



AGENDA

HISTORIC LANDMARKS COMMISSION

March 31, 2015, 2015

5:15 p.m.

2nd Floor Council Chambers

1095 Duane Street • Astoria OR 97103

1. CALL TO ORDER
2. ROLL CALL
3. PUBLIC HEARINGS
 - a. New Construction NC15-02 by Dan & Kim Supple to construct a new single family residence in the Shively-McClure National Register Historic District at 1542 Grand in the R-3, High Density Residential zone.
4. ADJOURNMENT

**THIS MEETING IS ACCESSIBLE TO THE DISABLED. AN
INTERPRETER FOR THE HEARING IMPAIRED MAY BE
REQUESTED UNDER THE TERMS OF ORS 192.630 BY
CONTACTING SHERRI WILLIAMS, COMMUNITY
DEVELOPMENT DEPARTMENT, 503-338-5183.**

STAFF REPORT AND FINDINGS OF FACT

March 24, 2015

TO: HISTORIC LANDMARKS COMMISSION

FROM: MIKE MORGAN, PLANNER

SUBJECT: NEW CONSTRUCTION REQUEST (NC15-02) BY DAN AND KIM SUPPLE TO
CONSTRUCT A NEW SINGLE-FAMILY DWELLING AT 1542 GRAND AVENUE

I. BACKGROUND SUMMARY

- A. Applicant: Dan and Kim Supple
1590 Lexington Avenue
Astoria OR 97103
- B. Owner: same
- C. Location: 1542 Grand Avenue; Map T8N-R9W Section 8DC, Tax Lot 10900;
Lot 4 and east 19' Lot 3, Block 89, McClure
- D. Classification: New construction adjacent to structure(s) designated as historic
within the Shively-McClure National Register Historic District
- E. Proposal: To construct a two story single-family dwelling
- F. Zone: R-3 (High Density Residential)

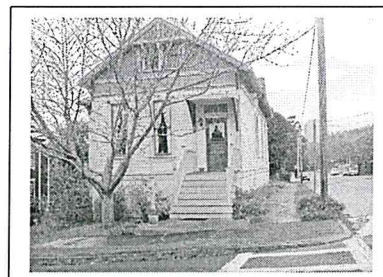
II. BACKGROUND

A. Subject Property

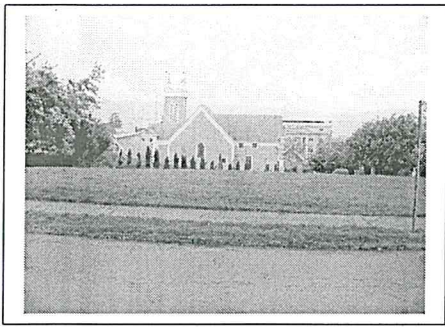
The subject property is located on the north side of Grand Avenue between 15th and 16th Streets. The lot is 100' x 110' (11,000 square feet) and is of sufficient size in the R-3 Zone to accommodate a single-family dwelling (5,000 square foot minimum). The site is undeveloped and slopes to the north. The site is adjacent to three historic structures in the Shively-McClure National Register Historic District, including Grace Episcopal Church.



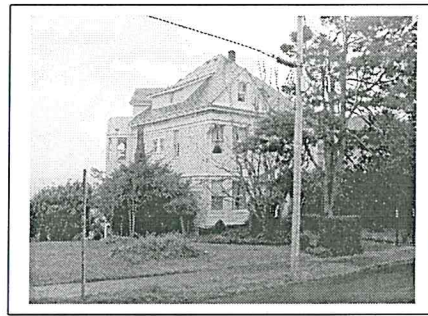
836 15th St.



872 15th St.



Grace Episcopal Church w/
Proposed Site in Foreground



1574 Grand Ave.

B. Adjacent Neighborhood and Historic Property

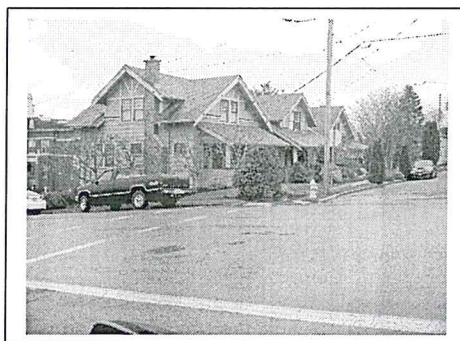
The residential neighborhood has a mixture of styles and ages of homes. Lot sizes, shapes, and setbacks vary greatly creating an irregular streetscape. The applicants received a variance to position the house on the south side of the lot in order to protect views of adjacent houses.



1543 Grand Ave.



View west on Grand



Northeast corner of 16th and Grand Ave.

C. Proposed Structure

The proposed two story residence would be located within three feet of the sidewalk on Grand. A variance was granted for the setback. The rectangular building is 50' wide by 35' long, with a porch on the south side and a two story deck on the rear or north side.

Height: Two stories with a garage at grade level on the east side elevation. The house height is approximately 25 feet.

Form: Other than the Craftsman style front porch, the building is modern in form, with no dormers or other traditional ornamentation.

Roof: Hip roof with no dormers; 5/12 pitch with 5/12 pitch porch roof; 2' eaves with exposed rafter tails; composition shingle; knee braces.

Materials: Cedar shingles with 6" reveal; 5/4 x 5" trim; concrete foundation.

Windows: Vinyl casement; single and double, and some casement with fixed window in between, horizontal in shape. 2" x 6" head trim, 5/4" x 5" vertical trim, 2" sill, 5/4" x 4" cedar apron below sill. The windows proposed are single, paired, and triple single-lite vinyl casement windows. There will be windows on all facades. The adjacent historic structures have one over one windows and multi-lite over one. The HLC needs to decide if the windows proposed are compatible with the historic neighborhood. Staff has prepared a separate report (attached) for the Commission to discuss various styles of windows, and their appropriateness.

Doors: Wood front door on south front elevation with side lites; two fiberglass garage doors on south, glass doors on north elevation top and bottom.

Other Features: Columns on south elevation porch are tapered wood with capitol molding, base caps on concrete pedestals;

III. PUBLIC REVIEW AND COMMENT

A public notice was mailed to all property owners within 100 feet pursuant to Section 9.020 on March 5, 2015. A notice of public hearing was published in the Daily Astorian on March 24, 2015. Comments received will be made available at the Historic Landmarks Commission meeting.

IV. APPLICABLE REVIEW CRITERIA AND FINDINGS OF FACT

- A. Development Code Section 6.070(A) states that "no person, corporation, or other entity shall construct a new structure adjacent to or across a public right-of-way from a Historic Landmark or a structure identified as Primary or Secondary, without first obtaining a Certificate of Appropriateness from the Historic Landmarks Commission."

Finding: The structure is proposed to be located adjacent to structure(s) designated as historic in the Shively-McClure National Register Historic District. The proposed structure shall be reviewed by the Historic Landmarks Commission.

- B. Development Code Section 6.070(B.1) states that "In reviewing the request, the Historic Landmarks Commission shall consider and weigh the following criteria: The design of the proposed structure is compatible with the design of adjacent historic structures considering scale, style, height, architectural detail and materials."

Finding: The proposed structure will be a two story modern single-family dwelling with a double garage on the south elevation. The design has some elements from the Craftsman style including the use of shingles and a covered front porch with column supports, decorative features such as the knee braces, and variety of window configurations, including horizontal casement windows. Some of the houses in the neighborhood date to the 60s and 70s, and are eclectic with a variety of house styles.

The garage is located at street grade level and will be accessed from Grand Avenue which is the front of the structure. The garage is proposed to be flush with the front façade on the south side adjacent to the porch. Garages are not commonly found on homes in this neighborhood due to the steep topography and historic character of the houses.

Columns on the south elevation porch facing Grand are tapered wood on a concrete base. Both of these features are typical of those found on Craftsman style homes and in the area.

The Commission must find that the house is compatible with the neighborhood in terms of "scale, style, height, architectural detail and materials."

- C. Development Code Section 6.070 (B.2) states that "In reviewing the request, the Historic Landmarks Commission shall consider and weigh the following criteria: The location and orientation of the new structure on the site is consistent with the typical location and orientation of adjacent structures considering setbacks, distances between structures, location of entrances and similar siting considerations."

Finding: The structure is proposed to be situated to take advantage of the topography as well as to protect the views of adjacent properties. The site is slopes to the north away from Grand Avenue. This allows the houses on either side to enjoy and maintain the view across the rear of the property toward the river.

V. CONCLUSION AND RECOMMENDATION

The Historic Landmarks Commission must find that the request, on balance, meets all the applicable review criteria. Specifically, the HLC must make a determination that the windows and the house as proposed meet the historic requirements, specifically that "The design of the proposed structure is compatible with the design of adjacent historic structures considering scale, style, height, architectural detail and materials."



CITY OF ASTORIA
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COMMUNITY DEVELOPMENT

CITY OF ASTORIA

FEB 11 2015

BUILDING CODES

NC 15-02

FEE:

\$100.00

ck

NEW CONSTRUCTION (ADJACENT TO HISTORIC PROPERTY)

Property Location: Address: 1542 Grand Ave. Astoria, OR 97103

Lot Portions of 15402 9 & 10

Block 16

Subdivision Shively

Map SDC

Tax Lot 5402

Zone R-3

For office use only:

Adjacent Property Address: 698, 672 15th St & 1573 Grand

Classification: Reg/Contrib

Inventory Area: Shively McClure NRHD

Applicant Name: Dan & Kim Supple

Mailing Address: 1590 Lexington Ave. Astoria, OR 97103

Phone: 503-791-8237 Business Phone: 503-791-8344

Email: Supple07@gmail.com

Property Owner's Name: Same as above

Mailing Address: " " "

Business Name (if applicable):

Signature of Applicant: Kim Supple

Signature of Property Owner: Kim Supple

Proposed Construction: CONSTRUCTION OF A SINGLE FAMILY NEW RESIDENCE AT 1542 GRAND AVE IN THE

SHIVELY-McCLURE HISTORIC DISTRICT - From adjacent 25 spaces to private

For office use only:

Application Complete:

Permit Info Into D-Base:

2/11/15

Labels Prepared:

Tentative HLC Meeting

Date:

March 17 April 21

120 Days:

City Hall • 1095 Duane Street • Astoria, OR 97103 • Phone 503-338-5183 • Fax 503-338-6538

rjohnson@astoria.or.us • www.astoria.or.us

FILING INFORMATION: Historic Landmarks Commission meets at 5:15 pm on the third Tuesday of each month. Completed applications must be received by the 13th of the month to be on the next month's agenda. A pre-application meeting with the Planner is required prior to the acceptance of the application as complete. Only complete applications will be scheduled on the agenda. Your attendance at the Historic Landmarks Commission meeting is recommended. Forms also available on City website at www.astoria.or.us.

Briefly address each of the New Construction Criteria and state why this request should be approved. (Use additional sheets if necessary.):

1. The design of the proposed structure is compatible with the design of adjacent historic structures considering scale, style, height, architectural detail and materials.
THE 1500 BLOCK OF GRAND HAS (3) EXISTING HISTORIC HOUSES ON THE NORTH SIDE. THIS PROPOSED NEW STRUCTURE IS OF SIMILAR OR LESS HEIGHT THAN EXISTING. THE DETAILING OF THIS HOUSE IS SIMPLE, A FULLY HIPPED ROOF WITH SHINGLE SIDING. THE EXISTING HISTORIC HOUSES ARE OF VARYING STYLE, FROM SIMPLER TO QUITE ORNATE.
2. The location and orientation of the new structure on the site is consistent with the typical location and orientation of adjacent structures considering setbacks, distances between structures, location of entrances and similar siting considerations.
ALL (3) EXISTING HOUSES ON THE NORTH SIDE OF THE 1500 BLOCK OF GRAND HAVE EQUALLY CLOSE SETBACKS OR ZERO SETBACK ON THE HOUSE TO THE WEST OF THIS SITE.

PLANS: A site plan indicating location of the proposed structure on the property is required. Diagrams showing the proposed construction indicating style and type of materials proposed to be used. Scaled free-hand drawings are acceptable. The City may be able to provide some historic technical assistance on your proposal.

