STAFF REPORT FOR THE HISTORIC RESOURCES COMMISSION MEETING OF SEPTEMBER 8, 2023

FILE NO: HRC-2023-0324 **AGENDA ITEM: 5.B**

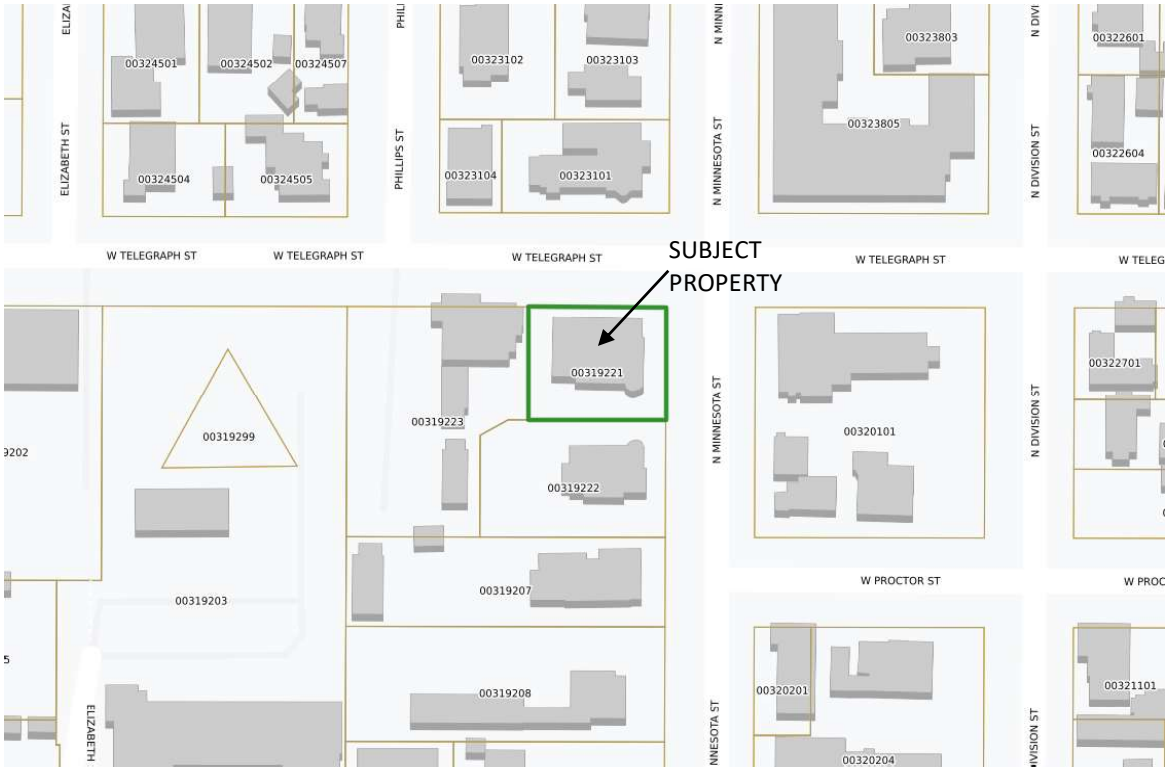
STAFF CONTACT: Heather Ferris, Planning Manager

AGENDA TITLE: For Possible Action: Discussion and possible action regarding a request by Belfor Property Restoration ("Applicant") to allow for the reconstruction and restoration of the historic Lee Residence located at 340 N. Minnesota Street, Assessor's Parcel Number ("APN") 003-192-21. (Heather Ferris, hferris@carson.org)

Staff Summary**:** In October 2022 there was a significant fire at 340 N. Minnesota Street, leaving the historic building uninhabitable. The Applicant, on behalf of the property owner, is seeking to rebuild the structure maintaining and restoring features of the structure that are salvageable. The Applicant is proposing to reconstruct the original structure. The existing foundation, main level floor, and porch deck framing will remain, as well as the original north side fireplace and chimney. These remaining features will be cleaned, repointed and structurally repaired as necessary. Site work will extend onto the adjacent property at 505 W. Telegraph (APN 003-192-23), also part of the Resource Concepts, Inc., ("RCI") campus. Work will include new accessible ramps and railings from the parking lot at 505 W. Telegraph to the accessible lift at the rear of 340 N. Minnesota. The Commission will review the request to determine if the request is consistent with the Development Standards for the Historic District.

RECOMMENDATION: I move to approve HRC-2023-0324, based on the finding that the request is consistent with the design guidelines for the historic district and the Secretary of the Interior Standards as noted in the staff report.

VICINITY MAP



CONDITIONS OF APPROVAL IF THE COMMISSION APPROVEST THE REQUEST:

1. All development shall be substantially in accordance with the attached site development plan.
2. All on and off-site improvements shall conform to city standards and requirements.
3. The use for which this permit is approved shall commence within 12 months of the date of final approval. An extension of time must be requested in writing to the planning and community development department 30 days prior to the 1-year expiration date. Should this request not be initiated within 1 year and no extension granted, the request shall become null and void.
4. The applicant must sign and return the notice of decision within 10 days of receipt of notification. If the notice of decision is not signed and returned within 10 days, then the item will be rescheduled for the next historic resources commission meeting for further considerations.
5. Prior to issuance of the certificate of occupancy, the applicant shall have signage placed on-site identifying the building as a contemporary re-creation. The signage shall be subject to administrative review and approval by the Chair of the Historic Resources Commission.

LEGAL REQUIREMENTS: Carson City Municipal Code ("CCMC") 18.06.015 (Procedure for Proposed Project)

MASTER PLAN DESIGNATION: Mixed-Use Residential ("MUR")

ZONING: Residential Office ("RO")

PREVIOUS REVIEWS:

H-89/90-7- approval of placement of a new unlit sign.

HRC-2023-0004- update from RCI regarding status of the structure following October 2022 fire.

HRC-2023-0132- administrative approval to demolish the fire damaged building.

DISCUSSION:
The subject building was constructed in 1907. The structure was 1 ½ stores in height and combined various forms and elements of Colonial Revival. The foundation is of coursed stone and the siding is shiplap with patterned shingles in the gables. The roof is both hipped and gabled with a conical roof on the south end of the porch. This site was occupied by the Central School until the property was purchased by Dr. S.L. Lee in 1906. Lee demolished the Central School building and utilized the materials to build the house.

The house was converted into an office building and housed Resource Concepts, Inc. since 1978. In October 2022, there was a significant fire at the subject property, leaving the historic building uninhabitable. Since the fire, the property owners have been working with the City and a property restoration company. As a result of the fire, the only portions of the original structure that will remain is the foundation, existing main level floor and porch deck framing, and the fireplace and chimney on the north side of the building.

The applicant is proposing to reconstruct the structure using the same form and finishes to match the original, using replicated and/or salvaged materials. There will be subtle modifications made from the original to integrate current building code requirements, including

accessibility. An accessible ramp will provide an accessible path of travel from the parking lot at 505 W Telegraph, and a lift will be located at the rear of the reconstructed building. The three historic exterior lights on the property (two at the front entrance to the property and on in the rear) will be repaired and retained. The majority of the picket fencing is still in place with the exception of a small portion which is currently in storage and will be reinstalled with the reconstruction of the building.

Secretary of the Interior Standards for Reconstruction

Per the Secretary of the Interior standards for reconstruction, reconstruction is defined the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Standards for Reconstruction

1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property.

The proposed reconstruction of the Lee house will be used to depict the historic structure as it existed prior to the October 2022 fire. The structure is well documented in photographs and the property owners have worked with restoration specialists to salvage and/or recreate items to ensure accurate reconstruction.

2. Reconstruction of a landscape, building, structure or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.

A fire left the structure uninhabitable. The demolition of the structure was administratively approved by the HRC on April 11, 2023. It was determined that the bulk of the structure was not salvageable; however, the foundation, northern chimney and fireplace, and porch and main floor framing have been salvaged. Additionally, the property owner has worked with restoration specialists to salvage and/or recreate cornices, frieze, and eave detailing.

3. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.

The applicant is proposing to reconstruct the structure on the remaining preserved foundation. The reconstruction will use the same form and finishes to match the original, using replicated and/or salvages materials including salvaged and/or recreated cornices, frieze, and eave detailing. The original fireplace and chimney have also been retained.

4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color and texture.

The reconstruction will be based on the accurate duplication of the historic features and elements of the property. The structure is well documented in photographs and the property owners have worked with restoration specialists to salvage and/or recreate items to ensure accurate reconstruction. The applicant is proposing to reconstruct the structure on the

remaining preserved foundation. The reconstruction will use the same form and finishes to match the original, using replicated and/or salvages materials including salvaged and/or recreated cornices, frieze, and eave detailing. The original fireplace and chimney have also been retained.

5. A reconstruction will be clearly identified as a contemporary re-creation.

Staff is recommending a condition of approval requiring signage to be placed at the property, prior to issuance of the certificate of occupancy, identifying the building as a contemporary re-creation.

6. Designs that were never executed historically will not be constructed.

The applicant is proposing to reconstruct the structure on the remaining preserved foundation. The reconstruction will use the same form and finishes to match the original, using replicated and/or salvages materials including salvaged and/or recreated cornices, frieze, and eave detailing. The original fireplace and chimney have also been retained. Mechanical systems and features such as accessible lifts and ramps will be inconspicuously placed.

Carson City Development Standards

Carson City Development Standards 5.14 addresses guidelines for roofs. It states:

5.14 - Guidelines for roofs.
The roof's shape, the roofing material and its special features are extremely important in defining the building's overall architectural style. Many different historic roof shapes are found in the district: gable, hip, gambrel, mansard, shed and flat. The pitch or slope of the roof changes from style to style. Shed roofs were used extensively for additions to buildings. The type and style of roof features also change with the building style. Brick and stone chimneys, cresting and a variety of dormers are also found in the district. Sawn or milled wood shingles of cedar or redwood are the predominate historic roofing materials within the district. Few tiles and no slate roofs have been found. Standing seam or corrugated metal were used on outbuildings.

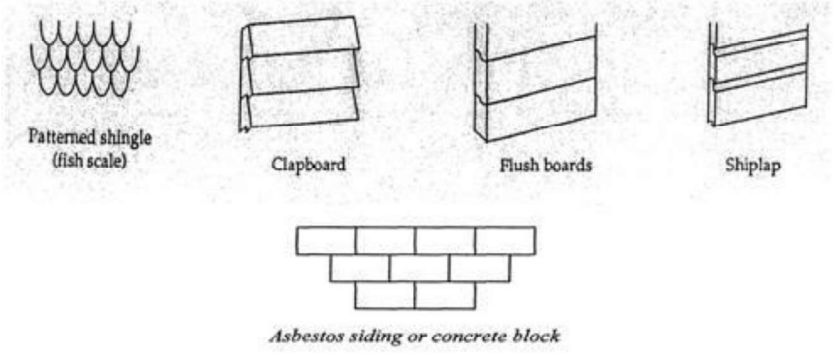
5.14.1 Guidelines for Historic Buildings. Original roofing material and features are to be retained and repaired if at all possible. ***If new roofing is necessary or desired, the preferred treatment is to replace the original with identical new material****. If this is not possible or desirable, then the use of Fireclass A, organic felt or fiberglass matt composition type shingle, preferably in a "thick butt" design is acceptable. These are to be laid approximately five inches to the weather with straight and true exposed edge lines.* ***Other roof features such as chimneys, dormers and/or decorative elements are to be retained.*** *New mechanical systems, solar panels, skylights and/or other devices on the roof are to be placed so they are inconspicuous from the Street and in such a manner that no damage is done to any character defining features of the building.*

The building will be reconstructed to match the original roof shape, slopes and overhangs. The roof will be framed in the original “cut and stack” style. The same asphalt shingle roofing material that was on the house and matches the remainder of the RCI campus will be utilized.

Carson City Development Standards 5.15 addresses guidelines for exterior siding material. It states:

5.15 - Guidelines for exterior siding materials.

The exterior siding materials found in the district include the full range of materials used in the I 9th to mid 20th centuries. The most typical is a horizontal wood siding. Generally a horizontal "drop" (shiplap) or clapboard was used. It was not uncommon for milled shingles to be utilized to accent gable ends or other similar portions of a structure. Often these shingles were decorative in nature having sculptured ends so that a variety of textural effects could be achieved. The entire structure was never covered with shingles. Mid-century houses used wide shakes and asbestos shingles. A few residences utilized brick, stone, concrete block or stucco. Other exterior sidings include vertical board and batten and corrugated sheet or standing seam metal. These were typically used on outbuildings. Brick, cut stone and rubble stone masonry and/or combinations were used primarily on commercial buildings. Historically, buildings in the district were painted, often in several colors - they were not stained or left "natural." The colors varied and often several colors were used on the same building to highlight the architectural design. Currently, there are paints as well as opaque stains available for exterior finishes. The HRC can provide assistance to owners wishing more information regarding paint and/or stain colors.



5.15.1 Guidelines for Historic Buildings. ***The original exterior siding material shall be retained and repaired when at all possible****. When replacement is necessary the new material shall match the original in size, design, composition and texture. The use of steel, aluminum and vinyl siding materials is not appropriate for historic buildings. (Standard Number: 6, 2)*

When contemplating work on the exterior of a historic building, cleaning the existing material should be the first step to determine its condition and a course of action. *Cleaning shall be by the gentlest means possible. Sandblasting and other cleaning methods which cause damage to original historic materials shall not be undertaken. (Standard Number: 7)*

The reconstruction will use the same form and finishes to match the original, using replicated and/or salvaged materials including salvaged and/or recreated cornices, frieze, and eave detailing. The original siding was tongue and groove. The reconstruction will also be clad in tongue and groove siding with trim details to match the original.

Carson City Development Standards 5.16 addresses guidelines for windows. It states:

5.16 - Guidelines for windows.

The majority of buildings in the Historic District are characterized by 19th century styles of architecture. A basic design characteristic of these styles is symmetrically placed, vertically proportioned windows. Houses built in the 1930s to 1960s used in addition to the above, metal framed windows such as casements and picture windows.

5.16.1- Guidelines for Historic Buildings. ***Original windows shall be retained and repaired when at all possible. When replacement is necessary a window of duplicated design shall be used. The size, pane configuration, design and trim shall replicate that of the original.*** *Original trim and surrounds are to be retained when windows are replaced. Bronzed aluminum framed windows are not appropriate for use in a historic building. Stained glass windows were*

not commonly used in the buildings of the district. Original stained glass windows are very valuable and should be retained. The addition of stained glass windows into openings which did not historically have stained glass is discouraged. (Standard Number: 2, 6)

The original windows were not salvageable following the fire. The applicant is proposing new wood framed, low-E windows to match the original size, location, and pane configuration. Windows will be trimmed to match the original.

Carson City Development Standards 5.17 addresses guidelines for doors. It states:

5.17 - Guidelines for doors.

***Doors are an important design element of any building. Their location and style contributes to the overall character and frequently act to define the style of the building**. Typically even the simplest historic homes have beautifully paneled doors. Original doors have often been replaced by newer inappropriate doors under the false assumption that greater energy efficiency can be achieved. Properly executed repairs and/or replacement of jams, thresholds, stop moldings, hinges and weather stripping will achieve the same energy efficiency and maintain the historic value. Older doors may have dried and shrunk in size. Numerous lock sets, latches and/or strike plates may have been installed in the door. Glass panels may have been removed and replaced with wood or other material. Original doors, however, are probably one of the most easily reconstructed elements of a building. They are generally constructed of high quality materials, most often have design characteristics which are unavailable in today's market and can be easily removed from the building for repairs in a specialized shop.*

The original doors were lost in the fire. The applicant is proposing new wood exterior doors to closely match the originals. Doors will be trimmed to match the original.

Carson City Development Standards 5.18 addresses guidelines for masonry elements. It states:

5.18 - Guidelines for masonry elements.

***Masonry elements found in the historic district include brick or cut stone foundations, porches and/or basements, and entire stone or brick buildings.** Some masonry retaining walls and/or fences are also found. Masonry as an architectural design element generally produces a powerful visual image and imparts a sense of permanence and strength. Careful consideration, therefore, needs to be given all designs which incorporate masonry elements.*

*5.18.1 Guidelines for Historic Buildings. **The original masonry material shall be retained and repaired when at all possible.** When replacement is necessary the new material shall match the original in size, design, composition and texture. **Often repointing the original masonry elements is all that is necessary.** When repointing, it is imperative to determine the composition of the original mortar. Repointing historic masonry with a contemporary mortar mix containing Portland cement can cause severe damage to the building. Repointing should be accomplished with a mortar that matches the original in color, composition and strength. (Standard Number: 6, 2)*

The fireplace and chimney on the north side of the structure was saved, as well as the original stone foundation. Both will be retained and repointed as necessary with the reconstruction.

Carson City Development Standards 5.19 addresses guidelines for porches. It states:

5.19 - Guidelines for porches.
Porches constitute a significant architectural feature of any building; they are a character defining design feature. The placement, style, scale, massing and trim detail of porches in

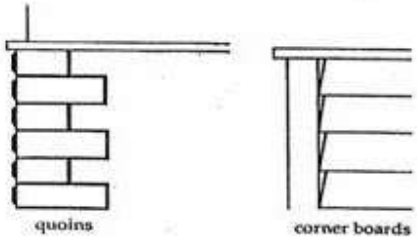
Carson City reflect a wide range of architectural styles. Because of their architectural impact porches are of particular concern in the historic district. A porch of inappropriate scale, placement and/or design, added to a historic building which did not have a porch originally, can be particularly detrimental to the historic integrity of the building and the character of the district as a whole. Conversely porches can be effectively utilized as a building feature in new construction to create a contemporary architectural design compatible with the historic district's character.

5.19.1 Guidelines for Historic Buildings. ***A porch that is part of the original design of a historic building shall be maintained in its original configuration, design, style and detailing if at all possible. If suitable documentary evidence can be presented which demonstrates the original existence of a porch which no longer exists, the porch may be reconstructed to match the original as best as possible.*** *If a porch cannot be demonstrated to have originally existed on the building, a porch may be added with the condition that the configuration, design, style and detailing are suitable and compatible with the architectural style of the building and does not adversely impact the historic integrity of the building. Any new additions to the building shall be performed in such a manner that if removed in the future the original building will not be adversely affected. (Standard Number: 2, 3, 4, 5, 6, 9, 10)*

As a result of the fire, the only portions of the original structure that will remain is the foundation, existing main level floor and porch deck framing, and the fireplace and chimney on the north side of the building. The applicant is proposing to reconstruct the structure using the same form and finishes to match the original. The porch will be reconstructed to match the original porch including the conical roof at the southwest corner of the porch.

Carson City Development Standards 5.20 addresses guidelines for trim details. It states:

5.20 - Guidelines for exterior trim details.
Although often perceived to be insignificant or frivolous, trim details play a very important part of defining a building's character. Designs for new buildings as well as additions and/or alterations to historic buildings should incorporate the appropriate trim details. The detailing can act to harmonize a building with its neighbor or tie a new addition to the original. Within the architectural styles represented in the district the following exterior trim details can be identified:
a) Brackets
b) Boxed cornice with eave returns
c) Decorated cornice
d) Decorated bargeboards
e) Quoins
f) Corner boards
g) Spindle/spool millwork
h) Pediments
i) Dentils
j) Columns



5.20.1
Guidelines for Historic Buildings. ***Original trim elements should be retained and repaired***

when at all possible. *Trim that is inconsistent with the original building style and design shall not be added. (Standard Number: 2, 3, 5, 6)*

The applicant is proposing to recreate the same trim utilizing the salvaged trim details as templates.

Carson City Development Standards 5.21 addresses guidelines for additional architectural features. It states:

5.21 - Guidelines for additional architectural features.
In review of the distinctive architectural features of the styles represented in the district, the following additional architectural features are exhibited. Designs for new buildings as well as additions or alterations to historic buildings can effectively incorporate one or more of the following design elements.

5.21.5 Barrier Free Handicapped Access. ***The accommodation of ramps, elevators, lifts and other building elements designed to allow handicapped access can be a difficult design problem. Scale, massing, proportion, detailing and balance all need to be carefully considered.*** *(Secretary of Interior Standard Number: 2, 9, 10)*

An accessible ramp will provide an accessible path of travel from the parking lot at 505 W. Telegraph, and a lift will be located at the rear of the reconstructed building. Placement of these features are inconspicuous.

Attachments:

Application (HRC-2023-0324)
Historic Resources Inventories

FILE

APPLICANT **PHONE #**

Belfor Property Restoration (775) 434-3200

MAILING ADDRESS, CITY, STATE, ZIP

50 Artisan Means Way Suite B Reno, NV 89511

EMAIL ADDRESS

Chris.nelson@us.belfor.com

PROPERTY OWNER **PHONE #**

Carolyn McLain - Trustee (775) 883-1600

MAILING ADDRESS, CITY, STATE, ZIP

ATTN: Bruce Scott 340 N. Minnesota Street, Carson City, NV 89703

EMAIL ADDRESS

bruce@rci-nv.com

APPLICANT'S AGENT **PHONE #**

Chris Nelson (775) 224-7292

MAILING ADDRESS, CITY, STATE, ZIP

50 Artisan Means Way Suite B, Reno, NV 89511

EMAIL ADDRESS

Chris.nelson@us.belfor.com

Carson City Planning Division
108 E. Proctor Street
Carson City, NV 89701
Phone: (775) 887-2180
Email: planning@carson.org

HISTORIC RESOURCES COMMISSION

(CCMC 18.06)

SUBMITTAL PACKET: – Email completed packet to planning@carson.org or submit 1 Unbound Original and an electronic copy including:

- Signed Application Form
- Site Plan
- Building Elevations
- Spec Sheet(s) on Proposed Building Material(s)

Submittal Deadline: Historic Resources Commission application submittal schedule.

Note: Submittals must be of sufficient clarify and detail for all departments to adequately review the request. Additional information may be required.

Project's Assessor Parcel Number(s):	Street Address
003-192-21	340 N. Minnesota Street, Carson City, NV 89703

Describe in detail the work to be performed requiring Historic Resources Commission review and approval. If necessary, attach additional sheets.

This project entails rebuilding the fire ravaged Lee Residence. Previously this historic residence had been converted to an office building. It is this occupancy we will be reconstructing. The structure's form and finishes will be recreated to match the original; the existing foundation will remain, as will the existing main level floor and porch deck framing. The original north side fireplace and chimney will remain as well. From there the existing wall heights, door and window locations, roof slopes and overhangs will match the original. The roof will be framed in the original "cut and stack" style of the original residence using modern lumber. The original eave and varge detailing, cornices and frieze will be replicated using materials salvaged from the fire as templates. The most recent paint colors (body and trim) will be used, along with the asphalt shingle roofing, as these match the remainder of the campus and was the current palette. Please see the attached for additional response.

Will the project involve demolition or relocation of any structure within or into the Historic District? ☐ Yes ☑ No If Yes, please describe:

Owner's Signature

Applicant's/Agent's Signature

Jeremy Drew, Principal / Partner
Owner's Printed Name

Applicant's/Agent's Printed Name

In reconstructing the structure, the following items will be integrated delicately. These are requirements of the building code and the ADA to bring the overall structure into as close of compliance as possible.

• The porch walking surface will be raised 2.5” to allow for the .5” maximum threshold height. This also corrects the top step of the stair not meeting the building code requirements.

· To meet current code for required height for commercial guardrails for decks greater than 30” above finished grade, the porch railing should be raised from 35” to 42”. The building owners would prefer leaving the railing at 35” to remain consistent with the historic appearance of the building.

• Handrails of the correct height will be added at the stairs with extensions wrapped around the newel posts to create the required 12" extension.

• A wheelchair lift is being added in the southwest corner of the building from a new series of walkways on-site. The lift is in a location where it cannot be viewed from the street and is in the best position to meet the ADA standard for access to ingrees points of the structure from the required accessible path.

• The site is being modified with the addition of a ramp from the parking lot and a path from the north sidewalk. Both of these connect to the wheelchair lift noted above. This creates the accessible path on site for ADA compliance.

NTMA / RCI Burn Repair

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL JOB SITE REQUIREMENTS AND FOR COORDINATION OF ARCHITECTURAL DRAWINGS.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGNER OF ANY DISCREPANCIES, ERRORS, OMISSIONS OR OTHER QUESTIONS RELATING TO THE CONSTRUCTION DOCUMENTS. DO NOT PROCEED WITH THE WORK UNTIL THE INTENT OF THE DOCUMENTS IS CLEAR.
3. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY. WORK REQUIRED TO BE DONE BY ONE DOCUMENT AND NOT BY OTHERS SHALL BE DONE AS IF REQUIRED BY ALL.
4. CONTRACTORS AND SUBCONTRACTORS SHALL ENSURE THAT ALL WORK IS PERFORMED IN A PROFESSIONAL AND WORKMANLIKE MANNER BY SKILLED MECHANICS OF THE TRADE. SUBCONTRACTORS AND SUPPLIERS ARE HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK IN A TIMELY MANNER.
5. CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES SEQUENCES AND PROCEDURES, AND FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE RESIDENTIAL DESIGNER SHALL NOT BE RESPONSIBLE FOR JOB SITE CONDITIONS OR COMPLIANCE WITH SAFETY REGULATIONS GOVERNING WORK PERFORMED ON THIS PROJECT. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK ON, OR RELATED TO THESE PLANS, SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED - AND SHALL COMPLY WITH THE 'OCCUPATIONAL SAFETY AND HEALTH REGULATIONS' OF THE U.S. DEPARTMENT OF LABOR, AND WITH ANY AND ALL OTHER APPLICABLE STATE AND LOCAL SAFETY REGULATIONS. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE SAFETY CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT AND THAT THIS REQUIREMENT SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND THE RESIDENTIAL DESIGNER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
6. CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, ADEQUACY AND SAFETY OF ERECTION, BRACING, SHORING, TEMPORARY SUPPORTS, ETC. OF THE WORK AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE WORK PRIOR TO THE APPLICATION AND INSTALLATION OF ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS, AND FINISH MATERIALS. THE STRUCTURE IS NOT DESIGNED AS A STABLE UNIT UNTIL AFTER ALL COMPONENTS ARE IN PLACE AND THEREFORE THE CONTRACTOR SHALL PROVIDE ALL SHORING AND BRACING NECESSARY TO ENSURE THE STABILITY OF ANY AND ALL PARTS OF THE PROJECT DURING CONSTRUCTION.
7. CONTRACTOR AND SUBCONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH AND DEBRIS, AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, AND PAINT OVERSPRAY.
8. BUILDER'S SET: THIS SET OF DRAWINGS HAS BEEN PREPARED SUFFICIENT TO OBTAIN A BUILDING PERMIT. ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED IN THIS 'BUILDER'S SET'. THE IMPLEMENTATION OF THE DRAWINGS REQUIRES THE CONTRACTOR TO BE THOROUGHLY KNOWLEDGEABLE WITH THE APPLICATION CODES AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PROJECT AND TYPE OF CONSTRUCTION.
9. THE CONTRACTOR AND SUBCONTRACTORS SHALL MAKE NO STRUCTURAL SUBSTITUTIONS, CHANGES OR MODIFICATIONS WITHOUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER.
10. UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS, NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED, OR OTHERWISE WEAKENED WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.
11. CODE COMPLIANCE
    A. ALL WORK FOR THIS PROJECT SHALL COMPLY WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE AND OTHER CODES AND ORDINANCES AS CURRENTLY ADOPTED AND AMENDED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT.

BASIS OF DESIGN

BUILDING CODE:

2018 INTERNATIONAL BUILDING CODE - "IBC"
2018 INTERNATIONAL EXISTING BUILDING CODE - "IEBC"
2018 INTERNATIONAL ENERGY CONSERVATION CODE - "IECC"
2018 INTERNATIONAL FUEL GAS CODE - "IFGC"
2018 INTERNATIONAL MECHANICAL CODE - "IMC"
2018 UNIFORM PLUMBING CODE - "UPC"
2018 UNIFORM MECHANICAL CODE - "UMC"
2017 NATIONAL ELECTRICAL CODE - "NEC"
2018 NORTHERN NEVADA CODE AMENDMENTS BY THE NNCICC
2018 INTERNATIONAL WILDLAND URBAN INTERFACE CODE - "IWUIC"
2018 INTERNATIONAL FIRE CODE - "IFC"

PROJECT INFORMATION

SCOPE OF WORK:
BURN REPAIR, REBUILD AND ADA ACCESSIBILITY MODIFICATIONS TO A HISTORIC REGISTERED OFFICE BUILDING

ADDRESS:	340 N. MINNESOTA ST. CARSON CITY, NV 89703
A.P.N:	003-192-21
ZONING:	RO
FLOOD ZONE:	X
NUMBER OF STORIES:	TWO
PARCEL AREA:	0.20 ACRES

AREA TABULATIONS

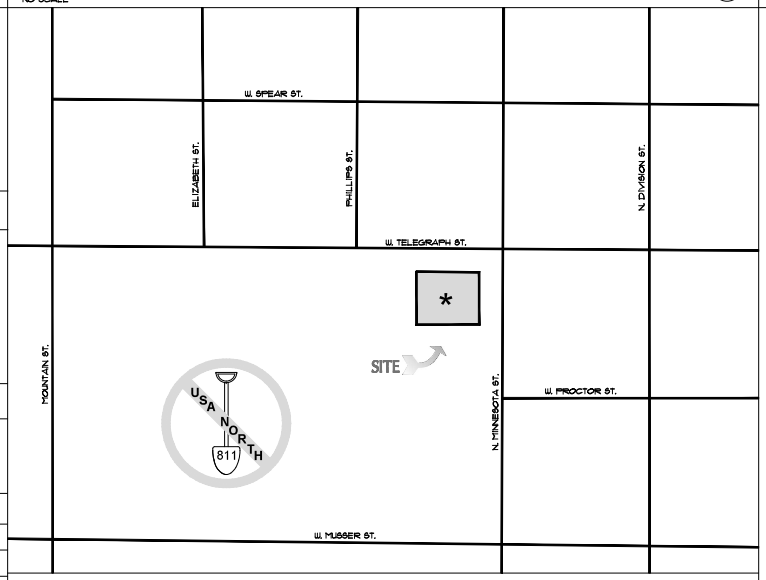
(E) MAIN LEVEL OFFICE AREA:	±1,984 S.F.
(E) UPPER LEVEL OFFICE AREA:	±1,915 S.F.
(E) TOTAL OFFICE AREA:	±3,899 S.F.
(E) BASEMENT MECHANICAL AREA:	±581 S.F.

BUILDING CODE ANALYSIS

OCCUPANCY GROUP:	B
CONSTRUCTION TYPE:	V-B
ALLOWABLE AREA:	9,000 S.F. (B - NO SPRINKLERS)
EXISTING BUILDING AREA:	4,480 S.F. - TOTAL BLDG.
ALLOWABLE HEIGHT / STORIES:	40' / 2
PROPOSED HEIGHT / STORIES:	35'-2" / 2
FIRE ALARM:	YES
FIRE SPRINKLERS:	NO
ACCESSIBILITY:	THE ORIGINAL BUILDING PLAN TO BE MODIFIED TO PROVIDE INCREASED ACCESSIBILITY.

VICINITY MAP

NO SCALE



DIRECTORY

OWNER
CAROLYN MC LAIN
340 N MINNESOTA ST.
CARSON CITY, NEVADA 89703

CONTRACTOR
CHRIS NELSON
BELFOR PROPERTY RESTORATION
90 ARTISAN MEANS WAY, STE B
RENO, NEVADA 89511
TEL. (775)-424-3200

ENGINEER
JARED KRUPA PE
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WWW.K2ENG.NET

DRAWING INDEX

K2 ENGINEERING
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Lee Residence Rebuild

Carson City, NV

340 N Minnesota Street
A.P.N.: 003-192-21

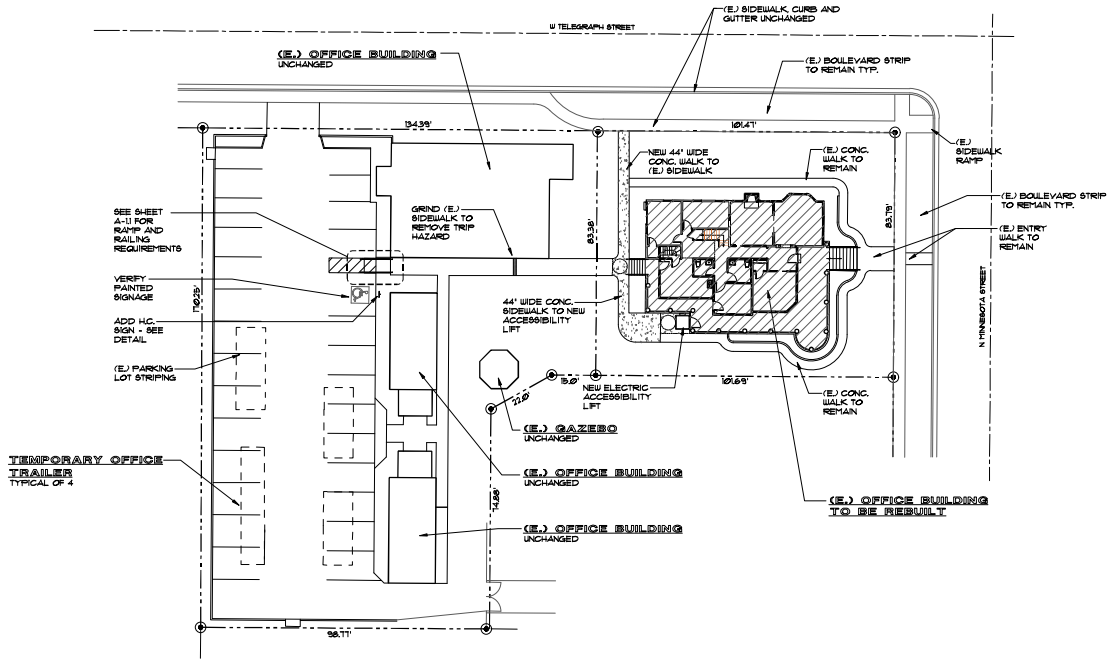
Brandt T. Kennedy, P.E.
Jared A. Krupa, P.E.

Revisions

Date	06/29/2023
Drawn	K2
Checked	JAK
Project No.	22-386

Cover Sheet

A-0



SITE PLAN
SCALE 1" = 20'-0"

GENERAL SITE NOTES

1. ALL WORK MUST CONFORM W/ LOCAL BUILDING CODES, CITY, COUNTY AND STATE ORDINANCES, SUBDIVISION REGULATIONS AND THE INTERNATIONAL BUILDING CODE, INTERNATIONAL RESIDENTIAL CODE, UNIFORM MECHANICAL CODE, UNIFORM PLUMBING CODE, INTERNATIONAL ENERGY CONSERVATION CODE (2018 EDITIONS) AND THE 2017 NATIONAL ELECTRICAL CODE.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED GRADES, UTILITIES, AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND COORDINATING ALL SERVICE REQUIREMENTS WITH THE APPROPRIATE PUBLIC AGENCY OR UTILITY PROVIDER. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REQUIREMENTS.
4. PLACEMENT OF STRUCTURE WITHIN SETBACKS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. NOTIFY OWNER OF ANY DISCREPANCIES.
5. CONC. FLATWORK TO BE FINISHED PER OWNERS REQUIREMENTS.
6. SLOPE LAWN AREAS FOR DRAINAGE MIN. 1/4" PER 1'-0".
7. MAINTAIN EXISTING DRAINAGE WITH 5% (2% MIN.) SLOPE AWAY FROM PROPOSED STRUCTURE FOR A MINIMUM OF 10' AND DRAINAGE SWALE 2'-6" MIN. IN FROM PROPERTY LINES AS REQUIRED TO PREVENT DRAINAGE ONTO ADJACENT PRIVATE PROPERTY. MINIMUM SLOPE OF DRAINAGE SWALE SHALL BE 1%.
8. THIS SITE IS LOCATED IN FEMA FLOOD ZONE X WHICH IS DETERMINED TO BE OUTSIDE OF THE 100 YEAR FLOOD PLAIN. BOUNDARY OF THE 100-YEAR FLOOD PLAIN IS NOT WITHIN 100 FEET OF PROPERTY.
9. THIS SITE IS SERVICED BY MUNICIPAL WATER AND MUNICIPAL SEWER.
10. THE DESIGN FOR THIS SITE HAS BEEN BASED ON THE BEST AVAILABLE INFORMATION. ALL ASSUMED EXISTING AND PROPOSED INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL PARTIES SHOULD ANTICIPATE THE POTENTIAL NEED FOR MODIFICATIONS TO THE INITIAL DESIGN IN ORDER TO ACCOMMODATE ACTUAL FIELD CONDITIONS. ALL DISCREPANCIES DISCOVERED IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
11. NEITHER A TOPOGRAPHICAL OR BOUNDARY SURVEY WAS PERFORMED FOR THIS SITE. THE TOPOGRAPHY SHOWN IS FROM THE WASHOE COUNTY GIS WEBSITE AND THE BOUNDARY SHOWN IS BASED ON RECORD INFORMATION. IT IS RECOMMENDED THAT PRIOR TO CONSTRUCTION A FULL SURVEY IS PERFORMED IN ORDER TO ACCURATELY PLACE THE IMPROVEMENTS.
12. SHOULD ANY PREHISTORIC OR HISTORIC REMAINS/ARTIFACTS BE DISCOVERED DURING SITE DEVELOPMENT, WORK SHALL TEMPORARILY BE HALTED AT THE SPECIFIC SITE AND THE STATE HISTORIC PRESERVATION OFFICE OF THE DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS, SHALL BE NOTIFIED TO RECORD AND PHOTOGRAPH THE SITE. THE PERIOD OF TEMPORARY DELAY SHALL BE LIMITED TO A MAXIMUM OF TWO (2) WORKING DAYS FROM THE DATE OF NOTIFICATION.
13. THERE ARE NO WATERCOURSES WITHIN 100' OF PROPERTY.

