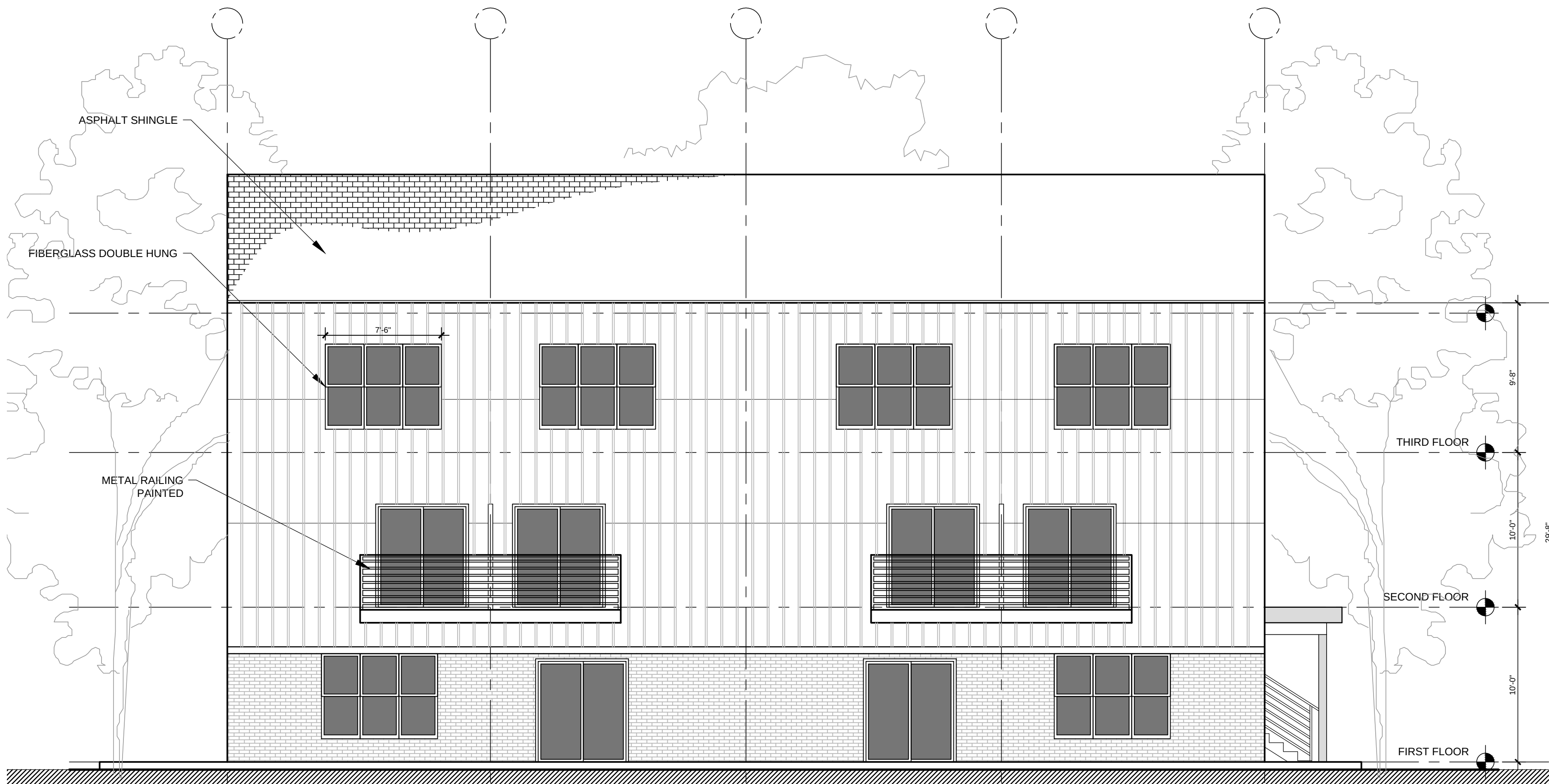
4-400 WEST ELEVATION

SCALE: 1/4"=1'-0"



2-400 EAST ELEVATION

SCALE: 1/4"=1'-0"



3-400 SOUTH ELEVATION

SCALE: 1/4"=1'-0"

ARCHITECT

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111 NORTH WINOOSKI RESIDENCES

LOCATION

111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT
05401

OWNER

CONTRACTOR

JT CONSTRUCTION

STAMP

Date	Issue
08/04/21	SCHEMATIC DESIGN
11/04/21	SCHEMATIC DESIGN UPDATED

Drawing Title

ELEVATIONS

Project No: 2021-203

Date: 08/04/2021

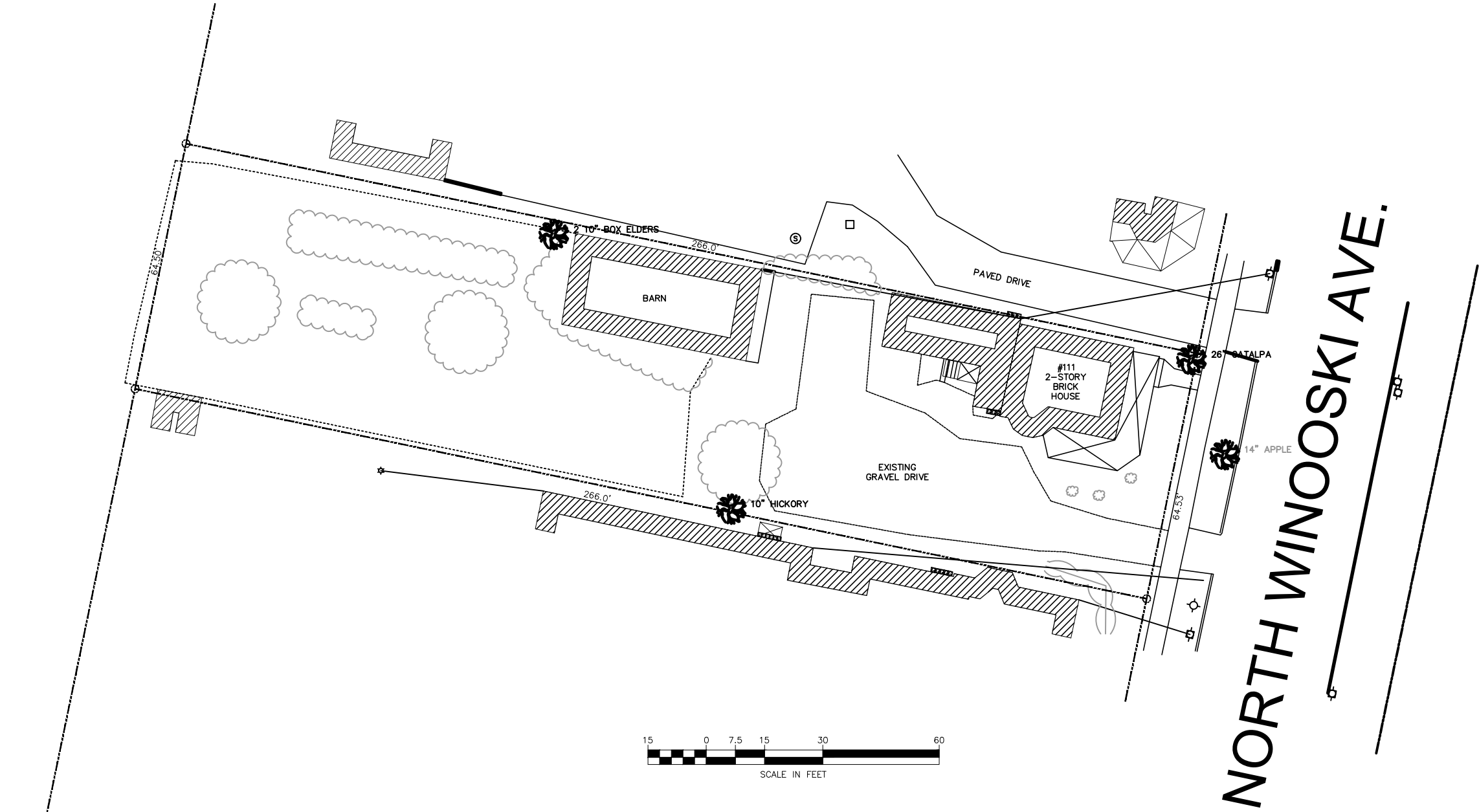
Scale: AS-NOTED

Drawn by: WJR/MFA

A- 400

2021 1104 SCHEMATIC DESIGN

I CERTIFY THAT THIS PLAT IS AN ORIGINAL INK ON MYLAR DRAWING. RICHARD W. BELL U.S.