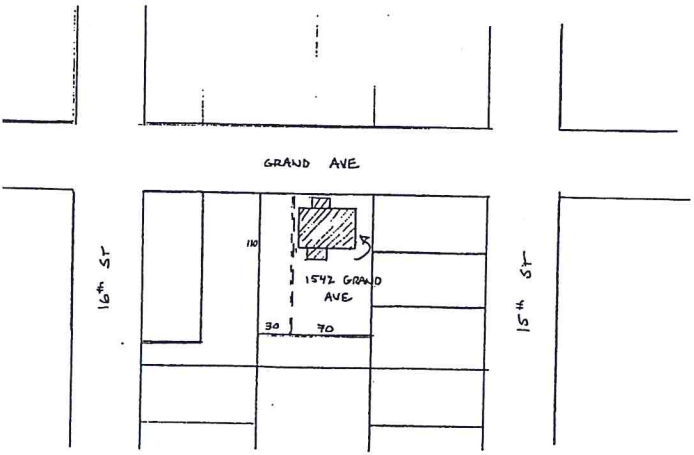
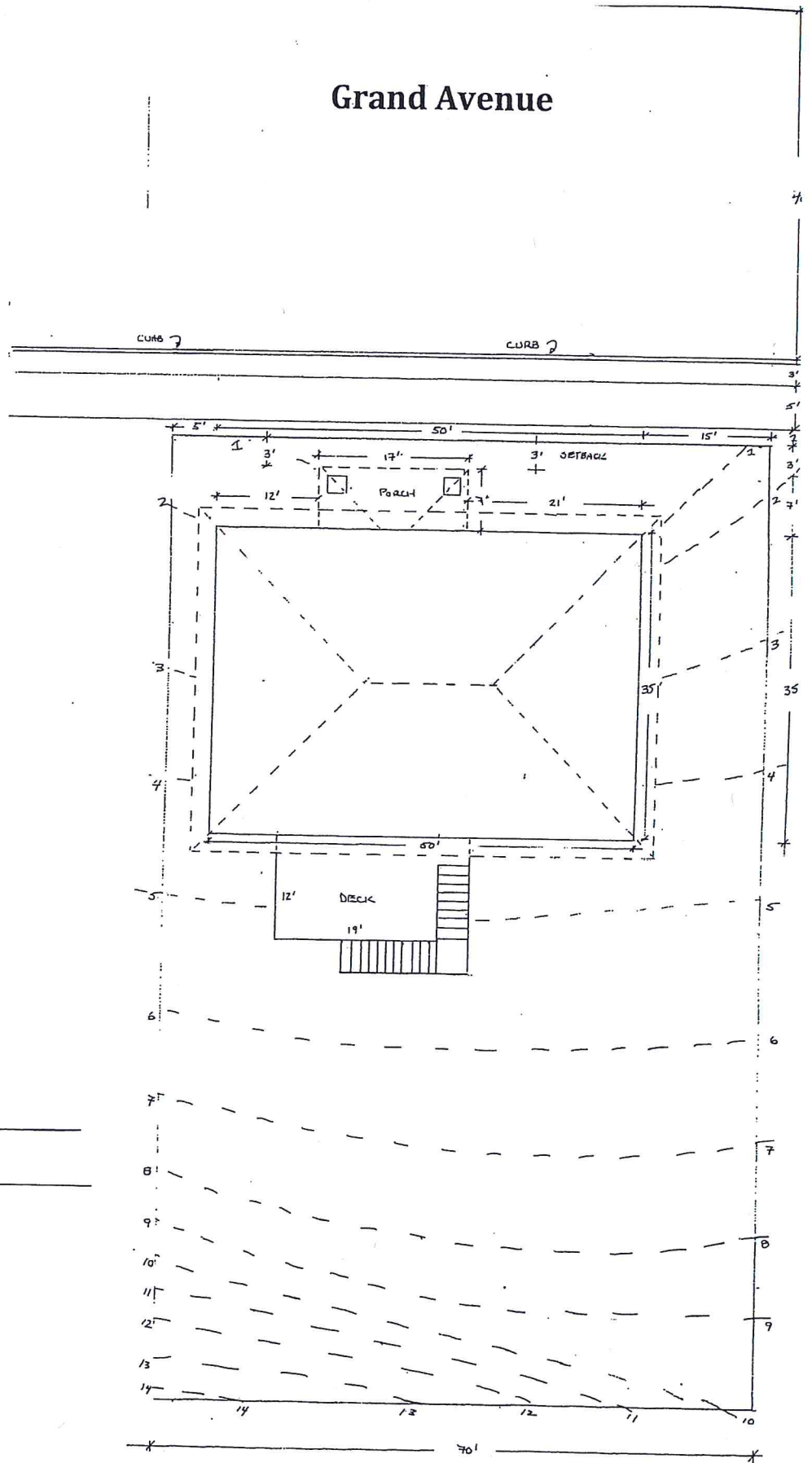


Grand Avenue

New Residence for
Kim and Dan Supple
1542 Grand Avenue
Astoria, Oregon 97103

gal Description:
ip T8N-R9W Section 8DC
x Lot 5402; south 110' of Lot 9,
uth 110' of W 20' of Lot 10
ock 16, Shiveley

n Kennedy | General Contractor | 3700 Irving Street, Astoria, Oregon, 97103 | 503.603.3330



Site Plan 1/8" = 1'

BUILD
FEB
CITY OF



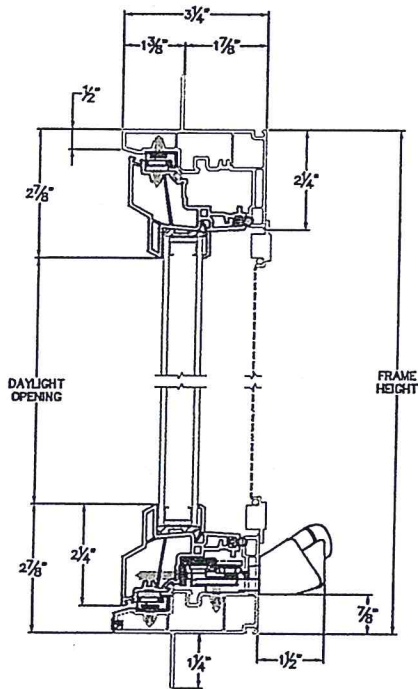
Casement Window

1-3/8" Fin Setback

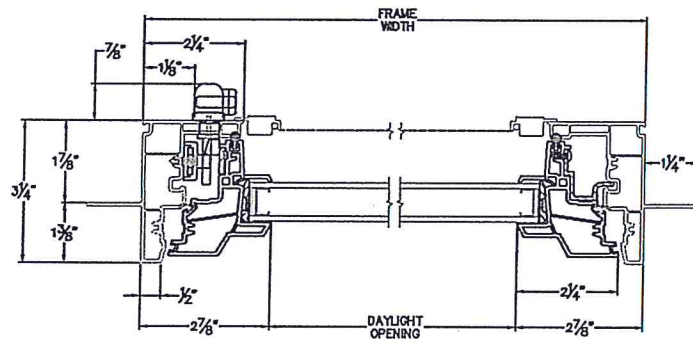
CAD File Scale	View	File Name	Units
NTS	Horizontal & Vertical	8520T-02 FC	Inch

More Technical Documents can be found at milgard.com/professionals
Due to continual research and development, details may be changed at any time. ©2013 Milgard Mfg.

CASEMENT SERIES 8520



HEAD & SILL



JAMBS

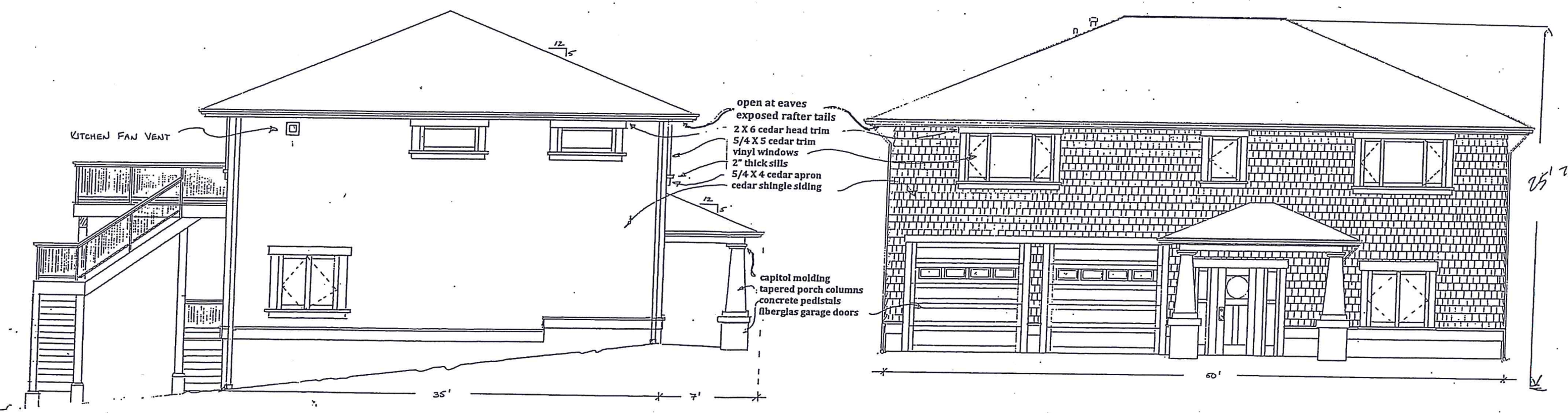
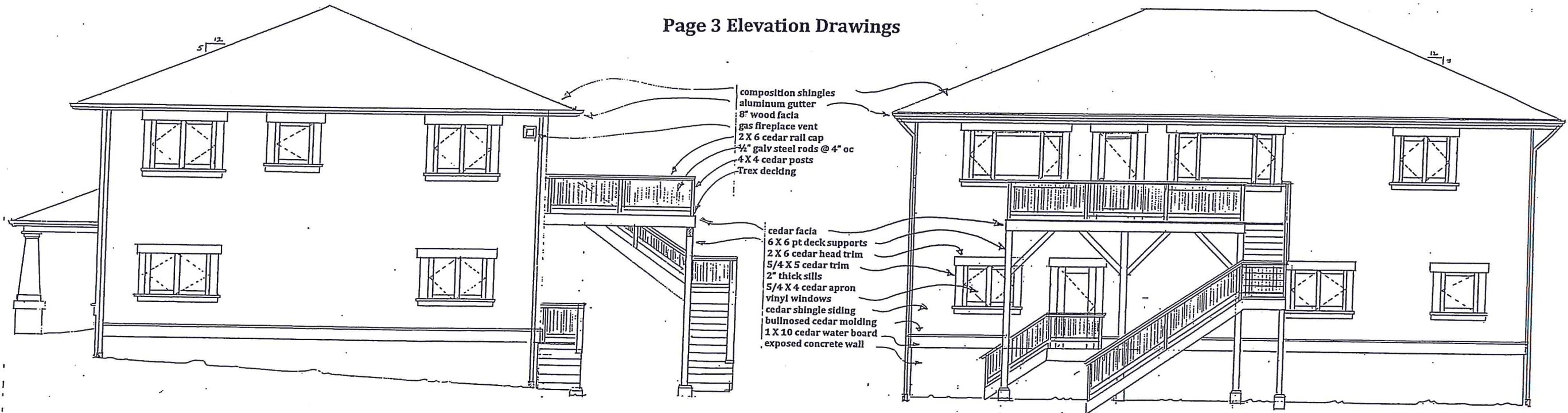
Revit, SketchUp, .PDF and .DWG files can be accessed
at milgard.com/professionals or clicking here:

Tuscany Series Architectural Library

Montecito Series Architectural Library

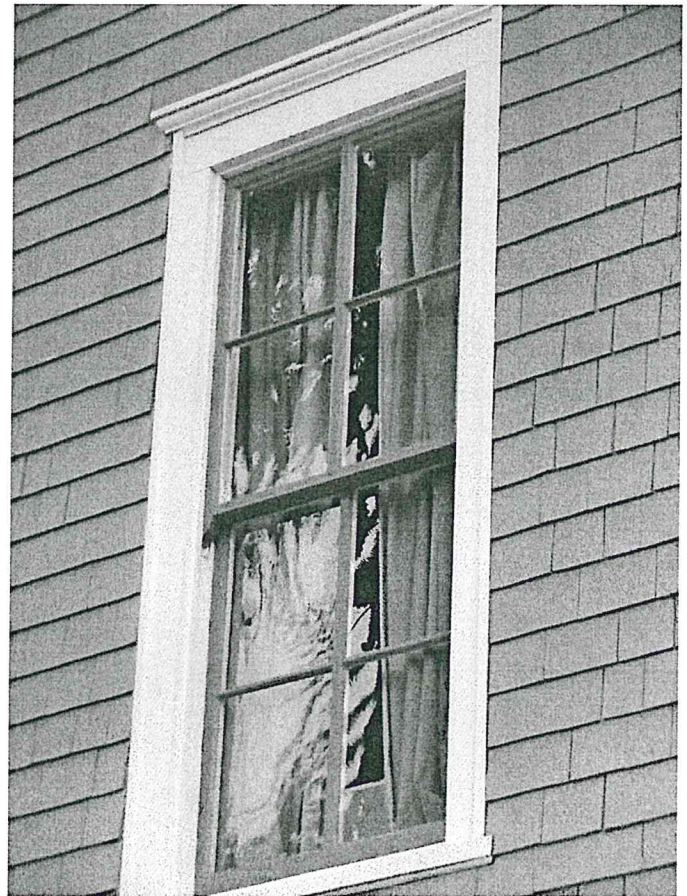
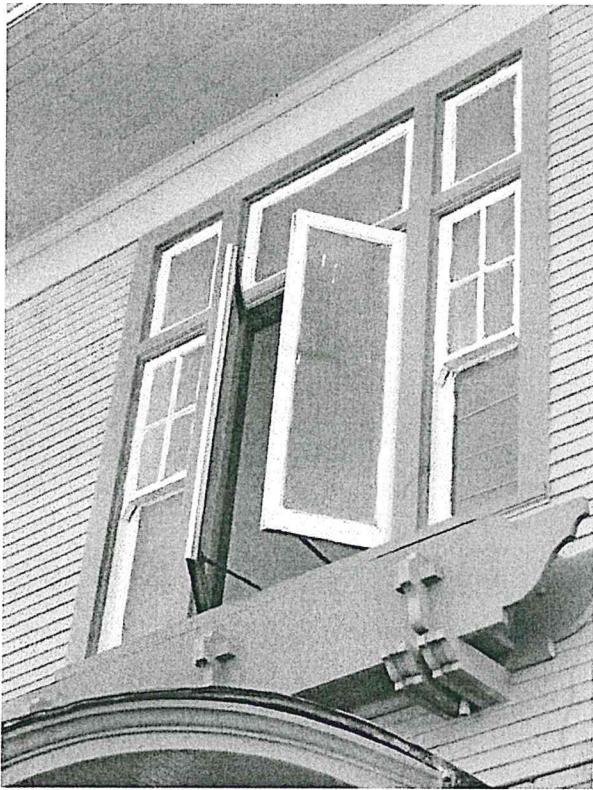
New Residence for
Kim and Dan Supple
1542 Grand Ave.
Astoria, Or. 97103

Page 3 Elevation Drawings



CITY OF ASTORIA
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Windows in Central Astoria: Their depth of recess



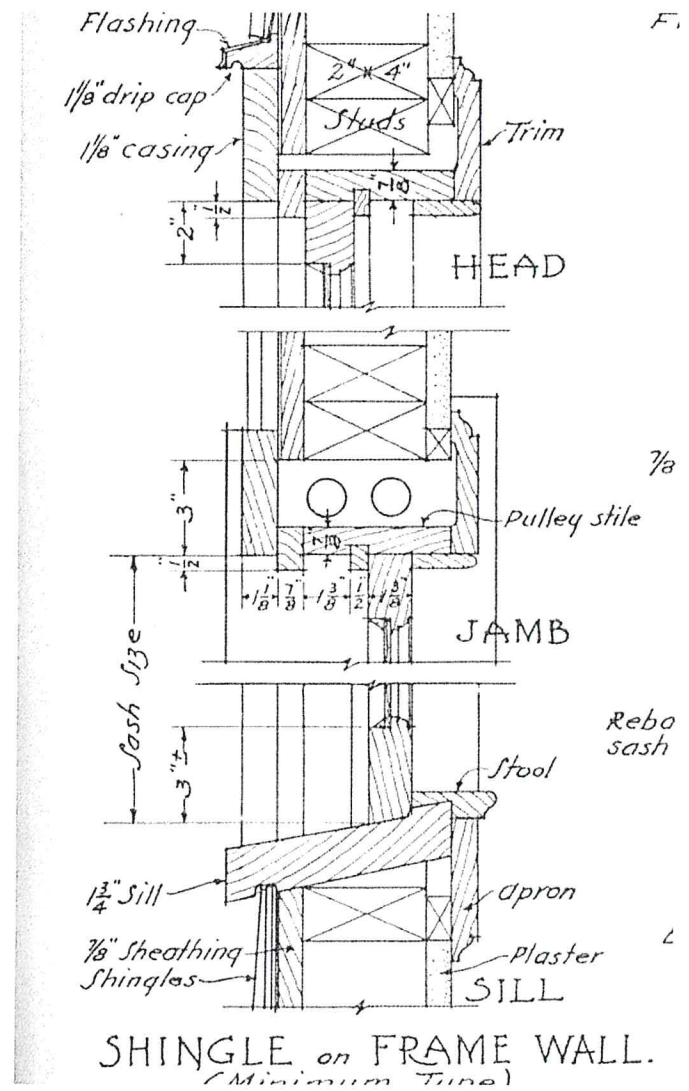
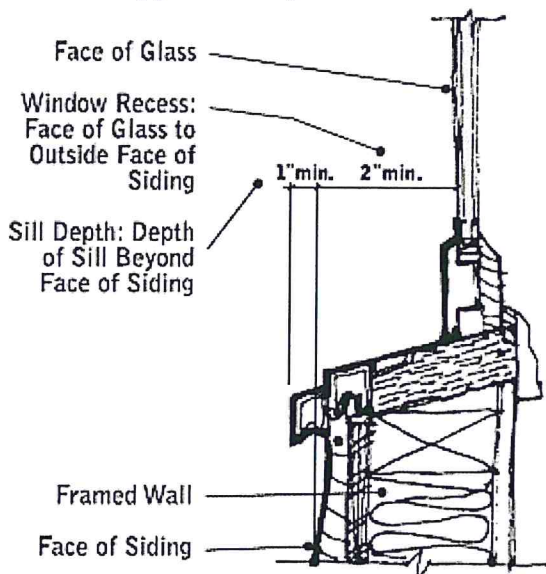
Central Astoria has a seemingly endless variety of historic wood-sash windows. While there may be a variety of double-hung, casement and fixed windows, they do share certain details. The size of sashes, depth of recess, profile of muntins, size and style of casings--while varied--all fall within a handful of configurations.

Windows in Central Astoria: Their depth of recess

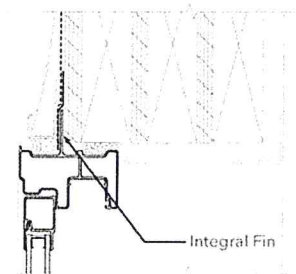


Measuring depth of recess

When undergoing historic review, the City of Astoria has required new double-hung windows to be recessed a minimum of 2" from the face of siding to the face of the glass on the lower sash (below). If the window is fixed or casement, the window is required to match the recess found on the upper sash of a typical double-hung window--approximately 1".

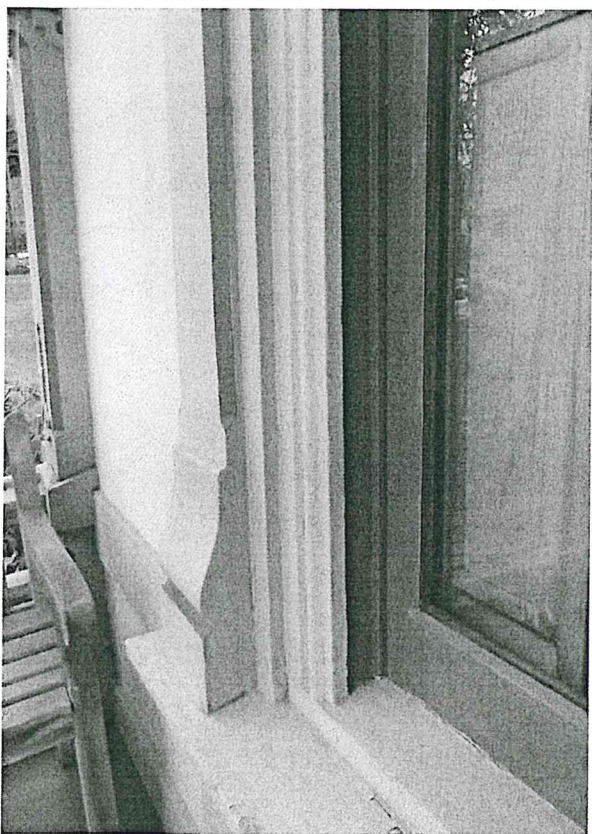


Standard wood, double-hung windows were historically recessed approximately 3" from the face of siding to face of glass on lower sash (above).



By contrast, some fiberglass double-hung windows projects beyond face of siding (above). The integral fin or flange prevents moisture from entering wall. It also dictates how deep the window may be recessed.

Windows in Central Astoria: Their depth of recess



Measuring from siding versus casing

The depth of a window's recess is measured from the siding's face rather than the casing's face. The depth of siding varies less from one style to another than the depth of casings.

For instance, houses with Italianate features (above left) frequently have deep casings with decorative details. They also tend to use drop siding. Casings are usually applied over the siding, increasing the window's perceived depth.

Houses with craftsman features (below left) have simple casings (sometimes with banding around the outer edges for additional depth/shadows). Casings are usually butted into the siding rather than over the siding. Typical siding includes clapboard or wood shingle.

Modern windows are frequently installed without true casings (below). The siding is butted to the side of the window. In this case, the glass is nearly flush with the siding.



Windows in Central Astoria: Their depth of recess

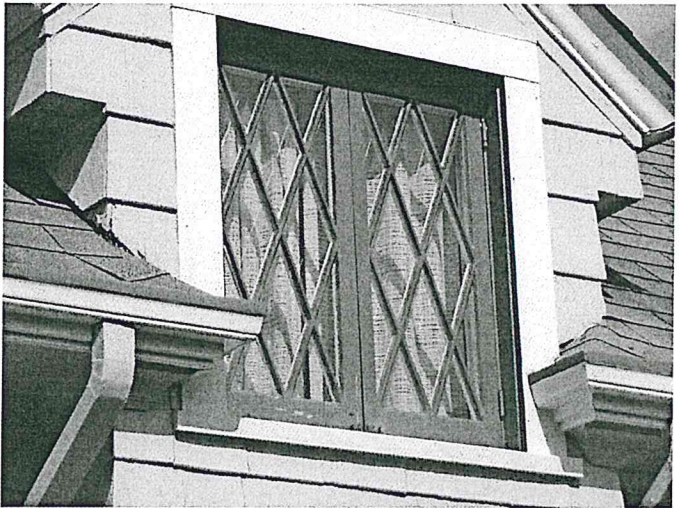
Casement window recess varies

The recess found on casement windows varies within Central Astoria. Although they are typically recessed 2" or more from the siding, there are less typical, more shallow examples. One example found is recessed less than 1".

The two windows to the right likely exceed 2" in depth.

The window below right is less than an 1". The sash appears to be flush with the inside of the casing. It is not known if the windows are original to the house (which has undergone two significant renovations). The windows appear to be a part of an interior window seat and that maximum interior depth is desired.

The window below is recessed approximately 2".



Windows in Central Astoria: Their depth of recess

Use of replacement windows

The City of Astoria encourages its property owners to retain the historic wood windows on their buildings. Wood windows will last for more than 100 years if properly maintained. The windows provide character defining details within Astoria's historic districts.

A quick review of windows illustrates the success or failure of replacement windows.

Paired double-hung wood sash windows are retained (upper right). Identical windows were removed from a neighboring house and replaced by aluminum windows (center right). The replacement windows lack the depth, breath of sash, lugs, and ability to paint. They are also less energy efficient.

A vinyl single-hung replaced a wood sash double hung (lower right). The replacement window does not fill the original window opening, and the once deep muntin is reduced to a flat vinyl strip.

A vinyl replacement window is significantly smaller than the original window, and it is nearly flush with the siding (below center).

Besides a lack of casing and window depth, the flange was removed, allowing moisture to enter the building (below left).



Windows in Central Astoria: Their depth of recess

New construction

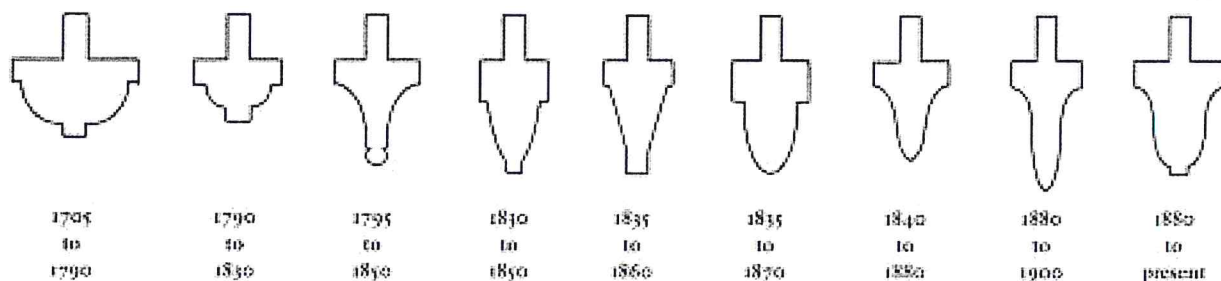
The Mill Pond Village uses a separate criteria from the Historic Landmarks Commission (HLC) and has its own review board. Their criteria for new construction, while based on historic sensibilities, does not specifically respond to a historic context.