Grading Note:
SITE DISTURBANCE LESS THAN 50 CUBIC YARDS. 'NO GRADING REQUIRED'.

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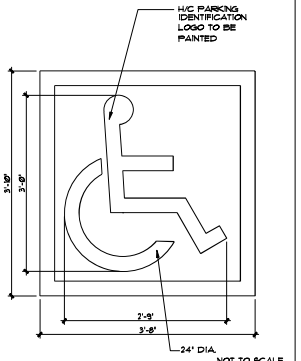
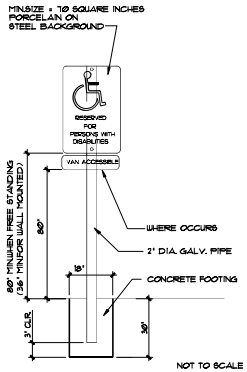
Site Plan

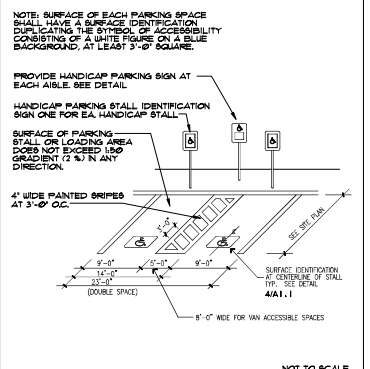
A-1



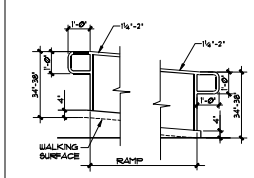
DISABLED SYMBOL



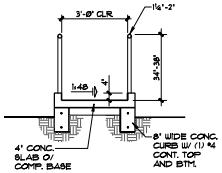
DISABLED PARKING SIGN



DISABLED PARKING STALL



TYP. RAMP RAILING



TYP. RAMP SECTION

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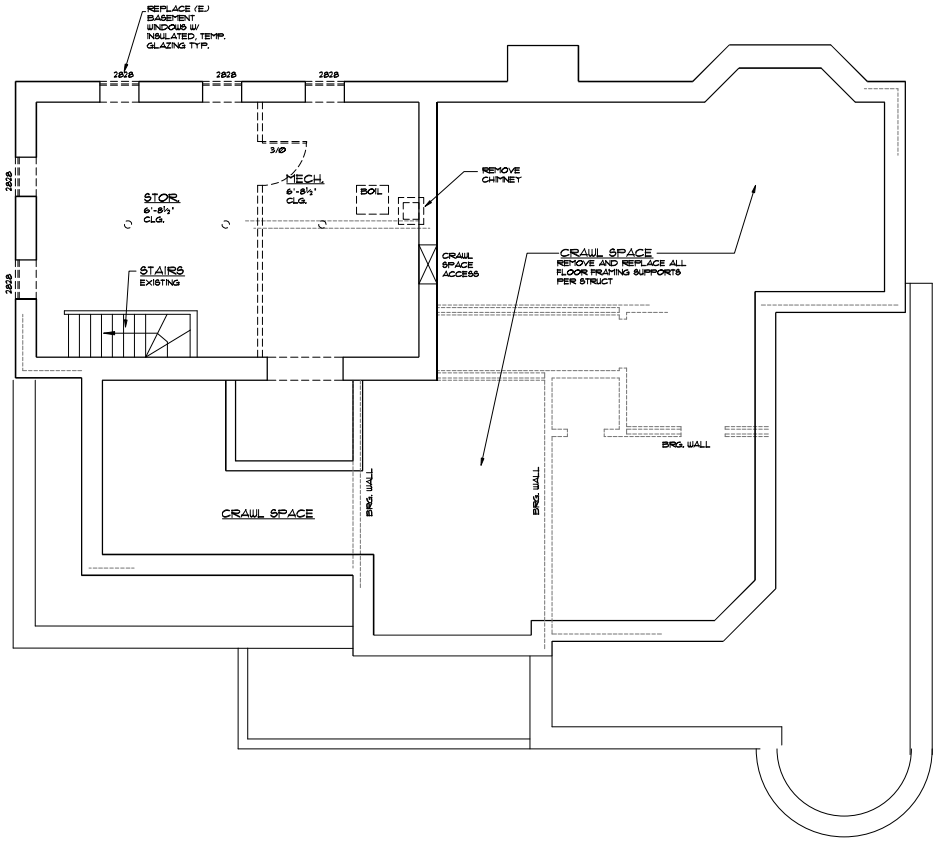
Site Details

A-1.1



BASEMENT DEMO PLAN

SCALE ¼" = 1'-Ø"

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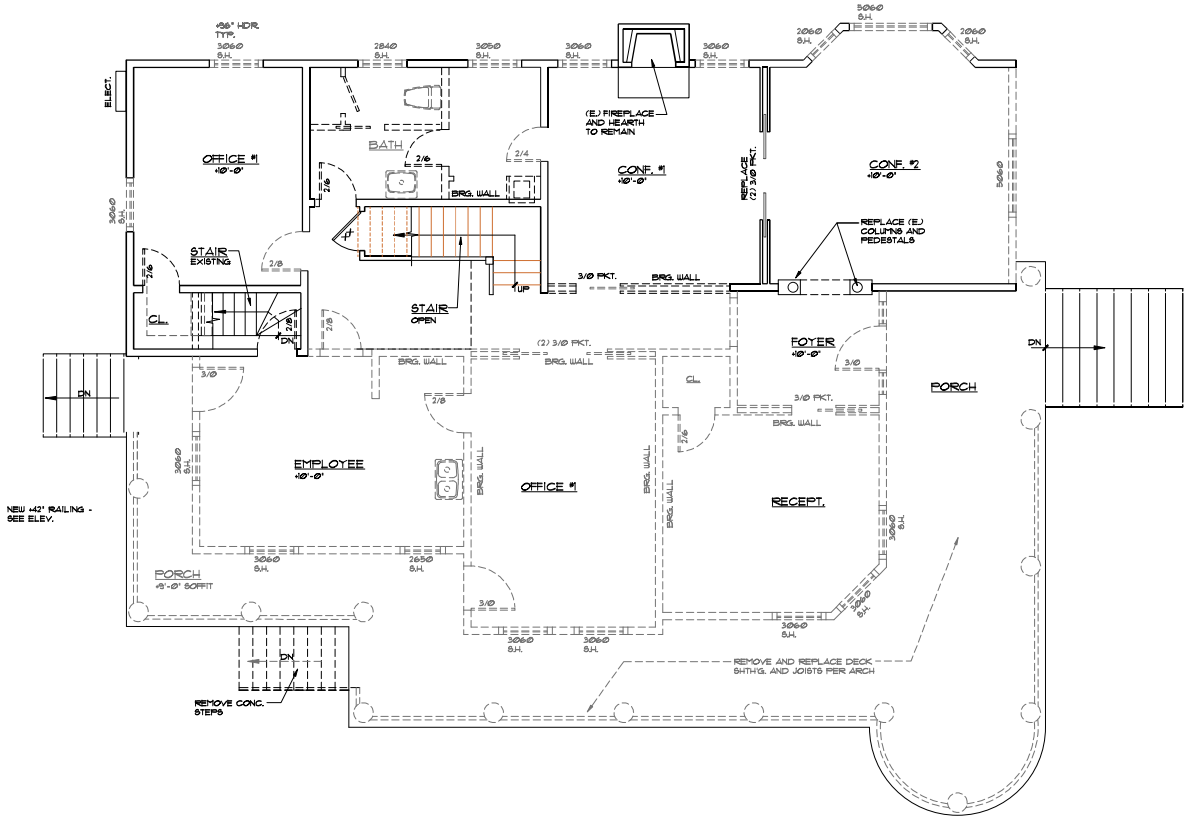
Basement Demolition Plan

A-2



NOTE: ENTIRE ROOF AND UPPER LEVEL REMOVED

MAIN LEVEL DEMO PLAN

SCALE ¼" = 1'-0"

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Main Level Demolition Plan

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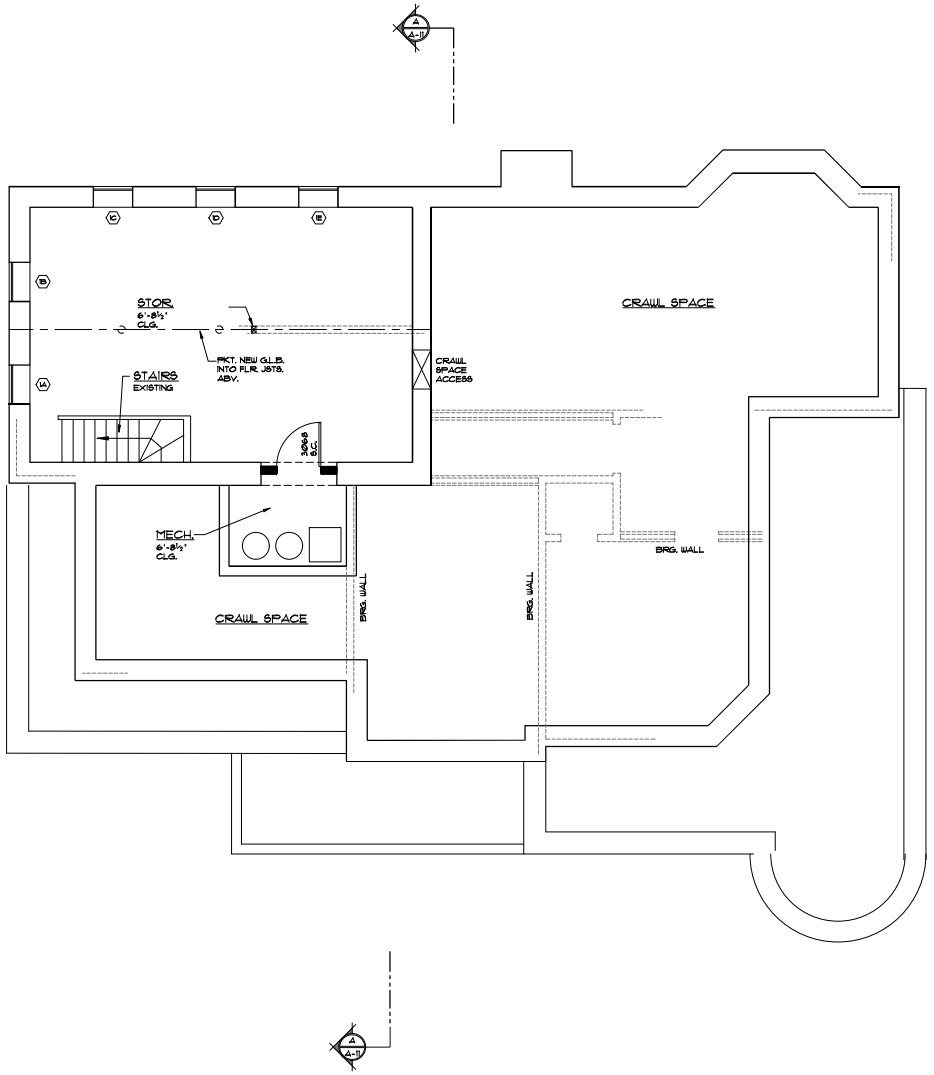

BASEMENT FLOOR PLAN

SCALE ¼" = 1'-0"

MECH AREA = 581 SF.

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Basement Floor Plan

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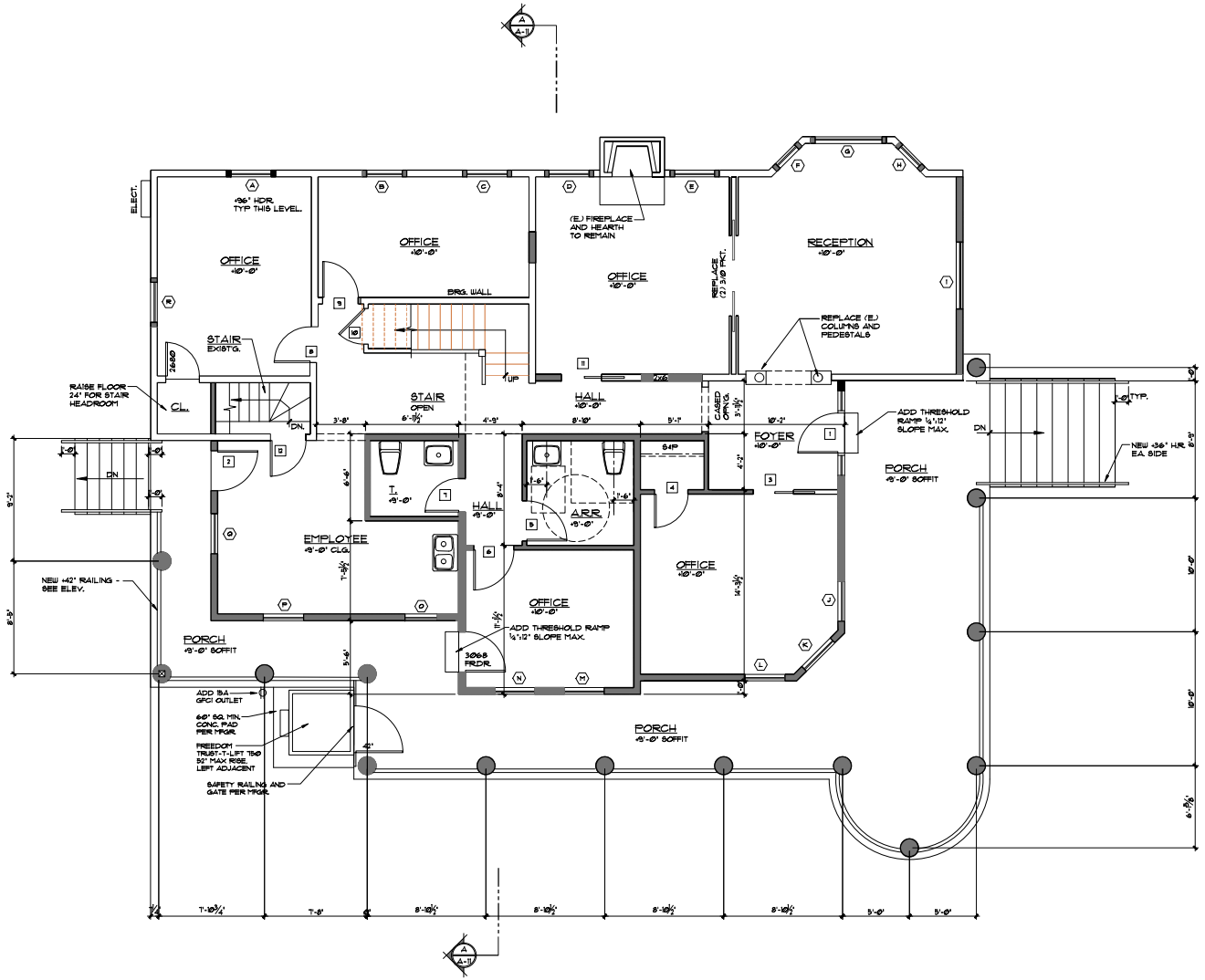

MAIN LEVEL FLOOR AREA = 1984 S.F.
1/150 S.F. OCCUPANT LOAD = 10 OCCUPANTS - 1 EXIT REQ'D.

MAIN LEVEL FLOOR PLAN

SCALE ¼" = 1'-0"

MAIN LEVEL FLOOR AREA = 1984 S.F.
UPPER LEVEL FLOOR AREA = 1915 S.F.
TOTAL FLOOR AREA = 3,899 S.F.

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Main Level Floor Plan

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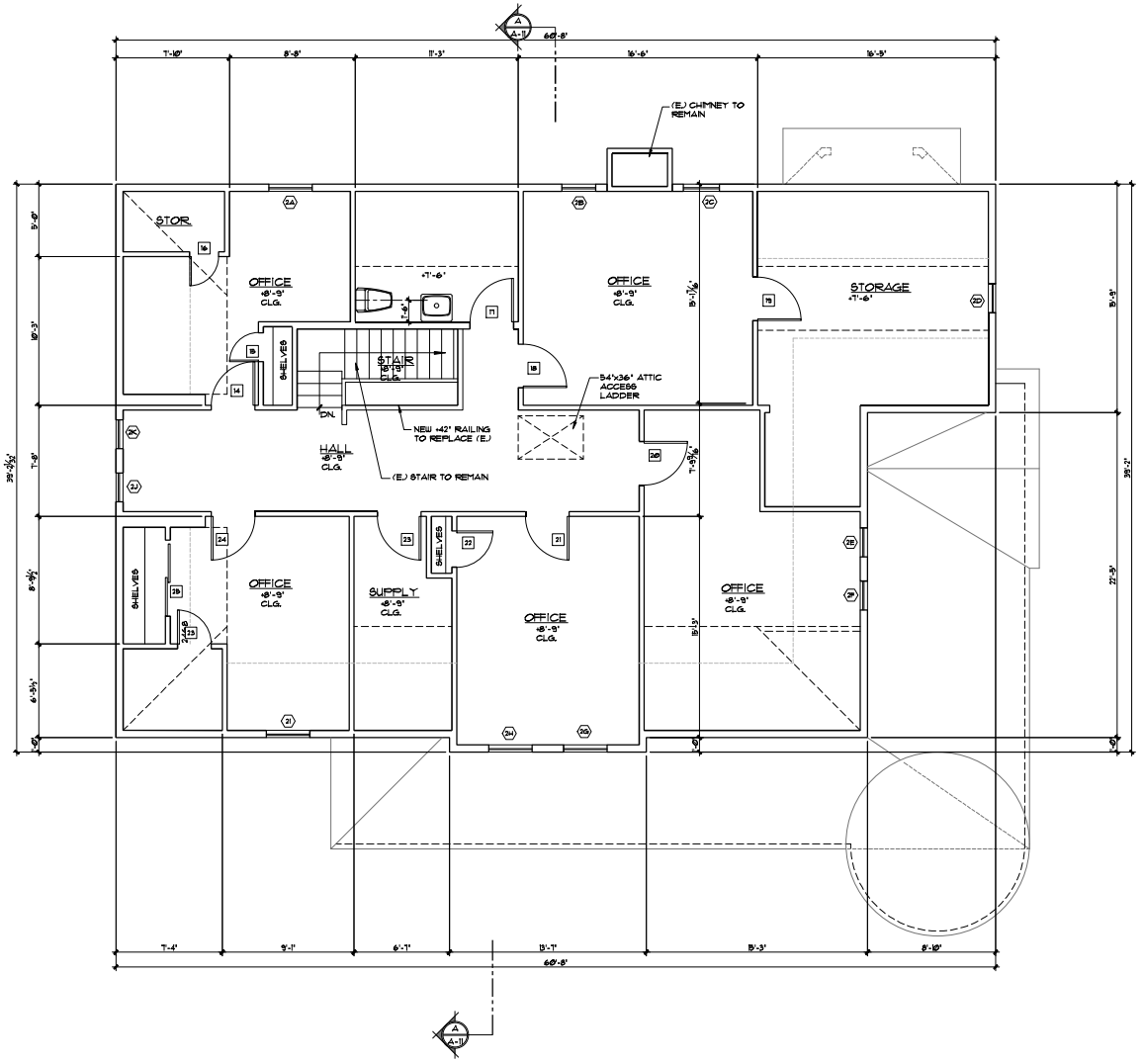

UPPER LEVEL FLOOR PLAN

SCALE ¼" = 1'-0"

UPPER LEVEL FLOOR AREA = 1,515 S.F.
FLOOR AREA GREATER THAN 7'-0" TALL = 1,428 S.F.
1/150 S.F. OCCUPANT LOAD = 10 OCCUPANTS - 1 EXIT REQ'D.

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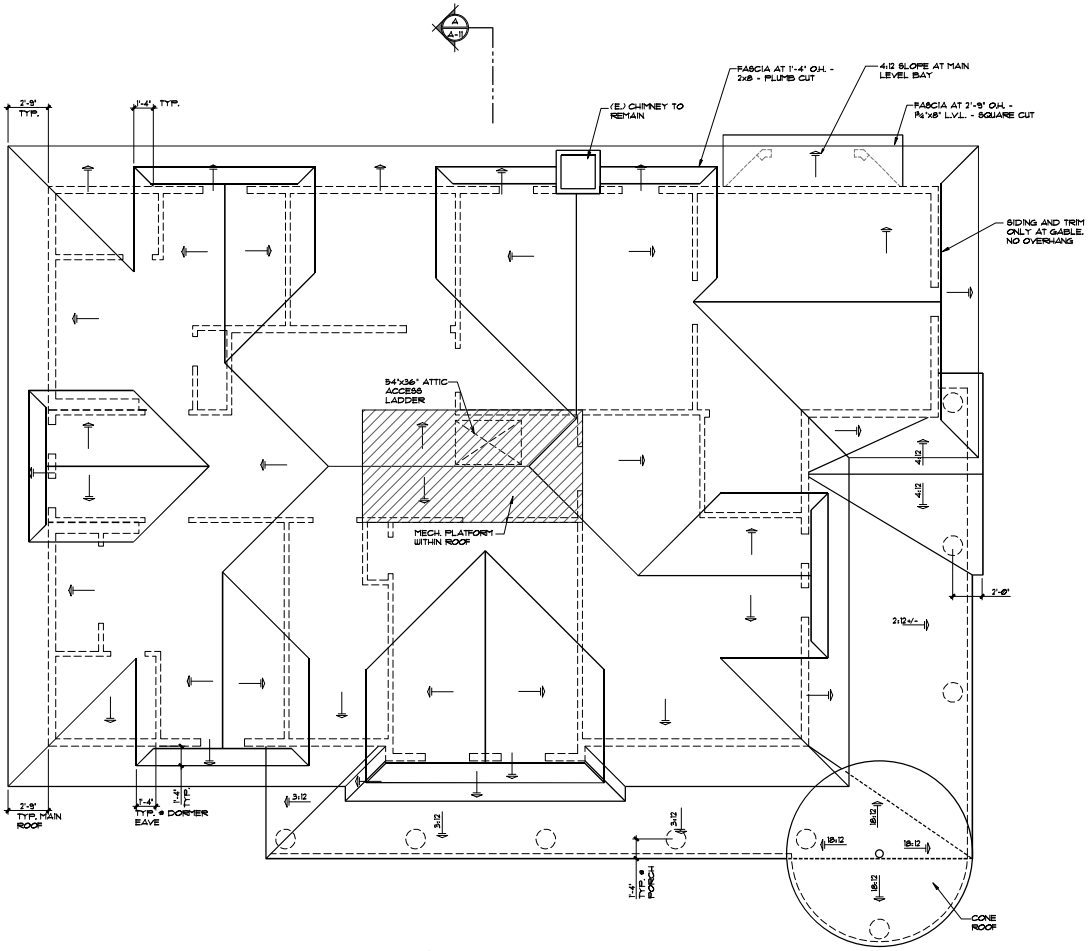
Upper Level Floor Plan

A-6

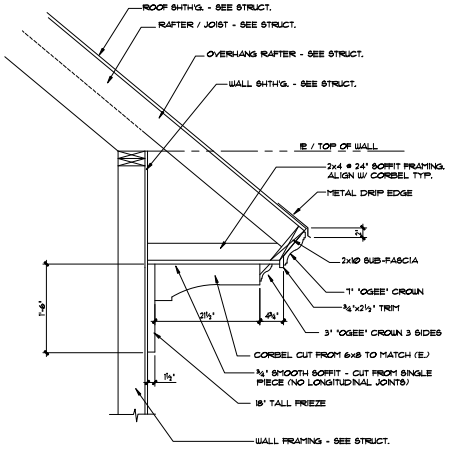


ROOF NOTES:

- NOTE: 18:12 ROOF SLOPE TYP. U.N.O.
- ROOFING - MULTI-LAYER ASPHALT SHINGLES TO MATCH ORIGINAL

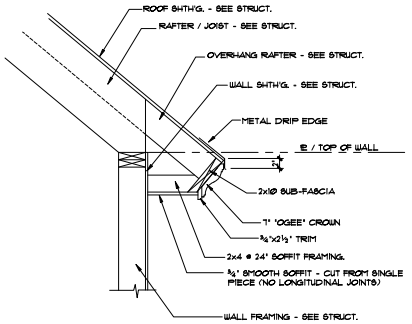
ROOF PLAN

SCALE ¼" = 1'-0"



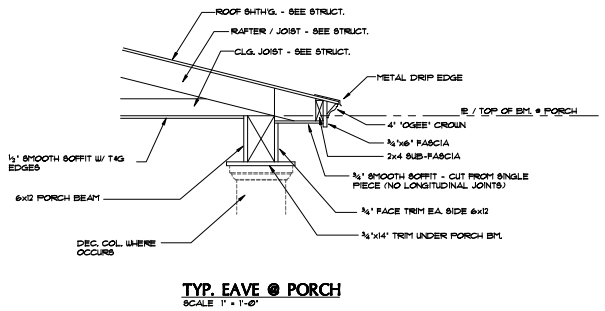
TYP. EAVE @ 33" OVERHANG

SCALE 1" = 1'-0"



TYP. EAVE @ DORMER

SCALE 1" = 1'-0"



TYP. EAVE @ PORCH

SCALE 1" = 1'-0"

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Roof Plan

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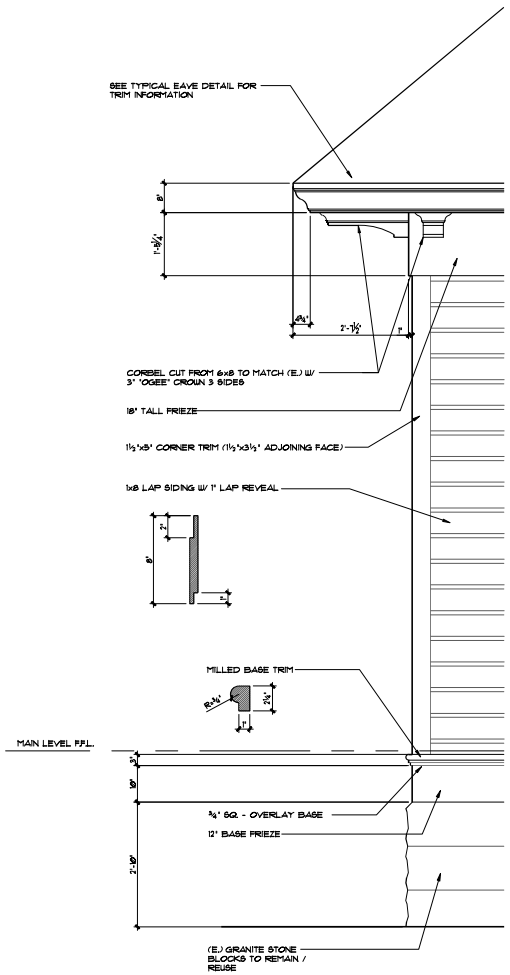


TYP. WALL TRIM

SCALE 3/4" = 1'-0"

WINDOW SCHEDULE

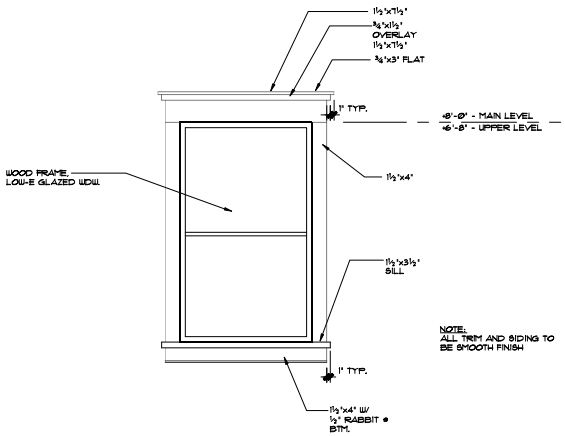
	SIZE	TYPE	FRAME	GLAZING	NOTES
MAIN LEVEL					
A	3060	S.H.	WOOD	LOW-E	PAINTED
B	2840	S.H.	WOOD	LOW-E	PAINTED
C	3050	S.H.	WOOD	LOW-E	PAINTED
D	3060	S.H.	WOOD	LOW-E	PAINTED
E	3060	S.H.	WOOD	LOW-E	PAINTED
F	2060	S.H.	WOOD	LOW-E	PAINTED
G	5060	S.H.	WOOD	LOW-E	(2) 2660 MULLED -PAINTED
H	2060	S.H.	WOOD	LOW-E	PAINTED
I	5060	S.H.	WOOD	LOW-E	(2) 2660 MULLED -PAINTED
J	3060	S.H.	WOOD	LOW-E	PAINTED
K	3060	S.H.	WOOD	LOW-E	PAINTED
L	3060	S.H.	WOOD	LOW-E	PAINTED
M	3060	S.H.	WOOD	LOW-E	PAINTED
N	3060	S.H.	WOOD	LOW-E	PAINTED
O	2650	S.H.	WOOD	LOW-E	PAINTED
P	3060	S.H.	WOOD	LOW-E	PAINTED
Q	3060	S.H.	WOOD	LOW-E	PAINTED
R	3060	S.H.	WOOD	LOW-E	PAINTED
UPPER LEVEL					
2A	3036	S.H.	WOOD	LOW-E	PAINTED
2B	2036	S.H.	WOOD	LOW-E	PAINTED
2C	2036	S.H.	WOOD	LOW-E	PAINTED
2D	24"ø	FXD.	WOOD	LOW-E	PAINTED
2E	2036	S.H.	WOOD	LOW-E	PAINTED
2F	2036	S.H.	WOOD	LOW-E	PAINTED
2G	3036	S.H.	WOOD	LOW-E	PAINTED
2H	3036	S.H.	WOOD	LOW-E	PAINTED
2I	3036	S.H.	WOOD	LOW-E	PAINTED
2J	2036	S.H.	WOOD	LOW-E	PAINTED
2K	2036	S.H.	WOOD	LOW-E	PAINTED
BASEMENT LEVEL					
1A	2828	FXD	METAL	LOW-E	ANODIZED
1B	2828	FXD	METAL	LOW-E	ANODIZED
1C	2828	FXD	METAL	LOW-E	ANODIZED
1D	2828	FXD	METAL	LOW-E	ANODIZED
1E	2828	FXD	METAL	LOW-E	ANODIZED

DOOR SCHEDULE

	SIZE	TYPE	MATERIAL	GLAZING	FRAME	NOTES
MAIN LEVEL - EXTERIOR						
1	3080	1/2 LITE	S.C. - WOOD	LOW-E	WOOD	PAINTED (2) 1040 SDLTS - FXD / PAINTED
2	3080	½ LITE		LOW-E	WOOD	PAINTED
MAIN LEVEL - INTERIOR						
3	3080	POCKET	S.C. - WOOD		WOOD	
4	2680	HINGE	S.C. - WOOD		WOOD	
5	3080	HINGE	S.C. - WOOD		WOOD	CLOSER AND KICK PLATE
6	3080	HINGE	S.C. - WOOD	LOW-E	WOOD	
7	2680	HINGE	S.C. - WOOD		WOOD	
8	2880	HINGE	S.C. - WOOD		WOOD	
9	2880	HINGE	S.C. - WOOD		WOOD	
10	2868	HINGE	S.C. - WOOD		WOOD	CLOSER
11	3080	POCKET	S.C. - WOOD		WOOD	
12	2880	HINGE	S.C. - WOOD		WOOD	CLOSER
13	6080	DBL. POCKET	S.C. - WOOD		WOOD	
14	2868	HINGE	S.C. - M.D.F.		WOOD	PAINTED
15	2068	HINGE	H.C. - M.D.F.		WOOD	PAINTED
16	2068	HINGE	H.C. - M.D.F.		WOOD	PAINTED
17	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED, CLOSER
18	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED
19	3068	HINGE	H.C. - M.D.F.		WOOD	PAINTED
20	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED
21	2868	HINGE	H.C. - M.D.F.		WOOD	PAINTED
22	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED
23	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED
24	3068	HINGE	S.C. - M.D.F.		WOOD	PAINTED
25	60"	BI-PASS	H.C. - M.D.F.		WOOD	PAINTED FIELD VERIFY AVAILABLE HT.
26	2468	HINGE	H.C. - M.D.F.		WOOD	PAINTED

DOOR NOTES

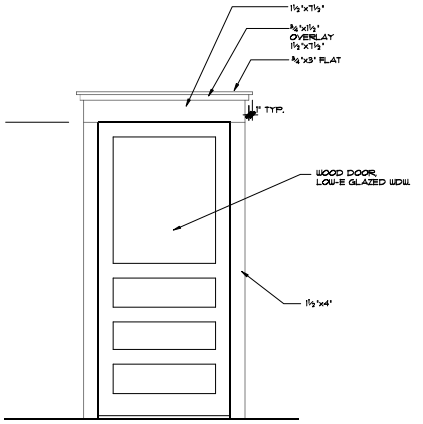
1. ALL DOOR TO HAVE COMPLIANT HARDWARE. LEVER HARDWARE SHALL NOT REQUIRE MORE THAN 15 LBS. FORCE TO OPERATE. ROTATIONAL HARDWARE TO REQUIRE MORE THAN 28 LBS. OF FORCE TO OPERATE.
2. ALL DOOR HARDWARE TO COMPLY WITH ICC A117-2009 STANDARDS AND BE A.D.A COMPLIANT.
3. ALL MAIN EXIT DOORS TO BE PROVIDED WITH DURABLE SIGN OVER DOOR TO READ 'THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS'.



NOTE:
ALL TRIM AND SIDING TO BE SMOOTH FINISH

TYP. WINDOW TRIM

SCALE 3/4" = 1'-0"



TYP. DOOR TRIM

SCALE 1/2" = 1'-0"

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Window & Door Schedules

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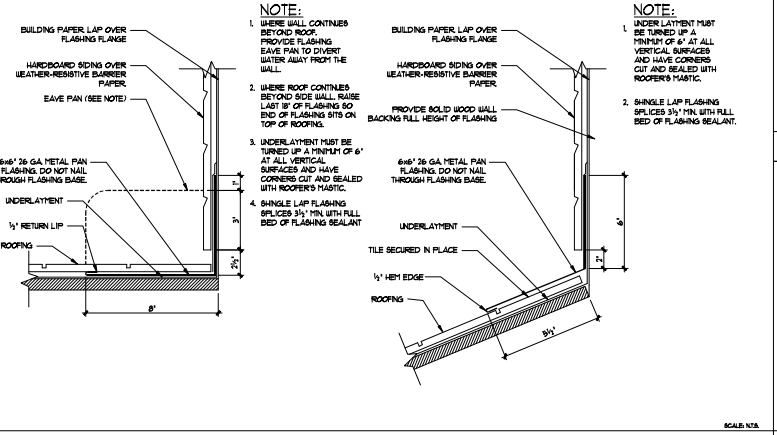
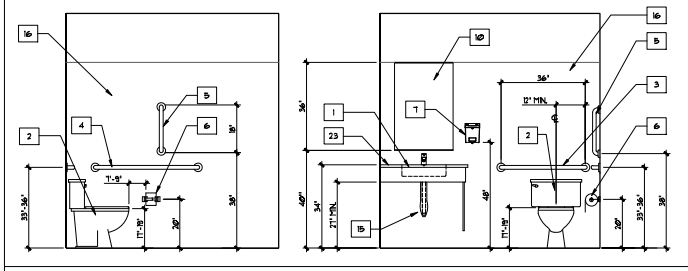
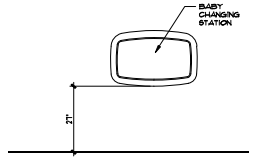


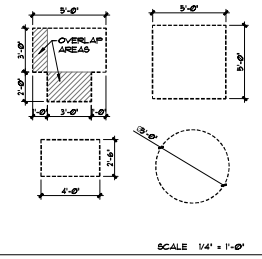
Roof and Wall Flashing



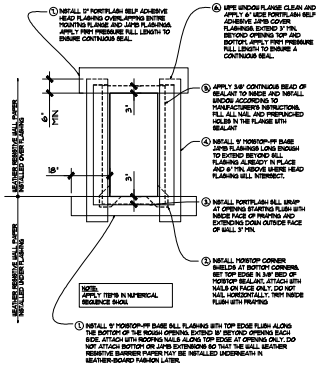
SINGLE USER RESTROOM REQUIREMENTS



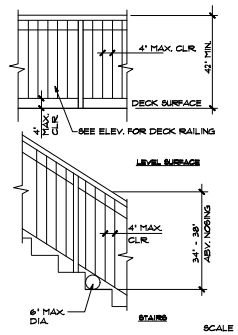
BABY CHANGING STATION



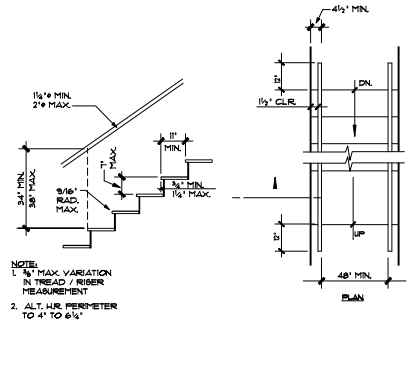
CLEAR FLOOR SPACE REQMTS.