LEGEND

- PROPERTY LINE
- RIGHT OF WAY OR PARCEL LINE
- CHAINLINK FENCE
- TREELINE
- UTILITY POLE
- GAS METER
- ELECTIC METER
- SEWER MANHOLE
- DECIDUOUS TREE
- DECIDUOUS SHRUB

SITE PLAN

111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT

C1

DWG. # S-1401
SHEET 1 OF 1



RICHARD W. BELL
LAND SURVEYING, INC.

297 SOUTH MAIN ST.
BARRE, VERMONT 05641

802-479-9262 C 802-793-5037

EMAIL: RBELL@RBELL-LANDSURVEYOR.COM

PROJECT #211401

PROJECT MANAGER: RWB

DESIGN

DRAFTER: MLC

CHECKED BY: RWB

DATE: JULY 1, 2021

SCALE: 1" = 15'

REVISIONS

GREGORY McKNIGHT II
Director

KATHLEEN BUTLER
Health Policy/Case Management Specialist

JEANNE FRANCIS
Zoning Specialist



CODE ENFORCEMENT OFFICE

645A Pine St, PO Box 849
Burlington, VT 05402-0849

VOICE (802) 863-0442

FAX: (802) 652-4221

Code Enforcement Admin

SUSAN
SHIRLEY G

Code Enforcement In

GEORGE COUTI
MATTHEW
FRANCES
DONALD R
JOHN

Zoning I

TIMOTHY A

STATE OF VERMONT
COUNTY OF CHITTENDEN

CITY OF BURLINGTON, VERMONT CODE ENFORCEMENT OFFICE
SUPPORTING AFFIDAVIT OF PROBABLE CAUSE
FOR PUBLIC SAFETY VIOLATION

Re: Public Safety Violations at 111 North Winooski Ave., Burlington, Vermont

Now comes Code Enforcement Officer John P. Ryan, Affiant, after being duly sworn and on oath deposes and says that he has probable cause to believe that George G. Munson, Owner(s) of record for the subject property, has committed the crime of non-compliance with a public safety order and has allowed various related property violations to exist at the subject premises located at 111 North Winooski Ave., and that the Affiant has probable cause to believe that the above-mentioned property constitutes a dangerous and unsafe property in violation of Article III. Abatement and Rehabilitation of Vacant Buildings and Dangerous Structures as established in the Code of Ordinances of the City of Burlington, Vermont and that the violations located upon the above-described premises have occurred based upon the following facts:

1. On or about July 26, 2002 and at all times following, I have held the position of Code Enforcement Officer for the City of Burlington, have also been qualified by the National Fire Protection Association as a Certified Fire Inspector, and have been vested with the authority to enforce various sections of the Code of Ordinances of the City of Burlington including regulations pertaining to the municipal ordinances.
2. BCO (Burlington Code of Ordinances) Sec. 8-45(a) Obligations of owners of dangerous structures and buildings states that a building or structure or part thereof that is or becomes dangerous or unsafe shall be made safe and secure. If the building cannot be made safe or secure, the owner shall take down and remove the building.
3. BCO Sec. 8-45(e) states that if the owner continues such refusal or neglects to remove or make the building safe, the director shall cause it to be taken down or otherwise made safe and the costs and charges shall constitute a lien upon the real estate upon such building is situated...
4. BCO Sec. 8-45(b) states that the director shall inspect a building or structure upon receiving information that the building or structure or anything attached or connected therewith is in violation of

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For disability access information call (802) 863-0450 TTY.

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the specifications of all applicable building, fire prevention, and public safety ordinances and codes adopted herein...

5. On September 22, 2005 I conducted a vacant building inspection of the premises accompanied by William Sears of the City Fire Marshall's office. During the course of the inspection, numerous unsafe conditions, substandard housing conditions, and zoning violations were found. Remedial action was required at the following per BCO 8-47 Vacant building permit; inspection; maintenance standards; fees:

- (1) Building openings
- (2) Roofs
- (3) Building structure
- (4) Exterior walls
- (5) Decorative features
- (6) Overhanging extensions
- (7) Chimneys and towers
- (8) Accessory and appurtenant structure
- (9) Premises

7. On September 23, 2005 I sent a Notice of Violation notifying the property owner of my findings, with orders to take corrective action by October 25, 2005.

8. On February 8, 2006 I conducted a follow up inspection of the subject premises. I found substantial non-compliance with the Order of September 22, 2005 at the premises, and that the majority of unsafe conditions remained uncorrected.

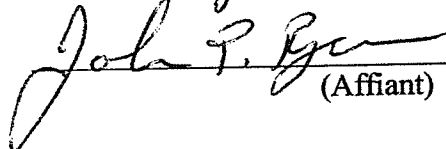
9. Since February 8, 2006 I have had numerous conversations with the owner trying to get him to secure the out building and begin a process to remove or rehab the building with no success.

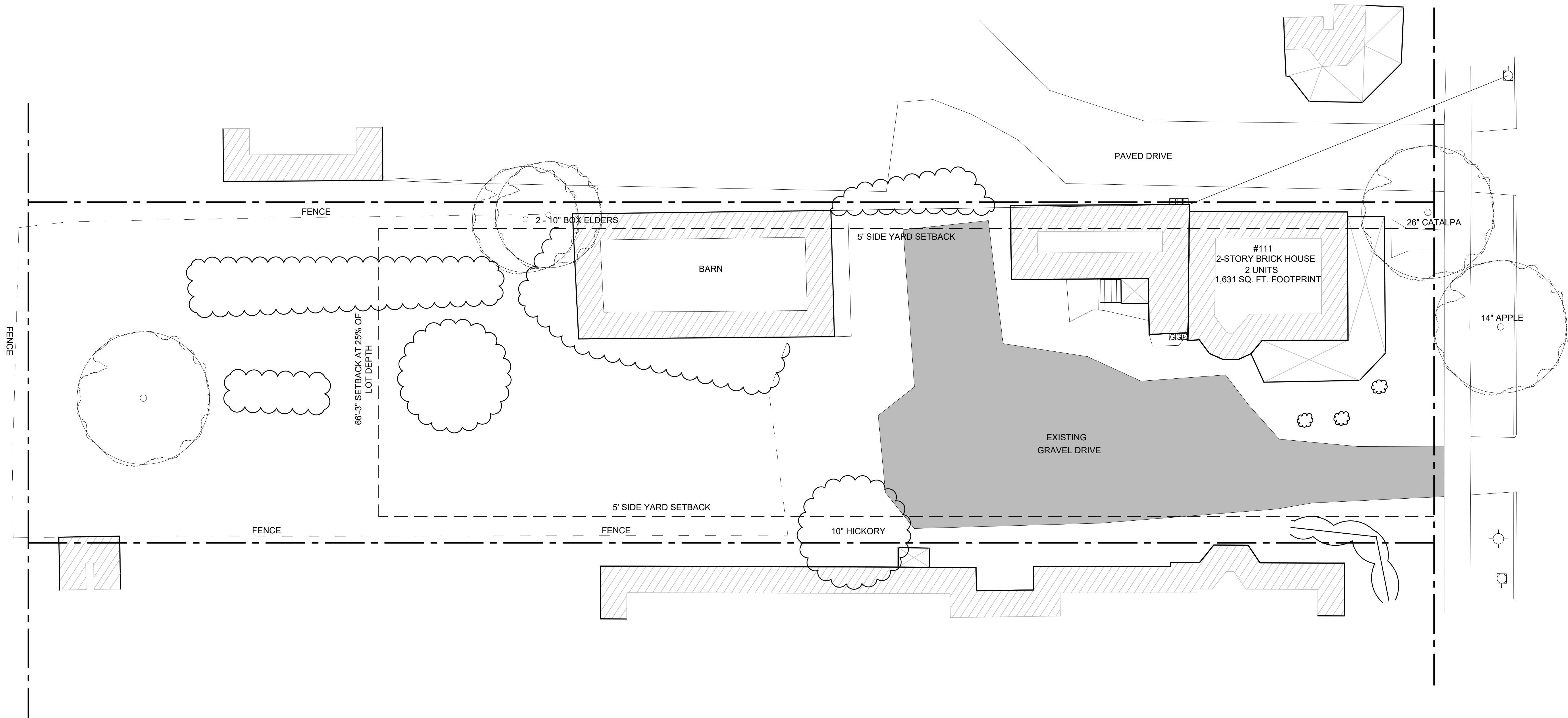
10. Mr. Munson has stated numerous times that the out building is a dangerous building at least because the roof appears to have fallen in, the upper level has collapsed into the ground floor level. Recently Mr. Munson stated to me that persons are breaking into the building through the rear of the building.