A variety of window treatments are found within the development. There are traditionally recessed and detailed windows (above right), and contemporary windows with shallow recesses.

Contemporary window frames frequently project as much as 1/4" from the casing. In some cases, the sash are flush with the casings and the windows are flush with the siding (center and below right). In other cases, while the frames are "proud" of the casing, the windows are an inch or more recessed from the siding (below).



Windows in Central Astoria: Their depth of recess



Conclusion

Window technology continues to evolve. That evolution can be seen in the size of window panes, for instance. As machinery developed the capacity to roll large sheets of glass, expansive windows became a show of wealth for homeowners. The profile of muntins and window sashes changed, too, reflecting not only differences between handmade and machine-made (illustrated above), but the size of glass it supported. These changes are seen throughout Astoria's historic neighborhoods.

Contemporary windows continue to evolve. Vinyl and fiberglass-clad windows are seen by some as alternatives to old-growth or high quality wood windows. In some cases, their muntins are more narrow or without substantial profile. In other cases, they lack casings. Or, they are set flush to or project beyond the siding. In the end, some fall short of looking "historic".

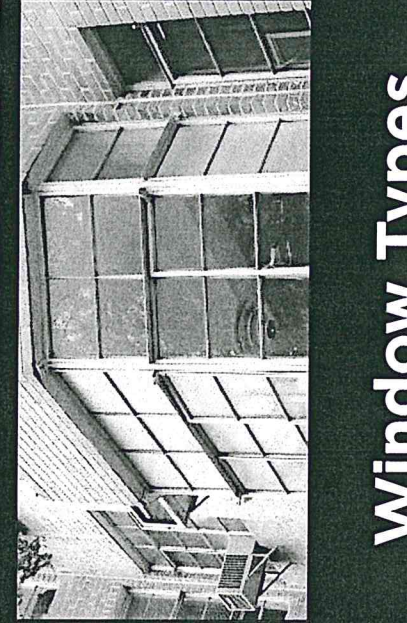
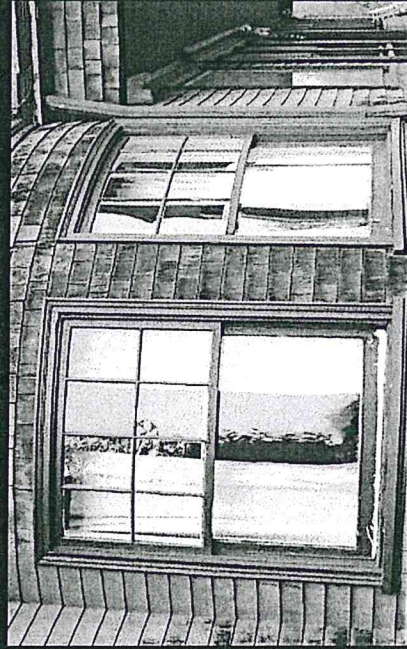
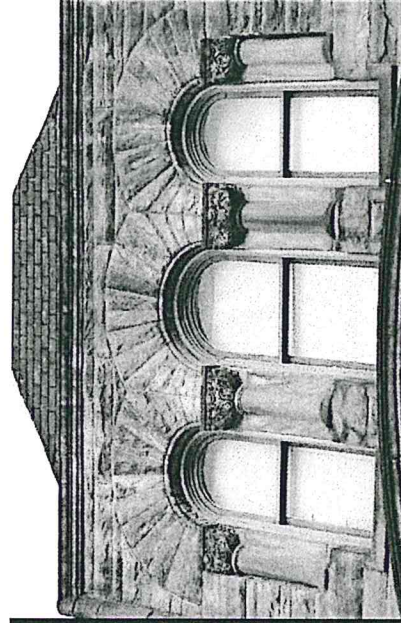
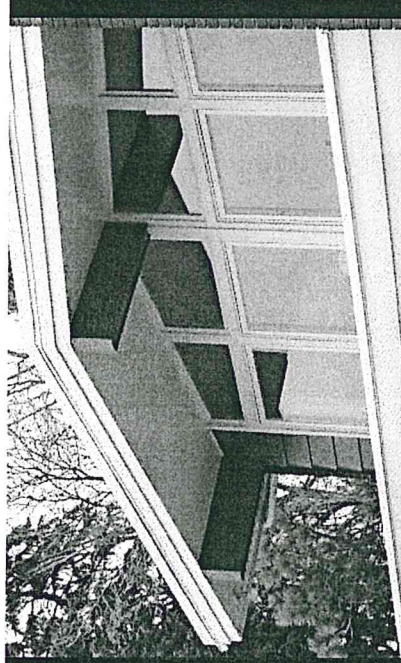
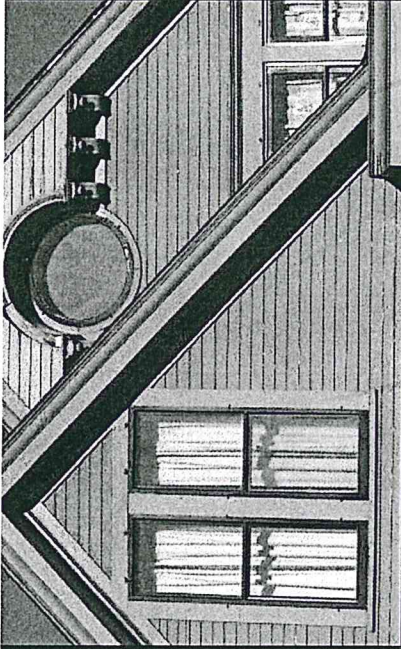
The City of Astoria's HLC is charged with determining how much change is acceptable or appropriate within a historic setting. Should a building represent its period of construction, or the neighborhood's Period of Significance? Can new construction be less about looking "historic" and more about being high quality design and materials? The criteria for New Construction, as determined by the Secretary of the Interior, and adopted by the City of Astoria, provides the HLC a platform for this debate.

In the past, the HLC has determined that a minimum 2" recess from the face of siding to the face of glass (on the lower sash of a double-hung) is an appropriate standard. This same standard is adopted by communities throughout the nation. Is there reason to change that standard?

Has experience shown that good quality design can be achieved with a more shallow recess? Are there ways to detail the building to mitigate the contemporary nature of new windows? Or, are shallow windows simply an acceptable new technology and appropriate for new construction?

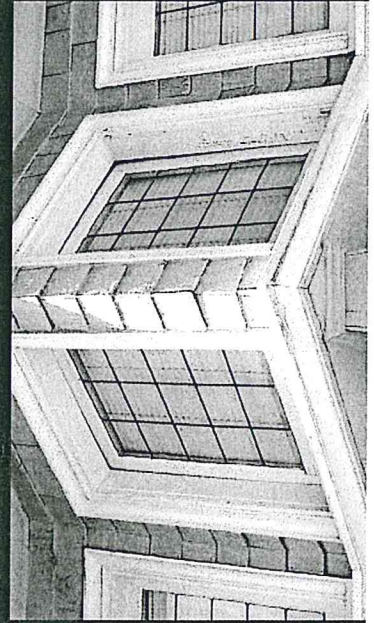
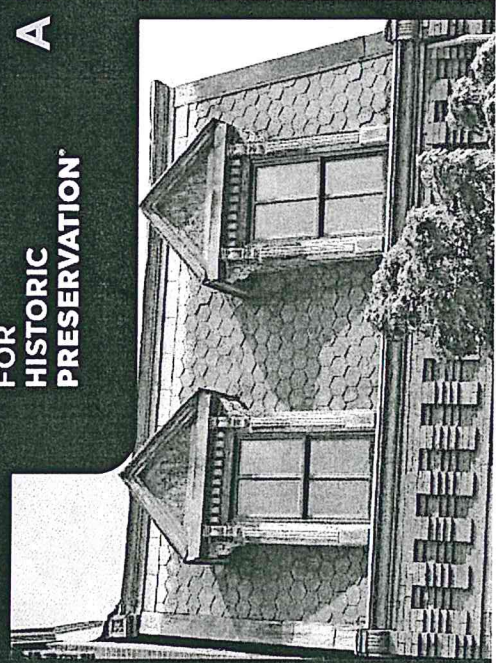
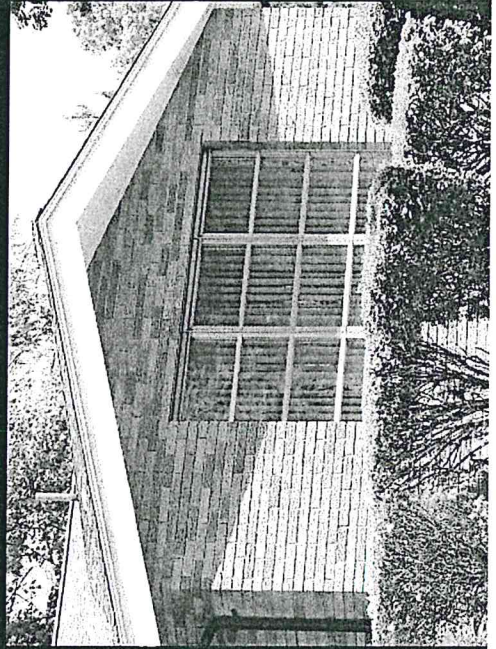
Astoria is not alone in this debate. It is useful to have an informed discussion and either reaffirm its standards, or adapt them according to new information.





NATIONAL
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FOR
HISTORIC
PRESERVATION[®]

Window Types A Residential Field Guide



About the Guide

Residential Window Types

The character of older and historic homes are often defined by their windows, whether an 1880s Queen Anne or a 1950s Split-Level. While they vary in size, shape, materials and proportion, windows also give scale to a house and provide depth. The proportion, divisions and materials of a window are essential elements of design. In most cases, windows are the most dominant visual element of an older and historic house.

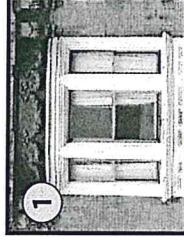
Like architectural styles, there are a wide range of window types. Windows have evolved as technology has advanced. From the early multi-pane double-hung sash to the modern plate glass picture window, they have also changed along with the popularity of different residential architectural styles.

As a homeowner of an older and historic residence, you may want to learn more about your windows, why they are unique and, most significant, how to ensure they are maintained and energy efficient. The weatherization of windows, as part of a whole-house strategy, is important. Homeowners have choices. Older windows can always be retrofitted to be more energy efficient through a variety of methods, depending on the type of window.

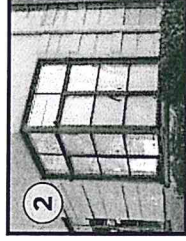
This guide is intended as a resource to help get you started by identifying some of the most common window types found in older and historic residential architecture. A series of online links are provided for many of the window types so you can learn more.

For more information...

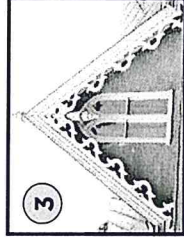
Go to www.PreservationNation.org/Weatherization to find additional resources on windows and much more for your older and historic building.