Typ. Wall Opening Flashing



STAIR RAILING



STAIR REQUIREMENTS

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Carson City, NV

340 N Minnesota Street
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Brandt T. Kennedy, P.E.
Jared A. Krupa, P.E.

Revisions

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Drawn	K2
Checked	JAK
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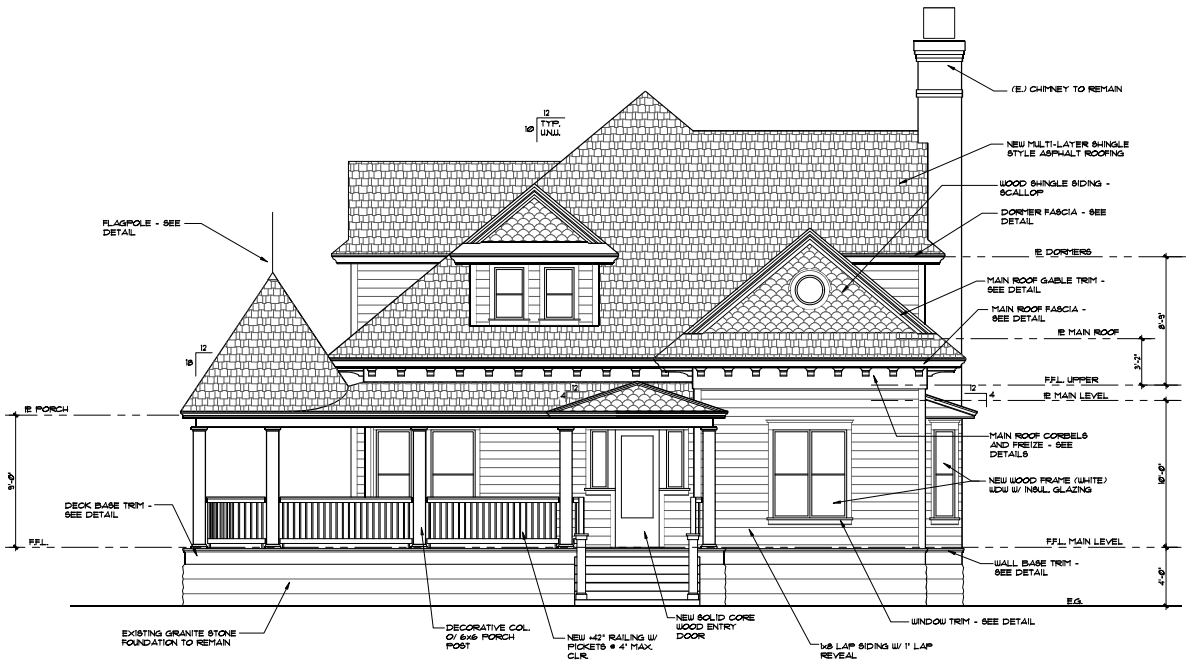
Architectural Details

A-8.1



EAST ELEVATION
SCALE ¼" = 1'-0"

NORTH ELEVATION
SCALE ¼" = 1'-0"

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Elevations

A–9

WEST ELEVATION
SCALE ¼" = 1'-0"

SOUTH ELEVATION
SCALE ¼" = 1'-0"

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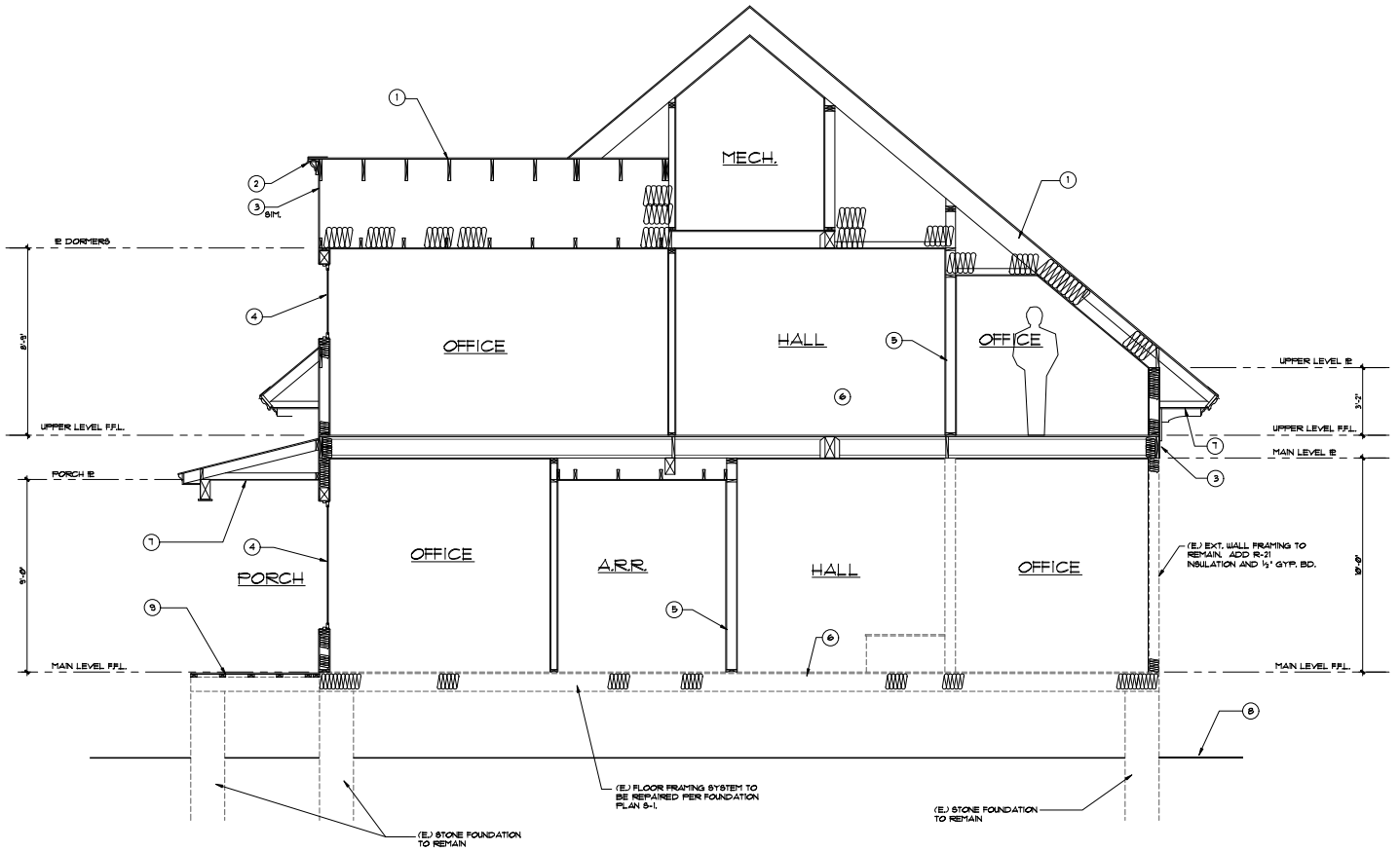
Elevations

A-10



SECTION NOTES:

1. TYPICAL ROOF/ CEILING
   - ROOFING MATERIAL - SEE ELEVATIONS
   - 2 LAYERS 30# FELT
   - SHEATHING - SEE STRUCT.
   - RAFTERS - SEE ROOF FRAMING PLAN
   - 2x CEILING JOISTS @ 24" O.C. - SEE STRUCT.
   - R-38 INSUL.
   - ⅝" GYP. BD.
2. TYPICAL FASCIA / BARGE
   - SEE DETAILS - A-7
3. TYPICAL EXTERIOR WALL
   - LAP SIDING O/ WEATHER RESISTIVE BARRIER EQ. TO (2) LAYER GRADE D BLDG. PAPER
   - EXT. SHEAR - SEE STRUCT.
   - 2x6 @ 16" O.C. STUDS (DBL SOLE E)
   - R-21 BATT INSUL.
   - ⅝" GYP. BD.
4. WINDOW W/ INSULATED GLAZING
5. TYPICAL INTERIOR WALL
   - ½" GYP. BD.
   - 2x STUDS @ 16" O.C. (W/ BATT INSUL AT PLUMBING WALLS & 2x FIRE BLKG. @ 10'-0" MAX.)
   - ½" GYP. BD.
6. TYPICAL FLOOR
   - FLOOR FINISH
   - SHEATHING - SEE STRUCT.
   - FLOOR JOISTS - SEE STRUCT.
   - R-30 BATT INSUL. O/ UNHEATED SPACE
7. TYPICAL ALL EAVES / SOFFITS
   - SMOOTH ACX OR PANELS - SEE DETAILS
   - FRAMING PER STRUCT.
8. EXISTING GRADE
   - SLOPE A MINIMUM OF 5% AWAY FROM BUILDING AT ALL AREAS, TYP.
9. EXTERIOR PORCH
   - W.P. EPOXY COATING
   - PLYWD. SUBSTRATE PER MFGR.
   - 2x SLEEPERS
   - EXISTING DECK FRAMING

SECTION "A-A"
SCALE 3/8" = 1'-0"

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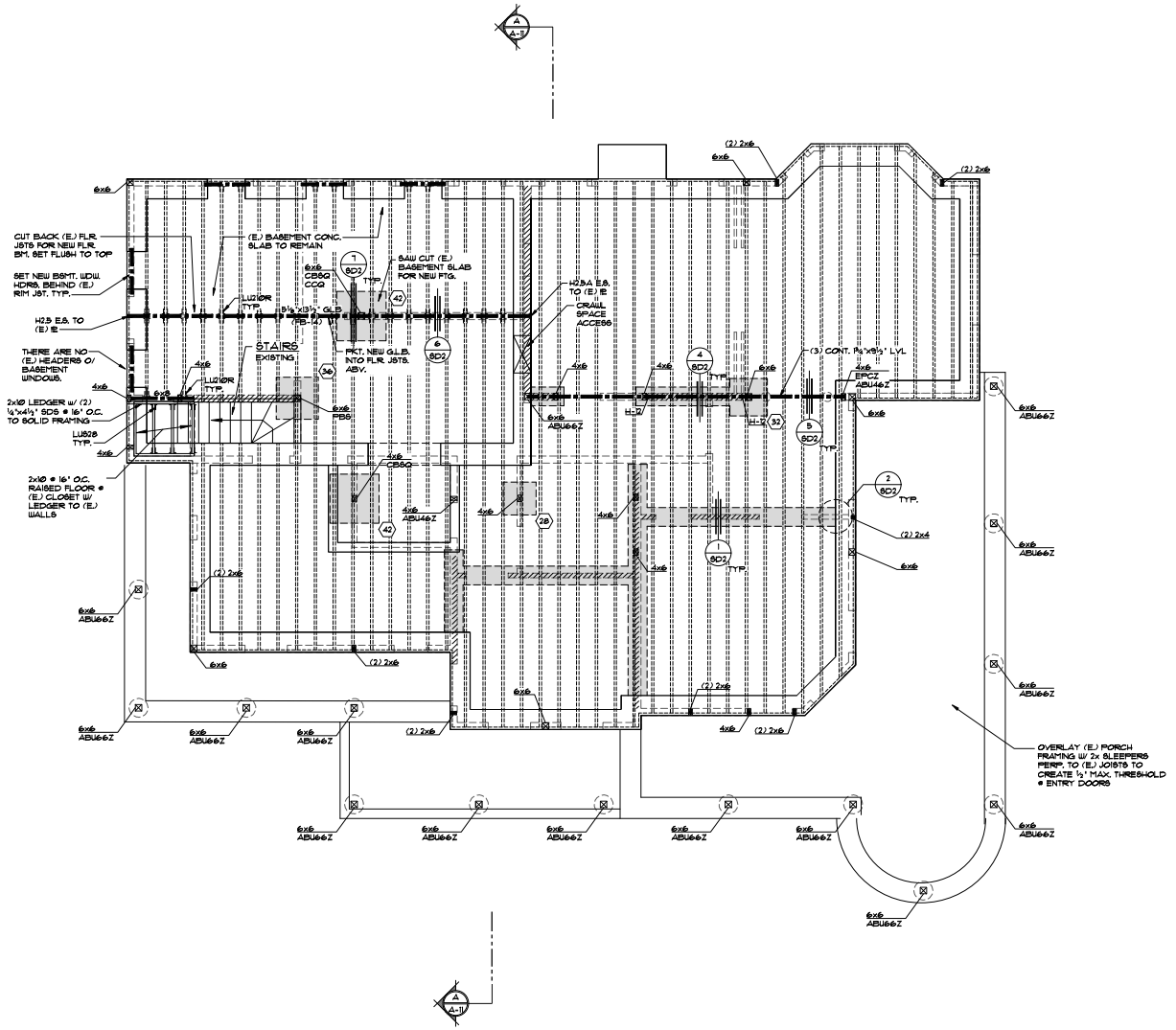
Section "A-A"

A-11



FOUNDATION PLAN

SCALE ¼" = 1'-0"

FOUNDATION PLAN LEGEND

SEE SHEET SD-1 FOR ADDITIONAL NOTES AND SCHEDULES

- FLOOR JOIST
- TYPICAL WALL W/ SHEARPLY AND HOLDOWNS.
- ANCHOR BOLT SPACING, 48" O/C TYP. U.N.O.
- INDICATES CONCRETE PIER FOOTING PER SCHEDULE ON SHEET SD-1
- P.T. 3x SILL IS W/ ⅝"ø x12" AB's, SPACING AS INDICATED ON PLANS. AT TYPE 3 WALLS, 2x SILL IS MAY BE USED W/ ⅝"ø x10" AB's @ HALF THE SPECIFIED SPACING.

CONCRETE NOTES

SOILS ENGINEER SHALL EXAMINE SITE AFTER EXCAVATION & PRIOR TO SETTING ANY CONC. FORMS. SOIL ENGINEER'S RECOMMENDATIONS CONCERNING OVER EXCAVATION, COMPACTION, ETC. SHALL BE FOLLOWED.

CONC. FOOTINGS 16" x 10" W/ 2-#4 REBAR CONT. TYP. U.N.O. STEP FOOTINGS AS REQ'D. TO BEAR ON NATIVE GRADE OR AS DIRECTED BY SOILS ENGINEER. FOOTING SHALL BE A MIN. OF 2'-0" BELOW FINISHED GRADE.

8" CONC. FOUNDATION WALL W/ 1-#4 TOP & #4 VERT. @ 32" O.C. TYP. U.N.O. PROVIDE ⅝"ø x 10" AB'S @ 48" O.C. TO 2x6 P.T. SILL U.N.O. IN SHEAR WALL PLAN. PROVIDE 2x6 P.T. SOLE PLATE @ GARAGE.

ALL SLABS TO BE 4" THICK CONCRETE W/ #3 BARS @ 18" O/C E.W. OR 6x6 10/10 WELDED WIRE FABRIC REINFORCING AND SHALL BE PLACED OVER 4" TYPE-II BASE COMPACTED TO 95% ON COMPACTED NATIVE SOIL, IF SUITABLE.

FOR 2x SILL PLATE, USE ⅝"ø x 10" A.B. FOR 3x OR DOUBLE SILL PLATE, USE ⅝"ø x 12" A.B. EXTEND SILL BOLTS 7" INTO FOUNDATION. MINIMUM, MAXIMUM SPACING SHALL BE 4'-0" O.C. WITH MINIMUM (2) BOLTS IN EACH SILL BOARD. BOLTS SHALL BE LOCATED NOT MORE THAN (12) NOR LESS THAN (7) BOLT DIAMETERS FROM EACH END OF SILL PIECE. MINIMUM 3"x3"x¼" THICK PLATE WASHERS SHALL BE INSTALLED ON EACH SILL BOLT.

SILL PLATE: USE FOUNDATION GRADE REDWOOD OR TIMBERSTRAND LSL TREATED W/ ZINC BORATE OR PRESSURE TREATED DOUGLAS FIR HUD-SILL. SEE SHEARWALL SCHEDULE FOR IMPORTANT INFORMATION REGARDING SILL PLATES. FOR ALL SILL PLATES NOTED, USE 2x WALL WIDTH WOOD SILL. ALL SHEAR WALLS, EXCEPT TYPE "S" & "4", REQUIRE FOUNDATION SILL PLATES & ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS TO BE NOT LESS THAN A SINGLE 3" NOMINAL MEMBER. PLYWOOD JOINT & SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.

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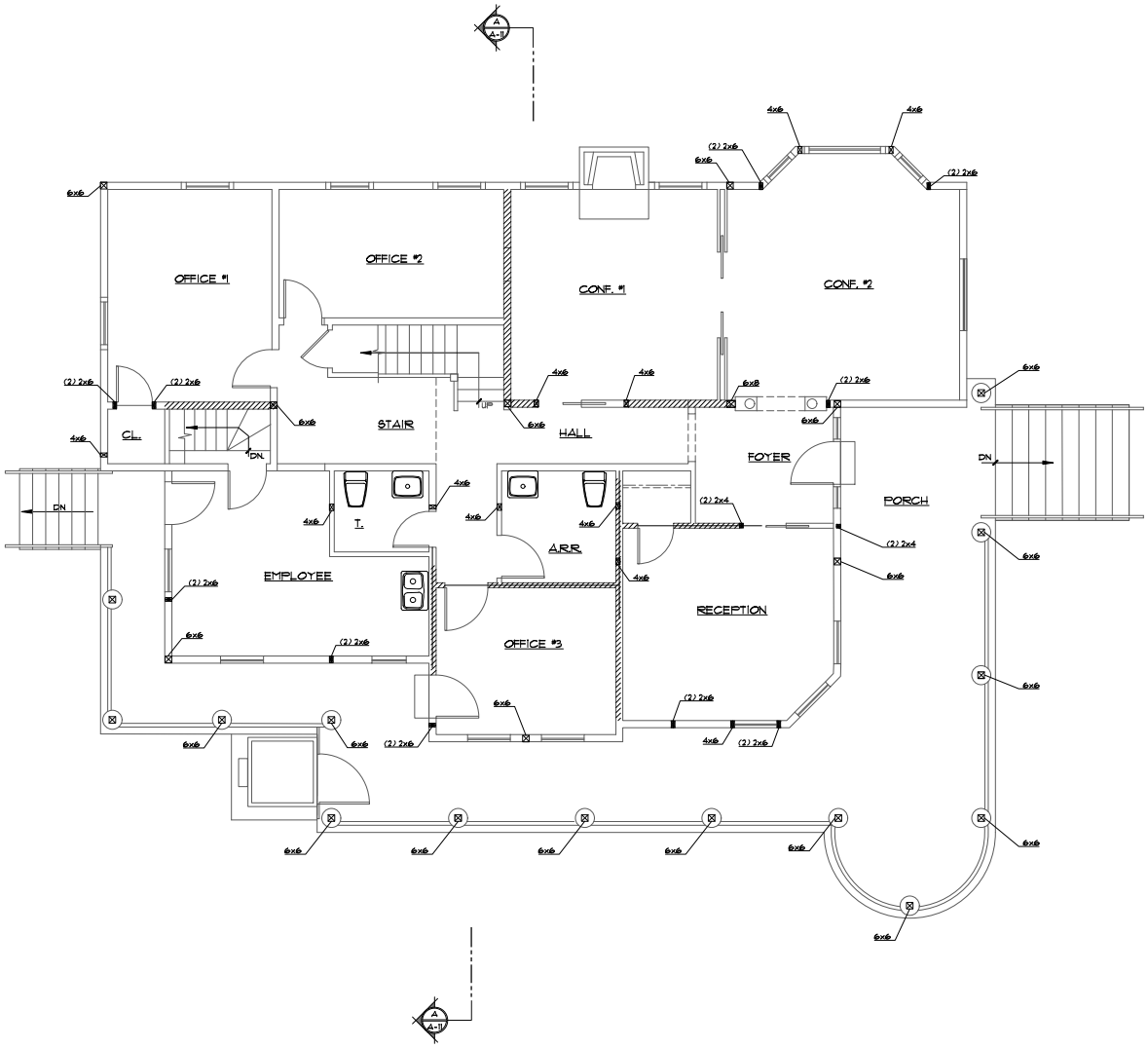
Basement Foundation Plan

S-1



SHEARWALL PLAN LEGEND

SEE SHEET SD-1 FOR ADDITIONAL NOTES AND SCHEDULES

SHEARWALL TYPE - SEE SHEET SD1 FOR ADDITIONAL INFORMATION

TYPICAL WALL w/ SHEARPLY AND HOLDOWNS.

3x OR DBL 2x FRAMING MEMBERS CONNECTED W/ (2) 16d's @ 12" O/C AT ADJOINING PANEL EDGES

MAIN LEVEL SHEARWALL PLAN

SCALE ¼" = 1'-0"

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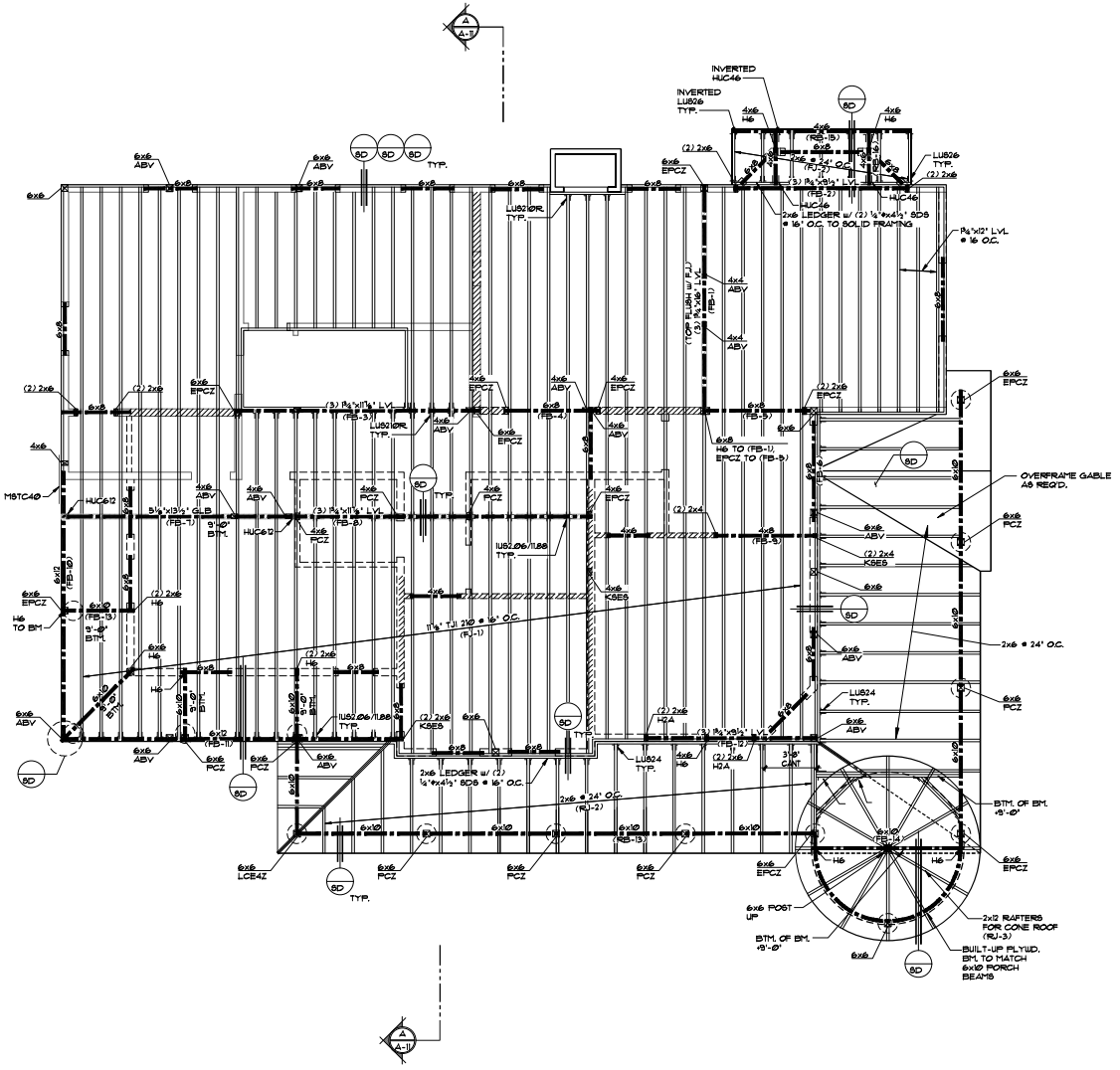
Main Level Shearwall Plan

S-2



UPPER LEVEL FLOOR FRAMING PLAN

SCALE ⅛" = 1'-0"

FLOOR FRAMING PLAN LEGEND

SEE SHEET SD-1 FOR ADDITIONAL NOTES AND SCHEDULES

- FLOOR JOIST
- WOOD HEADER/BEAM
- TYPICAL WALL w/ SHEARFLY AND HOLDOWNS. (H-X)
- ANCHOR BOLT SPACING, 48" o/c TYP. U.N.O.
- INDICATES CONCRETE PIER FOOTING PER SCHEDULE ON SHEET SD-1
- P.T. 3x SILL PL w/ ⅝"ø x12" AB's, SPACING AS INDICATED ON PLANS, AT TYPE 3 WALLS. 3x SILL PL MAY BE USED w/ ⅝"ø x10" AB's @ HALF THE SPECIFIED SPACING.

FLOOR FRAMING NOTES

¾" T&G PLYWOOD APA RATED STURD-I-FLOOR - 48/24 w/ 10d @ 6" O.C. BOUNDARY, EDGES, & DRAG STRUTS w/ 10d @ 10" O.C. FIELD - GLUE & NAIL THROUGHOUT, TYP.

11⅞" TJI 210 FLOOR JOISTS @ 16" O.C. TYP. BLK. SOLID @ ALL SUPPORT LINES. PROVIDE 1½" LSL RIM BOARD THROUGHOUT, TYP. BLOCK SOLID UNDER ALL HOLDOWNS. PROVIDE CRUSH BLOCK, WEB STIFFENERS, ETC. PER MFR.

TYPICAL FLOOR GIRDERS SHALL BE DBL. 1¾" x 9¼" 1.9E U.S. LVL'S, MAX. SPAN 10'-0" U.N.O. NAIL LVL'S TOGETHER w/ MIN. 2 ROWS OF 16d @ 12" O.C.

PROVIDE INSULATION @ RIM JOISTS & FLOOR.

INSULATE ALL PIPES & DUCTWORK.

PROVIDE SOLID BLKG. UP TO SUB-FLOOR, AS REQUIRED, TO SUPPORT POSTS ABOVE.

ALL FRAMING HARDWARE SHALL BE 'SIMPSON'. INSTALL PER MANUF. REQUIREMENTS.

PROVIDE 6" x 14" VENTS @ RIM JOISTS AS REQ'D. (1 PER EA. 25 L.F. OF EXTERIOR WALL AREA.)

VERIFY THE ENTIRE CRAWLSPACE IS COVERED BY VAPOR BARRIER TYP.

MINIMUM CLEARANCE FROM GROUND UNDER GIRDERS SHALL BE 12 INCHES & UNDER JOISTS SHALL BE 18 INCHES.

ALL EXTERIOR WALLS SHALL BE CONSIDERED SHEARWALLS NAILED AS TYPE '6' WALLS (SEE SHEARWALL SCHEDULE.)

ROOF FRAMING NOTES

ROOF LOADS: LIVE 21# SQ. FT. : DEAD 20# SQ. FT.

USE (1)-LAYER ⅞" (40/20) CDX APA RATED ROOF SHEATHING OR OSB EQUIVALENT, APPLY FACE GRAIN ALONG DIMENSION PERPENDICULAR TO SUPPORT FRAMING. STAGGER PANELS & NAIL w/ 10d'S @ 6" O.C. EDGES & BOUNDARIES & 10d'S @ 12" O.C. FIELD. NAIL ALL DRAG MEMBERS, SHEAR PANELS, BLOCKING, E.T.C. w/ NAILS SPACED @ 4" O.C. SEE DETAILS FOR ADDITIONAL NAILING REQUIREMENTS.

ALL FRAMING HARDWARE NOTED SHALL BE 'SIMPSON' INSTALL PER MANUFACTURES REQUIREMENTS.

PROVIDE MIN. DOUBLE STUDS BELOW ALL (1) & (2) PLY. GIRDER TRUSSES w/ SIMPSON H6, USE (3) STUDS @ 3-PLY TRUSSES & (4) STUDS @ 4-PLY TRUSSES, U.N.O. CONNECT GIRDER TRUSS TO POST w/ SIMPSON H6 U.N.O.

ALL GLU-LAM BEAMS SHALL BE DOUG-FIR 24F-V4 U.N.O.

TYP HEADER U.N.O. USE 6x8 D.F. #1

USE 12-16d BETWEEN TOP PLATE SPLICES. TYP U.N.O.

USE 2x6 FLAT w/ 2x6 STRONGBACK @ 48" O.C. @ GABLE END FRAMING

PROVIDE G.I. FLASHING @ ALL VALLEYS & ROOF-TO-WALL CONNECTIONS, TYP. PROVIDE BITUTHANE MEMBRANE @ CRICKETS SLOPING LESS THAN 3:12 & AS NOTED ON ROOF PLAN

USE BOUNDARY NAILING @ ALL DRAG TRUSSES U.N.O.

A35 @ 48" O.C. TRUSS BLK'G TO TOP PLATE TYP U.N.O.

PROVIDE ICE & WATER DAM MEMBRANE @ HIPS, EAVES, VALLEYS & RIDGES AS PER LOCAL BLDG DEPT STANDARDS

PROVIDE SNOW DIVERTERS @ ALL ROOF PENETRATIONS

PROVIDE ATTIC ACCESS (22"x30") PER I.R.C. SECTION R807.1

PROVIDE ROOF VENTILATION PER I.R.C. SECTION R806.1

PROVIDE BLOCKING @ ALL RIDGES, HIPS & VALLEYS TYP

PROVIDE CONT ROOF PLY UNDER ALL ROOF OVER FRAMING

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Jared A. Krupa, P.E.

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Drawn	K2
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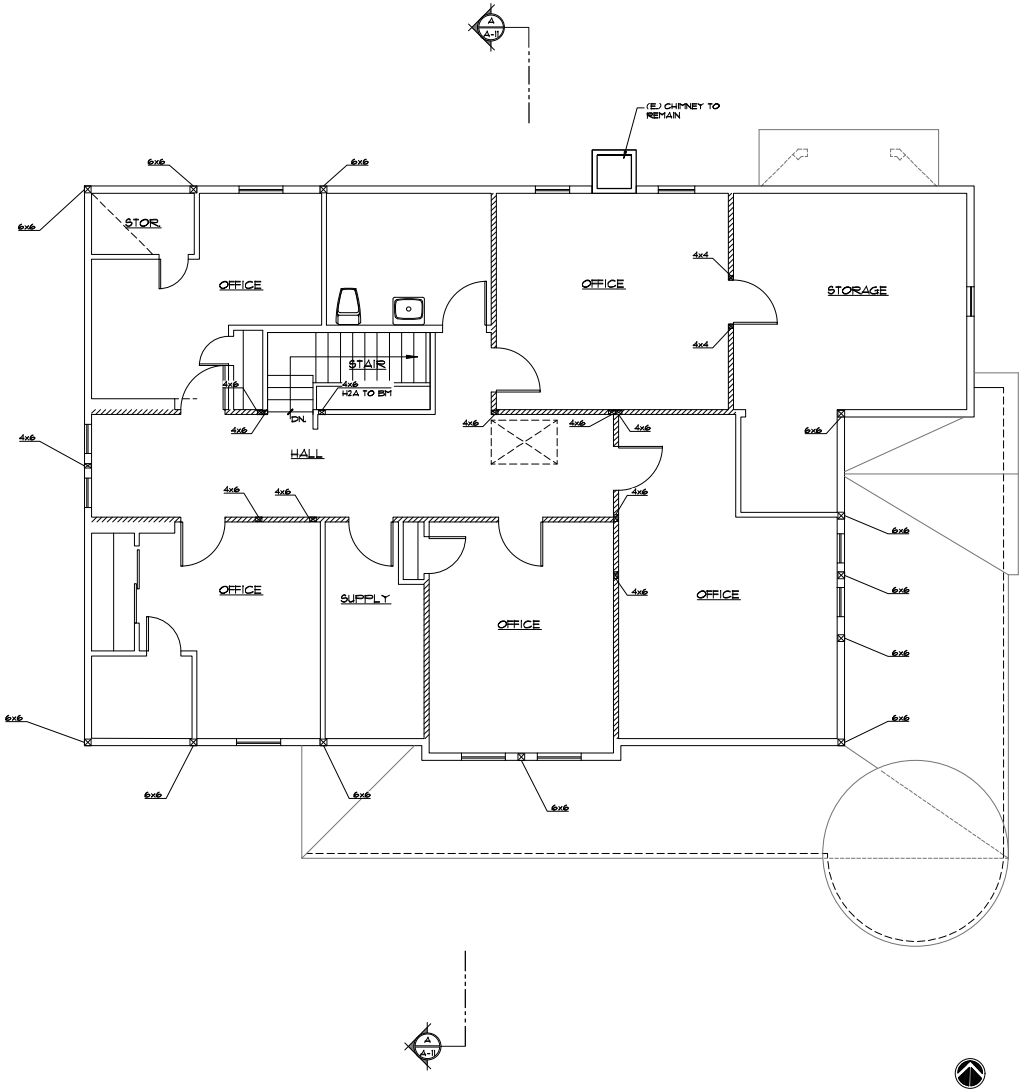
Upper Level Floor Framing Plan

S-3



SHEARWALL PLAN LEGEND

SEE SHEET SD-1 FOR ADDITIONAL NOTES AND SCHEDULES

SHEARWALL TYPE - SEE SHEET SD1 FOR ADDITIONAL INFORMATION

TYPICAL WALL w/ SHEARPLY AND HOLDOWNS.

3x OR DBL 2x FRAMING MEMBERS CONNECTED W/ (2) 16d@ 4 12" O/C AT ADJOINING PANEL EDGES

UPPER LEVEL SHEARWALL PLAN

SCALE ¼" = 1'-0"

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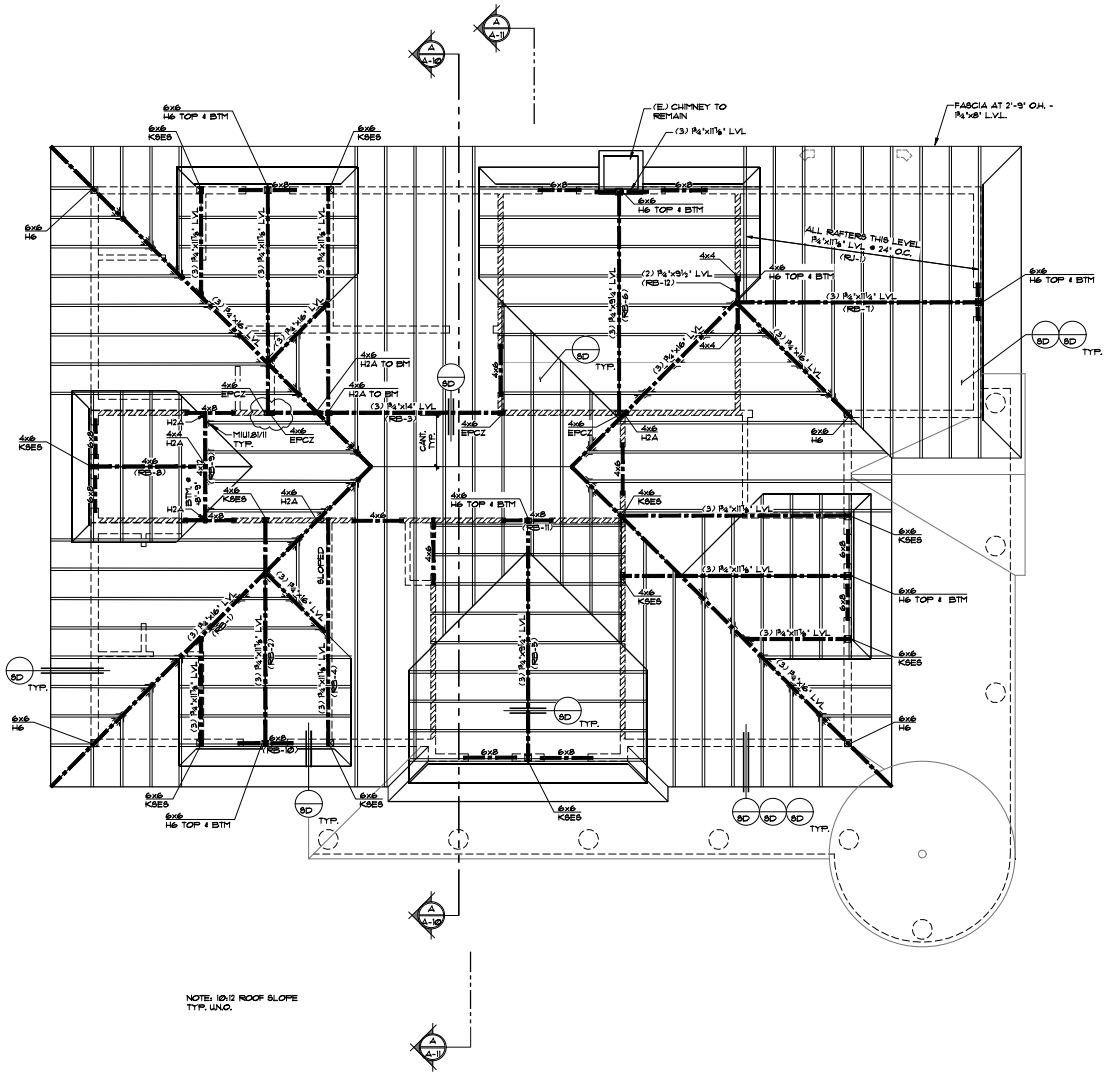
Upper Level Shearwall Plan

S-4



ROOF FRAMING PLAN

SCALE ¼" = 1'-0"

ROOF FRAMING PLAN LEGEND

SEE SHEET SD-1 FOR ADDITIONAL NOTES AND SCHEDULES

- WOOD HEADER/BEAM
- ROOF RAFTERS
- INTERIOR BEARING WALL
- 3x FRAMING AT ADJOINING PANEL EDGES & P.T. 3x SILL PL w/ ⅝"ø x12" AB's, SPACING AS INDICATED ON PLANS. AT TYPE 3 WALLS, 2x SILL PL MAY BE USED w/ ⅝"ø x10" AB's @ HALF THE SPECIFIED SPACING.

ROOF FRAMING NOTES

ROOF LOADS: LIVE 21# SQ. FT. , DEAD 20# SQ. FT.