11. On August 29, 2006 I inspected the buildings at 111 North Winooski Ave. with Bill Sears of the City Fire Marshall's office. I observed the following:

- (1) The Notice of Violation report dated September 22, 2005 has not been complied with.
- (2) The condition of the house continue to deteriorate: more ceiling and wall damage due to leaking roof, more broken windows, more graffiti on the side of the house.
- (3) It appeared as though some one tried to enter through a window on the south side of the front porch.
- (4) The out building is not secure. The owner has stated to me several times that persons have been entering the building.
- (5) There continues to be a large amount of unattended vegetation around the out building.

DATED at Burlington this 25th day of September, 2006.

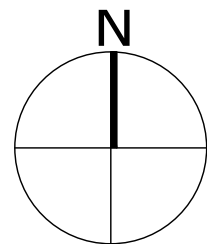

(Affiant)



NORTH WINOOSKI AVENUE

EX-100 - EXISTING CONDITIONS

SCALE: 1"=10'-0"



2021 08 06 SCHEMATIC DESIGN

ARCHITECT

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175 SUMMIT CIRCLE
SHELBURNE VERMONT

111 NORTH WINOOSKI LLC

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT 05401

OWNER
111 NORTH WINOOSKI LLC

CONTRACTOR
J.T. CONSTRUCTION

STAMP

Date

Issue

EXISTING
CONDITIONS

Drawing Title

Project No.

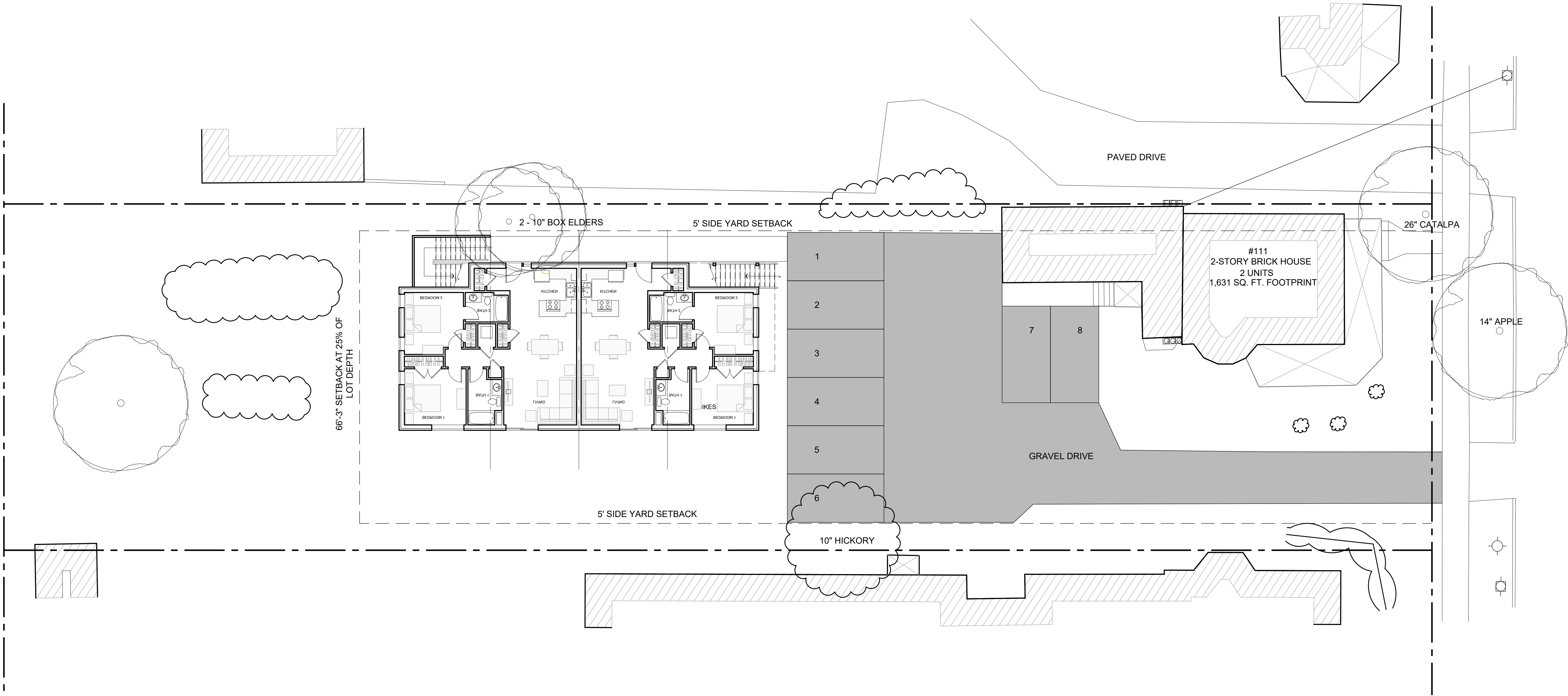
Date:

Scale :

Drawn by :

2021-203
08/10/2021
AS-NOTED
WJR

EX-100

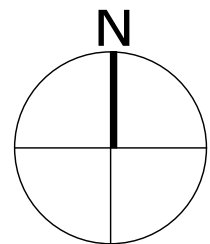


NORTH WINOOSKI AVENUE

ZONING DIMENSIONAL CRITERIA			
DISTRICT	ZONING BY-LAW	EXISTING	ALLOWED
MAX. RESIDENTIAL DENSITY	MEDIUM DENSITY 20 UNITS / ACRE 2,178 SQ. FT. / UNIT	MEDIUM DENSITY 2 UNITS	MEDIUM DENSITY 8 UNITS
MAX. BUILDING HEIGHT	35 FT.		35 FT.
MIN. LOT SIZE	N/A	17,157 SQ. FT.	17,157 SQ. FT.
MIN. FRONTAGE	30 FT.	64.5 FT.	64.5 FT.
FRONT YARD SETBACK	AVERAGE OF 2 ADJACENT LOTS	6 - 8 FT.	EXISTING
REAR SETBACK	25% OF LOT DEPTH - MIN. 20 FT.	0 - 5 FT.	66.25 FT.
SIDE SETBACK	10% OF LOT WIDTH OR AVE. OF 2 ADJACENT LOTS	0 - 5 FT.	0 - 5 FT.
BUILDINGS	-----	1,313 SQ. FT.	3,285 SQ. FT.
WALKWAYS	-----	48 SQ. FT.	287 SQ. FT.
DRIVEWAY	-----	2,845 SQ. FT.	3,232 SQ. FT.
TOTAL LOT COVERAGE		4,206 SQ. FT.	6,804 SQ. FT.
LOT COVERAGE	40%	24.5%	39.6%
DECKS/PORCHES	10%	380 SQ. FT. - 2%	380 SQ. FT. - 2%
PARKING	2 PER UNIT	8 +/-	8
BICYCLE PARKING	1 PER 2 BEDROOMS	-----	10

C-200 - PROPOSED SITE PLAN

SCALE: 1"=10'-0"



ARCHITECT

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SHELBURNE VERMONT

111 NORTH WINOOSKI LLC

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT 05401

OWNER
111 NORTH WINOOSKI LLC

CONTRACTOR
J.T. CONSTRUCTION

STAMP

Date Issue

PROPOSED
SITE PLAN

Drawing Title
Project No: 2021-2
Date: 08/10/2021
Scale: AS-NOTE
Drawn by: W.