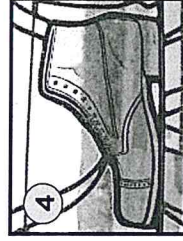
Bay and Bow



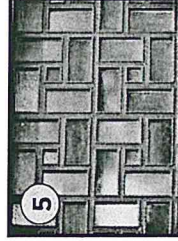
Casement



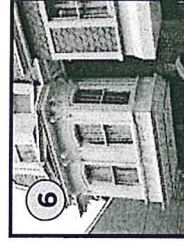
Gothic



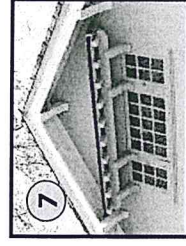
Leaded and
Stained Glass



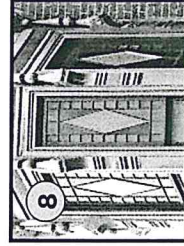
Modern



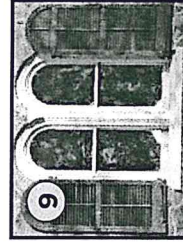
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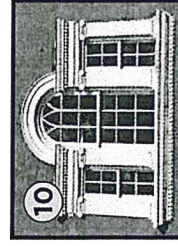
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Queen Anne

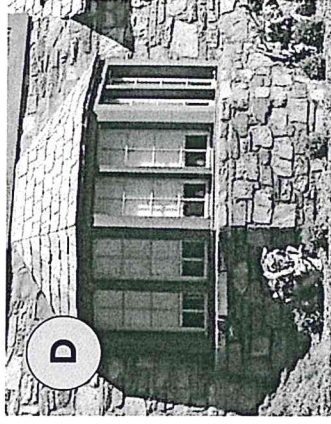
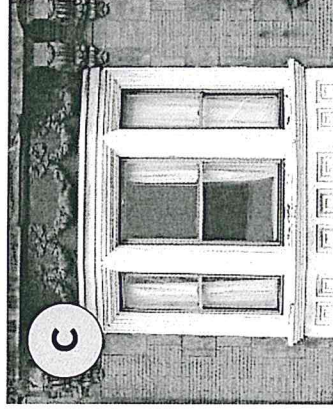
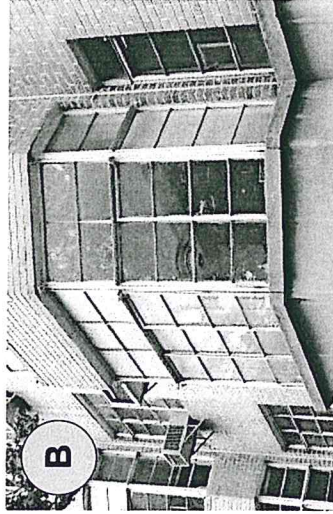
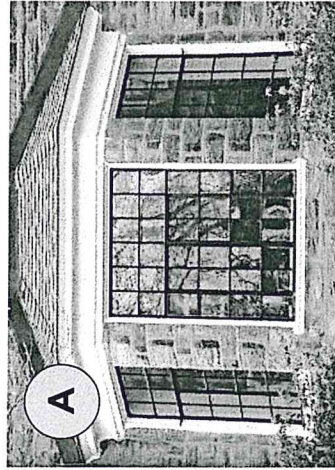


Single, Double
and Triple-
Hung Sash



Additional
Window Types

Bay and Bow



Bay and Bow

Angular and projecting from the wall, bay windows can be found on any story of a building and on many building types. A bay window will allow more daylight, provide more views and offer better air circulation.

Bay - This window is usually made up of three individual window units (though sometimes it can be more). The side units will project outwards from the wall and the center window will join them together. Generally, angles may be 30, 45, 60 or 90 degree angles. Windows will be combined often with operable and inoperable units.

Bow - Like a bay, this window combines a more rounded curve than the angled step style of the related bay window type. Generally there will be four or five window units to make up the curved bow window.

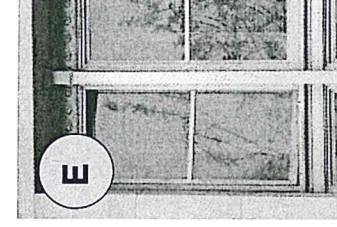
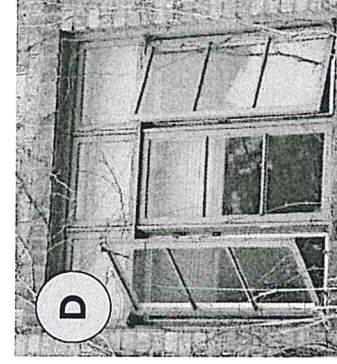
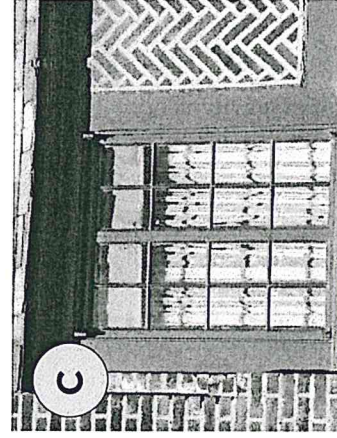
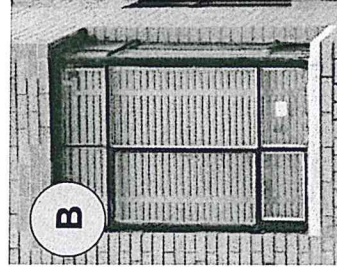
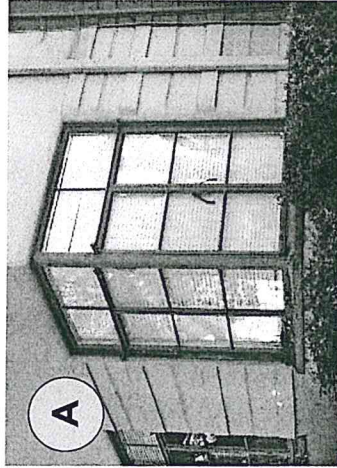
- A Bay with metal casement windows on Tudor style house.
- B Art Deco apartment building in Brooklyn, NY, with metal casement windows.
- C Bay with one-over-one wood double-hung sash window
- D Bay with single metal casement windows on Tudor style house.

Wood-frame Victorian cottage with prominent bay window
Manchester, New Hampshire



Adrian Scott Fine/NTHP

Casement



Casement

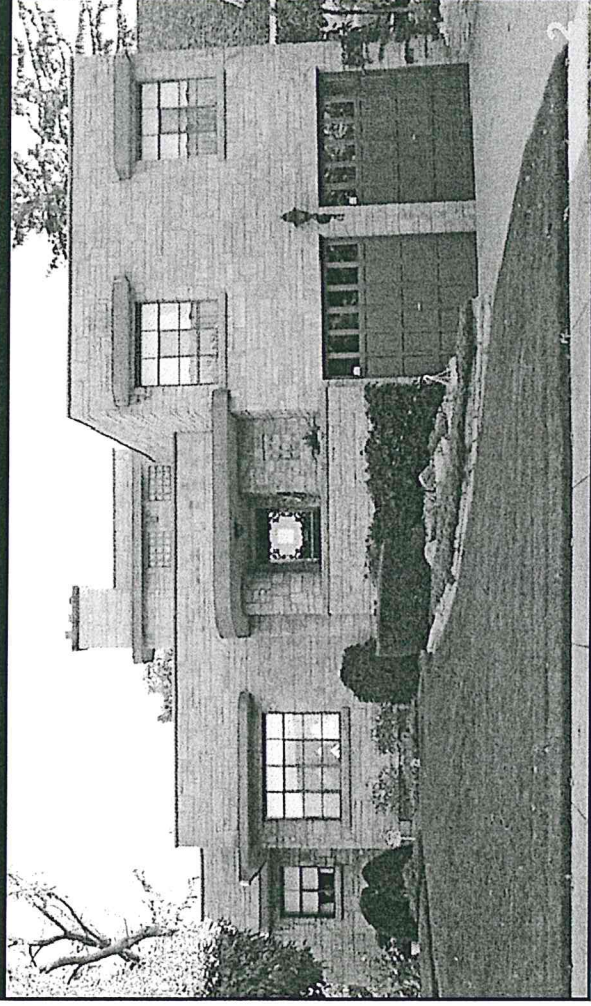
Casement windows are often a defining element of residential architecture. These are widely used in both traditional and contemporary design. Casement windows are typical of the Tudor, Arts and Crafts, Art Deco styles. These windows are hinged on one side and may swing out or in. They can be arranged as a single window or paired and the frames may be wood or metal (rolled steel). Metal casement windows can be made more energy efficient by caulking around the masonry openings, adding weather stripping and installing storm windows (interior and/or exterior).

- A, B Streamlined casement windows were popular in the 1930s and 40s for Art Deco and Art Moderne architecture.
- C Traditional casement designs were often used in the 1920s and 30s for cottage and Tudor style residences.
- D Central fixed casement with transoms on apartment building in Denver, CO.
- E Brass casement, hinged so that it swings in.

Resources (click title for link):

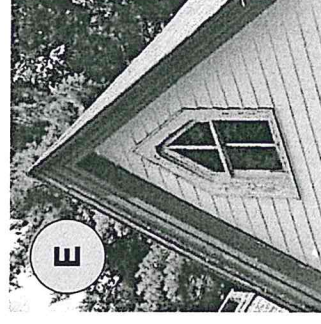
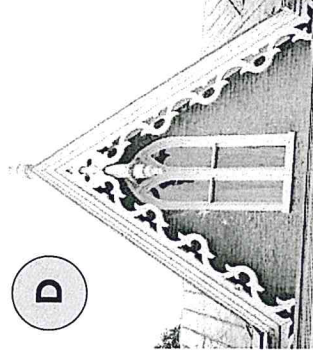
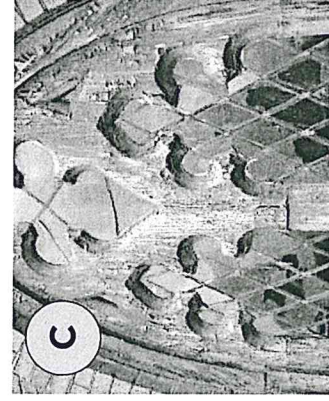
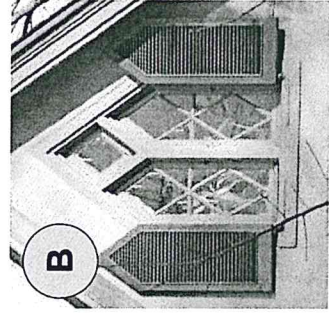
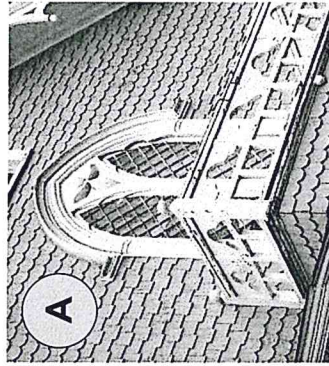
- The Repair and Thermal Upgrading of Historic Steel Windows. National Park Service, Sharon C. Park, AIA.
- Steel Casement Window Repairs. City of Phoenix, AZ.
- Metal Windows. Building Conservation Directory, Peter Clement

Streamlined Art Moderne house with metal casement windows
South Bend, Indiana



Adrian Scott Fine/NTHP

Gothic



Gothic

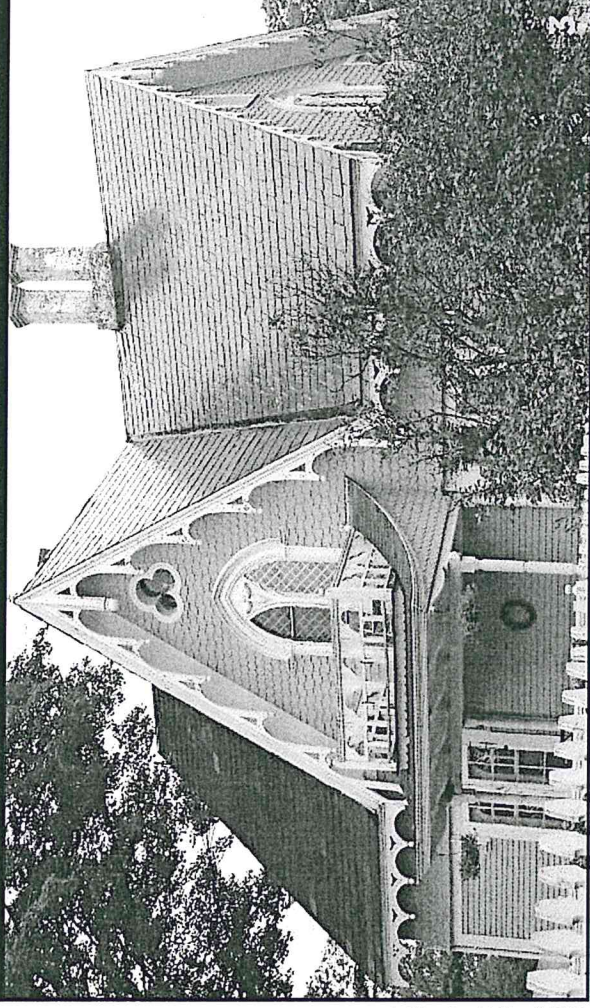
Commonly pointed, may be paired or have additional windows flanking the center window. Windows may be angular or feature a lancet arch — a tall narrow window with pointed arch at the top, shaped often like a spear. An architectural motif found often on religious structures, placed singularly or in pairs. Appears in early Gothic period of architecture and later Gothic Revival style of nineteenth century. Features detailing and elements also often referred to Carpenter Gothic residential architecture. Found often in picturesque rural settings.

- A Paired windows with lattice-style fenestration and drip mold, designed to protect the window from water — directing it out and away from the sash.
- B In this example, note how the functional shutters are designed to match the profiles of the primary sash.
- C The use of scroll saw allowed the application of elaborate wood moldings, in this case, over leaded-glass.
- D Paired one over one double-hung sash Gothic window.
- E Singular two over two double-hung sash Gothic window.

Resources (click title for link):

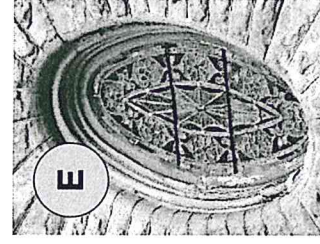
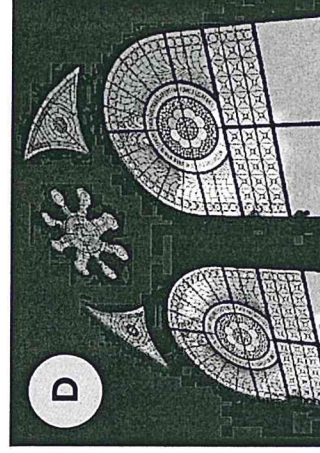
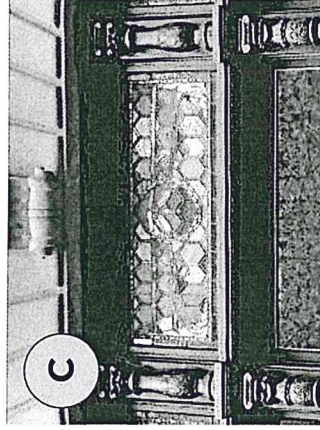
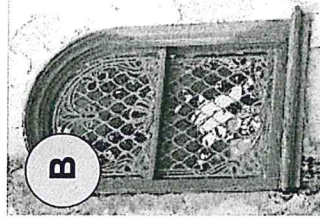
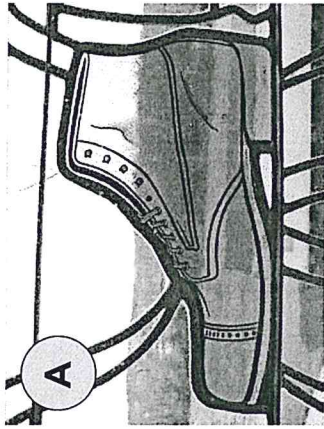
- [Guide to the Alexander Jackson Davis Papers.](#)
- [Lyndhurst, America's preeminent example of residential Gothic Revival architecture, Tarrytown, NY.](#)

Gothic Revival house with paired lancet arched windows
Windsor, Vermont



Adrian Scott Fine/NTHP

Leaded and Stained Glass



Leaded and Stained Glass

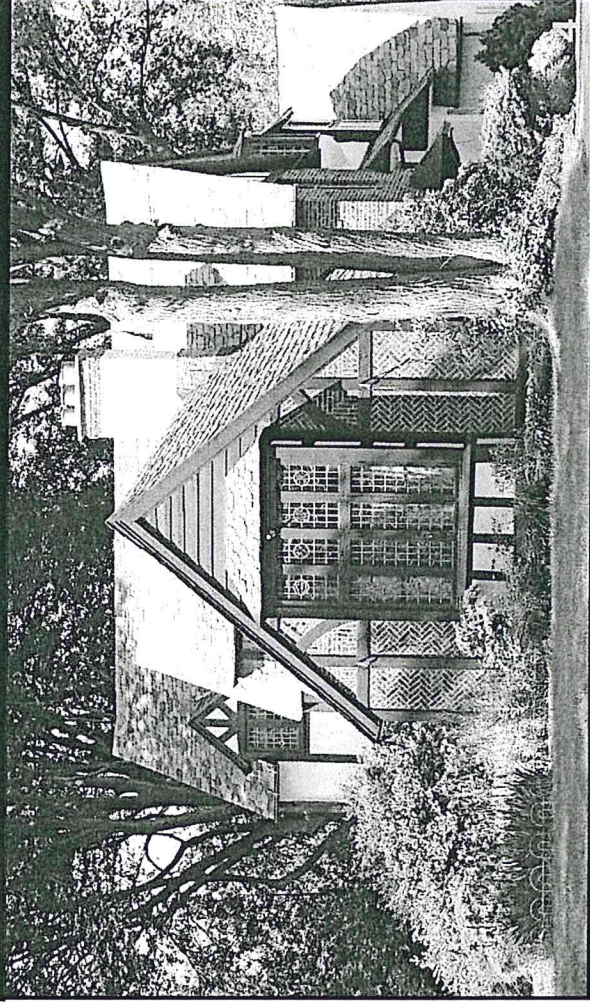
Although colored or beveled glass is often referred to as leaded and/or stained glass, there are varieties and different types despite the interchangeable use of terminology. This highly decorative glass can be colored, painted, enameled or tinted and held together by lead, copper or zinc came. Residential architecture of all styles often incorporates this form of window.

- A Detail of shoe from window in the Shoe House in York, PA.
- B Round arched double-hung sash window with elaborate design.
- C Transom with leaded and stained glass on Brooklyn, NY, row house.
- D The richness of detail is visible in this window.
- E Oval-shaped fixed stained glass window.

Resources (click title for link):

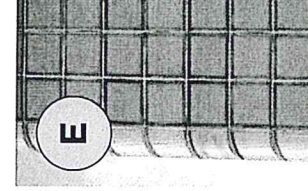
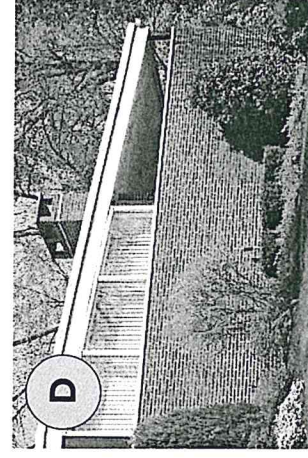
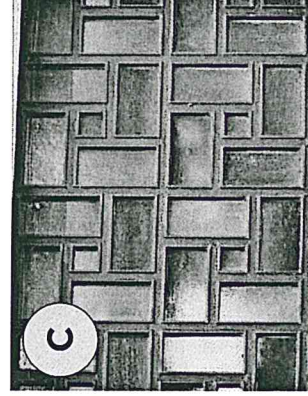
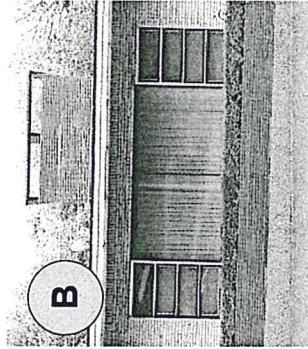
- Conservation and Restoration of Stained Glass — An Owner's Guide. Virginia Raguin.
- Scientific Examinations of Historical Stained Glass. Manfred Torge, Wolfgang Muller and Karin Adam.
- Stained-Glass Protection: Ventilation Specifications for Protective Glazing. Ron Bovard.
- The Preservation and Repair of Historic Stained and Leaded Glass. National Park Service. Neal A. Vogel and Rolf Achilles.

Tudor Revival house with projecting, leaded-glass bay window
Philadelphia, Pennsylvania



Adrian Scott Fine/NTHP

Modern



Modern

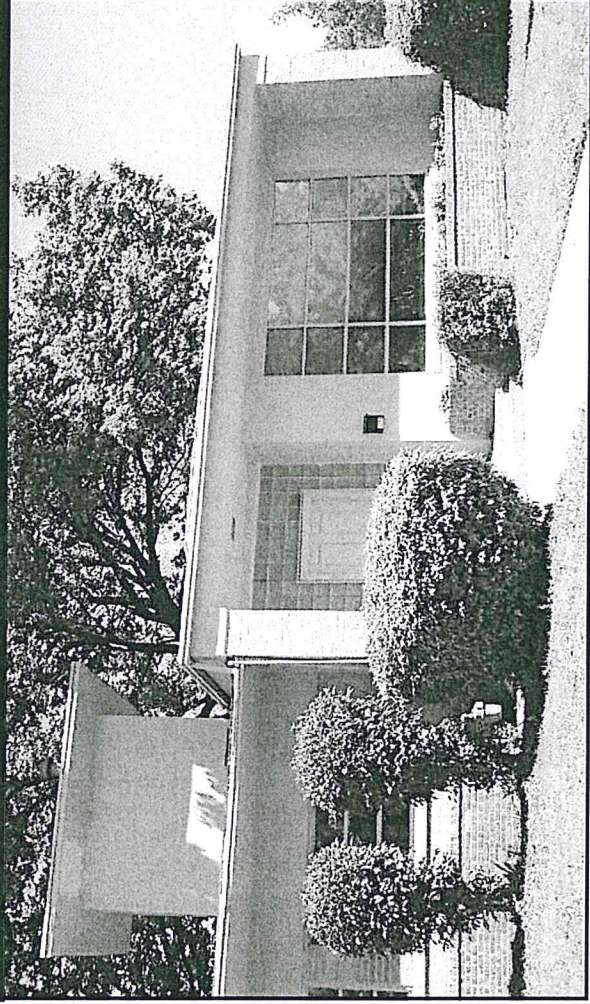
Like earlier architectural styles, windows are important in helping to define modern, mid-century house types, from ranch houses to split levels. The sizes, types, arrangements and materials of windows during this period were largely experimental and often mass produced. Oversized plate-glass fixed windows, clerestory and the 'picture window' are some of the innovations. Modern windows can be made more energy efficient by caulking around the masonry openings, adding weather stripping and installing storm windows (interior and/or exterior).

- A Irregular and oversized fixed plate glass windows.
- B Picture window with fixed plate glass at center and operable jalousie windows flanking at each end.
- C Distinctive stained glass wall on ranch house in Savannah, GA.
- D Angular clerestory windows.
- E Curved glass blocks.

Resources (click title for link):

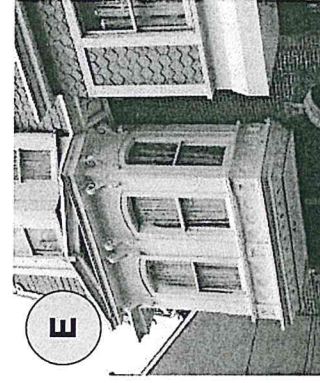
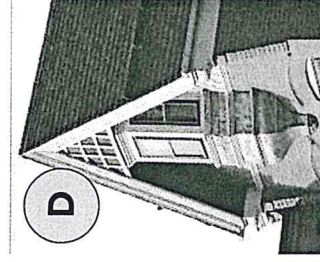
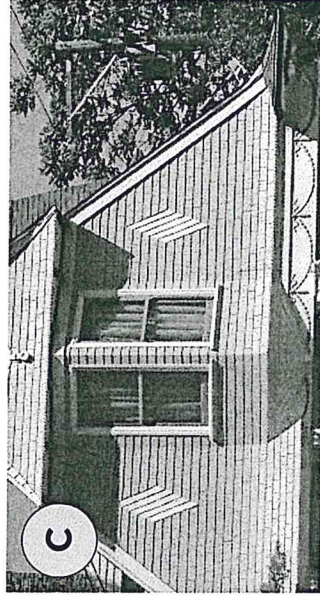
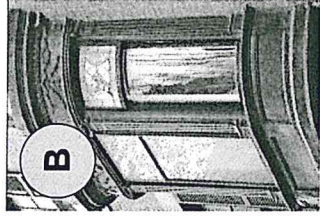
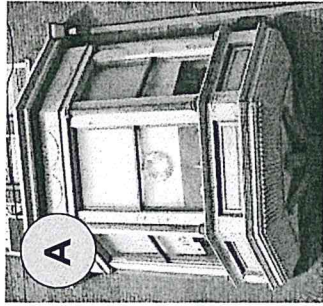
- Atomic Ranch magazine
- Historic Preservation Guidelines for Village Grove 1-6 Historic District. City of Scottsdale, AZ.
- Little Boxes. North Carolina Signature
- Retro Renaissance. Alaska Airlines Magazine.

Ranch style house with large steel-framed picture window
Dallas, Texas



Adrian Scott Fine/NTHP

Oriel



Oriel

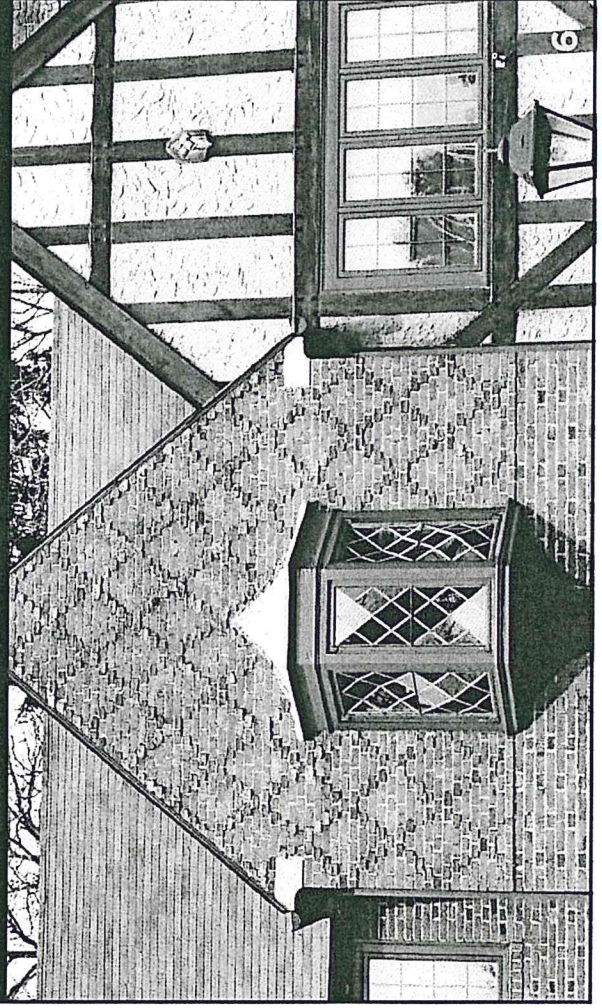
These projecting bay windows, usually on an upper story, do not extend to the ground. They originally developed as a form of porch, popular in Gothic Revival style buildings. Typically its walls are supported by a corbelled or bracketed base.

- A Oriel with three brackets on brick Queen Anne residence.
- B Metal-sided oriel with curved glass sash and leaded glass transoms.
- C Two-sided oriel on Queen Anne style residence in Sacramento, CA.
- D Oriel with copper base at gable of Queen Anne style residence in Harrisburg, PA.
- E Queen Anne residence in Wilmington, DE, with wood-frame oriel.

Resources (click title for link):

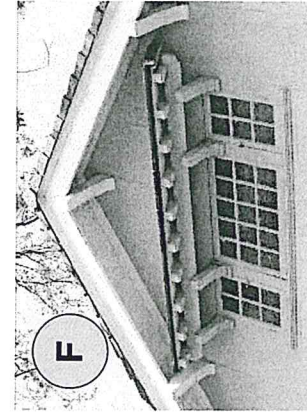
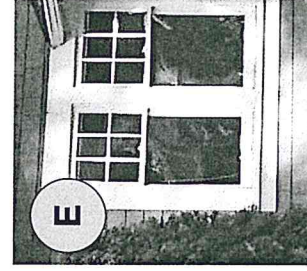
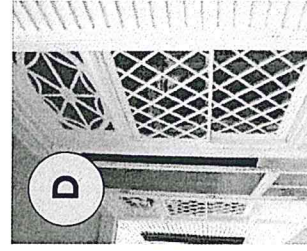
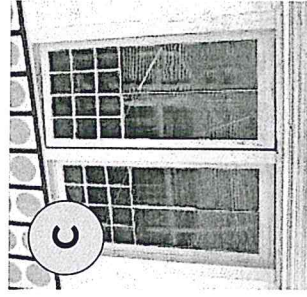
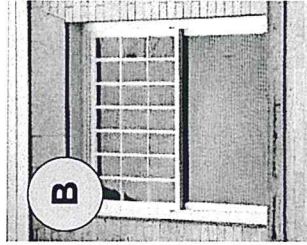
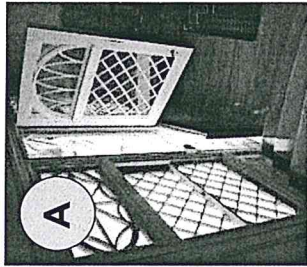
- Oriel Windows: A Pattern Book for Newquay.

Tudor Revival house with leaded glass oriel window over entrance
Drexel Hill, Pennsylvania



Adrian Scott Fine/NTHP

Patterned



Patterned

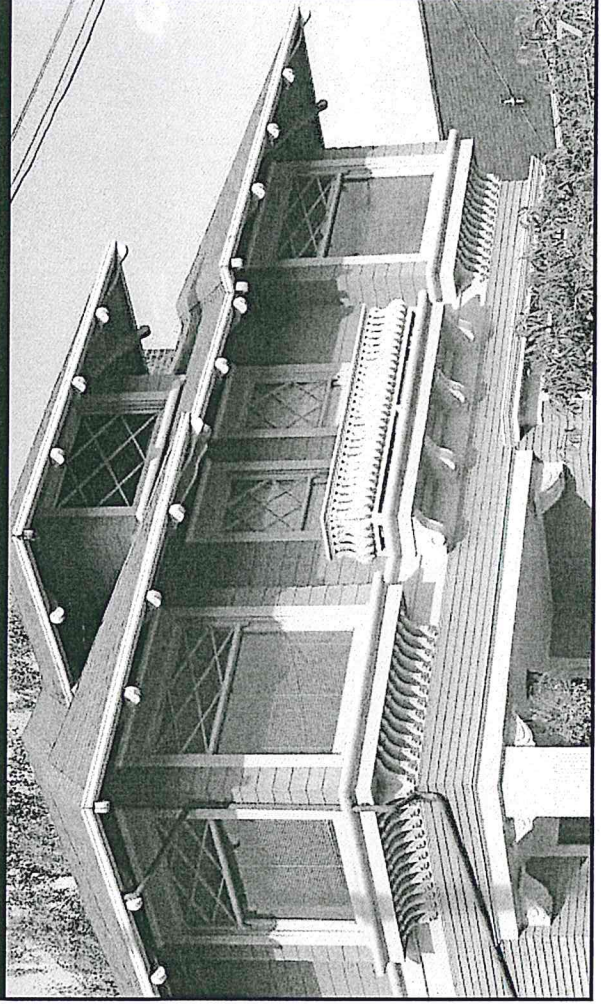
The Arts and Crafts, Prairie and Queen Anne architectural styles often feature windows with very distinctive and unique patterns. These are usually casements or double-hung wood sash windows. Sometimes the upper sash will be divided into multiple panes of glass with a lower sash as a single piece of glass. Usually these are in the form of grids or diamond/lattice style patterns. Often the window surrounds and casings will be very wide, and grouped as ribbon windows, especially with the Arts and Crafts and Prairie styles.

- A Lattice patterned sidelights and Dutch door.
- B Twenty-one-over-one Craftsman style double-hung sash.
- C Pair of twelve-over-two, wood casement windows on 1930s residence in New Orleans, LA.
- D Diamond patterned double-hung sash window and fixed transom.
- E Six-over-one double-hung sash windows with wide surround.
- F Fixed center window and two casement windows.

Resources (click title for link):

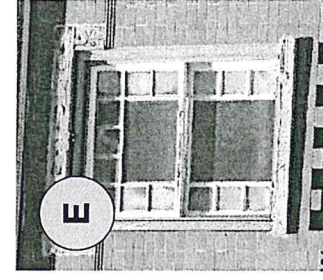
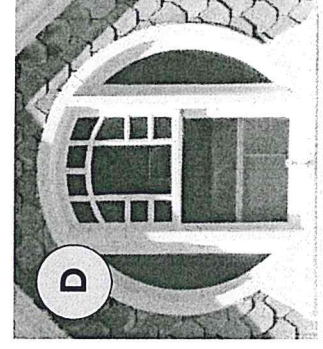
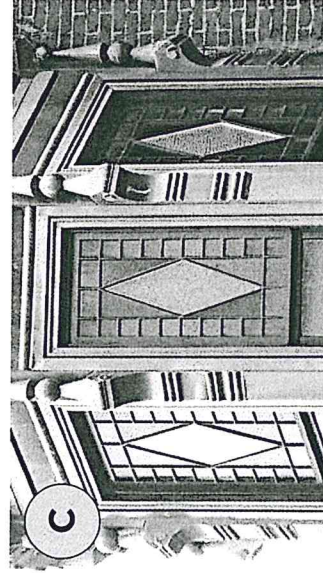
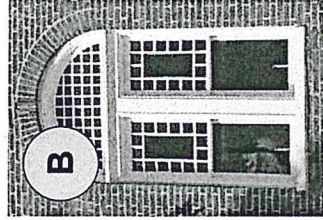
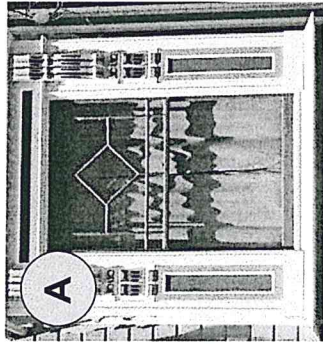
- Craftsman Style Guide, City of Glendale, CA.

Queen Anne house with diamond pattern upper sash windows
Seattle, Washington



Adrian Scott Fine/NTHP

Queen Anne

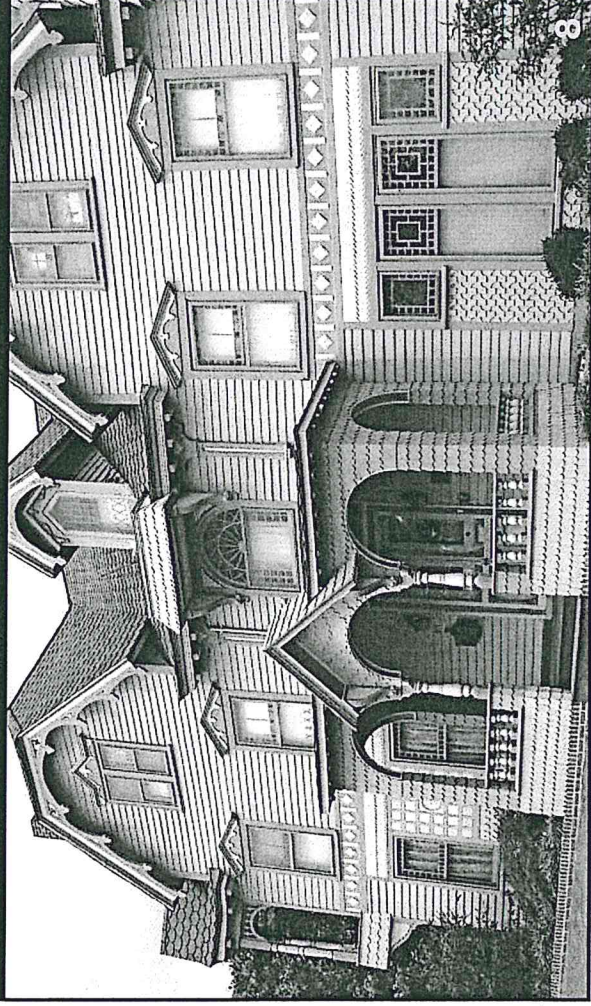


Queen Anne

These windows vary widely, but larger square or diamond panes of glass surrounded by small glass squares were popular. Generally, windows are double-hung sash with wood frames. The small squares were often stained glass, using textured glass or bevel-cut panes. Like their windows, the Queen Anne architectural style is elaborate, often with excessive detailing.

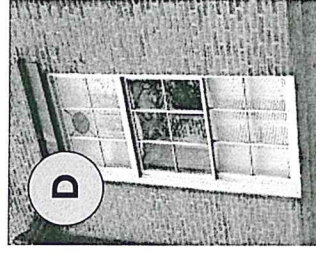
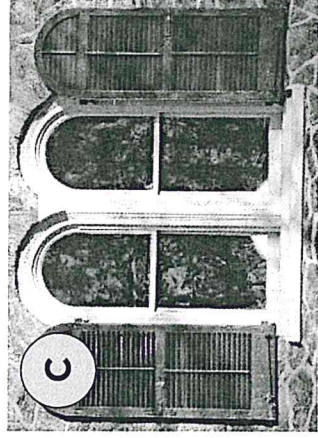
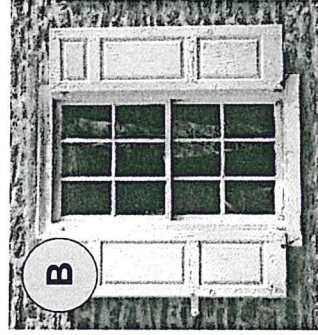
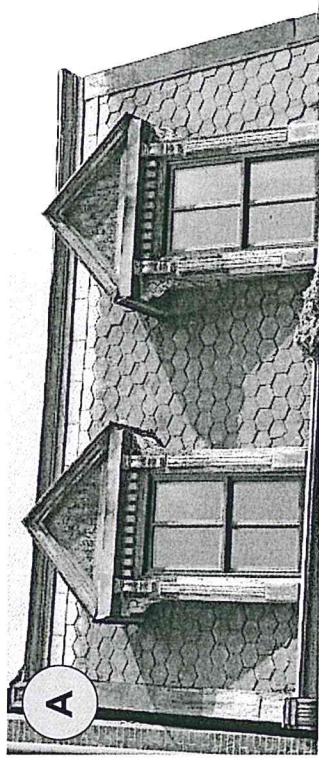
- A Diamond detail of one-over-one double-hung sash window on San Francisco, CA, residence.
- B Round arched Queen Anne style upper sash windows and transom.
- C Multi-colored stained glass and elongated diamond pattern characterize these windows on a bay in Chicago, IL.
- D Arched Queen Anne double-hung sash window with fixed semi-circular windows at gable of house in Gettysburg, PA.
- E Queen Anne double-hung sash window on row house.

Victorian era house with a variety of Queen Anne windows types
Milford, Delaware



Adrian Scott Fine/NTHP

Single, Double and Triple-Hung Sash



Single-hung sash, Double-hung sash and Triple-hung sash

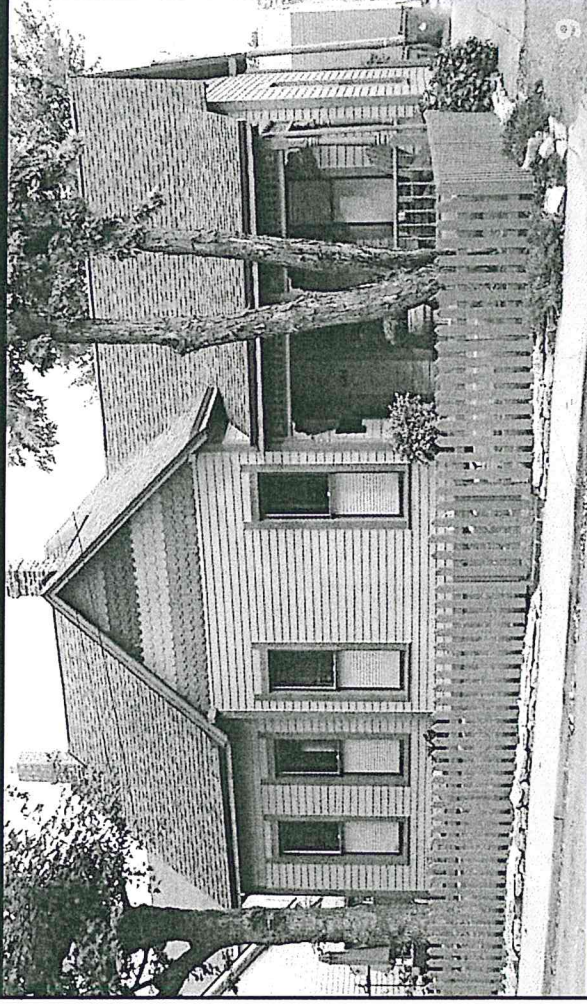
In single-hung windows, only the bottom sash moves. In double-hung windows, which evolved from the single hung sash, both the top and bottom sash are moveable. In triple-hung windows, each sash may move or the center may be fixed.

- A Two-over-two. Each sash has two panes of glass. These windows became popular as glass-making technology improved, making individual pieces of glass larger and more affordable.
- B Six-over-six. Multi-light windows are named according to how many panes of glass are in each sash. Other common arrangements are nine-over-twelve, and nine-over-six.
- C One-over-One. Each sash has just one pane of glass. The windows in this example have arched upper sash. One-over-one windows became increasingly common after the last quarter of the nineteenth century.
- D Six-over-six, triple-hung sash. Unique design that offers good floor to ceiling ventilation. This example features decorative stained glass motif in upper sash.

Resources (click title for link):

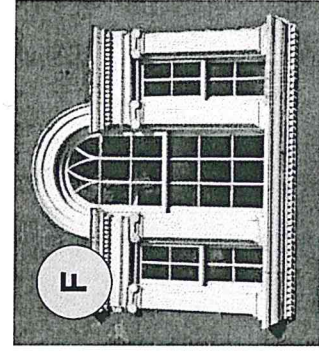
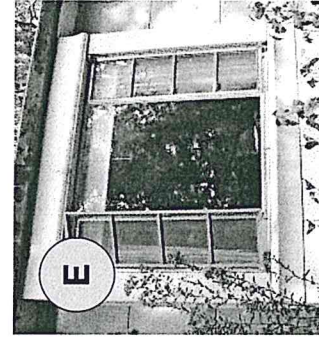
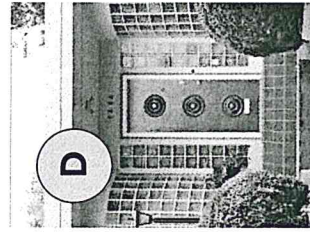
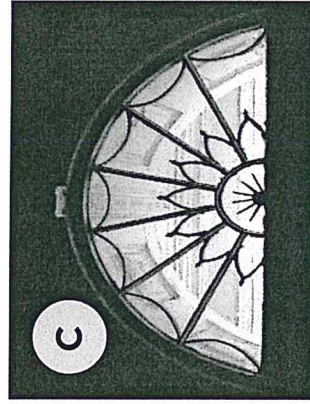
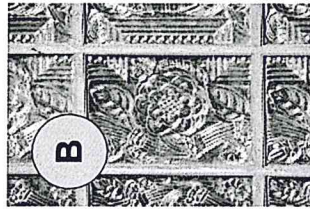
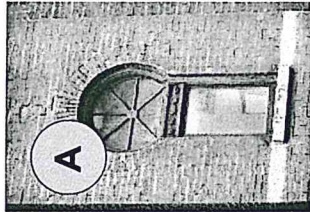
- How to Restore Sash Windows. Old House Journal.
- Restoring Window Sashes. Fine Homebuilding. David Gibney.
- Sash Windows. Winchester City Council.

Queen Anne cottage with one-over-one double-hung sash windows
Indianapolis, Indiana



Adrian Scott Fine/NTHP

Additional Window Types



Additional Window Types

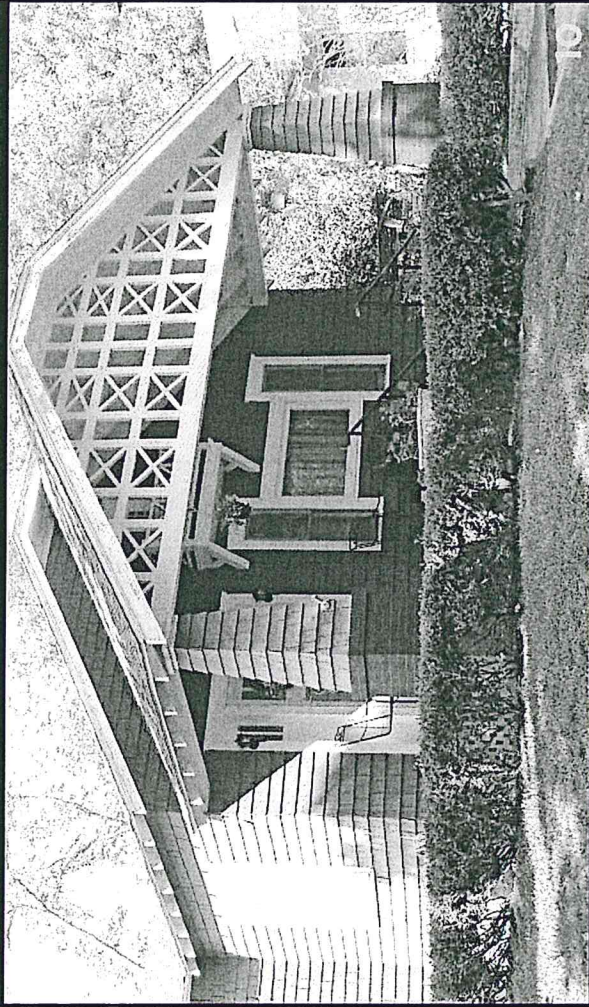
Most residential architecture is vernacular, incorporating a variety of architectural styles and features, including window types. Some of these are based on historical precedents, such as the Palladian window, named for 16th century architect, Andrea Palladio. Others are often a combination of traditional and modern interpretations.

- A Keyhole window with fixed pin-wheel upper sash.
- B Bevel-cut glass window with floral detail
- C Semicircular fanlight window, located above doorways.
- D Modern interpretation of sidelights with glass block on house in Portland, OR.
- E Aluminum picture window with casements on Lustron house.
- F Palladian style window on residence in Harrisburg, PA.

Resources (click title for link):

- Andrea Palladio 1508-1580. Italian Heritage & Culture Committee of New York, Inc.
- The Lustron Home

Arts and Crafts bungalow with casement and double-hung windows Savannah, Georgia



Adrian Scott Fine/NTHP

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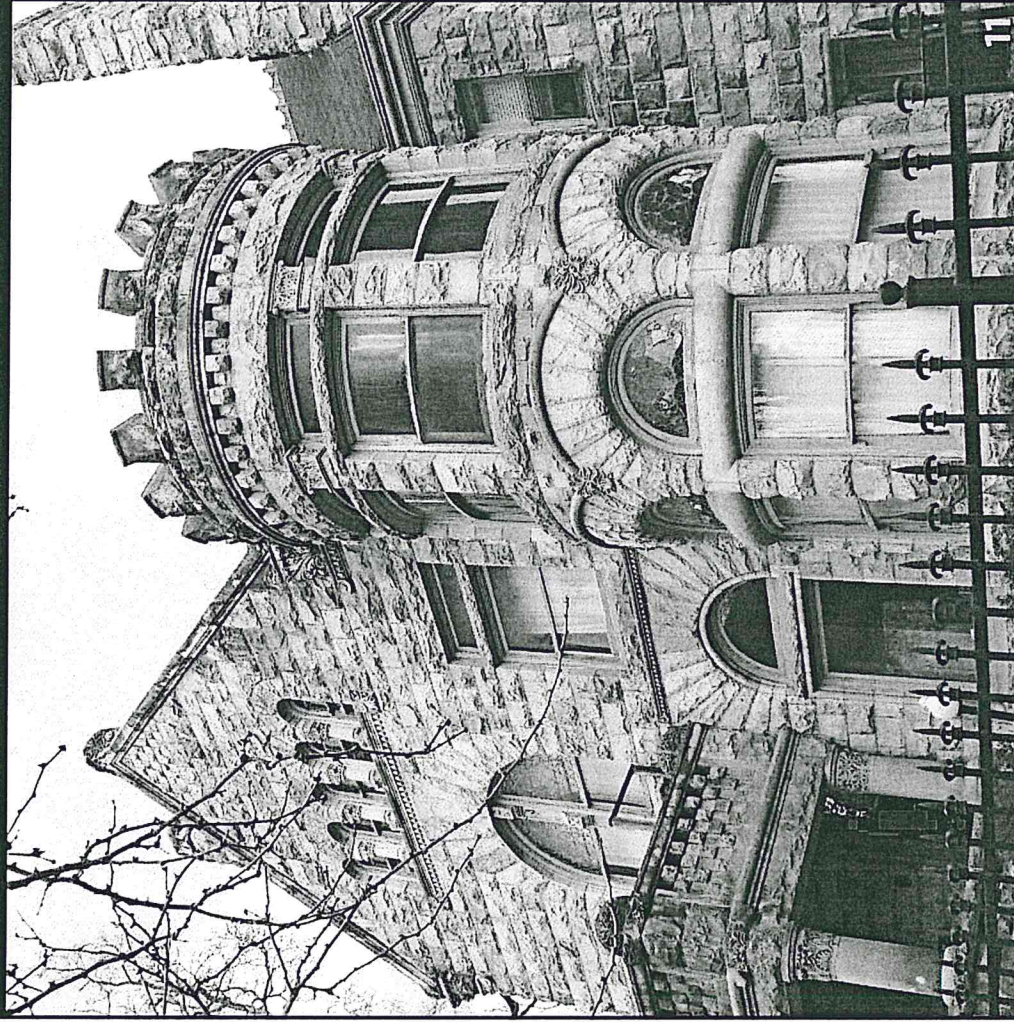
1785 Massachusetts Avenue, NW
Washington, DC 20036

www.PreservationNation.org/Weatherization

8/09

Window Types — Residential Field Guide

**Romanesque Revival house with leaded and curved glass windows
Denver, Colorado**



Adrian Scott Fine/NTHP