USE (1)-LAYER ⅞" (40/20) CDX APA RATED ROOF SHEATHING OR OSB EQUIVALENT. APPLY FACE GRAIN ⊥ TO DIMENSION PERPENDICULAR TO SUPPORT FRAMING. STAGGER PANELS & NAIL w/ 10d'S @ 6" O.C. EDGES & BOUNDARIES & 10d'S @ 12" O.C. FIELD. NAIL ALL DRAG MEMBERS, SHEAR PANELS, BLOCKING, ETC. w/ NAILS SPACED @ 4" O.C. SEE DETAILS FOR ADDITIONAL NAILING REQUIREMENTS.

ALL FRAMING HARDWARE NOTED SHALL BE "SIMPSON" INSTALL PER MANUFACTURES REQUIREMENTS.

PROVIDE MIN. DOUBLE STUDS BELOW ALL (1) & (2) PLY GIRDER TRUSSES w/ SIMPSON H6. USE (3) STUDS @ 3-PLY TRUSSES & (4) STUDS @ 4-PLY TRUSSES, U.N.O. CONNECT GIRDER TRUSS TO POST w/ SIMPSON H6 U.N.O.

ALL GLU-LAM BEAMS SHALL BE DOUG-FIR 24F-V4 U.N.O.

TYP HEADER U.N.O. USE 6x8 D.F. #1

USE 12-16d BETWEEN TOP PLATE SPLICES, TYP U.N.O.

USE 2x6 FLAT w/ 2x6 STRONGBACK @ 48" O.C. @ GABLE END FRAMING

PROVIDE G.I. FLASHING @ ALL VALLEYS & ROOF-TO-WALL CONNECTIONS, TYP PROVIDE BITUTHANE MEMBRANE @ CRICKETS SLOPING LESS THAN 3:12 & AS NOTED ON ROOF PLAN

USE BOUNDARY NAILING @ ALL DRAG TRUSSES U.N.O.

A35 @ 48" O.C. TRUSS BLK'G TO TOP PLATE TYP U.N.O.

PROVIDE ICE & WATER DAM MEMBRANE @ HIPS, EAVES, VALLEYS & RIDGES AS PER LOCAL BLDG DEPT STANDARDS

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PROVIDE ATTIC ACCESS (22"x30") PER I.R.C. SECTION R807.1

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PROVIDE CONT ROOF PLY UNDER ALL ROOF OVER FRAMING

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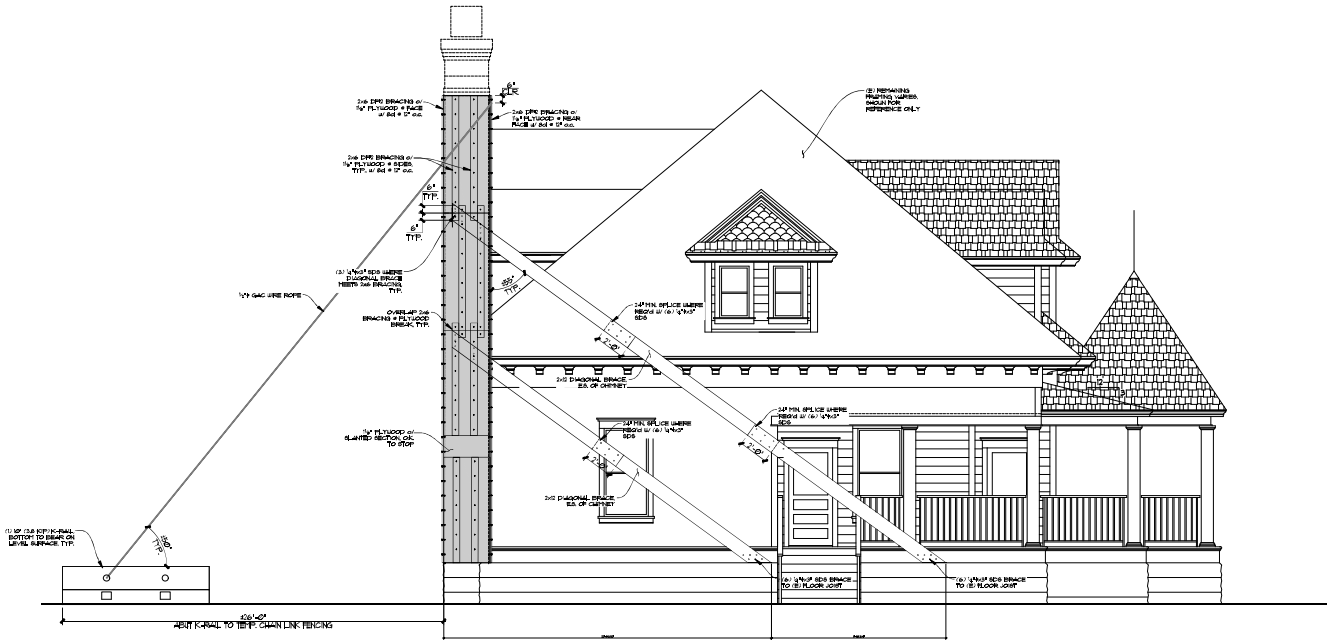
Roof Framing Plan

S-5



WEST ELEVATION
SCALE 1/4" = 1'-0"

NORTH ELEVATION
SCALE 1/4" = 1'-0"

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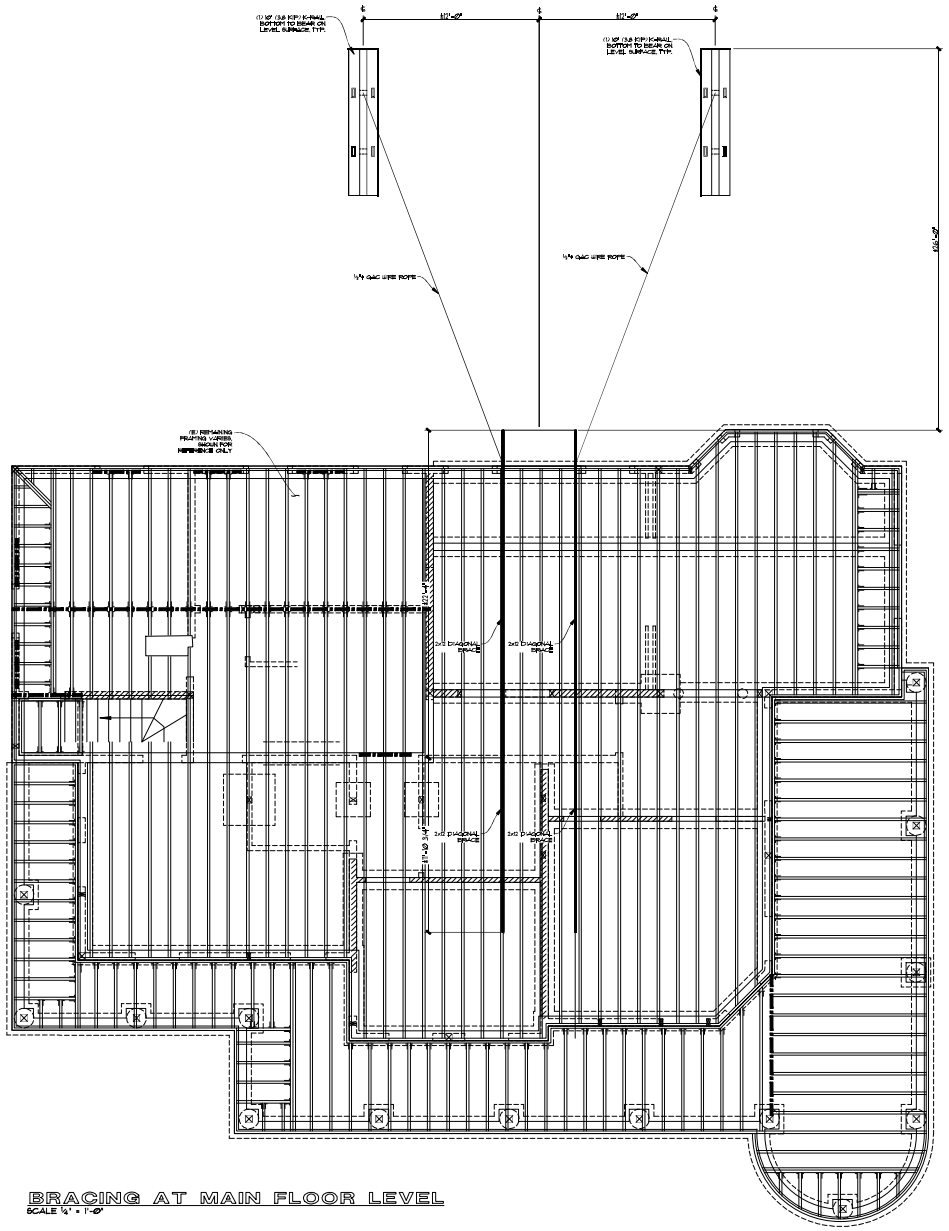
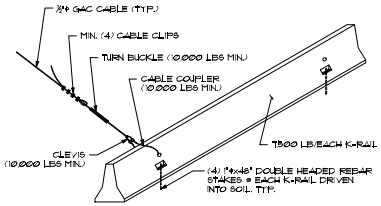
Shoring Elevations

SD-3



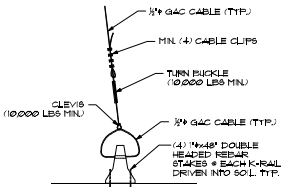
BRACING AT MAIN FLOOR LEVEL

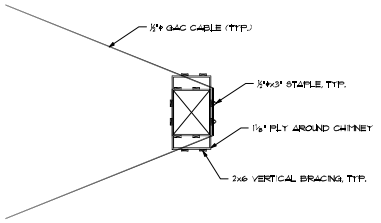
SCALE 1/4" = 1'-0"



K-RAIL ANCHOR

SCALE: N.T.S





WIRE ROPE AT UPPER CHIMNEY

SCALE: N.T.S

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Bracing At Main Floor

SD-4

Endura-Stone® Column Specifications

Materials:

Endura-Stone and DuraStone column shafts are manufactured of one-piece rotocast fiberglass reinforced polymer (FRP) with marble dust. Our proprietary method of manufacturing our column shafts is patented, with patents applied for on the DuraStone pre-colored, textured column process and materials. This one-piece construction, combined with the inherent strength of FRP (pound for pound, FRP is stronger than concrete, steel, or aluminum), provides an exceptionally high load-bearing capacity, and a column that is impervious to rot, decay and insect damage. Unlike wood columns, the non-porous, waterproof shafts can be used as channels for downspouts, wiring, and plumbing.

Pacific Columns FRP and DuraStone columns include Flame Guard™, and were the first in the industry to pass the ASTME, 84-01 Class 1 Flame-Spread Classification tests, achieving a Flame Spread index of 15, and Smoke Developed Index of 335, well below the allowable SDI index of 450.

Six-inch through twelve-inch diameter (up to twelve foot in height) standard FRP shafts are factory sanded. Larger shafts (and square shafts) may require field-sanding prior to installation. All shafts are shipped unfinished, and we recommend finishing with a high quality 100% acrylic latex primer and paint.

DuraStone pre-colored columns do not require finishing. The shaft material is colored throughout, utilizing UV inhibitors that will minimize color fading. The surfaces of DuraStone columns, caps and bases are textured to imitate rough-hewn stone. (Bases for 18" and larger DuraStone columns are split in half and will require reassembly at time of installation.)

Round Column Sizes:

Round tapered and non-tapered shafts are available fluted and unfluted in a wide range of sizes. Flutes in most 8", 10" and 12" diameter tapered shafts are molded right into the shaft, providing consistent Ionic fluting. All sizes can also be custom-fluted for specific opening heights, and adjusted for the cap and base chosen. When shafts are custom fluted, typically the flutes end 1" above the base. (See our Endura-Glass specifications for information on 30" diameter columns.)

Tapered shafts have a modified architectural entasis, with a Tuscan style astragal for authentic styling. Since these are molded products, some sizes may vary from the 1/3 straight to 2/3 tapered ratio. Please see the tables on the following pages for exact information on the shaft tapers, and top and bottom net diameters, fluting, etc. Non-tapered shafts have no astragal, providing a more contemporary look.

Column Bottom Diameter*	Tapered Round Shafts											
	5′	6′	8′	9′	10′	12′	14′	16′	18′	20′	22′	24′
6"	√	√	√									
8"	√	√	√ •	√ •	√ •							
10"	√	√	√ •	√ •	√ •	√ •						
12"	√	√	√ •	√ •	√ •	√ •	√	√ •				
14"			√	√	√	√	√	√	√	√		
16"	√	√	√	√	√	√	√	√	√	√		
18"			√		√	√	√	√	√	√	√	√
20"		√	√		√	√	√	√	√	√		
24"			√		√	√	√	√	√	√	√	√

*Actual shaft net diameter is 3/8" to 5/8" smaller than nominal size shown.
√ Available unfluted; • Available with standard flutes.

Column Bottom Diameter*	Non-tapered Round Shafts					
	8′	10′	11′	12′	14′	15′
8"	√	√				
10"	√	√				
12"	√	√		√		
14"	√	√		√	√	
16"	√	√				
18"	√	√	√			
20"	√	√	√			
24"	√	√		√	√	√

Square FRP Column Sizes:

Square non-tapered shafts are available unfluted, fluted, with a double raised panel, or recessed panels. In addition, custom fluting is available. The astragal is molded into the shaft for consistent spacing and simplified installation. (See our DuraGlass specification pages for information on square tapered and non-tapered light-weight columns.)

Column Bottom Width*	Non-tapered Square Shafts					
	8′	9′	10′	12′	14′	16′
6"	√		√			
8"	√•Δ■	√•Δ■	√•Δ■			
10"	√■	√■	√■	√		
12"	√	√	√	√	√	√
14"	√	√	√	√	√	√

* Net shaft width is 1/8" less than nominal size shown.
√ Available unfluted. • Available with standard flutes.
Δ Available paneled. ■ Available with recessed panels.

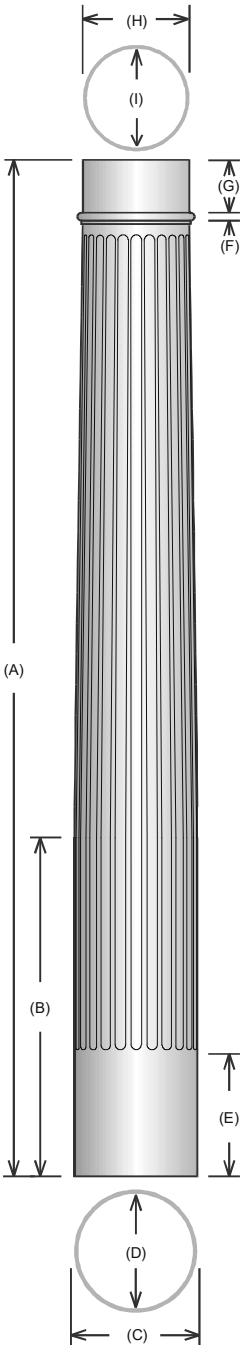
Endura-Stone Round Shaft Specifications

Round Tapered Shafts:

Standard FRP column shafts are the same height as the listed size. Tuscan and Roman Doric caps and bases, and Attic bases go around the shaft, and do not affect the overall height. Ornamental capitals are set on top of the shaft (after the shaft is trimmed to the astragal), and do affect the overall height: see the *Ornamental Capitals for Round Columns* specifications for more information. On custom fluted shafts, the flutes start 1"from the astragal, and typically end 1" from the base. Fluting can be adjusted for the customer's requirements.

Since the Tuscan caps for DuraStone columns install on TOP of the shaft, rather than around it, the shaft itself is reduced in overall height by the height of the Tuscan cap. The height of the shaft plus the height of the cap will achieve the overall stated column height.

Column Nominal Diameter	Shaft Height	Shaft Bottom*		Shaft Top*		Space Available Inside Shaft:		Shaft Neck		Flute Width (24 ea.)	Straight Portion of Shaft (unfluted columns)	Straight Portion of Shaft (fluted columns)	Smooth shaft before flutes
		Outside Diameter	Inside Diameter	Outside Diameter	Inside Diameter	For Round Post	For Square Post	Neck Height†	Astragal Ring‡				
	(A)	(C)	(D)	(H)	(I)			(G)	(F)		(B)	(B)	(E)
6"	5'	5 11/16"	4 3/4"	4 13/16"	3 3/4"	3 3/8"	2 1/2"	3"	1/2"	1/2"	23 1/16"	n/a	n/a
	6'										35 1/16"		
	8'										59 1/16"		
8"	5'	7 5/8"	6 3/4"	6 19/32"	5 1/2"	5 1/8"	3 1/2"	4 1/4"	1/2"	11/16"	14 1/16"	n/a	n/a
	6'										26 1/16"	n/a	n/a
	8'										50 1/16"	50"	10 1/2"
	9'										62 1/16"	54"	10 1/2"
	10'										72 1/16"	65"	10 1/2"
10"	4'	9 11/16"	8 3/8"	8 9/16"	7 3/4"	7 3/8"	4 15/16"	5 1/8"	3/4"	7/8"	0"	n/a	n/a
	5'										0"	n/a	n/a
	6'										10 11/16"	n/a	n/a
	8'										34 11/16"	39"	11"
	9'										46 11/16"	56"	11"
	10'										58 11/16"	65"	11 1/4"
	12'										82 11/16"	89"	11 1/4"
12"	5'	11 5/8"	10 3/4"	10 1/16"	9 1/4"	8 7/8"	6"	4 3/4"	3/4"	1"	0"	n/a	n/a
	6'										8 3/4"	n/a	n/a
	8'										32 3/4"	42 3/4"	12"
	9'										44 3/4"	49"	12"
	10'										56 3/4"	53"	12"
	12'										80 3/4"	60"	12 1/8"
	14'										62"	n/a	n/a
	16'										86"	87"	12 1/8"
14"	8'	13 1/2"	11 1/2"	11 9/16"	10 1/2"	10 1/8"	6 3/8"	6 3/4"	1"	1 1/4"	33 1/4"		
	9'										45 1/4"		
	10'										57 1/4"		
	12'										81 1/4"		
	14'										57 1/4"		
	16'										81 1/4"		
	18'										105 1/4"		
	20'										129 1/4"		
16"	5'	15 7/16"	13 1/2"	13 1/8"	12"	11 5/8"	7 7/16"	7 3/8"	1"	1 7/16"	16 1/4"		
	6'										28 1/4"		
	8'										18 1/2"		
	9'										30 1/2"		
	10'										42 1/2"		
	12'										66 1/2"		
	14'										27 1/4"		
	16'										51 1/4"		
	18'										75 1/4"		
	20'										99 11/4"		

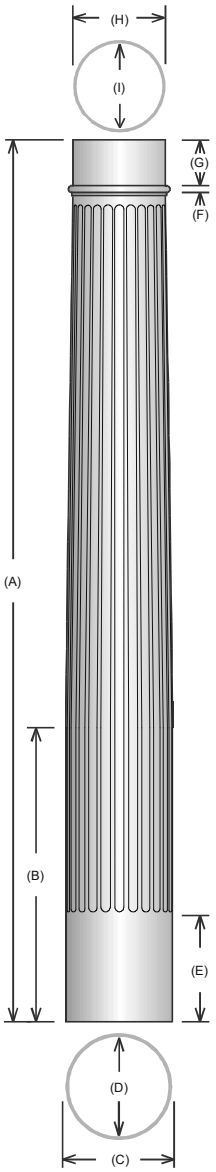


* Diameters may vary ± 1/8"
† Neck Height is the distance from the top of the shaft to the top of the astragal ring, ± 1/8".
‡ Astragal ring is only the ring portion, and does not include the fillet and cove.

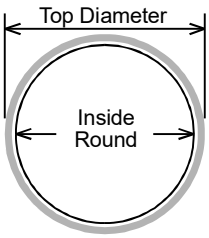
Endura-Stone Round Shaft Specifications

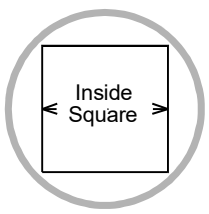
Round Tapered Shafts (cont'd):

Column Nominal Diameter	Shaft Height	Shaft Bottom*		Shaft Top*		Space Available Inside Shaft:		Shaft Neck		Flute Width (24 ea.)	Straight Portion of Shaft
		Outside Diameter	Inside Diameter	Outside Diameter	Inside Diameter	For Round Post	For Square Post	Neck Height†	Astragal Ring‡		
	(A)	(C)	(D)	(H)	(I)			(G)	(F)		(B)
18"	8'	17 3/8"	15"	14 5/16"	12 3/4"	12 3/8"	8 5/16"	7 7/8"	1"	1 1/2"	13 3/8"
	9'										25 3/8"
	10'										37 3/8"
	12'										61 3/8"
	14'										85 3/8"
	16'										26 1/8"
	18'										50 1/8"
	20'										74 1/8"
	22'										98 1/8"
	24'										122 1/8"
20"	6'	19 3/8"	18"	16 5/16"	14 7/8"	14 1/2"	10"	9 3/16"	1 3/8"	1 11/16"	0"
	8'										22 1/4"
	10'										46 1/4"
	12'										70 1/4"
	14'										40 3/8"
	16'										64 3/8"
	18'										88 3/8"
	20'										112 3/8"
24"	8'	23 3/8"	22"	19 5/16"	18"	17 5/8"	12 3/16"	12"	1 5/8"	2 1/8"	8"
	10'										32"
	12'										56"
	14'										24 13/16"
	16'										48 13/16"
	18'										72 13/16"
	20'										96 13/16"
	22'										120 13/16"
	24'										144 13/16"



* Diameters may vary ± 1/8"
† Neck Height is the distance from the top of the shaft to the top of the astragal ring, ± 1/8".
‡ Astragal ring is only the ring portion, and does not include the fillet and cove.





The "Space Available Inside Shaft" measurements are calculated at the top inside diameter (with ± 3/8" tolerance), when using Tuscan or Roman Doric caps. (Fluted columns may have reduced tolerances.)

When structural or composite Ornamental Capitals are used, the neck sleeve or plug will reduce the inside available space significantly. If the column will not be required to carry a load, it may be possible for the installer to modify or remove the neck sleeve or plug to allow more interior space. Please contact Turncraft Customer Service for more information.

These measurements are provided to assist in determining the correct column diameter to go around a load bearing post or lally column, or for clearance for water downspouts, conduits, etc. If a larger diameter is required, it may be possible to specify the Non-tapered Round columns instead.

Load Capacities:

Round Tapered Column Shafts

Column Diameter	Concentric Load	Eccentric Load*
6"	6,000 lb.	6,000 lb.
8"	10,000 lb.	6,600 lb.
10"	14,000 lb.	10,720 lb.
12"	18,000 lb.	13,200 lb.
14"	20,000 lb.	11,520 lb.
16"	20,000 lb.	13,200 lb
18"	20,000 lb.	9,040 lb.
20"	20,000 lb.	18,960 lb.
24"	20,000 lb.	13,200 lb.

*See testing documentation for full information on eccentric loading values.

Endura-Stone Round Shaft Specifications

Round Non-tapered Shafts:

Standard FRP column shafts are the same height as the listed size. Tuscan caps and bases, and Attic bases go around the shaft, and do not affect the overall height. Ornamental capitals are not typically available for non-tapered round shafts.

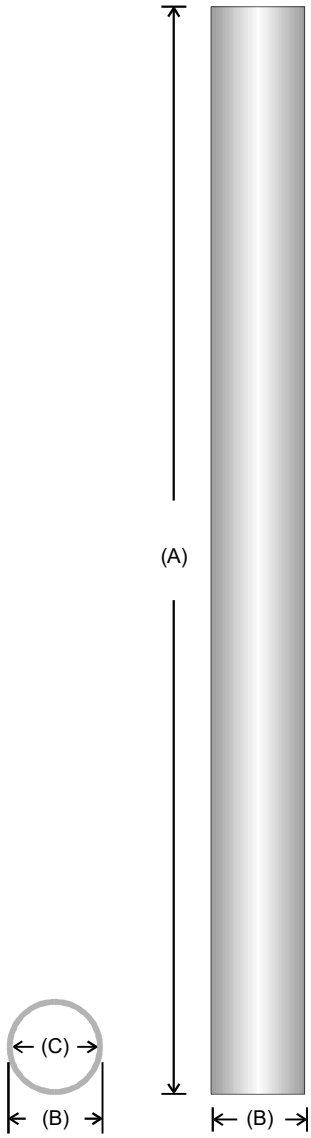
Column Nominal Diameter	Shaft Height (A)	Shaft Diameters* Outside Diameter (B)	Shaft Diameters* Inside Diameter (C)	Space Available Inside Shaft: For Round Post	Space Available Inside Shaft: For Square Post	Flute Width (24 ea.)
8”	8’	7 5/8”	6 3/4”	6 3/8”	4 1/2”	11/16”
	10’					
10”	8’	9 11/16”	8 3/8”	8”	5 5/8”	7/8”
	10’					
12”	8’	11/5/8”	10 3/4”	10 3/8”	7 5/16”	1”
	10’					
	12’					
14”	8’	13 1/2”	11 1/2”	11 1/8”	7 7/8”	1 5/16”
	10’					
	12’					
	14’					
16”	8’	15 7/16”	13 1/2”	13 1/8”	9 1/4”	1 1/2”
	10’					
18”	8’	17 3/8”	15”	14 5/8”	10 3/8”	1 11/16”
	10’					
	11’					
20”	8’	19 3/8”	18”	17 5/8”	12 1/2”	1 7/8”
	10’					
	11’					
24”	8’	23 3/8”	21 1/4” (top ID)	20 7/8”	14 3/4”	2 5/16”
	10’					
	12’					
	14’					
	15’					

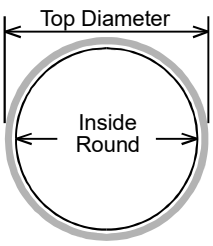
* Diameters may vary ± 1/8”
† Neck Height is the distance from the top of the shaft to the top of the astragal, ± 1/8”.
‡ Astragal height is only the ring portion, and does not include the fillet and cove.

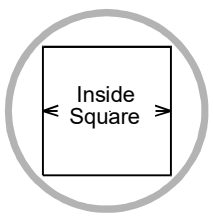
Since the Tuscan caps for Dura-Stone columns install on TOP of the shaft, rather than around it, the shaft itself is reduced in overall height by the height of the Tuscan cap. The height of the shaft plus the height of the cap will achieve the overall stated column height.

While all sizes of the non-tapered shafts are considered straight, there may be a small amount of residual taper on the larger columns. Rather than creating new molds for the manufacturing process, the 16” and larger diameter columns are made using the straight portion of our tapered molds. (If the shaft is installed with the residual taper at the bottom, the base will almost completely cover that taper.)

All non-tapered shafts may be ordered fluted. Flutes typically end 1” from the cap and 1” from the base. Fluting can be adjusted for the customers requirements.







The “Space Available Inside Shaft” measurements are calculated at the top inside diameter (with ± 3/8” tolerance), when using Tuscan or Roman Doric caps. (Inside diameters may be reduced for fluted columns.)

These measurements are provided to assist in determining the correct column diameter to go around a load bearing post or lally column, or for clearance for water downspouts, conduits, etc.

Load Capacities:

Round Non-tapered Column Shafts

Column Diameter	Concentric Load	Eccentric Load*
8”	10,000 lb.	6,600 lb.
10”	14,000 lb.	10,720 lb.
12”	18,000 lb.	13,200 lb.
14”	20,000 lb.	11,520 lb.
16”	20,000 lb.	13,200 lb.
18”	20,000 lb.	9,040 lb.
20”	20,000 lb.	18,960 lb.
24”	20,000 lb.	13,200 lb.

*See testing documentation for full information on eccentric loading values.

Endura-Stone Square Shaft Specifications

Square Non-tapered Shafts :

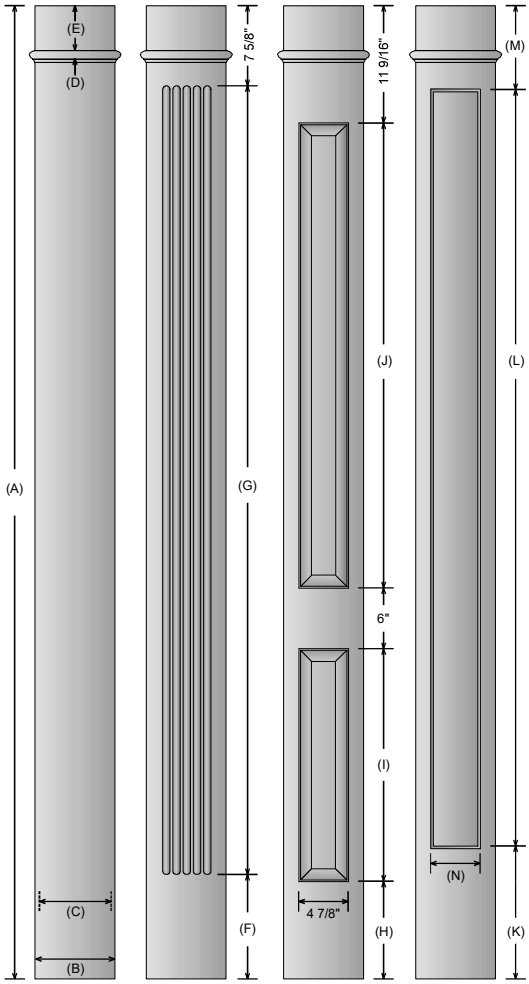
Standard FRP column shafts are the same height as the listed size. Tuscan caps and bases, and the pedestal base go around the shaft, and do not affect the overall height. Ornamental capitals are set on top of the shaft (after the shaft is trimmed to the astragal), and will affect the overall height: see the *Ornamental Capitals for Square Columns* specifications for more information.

Since the Tuscan caps for DuraStone columns install on TOP of the shaft, rather than around it, the shaft itself is reduced in overall height by the height of the Tuscan cap. The height of the shaft plus the height of the cap will achieve the overall stated column height.

All square non-tapered shafts may be ordered custom fluted. Flutes typically end 1" from the cap and 1" from the base. Fluting can be adjusted for the customers requirements.

Column Nominal Width	Column Shaft		Shaft Neck		Flute Width (20 each)	Space Available Inside Shaft* (Round or Square Post)
	Outside Width	Inside Width*	Neck Height†	Astragal Ring‡		
	(B)	(C)	(E)	(D)		
6"	5 7/8"	4 3/4"	3 5/8"	3/4"	1/2"	4 1/2"
8"	7 7/8"	5 3/4"	4 1/2"	3/4"	11/16"	5 1/2"
10"	9 7/8"	8 3/4"	5 1/16"	3/4"	7/8"	8 1/2"
12"	11 7/8"	10 3/4"	4 1/2"	3/4"	1"	10 1/2"
14"	13 7/8"	12 3/4"	7"	1"	1 1/4"	12 1/2"

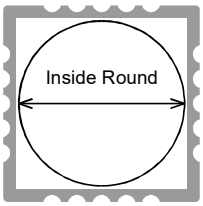
* For 8" size, stock fluted shaft value is shown. Paneled and plain shafts are typically 1/2" to 1" greater.
† Neck Height is the distance from the top of the shaft to the top of the astragal ring, ± 1/8".
‡ Astragal ring is only the ring portion, and does not include the fillet and cove.

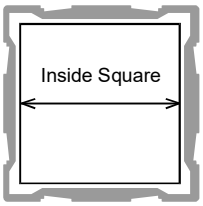


8" Fluted Columns (Stock)	Bottom of Shaft Before Flutes	Flute Length
	(F)	(G)
8'	10 15/16"	77 13/16"
9'	10 15/16"	89 13/16"
10'	22 15/16"	89 13/16"

8" Raised Panel Columns	Bottom of Shaft Before Panel	Bottom Panel Height	Top Panel Height
	(H)	(I)	(J)
8'	9 5/8"	22 15/16"	45 7/8"
9'	9 5/8"	26 15/16"	53 7/8"
10'	21 5/8"	26 15/16"	53 7/8"

Recessed Panel Columns	Bottom of Shaft Before Panel	Panel Height	Top of Panel to Top of Column	Panel Width
	(K)	(L)	(M)	(N)
8" x 8'	12"	76 3/4"	7 5/8"	4 7/8"
8" x 9'	12"	88 3/4"	7 5/8"	4 7/8"
8" x 10'	12"	100 3/4"	7 5/8"	4 7/8"
10" x 8'	14 1/2"	73 11/16"	8 3/16"	6 7/8"
10" x 9'	14 1/2"	85 11/16"	8 3/16"	6 7/8"
10" x 10'	14 1/2"	97 11/16"	8 3/16"	6 7/8"





Load Capacities:

Square Non-tapered Column Shafts

Column Diameter	Concentric Load	Eccentric Load*
6"	6,000 lb.	6,000 lb.
8"	10,000 lb.	6,600 lb.
10"	12,800 lb.	10,720 lb.
12"	18,000 lb.	17,320 lb.
14"	20,000 lb.	17,320 lb.

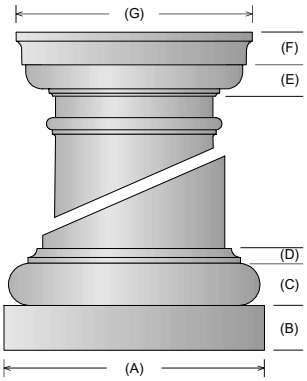
*See testing documentation for full information on eccentric loading values.

The "Space Available Inside Shaft" measurements are calculated at the top inside width (with ± 1/4" tolerance. Inside widths may vary. Ornamental capitals will reduce the inside widths.

These measurements are provided to assist in determining the correct column diameter to go around a load bearing post or lally column, or for clearance for water downspouts, conduits, etc.

Endura-Stone Cap and Base Specifications

All caps, bases and ornamental capitals are manufactured of low-maintenance materials. Materials for caps and bases will vary based on size and style. Standard Tuscan cap and base for our 8", 10" and 12" diameter round tapered columns are our new TimeSaver™ ABS (recycled ABS with fiberglass reinforcement). Since these are molded products, specifications shown are ±1/8", and subject to change without notice.



Tuscan Cap and Base for Round Tapered Columns:

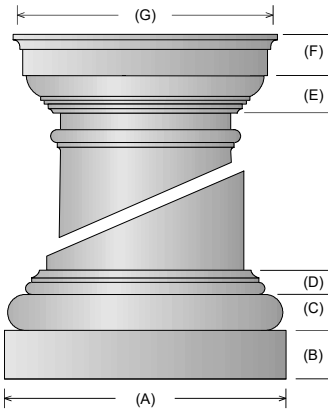
Column Diameter	Tuscan Base						Tuscan Cap				
	Plinth		Torus		Total Height	Materials Available†	Echinus	Abacus		Total Height	Materials Available†
	(A)	(B)	(C)	(D)	(B-D)		(E)	(F)	(G)	(E-F)	
6"	8"	1 1/2"	1 1/4"	1/2"	3 1/4"	**F**, D	1"	1 1/16"	7 1/2"	2 1/16"	**P**, D
8"	10 7/8"	1 7/8"	1 3/4"	5/8"	4 1/4"	**A**, F, D, P, FF	1 5/16"	1 3/8"	9 7/8"	2 11/16"	**A**, F, D, P, FF
10"	13 1/2"	2 3/8"	2 1/8"	3/4"	5 1/4"	**A**, F, D, P, FF	1 13/16"	1 3/4"	12 1/8"	3 9/16"	**A**, F, D, P, FF
12"	16 1/4"	2 3/4"	2 3/8"	7/8"	6"	**A**, F, D, P, FF	1 7/8"	2"	14 5/8"	3 7/8"	**A**, F, D, P, FF
14"	18 5/8"	3 5/16"	3"	1"	7 5/16"	**F**, D	2 1/2"	2 5/16"	17"	4 15/16"	**P**, D
16"	21 5/16"	3 7/8"	3 3/8"	1 1/8"	8 5/16"	**F**, D	2 3/4"	2 11/16"	19 1/8"	5 7/16"	**P**, D
18"	24"	4 3/16"	4"	1 3/8"	9 9/16"	**F**, D	3"	2 15/16"	21 5/16"	5 15/16"	**P**, D
20"	27"	4 3/4"	4 1/16"	1 3/4"	10 9/16"	**F**, D	3 1/8"	3 7/16"	24 1/4"	6 9/16"	**P**, D
24"	32 1/2"	5 3/4"	5 1/4"	2 1/4"	13 1/4"	**F**, D	3 5/16"	4 1/8"	28 3/4"	7 7/16"	**P**, D

† A—ABS, F—FRP, D—DuraStone, P—Polyurethane, FF—Foam-Filled Polystyrene; standard material is highlighted in boldface.

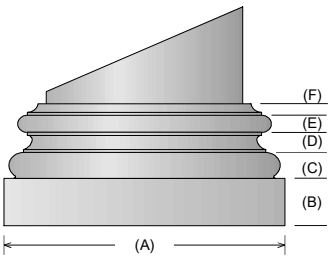
Roman Doric Cap and Base for Round Tapered Columns:

Column Diameter	Roman Doric Base†					Roman Doric Cap†			
	Plinth		Torus		Total Height	Echinus	Abacus		Total Height
	(A)	(B)	(C)	(D)	(B-D)	(E)	(F)	(G)	(E-F)
6"	8"	1 1/2"	1"	3/4"	3 1/4"	1"	1 1/4"	7 3/4"	2 1/4"
8"	10 7/8"	1 7/8"	1 7/16"	15/16"	4 1/4"	1 7/16"	1 1/2"	9 7/8"	2 15/16"
10"	13 1/2"	2 3/8"	1 3/4"	1 1/4"	5 3/8"	1 7/8"	1 3/4"	13"	3 5/8"
12"	16 1/4"	2 3/4"	2 1/16"	1 3/8"	6 3/16"	2 1/8"	2 3/8"	15 1/8"	4 1/2"
14"	18 5/8"	3 3/8"	2 3/8"	1 5/8"	7 3/8"	2 11/16"	2 3/4"	17 13/16"	5 9/16"
16"	21 5/16"	3 7/8"	2 7/8"	2"	8 3/4"	3 3/16"	3 1/8"	20 1/4"	6 5/16"
18"	24"	4 1/4"	3 1/4"	2 3/8"	9 7/8"	3 7/16"	3 1/2"	22 1/4"	6 15/16"

† Bases are FRP, caps are polyurethane. Only the bases are available in DuraStone—not the caps.