C-200

2021 08 06 SCHEMATIC DESIGN

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111 NORTH WINOOSKI LLC

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT 05401

OWNER
111 NORTH WINOOSKI LLC

CONTRACTOR
J.T. CONSTRUCTION

STAMP

Date Issue

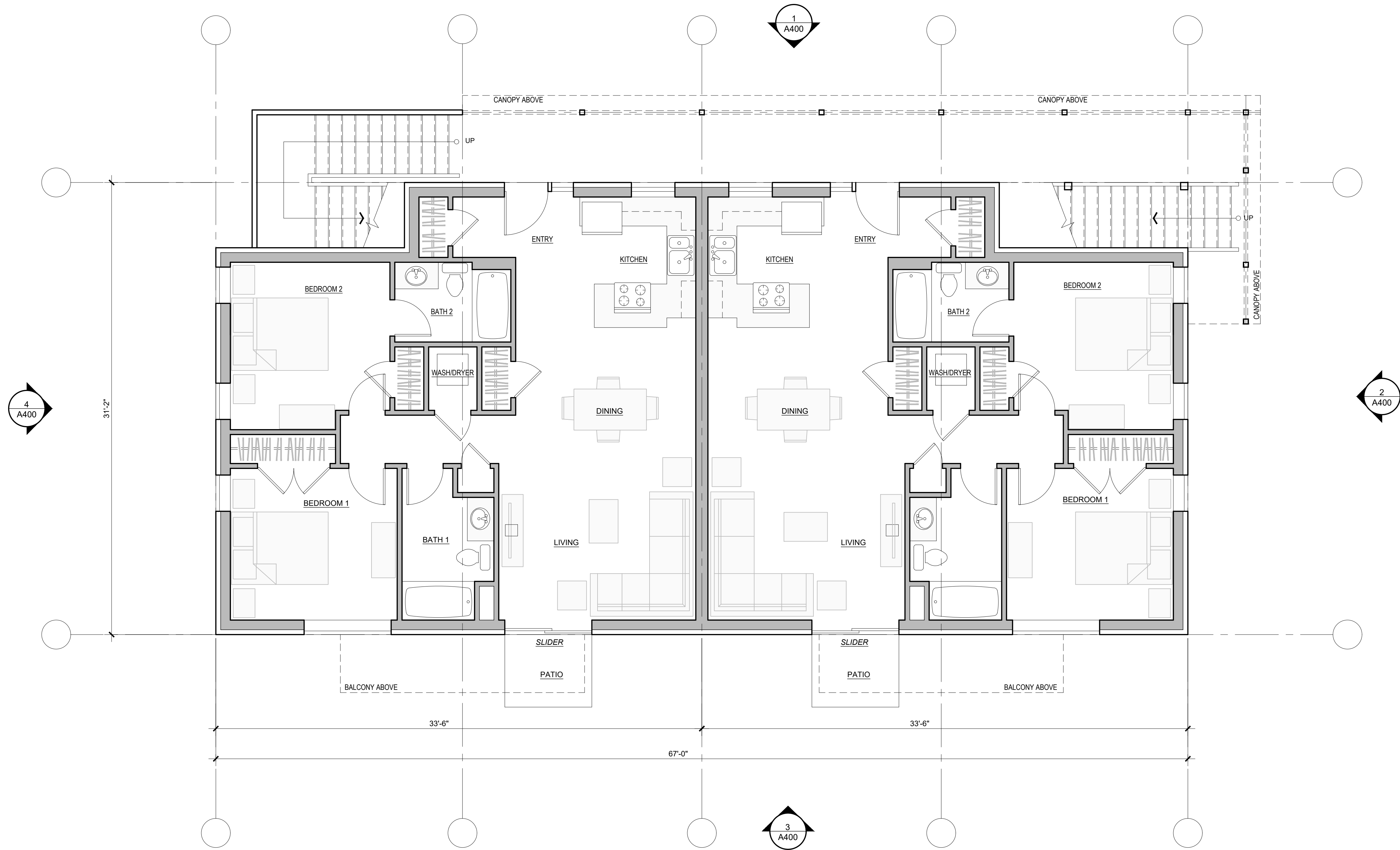
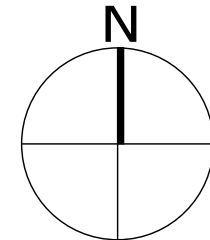
FIRST FLOOR

Drawing Title
Project No. 2021-2
Date 08/10/20
Scale AS-NOTE
Drawn by W.

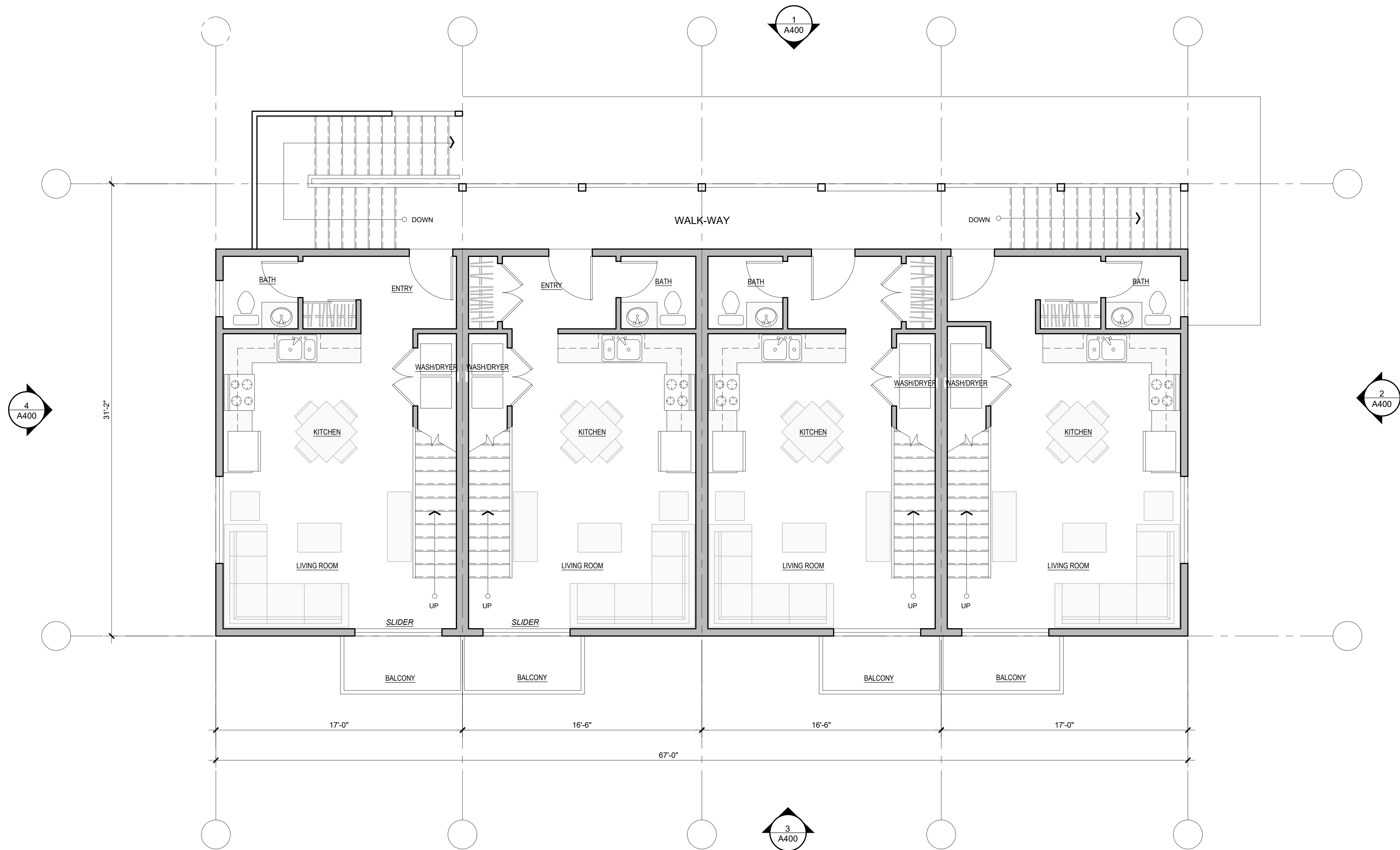
A-201

A-201 - GROUND FLOOR PLAN

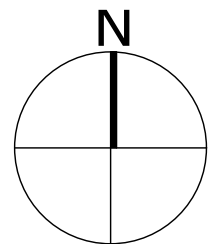
SCALE: 1/4"=1'-0"

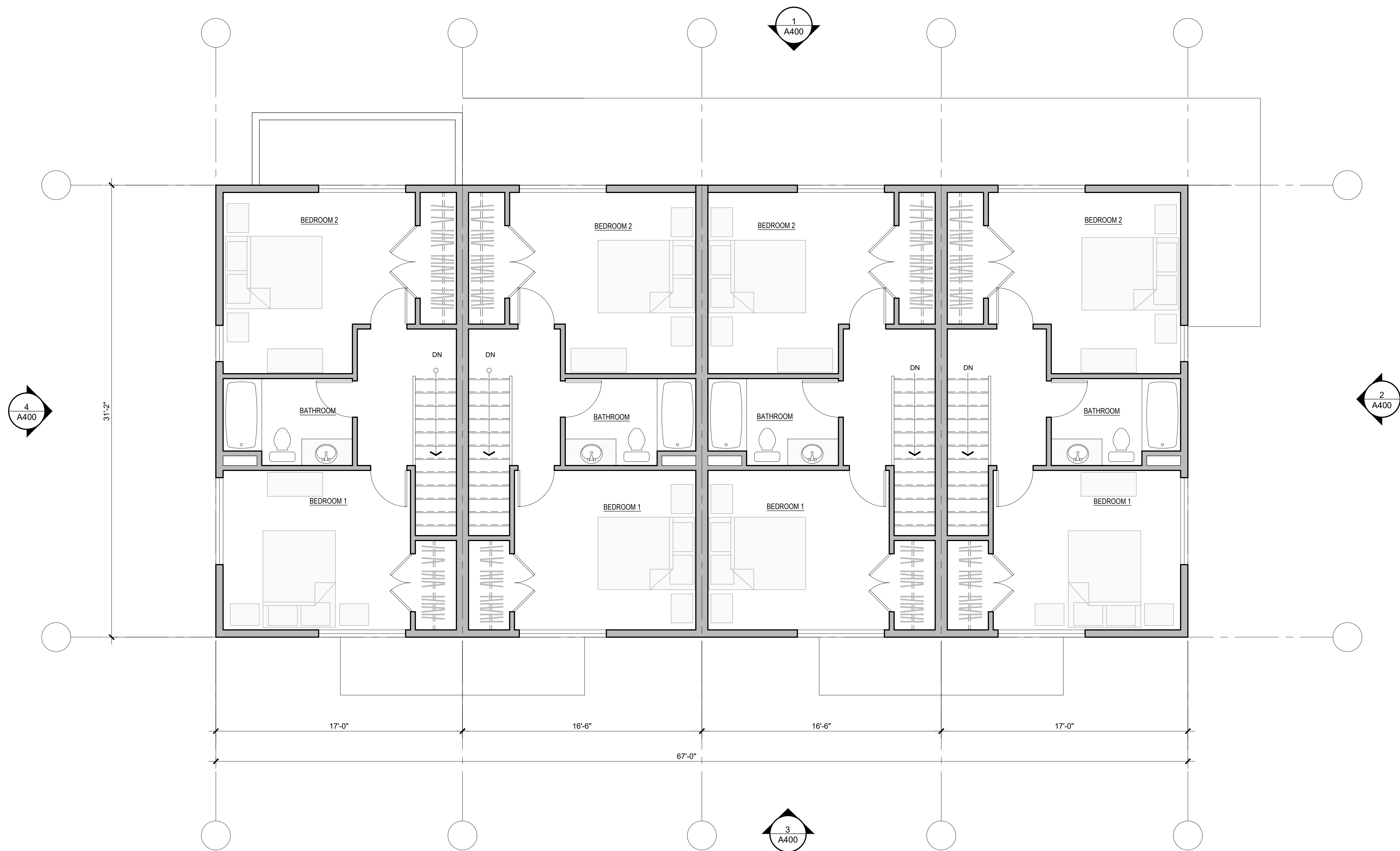


2021 08 06 SCHEMATIC DESIGN

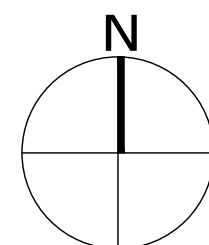


A-202 - SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"





A-203 - THIRD FLOOR PLAN
SCALE: 1/4"=1'-0"



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111 NORTH WINOOSKI LLC

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BURLINGTON, VERMONT 05401

OWNER
111 NORTH WINOOSKI LLC

CONTRACTOR
J.T. CONSTRUCTION

STAMP

Date Issue

THIRD FLOOR

Drawing Title
Project No. 2021-2
Date: 08/10/20
Scale: AS-NOTE
Drawn by: W.

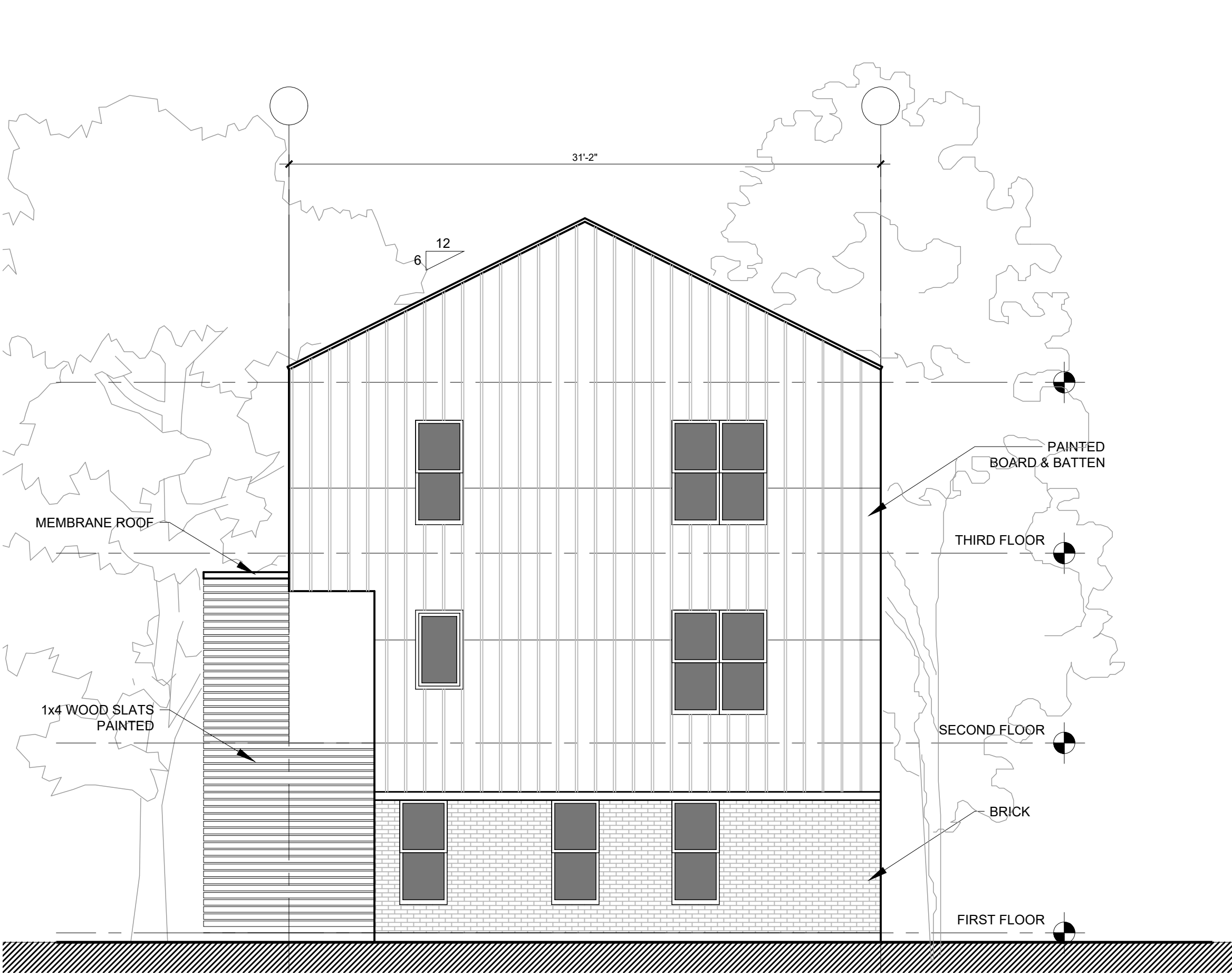
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2021 08 06 SCHEMATIC DESIGN



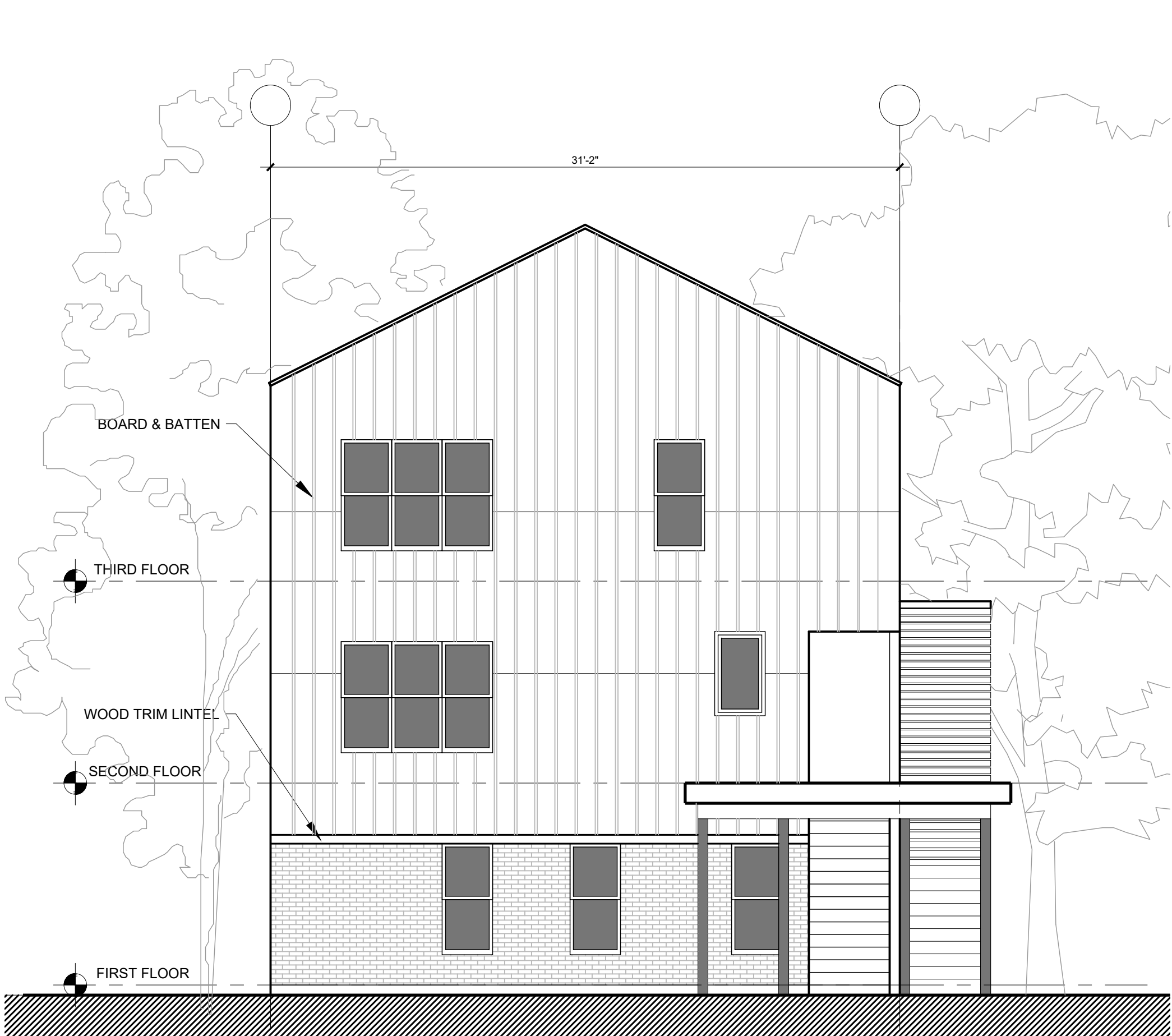
1-400 NORTH ELEVATION

SCALE: 1/4"=1'-0"



4-400 WEST ELEVATION

SCALE: 1/4"=1'-0"



1-400 EAST ELEVATION

SCALE: 1/4"=1'-0"



3-400 SOUTH ELEVATION

SCALE: 1/4"=1'-0"

ARCHITECT

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111 NORTH WINOOSKI LLC

LOCATION
111 NORTH WINOOSKI AVENUE
BURLINGTON, VERMONT 05401

OWNER
111 NORTH WINOOSKI LLC

CONTRACTOR
J.T. CONSTRUCTION

STAMP

Date Issue

ELEVATIONS

Drawing Title
Project No. 2021-2
Date 08/10/20
Scale AS-NOTE
Drawn by W.

2021 08 06 SCHEMATIC DESIGN

A-400



OF VERMONT
Division for Historic Preservation
Montpelier, VT 05602

HISTORIC SITES & STRUCTURES SURVEY
Individual Structure Survey Form

COUNTY:	Chittenden
TOWN:	Burlington
LOCATION:	111 North Winooski
COMMON NAME:	
FUNCTIONAL TYPE:	
OWNER:	George Munson
ADDRESS:	97 North Winooski
ACCESSIBILITY TO PUBLIC:	Yes ☐ No ☒ Restricted ☐
LEVEL OF SIGNIFICANCE:	Local ☒ State ☐ National ☐

GENERAL DESCRIPTION:

Structural System

1. Foundation: Stone ☒ Brick ☐ Concrete ☐ Concrete Block ☐
2. Wall Structure
 - a. Wood Frame: Post & Beam ☐ Balloon ☐
 - b. Load Bearing Masonry: Brick ☒ Stone ☐ Concrete ☐ Concrete Block ☐
 - c. Iron ☐ d. Steel ☐ e. Other: ☐
3. Wall Covering: Clapboard ☒ Board & Batten ☐ Wood Shingle ☐ Shiplap ☐ Novelty ☐ Asbestos Shingle ☐ Sheet Metal ☐ Aluminum ☐ Asphalt Shingle ☐ Brick Veneer ☐ Stone Veneer ☐ Bonding Pattern: Other: Brick
4. Roof Structure
 - a. Truss: Wood ☒ Iron ☐ Steel ☐ Concrete ☐
 - b. Other: ☐
5. Roof Covering: Slate ☒ Wood Shingle ☐ Asphalt Shingle ☐ Sheet Metal ☐ Built Up ☐ Rolled ☐ Tile ☐ Other: ☐
6. Engineering Structure: ☐
7. Other: ☐

Appendages: Porches ☒ Towers ☐ Cupolas ☐ Dormers ☐ Chimneys ☒ Sheds ☐ Ells ☐ Wings ☒ Bay Window ☐ Other: ☐

Roof Style: Gable ☐ Hip ☐ Shed ☐ Flat ☐ Mansard ☐ Gambrel ☐ Jerkinhead ☐ Saw Tooth ☐ With Monitor ☐ With Bellcast ☐ With Parapet ☐ With False Front ☐ Other: ☐

Number of Stories: 2 1/2

Number of Bays:

Approximate Dimensions: 20 x 70

SURVEY NUMBER:

NEGATIVE FILE NUMBER:

78-A-121

UTM REFERENCES:

Zone/Easting/Northing

U.S.G.S. QUAD. MAP:

PRESENT FORMAL NAME:

ORIGINAL FORMAL NAME:

PRESENT USE: apartments

ORIGINAL USE: residence

ARCHITECT/ENGINEER:

BUILDER/CONTRACTOR:

PHYSICAL CONDITION OF STRUCTURE:

Excellent ☐ Good ☐

Fair ☒ Poor ☐

STYLE: Greek Revival

DATE BUILT: 1850

THREAT TO STRUCTURE:

No Threat ☐ Zoning ☐ Roads ☐ Development ☐ Deterioration ☐ Alteration ☐ Other: ☐

LOCAL ATTITUDES:

Positive ☐ Negative ☐ Mixed ☐ Other: ☐

ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Massing - Pedimented gable front orientation. 3 bays wide. Boxed cornice. Porch wraps around to south elevation. Canted bay window on south elevation. Clapboard ell.

Fenestration - 1/1 sash. Symetrical arrangement. Flat arches, blind semi-elliptical arch in gable.

Entrance - Right. Sidelights. Nor original-Queen Anne.

Enrichments - Turned posts on pedestals. Turned balusters. Bracketed cornice on porch. Rope molding around door.

RELATED STRUCTURES: (Describe)

Carriage house in rear - now a shop.

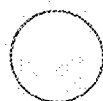
STATEMENT OF SIGNIFICANCE:

A common Greek Revival house type found in Burlington, characterized by a 3 bay facade with side hall entrance, pedimented gable and gable window. Although built before 1853, nothing is known of it until 1865, when it was the home of David Read, City Recorder. In both style and function, the building maintains the character of the neighborhood.

REFERENCES:

1853, 1869, 1890, Sanborns, directories.

MAP: (Indicate North in Circle)



SURROUNDING ENVIRONMENT:

Open Land ☐ Woodland ☐
Scattered Buildings ☐
Moderately Built Up ☒
Densely Built Up ☐
Residential ☒ Commercial ☒
Agricultural ☐ Industrial ☐
Roadside Strip Development ☐
Other:

RECORDED BY:

C. Richard Morsbach

ORGANIZATION:

VT. Div. for Historic Preservation

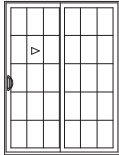
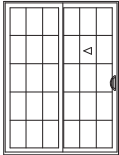
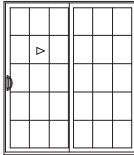
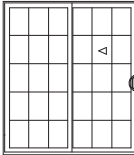
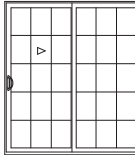
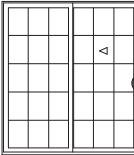
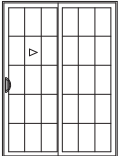
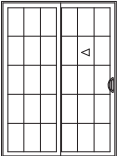
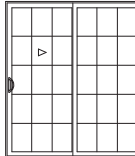
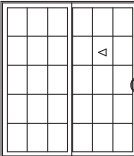
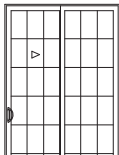
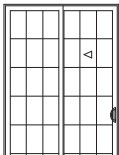
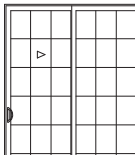
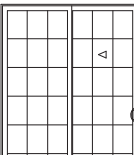
DATE RECORDED:

6/8/78

MARVIN ESSENTIAL™ COLLECTION

SLIDING PATIO DOOR

2 Panel

MO (mm)	5' - 0" (1524)	5' - 0" (1524)	5' - 10 1/2" (1791)	5' - 10 1/2" (1791)	6' - 0" (1829)	6' - 0" (1829)
RO (mm)	5' - 0" (1524)	5' - 0" (1524)	5' - 10 1/2" (1791)	5' - 10 1/2" (1791)	6' - 0" (1829)	6' - 0" (1829)
FS (mm)	4' - 11 1/2" (1511)	4' - 11 1/2" (1511)	5' - 10" (1778)	5' - 10" (1778)	5' - 11 1/2" (1816)	5' - 11 1/2" (1816)
DLO (mm)	24 63/64" (635)	24 63/64" (635)	30 15/64" (768)	30 15/64" (768)	30 63/64" (787)	30 63/64" (787)
6' - 7 3/4" (2026)						
6' - 8" (2032)						
6' - 7 1/2" (2019)						
72 1/2" (1841)						
6' - 9 3/4" (2076)						
6' - 10" (2083)						
6' - 9 1/2" (2070)						
74 1/2" (1892)						
7' - 11 3/4" (2432)						
8' - 0" (2438)						
7' - 11 1/2" (2426)						
88 1/2" (2248)						

GBG available in standard Rectangular lite cut, shown above.
Other GBG lite cuts shown on page 3. (Not available on In-Sash Transom units.)

Details and Elevations not to scale.

Special sized units available within two panel product size matrix.
See your Marvin representative for more information.

See page 52 for specific PG Ratings.

For further details and drawings visit the "Tools and Documents" section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assembly units can be factory mullied up to 1 unit wide by 2 units high.

MAXIMUM ROUGH OPENING not to exceed 72" x 100 1/2".

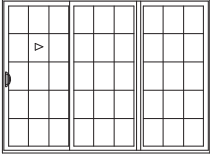
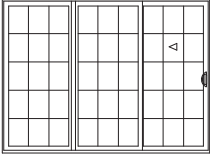
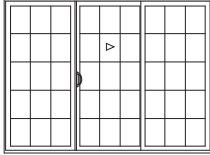
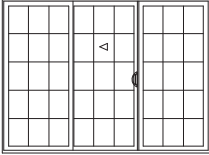
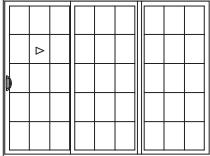
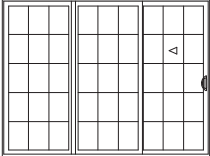
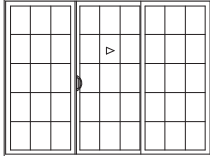
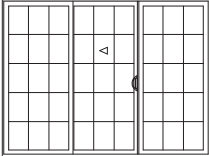
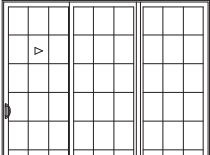
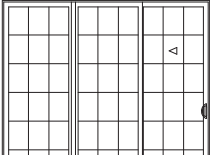
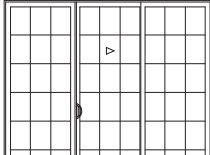
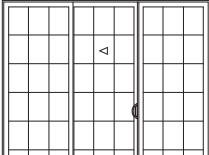
Field mull kits available for up to 3 units wide by 2 units high not to exceed 110" x 112". Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

SLIDING PATIO DOOR

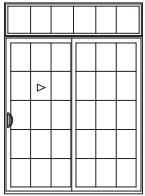
3 Panel

MO (mm)	9' - 0" (2743)	9' - 0" (2743)	9' - 0" (2743)	9' - 0" (2743)
RO (mm)	9' - 0" (2743)	9' - 0" (2743)	9' - 0" (2743)	9' - 0" (2743)
FS (mm)	8' - 11 1/2" (2731)	8' - 11 1/2" (2731)	8' - 11 1/2" (2731)	8' - 11 1/2" (2731)
DLO (mm)	30 63/64" (787)	30 63/64" (787)	30 63/64" (787)	30 63/64" (787)

6' - 7 3/4" (2026) 6' - 8" (2032) 6' - 7 1/2" (2019) 72 1/2" (1841)				
	ESSPD9068 - XOO	ESSPD9068 - OOX	ESSPD9068 - OXO RH	ESSPD9068 - OXO LH
6' - 9 3/4" (2076) 6' - 10" (2083) 6' - 9 1/2" (2070) 74 1/2" (1892)				
	ESSPD90610 - XOO	ESSPD90610 - OOX	ESSPD90610 - OXO RH	ESSPD90610 - OXO LH
7' - 11 3/4" (2432) 8' - 0" (2438) 7' - 11 1/2" (2426) 88 1/2" (2248)				
	ESSPD9080 - XOO	ESSPD9080 - OOX	ESSPD9080 - OXO RH	ESSPD9080 - OXO LH

Direct Glaze Over Sliding Patio Door

MO (mm)	6' - 0" (1829)
RO (mm)	6' - 0" (1829)
FS (mm)	5' - 11 1/2" (1816)

8' - 3 3/4" (2534) 8' - 4" (2540) 8' - 3 1/2" (2527)	
	ESDG6016/ESSPD60610

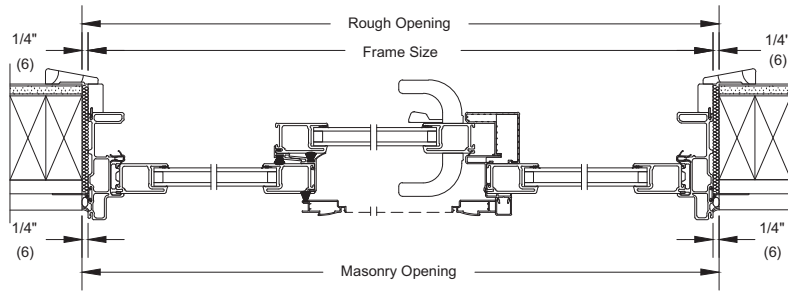
Direct Glaze Over Sliding Patio Door

MO (mm)	5' - 0" (1524)	5' - 10 1/2" (1791)	6' - 0" (1829)	9' - 0" (2743)
RO (mm)	5' - 0" (1524)	5' - 10 1/2" (1791)	6' - 0" (1829)	9' - 0" (2743)
FS (mm)	4' - 11 1/2" (1511)	5' - 10" (1778)	5' - 11 1/2" (1816)	8' - 11 1/2" (2731)
DLO (mm)	57 1/4" (1454)	67 1/4" (1708)	69 1/4" (1759)	105 1/4" (2673)

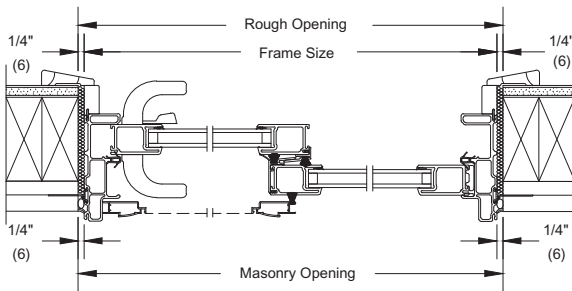
0' - 11 3/4" (298) 1' - 0" (305) 0' - 11 1/2" (292) 8 1/16" (205)				
	ESDG5010	ESDG51010	ESDG6010	ESDG9010
1' - 5 3/4" (451) 1' - 6" (457) 1' - 5 1/2" (445) 14 1/16" (357)				
	ESDG5016	ESDG51016	ESDG6016	ESDG9016

MARVIN ESSENTIAL™ COLLECTION
SLIDING PATIO DOOR

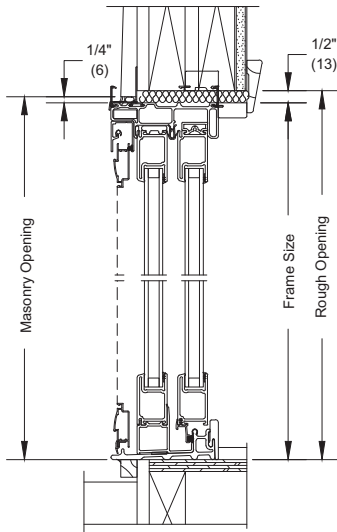
Construction Details



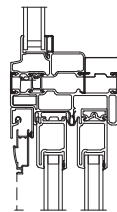
3 Panel OXO Operator Jamb



2 Panel XO Operator Jamb



Head Jamb & Sill



Direct Glaze
Over Sliding Patio Door

GBG available in standard Rectangular lite cut, shown above. Other GBG lite cuts shown on page 3. (Not available on In-Sash Transom units)

Details and Elevations not to scale.

Special sized units available within product size matrix. See your Marvin retailer.

See page 52 for specific PG Ratings.

XO operation shown, OX operation optional.

For further details and drawings visit the 'Tools and Documents' section at Marvin.com.

MULTIPLE ASSEMBLIES

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Please consult your local Marvin representative for more information.

Burlington Design Advisory Board

Department of Permitting and Inspections

645 Pine Street

Burlington, VT 05401

<http://www.burlingtonvt.gov/DPI/Boards/Design-Advisory-Board/>

Telephone: (802) 865-7188

*Matt Bushey, Chair
Ron Wanamaker
Emily Morse
Jay White
Kathleen Ryan, Alternate
Vacant, Alternate*



DESIGN ADVISORY BOARD

Tuesday November 23, 2021

645 Pine Street and via Zoom

Present: Ron Wanamaker (Vice Chair), Jay White, Emily Morse, Kathleen Ryan (alternate)

Absent: Matt Bushey

Staff present: Mary O'Neil

Agenda

Session I – 3:00 PM – 3:30 PM

I. ZP 21-509; 72-76 Elmwood Avenue (RM, Ward 2C) Michael Alvanos / PBGC LLC. Present: Michael Alvanos

Continued review~

Construct 3 unit detached residence and related site improvements. (Mary O'Neil, project manager.)

Motion by Emily Morse: I move we recommend approval of the project pending clarification of setbacks.

2nd – Kathleen Ryan

Vote 4-0.

Motion carries.

Session II – 3:30-4:00 PM

II. ZP-21-606; 111 North Winooski Avenue (RM, Ward 2C) Michael Alvanos / Daniel & Holly Trahan Present: Michael Alvanos

Demolition of rear structure (barn) and construction of 6 new apartments at the rear of the property with associated parking and landscape improvements. (Mary O'Neil, Project Manager)

Motion by Ron Wanamaker: I move we table the application, pending submission of the following:

1. Dimensioned site plan
2. Landscaping plan
3. Reconfigured parking plan that would allow more green space
4. Materials and/or color to make the new building receded, and visually make the front building more prominent.

2nd – Jay White

Vote 4-0.

Motion carries.

Session III – 4:00 PM – 4:15 PM

III. Draft 2022 DAB meeting schedule

Review and approve DAB meeting schedule for 2022

Motion by Jay White, accept and adopt meeting schedule as revised.

2nd – Kathleen Ryan

Vote 4-0

Motion carries.

IV. Adjournment