Attic Base for Round Columns:



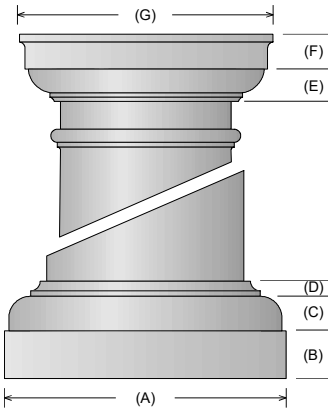
Column Diameter	Attic Base†						
	Plinth		Torus				Total Height
	(A)	(B)	(C)	(D)	(E)	(F)	(B-F)
6"	8"	1 1/2"	3/4"	3/4"	1/2"	1/2"	3 1/2"
8"	10 7/8"	1 7/8"	1 1/8"	7/8"	3/4"	1/2"	5 1/8"
10"	13 1/2"	2 3/8"	1 1/4"	1 1/8"	7/8"	5/8"	6 1/4"
12"	16 1/8"	2 3/4"	1 1/2"	1 3/8"	1"	5/8"	7 1/4"
14"	18 1/2"	3 5/16"	1 3/4"	1 5/8"	1 1/4"	11/16"	8 5/8"
16"	21 3/16"	3 3/4"	2 1/8"	1 7/8"	1 1/2"	13/16"	10 1/8"
18"	23 15/16"	4 1/4"	2 5/16"	2 1/8"	1 7/16"	1 1/8"	11 1/4"
20"	27 1/16"	4 3/4"	2 11/16"	2 3/8"	1 3/4"	1 7/16"	13"
24"	32 1/2"	5 3/4"	3 5/16"	2 13/16"	2 1/8"	1 3/4"	15 3/4"

† Attic bases are FRP. Also available in DuraStone.

Builders Series Cap and Base for Round Tapered Columns:

Column Diameter	Builders Series Base†					Builders Series Cap†			
	Plinth		Torus		Total Height	Echinus	Abacus		Total Height
	(A)	(B)	(C)	(D)	(B-D)	(E)	(F)	(G)	(E-F)
8"	10 7/8"	1 7/8"	1 1/4"	5/8"	3 3/4"	1 1/4"	1 1/4"	9 7/16"	2 1/2"
10"	13 1/2"	2 3/8"	1 5/8"	9/16"	4 9/16"	1 13/16"	1 3/4"	12 3/16"	3 9/16"
12"	16 1/4"	2 3/4"	2"	7/8"	5 5/8"	1 7/8"	2"	14 5/8"	3 7/8"

† Cap and base are polystyrene (with foam core). Not available in DuraStone.



Endura-Stone Cap and Base Specifications

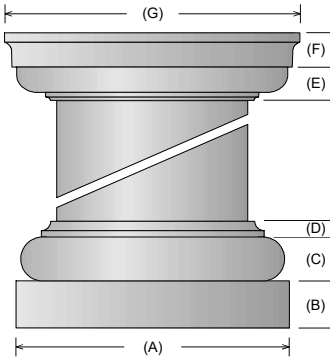
All caps and bases are manufactured of low-maintenance materials. Materials for caps and bases will vary based on size and style. Since these are molded products, specifications shown are ±1/8", and subject to change without notice.

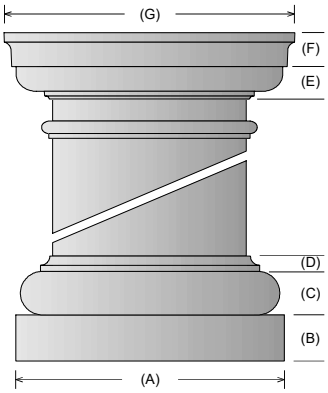
Roman Doric base and Attic base specifications are the same as for the round tapered shafts. Roman Doric caps and Ornamental capitals are not available for non-tapered round shafts.

Tuscan Cap and Base for Round Non-Tapered Columns:

Column Diameter	Tuscan Base						Tuscan Cap				
	Plinth		Torus		Total Height	Materials Available†	Echinus	Abacus		Total Height	Materials Available†
	(A)	(B)	(C)	(D)	(B-D)		(E)	(F)	(G)	(E-F)	
8"	10 7/8"	1 7/8"	1 3/4"	5/8"	4 1/4"	**A**, F, D	1 13/16"	1 3/4"	12 1/8"	3 9/16"	**P**, D
10"	13 1/2"	2 3/8"	2 1/8"	3/4"	5 1/4"	**A**, F, D	1 7/8"	2"	14 5/8"	3 7/8"	**P**, D
12"	16 1/4"	2 3/4"	2 3/8"	7/8"	6"	**A**, F, D	2 1/2"	2 5/16"	17"	4 13/16"	**P**, D
14"	18 5/8"	3 5/16"	3"	1"	7 5/16"	**F**, D	2 3/4"	2 11/16"	19 1/8"	5 7/16"	**P**, D
16"	21 5/16"	3 7/8"	3 3/8"	1 1/8"	8 5/16"	**F**, D	3"	2 15/16"	21 5/16"	5 15/16"	**P**, D
18"	24"	4 3/16"	4"	1 3/8"	9 9/16"	**F**, D	3 1/8"	3 7/16"	24 1/4"	6 9/16"	**P**, D
20"	27"	4 3/4"	4 1/16"	1 3/4"	10 9/16"	**F**, D	3 3/16"	4 1/8"	28 3/4"	7 5/16"	**P**, D
24"	32 1/2"	5 3/4"	5 1/4"	2 1/4"	13 1/4"	**F**, D	3 5/16"	4 1/8"	32 1/2"	7 7/16"	**P**, D

† A—ABS TimeSaver™, F—FRP, D—DuraStone, P—Polyurethane; standard material is highlighted in boldface.





Tuscan Cap and Base for Square Non-Tapered Columns:

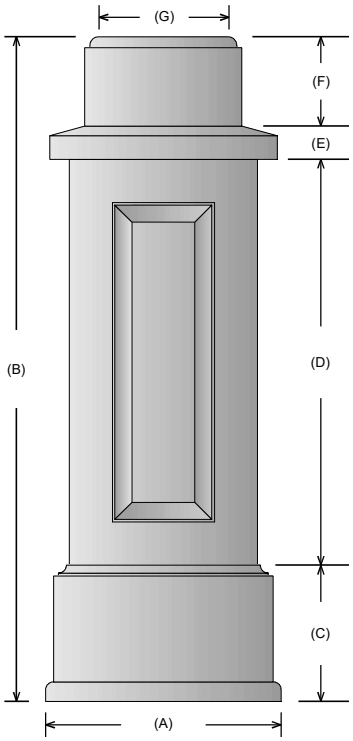
Column Width	Tuscan Base†					Tuscan Cap†			
	Plinth		Torus		Total Height	Echinus	Abacus		Total Height
	(A)	(B)	(C)	(D)	(B-D)	(E)	(F)	(G)	(E-F)
6"	8"	1 1/2"	1 1/4"	1/2"	3 1/4"	1"	1 1/16"	8 7/16"	2 1/16"
8"	11 3/8"	1 7/8"	1 3/4"	5/8"	4 1/4"	1 5/16"	1 7/16"	11 1/4"	2 3/4"
10"	13 1/2"	2 3/8"	2 1/8"	3/4"	5 1/4"	1 13/16"	1 3/4"	13 1/4"	3 9/16"
12"	17"	2 3/4"	2 3/8"	7/8"	6"	1 7/8"	2"	17 1/4"	3 7/8"
14"	18 13/16"	3 3/8"	2 15/16"	1 1/16"	7 3/8"	2 1/2"	2 5/16"	18 11/16"	4 13/16"

† Square caps and 6" to 12" bases are polyurethane; 14" base is FRP. FRP bases are available as special order. Also available in DuraStone.

Pedestal Base for Square NT Columns (at right):

Column Width	Pedestal Base†						
	Bottom Width	Total Height	Bottom	Center	Platform	Top	Top Width
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
8"	15"	42 3/8"	8 11/16"	25 7/8"	2 1/8"	5 11/16"	8 1/4"

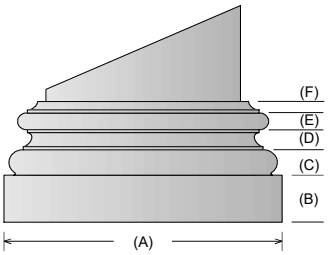
† Pedestal bases are FRP. Also available in DuraStone. Use with Tuscan cap (above) or Ornamental Capitals.



Attic Base for Square Columns:

Column Diameter	Attic Base†						
	Plinth		Torus				Total Height
	(A)	(B)	(C)	(D)	(E)	(F)	(B-F)
6"	8"	1 1/2"	3/4"	3/4"	1/2"	1/2"	3 1/2"
8"	11 3/8"	1 7/8"	1 1/8"	7/8"	3/4"	1/2"	5 1/8"
10"	13 1/2"	2 3/8"	1 1/4"	1 1/8"	7/8"	5/8"	6 1/4"
12"	17"	2 3/4"	1 1/2"	1 3/8"	1"	5/8"	7 1/4"
14"	18 13/16"	3 5/16"	1 3/4"	1 5/8"	1 1/4"	11/16"	8 5/8"

† Attic bases are FRP. Also available in DuraStone.



Endura-Stone Ornamental Capitals

"Quick-Fit" Capitals For Round Tapered FRP Shafts

The most visually impressive implementations of columns are those with decorative Ornamental Capitals. Designed with crisp, true architectural detail, Ornamental Capitals artfully capture natural themes and images. For example, the volute scrolls of the Ionic, Erectheum, Scamozzi and Empire styles imitate the helix cross-section of the Nautilus shell. The Acanthus leaves on the Temple of Winds and Roman Corinthian capitals echo the flowering crown of a tree. These Ornamental Capitals are specifically for Endura-Stone *tapered* column shafts only. Each style is proportionally scaled for the diameter of the shaft.

Our specially designed Quick-Fit capitals simplify or eliminate the need to trim the column shaft before installation! Trimming the shaft at the neck ring or at the fillet below the neck ring is a difficult task in the field. Since the Quick-Fit capitals slide over the column neck and set on the neck ring, it is no longer necessary to attempt to trim at the neck ring or fillet. For capitals that are taller than the column shaft neck, no trimming is necessary at all, since the capital is load-bearing. For those capitals which are shorter than the column shaft neck, the shaft will still need to be trimmed, but the point where it needs to be cut is much more easily accomplished since the astragal is not in the way. (The shaft will need to be trimmed to leave the neck 1/8" taller than the capital, since the shorter capitals are not load-bearing. The extra 1/8" shaft neck provides load-bearing support through the capital, and prevents the capital from being compressed by the load.)

Because of the Quick-Fit easier installation method, Turncraft will normally ship the Quick-Fit capitals, unless a preference is indicated for the standard Poly/Resin (see next page). For example, it would be best not to mix Quick-Fit and standard capitals when different size or style columns are used on one jobsite (i.e., if using 12" Scamozzi and 20" Scamozzi capitals, the astragal would be different for Quick-Fit than for standard capitals.)

Quick-Fit capitals are available in paint-grade materials (see table) or DuraStone pre-colored FRP (Ivory, Sand or Slate) to match our DuraStone column line. More sizes will be added to the Quick-Fit line as we are able to create molds.

Greek Erectheum

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust	Material
6"	3 1/4"	6 9/16"	8 3/8"	+ 3/8"	FRP, DuraStone

Roman Corinthian

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust	Material
6"	8 11/16"	11"	N/A	+ 5 11/16"	FRP, DuraStone
8"	11 5/16"	14 5/16"	N/A	+ 7 1/16"	FRP, DuraStone
10"	14 3/16"	18 1/8"	N/A	+ 9 1/16"	FRP, DuraStone
12"	17"	21 3/4"	N/A	+ 12 1/4"	FRP, DuraStone

Roman Ionic

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust	Material
6"	2 3/16"	6"	8"	- 11/16"	Poly, DuraStone

Scamozzi

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust	Material
6"	2 7/16"	8 5/8"	8 1/2"	-7 3/16"	Poly, DuraStone
8"	3"	11"	10 13/16"	- 1 1/8"	Poly, DuraStone
10"	4 1/8"	14 1/2"	14 3/8"	- 7/8"	Poly, DuraStone
12"	4 13/16"	17"	16 3/4"	+ 1/16"	Poly, DuraStone

Endura-Stone Ornamental Capitals

Capitals For Round Tapered Columns

Designed with crisp, true architectural detail, Ornamental Capitals artfully capture natural themes and images. These paint-grade Ornamental Capitals are specifically for Endura-Stone *tapered* column shafts only. Each style is proportionally scaled for the diameter of the shaft. For best fit and correct style, the column shafts are to be trimmed at the architecturally correct location for the selected capital—see the note in each table. The "Height Adjust" value in the tables below indicate how the column trimming and capital height affect the overall maximum height of the column when installed. Capitals from 6" to 24" diameters are all load-bearing poly/resin materials. (Capitals shown as 30" are for DuraGlass resin-infused fiberglass columns. These 30" capitals are composite plaster and are *not* load-bearing. The column will ship with a load bearing solution as needed.)

Empire (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	3 1/8"	9"	8 3/4"	- 3/8"
8"	3 3/4"	10"	9"	-1"
10"	5 1/2"	16"	13 1/2"	- 3/8"
12"	6 1/4"	18"	17"	+ 3/4"
14"	7 1/4"	20 1/4"	19 1/2"	- 1/2"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	8 3/4"	23"	19 1/2"	+ 3/8"
18"	10"	32"	26 1/4"	+ 1 1/8"
20"	11 1/4"	34"	28"	+ 11/16"
24"	12 3/4"	35 1/2"	35"	- 7/8"
30"	N/A			

Empire with Necking (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	6 7/8"	9"	8 3/4"	+ 3 7/8"
8"	7 3/4"	10"	9"	+ 3 1/2"
10"	10"	13 1/2"	12 1/4"	+ 4 7/8"
12"	11"	18"	17"	+ 6 1/4"
14"	14 1/2"	20 1/2"	19 1/2"	+ 7 3/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	17"	23"	19 1/2"	+ 9 5/8"
18"	15"	32"	26 1/4"	+ 7 1/8"
20"	17 1/4"	34"	28"	+ 8 1/16"
24"	19"	35 1/2"	35"	+ 7"
30"	N/A			

Greek Angular Ionic (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	3 5/8"	9 1/4"	9"	+ 1/8"
8"	3 3/4"	9 1/2"	9"	- 1"
10"	5 3/8"	14 1/4"	13 1/4"	- 1/2"
2"	6"	17 1/4"	17"	+ 1/2"
14"	7 1/4"	20 3/4"	19 1/4"	- 1/2"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	8 3/8"	20 1/2"	19 1/2"	0"
18"	9 3/4"	24 1/4"	19 3/4"	+ 7/8"
20"	11"	29 3/4"	28"	+ 7/16"
24"	12 3/4"	35"	34 1/2"	- 7/8"
30"	N/A			

Greek Erectheum (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6" *	3 1/4"	6 3/4"	8 1/2"	- 1/4"
8"	3 3/4"	7 3/4"	11 3/4"	- 1"
10"	5 1/2"	12"	17 1/2"	- 3/8"
12"	6 1/4"	14 1/2"	21"	+ 3/4"
14"	7"	15"	21"	- 3/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	9"	17 1/2"	26"	+ 5/8"
18"	10 1/2"	22"	29"	+ 1 5/8"
20"	11"	26"	36"	+ 7/16"
24"	13"	30 1/2"	43"	- 5/8"
30"	15"	31"	45 1/2"	

Greek Erectheum with Necking (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	5 3/4"	7 3/4"	11 3/4"	+ 2 3/4"
8"	7 1/2"	10 1/2"	15"	+ 3 1/4"
10"	8 1/2"	12"	17 1/4"	+ 3 3/8"
12"	9 1/2"	14 1/2"	21"	+ 4 3/4"
14"	11 1/4"	15"	21"	+ 4 1/2"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	13 1/2"	17 1/2"	26"	+ 6 1/8"
18"	15"	22 1/2"	29"	+ 7 1/8"
20"	17"	26"	36"	+ 7 13/16"
24"	19"	30 1/2"	43"	+ 7"
30"	24 3/4"	31"	45 1/2"	

*Special order—normally this size capital would be our Quick-Fit model, listed after next page.

Endura-Stone Ornamental Capitals (cont'd)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	7"	8"	N/A	+ 4"
8"	8 1/2"	10 3/4"	N/A	+ 4 1/4"
10"	12 1/4	16 1/2"	N/A	+ 7 1/8"
12"	14 1/2"	19"	N/A	+ 9 3/4"
14"	17"	20"	N/A	+ 10 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	N/A			
18"	22 1/2"	25"	N/A	+ 14 5/8"
20"	22 1/2"	25"	N/A	+ 13 5/16"
24"	N/A			
30"	N/A			

Roman Corinthian (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6" *	7"	9 1/2"	N/A	4"
8" *	10 1/4"	13 3/4"	N/A	6"
10" *	13 7/8"	17 3/4"	N/A	8 3/4"
12" *	15 1/4"	18 1/2"	N/A	9 1/2"
14"	17"	22"	N/A	10 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	20"	27"	N/A	+ 12 5/8"
18"	23"	32 1/2"	N/A	+ 15 1/8"
20"	25 1/2"	39"	N/A	+ 16 5/16"
24"	28 1/2"	42"	N/A	+ 16 1/2"
30"	37 1/2"	16 1/2"	N/A	

Roman Doric Ornamental (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	4"	8 3/4"	N/A	+ 1/2"
8"	6"	13 1/8"	N/A	+ 1 1/4"
10"	7"	16 1/4"	N/A	+ 1 1/8"
12"	7"	16 1/4"	N/A	+ 1 1/2"
14"	9"	21"	N/A	+1 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	10 1/2"	24"	N/A	+ 2 1/8"
18"	12 1/2"	28"	N/A	+ 3 5/8"
20"	12 1/2"	28"	N/A	+ 1 15/16"
24"	N/A			
30"	N/A			

Roman Ionic (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6" *	2 1/4"	6 1/8"	8 1/16"	- 1 1/4"
8"	3"	8 1/4"	10 1/2"	- 1 3/4"
10"	3 5/8"	11"	13 5/8"	- 2 1/4"
12"	4 1/2"	12 1/2"	16 1/2"	- 1"
14"	5 1/2"	17 1/2"	23"	- 2 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	6 1/8"	17 1/2"	22"	- 2 1/4"
18"	6 1/2"	20"	24 1/4"	- 2 3/8"
20"	8 3/4"	25"	31 3/4"	- 1 13/16"
24"	9"	25 1/4"	33"	- 4 5/8"
30"	12 1/2"	32"	40 1/2"	

Scamozzi (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6" *	2 5/8"	7 3/4"	6 1/4"	- 7/8"
8" *	3"	10 1/4"	9"	- 1 3/4"
10" *	3 7/8"	14 1/2"	12 1/2"	- 2"
12" *	4 7/8"	16 3/4"	14"	- 5/8"
14"	5 1/2"	19"	16 3/4"	- 2 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	6 1/4"	22 1/4"	18 1/2"	- 2 1/8"
18"	7"	23 1/2"	23"	- 1 7/8"
20"	8 3/4"	26"	21 1/2"	- 1 13/16"
24"	10 1/4"	34 1/4"	29 1/2"	- 3 3/8"
30"	12 3/4"	39"	33"	

Temple of Winds (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	7"	8"	N/A	4"
8"	8"	12"	N/A	3 3/4"
10"	11 1/8"	15 1/4"	N/A	6"
12"	13 3/4"	17"	N/A	9"
14"	14"	21 1/4"	N/A	7 1/4"

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
16"	16"	23"	N/A	8 5/8"
18"	18 1/8"	26 3/4"	N/A	10 1/4"
20"	21 1/4"	28"	N/A	12 1/16"
24"	23 1/4"	34 1/4"	N/A	11 1/4"
30"	30"	39"	N/A	

*Special order—normally this size capital would be our Quick-Fit model. See following page.

Endura-Stone Square Ornamental Capitals

Designed with crisp, true architectural detail, Ornamental Capitals artfully capture natural themes and images. Capitals for square non-tapered Endura-Stone columns are crafted from poly/resin, and are load bearing and waterproof. Each style is proportionally scaled for the width of the shaft when the shaft is trimmed at the astragal for easy installation. Since the shafts will need to be trimmed, the over-all height of the finished column will need to be adjusted by the "Height Adjust" value in the following tables. If an architecturally correct installation will be required, the shaft should be trimmed at the top fillet for Greek Erectheum, Roman Ionic and Scamozzi capitals, and the overall height will be further reduced by the height of the neck ring (see shaft specifications for the astragal neck ring height).

Empire (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
8"	5 1/4"	13 1/2"	12 1/4"	+ 3/8"
10"	6 1/4"	18"	17"	+ 1 3/4"
12"	7 1/4"	20 1/4"	19 1/2"	+ 3/4"
14"	8 3/4"	23"	19 1/2"	+ 1 3/4"
16"	10"	32"	26 1/4"	+ 1 5/16"

Empire with Necking (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	7 3/4"	10"	9"	+ 4 1/8"
8"	10"	13 1/2"	12 1/4"	+ 5 1/2"
10"	11"	18"	17"	+ 5 15/16"
12"	14 1/2"	20 1/2"	19 1/2"	+ 9 3/4"
14"	17"	23"	19 1/2"	+ 10"
16"	17 1/4"	34"	28"	+ 9 5/8"

Greek Angular Ionic (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
8"	5 1/8"	14 1/4"	13 3/4"	- 3/16"
10"	6"	17 1/4"	17"	+ 1/8"
12"	7 1/4"	20 3/4"	19 1/4"	+ 1 3/4"
14"	8 3/8"	20 1/2"	19 1/2"	+ 3/8"

Greek Erectheum (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	3 3/4"	7 3/4"	11 3/4"	- 11/16"
8"	5 1/4"	10 1/2"	15"	- 1/16"
10"	6 1/4"	14 1/2"	21"	+ 3/8"
12"	7"	15"	21"	+ 2 1/2"
14"	9"	17 1/2"	26"	+ 1"
16"	10"	22 1/2"	29"	+ 1 5/16"

Greek Erectheum with Necking (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	5 3/4"	7 3/4"	11 3/4"	+ 2 1/8"
8"	7 1/2"	10 1/2"	15"	+ 3"
10"	9 1/2"	14 1/2"	21"	+ 4 7/16"
12"	11 1/4"	15"	21"	+ 6 3/4"
14"	13 1/2"	17 1/2"	26"	+ 6 1/2"
16"	17"	26"	36"	+ 9 3/8"

Endura-Stone Square Ornamental Capitals (cont'd)

Modern Composite (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Height Adjust
6"	8 1/2"	10 3/4"	+ 4 7/8"
8"	11 1/2"	16 1/2"	+ 7"
10"	14 1/2"	19"	+ 9 7/16"
12"	17"	20"	+ 12 1/2"
14"	22 1/2"	25"	+ 15 1/2"
16"	22 1/2"	25"	+ 14 7/8"

Roman Corinthian (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Height Adjust
6"	8 1/2"	12"	+ 4 7/8"
8"	11 1/2"	15"	+ 7"
10"	14 1/2"	18 1/2"	+ 9 7/16"
12"	17"	22"	+ 12 1/2"
14"	20"	27"	+ 13"
16"	23"	32 1/2"	+ 15 3/8"

Roman Doric Ornamental (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Height Adjust
6"	4 1/2"	10 1/2"	+ 1/16"
8"	6"	14 1/4"	+ 11/16"
12"	9"	21"	+ 3 1/2"
14"	10 1/2"	24"	+ 2 1/2"

Roman Ionic (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	3"	8 1/4"	10 1/2"	- 1 7/16"
8"	3 5/8"	10 1/2"	13 1/2"	-1 11/16"
10"	4 1/2"	12 1/2"	16 1/2"	- 1 3/8"
12"	5 1/2"	17 1/2"	23"	0"

Scamozzi (Trim column shaft to top of fillet)

Column Size	Capital Height	Abacus Width	Scroll Width	Height Adjust
6"	3"	10 1/4"	9"	-7/8"
8"	3 7/8"	14 1/2"	12 1/2"	-5/8"
10"	4 7/8"	16 3/4"	14"	-7/8"
12"	5 1/2"	19"	16 3/4"	-1/4"
14"	6 1/4"	22 1/4"	18 1/2"	-1 1/2"

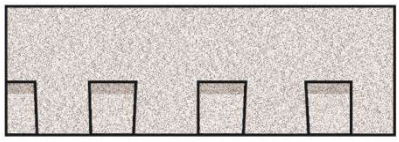
Temple of Winds (Trim column shaft to top of neck ring)

Column Size	Capital Height	Abacus Width	Height Adjust
6"	7 1/2"	10 1/2"	+ 3 7/8"
8"	10"	13 7/8"	+ 5 1/2"
10"	11 5/8"	16 7/8"	+ 6 9/16"
12"	14"	21 1/4"	+ 9 1/2"
14"	16"	23"	+ 9"
16"	18 1/8"	16 3/4"	+ 10 1/2"

Technical Data Sheet

Landmark®, Landmark® Premium, Landmark® Pro Shingles, Landmark® Pro/Architect 80 (NW Region Only) Shingles

PRODUCT INFORMATION



Landmark shingles reflect the same high manufacturing standards and superior warranty protection as the rest of CertainTeed's line of roofing products. Landmark Premium (and Algae Resistant-AR), Landmark PRO (and AR) and Landmark (and AR) are built with the industry's toughest fiber glass mat base, and their strict dimensional tolerance assures consistency. Complex granule color blends and subtle shadow lines produce a distinctive color selection. Landmark is produced with the unique NailTrak® nailing feature. ***Please see the installation instruction section below for important information regarding NailTrak.***

In the Northwest Region Landmark PRO (AR) is double-branded as Landmark PRO/Architect 80 (AR).

Landmark algae-resistant (AR) shingles are algae-resistant and help protect against dark or black discoloration, sometimes called staining or streaking, caused by blue-green algae. AR shingles are not available in all regions.

Colors: Please refer to the product brochure or CertainTeed website for the colors available in your region.

Limitations: Use on roofs with slopes greater than 2" per foot. Low-slope applications (2:12 to < 4:12) require additional underlayment. In areas where icing along eaves can cause the back-up of water, apply CertainTeed WinterGuard® Waterproofing Shingle Underlayment, or its equivalent, according to application instructions provided with the product and on the shingle package.

Product Composition: Landmark Series shingles are composed of a fiber glass mat base. Ceramic-coated mineral granules are tightly embedded in carefully refined, water-resistant asphalt. Two pieces of the shingle are firmly laminated together in a special, tough asphaltic cement. All Landmark shingles have self-sealing adhesive strips.

Applicable Standards

ASTM D3018 Type I
ASTM D3462
ASTM E108 Class A Fire Resistance
ASTM D3161 Class F Wind Resistance
ASTM D7158 Class H Wind Resistance
UL 790 Class A Fire Resistance
ICC-ES ESR-1389 and ESR-3537
CSA Standard A123.5 (Regional)
Miami-Dade Product Control Approved
Florida Product Approval # FL5444
Meets TDI Windstorm Requirements

Technical Data:

	Landmark (and AR)	**Landmark PRO* (and AR)**	**Landmark Premium (and AR)**
Weight/Square (approx.)	219 to 238 lb **	240 to 267 lb **	300 lb
Dimensions (overall)	13 1/4" x 38 3/4"	13 1/4" x 38 3/4"	13 1/4" x 38 3/4"
Shingles/Square (approx.)	66	66	66
Weather Exposure	5 5/8"	5 5/8"	5 5/8"

*Includes Landmark PRO AR/Architect 80
**Dependent on manufacturing location

INSTALLATION

Detailed installation instructions are supplied on each bundle of Landmark shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

Hips and Ridges: For capping hip and ridge apply CertainTeed Shadow Ridge®, Cedar Crest® or Mountain Ridge® shingles of a like color.

MAINTENANCE

These shingles do not require maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

WARRANTY

Landmark Premium (and AR), Landmark PRO/Architect 80 AR, Landmark PRO (and AR), and Landmark (and AR) shingles carry a lifetime limited, transferable warranty to the consumer against manufacturing defects when applied to stated CertainTeed application instructions for this product. In addition, Landmark Premium (and AR), Landmark PRO (and AR), Landmark PRO/Architect 80 AR, and Landmark (and AR) carry 10-years of SureStart™ Protection. Landmark AR shingles carry a 10-year algae resistance warranty. Landmark Premium AR, Landmark PRO AR, and Landmark PRO/Architect 80 AR shingles carry a 15-year algae resistance warranty. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at www.certainteed.com).

FOR MORE INFORMATION

Sales Support Group: 800-233-8990
Web site: www.certainteed.com
See us at our on-line specification writing tool, CertaSpec®, at www.certainteed.com/certaspec.

CertainTeed
20 Moores Road
Malvern, PA 19355

Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.

The Pella logo on each page is a link back to this table of contents.

Bookmarks are also included in this PDF document and are available as an additional navigation option.

Supporting documents for this product:

Test Reports:
https://media.pella.com/professional/adm/CertificationReports/Test_Reports_AS-Clad.pdf

CSI Specs (readable using Microsoft Word or other text editing application):
https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc

Detailed Product Description (readable using Microsoft Word or other text editing application):
https://media.pella.com/professional/adm/Clad-Wood/AST-CM-C.rtf

Size Tables (requires appropriate CAD software to read and use):
https://media.pella.com/professional/adm/Clad-Wood/ASCCMEV_D.dwg

CAD cross sections (requires appropriate CAD software to read and use):
https://media.pella.com/professional/adm/Clad-Wood/AST-CM-Detail_D.dwg

3D & BIM / REVIT (requires appropriate software to read and use):
https://media.pella.com/professional/adm/RevitFiles/AS-Revit/Window-Casement-Pella-Architect_Series.zip

Sketchup (requires appropriate software to read and use):
https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_ArchitectSeries_Traditional_Casement.zip

Combination Recommendations:
https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:
https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Size and Performance Data

	Clad	Wood
Sizes		
Standard vent/fixed sizes	●	●
Standard fixed companion sizes	●	●
Egress sizes	●	●
Special sizes available	●	●
Performance[1]		
Meets or Exceeds AAMA/WDMA Ratings	CW30 - CW50 Hallmark Certified	LC30 - LC50 Hallmark Certified
Air Infiltration (cfm/ft2 of frame @ 1.57 psf wind pressure)	0.05	0.05
Water Resistance	7.5 psf	4.6 - 7.5 psf
Design Pressure	30 - 50 psf	30 - 50 psf
Products with Impact-Resistant Glass	LC +/-60 - LC +75/-85 Hallmark Certified	–
Other Performance Criteria		
Forced Entry Resistance Level (Minimum Security Grade)[2]	10	10
Operating Force (lb) Initiate Motion / Maintain Motion (of Hallmark tested size and glazing)[3]	15/6	15/6

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested[3]	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Standard Clad Window	**Vent without Grilles**						
	23" x 59"	11/16"	2.5mm	2.5mm	–	28	25
	23" x 59"	11/16"	3mm	5mm	–	33	27
	23" x 59"	11/16"	3mm	6.0mm PVB	–	33	28
	Fixed without Grilles						
	47" x 59"	11/16"	3mm	3mm	–	29	24
	47" x 59"	11/16"	3mm	5mm	–	32	27
	47" x 59"	11/16"	3mm	6.0mm PVB	–	32	28
Clad Window with Impact-Resistant Glass	**Vent without Grilles**						
	29" x 53"	11/16"	3mm	7.6mm PVB	–	35	30
	29" x 53"	1"	5mm	10.1mm SGP	–	35	31
	Fixed without Grilles						
	47" x 59"	11/16"	3mm	7.6mm PVB	–	33	29
	53" x 53"	1"	5mm	10.1mm SGP	–	35	30

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. See Design Data pages in this section for specific product performance class and grade values. Values shown are for standard and special sizes; Custom shapes and sizes may not have the same values. Contact your local sales representative for complete information.

(2) The higher the level, the greater the product's ability to resist forced entry.

(3) Glazing configurations may result in higher operational forces

(4) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.

NOTE: Performance with additional options may not be the same as Standard and Special size units. Please contact your local Pella representative for complete information.

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	Triple-Pane Insulating Glass
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
	Clear (no Low-E coating)
Additional Glass Options	
Annealed Glass	Tempered Glass
	Obscure Glass[1]
	Low-E Tinted Glass (Bronze, Gray and Green)
	Non-Impact Laminated Dual-Pane Insulating Glass
	Impact-Resistant Laminated Dual-Pane 11/16" Insulating Glass
Gas Fill/High Altitude	
Argon	High altitude
	High Altitude with Argon[2]
Wood Types	
Pine	–
Exterior	
Exterior Sash Profile	
Ogee - clad	Putty Glaze - clad or wood
Exterior Finish	
EnduraClad® protective finish	EnduraClad Plus protective finish
	Factory Primed Pine wood exterior
Cladding Colors[1]	
Standard colors	Feature Colors, Custom colors
Interior	
Interior Sash Profile	
Ogee	–
Interior Finish	
Unfinished Wood	Factory primed[3], Factory prefinished paint[3], Factory prefinished stain
Hardware	
Hardware Type	
Wash hinge Hardware	Side Pivot
Hardware Style	
Standard Fold-Away crank	Antiek Fold-Away crank
Hardware Finishes	
Champagne, White, Brown or Matte Black	Satin Nickel, Oil-Rubbed Bronze, Distressed Bronze, Distressed Nickel[4]
Sash Locks	
SureLock® System, Unison Lock System[5]	–
Grilles	
Integral Light Technology® Grilles	
–	Traditional, Prairie, Top Row, Cross, New England, Victorian, Simulated French, Custom
Grilles-Between-the-Glass	
–	Traditional, Prairie, Top Row[1], Cross or Custom-Equally Divided
Screens	
–	InView™ screens, Rolscreen® Retractable screens

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available with Low-E argon-insulated glass only.

(3) Not available on Mahogany and Douglas Fir interiors.

(4) Distressed Bronze, and Distressed Nickel are only available with Antiek Fold-Away Crank.

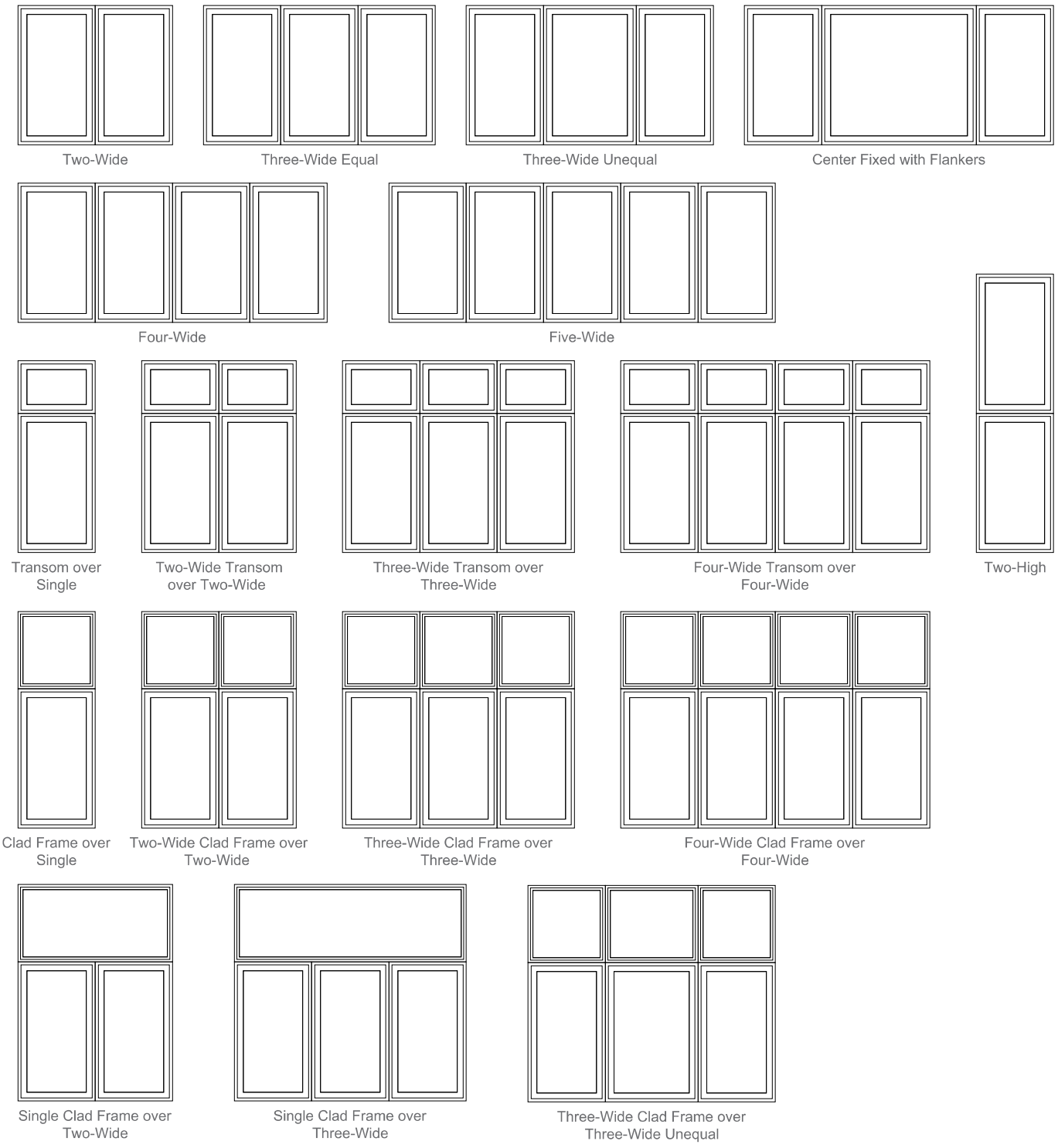
(5) Unit height determines availability.

Combinations

Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mulled together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are some examples of factory-assembled combinations. See the Combinations Recommendations document for typical mullions, requirements and limitations.

Contact your local Pella sales representative for more information.

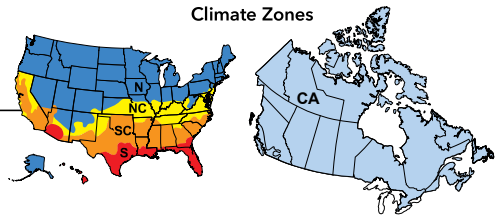


Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values[1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada[2] ER	Canada[2] Zone
Vent Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-11-21566-00001	3	3	Air	0.44	0.53	0.56	44						
	with grilles-between-the-glass	PEL-N-11-21757-00001				0.44	0.49	0.51	44						
	with integral grilles	PEL-N-11-21764-00001				0.44	0.49	0.51	44						
11/16"	Advanced Low-E IG	PEL-N-11-21561-00002	3	3	Argon	0.28	0.26	0.48	62		NC				
	with grilles-between-the-glass	PEL-N-11-21749-00002				0.28	0.24	0.43	61		NC	SC	S		
	with integral grilles	PEL-N-11-21752-00002				0.29	0.24	0.43	62		NC	SC	S		
11/16"	SunDefense™ Low-E IG	PEL-N-11-21562-00002	3	3	Argon	0.28	0.19	0.44	62		NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21750-00002				0.28	0.18	0.40	62		NC	SC	S		
	with integral grilles	PEL-N-11-21753-00002				0.28	0.18	0.40	62		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-11-21565-00001	3	3	Argon	0.25	0.25	0.47	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21756-00001				0.25	0.23	0.42	48	N	NC	SC	S		
	with integral grilles	PEL-N-11-21763-00001				0.27	0.23	0.42	48	N	NC	SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-11-21563-00002	3	3	Argon	0.29	0.47	0.54	61	N					
	with grilles-between-the-glass	PEL-N-11-21751-00002				0.29	0.43	0.49	61	N					
	with integral grilles	PEL-N-11-21754-00002				0.29	0.43	0.49	61	N					
Tinted Glazing															
11/16"	Bronze Advanced Low-E IG	PEL-N-11-21603-00001	5	3	Argon	0.29	0.23	0.31	60		NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21833-00001				0.30	0.21	0.28	60		NC	SC	S		
	with integral grilles	PEL-N-11-21839-00001				0.30	0.21	0.28	60		NC	SC	S		
11/16"	Gray Advanced Low-E IG	PEL-N-11-21604-00001	5	3	Argon	0.29	0.21	0.26	60		NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21834-00001				0.30	0.19	0.24	60		NC	SC	S		
	with integral grilles	PEL-N-11-21840-00001				0.30	0.19	0.24	60		NC	SC	S		
11/16"	Green Advanced Low-E IG	PEL-N-11-21605-00001	5	3	Argon	0.29	0.26	0.42	60		NC				
	with grilles-between-the-glass	PEL-N-11-21835-00001				0.30	0.24	0.38	60		NC	SC	S		
	with integral grilles	PEL-N-11-21841-00001				0.30	0.24	0.38	60		NC	SC	S		
High Altitude Glazing															
11/16"	Advanced Low-E IG	PEL-N-11-21567-00001	3	3	Air	0.31	0.26	0.48	57						
	with grilles-between-the-glass	PEL-N-11-21758-00001				0.32	0.24	0.43	57				S		
	with integral grilles	PEL-N-11-21765-00001				0.32	0.24	0.43	57				S		
11/16"	SunDefense Low-E IG	PEL-N-11-21568-00001	3	3	Air	0.31	0.20	0.44	58				S		
	with grilles-between-the-glass	PEL-N-11-21759-00001				0.32	0.18	0.40	58				S		
	with integral grilles	PEL-N-11-21766-00001				0.32	0.18	0.40	58				S		
11/16"	AdvancedComfort Low-E IG	PEL-N-11-21570-00001	3	3	Air	0.27	0.25	0.47	44	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21761-00001				0.28	0.23	0.42	44		NC	SC	S		
	with integral grilles	PEL-N-11-21768-00001				0.29	0.23	0.42	44		NC	SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-11-21569-00001	3	3	Air	0.32	0.47	0.54	57						
	with grilles-between-the-glass	PEL-N-11-21760-00001				0.33	0.43	0.49	57						
	with integral grilles	PEL-N-11-21767-00001				0.33	0.43	0.49	57						

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

Climate Zones



(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Based on unit size, some products will use 2.5 mm glass that will have equivalent or improved performance from what is shown.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values [1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2]	
														ER	Zone
Fixed Dual-Pane Glazing - Aluminum-Clad Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-1-53572-00001	3	3	Air	0.45	0.62	0.65	44						
	with grilles-between-the-glass	PEL-N-1-53763-00001				0.46	0.56	0.58	44						
	with integral grilles	PEL-N-1-53770-00001				0.46	0.56	0.58	44						
11/16"	Advanced Low-E IG	PEL-N-1-53567-00002	3	3	Argon	0.27	0.30	0.55	62	N	NC				
	with grilles-between-the-glass	PEL-N-1-53755-00002				0.28	0.27	0.50	62		NC				
	with integral grilles	PEL-N-1-53758-00002				0.28	0.27	0.50	62		NC				
11/16"	SunDefense™ Low-E IG	PEL-N-1-53568-00002	3	3	Argon	0.26	0.22	0.51	62	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-1-53756-00002				0.27	0.20	0.46	62	N	NC	SC	S		
	with integral grilles	PEL-N-1-53759-00002				0.27	0.20	0.46	62	N	NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-1-53571-00001	3	3	Argon	0.23	0.29	0.54	48	N	NC				
	with grilles-between-the-glass	PEL-N-1-53762-00001				0.24	0.26	0.48	48	N	NC				
	with integral grilles	PEL-N-1-53769-00001				0.25	0.26	0.48	48	N	NC				
11/16"	NaturalSun Low-E IG	PEL-N-1-53569-00002	3	3	Argon	0.28	0.55	0.63	61	N				37	CA
	with grilles-between-the-glass	PEL-N-1-53757-00002				0.28	0.49	0.56	61	N					
	with integral grilles	PEL-N-1-53760-00002				0.29	0.49	0.56	61	N					
Tinted Glazing															
11/16"	Bronze Advanced Low-E	PEL-N-1-53609-00001	5	3	Argon	0.28	0.26	0.36	59		NC				
	with grilles-between-the-glass	PEL-N-1-53839-00001				0.29	0.24	0.32	59		NC	SC	S		
	with integral grilles	PEL-N-1-53845-00001				0.29	0.24	0.32	59		NC	SC	S		
11/16"	Gray Advanced Low-E IG	PEL-N-1-53610-00001	5	3	Argon	0.28	0.24	0.31	59		NC	SC	S		
	with grilles-between-the-glass	PEL-N-1-53840-00001				0.29	0.22	0.27	59		NC	SC	S		
	with integral grilles	PEL-N-1-53846-00001				0.29	0.22	0.27	59		NC	SC	S		
11/16"	Green Advanced Low-E IG	PEL-N-1-53611-00001	5	3	Argon	0.28	0.30	0.49	59		NC				
	with grilles-between-the-glass	PEL-N-1-53841-00001				0.29	0.27	0.43	59		NC				
	with integral grilles	PEL-N-1-53847-00001				0.29	0.27	0.43	59		NC				
High Altitude Glazing															
11/16"	Advanced Low-E IG	PEL-N-1-53573-00001	3	3	Air	0.31	0.30	0.55	57						
	with grilles-between-the-glass	PEL-N-1-53764-00001				0.32	0.27	0.50	57						
	with integral grilles	PEL-N-1-53771-00001				0.32	0.27	0.50	57						
11/16"	SunDefense Low-E IG	PEL-N-1-53574-00001	3	3	Air	0.30	0.22	0.51	57		NC	SC	S		
	with grilles-between-the-glass	PEL-N-1-53765-00001				0.31	0.20	0.46	57				S		
	with integral grilles	PEL-N-1-53772-00001				0.32	0.20	0.46	57				S		
11/16"	AdvancedComfort Low-E IG	PEL-N-1-53576-00001	3	3	Air	0.26	0.29	0.54	44	N	NC				
	with grilles-between-the-glass	PEL-N-1-53767-00001				0.27	0.26	0.48	44	N	NC				
	with integral grilles	PEL-N-1-53774-00001				0.28	0.26	0.48	44		NC				
11/16"	NaturalSun Low-E IG	PEL-N-1-53575-00001	3	3	Air	0.32	0.54	0.63	56						
	with grilles-between-the-glass	PEL-N-1-53766-00001				0.33	0.49	0.56	56						
	with integral grilles	PEL-N-1-53773-00001				0.33	0.49	0.56	56						

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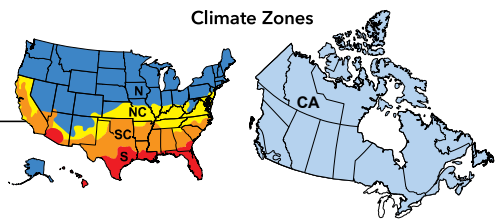
Climate Zones



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Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values [1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid.	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2] ER	Canada [2] Zone
Vent Triple-Pane Glazing - Aluminum-Clad Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-11-21640-00001	3	3	3	Argon	0.22	0.23	0.42	71	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21906-00001					0.22	0.21	0.38	71	N	NC	SC	S		
	with integral grilles	PEL-N-11-21915-00001					0.22	0.21	0.38	71	N	NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-11-21641-00001	3	3	3	Argon	0.22	0.17	0.39	71	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21907-00001					0.22	0.16	0.35	71	N	NC	SC	S		
	with integral grilles	PEL-N-11-21916-00001					0.22	0.16	0.35	71	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-11-21639-00001	3	3	3	Argon	0.22	0.39	0.47	70	N	NC			35	CA
	with grilles-between-the-glass	PEL-N-11-21905-00001					0.22	0.35	0.43	70	N	NC				
	with integral grilles	PEL-N-11-21914-00001					0.22	0.35	0.43	70	N	NC				
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-11-21643-00001	3	3	3	Air	0.25	0.23	0.42	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21909-00001					0.25	0.22	0.38	66	N	NC	SC	S		
	with integral grilles	PEL-N-11-21918-00001					0.25	0.22	0.38	66	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-11-21644-00001	3	3	3	Air	0.25	0.18	0.39	66	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-11-21910-00001					0.25	0.16	0.35	66	N	NC	SC	S		
	with integral grilles	PEL-N-11-21919-00001					0.25	0.16	0.35	66	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-11-21642-00001	3	3	3	Air	0.25	0.39	0.47	66	N	NC				
	with grilles-between-the-glass	PEL-N-11-21908-00001					0.26	0.35	0.43	66	N	NC				
	with integral grilles	PEL-N-11-21917-00001					0.26	0.35	0.43	66	N	NC				

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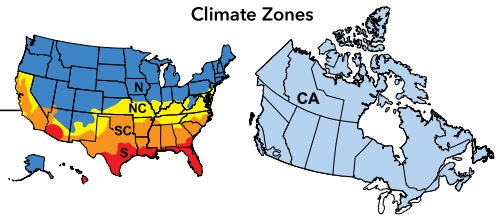
Climate Zones



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Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values [1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid.	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2] ER	Canada [2] Zone
											N	NC	SC	S		CA
Fixed Triple-Pane Glazing - Aluminum-Clad Exterior																
1"	Advanced Low-E IG	PEL-N-1-53646-00001	3	3	3	Argon	0.20	0.27	0.49	71	N	NC			30	CA
	with grilles-between-the-glass	PEL-N-1-53912-00001					0.20	0.24	0.44	71	N	NC	SC	S	29	CA
	with integral grilles	PEL-N-1-53921-00001					0.20	0.24	0.44	71	N	NC	SC	S	29	CA
1"	SunDefense™ Low-E IG	PEL-N-1-53647-00001	3	3	3	Argon	0.20	0.20	0.45	71	N	NC	SC	S	26	CA
	with grilles-between-the-glass	PEL-N-1-53913-00001					0.20	0.18	0.40	71	N	NC	SC	S	25	CA
	with integral grilles	PEL-N-1-53922-00001					0.20	0.18	0.40	71	N	NC	SC	S	25	CA
1"	NaturalSun Low-E IG	PEL-N-1-53645-00001	3	3	3	Argon	0.20	0.45	0.55	71	N				41	CA
	with grilles-between-the-glass	PEL-N-1-53911-00001					0.21	0.40	0.49	71	N	NC			37	CA
	with integral grilles	PEL-N-1-53920-00001					0.21	0.40	0.49	71	N	NC			37	CA
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-1-53649-00001	3	3	3	Air	0.24	0.27	0.49	67	N	NC				
	with grilles-between-the-glass	PEL-N-1-53915-00001					0.24	0.24	0.44	67	N	NC	SC	S		
	with integral grilles	PEL-N-1-53924-00001					0.24	0.24	0.44	67	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-1-53650-00001	3	3	3	Air	0.24	0.20	0.45	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-1-53916-00001					0.24	0.18	0.40	67	N	NC	SC	S		
	with integral grilles	PEL-N-1-53925-00001					0.24	0.18	0.40	67	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-1-53648-00001	3	3	3	Air	0.24	0.45	0.55	66	N				36	CA
	with grilles-between-the-glass	PEL-N-1-53914-00001					0.25	0.40	0.49	66	N	NC				
	with integral grilles	PEL-N-1-53923-00001					0.24	0.40	0.49	66	N	NC				

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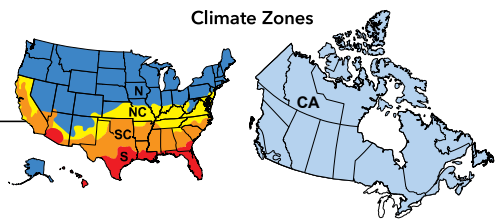
Climate Zones



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Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Int.	Gap Fill	Performance Values[1] U-Factor	SHGC	VLT %	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown U. S. Zone N	NC	SC	S	Canada[2] ER	Canada[2] Zone CA
Vent Dual-Pane Glazing - Wood Exterior															
11/16"	Clear IG	PEL-N-39-18870-00001	3	3	Air	0.42	0.54	0.56	45						
	with integral grilles	PEL-N-39-19068-00001				0.43	0.49	0.51	45						
11/16"	Advanced Low-E IG	PEL-N-39-18865-00002	3	3	Argon	0.27	0.26	0.48	63	N	NC				
	with integral grilles	PEL-N-39-19056-00002				0.27	0.24	0.43	63	N	NC	SC	S		
11/16"	SunDefense™ Low-E IG	PEL-N-39-18866-00002	3	3	Argon	0.26	0.19	0.44	63	N	NC	SC	S		
	with integral grilles	PEL-N-39-19057-00002				0.27	0.18	0.40	63	N	NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-39-18869-00001	3	3	Argon	0.23	0.25	0.47	49	N	NC	SC	S		
	with integral grilles	PEL-N-39-19067-00001				0.25	0.23	0.42	49	N	NC	SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-39-18867-00002	3	3	Argon	0.27	0.47	0.54	62	N					
	with integral grilles	PEL-N-39-19058-00002				0.28	0.43	0.49	62	N					
Tinted Glazing															
11/16"	Bronze Advanced Low-E IG	PEL-N-39-18907-00001	5	3	Argon	0.28	0.23	0.31	61		NC	SC	S		
	with integral grilles	PEL-N-39-19143-00001				0.29	0.21	0.28	61		NC	SC	S		
11/16"	Gray Advanced Low-E IG	PEL-N-39-18908-00001	5	3	Argon	0.28	0.21	0.27	61		NC	SC	S		
	with integral grilles	PEL-N-39-19144-00001				0.29	0.19	0.24	61		NC	SC	S		
11/16"	Green Advanced Low-E IG	PEL-N-39-18909-00001	5	3	Argon	0.28	0.26	0.42	61		NC				
	with integral grilles	PEL-N-39-19145-00001				0.29	0.24	0.38	61		NC	SC	S		
High Altitude Glazing															
11/16"	Advanced Low-E IG	PEL-N-39-18871-00001	3	3	Air	0.30	0.26	0.48	58		NC				
	with integral grilles	PEL-N-39-19069-00001				0.31	0.24	0.43	58				S		
11/16"	SunDefense Low-E IG	PEL-N-39-18872-00001	3	3	Air	0.30	0.20	0.44	58		NC	SC	S		
	with integral grilles	PEL-N-39-19070-00001				0.31	0.18	0.40	58				S		
11/16"	AdvancedComfort Low-E IG	PEL-N-39-18874-00001	3	3	Air	0.26	0.25	0.47	45	N	NC	SC	S		
	with integral grilles	PEL-N-39-19072-00001				0.28	0.23	0.42	45		NC	SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-39-18873-00001	3	3	Air	0.31	0.47	0.54	57						
	with integral grilles	PEL-N-39-19071-00001				0.32	0.43	0.49	57						

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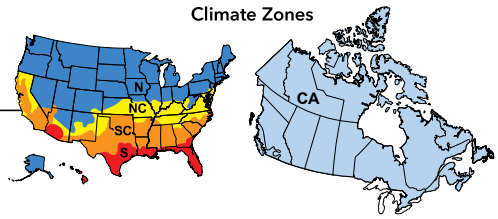
Climate Zones



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Glazing Performance - Total Unit

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			Ext.	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2] ER	Canada [2] Zone
Fixed Dual-Pane Glazing - Wood Exterior										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-41-37285-00001	3	3	Air	0.44	0.62	0.65	45						
	with integral grilles	PEL-N-41-37483-00001				0.45	0.56	0.58	45						
11/16"	Advanced Low-E IG	PEL-N-41-37280-00002	3	3	Argon	0.26	0.30	0.56	62	N	NC				
	with integral grilles	PEL-N-41-37471-00002				0.27	0.27	0.50	62	N	NC				
11/16"	SunDefense™ Low-E IG	PEL-N-41-37281-00002	3	3	Argon	0.26	0.22	0.51	62	N	NC	SC	S		
	with integral grilles	PEL-N-41-37472-00002				0.26	0.20	0.46	62	N	NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-41-37284-00001	3	3	Argon	0.22	0.29	0.54	49	N	NC				
	with integral grilles	PEL-N-41-37482-00001				0.25	0.26	0.49	49	N	NC				
11/16"	NaturalSun Low-E IG	PEL-N-41-37282-00002	3	3	Argon	0.27	0.55	0.63	61	N				38	CA
	with integral grilles	PEL-N-41-37473-00002				0.28	0.49	0.56	61	N					
Tinted Glazing															
11/16"	Bronze Advanced Low-E IG	PEL-N-41-37322-00001	5	3	Argon	0.27	0.26	0.36	60	N	NC				
	with integral grilles	PEL-N-41-37558-00001				0.28	0.24	0.32	60		NC	SC	S		
11/16"	Gray Advanced Low-E IG	PEL-N-41-37323-00001	5	3	Argon	0.27	0.24	0.31	60	N	NC	SC	S		
	with integral grilles	PEL-N-41-37559-00001				0.28	0.22	0.28	60		NC	SC	S		
11/16"	Green Advanced Low-E IG	PEL-N-41-37324-00001	5	3	Argon	0.27	0.30	0.49	60	N	NC				
	with integral grilles	PEL-N-41-37560-00001				0.28	0.27	0.44	60		NC				
High Altitude Glazing															
11/16"	Advanced Low-E IG	PEL-N-41-37286-00001	3	3	Air	0.30	0.30	0.56	57		NC				
	with integral grilles	PEL-N-41-37484-00001				0.31	0.27	0.50	57						
11/16"	SunDefense Low-E IG	PEL-N-41-37287-00001	3	3	Air	0.30	0.22	0.51	58		NC	SC	S		
	with integral grilles	PEL-N-41-37485-00001				0.31	0.20	0.46	58				S		
11/16"	AdvancedComfort Low-E IG	PEL-N-41-37289-00001	3	3	Air	0.25	0.29	0.54	44	N	NC				
	with integral grilles	PEL-N-41-37487-00001				0.28	0.26	0.49	44		NC				
11/16"	NaturalSun Low-E IG	PEL-N-41-37288-00001	3	3	Air	0.31	0.54	0.63	57						
	with integral grilles	PEL-N-41-37486-00001				0.32	0.49	0.56	57						

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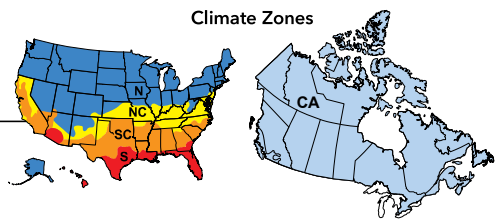

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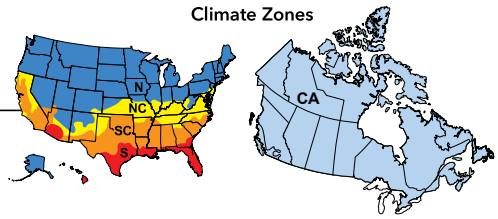
			Ext.	Mid	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2] ER	Canada [2] Zone
Vent Triple-Pane Glazing - Wood Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-39-18944-00001	3	3	3	Argon	0.21	0.23	0.42	71	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-39-19210-00001					0.21	0.21	0.38	71	N	NC	SC	S	26	CA
	with integral grilles	PEL-N-39-19219-00001					0.21	0.21	0.38	71	N	NC	SC	S	26	CA
1"	SunDefense™ Low-E IG	PEL-N-39-18945-00001	3	3	3	Argon	0.20	0.17	0.39	72	N	NC	SC	S	25	CA
	with grilles-between-the-glass	PEL-N-39-19211-00001					0.21	0.16	0.35	72	N	NC	SC	S		
	with integral grilles	PEL-N-39-19220-00001					0.21	0.16	0.35	72	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-39-18943-00001	3	3	3	Argon	0.21	0.39	0.48	71	N	NC			36	CA
	with grilles-between-the-glass	PEL-N-39-19209-00001					0.21	0.35	0.43	71	N	NC			34	CA
	with integral grilles	PEL-N-39-19218-00001					0.21	0.35	0.43	71	N	NC			34	CA
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-39-18947-00001	3	3	3	Air	0.24	0.24	0.42	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-39-19213-00001					0.24	0.22	0.38	67	N	NC	SC	S		
	with integral grilles	PEL-N-39-19222-00001					0.24	0.22	0.38	67	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-39-18948-00001	3	3	3	Air	0.24	0.18	0.39	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-39-19214-00001					0.24	0.16	0.35	67	N	NC	SC	S		
	with integral grilles	PEL-N-39-19223-00001					0.24	0.16	0.35	67	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-39-18946-00001	3	3	3	Air	0.24	0.39	0.48	67	N	NC				
	with grilles-between-the-glass	PEL-N-39-19212-00001					0.24	0.35	0.43	67	N	NC				
	with integral grilles	PEL-N-39-19221-00001					0.24	0.35	0.43	67	N	NC				

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

Climate Zones



(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Based on unit size, some products will use 2.5 mm glass that will have equivalent or improved performance from what is shown.

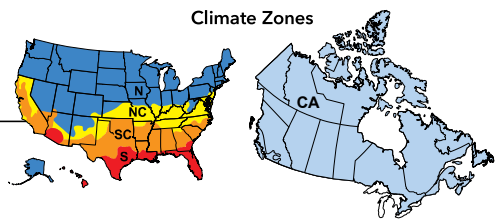
See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values [1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid	Int.		U-Factor	SHGC	VLT %	CR	U. S. Zone				Canada [2] ER	Canada [2] Zone
Fixed Triple-Pane Glazing - Wood Exterior											N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-41-37359-00001	3	3	3	Argon	0.19	0.27	0.49	72	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-41-37625-00001					0.20	0.24	0.44	72	N	NC	SC	S	29	CA
	with integral grilles	PEL-N-41-37634-00001					0.20	0.24	0.44	72	N	NC	SC	S	29	CA
1"	SunDefense™ Low-E IG	PEL-N-41-37360-00001	3	3	3	Argon	0.19	0.20	0.45	72	N	NC	SC	S	28	CA
	with grilles-between-the-glass	PEL-N-41-37626-00001					0.19	0.18	0.40	72	N	NC	SC	S	27	CA
	with integral grilles	PEL-N-41-37635-00001					0.19	0.18	0.40	72	N	NC	SC	S	27	CA
1"	NaturalSun Low-E IG	PEL-N-41-37358-00001	3	3	3	Argon	0.20	0.45	0.55	71	N				41	CA
	with grilles-between-the-glass	PEL-N-41-37624-00001					0.20	0.40	0.49	71	N	NC			38	CA
	with integral grilles	PEL-N-41-37633-00001					0.20	0.40	0.49	71	N	NC			38	CA
High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-41-37362-00001	3	3	3	Air	0.23	0.27	0.49	67	N	NC				
	with grilles-between-the-glass	PEL-N-41-37628-00001					0.23	0.24	0.44	67	N	NC	SC	S		
	with integral grilles	PEL-N-41-37637-00001					0.23	0.24	0.44	67	N	NC	SC	S		
1"	SunDefense Low-E IG	PEL-N-41-37363-00001	3	3	3	Air	0.23	0.20	0.45	67	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-41-37629-00001					0.23	0.18	0.40	67	N	NC	SC	S		
	with integral grilles	PEL-N-41-37638-00001					0.23	0.18	0.40	67	N	NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-41-37361-00001	3	3	3	Air	0.23	0.45	0.55	67	N				37	CA
	with grilles-between-the-glass	PEL-N-41-37627-00001					0.24	0.40	0.49	67	N	NC				
	with integral grilles	PEL-N-41-37636-00001					0.24	0.40	0.49	67	N	NC				

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

Climate Zones



(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Based on unit size, some products will use 2.5 mm glass that will have equivalent or improved performance from what is shown.

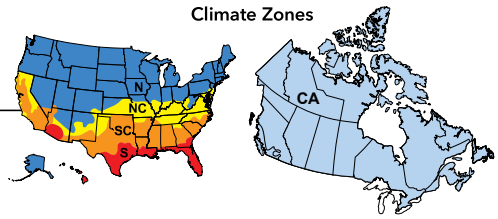
See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values[1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
										U. S.				Canada[2]	
			Ext.	Int.		U-Factor	SHGC	VLT %	CR	Zone				ER	Zone
Vent - Laminated Impact-Resistant Glass										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-11-21577-00001	3	8	Air	0.47	0.50	0.55	41						
	with grilles-between-the-glass	PEL-N-11-21775-00001				0.47	0.46	0.50	41						
	with integral grilles	PEL-N-11-21787-00001				0.47	0.46	0.50	41						
11/16"	Advanced Low-E IG	PEL-N-11-21572-00001	3	8	Argon	0.33	0.26	0.47	55						
	with grilles-between-the-glass	PEL-N-11-21770-00001				0.34	0.24	0.42	55				S		
	with integral grilles	PEL-N-11-21782-00001				0.34	0.24	0.42	55				S		
11/16"	SunDefense™ Low-E IG	PEL-N-11-21573-00001	3	8	Argon	0.33	0.20	0.43	55				S		
	with grilles-between-the-glass	PEL-N-11-21771-00001				0.34	0.18	0.39	55				S		
	with integral grilles	PEL-N-11-21783-00001				0.34	0.18	0.39	55				S		
Tinted Laminated Impact-Resistant Glass															
11/16"	Bronze Advanced Low-E IG	PEL-N-11-21574-00001	3	8	Argon	0.33	0.22	0.10	55				S		
	with grilles-between-the-glass	PEL-N-11-21772-00001				0.34	0.21	0.09	55				S		
	with integral grilles	PEL-N-11-21784-00001				0.34	0.21	0.09	55				S		
11/16"	Gray Advanced Low-E IG	PEL-N-11-21575-00001	3	8	Argon	0.33	0.22	0.06	55				S		
	with grilles-between-the-glass	PEL-N-11-21773-00001				0.34	0.20	0.05	55				S		
	with integral grilles	PEL-N-11-21785-00001				0.34	0.20	0.05	55				S		
11/16"	11/16" Green Advanced Low-E IG	PEL-N-11-21576-00001	3	8	Argon	0.33	0.24	0.26	55				S		
	with grilles-between-the-glass	PEL-N-11-21774-00001				0.34	0.22	0.24	55				S		
	with integral grilles	PEL-N-11-21786-00001				0.34	0.22	0.24	55				S		

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

Climate Zones



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(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

Based on unit size, some products will use 2.5 mm glass that will have equivalent or improved performance from what is shown.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values [1]				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT %	CR	U. S.				Canada [2]	
										Zone				ER	Zone
Fixed - Laminated Impact-Resistant Glass										N	NC	SC	S		CA
11/16"	Clear IG	PEL-N-1-53583-00001	3	8	Air	0.48	0.58	0.64	41						
	with grilles-between-the-glass	PEL-N-1-53781-00001				0.49	0.52	0.57	41						
	with integral grilles	PEL-N-1-53793-00001				0.49	0.52	0.57	41						
11/16"	Advanced Low-E IG	PEL-N-1-53578-00001	3	8	Argon	0.33	0.30	0.55	55						
	with grilles-between-the-glass	PEL-N-1-53776-00001				0.34	0.27	0.49	55						
	with integral grilles	PEL-N-1-53788-00001				0.34	0.27	0.49	55						
11/16"	SunDefense™ Low-E IG	PEL-N-1-53579-00001	3	8	Argon	0.32	0.23	0.50	55				S		
	with grilles-between-the-glass	PEL-N-1-53777-00001				0.34	0.20	0.45	55				S		
	with integral grilles	PEL-N-1-53789-00001				0.34	0.20	0.45	55				S		
Tinted Laminated Impact-Resistant Glass															
11/16"	Bronze Advanced Low-E IG	PEL-N-1-53580-00001	3	8	Argon	0.33	0.26	0.11	55						
	with grilles-between-the-glass	PEL-N-1-53778-00001				0.34	0.23	0.10	55				S		
	with integral grilles	PEL-N-1-53790-00001				0.34	0.23	0.10	55				S		
11/16"	Gray Advanced Low-E IG	PEL-N-1-53581-00001	3	8	Argon	0.33	0.25	0.07	55				S		
	with grilles-between-the-glass	PEL-N-1-53779-00001				0.34	0.23	0.06	55				S		
	with integral grilles	PEL-N-1-53791-00001				0.34	0.23	0.06	55				S		
11/16"	Green Advanced Low-E IG	PEL-N-1-53582-00001	3	8	Argon	0.33	0.27	0.30	55						
	with grilles-between-the-glass	PEL-N-1-53780-00001				0.34	0.25	0.27	55				S		
	with integral grilles	PEL-N-1-53792-00001				0.34	0.25	0.27	55				S		

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
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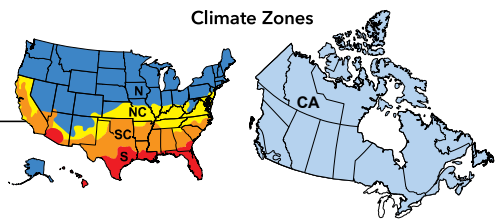
Climate Zones



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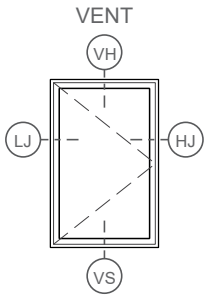
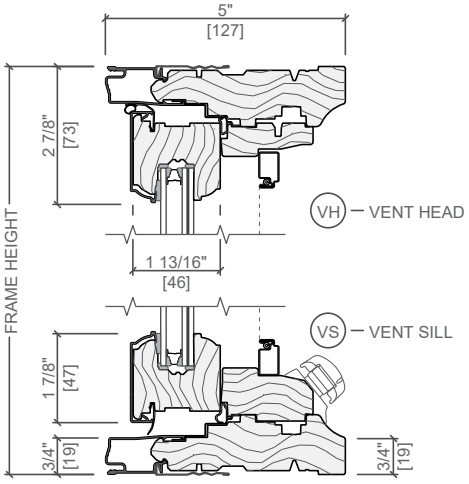
Based on unit size, some products will use 2.5 mm glass that will have equivalent or improved performance from what is shown.

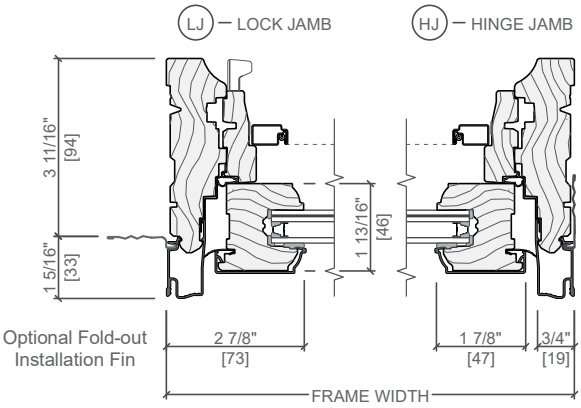
See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Products with Impact-Resistant Glass

Product	Design Pressure Large Missile Rating D		Hallmark Certified	Florida Product Approval System
	Minimum	Maximum		
Vent				
11/16" Insulated Glass PVB	60	75	411-H-1339	FL10015
1" Insulated Glass SGP	75	+75 / -85	411-H-1339	FL10015
Large Fixed				
11/16" Insulated Glass PVB	60	75	411-H-1339	FL10022
1" Insulated Glass SGP	75	+75 / -85	411-H-1339	FL10022







(–) = Not Available

All sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 4, large missile rating D.

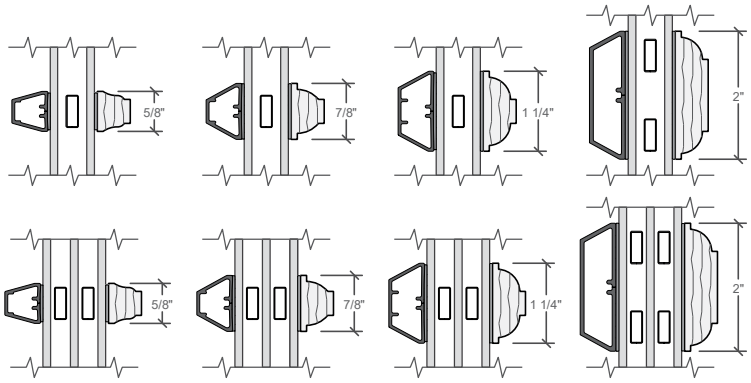
Florida Product Approval System number not needed if Miami-Dade County approved.

Consult your local building code to ensure products meet all requirements.

Grille Profiles

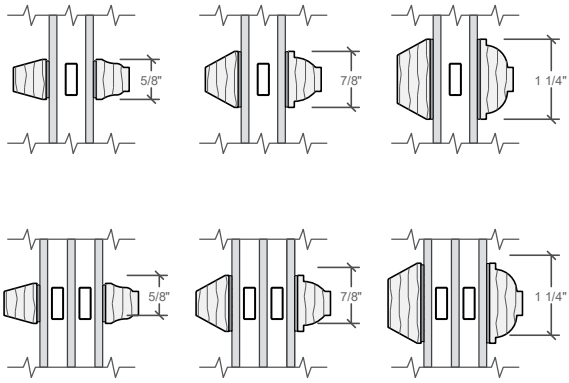
Traditional Style Collection - Integral Light Technology ®

Putty Glaze and Ogee Grilles
Clad Exterior - Wood Interior



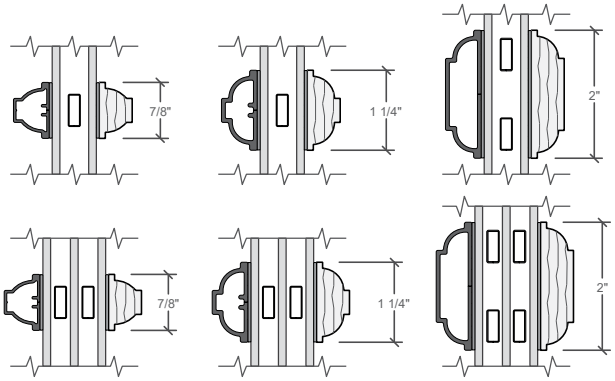
5/8" Regular | 7/8" Regular | 1 1/4" Regular | 2" Regular

Putty Glaze and Ogee Grilles
Wood Exterior - Wood Interior



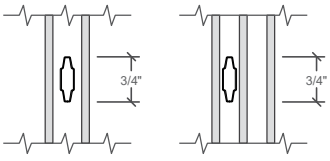
5/8" Regular | 7/8" Regular | 1 1/4" Regular

Ogee Grilles
Clad Exterior - Wood Interior



7/8" Regular | 1 1/4" Regular | 2" Regular

Grilles-Between-the-Glass

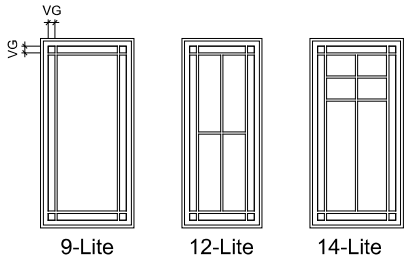


3/4" Contoured | 3/4" Contoured

Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.
Exterior wood ILT grilles available in Pine or Mahogany to match complete unit.

Integral Light Technology® Grilles

Prairie Lite Patterns



Size range availability is for 3/4", 7/8" and 1-1/4" grille width.
Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

9-Lite

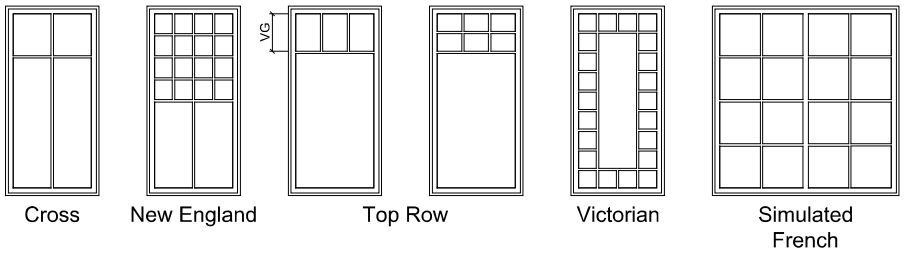
- Available in all standard and special sizes.

12-Lite

- Available in units ≥ 1'9" and ≤ 2'11" in width, and ≥ 1'9" in height.

14-Lite

- Available in units ≥ 1'9" in width and ≥ 2'11" in height.



Cross

- Standard visible glass to separator bar = one-quarter of total visible glass height.

New England

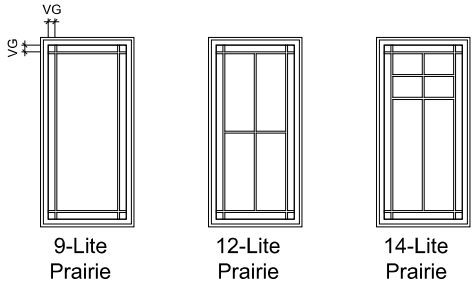
- Standard visible glass to separator bar = half of total visible glass height.

Top Row

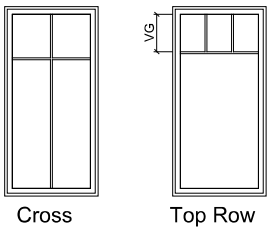
- Standard visible glass to separator bar = 14" or half of total visible glass height, whichever is smaller.

Grilles-Between-the-Glass

Prairie Lite Patterns



Other Available Patterns



Cross

- Available for units with frame heights ≥35". Standard visible glass to separator bar = 1/4 of total visible glass height.

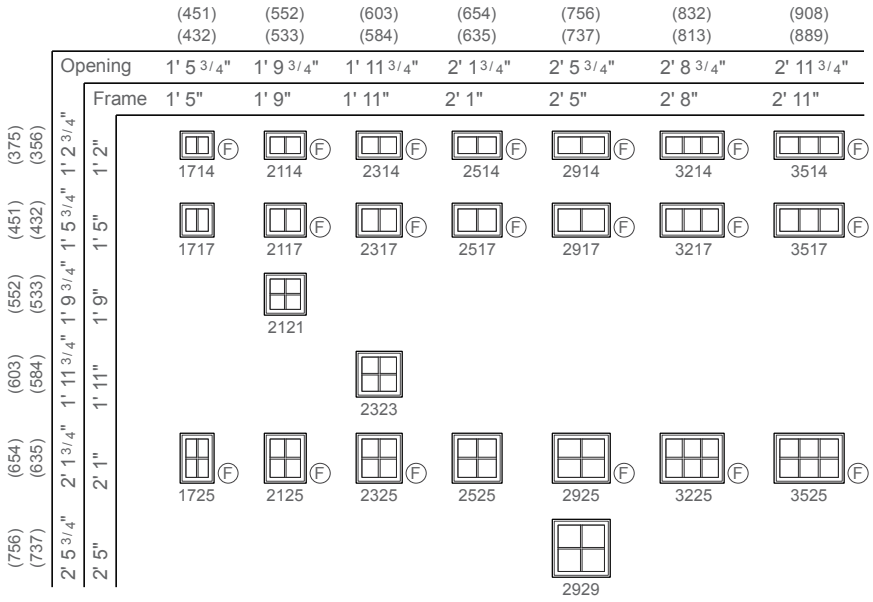
Top Row

- Standard visible glass to separator bar = 14" for frame heights >35". Standard visible glass to separator bar = 21" for 35" frame heights and optional for 41" frame height. Separator bar at 12" or 16" optional for frame heights >41".

For traditional patterns, see size tables.

VG = Visible Glass
Lite dimensions noted can vary.
Custom configurations are also available, for details contact your local Pella sales representative.

Size Tables



Opening Dimensions

Clad Exterior Units: Dimensions shown in tables are rough opening dimensions.

Wood Exterior Units: Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with HurricaneShield® impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

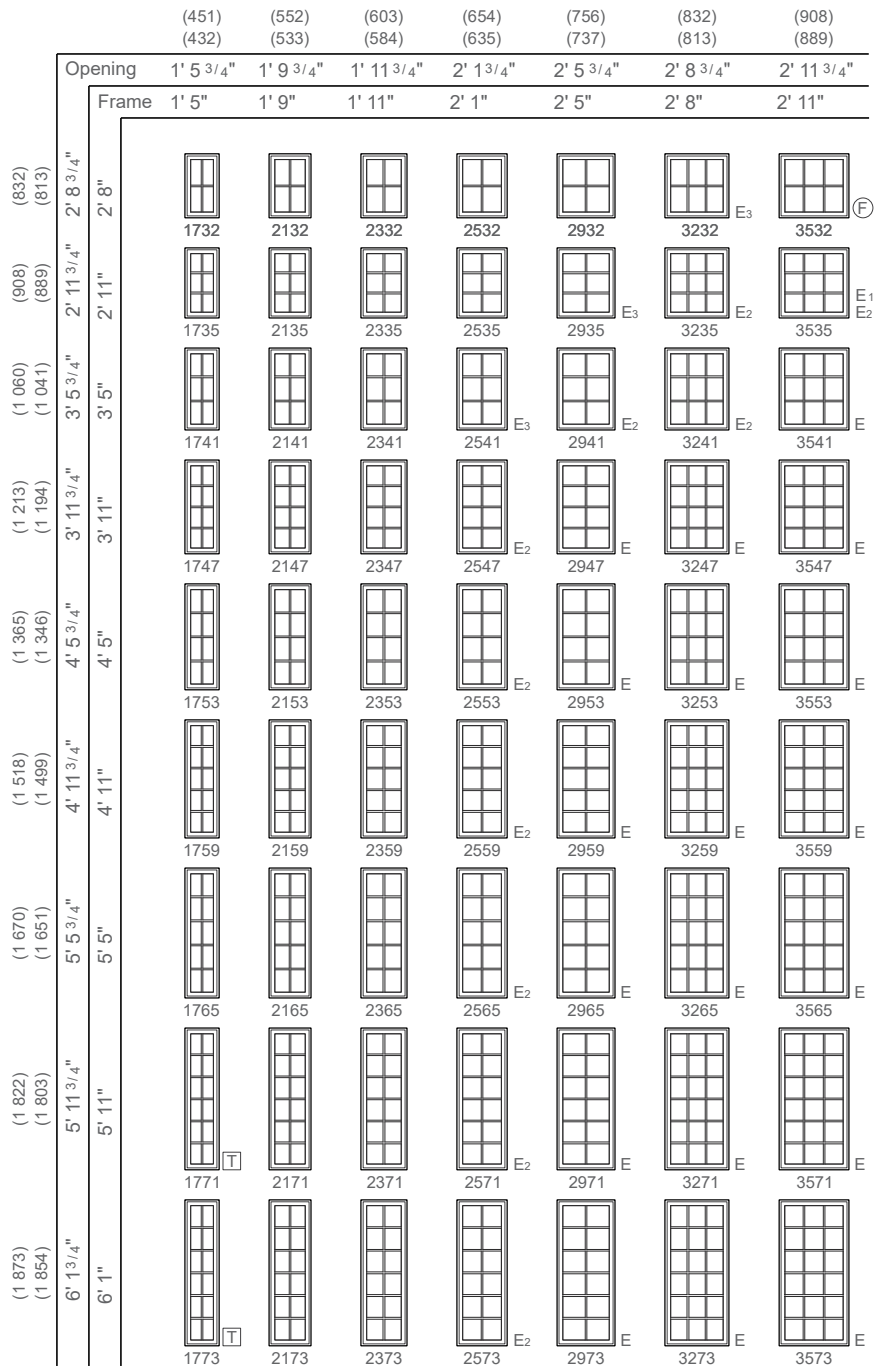
Ⓕ = Fixed Unit Only

Traditional grille patterns shown. Refer to Clad/Wood Overview Section for additional patterns and profiles.

Venting transoms are available as casements or awnings.

Size Tables

Vent and Fixed Units



Egress Notes:

Check all applicable local codes for emergency egress requirements.

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².
- E2 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².
- E3 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

See Design Data pages in this section for clear opening dimensions.

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. You should consult your local building code to ensure products with Rolscreens meet egress requirements.

Side pivot hardware reduces Performance class to 'R'.

Opening Dimensions

Clad Exterior Units: Dimensions shown in tables are rough opening dimensions.

Wood Exterior Units: Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with HurricaneShield® impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Ⓕ = Fixed Unit Only

T = Tempered glass due to aspect ratio.

Traditional grille patterns shown. Refer to Clad/Wood Overview Section for additional patterns and profiles.

Size Tables

Fixed Units

		(1 060) (1 041)	(1 213) (1 194)	(1 365) (1 346)	(1 518) (1 499)
	Opening	3' 5 3/4"	3' 11 3/4"	4' 5 3/4"	4' 11 3/4"
	Frame	3' 5"	3' 11"	4' 5"	4' 11"
(908) (889)	2' 11 3/4"	2' 11"	4135	4735	5335	5935
(1 060) (1 041)	3' 5 3/4"	3' 5"	4141	4741	5341	5941
(1 213) (1 194)	3' 11 3/4"	3' 11"	4147	4747	5347	5947
(1 365) (1 346)	4' 5 3/4"	4' 5"	4153	4753	5353	5953
(1 518) (1 499)	4' 11 3/4"	4' 11"	4159	4759	5359	5959
(1 670) (1 651)	5' 5 3/4"	5' 5"	4165	4765	5365	5965
(1 822) (1 803)	5' 11 3/4"	5' 11"	4171	4771	5371	5971
(1 873) (1 854)	6' 1 3/4"	6' 1"	4173	4773	5373	5973

Opening Dimensions

Clad Exterior Units: Dimensions shown in tables are rough opening dimensions.

Wood Exterior Units: Use frame dimension plus dimensions below. This dimension includes the use of standard 1-1/8" wood subsill.

Frame	Rough		Masonry	
Brickmould	Width	Height	Width	Height
STD	+ 3/4"	+1-7/8"	+ 3-1/8"	+ 3-1/8"
3-1/2"	+ 3/4"	+1-7/8"	+ 6-3/8"	+ 4-3/4"

For clad and wood units with HurricaneShield® impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Traditional grille patterns shown. Refer to Clad/Wood Overview Section for additional patterns and profiles.

Special Size Frame Dimensions*

	Minimum	Maximum
Vent	1'1-3/4" W x 1'1-3/4" H (13.75" x 13.75") (349 x 349)	3'5" W x 8'0" H (41" x 96") (1041 x 2 438)
Fixed	10" W x 10" H (254 x 254)	12'0" W x 12'0" H (144" x 144") (3 658 x 3 658)

* Available within size range shown. Standard Performance Option only.

Keep frame dimensions to the nearest 1/8" increment. Frame width cannot exceed frame height on special size vent units.

If Call Height < 32, and Call Width <32 then Call Width must equal Call Height for standard sizes.

Vent units Max frame area cannot be greater than 19.5 sq ft.

Fixed units Max frame area cannot be greater than 66.25 Sq ft, Max Glass Area cannot be greater than 60 Sq ft.

Contact your Pella representative for the availability of custom sizes smaller or larger than the parameters.

Miscellaneous Formulas

Visible Glass	Width = Frame – 5-3/4" Height = Frame – 5-3/4"
Actual Glass	Width = Frame – 4-3/8" Height = Frame – 4-3/8"

Clear Opening Height

Frame Height - 4-1/8"

Clear Opening Width

Hinge	Frame Width	Formula
Standard	FW ≥ 29" and ≤ 30-1/2"	FW - 9"
Standard	FW > 30-1/2"	FW - 9-3/4"
Side Pivot	FW ≥ 25" and ≤ 35"	FW - 4-3/8"

For units with FW >35" reference Restricted Opening chart.

Side Pivot Clear Opening Formulas

Hinge	Frame Width	Frame Height	Clear Opening Width Formula	
			CLAD EXTERIOR	WOOD EXTERIOR
STD	17" to ≤ 29"	17" to ≤ 73"	Unit Width - 4.375	Unit Width - 4.375
	> 29" to ≤ 35"	29" to < 47"	Unit Width - 4.375	Unit Width - 4.375
Heavy Duty*	13.75" to < 17"	13.75" to ≤ 96"	(Unit Width x 0.8) - 2.95	(Unit Width x 0.892) - 4.219
	17" to < 19"	13.75" to ≤ 96"	(Unit Width x 0.9) - 4.65	(Unit Width x 0.9) - 4.35
	19" to < 25"	13.75" to ≤ 96"	(Unit Width x 0.883) - 4.433	(Unit Width x 0.883) - 4.133
	25" to 29"	13.75" to ≤ 96"	Unit Width - 5.55	Unit Width - 5.55
	> 29" to ≤ 35"	13.75" to ≤ 96"	(Unit Width x 0.9) - 4.15	(Unit Width x 0.917) - 4.533

Clear opening height = unit height - 4.125"

* All units with Impact glass or standard IG glass weighing 56 lbs. or more require heavy duty hinges.

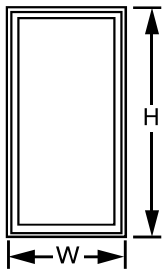
Restricted Opening

Frame Width	Approximate Sash Opening Angle
>35	28 degrees
36	26 degrees
37	25 degrees
38	24 degrees
39	23 degrees
40	22 degrees
41	21 degrees

Sash opening will be limited to the angle shown.

Units over 35 inches wide do NOT meet Egress.

NOTE: Performance Class and Grade for a Casement with additional options and Specialty windows may not be the same as Standard and Special size units. Please contact your local Pella representative for complete information.

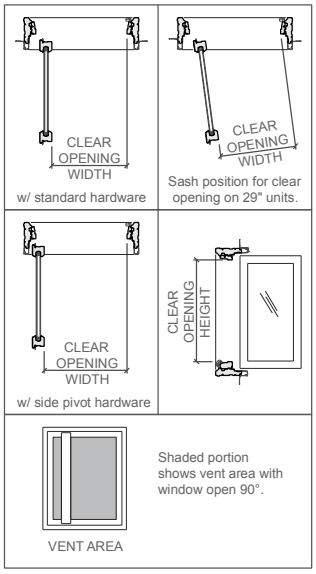
Rectangle		Minimum	Maximum	Restrictions
	**Fixed**			
	W	10"	144"	Maximum Glass weight is 400 Pounds
	H	10"	144"	Maximum frame size is 66.25 ft²
	Vent w/Roto Operator (See standard product for Clear Opening formulas)			
	W	17"	35"	
	H	17"	73"	
	Vent - w/ Roto Operator w/ Side Pivot			
	W	13-3/4"	35"	Maximum frame size is 19.5 ft²
	H	13-3/4"	96"	
	Vent - w/ Roto Operator w/Side Pivot Restricted Opening			
	W	35"	41"	Units will NOT meet egress requirements. Applies to all vent units with Width (W) > 35"
	H	35"	96"	

Glass Weight Formula: Actual Glass Width (W) x Actual Glass Height (H) x Actual Glass Thickness ÷ 11

Glazing weight in pounds, all Glass Width (W), Height (H) and Thickness are in inches.

Vent and Fixed, Wood and Aluminum-Clad Exteriors

Unit	Egress		Clear Opening			Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade[1]	
								Dual-Pane Glazing		Triple-Pane Glazing		
	Without Rolscreen	With Rolscreen	Width (Inches)	Height (Inches)	Ft²			Annealed	Tempered	Annealed or Tempered	Clad	Wood
1732			7-1/4	27-7/8	1.4	2.0	2.1	2.5	3	3	CW50	LC50
1735			7-1/4	30-7/8	1.6	2.3	2.3	2.5	3	3	CW50	LC50
1741			7-1/4	36-7/8	1.9	2.8	2.8	2.5	3	3	CW50	LC50
1747			7-1/4	42-7/8	2.2	3.2	3.2	2.5	3	3	CW50	LC50
1753			7-1/4	48-7/8	2.5	3.7	3.7	2.5	3	3	CW50	LC50
1759			7-1/4	54-7/8	2.8	4.2	4.2	2.5	3	3	CW50	LC50
1765			7-1/4	60-7/8	3.1	4.7	4.6	2.5	3	3	CW50	LC50
1771T			7-1/4	66-7/8	3.4	5.2	5.1	–	3	3	CW50	LC50
1773T			7-1/4	68-7/8	3.5	5.3	5.3	–	3	3	CW50	LC50
2132			11-1/4	27-7/8	2.2	2.7	2.8	2.5	3	3	CW50	LC50
2135			11-1/4	30-7/8	2.4	3.1	3.1	2.5	3	3	CW50	LC50
2141			11-1/4	36-7/8	2.9	3.7	3.7	2.5	3	3	CW50	LC50
2147			11-1/4	42-7/8	3.3	4.4	4.4	2.5	3	3	CW50	LC50
2153			11-1/4	48-7/8	3.8	5.0	5.0	2.5	3	3	CW50	LC50
2159			11-1/4	54-7/8	4.3	5.7	5.6	2.5	3	3	CW50	LC50
2165			11-1/4	60-7/8	4.8	6.3	6.3	2.5	3	3	CW45/CW50	LC45/LC50
2171			11-1/4	66-7/8	5.2	7.0	6.9	2.5	3	3	CW45/CW50	LC45/LC50
2173			11-1/4	68-7/8	5.4	7.2	7.1	2.5	3	3	CW40/CW50	LC40/LC50
2332			13-1/4	27-7/8	2.6	3.1	3.1	2.5	3	3	CW50	LC50
2335			13-1/4	30-7/8	2.8	3.4	3.5	2.5	3	3	CW50	LC50
2341			13-1/4	36-7/8	3.4	4.2	4.2	2.5	3	3	CW50	LC50
2347			13-1/4	42-7/8	3.9	4.9	4.9	2.5	3	3	CW50	LC50
2353			13-1/4	48-7/8	4.5	5.6	5.7	2.5	3	3	CW50	LC50
2359			13-1/4	54-7/8	5.0	6.4	6.4	2.5	3	3	CW45/CW50	LC45/LC50
2365			13-1/4	60-7/8	5.6	7.1	7.1	2.5	3	3	CW40/CW50	LC40/LC50
2371			13-1/4	66-7/8	6.2	7.9	7.8	2.5	3	3	CW35/CW50	LC35/LC50
2373			13-1/4	68-7/8	6.3	8.1	8.1	2.5	3	3	CW35/CW50	LC35/LC50
2532			15-1/4	27-7/8	3.0	3.4	3.5	2.5	3	3	CW50	LC50
2535			15-1/4	30-7/8	3.3	3.8	3.9	2.5	3	3	CW50	LC50
2541	E3		20-5/8	36-7/8	5.3	4.6	4.7	2.5	3	3	CW50	LC50
2547	E2		20-5/8	42-7/8	6.1	5.5	5.5	2.5	3	3	CW50	LC50
2553	E2		20-5/8	48-7/8	7.0	6.3	6.3	2.5	3	3	CW50	LC50
2559	E2		20-5/8	54-7/8	7.9	7.1	7.1	2.5	3	3	CW45/CW50	LC45/LC50
2565	E2		20-5/8	60-7/8	8.7	7.9	7.9	2.5	3	3	CW40/CW50	LC40/LC50
2571	E2		20-5/8	66-7/8	9.6	8.7	8.7	2.5	3	3	CW35/CW50	LC35/LC50
2573	E2		20-5/8	68-7/8	9.9	9.0	9.0	2.5	3	3	CW30/CW50	LC30/LC50
2932			24-5/8	27-7/8	4.8	4.1	4.2	2.5	3	3	CW50	LC50
2935	E3		24-5/8	30-7/8	5.3	4.6	4.7	2.5	3	3	CW50	LC50
2941	E2	E2	24-5/8	36-7/8	6.3	5.6	5.7	2.5	3	3	CW50	LC50
2947	E	E2	20	42-7/8	6.0	6.6	6.7	2.5	3	3	CW50	LC50
2953	E	E2	20	48-7/8	6.8	7.6	7.6	2.5	3	3	CW50	LC50
2959	E	E2	20	54-7/8	7.6	8.6	8.6	2.5	3	3	CW45/CW50	LC45/LC50
2965	E	E2	20	60-7/8	8.5	9.5	9.6	2.5	3	3	CW40/CW50	LC40/LC50
2971	E	E2	20	66-7/8	9.3	10.5	10.5	3	3	3	CW45/CW50	LC45/LC50
2973	E	E2	20	68-7/8	9.6	10.9	10.9	3	3	3	CW45/CW50	LC45/LC50
3232	E3		27-5/8	27-7/8	5.3	4.6	4.8	2.5	3	3	CW50	LC50
3235	E2		27-5/8	30-7/8	5.9	5.2	5.3	2.5	3	3	CW50	LC50
3241	E2	E1	27-5/8	36-7/8	7.1	6.3	6.4	2.5	3	3	CW50	LC50
3247	E	E	22-1/4	42-7/8	6.6	7.4	7.5	2.5	3	3	CW50	LC50
3253	E	E	22-1/4	48-7/8	7.6	8.5	8.6	2.5	3	3	CW50	LC50
3259	E	E	22-1/4	54-7/8	8.5	9.6	9.7	2.5	3	3	CW45/CW50	LC45/LC50
3265	E	E	22-1/4	60-7/8	9.4	10.7	10.8	3	3	3	CW50	LC50
3271	E	E	22-1/4	66-7/8	10.3	11.9	11.9	3	3	3	CW45/CW50	LC45/LC50
3273	E	E	22-1/4	68-7/8	10.6	12.2	12.3	3	3	3	CW45/CW50	LC45/LC50
3532F			–	–	–	–	5.3	2.5	3	3	CW50	LC50
3535	E1	E1	25-1/4	30-7/8	5.4	5.8	5.9	2.5	3	3	CW50	LC50
3541	E	E	25-1/4	36-7/8	6.5	7.0	7.2	2.5	3	3	CW50	LC50
3547	E	E	25-1/4	42-7/8	7.5	8.3	8.4	2.5	3	3	CW50	LC50
3553	E	E	25-1/4	48-7/8	8.6	9.5	9.6	2.5	3	3	CW45/CW50	LC45/LC50
3559	E	E	25-1/4	54-7/8	9.6	10.7	10.8	3	3	3	CW50	LC50
3565	E	E	25-1/4	60-7/8	10.7	12.0	12.0	3	3	3	CW50	LC50
3571	E	E	25-1/4	66-7/8	11.7	13.2	13.3	3	3	3	CW45/CW50	LC45/LC50
3573	E	E	25-1/4	68-7/8	12.1	13.6	13.7	3	3	3	CW45/CW50	LC45/LC50



Egress Notes:

Check all applicable local codes for emergency egress requirements.

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².
- E2 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².
- E3 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

Clear opening (egress) information does not take into consideration the addition of a Rolscreen (or any other accessory) to the product. You should consult your local building code to ensure products with Rolscreens meet egress requirements.

Side pivot hardware reduces Performance class to 'R'.

(–) = Not Applicable

F = Fixed only

T = Tempered required due to aspect ratio.

(1) Maximum performance when glazed with the appropriate glass thickness and using standard hinge hardware. Second value, where shown, requires tempered glass.

To convert area to square meters (m²), multiply square feet by 0.0929.

Fixed, Wood and Aluminum-Clad Exteriors

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)				Performance Class & Grade (1)	
		Dual-Pane Glazing		Triple-Pane Glazing			
		Annealed	Tempered	Annealed	Tempered	Clad	Wood
4135	7.2	2.5	3	3	3	CW50	LC50
4141	8.6	2.5	3	3	3	CW50	LC50
4147	10.1	3	3	3	3	CW50	LC50
4153	11.6	3	3	3	3	CW50	LC50
4159	13.0	3	3	3	3	CW50	LC50
4165	14.5	3	3	3	3	CW50	LC50
4171	16.0	3	3	3	3	CW45/CW50	LC45/LC50
4173	16.5	3	3	3	3	CW45/CW50	LC45/LC50
4735	8.4	2.5	3	3	3	CW50	LC50
4741	10.1	3	3	3	3	CW50	LC50
4747	11.8	3	3	3	3	CW50	LC50
4753	13.5	3	3	3	3	CW50	LC50
4759	15.3	3	3	3	3	CW50	LC50
4765	17.0	3	3	3	3	CW45/CW50	LC45/LC50
4771	18.7	4	4	4	4	CW50	LC50
4773	19.3	4	4	4	4	CW50	LC50
5335	9.6	2.5	3	3	3	CW45/CW50	LC45/LC50
5341	11.6	3	3	3	3	CW50	LC50
5347	13.5	3	3	3	3	CW50	LC50
5353	15.5	3	4	3	4	CW45/CW50	LC45/LC50
5359	17.5	3	4	3	4	CW40/CW50	LC40/LC50
5365	19.4	4	4	4	4	CW50	LC50
5371	21.4	4	4	4	4	CW50	LC50
5373	22.1	4	4	4	4	CW50	LC50
5935	10.8	3	3	3	3	CW50	LC50
5941	13.0	3	3	3	3	CW50	LC50
5947	15.3	3	3	3	3	CW50	LC50
5953	17.5	3	4	3	4	CW40/CW50	LC40/LC50
5959	19.7	4	4	4	4	CW50	LC50
5965	21.9	4	4	4	4	CW50	LC50
5971	24.1	4	4	4	4	CW45/CW50	LC45/LC50
5973	24.9	4	4	4	4	CW45/CW50	LC45/LC50

Transoms

Unit	Clear Opening (Inches)			Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)			Performance Class & Grade (1)	
	Width	Height	Ft²			Dual-Pane Glazing	Triple-Pane Glazing			
						Annealed	Tempered	Annealed or Tempered	Clad	Wood
1714F	–	–	–	–	0.6	2.5	3	3	CW50	LC50
1717	7 1/4	12 7/8	0.6	0.8	0.9	2.5	3	3	CW50	LC50
1725F	–	–	–	–	1.5	2.5	3	3	CW50	LC50
2114F	–	–	–	–	0.9	2.5	3	3	CW50	LC50
2117F	–	–	–	–	1.2	2.5	3	3	CW50	LC50
2121	11 1/4	16 7/8	1.3	1.5	1.6	2.5	3	3	CW50	LC50
2125F	–	–	–	–	2.0	2.5	3	3	CW50	LC50
2314F	–	–	–	–	1.0	2.5	3	3	CW50	LC50
2317F	–	–	–	–	1.3	2.5	3	3	CW50	LC50
2323	13 1/4	18 7/8	1.7	2.0	2.1	2.5	3	3	CW50	LC50
2325F	–	–	–	–	2.3	2.5	3	3	CW50	LC50
2514F	–	–	–	–	1.1	2.5	3	3	CW50	LC50
2517F	–	–	–	–	1.5	2.5	3	3	CW50	LC50
2525	15 1/4	20 7/8	2.2	2.5	2.6	2.5	3	3	CW50	LC50
2914F	–	–	–	–	1.3	2.5	3	3	CW50	LC50
2917F	–	–	–	–	1.8	2.5	3	3	CW50	LC50
2925F	–	–	–	–	3.1	2.5	3	3	CW50	LC50
2929	20	24 7/8	3.5	3.6	3.8	2.5	3	3	CW50	LC50
3214F	–	–	–	–	1.5	2.5	3	3	CW50	LC50
3217F	–	–	–	–	2.1	2.5	3	3	CW50	LC50
3225F	–	–	–	–	3.5	2.5	3	3	CW50	LC50
3514F	–	–	–	–	1.7	2.5	3	3	CW50	LC50
3517F	–	–	–	–	2.3	2.5	3	3	CW50	LC50
3525F	–	–	–	–	3.9	2.5	3	3	CW50	LC50

(–) = Not Applicable

F = Fixed only

(1) Maximum performance when glazed with the appropriate glass thickness. Second value, where shown, requires tempered glass.

To convert area to square meters (m²), multiply square feet by 0.0929.

Detailed Product Description - Aluminum-Clad Exterior

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks
- Overall frame depth is 5" (127mm) for a wall depth of 3-11/16" (94mm).
- Optional factory-applied jamb extensions available between 4-9/16" (116mm) and 7-3/16" (183mm) wall depths.
- Optional factory-installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is [1-13/16" (46mm) for 11/16"] [2-1/8" (54mm) for 1"] glazing.
- Sash exterior and interior profile is ogee.

Weatherstripping

- Dual weatherstripping.
  - Flexible santoprene material compressed between frame and sash for positive seal on all four sides.
  - Secondary thermoplastic vulcanizate (TPV) leaf-type weatherstrip between edge of sash and frame on the vertical sides and bottom, and Santoprene® bulb-type weatherstrip on the top.

Glazing System [1]

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude [with argon] glazing available for 11/16" glazing only.
- Silicone-glazed 11/16" dual-seal insulating glass [[annealed] [tempered]] [[clear] [[Advanced Low-E] [SunDefense™ Low-E] [NaturalSun Low-E] [AdvancedComfort Low-E] with argon]] [[bronze] [gray] [green] Advanced Low-E with argon]].

– or –

- Silicone-glazed 1" triple-pane, dual seal insulating glass [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™] [NaturalSun Low-E] with [argon]].

– or –

- Impact-Resistant
  - Silicone-glazed 1" dual-seal impact-resistant insulating glass [1] [SGP]. [[tempered] [annealed]] exterior light is [[Advanced Low-E with argon] [clear] [bronze] [gray] [green]]. Laminated clear interior light.

  – or –

  - Silicone-glazed 11/16" dual-seal impact-resistant insulating glass [1] [PVB]. [[tempered] [annealed]] exterior light is [[Advanced Low-E with argon] [clear]]. Laminated [clear] interior light, or [[tempered] [annealed]] exterior light is [[Advanced Low-E with argon] [clear]]. Laminated [[bronze] [gray] [green]] interior light.

Exterior

- Aluminum-clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
  - Color is [standard] [feature] [custom][2].

– or –

- Aluminum-clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish
  - Color is [standard] [feature] [custom][2].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain][2].

Hardware

- Roto operator assembly
  - Steel worm gear sash operator with hardened gears.
  - Operator base is zinc die cast with painted finish.
  - Operator linkage, hinge slide, and hinge arms are stainless steel.
  - Exposed fasteners are stainless steel.
  - Hardware shall exceed 1,000 hours salt spray exposure per ASTM B 117.
- All vent units are available with left- or right-hand hinging.
- SureLock® System—A single handle locking system operates positive-acting arms that reach out and pull the sash into a locked position: one operating lock installed on units with frame height 29" and less, two unison operating locks installed on units with frame height over 29".
- Style of hardware is [Standard integrated fold-away crank and standard lock handle with [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Nickel] [Oil-Rubbed Bronze] hardware finish].

– or –

- [Antiek fold-away crank and Antiek lock handle with [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Nickel] [Oil-Rubbed Bronze] [distressed bronze] [distressed nickel] hardware finish].

Optional Products

Grilles

- Integral Light Technology® grilles
  - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid pine. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [factory prefinished [paint] [stain] [2].
  - Exterior grilles are [5/8" putty glaze profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
  - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian] [Simulated French].
  - Insulating glass contains non-glare spacer between the panes of glass.
  - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer.

– or –

- Grilles-Between-the-Glass [3]
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
  - Patterns are [Traditional] [Prairie] [Cross] [Top Row] [Custom – Equally Divided].
  - Interior color is [White] [Tan [4]] [Brown [4]] [Putty [4]] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
  - Exterior color [5] is [standard][2].

Screens

- InView™ Screens
  - Vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in aluminum frame fitted to inside of window, supplied complete with all necessary hardware.
  - Insect screen frame finish is [baked enamel [Champagne] [White] [Brown] [Black]].

– or –

- Rolscreen® Retractable Screen
  - InView™ Screen cloth, self-storing, rolling, black vinyl-coated 18/18 mesh fiberglass screen cloth complying with ASTM D 3656 and the performance requirements of SMA 1201 mounted behind overhead cover.
  - Cover finish is [factory prefinished paint] [pine veneer wrapped over extruded aluminum with factory prefinished [paint] [stain][2].
  - Guides are aluminum extrusion with pine veneer wrapped over extruded aluminum with factory prefinished [paint] [stain][2].

Hardware

- Optional factory applied limited opening hardware available for vent units in stainless steel; nominal 3" opening.
- Optional factory applied window opening control device available. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-17.

Sensors

- Optional factory installed integrated security sensors available in vent units.

(1) Low-E coated insulating glass is argon-filled (except high altitude). All other insulating glass (including high altitude Low-E) is air-filled.

(2) Contact your local Pella sales representative for current designs and color options.

(3) Available in clear or Low-E insulating glass with argon, and obscure insulated glass.

(4) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with tan or brown exterior.

(5) Appearance of exterior grille color will vary depending on Low-E coating on glass.

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are [pine: Factory Primed].
- Overall frame depth is 4-3/8" (111mm) for a wall depth of 4-3/16" (106mm).
- Optional factory-applied jamb extensions available between 4-9/16" (116mm) and 7-3/16" (183mm) wall depths, with Pella's standard wood exterior trim.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are [Factory Primed] [ready-to-stain]].
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is [1-13/16" (46mm) for 11/16"] [2-1/8" (54mm) for 1"] glazing.
- Sash exterior profile is putty glaze, interior profile is ogee.

Weatherstripping

- Dual weatherstripping.
  - Flexible santoprene material compressed between frame and sash for positive seal on all four sides.
  - Secondary thermoplastic vulcanizate (TPV) leaf-type weatherstrip between edge of sash and frame.

Glazing System [1]

- Quality float glass complying with ASTM C 1036.
- Custom and high altitude [with argon] glazing available.
- Silicone-glazed 11/16" dual-seal insulating glass [[annealed] [tempered]] [[clear] [[Advanced Low-E] [SunDefense™ Low-E] [NaturalSun Low-E] [AdvancedComfort Low-E] with argon]] [[bronze] [gray] [green] Advanced Low-E with argon]].

– or –

- Silicone-glazed 1" triple-pane insulating glass [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™] [NaturalSun Low-E] with [argon]].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain][3]].

Hardware

- Roto operator assembly
  - Steel worm gear sash operator with hardened gears.
  - Operator base is zinc die cast with painted finish.
  - Operator linkage, hinge slide, and hinge arms are stainless steel.
  - Exposed fasteners are stainless steel.
  - Hardware will exceed 1,000 hours salt spray exposure per ASTM B 117.
- All vent units are available with left- or right-hand hinging.
- SureLock® System—A single handle locking system operates positive-acting arms that reach out and pull the sash into a locked position: one operating lock installed on units with frame height 29" or less, two unison operating locks installed on units with frame height over 29".
- Style of hardware is [Standard integrated fold-away crank and standard lock handle with [baked enamel [Champagne] [White] [Brown] [Matte Black] [Satin Nickel] [Oil-Rubbed Bronze] hardware finish].

– or –

- [Antiek fold-away crank and Antiek lock handle with [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel] [Oil-Rubbed Bronze] [distressed bronze] [distressed nickel] hardware finish].

Optional Products

Grilles

- Integral Light Technology® grilles
  - Interior grilles are [5/8"] [7/8"] [1-1/4"] ogee profile that are solid pine. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [factory prefinished [paint] [stain][3]].
  - Exterior grilles are solid [5/8"] [7/8"] [1-1/4"] putty glaze profile that are pine. Exterior surfaces are water repellent, preservative-treated in accordance with WDMA I.S.-4, and are [unfinished, ready for site finishing] [factory primed].
  - Patterns are [Traditional] [Prairie] [Top Row] [Cross] [New England] [Victorian] [Simulated French].
  - Insulating glass contains non-glare spacer between the panes of glass.
  - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer.

– or –

- Grilles-Between-the-Glass[2]
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass).
  - Patterns are [Traditional] [Prairie] [Cross] [Top Row] [Custom – Equally Divided].
  - Interior color is [White] [Tan[4]] [Brown[4]] [Putty[4]] [Black] [Ivory] [Harvest] [Cordovan] [Brickstone].
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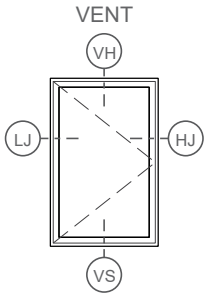
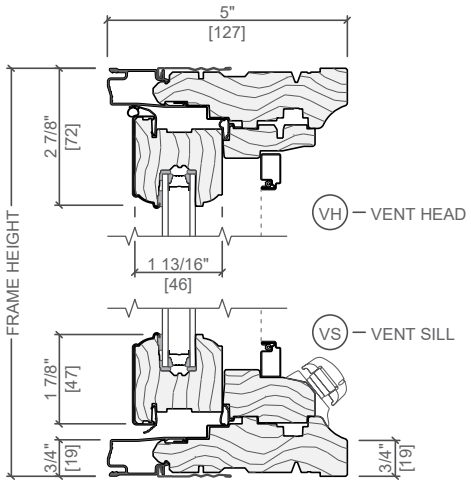
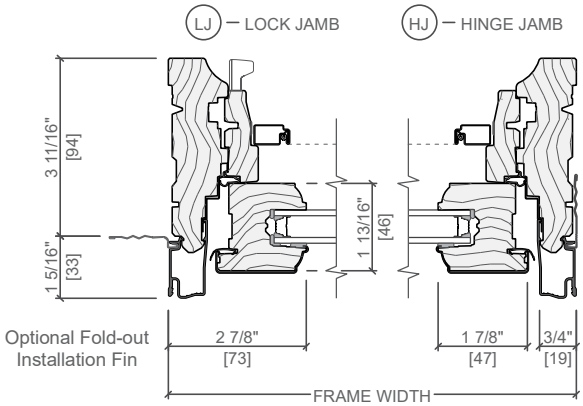
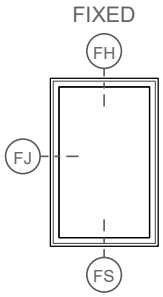
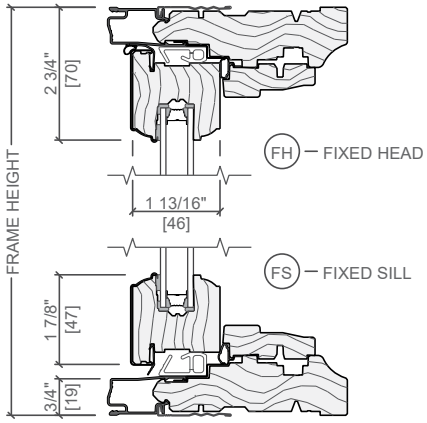
Unit Sections – Aluminum-Clad Exterior, Ogee Exterior Profile

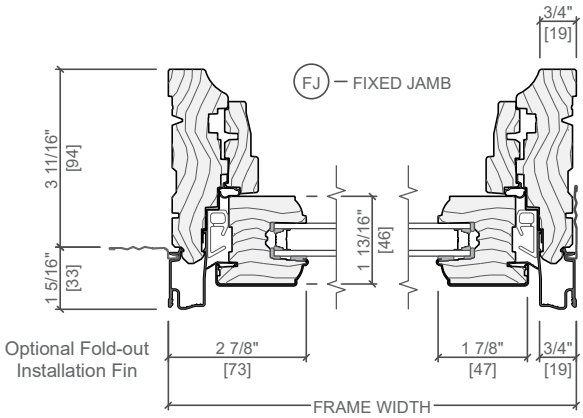


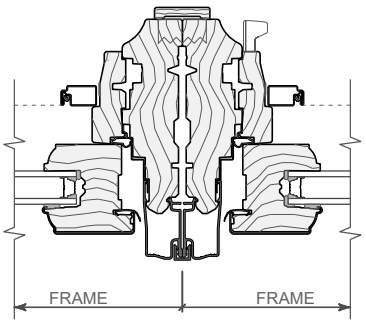




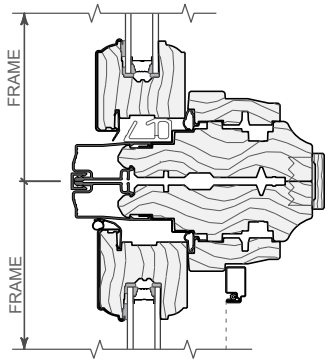




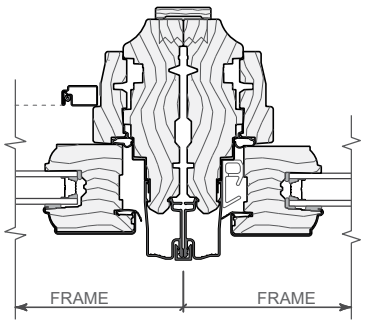




VERTICAL JOINING MULLION
VENT / VENT



HORIZONTAL JOINING MULLION
TRANSOM / VENT



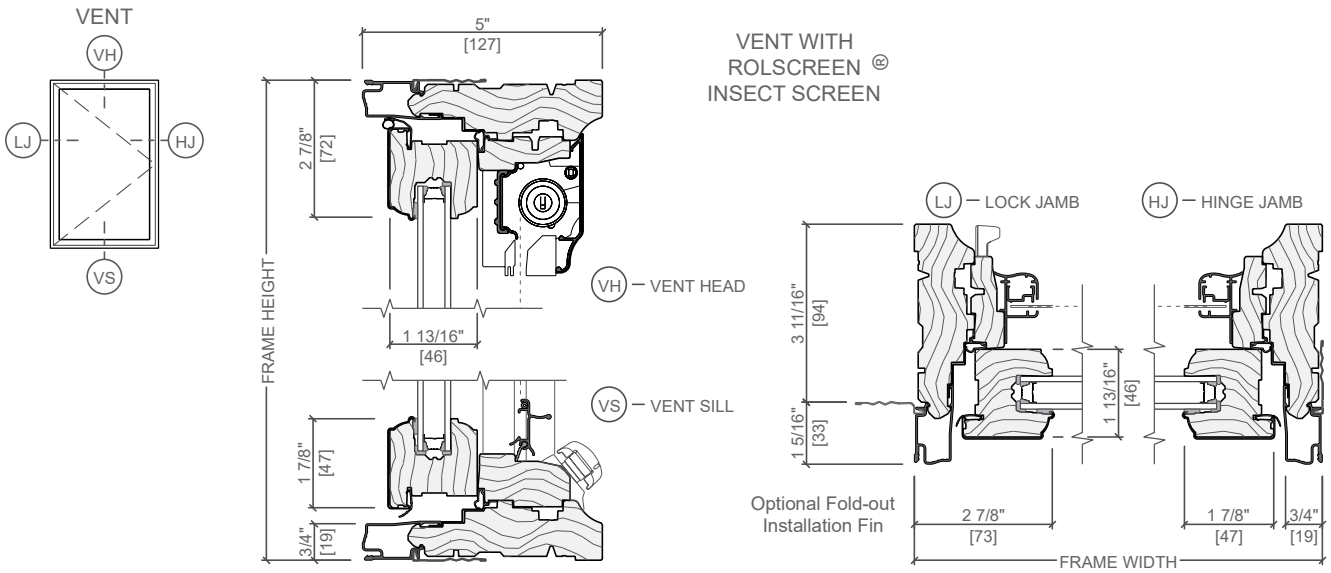
VERTICAL JOINING MULLION
VENT / FIXED

Scale 3" = 1' 0"

All dimensions are approximate.

See Combinations Section for mullion limitations and reinforcing requirements.

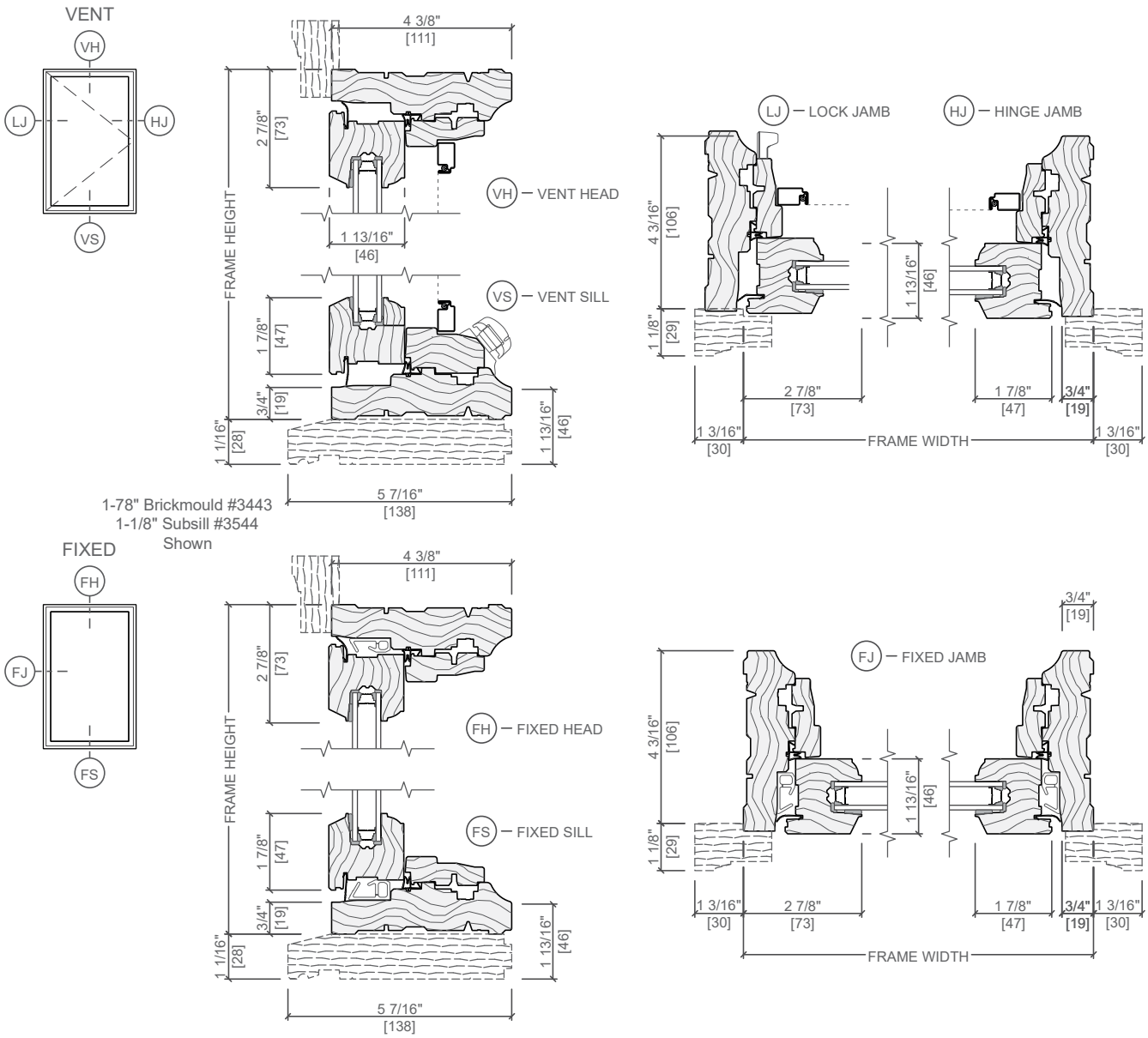
Unit Sections – Aluminum-Clad Exterior, Ogee Exterior Profile

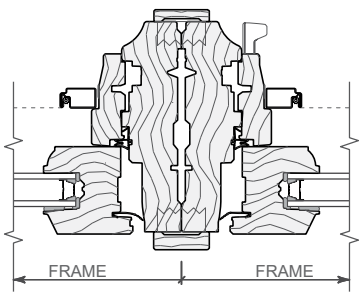


Scale 3" = 1' 0"

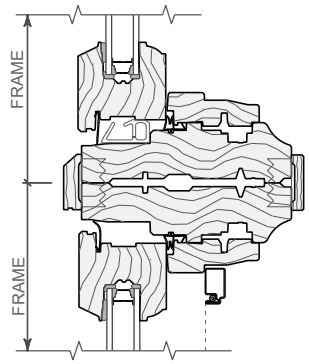
All dimensions are approximate.

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile

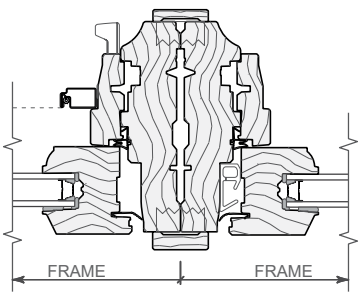




VERTICAL JOINING MULLION
VENT / VENT



HORIZONTAL JOINING MULLION
FIXED / VENT



VERTICAL JOINING MULLION
VENT / FIXED

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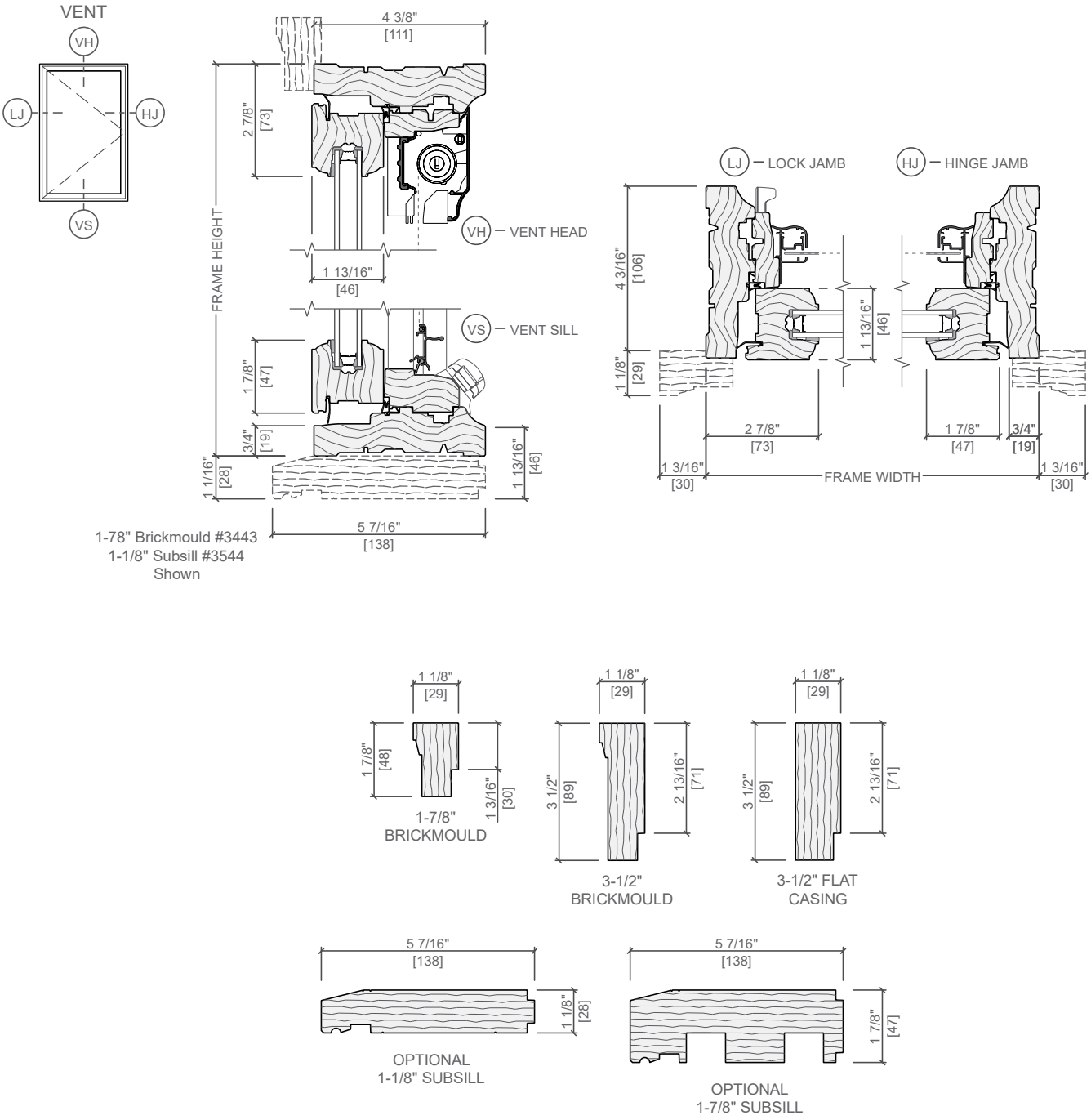
All dimensions are approximate.

See Combinations Section for mullion limitations and reinforcing requirements.

Unit Sections – Wood Exterior, Putty Glaze Exterior Profile



Scale 3" = 1' 0"

All dimensions are approximate.

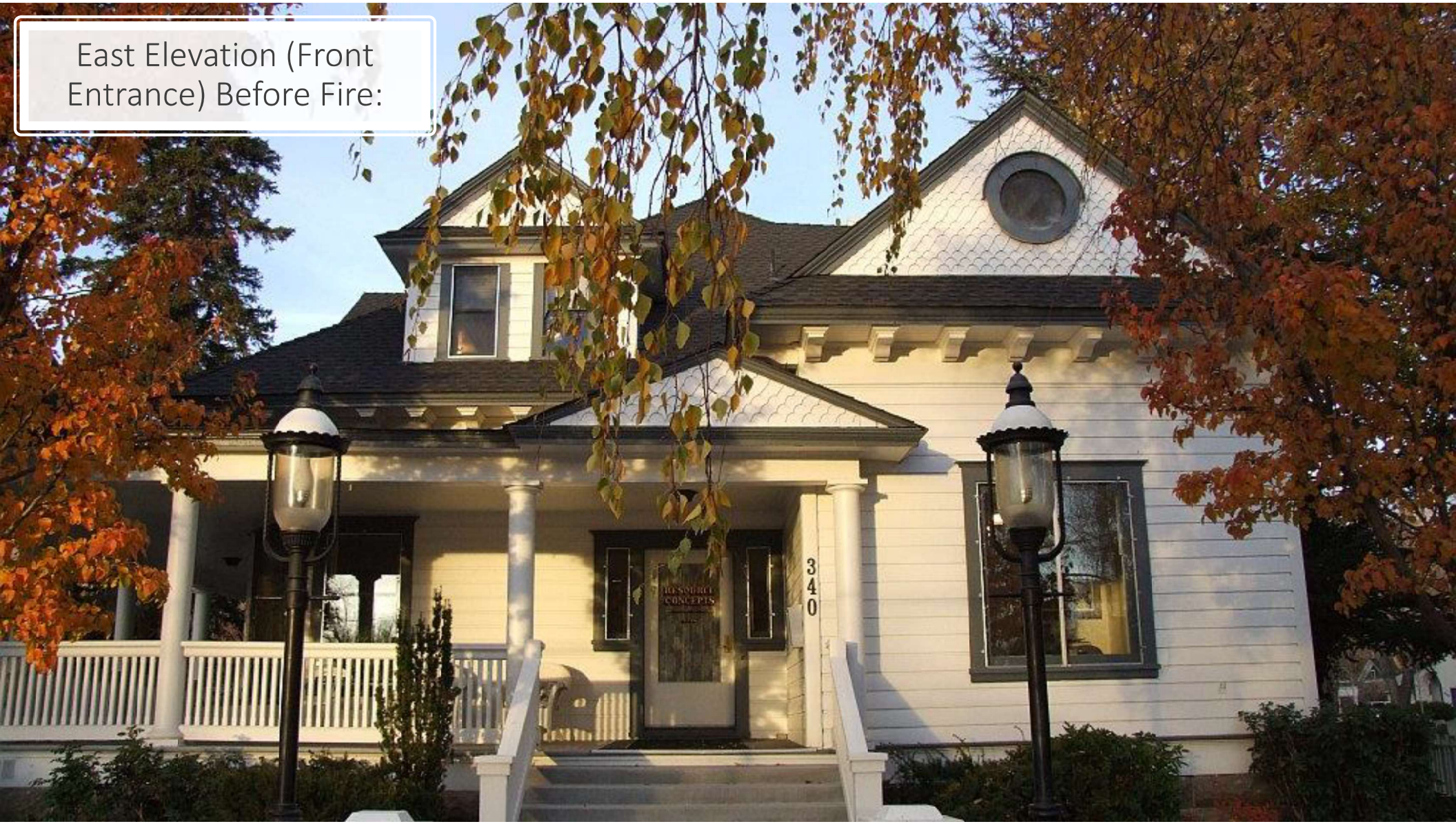
NTMA / RCI Burn Repair

Carson City Planning Division

Historic Resources Commission Submittal

Reference Photo Supplement

East Elevation (Front Entrance) Before Fire:




West Elevation (Rear Entrance) Before Fire:

Items with Specifications:

Exterior Paint to Match Remaining Buildings: Sherwin-Williams

- Main: Snowbound (SW 7004)
- Trim: Grays Harbor (SW 6236)

Shingles: Landmark (Color to Match Previous & Remaining Buildings)

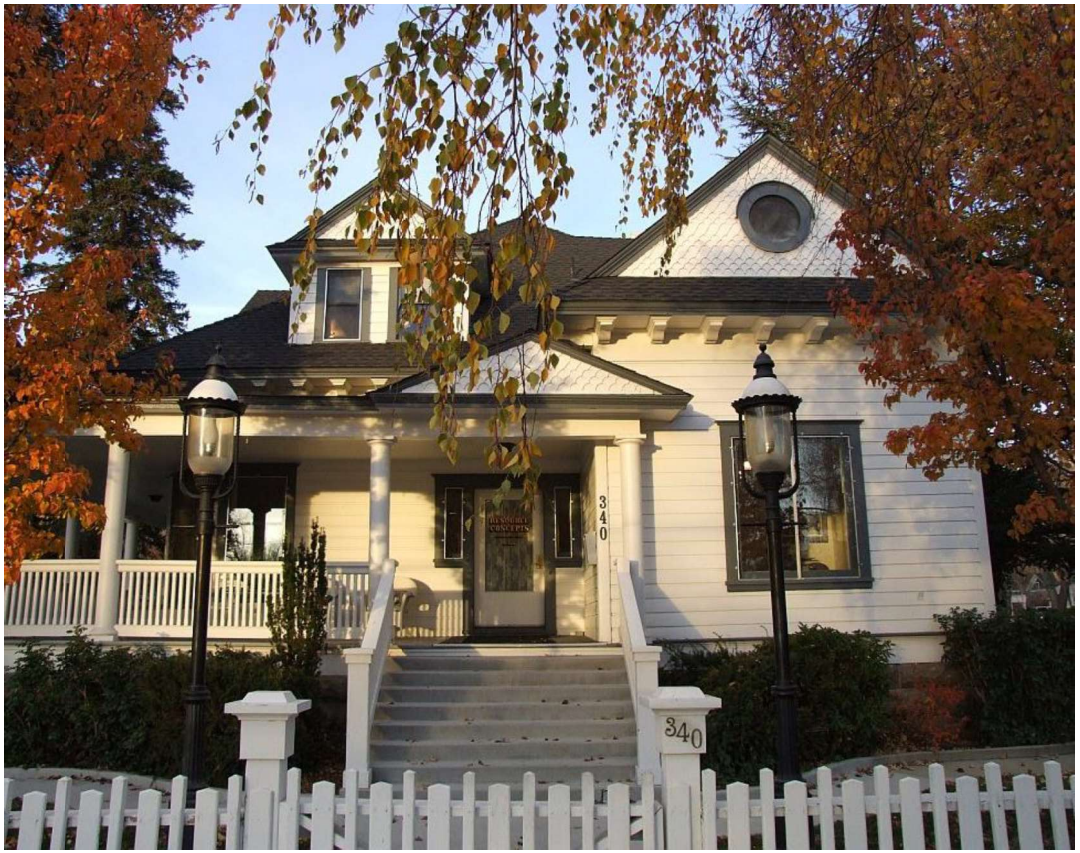
- See Specification Sheet

Columns: Endura Stone to be Painted

- See Specification Sheet

Windows: Pella

- See Specification Sheet & Photos



Items without Specifications:

Stone Footing to Remain

Exterior Doors:

To match previous as close as possible

Corbels, Trim and Siding:

Milled to match previous, see photos

Porch Rail:

See Detail

Scalloping:

Cut, place and paint fire resistant shingles in place of cedar shingles

Fencing:

Original to be Replaced upon Completion of Construction

New Windows

Front

Side

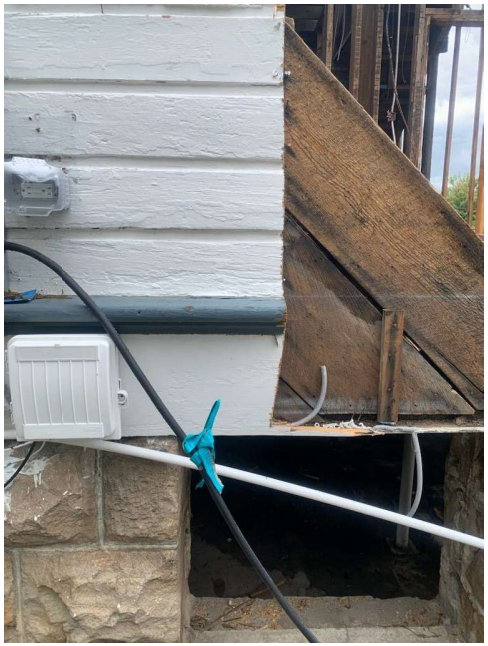
Existing versus New Corbels:

Front: Existing v. New

Side: Existing v. New

Siding and Trim:

Front: Existing



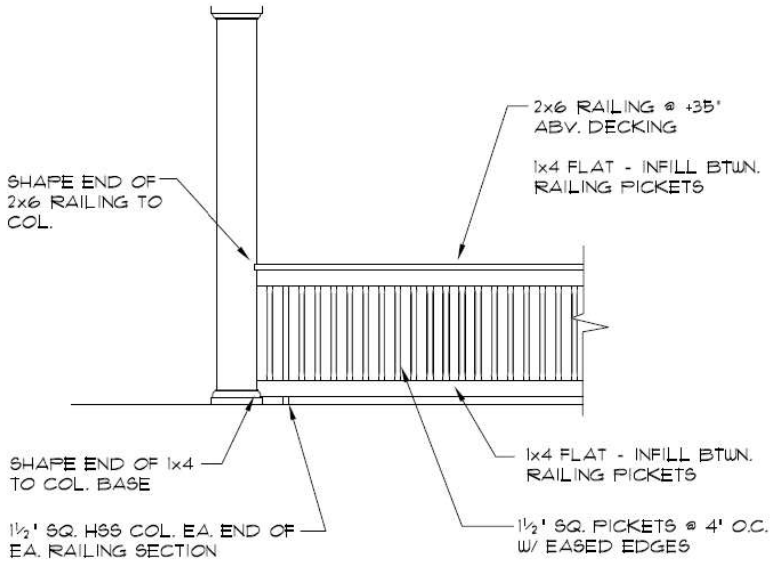
Front: New

Siding and Trim:

Side: Existing

Side: New

Deck Railing Detail:



PORCH RAILING DETAIL

SCALE 3/8" = 1'-0"

KIT CARSON TRAIL INVENTORY

NAME: S. L. LEE HOUSE

ADDRESS: 340 NORTH MINNESOTA STREET.

LOCATION: _____.

CONSTRUCTION DATE: 1907.

ARCHITECT: NONE KNOWN.

BUILDER: NONE KNOWN.

HISTORICAL INFORMATION, INCLUDING HISTORICAL EVENTS & PERSONS CONNECTED WITH THE STRUCTURE.

The house is known as the Dr. Simeon L. Lee home and is also called the Judge Clark J. Guild home. It is on the site of the Central School and was built with lumber from the razed school building in 1907.

The Colonial Revival style home has had only four owners. In 1865 the Carson City School District paid Albert Taylor $1,000 in gold coin for all of block 36. It was known as the Central School House block until Dr. Simeon L. Lee bought it at public auction for $42,400 in 1907[1]. Lee, a prominent physician and surgeon in Nevada, and his wife, Lola Montez Watts, lived in the house for the remainder of their lives.

Simeon L. Lee was born in Vandalia, Illinois on September 4, 1844, and in his early twenties became a lieutenant-colonel in the 8th Illinois Infantry under the command of General Grant. After

---

[1]. This lot was considered for the proposed new governor's mansion in 1907. The Rickeys donated the lot directly north of their property where the house stands today.

the Civil War he went to Cincinnati, Ohio and for two nonconsecutive years attended the Physio-medical Institute, an irregular school of medicine[2]. Soon after this he went west and arrived in Carson City late in October. After he had practiced in Carson City for two years, he was lured to the then mining camp of Pioche in 1872. He remained there for five years, and then for a few months he practiced in Eureka, Nevada. He returned to Carson City in 1879. He was in charge of the Carson City, Nevada Hospital from 1879 until at least 1901 and was a railroad surgeon for the Virginia and Truckee and Carson & Colorado Railroads for twenty years. He was the first president of the Nevada State Board of Health and at one time was secretary of the Board of Registration and Examination.

One incident of his practice may be related, when Dr. Lee was called upon to travel to Lake Tahoe during a winter blizzard. He had to attend a woman in labor. Dr. Lee went on snowshoes almost all the way. When he arrived at the lake, it was rough and dangerous. Despite warnings that he could not reach the opposite shore, he set out in a boat and after a harrowing experience reached his destination and saved the mother and baby.

Military service was always a part of Dr. Lee's career. In addition to serving in the Civil War in Illinois, he was commissioned in 1877 as a major and inspector general in the Nevada

---

[2]. Physio-medical schools were an outgrowth of Thomsonism, which popularized botanical remedies. These schools were established from 1839 to 1850 in Ohio, Georgia, Alabama, Tennessee, Virginia, Massachusetts, and New York by Alva Curtis.

National Guard and later advanced to the rank of colonel. He was the "only surgeon with the Nevada National Guard in [the] war with Indians in what is known in history as the 'White Pine Indian War'."

Dr. Lee married Miss Lola Montez Watts at Flora, Illinois on November 29, 1868. She was a daughter of a distinguished Revoluntary War surgeon. They had three sons and a daughter. Dr. Lee died in Carson City, Nevada on January 12, 1927.

Dr. Lee's hobby was collecting rich specimens of ores, semiprecious stones, rare ceramics, fossils, guns, stamps, coins, Indian baskets, water jugs, arrowheads and various rare artifacts. The collection was presented to the State of Nevada on February 15, 1934, by Lola Lee as a memorial to her husband. Shortly thereafter Mrs. Lee passed away at her home in Carson City on March 20, 1934. The collection was on display in the Nevada State Capitol until 1941, when it was turned over to the newly formed Nevada State Museum. At the time it was valued at $40,000. This material became a cornerstone in the Nevada State Museum's collection in Carson City. Judge Clark J. Guild, Jr., founder of the Nevada State Museum, bought the Lee house in 1935 and lived in it until his death in 1971. Judge Guild was born and raised in Dayton, Nevada. He performed many marriages in the front parlor of his home until his retirement in 1954. In addition, he granted many divorce decrees, including those of Ida Lupino, Carole Lombard and one of the Roosevelts.

After Judge Guild's death the house was sold to Mr. and Mrs.

Edward Scripps, of the prominent publishing family. They did extensive remodeling, updated the wiring and plumbing, carpeted, wallpapered and painted all of the solid mahogany woodwork white. They lived in the house from 1974 to 1977.

Resource Concepts Inc. purchased the site in 1977.

SOURCES OF INFORMATION:

Nevada Appeal, Apple Tree, Sunday, July 20, 1980.

Dr. S.L. Lee Collection (Carson City: State Printing Office, 1939.)

Carson City Daily Appeal, January 12, 1927.

Greasewood Tablettes, "Dr. Simeon L. Lee, an Irregular Doctor," Published by the Department of Pathology. Great Basin History of Medicine Division, University of Nevada School of Medicine.

ILLUSTRATIONS - DR. S.L. LEE HOUSE

Looking N.W.

Looking N.W.

The Lee home was built on the site of Central School.

Looking S.W. Corner of Minnesota and Telegraph. 1993.

CARSON CITY RESOURCES INVENTORY

1988 CC Resources Inventory A-M
(1980 updated)

IDENTIFICATION:

1. Address: 340 North Minnesota APN 3-192-05
2. Common Name: Resource Concepts Inc.
3. Historic Name: Dr. Simeon L. Lee Home
4. Present Owner:
5. Address (if not occupant):
6. Present Use: offices Original Use: residence

09 3-192-05
MC LAIN, JOHN & C & SCOTT, B &J
340 N MINNESOTA ST
CARSON CITY NV 89703

DESCRIPTION, ALTERATIONS, AND RELATED FEATURES:

The structure is one and a half stories in height and combines various forms and elements in a vernacular expression of the Colonial Revival mode. The structure has a foundation of coursed stone and shiplap siding is its exterior surface material, with patterned shingles in the gables. The roof is hipped and gabled with numerous intersecting and projecting gables. The large porch is rounded at the south end, topped by a conical roof, and supported with columns. A circular window pierces the peak of the principal facade gable. A balustrade encircles the porch and flanks the entry stairs.

Some modifications have been made to various windows.

There are several small outbuildings at the rear, some of which are remnants of the former school on this site. An octagonal building served as the girl's rest room. One gabled building served as the barn for horses ridden to school by students. Another gabled structure and the detached garage stand to the west and rear of the main house.

RELATIONSHIP TO SURROUNDINGS:

The structure relates well to its surrounding neighbors, a well integrated element of the area.

Street Furniture: reconstructed two inc by one inch alternating picket fence of appropriate design, sig

Landscaping: ample and well done

Architectural Evaluation: PS ____ NR X

District Designation: PD 2 NR ____

HISTORIC ENVIRONMENT CONSULTANTS
2306 J Street, Penthouse
Sacramento, CA 95816
(916) 446-2447

Date March 1980

152

THREATS TO SITE:

None Known X Private Development ____

Zoning RO Public Works Project ____

Vandalism ____ Neglect ____ Other ____

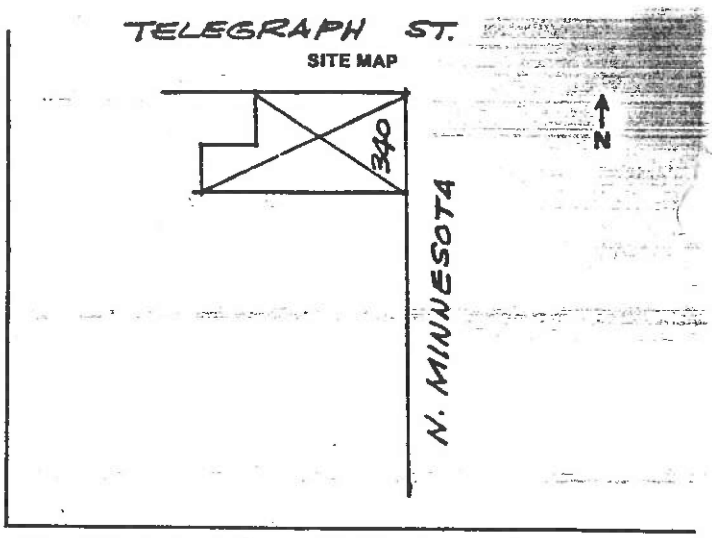
ADJACENT LAND USES:

residential/office/religious

PHYSICAL CONDITION:

Excellent X Good ____ Fair ____ Deteriorated ____

APPROXIMATE SETBACK: 25 feet



HISTORICAL BACKGROUND:

Architect (if known) ____

Builder (if known) ____

Date of Construction 1906-07 Estimated ____ Factual X Source: C.C. Historic Tour

Is Structure on Original Site? X Moved? ____ Unknown ____

SIGNIFICANCE:

The building is an outstanding representative of the Colonial Revival style, a style which is relatively rare within the city. The design quality of the large structure is excellent, and the combination of multiple forms very skillfully executed. The generous lot with mature and varied plant materials and picket fence add to the presence of the building and enhance the environmental and architectural values of the area.

The Central School occupied this site until the property was purchased by Dr. S.L. Lee in 1906. Lee demolished the building and used the materials to construct this house of 11 rooms and two fifteen foot bathrooms. Philanthropist Judge Clark Guild is said to have occupied the property.

SOURCES:

Carson City Historic Tour
Noreen Humphreys

SUGGESTED LAND USE AND FACADE MODIFICATIONS, WHERE APPROPRIATE:

Adaptive Use:

Facade Changes:

Zoning:

1988 Update by: Ana Koval
Rainshadow Associates
P.O. Box 352
Carson City, NV 89702
(702) 849-1438

CARSON CITY RESOURCES INVENTORY

IDENTIFICATION:

1. Address: 340 North Minnesota APN 3-192-05
2. Common Name: Resource Concepts Inc.
3. Historic Name: Dr. Simeon L. Lee Home
4. Present Owner: Hancock and Mclain Scott
5. Address (if not occupant):
6. Present Use: offices Original Use: residence

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The structure relates well to its surrounding neighbors, a well integrated element of the area.

Street Furniture: reconstructed two inch by one inch alternating picket fence of appropriate design, sign

Landscaping: ample and well done

Architectural Evaluation: PS ____ NR X

District Designation: PD 2 NR ____

HISTORIC ENVIRONMENT CONSULTANTS
2306 J Street, Penthouse
Sacramento, CA 95816
(916) 446-2447

Date March 1980

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THREATS TO SITE:

None Known X Private Development ____

Zoning RO Public Works Project ____

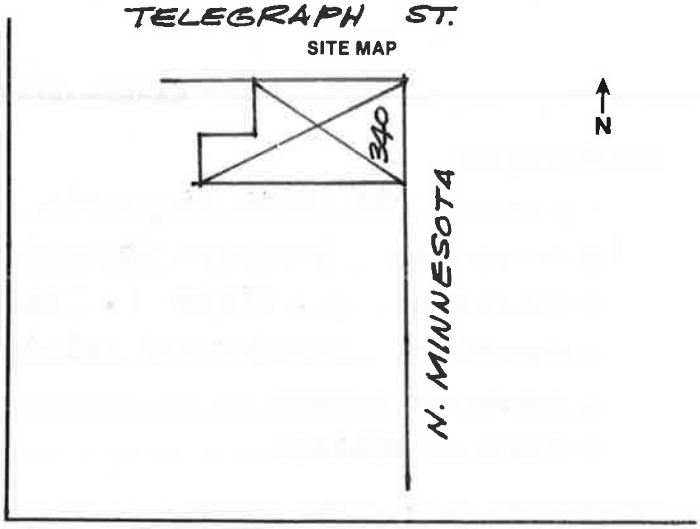
Vandalism ____ Neglect ____ Other ____

ADJACENT LAND USES:
residential/office/religious

PHYSICAL CONDITION:

Excellent X Good ____ Fair ____ Deteriorated ____

APPROXIMATE SETBACK: 25 feet



HISTORICAL BACKGROUND:

Architect (if known) ____

Builder (if known) ____

Date of Construction 1906-07 Estimated ____ Factual X Source: C.C. Historic Tour

Is Structure on Original Site? X Moved? ____ Unknown ____

SIGNIFICANCE:

The building is an outstanding representative of the Colonial Revival style, a style which is relatively rare within the city. The design quality of the large structure is excellent, and the combination of multiple forms very skillfully executed. The generous lot with mature and varied plant materials and picket fence add to the presence of the building and enhance the environmental and architectural values of the area.

The Central School occupied this site until the property was purchased by Dr. S.L. Lee in 1906. Lee demolished the building and used the materials to construct this house of 11 rooms and two fifteen foot bathrooms. Philanthropist Judge Clark Guilb is said to have occupied the property.

SOURCES:

Carson City Historic Tour
Noreen Humphreys

SUGGESTED LAND USE AND FACADE MODIFICATIONS, WHERE APPROPRIATE:

Adaptive Use:

Facade Changes:

Zoning: