



Palo Alto Eichler Neighborhood Design Guidelines

City of Palo Alto, California

Adopted April 2, 2018 (Resolution No. 9748)



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Eichler Neighborhood
Design Guidelines*

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1. Introduction

The Palo Alto Eichler Neighborhood Design Guidelines were prepared by Page & Turnbull for the City of Palo Alto to serve as a voluntary project planning tool for homeowners, architects, and City staff. The document addresses values expressed by the local community and provides advice and direction for undertaking work in ways that retain the architectural character of these memorable neighborhoods.

Palo Alto's Eichler residential neighborhoods were developed by Eichler Homes following World War II. The houses, like most homes built in the 1950s through 1970s, require maintenance to remain in good condition. In addition, property owners and residents may desire alterations in order to adapt the buildings to contemporary needs. New construction is anticipated, including additions to Eichler houses and new home construction in Eichler neighborhoods. These guidelines seek to accommodate growth and change in Palo Alto's Eichler neighborhoods while guiding alterations of existing buildings and new development. The voluntary guidelines reinforce the goal of respecting the historic character of the community and promoting a level of excellence in the built environment.



3454 Greer Road, ca. 1965. Source: Palo Alto Historical Association.

Valuing Eichler Neighborhoods in Palo Alto

Real estate developer Joseph Eichler established Eichler Homes in the late 1940s, a period of economic prosperity when many Americans sought new homes and comfortable lifestyles in suburban subdivisions. The promise of Eichler residences was a democratized ideal—an opportunity for middle class homeowners to live private lives in touch with nature. This was a notion codified in the English Garden City movement, promoted as an antidote to the increasingly congested and polluted conditions in urban centers. Progressive architects in 1920s Europe sought to provide healthful housing alternatives to urban workers with straightforward design formula—economic construction methods and minimalist aesthetics—that enabled good quality, affordable living space. During the post-World War II era in the U.S., rapid economic growth and federal subsidies brought the benefits of suburban life within reach of middle-income families.

Eichler Homes is noted for hiring distinguished and socially progressive California architects of the postwar period—including Anshen & Allen, Jones & Emmons, and Claude Oakland—to design affordable homes that were accessible to the middle class, using principles derived from the European Modernists

to produce good design at moderate cost. While relatively modest in scale, Eichler residences featured a modern architectural style, which conveyed the company’s belief that modern home design improved residents’ quality of life. Eichler homes are identifiable by their post-and-beam construction, striking roof forms with broad eaves, and simple material palette of wood and/or concrete block. The use of internal courtyards and full-height glazing at the rear helped to integrate homes’ interior and exterior spaces, taking full advantage of their California setting.

Joseph Eichler’s suburban developments are among the best of their era and signify the rise of a world-wide reputation for indoor-outdoor California living. Of the more than 11,000 residences constructed by his company throughout California, well over 2,000 are located in Palo Alto. Two of Palo Alto’s Eichler neighborhoods, Green Gables and Greenmeadow, are historic districts listed in the National Register of Historic Places. This designation indicates the nationwide importance of Eichler neighborhoods within the context of mid-century modern design, which has become an increasingly appreciated era in architecture history.

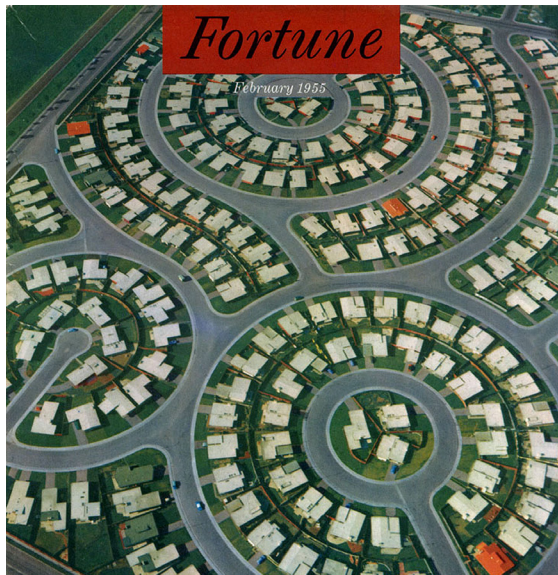
The City of Palo Alto has a rich and layered history that remains visible in its urban fabric. Palo Alto’s Eichler

neighborhoods represent the community’s physical development over time, as the city expanded south and east, and they contribute to a sense of place and identity. Sensitive stewardship and appreciation of the Eichler residential tracts is a priority to many who live in Palo Alto. While future development patterns and lifestyles no doubt will change, the city’s existing built environment represents a dependable, expressive connection to its past.

Design guidelines for protecting neighborhood character do not dictate that older buildings must remain exactly as they were in the past. Rather, contemporary urban planning allows places such as Eichler neighborhoods to evolve and meet new needs, while also retaining the characteristics that make them unique. In Palo Alto, these characteristics include aspects that promote livability—a sense of community, a consistent scale of development, architectural compatibility, and green landscapes. Maintaining these things allows Eichler neighborhoods to remain vital within their local economies and surrounding neighborhoods.

Sensitive and adaptive Eichler neighborhood planning enhances property values and reflects favorably on the values of the community: strong local identity, connection to history, neighborhood

cohesion over individualism, efficient floor plans, indoor-outdoor living, and commitment to a high quality of life. By retaining mid-century architectural design while promoting a degree of adaptability for contemporary living, Palo Alto can ensure that its cultural and architectural heritage continue to express the community's identity as it evolves physically and socially to include modified buildings and new families.



Aerial view of Fairmeadow neighborhood from the February 1955 issue of *Fortune* magazine.

Purpose of the Palo Alto Eichler Neighborhood Design Guidelines

The effort to develop the Eichler Neighborhood Design Guidelines was initiated in 2016, when the Palo Alto City Council directed staff to work with the community following a series of owner-initiated Single Story Overlay rezoning initiatives and state legislation on Accessory Dwelling Units (ADUs). In consideration of public input and the values described above, the Palo Alto Eichler Neighborhood Design Guidelines have been developed to respond to community concerns about growth and change within the Eichler neighborhoods. The purpose of this document is to supplement Palo Alto's existing discretionary review and zoning framework by establishing guidelines that manage change while also maintaining the qualities that are most important to the Eichler neighborhoods' character. The result of a collaborative process between the city staff and the public, this document forms an agreed-upon direction for how preservation and growth can occur in Palo Alto's Eichler neighborhoods. It is anticipated that the guidelines will have the added benefit of promoting Palo Alto's distinctive sense of place, to be enjoyed by the public at large.

The guidance provided in this document is intended to assist property owners, city staff, the design community, and the general public to sustain the architectural character of Palo Alto's Eichler neighborhoods and ensure that changes to the built environment will be sensitive to the community's design legacy. For example, Architectural Control Committees (ACCs), which are discussed later in this chapter, are encouraged to use the Design Guidelines in their review process to help guide discussion and decision-making.

The guidelines are only intended to address properties in Single-Family Residential (R-1) zoning areas. The guidelines do not address properties in Multiple-Family Residential (RM-15, RM-30, and RM-40) zoning areas even if built by Eichler.

The guidelines are designed to help the City of Palo Alto's Planning and Community Environment Department staff and review bodies in determining the appropriateness of proposed work, and to help building owners and project applicants make appropriate decisions during the design process. These guidelines aim to provide a clear framework for creating an attractive and integrated built environment for Palo Alto.

Frequently Asked Questions (FAQs)

The following "Frequently Asked Questions" were developed during the process of creating these Design Guidelines to address typical questions and concerns voiced by residents and homeowners in Eichler neighborhoods.

Are the Design Guidelines mandatory, and how will these Design Guidelines be used?

No, the Design Guidelines are voluntary. Since the Design Guidelines are voluntary, there is no "retroactive" application of the Guidelines. The City Council may amend Zoning Code Chapter 18.12 establishing staff use of these Guidelines (or a portion thereof) concurrently with the Individual Review Guidelines when reviewing new two-story homes and second floor additions. A Zoning ordinance amendment requires public hearings with the Planning and Transportation Commission and City Council. The Design Guidelines are meant to be used by homeowners when working on their home and offer advice on best practices for preserving and rehabilitating Eichler homes. The Design Guidelines may also be used by Architectural Control Committees (ACCs) during their review process.

My home is not an Eichler but I live across the street from an Eichler neighborhood or within an Eichler neighborhood. Will I be subject to the Design Guidelines?

Possibly. The voluntary Design Guidelines are meant only for Eichler neighborhoods and homes. If you are not in an Eichler neighborhood you will not be subject to the Design Guidelines. However, while your home may not be an Eichler, it may still be within an Eichler neighborhood, at which point it would possibly be subject to the Design Guidelines (see above question). Chapter 4, which addresses additions and infill construction as related to privacy, and Chapter 6, which addresses the streetscape and neighborhood cohesion, both apply to non-Eichler homes within Eichler neighborhoods; these chapters discuss topics related to the broader character and cohesiveness of the neighborhood.

Additionally, the Design Guidelines contain relevant information for any homeowner of a modern home which they may voluntary use.

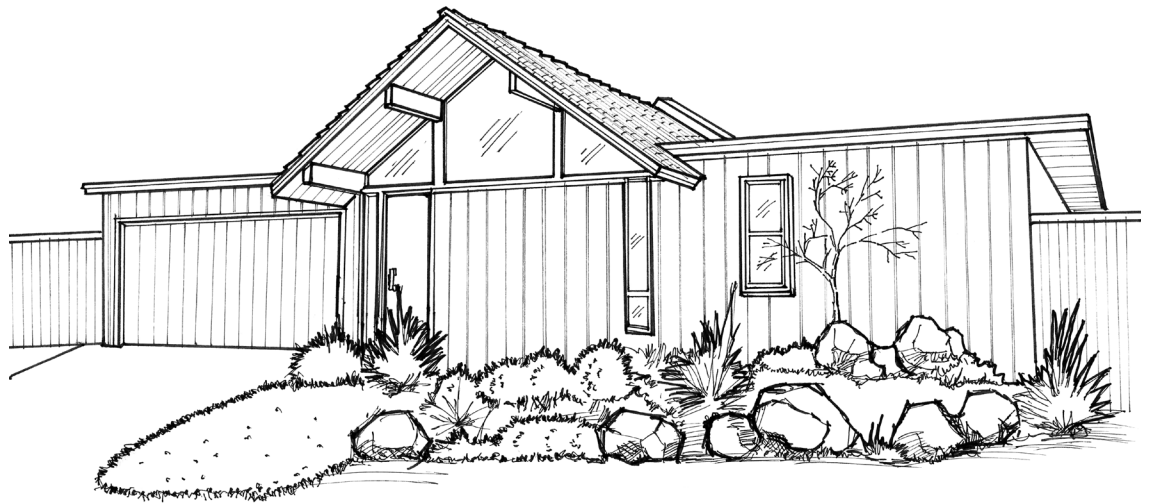
Will the Design Guidelines affect current SSO zoning?

No. The Design Guidelines do not, in any way, affect Single Story Overlay (SSO) zoning; nor do the Design Guidelines have any impact on the process for attaining or removing SSO zoning. SSOs are discussed in more detail later in this chapter, and additional information is available on the City of Palo Alto's website at https://www.cityofpaloalto.org/gov/depts/pln/new_projects/single_story_overlay.asp.

I love my Eichler! Where can I find more information about these homes?

For more information, check out *People in Glass Houses: the Legacy of Joseph Eichler*, a documentary that explores the history of Joseph Eichler and his Mid-Century Modern homes throughout the Bay Area. Paul Adamson's book *Eichler: Modernism Rebuilds the American Dream* contains beautiful historic photographs and drawings, as well as interviews and a detailed history of Eichler Homes and the history of the architecture, design, and construction methods that informed these unique homes. Also recommended is the *Eichler Network*, a rich online repository of information that is dedicated to supporting the lifestyle of the thousands of homeowners in Northern and Southern California who own an "Eichler" home.

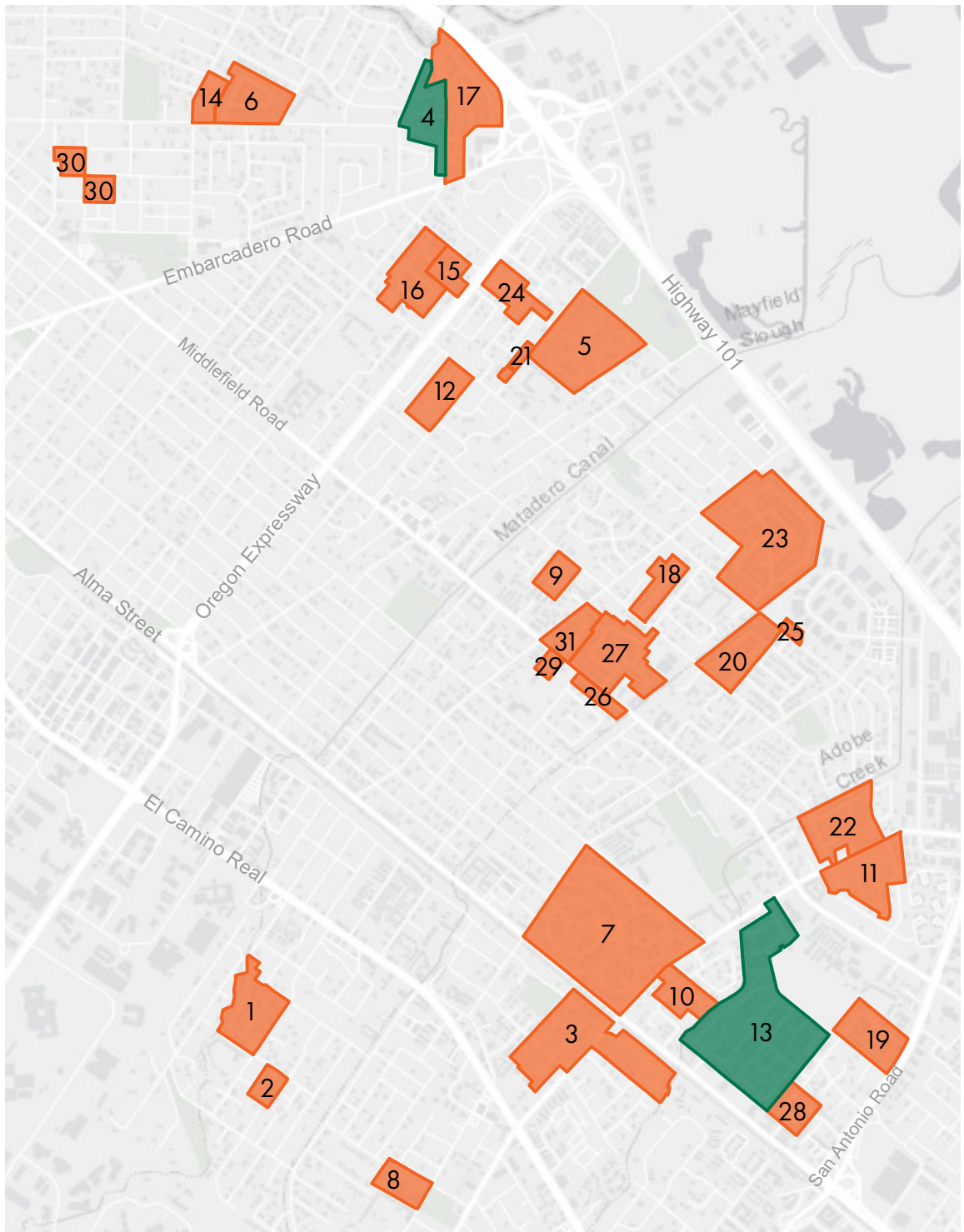
Eichlers have long been beloved by homeowners, but a recent resurgent interest in their long-term stewardship has resulted in numerous blogs devoted to sensitive renovations, as well as real estate agents, architects, and contractors specializing in Eichlers that can be found online.



PALO ALTO EICHLER TRACTS

- Eichler Tract
- National Register Historic District

ID	Tract Name	Year(s) Built
1	University Gardens	1949-1950
2	El Centro Gardens	1950
3	Charleston Meadows	1950-1951
4	Green Gables	1950-1951
5	Greer Park	1950-1951
6	Channing Park No. 1 & No. 2	1951-1952
7	Fairmeadow	1951-1954
8	Maybell Gardens	1952
9	Midfair	1953-1954
10	Walnut Grove	1953-1954
11	Charleston Gardens	1954
12	Fairpark	1954
13	Greenmeadow No. 1 & No. 2	1954-1955
14	Channing Park No. 3	1955
15	No Name (Blair Court)	1955
16	Triple El	1955
17	Edgewood	1956
18	Faircourt	1956
19	Greendell	1956
20	Faircourt No. 3 & No. 4	1957
21	No Name (Amarillo Avenue)	1957
22	Meadow Park	1957-1958
23	Royal Manor	1957-1958
24	Garland Park	1958
25	No Name (Louis Road)	1959
26	No Name (Middlefield Road)	1959
27	Los Arboles	1959-1961
28	Greenmeadow No. 3	1961-1962
29	Midcourt	1972
30	Community Center	1973
31	Los Arboles Addition No. 2	1974



Methodology

The Palo Alto Eichler Neighborhood Design Guidelines were prepared through collaboration with City of Palo Alto staff, members of the community, and historic architecture consultants. Page & Turnbull conducted a windshield survey of all Eichler tracts in the city in February 2017 to identify existing conditions, Eichler design typologies, and common alteration and infill development patterns. Additionally Page & Turnbull researched other cities throughout California to find precedents of design guidelines, regulatory ordinances, and single-story overlays that could inform the Palo Alto Eichler Neighborhood Design Guidelines.

A public workshop was held on April 11, 2017 to introduce participants to the project and seek input on values and priorities to be addressed in the Design Guidelines. A second public workshop was held on May 3, 2017 for residents and homeowners of the Greenmeadow and Green Gables National Register Historic Districts to elicit feedback related to properties in those neighborhoods. An online survey was made available on the City of Palo Alto's website from mid-April through the end of May 2017 to seek additional input from the community.

Following the workshops, the consultant began work on the first draft of the guidelines, which was submitted to the City for review in August 2017. City staff, in consultation with architects familiar with Eichler remodels, reviewed the administrative draft and provided comments. The consultant incorporated staff's comments into a public review draft, which was submitted to the City in November 2017. In the meantime, the consultant and Planning and Community Environment Department organized a summer film screening and memory-sharing event and produced walking tour brochures to promote public awareness of Eichler neighborhoods.

The City posted the draft guidelines online for public review and comment on November 9, 2017. An informational presentation was given to the Historic Resources Board on November 9, 2017. A presentation and public comments were received at a Historic Resources Board hearing on December 14, 2017. City staff reviewed and responded to the public comments that were received, and the consultant incorporated applicable comments into the final design guidelines to the extent feasible. After the public review period, a community workshop was conducted on January 18, 2018 to present how the public comments were incorporated into the draft guidelines. The adoption

process for the final guidelines involved public hearings by the Historic Resources Board on January 25, 2018, and City Council in April 2018.

For additional information on the mapping methodology, including data sources and the process of determining the boundaries of all the Eichler tracts in Palo Alto, see Appendix D: Mapping Methodology.

The design guidelines include a number of current and historic images of Palo Alto and Eichler homes. Many of the historic images were gathered from secondary sources, which are cited in the image caption. The inclusion of these historic images is intended to be consistent with the "fair use" policies of the U.S. Copyright Office, which states that reproductions used for "criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright."¹ This report has been prepared expressly as a public, educational document, and the inclusion of these images was deemed vital for illustrating historic events and development patterns for which few, if any, alternative images are available.

¹ United States Copyright Office, *Reproduction of Copyrighted Works by Educators and Librarians*, (Washington, DC: The U.S. Copyright Office – Library of Congress), Rev: 11/2009.

How to Use the Design Guidelines

The first three chapters of this document provide background information about the City of Palo Alto's existing regulatory process, the history and characteristic features of Eichler houses, and values expressed by the local community. The design guidelines in this document are arranged by chapters that address the range of potential approaches to a proposed project, beginning with a discussion in Chapter 4 of projects that may affect neighborhood character more broadly. The following Chapters 5 and 6 provide guidance and information for the maintenance of individual properties.

- **Chapter 4:** Respecting privacy within Eichler neighborhoods; architectural compatibility and neighborhood cohesion; new additions to existing Eichler homes; new home construction; and accessory dwelling units.
- **Chapter 5:** Preserving and restoring Eichler homes.
- **Chapter 6:** Promoting a shared landscape, streetscape, and sense of nature.
- **Chapter 7:** Guidance for National Register districts.
- **Chapter 8:** Process improvement suggestions and next steps.

Each of these chapters outlines broad design concepts that should inform the thought process behind project development. These concepts are organized by overarching community value, by feature or type of project, and then into specific guidelines that will assist with design decisions. The guidelines cannot anticipate every specific case that will arise, and it is possible that not all of the guidelines will apply to specific projects. Nevertheless, they represent design objectives that can be applied to many different situations and result in a project that is integrated into its Eichler neighborhood context. Each guideline is followed by additional and clarifying information in a bulleted list.

The flexibility of applicable guidelines is partially determined by the location of the proposed work within the city. For example, residents and homeowners of properties in the Greenmeadow and Green Gables National Register Historic Districts may consider a stricter interpretation of the guidance, particularly in Chapter 5, in order to maintain the eligibility of the historic districts' listing in the National Register. Owners of properties within Single Story Overlay zoning districts can disregard guidance related to two-story additions and new construction. The guidelines have been synchronized with the city's existing regulatory framework and review process, which are described in detail in the following section.

The Palo Alto Eichler Neighborhood Design Guidelines are advisory (voluntary), unless regulatory (zoning) changes are adopted by the Palo Alto City Council to impose them as a requirement.

See Chapter 8 for more on process improvement suggestions and the potential evolution of Palo Alto's zoning regulations.

Components of a Design Guideline

4.2 Repairing and replacing windows and doors.

The placement, type, and materials of windows and doors are important components of Eichler residences.

OVERARCHING CONCEPT, TYPE OF PROJECT, OR FEATURE OF THE BUILDING

STATEMENT EXPLAINING DESIGN OBJECTIVE OR GENERAL APPROACHES THAT APPLY TO ALL OF THE FOLLOWING GUIDELINES

4.2.1 Maintain and replace windows while respecting the design characteristics of Eichler Homes.

- Make efforts to retain the overall fenestration pattern that was original to a home. Generally speaking, this means keeping limited amounts of glass at the front façade, with expansive windows placed at the rear façade.
- Retain the original proportions and operability of windows within their openings, whenever possible. Do not divide windows into smaller units, since this has a visual effect. In particular, avoid dividing fixed clerestory windows and full-height rear windows.

DESIGN GUIDELINE ILLUSTRATING A PARTICULAR OBJECTIVE. OCCASIONALLY, ADDITIONAL IDENTIFICATION OF DESIGN PRIORITIES FOLLOWS THE GUIDELINE

CLARIFYING BULLETED LIST WITH SPECIFIC APPLICATIONS AND FURTHER INFORMATION

WHEN APPLICABLE, LINKS TO ADDITIONAL PUBLISHED INFORMATION ARE INCLUDED

For additional information on windows, see Preservation Brief 13, "The Repair and Thermal Upgrading of Historic Steel Windows" (NPS), <https://www.nps.gov/tps/how-to-preserve/briefs/13-steel-windows.htm>

Existing Regulatory Framework & Review Process

The City of Palo Alto has established a number of planning regulations and review processes that govern development projects in some or all of the Eichler neighborhoods. This section summarizes the City's existing Single-family Residential (R-1) zoning; Individual Review Process (IR) for new two-story residences and second-story additions; Single Story Overlay Combining Districts; Flood Zones; Conditions, Covenants, and Restrictions (CC&Rs) attached to some of the Eichler tracts; Architectural Control Committees that review projects in some of the Eichler tracts; National Register Historic District designation and project review; project review according to the California Environmental Quality Act; and accessory dwelling unit (ADU) legislation.

Process improvement suggestions, including project review for National Register districts, design review training, raising awareness of neighborhood Architectural Control Committees, and designation of additional National Register Historic districts are included in Chapter 8, which also includes a

discussion of potential future regulatory changes and planning documents being considered by the City of Palo Alto.

Single-Family Residential (R-1) Zoning

These Design Guidelines focus on Eichler neighborhoods located within R-1 single family residential districts as established in the City of Palo Alto Municipal Code (PAMC). R-1 zoning is intended to create, preserve, and enhance areas suitable for detached dwellings with open space that affords maximum privacy and opportunities for outdoor living and children's play. Minimum site area requirements are established to create and preserve variety among neighborhoods, to provide adequate open space, and to encourage quality design. Standards for development in R-1 districts are outlined in Chapter 18.12 of the PAMC and cover topics such as site development, parking, second dwelling units, accessory uses and facilities, basements, and review processes. The Zoning Ordinance Technical Manual for Single-Family Residential Zones (December 13, 2016) provides additional guidance regarding these standards for development.

Chapter 18.12 of the Palo Alto Municipal Code is located on the City of Palo Alto website: <http://www.cityofpaloalto.org/civicax/filebank/documents/8700>.

The Zoning Ordinance Technical Manual for Single-Family Residential Zones (December 13, 2016) can also be found on the City's website: <http://www.cityofpaloalto.org/civicax/filebank/documents/8569>.

Individual Review Process and Guidelines

According to PAMC Section 18.12.110, the construction of new two-story homes, new second story additions, and the expansion of existing second stories by more than 150 square feet in the R-1 single family residential district are subject to 'discretionary' review via Palo Alto's Single Family Individual Review (IR) process. New one-story homes and first-floor additions to non-historic homes are excluded (only a building permit is required).

Palo Alto Single Family Individual Review Guidelines established specific requirements relating to streetscape, massing, and privacy of new two-story homes and upper story additions within the R-1 zone district; however, the IR process is not a design review process, and does not prescribe specific architectural style.

The goals and purposes as stated in the *Palo Alto Single Family Individual Review Guidelines* are to: (1) Preserve the unique character of Palo Alto neighborhoods; (2) Promote new construction that is compatible with existing residential neighborhoods; (3) Encourage respect for the surrounding context in which residential construction and alteration takes place; (4) Foster consideration of neighbors' concerns with respect to privacy, scale and massing, and streetscape; and (5) Enable the emergence of new neighborhood design patterns that reflect awareness of each property's effect upon neighboring properties. This program is intended only to mitigate the effects of second story construction on neighboring homes.

Project applicants involved in the IR review process must follow the IR guidelines, which discuss basic site planning, neighborhood compatibility for height, mass, and scale; architectural form, massing and roof lines; visual character of street facades and entries; and placement of second-story windows and decks for privacy.

The *Palo Alto Single-Family Individual Review Guidelines* (June 10, 2015) are located on the City's website:
<http://www.cityofpaloalto.org/civicax/filebank/documents/6479>.

Single Story Overlay Combining Districts

The City of Palo Alto currently has Single Story Overlay Combining Districts that overlap with eleven Eichler tracts. Any property owner(s) within a neighborhood may submit a Single Story Overlay (SSO) Rezoning application. The municipal code requires evidence that 70% of property owners support rezoning at the time of application; in the case of a neighborhood having Covenants Codes and Restrictions restricting development to one story homes, the code only requires evidence of a 60% support level. When the application includes evidence supporting these required levels, staff is able to forward the application to the Planning and Transportation Commission (PTC), who conducts a public hearing on the matter. Once conducted, the City Council may issue approval, following a public hearing.

A Single Story Overlay Combining District may be combined with the R-1 single family residence district. For sites within a Single Story Overlay Combining District, the following site development regulations apply in lieu of the otherwise applicable site development regulations:

- (1) The maximum height shall be 17 feet, as measured to the peak of the roof; provided, in a special flood hazard area as defined in Chapter 16.52, the maximum height is increased by one-half of the increase in elevation required to reach base flood elevation, up to a maximum building height of 20 feet.
- (2) There shall be a limit of one habitable floor. Habitable floors include lofts, mezzanines and similar areas but exclude basements and exclude attics that have no stairway or built-in access. Lofts and mezzanines include any space above the first floor in excess of five feet (5') from the floor to the roof above.

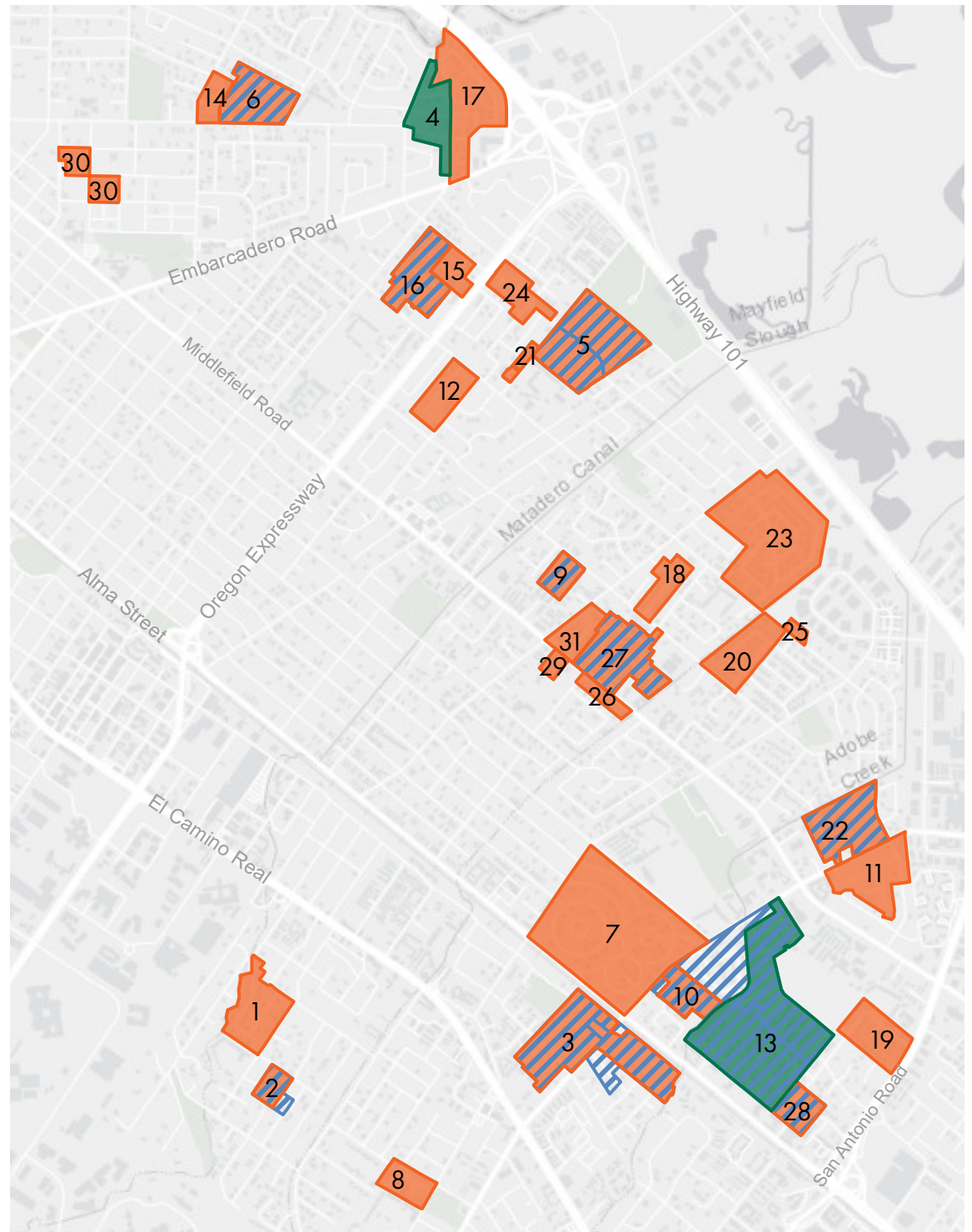
Single Story Overlay applicability and site development regulations are summarized in PAMC Section 18.12.100; the code section that describes the rezoning process is 18.80.035. <http://www.cityofpaloalto.org/civicax/filebank/documents/8734>.

Additional information about the Single Story Overlay application process can be found on the City's website: http://www.cityofpaloalto.org/gov/depts/pln/new_projects/single_story_overlay.asp

PALO ALTO EICHLER TRACTS & SINGLE STORY OVERLAYS

- Eichler Tract
- National Register Historic District
- Single Story Overlay Combining Dist

ID	Tract Name	Year(s) Built
1	University Gardens	1949-1950
2	El Centro Gardens	1950
3	Charleston Meadows	1950-1951
4	Green Gables	1950-1951
5	Greer Park	1950-1951
6	Channing Park No. 1 & No. 2	1951-1952
7	Fairmeadow	1951-1954
8	Maybell Gardens	1952
9	Midfair	1953-1954
10	Walnut Grove	1953-1954
11	Charleston Gardens	1954
12	Fairpark	1954
13	Greenmeadow No. 1 & No. 2	1954-1955
14	Channing Park No. 3	1955
15	No Name (Blair Court)	1955
16	Triple El	1955
17	Edgewood	1956
18	Faircourt	1956
19	Greendell	1956
20	Faircourt No. 3 & No. 4	1957
21	No Name (Amarillo Avenue)	1957
22	Meadow Park	1957-1958
23	Royal Manor	1957-1958
24	Garland Park	1958
25	No Name (Louis Road)	1959
26	No Name (Middlefield Road)	1959
27	Los Arboles	1959-1961
28	Greenmeadow No. 3	1961-1962
29	Midcourt	1972
30	Community Center	1973
31	Los Arboles Addition No. 2	1974



Flood Zones

The entire city of Palo Alto is in a flood zone of one kind or another, but most of the city is in an "X" zone, which the Federal Emergency Management Agency (FEMA) describes as an area either lying outside the so-called 100-year flood limit and inside the 500-year flood limit, or as lying within the 100-year flood limit but shallow enough to not represent a special hazard. The remainder of the city lies within Special Flood Hazard Areas (SFHA). There are three basic types of SFHAs in Palo Alto: areas where the flood waters are "ponded," with a somewhat level surface like a lake (AE zone); areas where water flows down a gentle slope up to two feet deep (AO zones); and the AH zones, which may be either.

The largest AE zone in Palo Alto is an area predicted to be flooded by extraordinary bay tides overtopping the levees around the Baylands and reaching a height of nearly 8 feet above sea level. This AE zone covers a large area generally from Middlefield Road to the bay. Some properties within this area have an elevation as low as 2.1 feet above sea level, meaning the predicted flood would be some 6 feet deep. The largest AH zone lies along a wide strip west of Middlefield Road from San Francisquito Creek to Hamilton Avenue and extending down to

the Embarcadero Road/Bayshore interchange and between Channing Avenue and Hamilton Avenue, and is subject to flooding by overflow from San Francisquito Creek; this was roughly the area of the disastrous flooding of February 1998. The next largest SFHAs lie west of the Southern Pacific/Caltrain tracks along Park Boulevard between Page Mill Road and Charleston Road. These areas are shown on the Flood Insurance Rate Maps (FIRM) published by FEMA.

As a community participating in the National Flood Insurance Program, Palo Alto is required to impose the federal rules regarding construction in an SFHA. These rules are spelled out in Section 16.52 of the Palo Alto Municipal Code and apply to "substantial improvement" and new construction in an SFHA, and to any improvement, no matter how small, to a structure in an SFHA built or "substantially improved" since February 15, 1980. (<http://www.cityofpaloalto.org/civicax/filebank/documents/2279>)

The lowest floor in an SFHA must be elevated above the flood level. This effectively prohibits basements, which are defined as any enclosed area below grade on all sides. Because of zoning requirements which limit building height and prohibit building beyond a specified "daylight plane," the need to elevate the

lowest floor may prevent the building of a second floor. Other provisions require openings in areas below flood level to allow water to enter and exit and the flood-proofing of utilities below the flood level.

The Eichler Neighborhoods Design Guidelines contains direction for construction in flood zones with regard to massing and height of additions, new construction, and detached ADUs, as well as window placement.

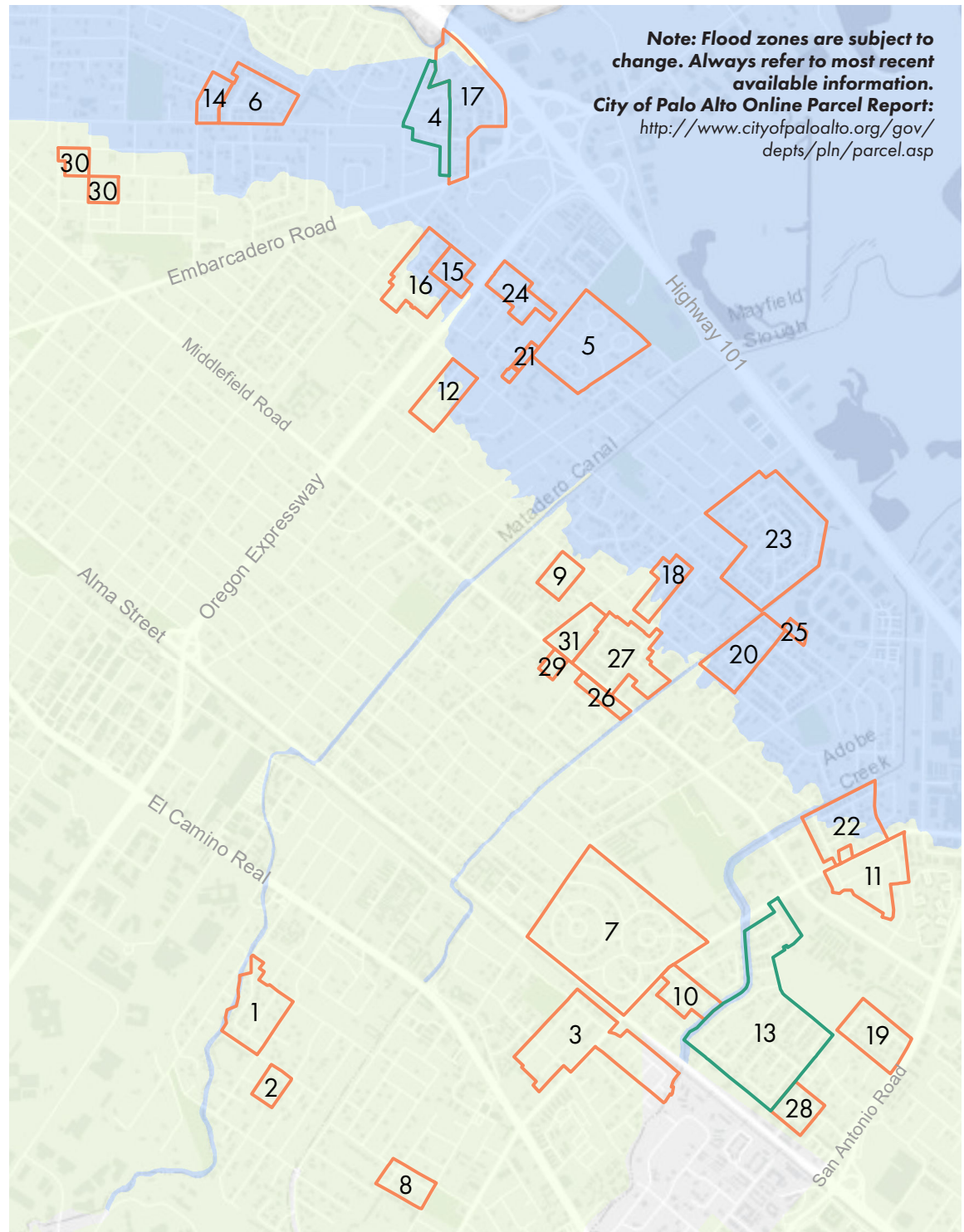
NOTE: FLOOD ZONES ARE SUBJECT TO CHANGE

Flood zones change over time and are periodically reassessed. To determine the specific flood zone that a property is in, request a parcel report on the City of Palo Alto's website:
<http://www.cityofpaloalto.org/gov/depts/pln/parcel.asp>

PALO ALTO EICHLER TRACTS & FLOOD HAZARD AREAS (November 2017)

- Eichler Tract
- National Register Historic District
- Flood Areas**
- Special Flood Hazard Areas (SFH)
- Zone X

ID	Tract Name	Year(s) Built
1	University Gardens	1949-1950
2	El Centro Gardens	1950
3	Charleston Meadows	1950-1951
4	Green Gables	1950-1951
5	Greer Park	1950-1951
6	Channing Park No. 1 & No. 2	1951-1952
7	Fairmeadow	1951-1954
8	Maybell Gardens	1952
9	Midfair	1953-1954
10	Walnut Grove	1953-1954
11	Charleston Gardens	1954
12	Fairpark	1954
13	Greenmeadow No. 1 & No. 2	1954-1955
14	Channing Park No. 3	1955
15	No Name (Blair Court)	1955
16	Triple El	1955
17	Edgewood	1956
18	Faircourt	1956
19	Greendell	1956
20	Faircourt No. 3 & No. 4	1957
21	No Name (Amarillo Avenue)	1957
22	Meadow Park	1957-1958
23	Royal Manor	1957-1958
24	Garland Park	1958
25	No Name (Louis Road)	1959
26	No Name (Middlefield Road)	1959
27	Los Arboles	1959-1961
28	Greenmeadow No. 3	1961-1962
29	Midcourt	1972
30	Community Center	1973
31	Los Arboles Addition No. 2	1974



Conditions, Covenants, and Restrictions and Architectural Control Committees

When Eichler tracts were first constructed, limits and rules called Conditions, Covenants, and Restrictions (CC&Rs) were developed by Eichler Homes to protect, preserve, and enhance the property values in the neighborhood. The CC&Rs accompany the title to houses in the Eichler neighborhoods, and generally aim to preserve the harmony of exterior design with existing buildings by providing guidance on floor areas, setbacks, and building heights. State law requires that buyers be given a copy of the CC&Rs for their tract when they purchase their house. The law also requires that the CC&Rs be made available for review by prospective buyers (Business and Professional Code Section 11018.6). The Eichler CC&Rs were enforceable for a period of 25 years from the date they were recorded (for example, in Greenmeadow, this would have extended from 1954 to 1979) and then automatically extended for successive periods of 10 years unless the majority of owners signed an agreement to change the CC&Rs in whole or in part.

The CC&Rs are not enforced by the City of Palo Alto Planning and Community Environment Department, but may be enforced by residents within neighborhoods

with CC&Rs. While all Eichler tracts likely originally had CC&Rs, many have been forgotten or are no longer adhered to. However, a few neighborhoods, such as Greenmeadow, Edgewood, and Charleston Meadows, have Architectural Control Committees (ACCs) composed of a group of neighbors that use their CC&Rs to guide review and recommendations for proposed projects in their tracts. The first ACC was established in 1950 by Joseph Eichler to enforce the CC&Rs for Charleston Meadows; that neighborhood reconstituted their committee in 2000 by a majority of support from the property owners in the tract. Neighborhoods that have active ACCs and legally binding CC&Rs enforce their approval or disapproval of projects in writing within 30 days after plans and specifications are submitted to the committee, according to procedural direction provided in the CC&Rs.

This Eichler Neighborhood Design Guidelines document supports and expands upon the Eichler tract CC&Rs, where appropriate and/or in adherence to current city planning code. It is anticipated that active ACCs will use the Eichler Neighborhood Design Guidelines in concert with their CC&Rs to review projects in their neighborhoods.

National Register of Historic Places – Historic Districts

The National Register of Historic Places (National Register) is the nation's most comprehensive inventory of historic resources. The National Register is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

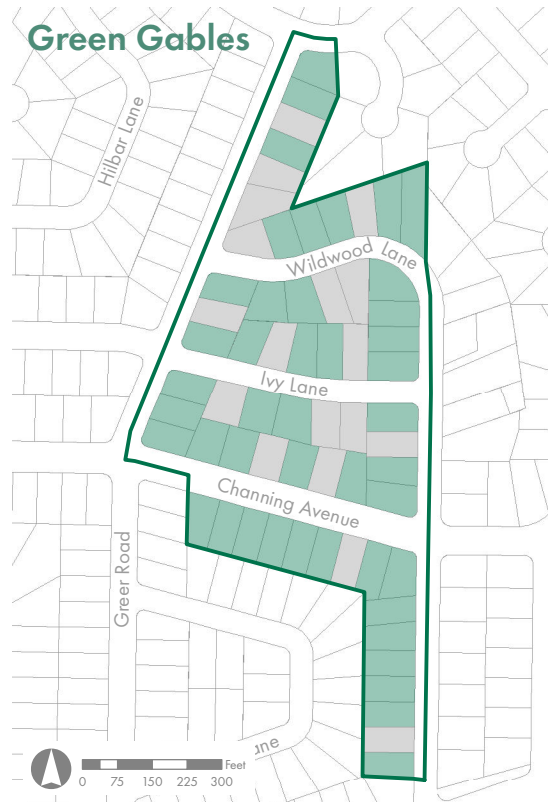
National Register criteria are defined in depth in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*, which can be found on the website of the National Park Service. <https://www.nps.gov/nr/publications/bulletins/nrb15/Index.htm>

Eligibility for listing for historic districts, just as for individual resources, is based on two factors: Criteria and Integrity. Criteria are a means of evaluating a resource's historical significance. In addition to embodying one or more of the necessary criteria, it is also imperative that the district have sufficient integrity. In the case of historic resources, integrity is defined as the physical characteristics which must be maintained in order to allow a resource to convey its historical significance.

In order for a property to be eligible for listing in the National Register, it must be found significant under one or more of the following criteria:

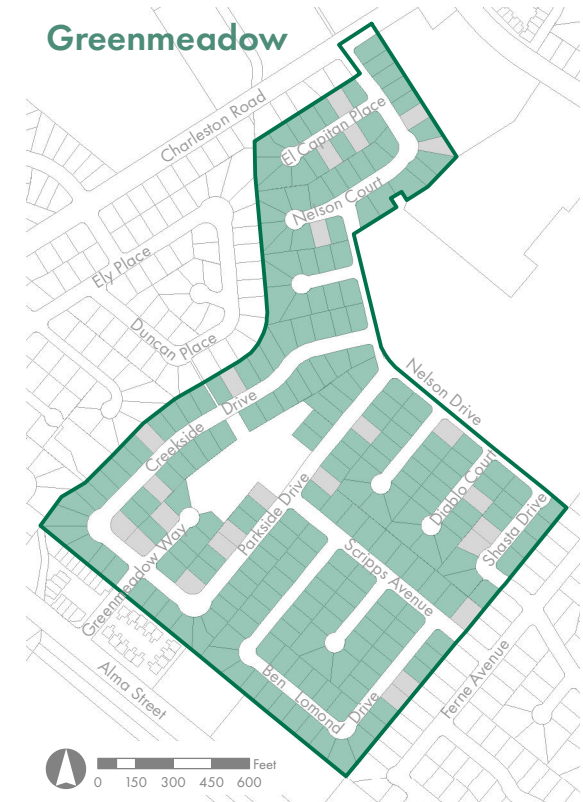
- **Criterion A** (Event): Properties associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B** (Person): Properties associated with the lives of persons significant in our past;
- **Criterion C** (Design/Construction): Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant distinguishable entity whose components lack individual distinction; and
- **Criterion D** (Information Potential): Properties that have yielded, or may be likely to yield, information important in prehistory or history.

Once a resource has been identified as being potentially eligible for listing in the National Register, its historic integrity must be evaluated. The National Register recognizes seven aspects or qualities



Historic District Contributors

- Contributor
- Non-contributor



Historic District Contributors

- Contributor
- Non-contributor

that define integrity. These aspects are: location, design, setting, materials, workmanship, feeling and association. In order to be determined eligible for listing, these aspects must closely relate to the resource's significance and must be intact.

Historic districts are a group of buildings which are not necessarily significant individually, but which are significant when grouped together. Resources within districts must work together to tell the story of their significance and must have distinguishable boundaries. Boundaries of a historic district are frequently defined by use (i.e. theater district), connection to an event (i.e. commercial district), or architectural style (i.e. Eichler district). Historic districts include both contributors and non-contributors, and not all resources need to be of the same historical or architectural quality. The district functions as a whole, and includes both contextual buildings and the stand-outs which help anchor a district.

The City of Palo Alto has four National Register Historic Districts, two of which are Eichler tracts: Greenmeadow and Green Gables, both of which were nominated by residents and listed in 2005. It is possible that additional Eichler tracts are eligible for listing. Regulations that involve National Register-listed properties are based in federal laws, particularly

the National Historic Preservation Act of 1966 and its enacting regulations. In general, National Register listing is an honorary act, though potential benefits include application for 20% tax credits for a sensitive rehabilitation of historic properties that are, or will become, income-producing, including rental units; and the California Historical Building Code, which provides alternative building regulations for historic properties undergoing rehabilitation. Historic resources that are listed in the National Register are automatically listed in the California Register.

PRESERVATION INCENTIVES: California Historical Building Code (CHBC)

The goal of the California Historical Building Code (CHBC) is "to save California's architectural heritage by recognizing the unique construction issues inherent in maintaining and adaptively reusing historic buildings. The CHBC provides alternative building regulations for permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a "qualified historical building or structure."

For more information, see:
http://ohp.parks.ca.gov/?page_id=21410

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) is state legislation (Pub. Res. Code §21000 et seq.) that provides for the development and maintenance of a high quality environment for the present-day and future through the identification of significant environmental effects. CEQA applies to "projects" proposed to be undertaken or requiring approval from state or local government agencies. "Projects" are defined as "...activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps." Historic and cultural resources are considered to be part of the environment. In general, the lead agency must complete the environmental review process as required by CEQA.

According to CEQA, a "project with an effect that may cause a substantial adverse change in the significance of an historic resource is a project that may have a significant effect on the environment." Substantial adverse change is defined as: "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired" (CEQA Guidelines subsection 15064.5(b)(1)). The significance of an historical

resource is materially impaired when a project “demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance” and that justify or account for its inclusion in, or eligibility for inclusion in, the California Register” (CEQA Guidelines subsection 15064.5(b)(2)).

A building may qualify as a historic resource if it falls within at least one of four categories listed in CEQA Guidelines Section 15064.5(a), which are defined as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must

treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852).
4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Pub. Resources Code), or identified in an historical resources survey (meeting

the criteria in Section 5024.1(g) of the Pub. Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Pub. Resources Code sections 5020.1(j) or 5024.1.

As explained previously, Greenmeadow and Green Gables are both National Register Historic Districts; as a result, they are automatically listed in the California Register. In the City of Palo Alto, CEQA review is triggered by the Planning and Community Environment Department discretionary review of projects. Discretionary review occurs when properties are listed in the city’s Historic Resource Inventory (created in 1979) per Palo Alto’s Historic Ordinance, or if the projects are subject to the Single Family Individual Review process, which reviews second-story additions and two-story new construction. The National Register Historic Districts are not currently listed in the city’s Historic Resource Inventory, and Eichler tracts with a Single Story Overlay do not trigger discretionary review. Since both National Register historic districts have Single Story overlays, they do not fall under the purview of CEQA review.

Accessory Dwelling Unit Legislation

Accessory Dwelling Units (ADUs), or Second Dwelling Units as referenced in the Palo Alto Municipal Code, are also commonly referred to as granny units, in-law units, or backyard cottages. Recent California State laws officially designate such units as Accessory Dwelling units. An ADU is a separate self-contained smaller living unit with bathroom and kitchen facilities located on the same lot as a single family residence. It can be either detached or attached from the primary residence with a separate entrance. ADUs are permitted in all residentially zoned districts, including the Single Family Residential (R-1) District.

ADUs can provide a number of benefits to a community. They provide housing options that may be more affordable. They provide opportunities for owners to rent out rooms to supplement income, and allow multi-generational families to live on the same property. If designed appropriately, ADUs create minimal impacts on neighborhoods, while providing much needed housing.

High housing costs, particularly in the Bay Area, have been the subject of much discussion. In response to this regional issue, Governor Jerry Brown signed three new laws, SB 1069, AB 2299 and AB 2406, in September 2016. The three laws are designed to encourage construction of ADUs by easing the regulatory burdens of existing local laws and removing barriers that have discouraged homeowners from constructing second units. The laws took effect on January 1, 2017. The City of Palo Alto's existing second unit regulations were subsequently updated to meet the new requirements. The areas of the Palo Alto Municipal Code that were updated to reflect the State laws include parking requirements, parking in setbacks, and minimum distance between the primary unit and ADU.

As part of the adoption of the ordinance to amend the Municipal Code provisions regarding ADUs, the Palo Alto City Council directed City staff to "return with potential Eichler design guidelines related to ADUs, including lower height limits." As a result, this Eichler Neighborhood Design Guidelines document includes guidelines related to ADUs, including placement of ADUs within the original house volume; placement of detached ADUs on the lot; and design guidance for attached and detached ADUs.

In addition, the updated Accessory Dwelling Unit (ADU) Ordinance No. 5412, Section 20 (PAMC Section 18.42.040) states:

(a)(9)(x) For properties listed in the Palo Alto Historic Inventory, the California Register of Historical Resources, the National Register of Historic Places, or considered a historic resource after completion of a historic resource evaluation, compliance with the appropriate Secretary of Interior's Standards for the Treatment of Historic Properties shall be required, as determined by the Planning Director.

Thus, ADU projects in the Greenmeadow and Green Gables National Register Historic Districts are subject to historic preservation design review.

For detailed guidance on projects involving Accessory Dwelling Units see Section 4.3.

For detailed guidance on projects involving National Register Districts see Section 7.1.

*2. Brief History of Eichler
Homes & Eichler Residential
Development in Palo Alto*

2. Brief History of Eichler Homes & Eichler Residential Development in Palo Alto

The post-World War II period was a time of dramatic transformation in many areas of the United States, and the Bay Area was no exception.¹ Across the country, speculative housing tracts were planned and built rapidly in suburban areas to accommodate a growing American middle-class consumer. Residential designs constantly adopted newly available materials, consumable goods, and aesthetic trends that promised to transform the lives of Americans for the better—to make living easier but also more fulfilling. California’s varied landscape and favorable climate formed an ideal setting for the suburban dreams many Americans harbored as the postwar era progressed.

No American real estate developer may have better embodied the forward-thinking and entrepreneurial

spirit of this period than Joseph Eichler. When Eichler began to build houses in the San Francisco Bay area in the late 1940s, he aimed to provide the highest quality of houses and amenities to a professional class who, in large part, had not been able to afford progressive architectural design in the past. Eichler’s company, Eichler Homes, marketed three important concepts—design, affordability, and community—to Californians for two decades. While Eichler was certainly not the only builder who held the principle that well-designed homes should be affordable and would provide many with a high quality of life, he enacted this principle at an impressive scale. Prolific throughout California, Eichler left a particularly striking imprint in Palo Alto. Eichler constructed over 11,000 homes during his career as a merchant builder. Of these homes, some 2,700 were located in Palo Alto—primarily in the city’s central and southern areas which were rapidly developing during the postwar period.

Joseph Eichler did not begin his career in real estate and he arrived at the profession of “merchant builder,” as the role was known in his day, only in middle age. Born in New York City in 1900, Eichler moved to California with his family in 1925 and he worked as a businessman in a traditional capacity. During the 1940s, however, a series of events led Eichler to reconsider his career. Along with his wife and children, Eichler lived for a period in the Bazett House, a Frank Lloyd Wright-designed residence in Hillsborough, California. This setting inspired Joseph Eichler to think about building affordable, well-designed homes, following in the tradition of Wright’s Usonian homes. Some of the Usonian design principles that inspired Eichler were relatively simple, and included overall building forms, slab foundations containing radiant heating pipes, and connectivity between the shared living areas at the center of the house.

¹ Unless otherwise noted, this chapter has been adapted from Paul Adamson and Marty Arbunich, *Eichler: Modernism Rebuilds the American Dream* (Salt Lake City: Gibbs Smith Publisher, 2002).

Joseph Eichler established his new real estate company in 1947 which was initially named the Sunnyvale Building Company. While at first Eichler built prefabricated houses, he soon brought on a draftsman to develop new house designs that were to be constructed as small tracts. One of the first neighborhoods built with these designs in Palo Alto was University Gardens in the southern part of the city. With wide overhanging eaves, shallow shed roofs, and box-like massing, the houses were identifiably Modernist—but only hinted at the design aesthetic that soon became Eichler’s calling card.

Joseph Eichler made a big leap at the very end of the 1940s when he felt he had gained enough experience in the real estate business to hire an architectural firm to devise new house designs for the mass market. He chose Anshen and Allen, a firm based in San Francisco. S. Robert Anshen and William Stephen Allen had met while studying on the East Coast, where they bonded over their interest in Modernist design at a time when it was still not widely taught in the United States. Anshen’s high regard for Frank Lloyd Wright made the firm especially well suited to the task of realizing Joseph Eichler’s dream of mass-constructed and well-designed homes.



Bazett House, Hillsborough, CA designed by Frank Lloyd Wright in 1940. Joseph Eichler lived in this home for a time during the early 1940s. Source: Pinterest, Utahstyleanddesign.com.

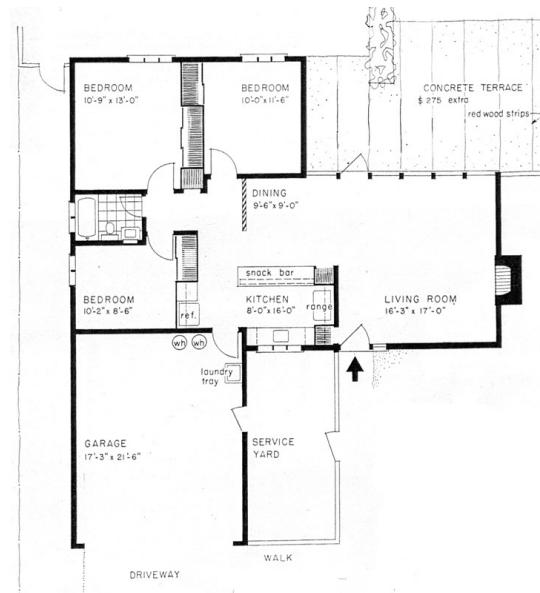
The firm’s first prototype design for Eichler Homes was known as the AA-1 which introduced some of the important design concepts that subsequently defined Eichler’s output. These included post-and-beam construction, a largely flat roof, full-height glass walls at a portion of the rear façade, an attached garage or carport, and a floor plan that combined the living and dining rooms at the center of the house. The AA-1 prototype served as the basis of house designs that Eichler constructed in several suburban subdivisions in 1950, including Sunnyvale Manor in Sunnyvale



Joseph Eichler, 1958. Source: Palo Alto Historical Association.

and Green Gables in Palo Alto. That year, a handful of similar floor plans were available—all containing three bedrooms and approximately 1,200 square feet. (The extensive use of exterior glass, however, made the homes feel larger.) Astonishing by current standards, these residences were priced in the range of \$10,000-\$14,000.² Veterans had the special privilege of paying extremely low down payments when they bought Eichler-built residences.

Eichler Homes' early residential tracts met with immediate popular and critical success. Many of the early homes sold quickly when they were put on the market and *Architectural Forum* awarded the five Eichler tracts built in 1950 the collective title of "Subdivision of the Year." The magazine especially applauded the early Eichler plans for their high quality of design, thoughtful site planning, and standardized construction approach that lowered costs while maintaining a level of aesthetic variety.³



AA-1 floor plan from Sunnyvale Manor, 1950.
Copyright © Anshen & Allen, Architects, Inc./Stantec
Architecture, Inc. All rights reserved.

2 "Tract Homes with a Tailored Look," *San Francisco Chronicle*, October 15, 1950, 1.

3 "Subdivision of the Year," *Architectural Forum*, December 1950, 80-85.

During the 1950s, Joseph Eichler quickly and efficiently reproduced his formula for success and built subdivision after subdivision in the Bay Area. Along the way, his home designs evolved, spurred by his hiring of Southern California architectural firm Jones and Emmons to supplement the contributions of Anshen and Allen. The two firms formed an unusual but ultimately effective partnership—which later grew to include Bay Area architect Claude Oakland, who at one time had worked for Anshen and Allen. Jones and Emmons's work was seen in neighborhoods like Greenmeadow, where in the mid-1950s the firm developed six models that buyers could adjust according to their needs. In addition to working with recognized modernist architects, Eichler also partnered with well-known modernist landscape architects such as Thomas Church, Kathryn Stedman, and Robert Royston of Royston, Hamamoto, Mayes & Beck, who designed walkways, concrete terraces, planter boxes, benches, fences, and paved patios for the front and backyards.

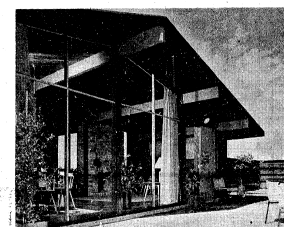
It is important to note that Joseph Eichler did not limit his interest to the designs and amenities of individual homes. Eichler neighborhoods were planned communities unto themselves—which the futuristic concentric circle street plan of the Fairmeadow

Eichler Homes eventually made it a company policy not to discriminate against any buyer based on their race or religion, which was quite notable for that time, as his policy preceded state and federal fair housing legislation. It led to disagreements between Eichler and others in his industry who held more socially regressive views. While the City of Palo Alto never legislated segregation, prior to state and federal fair housing legislation, individual housing developments often included racial covenants that prohibited ownership and residency by non-white residents. Additionally, the Federal Housing

As time went on, Eichler's architects designed larger floor plans that offered additional bedrooms and bathrooms than the 3:1 ratio offered in Green Gables. Claude Oakland even helped Eichler Homes develop two-story house designs, which are found in a few of Palo Alto's Eichler tracts. Into the 1960s, the company also built high-rise apartment buildings in San Francisco, some of which were constructed through the city's urban renewal programs. These large projects overextended the company, which filed for bankruptcy and closed in 1967. However, Joseph Eichler established J. L. Eichler Associates and continued to work as an independent developer. He died in 1974, and the last Eichler house was completed in Palo Alto on Guinda Street in 1975.

Joseph Eichler's response to the post-war housing crisis remains a legacy in Palo Alto and California.

EICHLER HOMES BUILDS THE SUBDIVISION OF THE YEAR!



ARCHITECTURAL BEAUTY at a modest price. Here's a picture of one of the nationally known Eichler Homes now being built in

**Home Design and Land Planning
Done by Well Known Architects**

The San Francisco architectural firm of Aronson and Atlas, known nationally and awarded for excellent design, has a new plan for the Erlichman House. Greater value and immediate income is the result. The house of families has been learned that living in an Erlichman house brings a whole new meaning to the word "home." The house is more convenient and more pleasant than houses of the many suburbs. It is a house that you can live in and not just build into an Erlichman House.

Many people have said, "An Erlichman House is the only place where you can live and not feel like a prisoner." It is a place where you can live and not feel like a prisoner. It is a place where you can live and not feel like a prisoner. It is a place where you can live and not feel like a prisoner.

An architecturally planned house of the type of an Erlichman House is the only place where you can live and not feel like a prisoner.

Careful site planning is another vital element of a new school, says an Eichler Homes executive. The new Eichler Homes subdivision in Palo Alto has been planned by Aschen and Allen to provide you with privacy and proper orientation for your own home, and to guarantee that you will have a neighborhood in which to live. You only have to look at the site map of this new subdivision to see the care and thought you will find in the Eichler Homes office.

Planting the land is just as important as planning the home. The Eichler Homes land planning is its recent article. Such planning and landscaping is a vital part of the design against fast, thorough thinking and gives you beauty and greenery in the entire neighborhood.

This new subdivision is situated in a new school and is convenient to shopping and public transportation and it's out of the way.

**"Architectural Forum,"
Top Building Journal,
Honors Peninsula Firm**

"Architectural Forum," the nation's leading journal of architecture and building, has named an Eichler Home as the new "best in class" construction in Palo Alto as the "Subdivision of the Year."

"Builder Joseph L. Eichler and architects S. Robert Allen and William S. Allen have given Palo Alto, California one of the handiest contemporary subdivisions in America," says the authoritative *Forum* magazine. (See illustration article about Eichler Homes in its current issue.)

The article tells of the scores of families which have recently bought Eichler Homes. "The achievement," says "Architectural Forum," is "another powerful demonstration of the selling power of the Eichler concept—designed skillfully and honestly by a capable architect-builder."

Describing how these Eichler Homes now under construction have a "sense of lightness and space" and how his plans for "creating a new human community" are embodied in the article tells builders and architects across the nation about many of the exciting features of these new California homes—features which have aroused great interest among home buyers throughout the northern part of the state for many months.

This is the third article which "Architectural Forum" has printed about Eichler Homes in the past year. A previous article about another Eichler Homes subdivision said, "Palo Alto had never seen anything like his [Eichler's] homes but it wasn't their novelty which sold them. It was the sense of space, privacy and freedom they offered and better-living space for the money than any other builder in the area. In short, he had a better product."

"House Beautiful" and "Ladies' Home Journal" Praise Eichler Homes

Within the past 60 days several other well known magazines and best known publications have told their readers about the beauty and convenience of an Eichler Home. Last November, "House Beautiful" devoted 7 pages to an illustrated story about an Eichler-built home. In this story "House Beautiful" said: "What have we been saying for so long? That Eichler Homes are the most beautiful home in order to have the things that count most toward real living value. Privacy, Climate Control, easy operation without servants—these are all matters of planning, not of money. And, quite frankly, the Eichler Home is 'House Beautiful' photographers just recently spent an entire day photographing one of the current Eichler Homes in Palo Alto for another article which will appear at an early date. And last November, also, "The New York Journal" and "The New York Mirror" devoted several columns to an article designed for looks and livability by leading architects, and

Article in San Francisco Chronicle that states "Home Design and Land Planning Done by Well Known Architects," January 14, 1951.

Eichler's Architects

Anshen & Allen

Although S. Robert Anshen and William Stephen Allen received their training in Philadelphia, the two architects made names for themselves in California and are closely associated with midcentury modern architecture on the West Coast. Drawn to California's more relaxed and experimental design culture, Anshen and Allen established their own firm in the Bay Area in 1940. During the following decade, Anshen and his wife Eleanor produced papers arguing that modern, mass-constructed home designs should incorporate the most recent technological innovations available and to integrate numerous building systems. Once hired by Eichler Homes, Anshen and Allen were able to realize these ideas, which were represented in their AA-1 prototype design.

The firm made a lasting imprint on California's suburban landscape through their work for Joseph Eichler. They were also hired to design modernist tract homes for John Calder Mackay, another merchant builder active in Palo Alto. Anshen and Allen completed many residential commissions but the firm is recognized for designing significant high-rise office tower design in urban settings. Two such

towers in San Francisco include the International Building (601 California Street, 1956) and the Bank of California Tower (400 California Street, 1967). Their output also includes the iconic Chapel of the Holy Cross in Sedona, Arizona (1946). Anshen and Allen was acquired by Stantec in 2010.



*Atrium of an Eichler home designed by Anshen & Allen.
Credit: Photograph by Ernest Braun.*



Bob Anshen (left) and Steve Allen (right) with a model of their design for the International Building (601 California Street, San Francisco), which was constructed in 1963. Source: Anshen & Allen Collection, College of Environmental Design Archives, University of California, Berkeley.

Jones & Emmons

Founded in 1950 and based in Los Angeles, the innovative partnership of A. Quincy Jones and Frederick Emmons explored new uses of materials and interior layout in the postwar period. Jones, who gained experience in several architectural offices before joining Emmons, is recognized as the primary driver of the firm's innovative design work. One of Jones's major accomplishments prior to forming his firm with Emmons was his design role in the Mutual Housing Association development in Brentwood, which consisted of 160 modernist homes constructed of concrete block and wood, with expansive walls of glass.

Soon after its founding, the partnership of Jones and Emmons was hired by Joseph Eichler to develop new house designs to supplement the work of Anshen and Allen. From that point until 1960, when Anshen and Allen moved on to larger scale civic and commercial work, the work of both firms was central to new Eichler subdivisions in Palo Alto and throughout California. While Eichler homes were characterized by wood post-and-beam construction, Jones and Emmons also gained attention for their use of steel frames and they developed a steel-frame model home—known as the X-100—for Eichler Homes

that was constructed in San Mateo. Their work also included the Laguna Eichler Apartments, constructed in the mid-1960s as a redevelopment project in San Francisco's Western Addition. Jones and Emmons's careers, however, remain defined by thousands of suburban residences that were built by Eichler Homes according to their designs. The partnership ended in 1969 when Emmons retired.

Eichler X-100 dining room showing exposed steel beams and table with center cooktop, 1956. Credit: Photograph by Ernest Braun.



Claude Oakland

Even though his was the third design firm hired by Joseph Eichler, Claude Oakland was involved in the real estate company's development projects nearly from the start. After graduating from Tulane University and training with architect Bruce Goff, Oakland joined Anshen and Allen in 1950 and oversaw many of the firm's designs for Eichler Homes during the next ten years. He played a critical role in simplifying the firm's residential designs in order to make them affordable for Joseph Eichler's intended middle class market. When Oakland formed his own firm, Claude Oakland & Associates, in 1960, he was immediately brought aboard Eichler's design team.

Oakland helped to expand the design vocabulary of the company's homes beyond the relatively simple roof forms that had defined Eichler tracts in the 1950s. Oakland introduced hipped roofs, gabled roofs with flat peaks, and gables positioned parallel to the street. Oakland relied on his relationship with Eichler Homes for work until Joseph Eichler's death in 1974. He subsequently formed a partnership with his associate Kinji Imada in 1977 and continued to work until his death in 1989.



Eichler Model L-154, designed by Claude Oakland in Los Altos, CA in 1968. Credit: Photograph by Ernest Braun.

Eichler's Landscape Architects

Thomas Church

Landscape architect Thomas Dolliver Church is celebrated today for his residential gardens and his role in the development of the “California style” of landscape design. He practiced landscape architecture in and around San Francisco for 50 years, from 1932 until his retirement in 1977. He was educated in landscape design at the University of California at Berkeley and at the Graduate School of Design at Harvard University.

Church’s career began during the Depression when he learned to create gardens that were formally restrained, utilized native species, and required little maintenance. His designs achieved a utilitarian purpose for his clients by stressing simplicity and function without sacrificing aesthetics. He promoted the idea of indoor-outdoor living, creating outdoor “rooms” in the landscape for relaxation and recreation that aligned with Joseph Eichler’s design ideals. In addition to designing the landscapes of individual Eichler model home properties, he also designed the landscape for Greenmeadow Community Center.

Church’s practice was largely focused on the creation of private residential gardens, for which he had built his reputation as a preeminent California designer. In addition to his residential designs, Church worked on a selection of large-scale landscapes throughout his career, including the master planning for the University of California at Berkeley and Santa Cruz.



Top: Greenmeadow: A Unique Palo Alto Community Since 1954 (undated brochure).

Bottom: Greenmeadow tract ca. mid-1950s. Source: Eichler Network, photograph by Russell Illig.

Robert Royston

Another of California's foremost modernist landscape architects, Robert Royston attended the University of California, Berkeley, and began his career in the office of Thomas Church in the 1940s. He partnered with Garrett Eckbo and Edward Williams from 1945 to 1958. After the partnership dissolved, Royston joined landscape architect Asa Hanamoto and David Mayes. Royston designed hundreds of residential gardens during his career, including many for Eichler Homes. He created prototypical layouts for the backyard spaces of Eichler properties, as well as designs for individual homeowners. His designs often consisted of rectangular and curved features, such as rectangular patio slabs and curved retaining walls or benches. He also focused on integrating the landscape and the home's interior.

During the time period that Robert Royston collaborated with Joseph Eichler, his firm was called Royston, Hanamoto, Mayes & Beck. The partnership ultimately developed into Royston, Hanamoto, Alley & Abey (RHAA) in 1979. Robert Royston worked until semi-retirement in 1998, and died in 2008. RHAA is still in existence and has offices in San Francisco and Mill Valley.

Kathryn Stedman

Palo Alto landscape architect Kathryn Imlay Stedman also worked with Joseph Eichler to produce landscape designs for his subdivisions. After graduating from Vassar College in 1922, Stedman embarked upon a career in merchandising in New York City, but shifted careers in the 1940s with additional study. She moved to Palo Alto in 1944 and joined Geraldine Scott, an established landscape architect.

In the 1950s, Joseph Eichler commissioned Stedman to design fencing, walkways, and planting schemes for one hundred homes. Her landscape work on an Eichler property was published in 1954 in *Life* magazine. In the late 1950s, she joined the faculty at Standard University and taught landscape architecture.

Top: Eichler home in Palo Alto designed by A. Quincy Jones with art and landscaping by Kathryn Imlay Stedman, published in Life, November 15, 1954.

Bottom: Mitchell Park in Palo Alto, adjacent Eichler's Fairmeadow tract, was designed by Robert Royston in 1958. Source: Robert Royston/RHAA Collection, College of Environmental Design Archives, University of California, Berkeley.

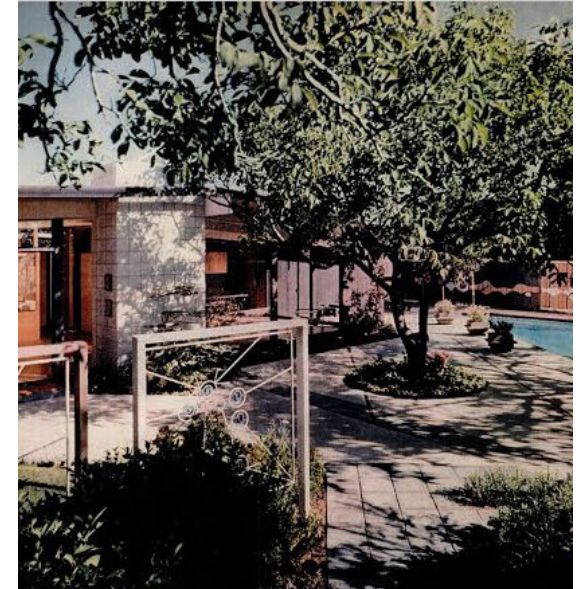


Table of Single-Family Eichler Neighborhoods in Palo Alto

Tract Name	Date of Development	Architect	# Lots*
Channing Park No. 1 & No. 2	1951-1952	Anshen & Allen, A. Quincy Jones	57
Channing Park No. 3	1955	Jones & Emmons	20
Charleston Gardens	1954	Jones & Emmons	79
Charleston Meadows	1950-1951	Anshen & Allen	158
Community Center	1973	Claude Oakland	30
Edgewood	1956	A. Quincy Jones	93
El Centro Gardens	1950	Anshen & Allen	16
Faircourt	1956		33
Faircourt No. 3 & No. 4	1957		50
Fairmeadow	1951-1954	A. Quincy Jones	300
Fairpark	1954		43
Garland Park	1958	Jones & Emmons, Anshen & Allen	35
Green Gables	1950-1951	Anshen & Allen	63
Greendell	1956		48
Greenmeadow No. 1 & No. 2	1954-1955	Jones & Emmons	244
Greenmeadow No. 3	1961-1962	Claude Oakland	27

Tract Name	Date of Development	Architect	# Lots*
Greer Park	1950-1951	Anshen & Allen	131
Los Arboles	1959-1961	Anshen & Allen, Jones & Emmons	84
Los Arboles Addition No. 2	1974	Claude Oakland	31
Maybell Gardens	1952		30
Meadow Park	1957-1958		75
Midcourt	1972	Claude Oakland	9
Midfair	1953-1954		22
Royal Manor	1957-1958		201
Triple El	1955	Jones & Emmons	68
University Gardens	1949-1950	Joseph Eichler with draftsman Castor	63
Walnut Grove	1953-1954	Anshen & Allen, Jones & Emmons	30
No Name (Amarillo Avenue)	1957		10
No Name (Blair Court)	1955		23
No Name (Louis Road)	1959		5
No Name (Middlefield Road)	1059	Claude Oakland	13

* Number of lots in each tract is based on GIS shapefiles provided by the City of Palo Alto. In Eichler neighborhoods one lot (or parcel) generally corresponds with one house, but this number does not necessarily reflect an exact number of homes in each tract.

Typical Characteristics of Eichler Residences

It may be difficult to generalize, given how many different designs are found in the thousands of Eichlers built in California, but there are several important similarities found among Eichler homes that distinguish them from surrounding neighborhoods that were constructed in the same era.

Construction Technique

One of the most characteristic aspects of Eichler homes is their post and beam construction method, built on a concrete slab foundation. “Post and beam” is a type of timber construction in which vertical posts and horizontal beams create a framework that carries both the floor and roof loads. The post and beam construction method can often be identified by the exposed rafter tails under roofs of Eichler homes. Eichler’s architects recommended this approach because of three primary benefits: houses could be built quickly one after the other, it offered a great deal of flexibility for the interior arrangement of spaces, and it allowed for large, uninterrupted expanses of glazing on the rear facades.



The post and beam construction method is evident in this photograph, 1950s. Credit: Photograph by Ernest Braun.

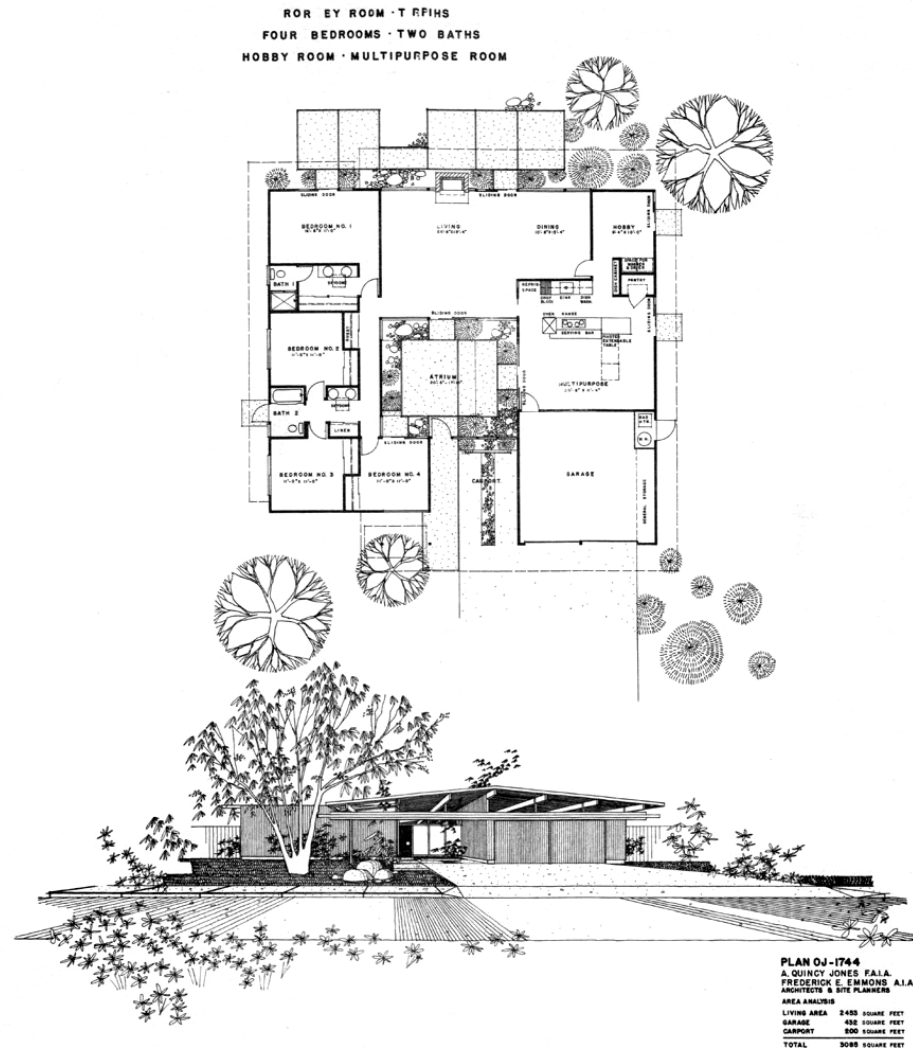
Form & Massing

Eichler homes are primarily one story in height and feature a horizontal orientation and box-like massing, with clean orthogonal or angular lines. Some tracts that Eichler developed later in his career, such as the Los Arboles Addition of 1972-1974, included two-story houses designed by Claude Oakland. Floor plans are often relatively square and organized around a center atrium, or U-shaped around a rear patio or front carport/courtyard entry. The houses were also carefully arranged by Joseph Eichler and his architects so that they uniquely fit each individual lot and so that windows do not directly face their neighbors, fostering a sense of privacy within each property.



Above: The center atrium is used as an entertainment space in this 1950s photograph. Credit: Photograph by Ernest Braun.

Right: Jones and Emmons floor plan for an Eichler tract in Orange County, showing representative square floor plan with center atrium. Source: www.eichlersocal.com



Roofs

The roofs of Eichler homes are also instantly identifiable. In any Eichler neighborhood, one sees a variety of roofs: often gables and flat roofs, but also combination roofs that incorporate flat roofs with shed roofs and provide an asymmetrical design. Slopes are typically quite shallow, often at a ratio of 3:12. However, there are certain examples of roof forms that are found only in particular neighborhoods, such as the chevron roof located in Greenmeadow. Other roof forms were developed in the early 1970s by architect Claude Oakland, such as center gable, turned gable, flat topped center gable, and hipped roofs in the Los Arboles Addition and Community Center tracts. Roofs are typically covered with visually flat materials such as tar and gravel or rolled roofing. Though relatively uncommon, shingled roofs are found on some Eichlers, such as in the Community Center tract.⁴



Eichler houses in Palo Alto feature a variety of roof forms: low-slope gable, flat, combination flat and shed, and chevron roofs are represented here.

⁴ All contemporary photographs were taken by Page & Turnbull in 2017 unless otherwise noted.

Cladding, Materials & Features

The original material palette on Eichlers was generally quite simple. The most common cladding material seen on exteriors is vertical, tongue-and-groove redwood board or scored redwood plywood—although there is no typical width of the boards or scoring; the Eichler catalogue contained many widths. In some cases, houses also incorporate concrete block. Original paint colors include earth tones with brighter colors for accent features, such as on lintels, exterior exposed carport beams, and/or doors. Other elements frequently seen on Eichlers include exposed roof rafters underneath extended eaves, which convey their post-and-beam structural systems, and wide fascia boards.

Fenestration

There is typically minimal glazing at the front façade, consisting of clerestory windows, which may be horizontally oriented or triangular-shaped at gable ends, with vertically divided plate glass. Primary facades also feature punched rectangular windows, oriented vertically or horizontally. Textured glass is occasionally used at atria and facing the street. Eichler houses distinctively feature full-height glazing at the rear, using large expanses of plate glass with vertical wood divisions. Windows typically are fixed in wood frames or sliders in aluminum frames.



Top: Eichlers typically feature vertical board siding, and some, like this example, also use concrete block.

Bottom: Eichler houses typically have a minimal amount of windows on the primary façade.



Top: A well-recognized Eichler house design features angled clerestory windows.

Bottom: Large windows at the rear of an Eichler home, 1950s. Credit: Photograph by Ernest Braun.

Entry Doors & Garage Doors

Original garage doors are typically clad in vertical wood board, often of narrow width, while original front entry doors are solid wood. Rear entry doors are typically fully glazed aluminum sliding doors, set within full-height window walls.

Carports & Garages

Viewed from the street, one of the most visible elements is the garage, which is always placed on the front façade but carefully incorporated into the roof form. Eichler homes may feature a two-car garage or one-car garage that is paired with a carport. In some of the neighborhoods, the carports lead to glazed walls that define a courtyard beyond.



Top: Garage doors are solid and clad in vertical wood board, similar or identical to the wall cladding.

Bottom: Eichler houses feature solid wood front doors.



Top: An Eichler home model with a carport.

Bottom: An Eichler home model with double garage.

Interior Plans & Features

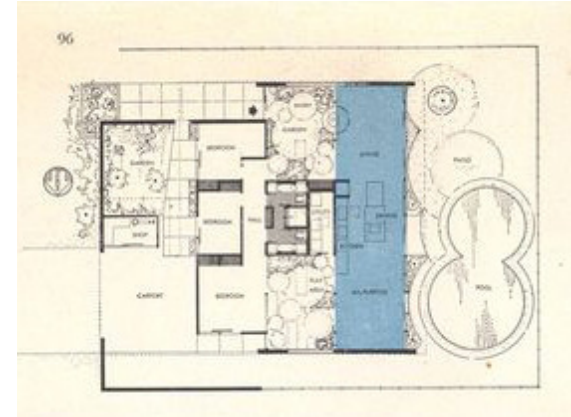
Eichler homes were unique at the time of their construction for their use of open floor plans with a living/dining room and a kitchen/multi-purpose room. Communal living spaces typically connect directly to the rear yard. There are typically three to four bedrooms. Radiant heating is embedded in the concrete slab flooring, similar to Frank Lloyd Wright's techniques with his Usonian houses. Walls often feature mahogany paneling.



Interior of 229 Ely Place, Palo Alto (perhaps a model home) with garden designed by Kathryn Stedman, ca. 1950s.
Credit: Photograph by Ernest Braun.



Photograph of the X-100 model. Source: Living for Young Homemakers magazine, February 1957.
Credit: Photograph by Ernest Braun.



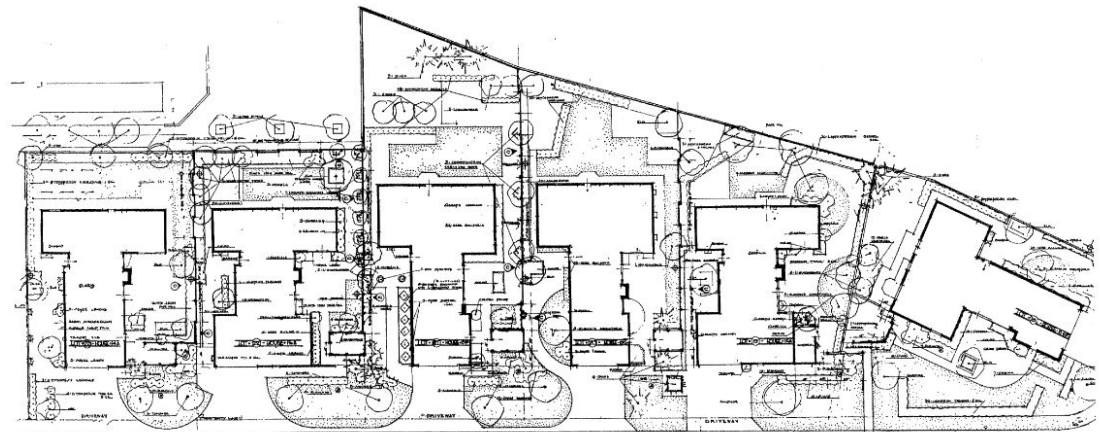
Floor plan of the X-100 model.
Source: Living for Young Homemakers magazine, February 1957.

Landscape & Streetscape Patterns

Eichler homes are typically placed on their lots with a consistent setback from the street. The topography is flat, and streets are often curvilinear rather than laid out on a strict grid. Streets feature a mature tree canopy with front yards that feature lawns and low groundcover, low shrubs, and a specimen tree or two. Paved driveways lead directly to the garage or carport, and walkways lead directly to the front entrance. Fences sometimes enclose the front courtyard and use vertical or horizontal wood. Rear yards may feature original concrete terraces, planter boxes, benches, and/or paved patios, designed using rectangular and curved lines by Thomas Church, Kathryn Stedman, or Robert Royston.



Front yards typically feature lawn or low ground cover, low shrubs, and/or a specimen tree or two.



Site plans on Parkside Drive in the Greenmeadow neighborhood, ca. 1953. Prolific modern landscape architect Thomas Church designed yard and driveway shape to be different. Source: A. Quincy Jones Architecture Archive, University of California, Los Angeles.

Diagrams of Typical Eichler Characteristics



Front Gable Eichler

While the many variations of Eichler designs are described above, the homes have some unifying character-defining features. These features include massing, roof form, siding, window type, orientation, and construction method.

Character-defining features may include, but are not limited to:

- One story in height
- Low pitched front-gabled roof, often at a ratio of 3:12
- Carport or enclosed garage
- Overhanging roof eaves and exposed rafter tails
- Exposed beams or braces under gables
- Clerestory windows under gabled roof
- Wood siding (often vertical)
- May include a concrete masonry unit (CMU) wall
- Entry door is often recessed or on the side (rather than the primary) façade





Flat Roof Eichler

While the many variations of Eichler designs are described above, the homes have some unifying character-defining features. These features include massing, roof form, siding, window type, orientation, and construction method.

Character-defining features may include, but are not limited to:

- One story in height
- Flat roof with or without overhanging eave
- No parapet
- Carport or enclosed garage
- Exposed rafter tails
- Exposed beams or braces under gables
- Clerestory windows above garage
- Wood siding (often vertical)
- Entry door is often recessed or on the side (rather than the primary) façade
- Sidelites next to entry door
- Entry courtyard or atrium





FLAT ROOF

SHED ROOF

OVERHANGING
ROOF EAVE AND
EXPOSED RAFTER
TAILS

WOOD SIDING

SIDELITE

CLERESTORY
WINDOW

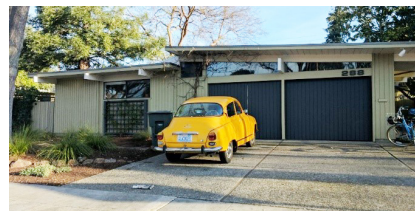
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Flat-with-Shed Roof Eichler

While the many variations of Eichler designs are described above, the homes have some unifying character-defining features. These features include massing, roof form, siding, window type, orientation, and construction method.

Character-defining features may include, but are not limited to:

- One story in height
- Low pitched shed roof over one bay, and flat roof over other bay.
- Carport or enclosed garage
- Overhanging roof eaves and exposed rafter tails
- Exposed beams or braces under gables
- Clerestory windows under gabled roof, and/or over garage
- Wood siding (often vertical)
- Entry door is often recessed or on the side (rather than the primary) façade





Flat-with-Gable Roof Eichler

While the many variations of Eichler designs are described above, the homes have some unifying character-defining features. These features include massing, roof form, siding, window type, orientation, and construction method.

Character-defining features may include, but are not limited to:

- One story in height
- Flat roof with steeply pitched gable roof over entry; may be front or side-gabled
- Carport or enclosed garage
- Overhanging roof eaves
- Exposed beams or braces under gables
- Clerestory windows under gable roof
- Wood siding (often vertical)
- Sidelites next to entry door
- Entry atrium



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3. Overview of Community Values & Concerns

3. Overview of Community Values & Concerns

Eichler neighborhoods can elicit strong feelings among community members. Some opinions are in conflict with one another, depending on whether residents appreciate the mid-century modern architectural style of their homes and neighborhoods and want to retain that character, or whether they desire freedom to make changes to their properties as allowed in the standard Planning code and review process. The Eichler Neighborhood Design Guidelines aim to provide voluntary guidance to address the concerns elicited by community members who appreciate their Eichler neighborhoods and want to retain cohesion and character while allowing for a degree of adaptability and change.

This chapter describes several broad values that have been expressed by community members regarding Palo Alto's Eichler neighborhoods: topics associated with maintaining a sense of community, retaining a sense of shared landscape and nature, respecting privacy, maintaining architectural compatibility and

neighborhood cohesion, allowing for the adaptability of Eichler houses in order to address needed upgrades and a contemporary lifestyle, and preserving the character of mid-century Eichler homes. The latter is particularly relevant to the integrity and continued eligibility of the Green Gables and Greenmeadow National Register Historic Districts.

*Greenmeadow Community Center.
Source: Greenmeadow Community Association*



Sense of Community

Eichler neighborhood residents are vocal in their appreciation for the sense of community that their neighborhoods engender. One resident stated that friends who visit are amazed that such a close-knit community exists and is not “a thing of the past.” While this trait may occur in some Eichler neighborhoods more than others, many residents described how their neighborhoods are family-friendly. Designed features in Eichler neighborhoods such as roundabouts and cul-de-sacs are traffic calming measures that allow children to play safely. Neighbors talk with each other and use shared spaces such as sidewalks and bicycle paths. The Greenmeadow neighborhood, in particular, includes a community center with a park, meeting room, and pool that promote interaction among neighbors. Several neighborhoods host block parties. One resident stated, “Eichler owners and residents are very social with each other. Members of our Eichler neighborhood meet twice a year for block parties, twice a year for solstice parties, monthly for book clubs, and daily for informal chat sessions. I have never lived in a place where the neighbors are more tightly connected and welcoming.” Other residents appreciate that their neighborhoods are diverse with multi-ethnic, multi-generational families.

Often, Eichler residents bond over a common interest or, at the least, the shared living experience of residing in an Eichler house. As one resident stated, “the common yet unique needs of our homes often bring neighbors together.” Another resident described living in an Eichler home as “an instant conversation starter” among neighbors.

Many residents who share an appreciation of the Eichler design aesthetic and/or the feeling of neighborliness also share a set of interrelated values, which include an appreciation for the modest style of living that Eichler homes embody. Despite the orientation toward the rear yard, the smaller homes and indoor-outdoor living designs have been described as promoting sociability on the street. For some, this ideology contrasts with the conspicuous consumption displayed in large new houses, which is one of the reasons that a number of Eichler residents are concerned about the construction of new houses in their neighborhoods that they view as out of scale with the original Eichler homes.



Family-oriented amenities include the Eichler Swim & Tennis Club, ca. 1996. Source: Palo Alto Historical Association.

Shared Landscape, Streetscape, and Sense of Nature

Shared landscape and a sense of nature contribute to the community environment in Eichler neighborhoods. Eichler neighborhoods possess a prominent tree canopy and pervasive greenery, which is characteristic of the City of Palo Alto as a whole. In the public sphere, the street trees and designed commons are valued assets. There are also few fences that divide front yards, which increases the sense of a shared landscape. Because of the entry atria and large walls of windows at the rear of Eichler houses, residents also feel a sense of connection with nature within their own homes —of light, trees, and sky that make the small lots feel bigger and promote indoor-outdoor living in a relatively dense suburban setting. There is a desire by most community members to maintain these qualities.

Privacy

A unique feature of the design of Eichler houses is that they feature large expanses of windows at the rear through which to view the house's outdoor space and sky. The houses were originally designed to promote privacy in the back yard by facing the windows of adjacent houses away from each other so that they could not easily see into their neighbors' homes and yards. The sense of privacy is highly valued by Eichler residents, as it contributes to a quiet and calm living environment. Consequently, a concern among many residents is that new construction or additions may impinge on their sense of privacy; second story additions, flood zone regulations that require houses to be built on a taller foundation, two-story new construction, or the construction of Accessory Dwelling Units have the ability to disturb the existing sense of privacy.



Privacy is designed into the open courtyards and rear patios of Eichler houses. Source: <https://www.houzz.com/eichler-remodel>

Modern Architectural Style, Architectural Compatibility, and Neighborhood Cohesion

While not all Eichler neighborhood residents care for the architectural style of their homes, many do appreciate the consistency and continuity of the design aesthetic across their neighborhood. Several community members describe the variety of Eichler typologies as being cohesive without being repetitive. Residents describe their appreciation of the open floor plan, large rear windows, low profile roofs, and indoor-outdoor living space in atria and backyards. One resident described Eichlers as a “uniquely California modern, indigenous style” suitable to the Palo Alto climate. There is a general consensus that the height and massing of Eichlers is important to the retention of a cohesive neighborhood. While new construction is considered acceptable by many, a modern/contemporary design vocabulary is favored over revivalist styles, and use of similar materials is favored, as well.

Adaptability

Residents commiserate about the maintenance issues inherent in Eichler design. Deficiencies include flat roofs which can be prone to leaks, foundations without crawl spaces, single-pane glass, lack of insulation, radiant heating that is inefficient, nonstandard siding, and carports instead of integral garages. There is a consensus that Eichler houses require updated systems that include energy conservation measures. Many also feel that Eichler homes need to adapt to contemporary lifestyle needs; for some, this includes the desire for additional square footage, which may be different than what Joseph Eichler anticipated when he originally developed subdivisions in Palo Alto. Thus, while some residents want to preserve their homes in a state similar to when they were constructed, others prefer to adapt their houses to their needs without considerations of architectural constraints.



Examples of Eichler houses that have been modified to a new architectural style.

Preservation

One value that was expressed by some community members is that their houses and neighborhoods are architecturally significant, and that they must be adapted in creative ways that allow for change while keeping the mid-century spirit. These residents consider architects such as Anshen and Allen, Jones and Emmons, and Claude Oakland to be master architects of the modern era, and that the homes they designed have historical and architectural value that is unique to a select number of cities in California. Thus, these residents place a greater value on conveying the original design by retaining original materials. For those people, Chapter 5 of the Eichler Neighborhood Design Guidelines provides guidance for repairs, replacement in kind, and other work on the exterior that are based on the National Park Service's *Secretary of the Interior's Standards for the Treatment of Historic Properties*. The historic preservation of Eichler houses is particularly important in the Greenmeadow and Green Gables Historic Districts, where maintaining the architectural character of the neighborhoods is paramount to remaining eligible for listing in the National Register of Historic Places.



Examples of Eichler houses that have been modified, but retain their mid-century character.

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4. Guidelines for Architectural Compatibility & Neighborhood Cohesion

4. Guidelines for Architectural Compatibility & Neighborhood Cohesion: New Additions to Eichler Homes, New Home Construction and Accessory Dwelling Units

Palo Alto's Eichler neighborhoods are cherished by many, but continue to evolve. The success of the Silicon Valley technology sector since the 1980s has brought countless new jobs to the San Francisco Peninsula—and as a result, Palo Alto and surrounding communities have seen population growth, increased prosperity and unprecedented demand for real estate. At the same time, some residents' desires for space and amenities in their homes are substantially different from what Joseph Eichler and his architects had anticipated when they developed house designs in the post-World War II period.

New additions to existing Eichler residences and new home construction in Palo Alto's Eichler neighborhoods are possible—and are even encouraged, when adequate thought and sensitive planning goes into each project. The guidelines contained in this chapter are intended to assist those planning new construction, so that they can meet their objectives in ways that do not detract from

the distinctive character of their neighborhoods. While the needs of individual homeowners and residents are important, their homes also belong to broader communities that were designed together as a unit. If planned without consideration of original neighborhood cohesion, the expansion of an existing residence or construction of a new home could affect its neighbors and streetscape. Fortunately, finding the balance between original Eichler neighborhood character and contemporary residential needs is an achievable goal.

In addition, privacy is a major concern for many residents of Eichler neighborhoods. The qualities that define Eichler homes help foster a peaceful suburban living experience, in which the expansive windows at the rear of a residence allow the interior to blend seamlessly with the exterior realm. Residents place a high value on the private space of their rear yards. The consistent one-story scale that was original to nearly all Eichler neighborhoods in Palo Alto allowed

residents to enjoy their homes with a low likelihood of being casually seen by their neighbors. The construction of new second-story additions and two-story homes within the neighborhoods, as well as the introduction of new first-story windows or one story Accessory Dwelling Units (ADUs), has the potential to disrupt the careful arrangement of homes that was planned by Joseph Eichler and his architects to protect the privacy of each family.

4.1 New additions to existing Eichler residences.

The majority of Palo Alto's Eichler residences were constructed as one-story buildings, and often contain a smaller amount of living space than the average contemporary homes of today. The repeated pattern of one-story homes throughout the Eichler tracts is one of their distinctive characteristics. The following guidelines will help residents and owners of Eichler homes to plan new additions that can both provide additional living space and support the harmonious neighborhood character that is appreciated by residents and visitors alike.

4.1.1 Identify potential privacy concerns early in the process while developing any project that introduces new windows and/or balconies. *(Note: Second story additions must also comply with privacy chapter in the IR Guidelines. Second story guidance not applicable to SSOs.)*

- Whenever possible, develop a project that avoids direct views into neighboring windows that may require additional privacy. These include bedroom and bathroom windows, as well as the large rear windows at living spaces that are typical of Eichler homes.

- Pay attention to exterior spaces that neighbors may use frequently, including courtyards, rear yards, and patios in other outdoor areas. Avoid new windows or balconies in these areas.
- It is preferred that second-story windows are placed at the front façade, where they do not face toward a neighbor's rear yard or into sensitive side windows. Front-facing windows have the least likelihood of causing privacy issues in Eichler neighborhoods.
- Recognize that even ground-level windows have the potential to encroach upon neighbors' privacy if not sensitively planned.
- Daylighting, if desired, can be provided using clerestory windows and skylights. Obscure glass can also be used for windows that promote privacy.



Two examples of successful one-story rear additions to existing Eichler homes. These examples add additional living space while preserving the valued indoor-outdoor connection of the rear yard and blend seamlessly with the original home. Source: Courtesy of Klopff Architecture. Copyright ©2017 Mariko Reed.

4.1.2 Design and place first-story additions on their lots in a way that conforms to the overall pattern of Eichler residences within the surrounding neighborhood.

- As a first course of action, explore opportunities to construct a first-story addition rather than a second-story addition. Because most Eichler residences were originally constructed with just one story, a first-story addition will generally be more successful in reinforcing consistency with the surrounding neighborhood, and will present fewer privacy challenges.
- Respect surrounding setbacks in the neighborhood when developing new first-story additions. Avoid planning a new front addition that projects substantially ahead of other residences within the surrounding block.
- Many Eichler models feature staggered massing at the front facade. If planning a front addition, maintain this general pattern by designing an addition that is staggered compared to the existing entry or garage.
- Design new first-story additions so that their roofs do not rise above the height of

the original residence. Additions should be equal to or subordinate to the primary house volume. See Guideline 4.1.6 for additional guidance on roofs.

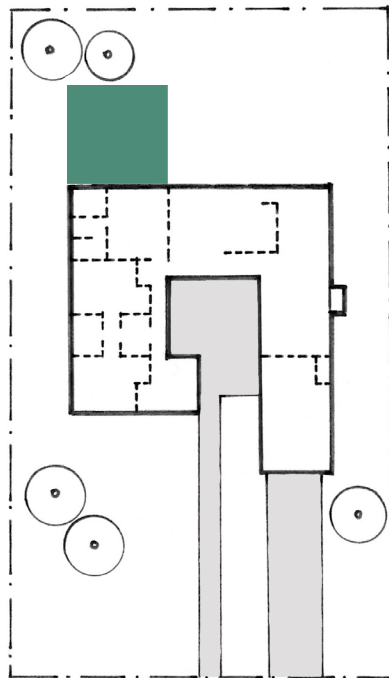
- Enclosing an existing atrium, courtyard, or carport is one design strategy that can provide additional living space without disrupting a home's overall massing through a new addition. Converting a home's garage may also be explored. Plan these types of alterations with care, ensuring that the enclosed feature supports the original modern style of the house.
- Where first story additions are constructed in flood zones, it is important to explore strategies to minimize the perceived height of the residence, such as through a flat or low-sloped roof.

For additional guidance in determining front, rear, and side-yard setbacks and the allowable lot coverage, see Palo Alto's "Zoning Ordinance Technical Manual for Single Family Residential Zones" (December 13, 2006), <http://www.cityofpaloalto.org/civicax/filebank/documents/8569>.



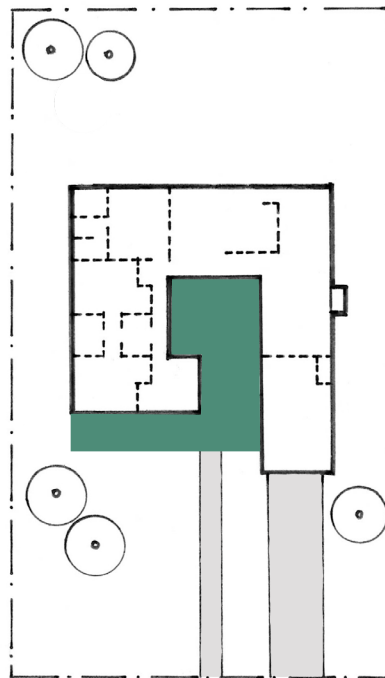
Two examples of successful single-story front and side additions to existing Eichler homes. These additions are excellent examples of additions that are inspired by the modern aesthetic of Eichler homes, while still being distinctly contemporary. Windows are also sensitively configured to avoid privacy intrusions. Source: Courtesy of Klop Architecture. Copyright ©2017 Mariko Reed.

· — · lot line
 possible addition opportunity area



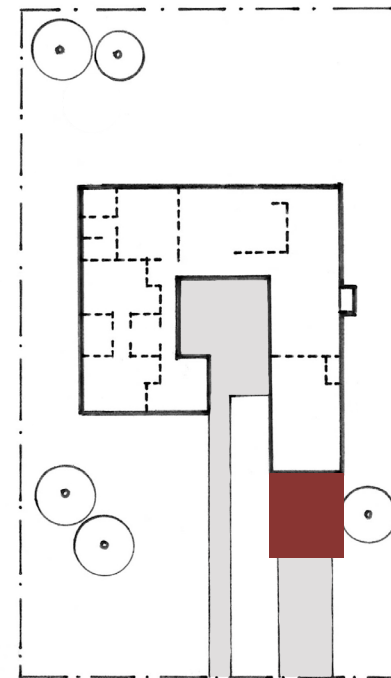
Possible opportunity area of a rear addition to an existing Eichler. The placement preserves the important indoor-outdoor connection of the shared living space.

· — · lot line
 possible addition opportunity area



Possible opportunity area of a front addition to an existing Eichler. The placement maintains the staggered massing of the front facade which is a characteristic of Eichler neighborhood streetscapes. A front addition may also include the enclosure or conversion of an atrium or courtyard into interior living space.

· — · lot line
 possible addition opportunity area



The location and size of this front addition is not recommended because it extends out substantially past the surrounding homes and disrupts the overall setback pattern of the neighborhood.

4.1.3 Adding a basement requires a complex approach due to the existing concrete slab foundation.

- If considering adding a basement, only pursue this option in Eichler neighborhoods that are not in flood zones (see Chapter 1).
- Since the existing concrete slab foundation will need to be demolished, temporarily brace the house structure, lift the house, and install a conventional foundation and basement underneath it.
- If a basement is added, residents should be aware that it may result in a house that is visibly taller than its neighbors. In these cases, it is especially important to explore strategies for minimizing the perceived height of the residence, such as establishing the new entry level as low to the ground as possible. Use lightwells rather than clerestories to provide daylight to the basement level.
- See Section 5.5 regarding the installation of new heating and cooling equipment, since the radiant heating in the original floor will be removed.

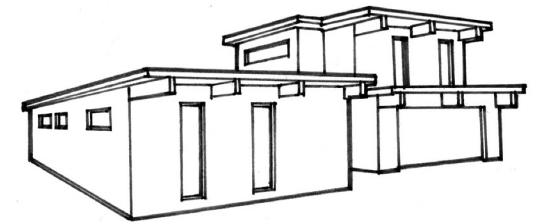
4.1.4 Second story additions are generally discouraged. However, if a homeowner chooses to build a second-story addition, place it in a way that reduces impacts on the neighborhood and surrounding properties.

(Note: Second story additions must also comply with privacy chapter in the IR Guidelines.

Second story guidance not applicable to SSOs.)

- Set second-story additions back from façades that are nearest to neighboring properties (generally, side façades).
- Setbacks from the front façade will help to minimize an addition's appearance from the street.
- Avoid adding windows that allow views into neighboring rear yards.
- On residences that have a composite roof form (i.e., a shed-roofed portion and flat-roofed portion), it is preferred that a second-story addition is placed on only one of the roof portions

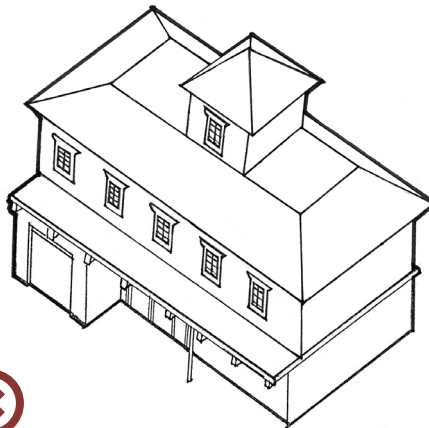
- It may not be appropriate to construct a second-story addition on Eichler residences with certain roof forms. Examples include roofs with more steeply pitched center gables (both street-facing and side-facing), which are located in neighborhoods such as Community Center and Los Arboles Addition.



A successful second-story addition to an existing Eichler home using the same flat roof form, post-and-beam construction and similar window forms. The addition is set back from the front facade to make the addition subordinate to the original home. To address privacy concerns, larger windows are located on the front facade, and windows on the side facades are clerestory windows, which allow in light but are above the occupants' eye-line.

4.1.5 Use a construction technique and architectural style for a new addition that is compatible with, but does not directly imitate, the original residence and surrounding homes.

- Develop the designs of additions using post and beam construction. This strategy will assist in creating a façade composition, modern style, and fenestration pattern that are compatible with the original residence as well as surrounding homes.
- Avoid box-like second floor additions that look like they are stacked on top of the original house.
- Design new additions with an architectural style that takes cues from the mid-century modern aesthetic, so as to be compatible with the original character of Eichler residences. The appropriate style is defined by simplicity of lines, absence of decorative features, and a focus on façade composition.
- Historicist or revival architectural styles (for instance, Mediterranean Revival) are not appropriate for additions to Eichler residences that are characteristically modernist in aesthetic.



This second-story addition is designed in an inappropriate historicist style.

4.1.6 Design the roof form of a proposed addition to relate closely to the roof form of the original residence.

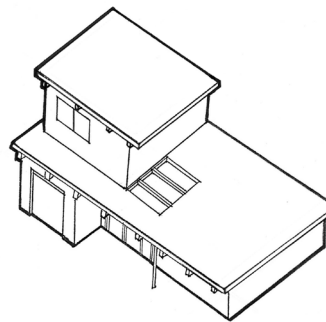
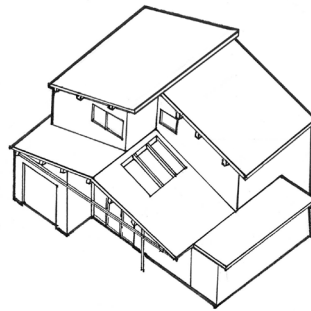
- When developing the design of a new addition to an Eichler home, the most appropriate strategy is to employ the same roof form as was used for the original residence.
- Generally, low slopes are appropriate, in keeping with the designs of original Eichlers. Avoid using steep pitches. Consider using a 3:12 slope, which is found on many gable- and shed-roofed Eichlers.
- Arched roof forms are not appropriate in Eichler neighborhoods.
- For first-story additions, attempt to make the roof of an addition continuous with, or an extension of, the original roof form. This strategy helps to maintain the unified visual impression and massing of the residence, rather than creating a disjointed appearance.
- When an original atrium or courtyard is enclosed, the new roof form can rise slightly above the original roof level. It is especially important in these instances that the roof of

the enclosure match, or be compatible with, the surrounding original roof form.

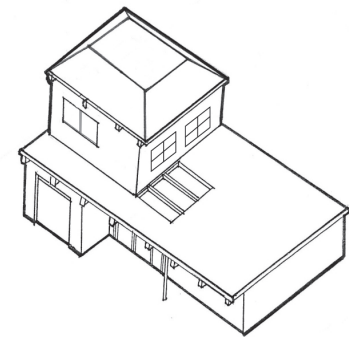
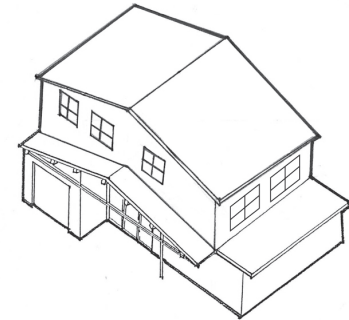
- If the roof of a first-story addition differs from the roof form of the original residence, a flat roof may be the most appropriate strategy that will not complicate the design of the home.
- The roofing material used on an addition should be similar to that found on the original home. Standing-seam metal is not appropriate for Eichlers.

4.1.7 Cladding materials selected for an addition should be compatible with the materials found on the original residence, though they should not replicate the original materials exactly.

- Attempt to use a similar cladding on an addition as was originally found on the primary volume of a residence. Selecting an appropriate cladding material involves considerations of material, dimensions, and profile (as in vertical wood board). Slight differences in dimensions and profile are desirable so that the addition is compatible but clearly not original.



Examples of appropriate addition setbacks, roof forms, and windows for second-story additions. Note that windows on the second-story addition are on the front facade to address privacy concerns with neighboring properties.



Examples of inappropriate addition setbacks, roof forms, and windows for second-story additions. Note that the side windows on these second story additions may cause undesirable privacy intrusions on neighboring homes. The windows also feature proportions and divided-lites which are not compatible with Eichler homes.

- In general, materials that have less complicated visual or textural character are most appropriate for new additions.
- Avoid selecting cladding materials for an addition that contrast strongly to the original material palette developed by Eichler Homes. During the design process, consider visual effect and profile. Stone, brick, wood shingles, stucco, and horizontal siding with a sawtooth profile are not appropriate for new additions to Eichler residences.

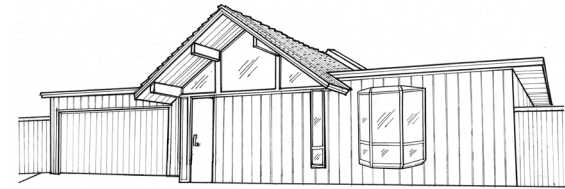


Second story addition at the rear with vertical wood siding that is similar to, but does not directly copy, the cladding of the original portion of the Eichler house.

4.1.8 The design and placement of new windows on additions should reflect the proportions and patterns that were originally developed for Eichlers.

- For additions, use rectangular-shaped windows except for clerestories located within gables. When post and beam construction is used, the building structure will provide natural divisions among window units.
- Full-pane glass is most appropriate for Eichler homes. Divided-lite windows with small divisions, or simulated divided-lite windows, are not appropriate.
- Avoid using projecting bay windows, particularly angled bay windows.
- Design windows on new additions according to a clear and logical organizational pattern, rather than appearing randomly assigned.
- Consider the exterior compositional effect of windows, rather than simply the interior functions.

- Be considerate of neighbors' privacy when making decisions about the location of new windows. Even windows on single story additions may have an impact on neighbors' privacy.



Avoid using projecting bay windows on Eichler homes, which are not compatible with the flat modern facades.

4.2 New home construction within Eichler neighborhoods.

Opportunities to construct new homes within Eichler neighborhoods may exist in Palo Alto. While very few parcels within these neighborhoods are vacant, in some cases it may be appropriate to replace a residence that is not an Eichler and was constructed at a later date. In these instances, special attention should be paid to developing a new house design that is compatible with the architectural character of the surrounding neighborhood, since incompatible infill construction can easily disrupt the coherent aesthetic patterns that make up Eichler neighborhoods. A new house design should incorporate carefully selected materials with a compatible architectural style and building form. While the identical replication of original Eichler designs is not necessary to achieve compatibility or even appropriate, those interested in building a home should look to original Eichlers for inspiration and design guidance. The following guidelines present a variety of issues that should be considered when developing a new house design that is compatible with an Eichler environment.

4.2.1 Place a new residence within its lot so that it conforms to the streetscape pattern of the surrounding neighborhood.

- Each Eichler neighborhood was designed as an integrated unit and original Eichler homes have the same front setback as their neighbors. Design a new home so that it has a similar setback as the Eichler homes on its block.
- In most cases, face a new home in an Eichler neighborhood directly toward the street and not turned at an angle on its lot, in order to reinforce the pattern of repetitive residential façades. This is especially important for rectangular lots. Exceptions may occur at the ends of cul-de-sacs or at locations where a street curves and the parcel is not rectangular.
- Large raised porches at the front of residences are not appropriate in Eichler neighborhoods, as front yards are visually shared while private living space is located at the rear.
- **See Palo Alto Single-Family Individual Review Guidelines for further guidance;** specifically, Guideline One – Basic Site Planning: Placement of Driveway, Garage and House.

4.2.2 Develop a new house design with an appropriate massing and height that blends well with the surrounding neighborhood.

- Place as much interior living space on the first floor of a home as possible, using a footprint that spreads across the lot. Explore whether homeowner needs can be met with just one story, as an alternative to constructing a two-story house. This strategy will assist in creating a compatible horizontal orientation.
- For new house designs, employ simple massing techniques made up of a relatively few rectangular and box-like forms with one or two roof forms. The overall house mass should appear as a unified form, rather than diverse attached components.
- Design new houses with an even façade plane at the front façade, rather than incorporating projections towards the street that complicate the massing and roof form.
- In neighborhoods that are not in flood zones, design new residences so that the floor level heights conform to those of surrounding Eichler residences.

- In flood zones, residents should be aware that building to the greater allowed height may result in a house that is visibly taller than its neighbors. In these cases, it is especially important to explore strategies for minimizing the perceived height of the residence, such as through a low-sloped or flat roof.
- **See Palo Alto Single-Family Individual Review Guidelines for further guidance;** specifically, Guideline Two: Neighborhood Compatibility for Height, Mass and Scale.



Examples of new houses in Eichler neighborhoods that feature appropriate massing, height, and roof forms to be compatible with the surrounding neighborhood.

The *Palo Alto Single-Family Individual Review Guidelines* (June 10, 2015) are located on the City's website:
<http://www.cityofpaloalto.org/civica/x/filebank/documents/6479>.



Existing Eichler



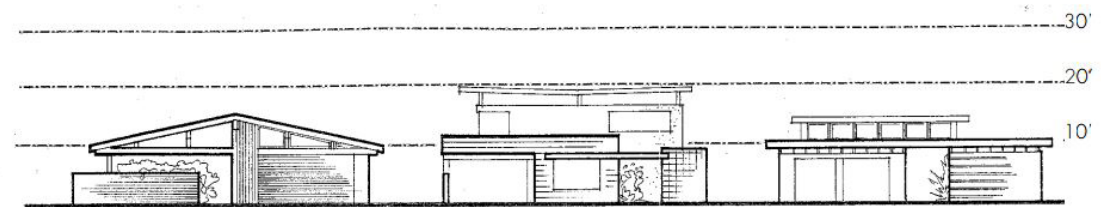
Incompatible Infill

Existing Eichler

The new house in the middle is flanked by two Eichler houses on either side. The new house does not feature appropriate massing, height or roof forms that are compatible with the surrounding neighborhood. Additionally, the historicist style is not appropriate for the Eichler neighborhood.

4.2.3 Employ a modern architectural style and appropriate construction technique that relate to original Eichler residences.

- Eichler neighborhoods are clearly defined by a modernist aesthetic. Use contemporary or modern architectural styles for new homes, incorporating simple massing and roof forms, a restrained level of detail, and straight rather than curved lines. Add to the rear of the property when possible, rather than encroaching on side or front façades.
- Historicist architectural styles (such as Mediterranean Revival, Colonial Revival, and Neo-eclectic) are not appropriate in Eichler neighborhoods.
- Create a home's visual interest through high-quality materials, as well as through the placement of windows and doors for a balanced, compositional effect. Avoid using complex detailing.
- Consider employing post and beam construction, as this construction technique characterizes original Eichler homes and will assist with compatibility.



Existing Eichler



Compatible Infill

Existing Eichler



Existing Eichler



Compatible Infill

Existing Eichler

The new house in the middle is flanked by two Eichler houses on either side. The new house features appropriate massing, height or roof forms that are compatible with the surrounding neighborhood. Additionally, the contemporary style is appropriate for the Eichler neighborhood. Source: Palo Alto Single-Family Individual Review Guidelines (June 10, 2015).

4.2.4 Base roof forms and materials for new homes on precedents found on surrounding Eichler homes.

- Relate the roof forms of new houses to those belonging to original Eichler designs, particularly those in the immediate neighborhood. Generally speaking, low-slope gabled roofs, flat roofs, shed roofs, and composite roofs combining two of these forms are most appropriate.
- Avoid using hipped roofs in most Eichler neighborhoods. Note that hipped roofs were used on homes in later Eichler neighborhoods, such as Community Center, but that these are not typical of Eichlers.
- Avoid using a complicated arrangement of intersecting roof forms and planes.
- Consider using a maximum roof slope of 3:12, a form that is found on many Eichler homes.
- Broad roof overhangs are encouraged for new homes. Design a roofline that is a prominent feature of a new residence when seen from the street.

- Consider incorporating exposed rafter ends underneath the eaves.
- Use roofing materials with a flat, visually unobtrusive appearance. Materials typically used on revival architectural styles, such as clay tiles, are not appropriate.

4.2.5 Choose cladding materials for new residences that have uncomplicated visual and textural qualities, in order to relate to the architectural character of the surrounding neighborhood.

- Select cladding materials that promote a clean and even appearance. Possible options include vertical siding, flush or channel wood siding, smooth stucco, fiber cement panels, or flat metal panels. Concrete block can also be used, if desired.
- The use of wood tongue-and-groove boards is encouraged at the exterior of a residence, as this cladding is characteristic of original Eichler homes. However, its use is not required.
- Avoid using types of cladding that have a significant texture and an uneven surface, such as horizontal wood clapboard, board and batten siding, shingles, textured stucco, corrugated metal, stone, brick, and vinyl.
- Limit the number of cladding material types used at the exterior of a home, to maintain a simple and refined appearance.

4.2.6 Design and arrange exterior windows on a new home to reinforce the modern aesthetic of Eichler neighborhoods.

- New houses are encouraged to have a fenestration pattern that relates to surrounding Eichler residences—typically, having fewer windows at the front façade and expansive glazing at the rear façade.
- Arrange windows according to a clear organizational scheme versus a random pattern. Pay special attention to the surface-to-void ratio seen on original Eichler homes, and attempt to employ a similar scheme.
- Casement, awning, sliding, and fixed windows are most appropriate for Eichler neighborhoods. Avoid using windows with small divided lites.
- Use windows that are manufactured with high quality materials. Vinyl windows are not preferred.
- In some cases, the original homes in a particular Eichler neighborhood may have been designed with window types and arrangements that are distinct from the guidance provided above. For instance, some

homes in the earliest Eichler neighborhoods were designed with horizontally oriented groupings of windows at the front façade. A new home constructed in one of these neighborhoods can employ similar window types and arrangements.



New construction with concrete and vertical wood cladding that takes cues from mid-century modern design. This home on a corner lot has windows that face out toward the street, away from neighbors.



New construction with simple horizontal and vertical cladding and smooth cladding. In addition, this example uses flat and shed roof forms, and window forms that are compatible with surrounding Eichler houses.

4.2.7 Relate doors and entries to neighborhood patterns.

- Primary entries can be placed at either the street-facing or side façades, since both are found on original Eichler homes.
- When a main entrance is placed at a side façade, ensure that the street-facing façade does not appear as a secondary façade with little visual interest. Design and arrange features such as windows and roof forms carefully to match neighborhood patterns.
- Consider designing a new home with a recessed entry or courtyard, similar to those used on many original Eichler homes.
- Main entries generally should not have a separate roof from the main residence. Small canopies may be appropriate, but do not use entry features with a roof form that projects forward from the house or rises above its roof.
- Select exterior doors that are simple in design, without the use of extensive glazing. Basic rectangular windows placed in the door are more appropriate to Eichler neighborhoods than arched and/or divided-lite windows.

Vertical sidelites placed next to a door are encouraged, as an alternative to using a glazed door.

- Do not place second-story doors and balconies where a resident can view a neighbor's private interior and exterior spaces. The front façade is generally the most appropriate place for a second-story balcony, if it can be incorporated into the design appropriately.

4.2.8 Integrate garages into a new home design in a manner that is compatible with original Eichler homes.

- Attached garages are most appropriate for new homes in Eichler neighborhoods.
- Contain an attached garage within the primary roof form of the residence, and design it so that it does not overwhelm the home's appearance when viewed from the street.

- Because attached, street-facing garages will be visible features of a home, carefully select the type of garage door used. Employ a material that relates well to the main house, with a similar clean appearance and texture. Visually cluttered panel designs are not encouraged.

ADDITIONAL GUIDANCE

For additional guidance on new two-story homes or second story additions, see *Palo Alto Single-Family Individual Review Guidelines* (City of Palo Alto), <http://www.cityofpaloalto.org/civicax/filebank/documents/6479>.

See also 18.12.040 (f) Contextual Garage Placement and 18.12.040 (g) Garage Doors of the Palo Alto Municipal Code for further guidance. <http://www.cityofpaloalto.org/civicax/filebank/documents/8700>.

4.3 Accessory Dwelling Units

California state law requires that municipalities make allowances for Accessory Dwelling Units (ADUs) in residential neighborhoods. ADUs—which provide new living space that is entirely independent of the main residence—can accommodate additional residences on properties where only one residence was originally constructed. An ADU may be detached, attached, or a conversion of existing space such as garage. The latter are sometimes referred to as "Junior Accessory Dwelling Units (JADUs)."

This is a laudable strategy to help relieve pressure on the Bay Area's tight housing market. However important they are, ADUs may also create challenges within Eichler neighborhoods. Fortunately, with careful and deliberate planning these challenges are manageable. In particular, detached ADUs placed to the rear of an Eichler residence will likely reduce valued yard space and create a building that is highly visible to the main residence and its neighbors. Because of the privacy concerns expressed by Palo Alto's Eichler residents, alternatives to detached ADUs should be explored whenever possible.

4.3.1 Plan ADUs carefully, with the understanding that the selected design and site placement may have an effect on the original residence, as well as surrounding residences. Design so that privacy of windows and indoor-outdoor spaces of adjacent residences is protected.

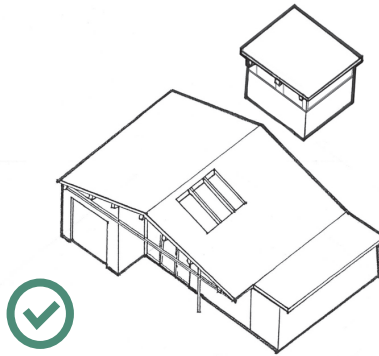
- Recognize that constructing detached ADUs on some Eichler properties will have inherent challenges—particularly regarding the privacy concerns of Eichler residents. Explore the possibility of converting an existing space, such as a garage, or constructing an attached ADU, which may present fewer privacy challenges.
- Because original Eichler residences have distinctive designs that were developed by prominent architects, design ADUs with consideration of their visual appeal. Consider post and beam construction methods. Prefabricated, detached ADUs that have no aesthetic relationship to Eichler residences are discouraged.
- If building an attached ADU or enclosing an existing carport or garage, refer to the previous guidelines concerning the

placement, height, and roof forms of new ground-level additions that are included in Section 4.1.

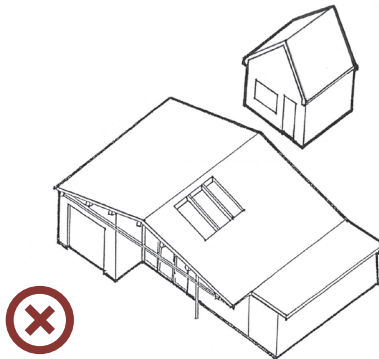
- If a detached ADU is deemed necessary, place the building at a distance from the main residence, and minimize the ADU's footprint as much as possible while providing adequate interior living space.
- Orient detached ADUs on their site so that only one façade faces directly towards the main residence.

4.3.2 Design detached ADUs with as low a height and roof slope as possible, in order to reduce the building's visibility from surrounding residences.

- Given that detached ADUs will likely be placed near property lines, design them with consideration of the building's visual effect on both the main residence as well as surrounding residences.
- The maximum allowed height, per California State law, for attached and detached ADUs is 17 feet. Designing an ADU that has a lower height than the maximum is strongly encouraged.
- Designing the roofs of ADUs with a lower height than the maximum allowed is encouraged in order to reduce its visual impact to surrounding properties. Roof forms that were used on original Eichler homes (including flat, low-slope gable, and low-slope shed roofs) are especially encouraged, while high-pitched gable, hipped and gambrel roofs are discouraged.
- Introduce landscape features, such as bands of trees or other tall plantings, that can screen a detached ADU from neighboring properties.

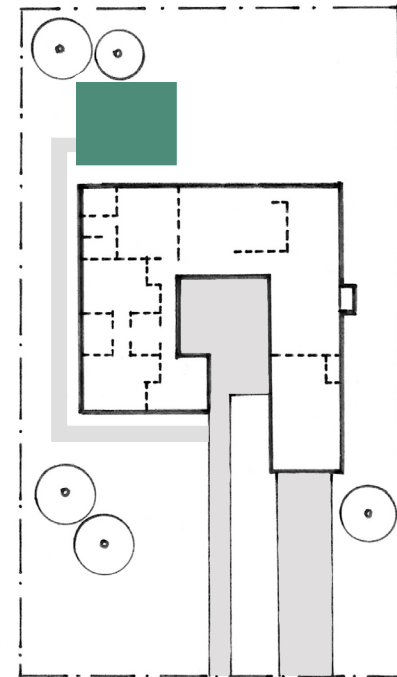


Appropriate example of a low roof form on a detached ADU, which reduces its visual impact on surrounding properties. Clerestory windows help respect the privacy of neighbors and the main residence.



The roof form on this detached ADU is inappropriate because of the high pitch, which increases its visibility from surrounding properties. The window and door placement also creates possible privacy concerns.

— lot line
possible detached ADU location



Possible location of a detached ADU. Entry door faces away from the main residence. Installation of opaque glazing on parts of the main residence may be required to address privacy concerns.

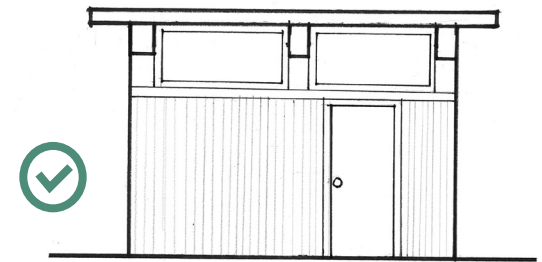
4.3.3 Select cladding materials, windows, and doors for ADUs that relate to the designs of original Eichler homes, and that protect resident privacy.

- Select the cladding materials, particularly those visible from the street, to be compatible with the original house, following the guidance in Guidelines 4.1.7 and 4.2.5.
- While detached ADUs placed in rear yards will generally not be visible from the public right-of-way, it is still preferred that Eichler-compatible cladding materials are used in these instances.
- Whenever possible, place the entrance to an attached ADU on a façade that does not face the street. The same strategy should be employed for conversions of garages.
- With privacy concerns in mind, do not place eye-level windows on a detached ADU so that they face towards the primary outdoor space of the main residence. Clerestories placed above eye level are far more appropriate. The same strategy should be employed for conversions of garages.

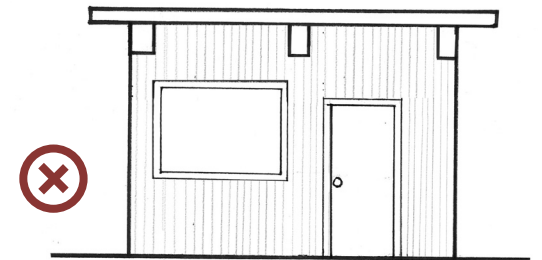
- Recognize that if the interior of the ADU contains a lofted space, privacy concerns may not be mitigated through the use of clerestory windows.
- Whenever possible, do not place windows where they can be seen from neighboring residences (for instance, over the top of a boundary fence).

Special note: ADUs proposed for properties listed in the City of Palo Alto Historic Inventory, California Register of Historical Places, or National Register of Historic Places will be reviewed by City staff to ensure the design of the ADU complies with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Therefore, any ADU planned within the Green Gables and Greenmeadow National Register districts should also follow the guidance for additions and new construction that is provided in Section 7.1.



Appropriate placement and use of clerestory windows. Whenever possible, the ADU entrance should not face the street.



Inappropriate placement of a window on an ADU facing the primary outdoor space of the main residence.

Guide to Accessory Dwelling Units - Implementation of California State Law in Palo Alto *

Standard	Attached ADU	Detached ADU	Conversion of Floor Area Existing and Permitted as of January 1, 2017	Junior ADU
Permitted Zoning Districts	R1 R2 RE RMD OS RM 15/30/40 when property is used for a single-family dwelling	R1 R2 RE RMD OS RM 15/30/40 when property is used for a single-family dwelling	R1 RE (conversions in other districts subject to attached or detached ADUs standards)	R1 RE RMD R2 OS RM 15/30/40 when property is used for a single-family dwelling
Minimum Lot Area	5,000 square feet (10 Acres in OS)	5,000 square feet (10 Acres in OS)	None	None
Maximum ADU Size (Area)	Lesser of 600 square feet, or 50% of existing living area	900 square feet	None, must be located within existing residence or structure	500 square feet, must include the conversion of existing bedroom
Maximum ADU Height	1-Story / 17 Feet 2-Stories / 30 feet in the RE District 2-Stories / 25 feet in the OS District	1-Story / 17 feet	None, must be located within existing residence or structure	None, must be located within existing residence
Daylight Plane (height limitation that defines a building envelope)	Same as residence (underlying base district)	Begins at a height of 8 feet at the property line and extends upward at a 45-degree angle	None, must be located within existing residence or structure	None, must be located within existing residence
Minimum ADU Setbacks	Same as main residence (underlying base district) 5 feet min from side/rear property lines when located above garage in the RE/OS	6 feet from interior side/rear property line 16 feet from street side yard Not permitted in the front yard setback	None, except as required for fire safety	None
Lot Coverage (ADU)	Same as residence (underlying district) <i>See Exceptions on back page</i>	Same as residence (underlying district) <i>See Exceptions on back page</i>	None, must be located within existing residence or structure	Same as residence (underlying district)
Floor Area (ADU)	Counts toward site floor area requirements / house size Basement area may be exempt in some districts, but included in Maximum ADU Size (Area) <i>See Exceptions on back page</i>	Counts toward site floor area requirements Basement area may be exempt in some districts, but included in Maximum ADU Size (Area) <i>See Exceptions on back page</i>	None, must be located within existing residence or structure	Same as residence (underlying base district) Main residence may exceed maximum floor area by 50 square feet to accommodate Junior ADU
Parking	None required, some standards apply if ADU parking proposed Any required parking displaced by an ADU must be restored on site	None required, some standards apply if ADU parking proposed Any required parking displaced by an ADU must be restored on site	None required, some standards apply if ADU parking proposed Any required parking displaced by an ADU must be restored on site	None required, some standards apply if JADU parking proposed Any required parking displaced by an ADU must be restored on site
Privacy	2-Story ADUs in RE / OS, use techniques to lessen views on neighbors, such as, landscaping, obscure glazing, and windows above eye level	None	2-Story ADUs in all permitted districts, use techniques to lessen views on neighbors, such as, landscaping, obscure glazing, and windows above eye level	None
Entryways	Independent exterior access Except for corner lots, must face different property line than main residence or located on rear half of lot	Independent exterior access	Independent exterior access	Independent exterior access Interior entry to the main living area

* Source: City of Palo Alto: Summary Guide to ADUs and Junior ADUs (version date: 5/24/17), <http://www.cityofpaloalto.org/civicax/filebank/documents/58293>.

5. Guidelines for Maintaining Eichler Homes

5. Guidelines for Maintaining Eichler Homes

This chapter contains guidelines that address general maintenance issues for Palo Alto's Eichler homes. The construction techniques, materials, and heating systems originally used in the residences were considered forward-looking at the time, yet affordable materials were chosen to keep the construction and purchase cost low to attract middle-class homebuyers. As a result, the characteristic features of Eichler homes require maintenance and in some cases have reached the end of their natural life cycles. Many owners and residents of Eichler homes (like all homes) encounter the reality of repairing and replacing materials and building systems as they age. The goal of these guidelines is not to require work that meets strict historic preservation standards, but rather to help residents make informed decisions when repairing and improving their homes so that needed maintenance can be undertaken without detracting from the overall character of their surrounding neighborhoods. More preservation-focused guidance—intended specifically for the National Register Historic Districts—is included in Chapter 7 of this document.



Vertical wood board siding is characteristic of Eichler houses, though the width of the boards varies.

5.1 Repairing and replacing exterior materials.

The materials that cover the exterior walls of Eichler homes define the appearance and texture of the neighborhoods. While Eichlers were typically constructed with vertical, tongue-and-groove wood or scored plywood siding, other materials may be chosen for present-day repairs that are durable and that support the modernist aesthetic seen in Eichler tracts. Windows were typically of wood or aluminum and with narrow profiles. Exterior paint schemes also contribute to the appearance of houses as seen from the public right of way and should be chosen with consideration of the neighborhood's overall aesthetic character.

5.1.1 Maintain exterior cladding materials in order to reinforce the modernist character of Eichler homes.

- Vertical wood board or vertical scored plywood is the characteristic cladding material of Eichler homes. If the existing cladding on a house is deteriorated and will be replaced, new vertical wood board is encouraged. Homeowners are

encouraged to seek out local fabricators that can reproduce the vertical wood board or plywood siding.

- The best alternatives to vertical wood board are those that have a smooth surface texture without a busy appearance, which emphasize the restrained architectural character of the residence. Avoid adding stone, brick, shingles, and other materials to exterior walls, as these materials have an appearance and texture that does not support the modernist style of Eichler homes.
- Horizontal wood boards are acceptable when they have a generally flat and smooth profile. Wood clapboard siding, which has a sawtooth profile, is not appropriate for Eichlers.
- Even when windows are insulated, heat loss occurs through exterior walls. Explore options to insulate walls that do not require the removal of exterior cladding, such as "blown" insulation.

5.1.2 Select exterior paint colors that support the broad mid-century modern character of Eichler neighborhoods.

- When they were constructed, Eichler homes were painted using a range of color schemes. The use of specific original colors is not required in Eichler neighborhoods.
- Following the general aesthetic used by Eichler Homes, the use of muted colors is preferred on the primary exterior walls. Homeowners may consider darker earth tones. Reserve bright colors for accent features, such as lintels and doors.
- Limit the number of paint colors used at the exterior of a residence. The use of one primary color and one trim and/or accent color is preferred.
- In neighborhoods with Architectural Control Committees, verify with this review body whether exterior paint color is a topic that should be reviewed.

Original Eichler Exterior Body Colors (Partial List)

EICHLER PAINT & STAIN
COLORS

These colors are not required by the City of Palo Alto. These colors are provided for historical reference and inspiration purposes.

Originally, Eichler the exterior wood cladding of an Eichler house would have been stained in a muted earth-tone, and featured brighter paint colors on accent elements such as the entry door. Eichler not only used Cabot Stains' Ranch House Hues, but he also appeared in advertisements for the stains in the 1950s. Cabot still has several original Eichler colors in production. Eichler's original exterior accent colors were reportedly furnished by Dunn-Edwards, but all have been discontinued.

The **Eichler Network** published a partial list of exterior and body accent colors that closely match original colors. Cabot Ranch House Hues (RH) and Dunn-Edwards (DE) original colors have been translated into currently available Benjamin-Moore (BM) colors. Body colors that are still available from Cabot are indicated with an asterisk (*).

Note: Colors may be distorted due to the variety of printer and computer monitor settings. Please refer to the indicated numbers and manufacturers' in-store printed catalogs for accurate paint chips.

Original Eichler Exterior Accent Colors (Partial List)



Color palettes have been adapted from those researched and published by the Eichler Network; see Tanja Kern, "Hues That Say You," Eichler Network, <http://www.eichlernetwork.com/article/hues-say-you?page=0,0>

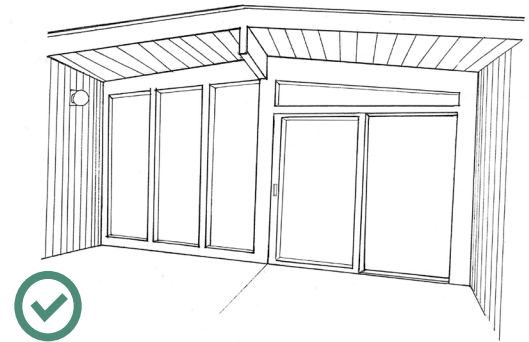
5.2 Repairing and replacing windows and doors.

The placement, type, and materials of windows and doors are important components of Eichler residences. Because unsuitable replacement windows and doors can have a noticeable impact on the appearance and design of a residence, homeowners are encouraged to repair original windows and doors or choose replacements that support the modernist Eichler aesthetic.

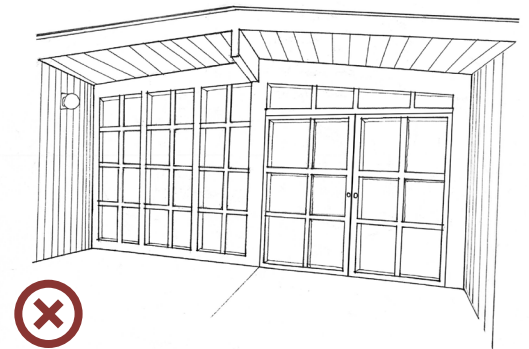
5.2.1 Maintain and replace windows while respecting the design characteristics of Eichler homes.

- When possible, repair original windows in place. If replacement is necessary, choose replacements that support the modernist Eichler aesthetic; "in-kind" replacement of windows that match the original sash material, configuration, and openings are preferred.
- Make efforts to retain the overall fenestration pattern that was original to a home. Generally speaking, this means keeping limited amounts of glass at the front façade, with expansive windows placed at the rear façade.

- Retain the original proportions and operability of windows within their openings, whenever possible. Do not divide windows into smaller units, since this has a visual effect. In particular, avoid dividing fixed clerestory windows and full-height rear windows.
- New vinyl windows are discouraged, as are aluminum windows with sash configurations that are clearly different from the original design of the home.
- The addition of projecting bay windows and garden windows is strongly discouraged.
- Avoid filling in original window openings with wood boards or other materials. The original fenestration pattern and façade composition should remain recognizable.
- Replacing existing clear glass with non-clear or reflective glass is generally discouraged, except for instances where increased privacy is desired, such as at sidelites beside entry doors and restroom windows.



Appropriate example of window divisions at the rear or atrium of an Eichler home.



Inappropriate example of window divisions at the rear or atrium of an Eichler home.

5.2.2 Improve the energy efficiency of a house by repairing or upgrading windows, while also considering a home's original Eichler character.

- Residents are encouraged to explore options to increase the energy efficiency of their homes. During the planning stage, consider the possible effects of the project on the overall architectural character of a home. Replace deteriorated window trim and other treatments to match the size and profile of the original.
- Investigate whether the weather stripping on windows can be replaced, in order to reduce air infiltration while retaining the existing windows.
- Applied window film can lower heat gain from the exterior and improve resident comfort without requiring existing windows to be replaced. High quality clear films are available; study product literature and samples to understand if they will cause a reflective effect, which is discouraged.
- Homeowners may explore replacing single-pane windows with new insulated windows. When this is done, choose replacement windows that can be sized appropriately to fit into the existing window openings.
- When replacing glazing with new double-pane glass, residents are encouraged to reuse the existing sash and frames—the dimensions of which may need to be adjusted in order to maintain the original profile while holding the thicker glass.
- If a new window sash and/or frame is required, it is recommended to choose a window with the same material and configuration as the original window.
- Careful detailing is required to maintain the aesthetic and protect the seals of insulated glass units.

WINDOW RESOURCES

For additional information on the repair and replacement of historic windows and related efficiency considerations, see:

"Saving Windows, Saving Money," (Preservation Green Lab of the National Trust for Historic Preservation), <http://forum.savingplaces.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=bf32a244-b322-3e11-a93c-2d3a1d4ed243&forceDialog=0>

Preservation Brief 13, "The Repair and Thermal Upgrading of Historic Steel Windows" (NPS), <https://www.nps.gov/tps/how-to-preserve/briefs/13-steel-windows.htm>

"Replacement Windows that Meet the Standards" (NPS), <https://www.nps.gov/tps/standards/applying-rehabilitation/successful-rehab/windows-replacement.htm>

"The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings" (NPS), <https://www.nps.gov/tps/standards/rehabilitation/sustainability-guidelines.pdf>

5.2.3 Treat entry doors and garage doors in a manner that maintains the patterns found in Eichler neighborhoods.

- Repair of original entry and garage doors is encouraged.
- Original garage doors were typically clad in vertical wood board. Retain them when possible.
- If entry doors on a residence must be replaced, select new doors that have a simple and flat appearance. This is most important for doors that can be viewed from the street.
- It is most preferred for new doors and garage doors to feature no (or minimal) glazing. If a new door or garage door will contain glazing, use a simple, rectangular lite that is minimally sized. Expansive or patterned cut-glass windows are strongly discouraged.
- Avoid paneled entry doors and garage doors that generally contrast with the modernist architectural style of Eichler homes.
- Maintenance of the original retractable Eichler garage doors is preferred, but a roll-up garage door may be acceptable if it features a simple flush material, and no glazing.



Example of appropriate flush entry door and vertical scored garage doors.



Example of vertical scored garage doors and an appropriate replacement door. The door is flush and has only minimal rectangular lites in a modern style.



Appropriate example includes flush entry door and vertical scored garage doors.



Inappropriate garage door and entry door design for an Eichler home. Panelized garage and entry doors or elaborate glazing are not appropriate for Eichler homes.

5.3 Maintaining roofs.

The different forms that characterize the roofs of Eichler homes offer a degree of visual variety that nonetheless create a repeated and recognizable pattern of slopes, fascia, and rafter ends, which does much to visually tie an Eichler neighborhood together. The roof reinforces the architectural style of the residence, and the unassuming roofing materials (often, tar and gravel) support the modest appearance of the home.

5.3.1 Maintain the general forms and defining features that characterize the roofs of Eichler residences whenever possible.

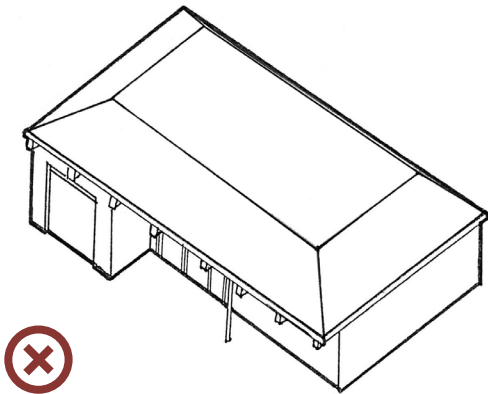
- Raising a roof above its original height is not preferred, nor is adding a new roof form that substantially alters the look of a home.
- Retain the narrow profile of the roof edges, which reflect the light-weight construction.
- Retain the overhanging eaves that are character-defining elements of Eichler homes.
- Take care to maintain the exposed beam ends, exposed soffits, and fascia boards that are visual hallmarks of Eichlers, or replace in-kind. Avoid boxing in the exposed beam

ends or apply aluminum or vinyl fascia that cover the original wood fascia.

- Exposed beam ends should be maintained to prevent deterioration. Apply wood preservative to these vulnerable elements in order to preserve them.

5.3.2 Use roofing materials with a plain appearance that does not distract from the design of the residence.

- If roof materials require replacement, employ new roofing that has a relatively plain appearance, particularly when visible from the street. These include tar and gravel, single-ply, foam, and composite shingles.
- Explore insulated roofing materials in order to improve a home's energy efficiency. These can often be combined with the roofing materials listed above.
- The addition of standing-seam metal roofing is not encouraged on Eichler residences.
- Where shingle roofs were installed originally—such as in the Community Center tract—the preferred treatment is to re-roof using shingles.



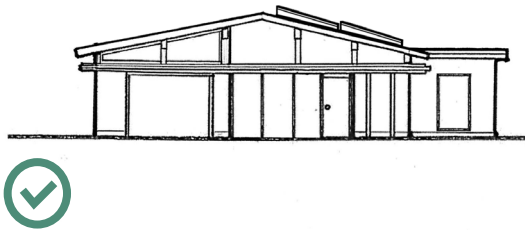
Avoid raising a roof form above its original height or add a new roof form that alters the mid-century modern appearance.

Resources for Homeowners

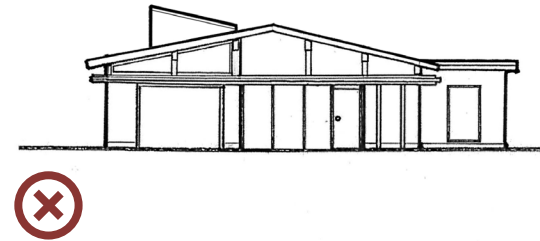
A resurgent interest in the long-term stewardship of Eichlers has resulted in numerous websites devoted to sensitive renovations. For example, the *Eichler Network* is a rich online repository of information that is dedicated to supporting the lifestyle of the thousands of homeowners in California who own an Eichler home. Real estate agents, architects, and contractors specializing in Eichlers can also be found online.

5.3.3 Install solar panels and skylights on roofs while attempting to minimize the visual impact of these features.

- Whenever possible, place solar panels on a home's existing roof slopes so that the solar panels do not interrupt the original form of the roof as viewed from the street.
- Select solar panels that do not rise substantially higher than the existing roof in order to minimize their visual impact on the neighborhood.
- If installing solar panels on a flat roof, consider installing them flat, or as far to the rear of the roof as possible, to minimize their visual impact on the neighborhood.
- Adding skylights is an acceptable measure to provide natural daylighting and decrease a home's electricity use. It is preferred that new skylights have as low a profile as possible, and be located on a non-street-facing roof slope.
- After solar panels are installed, their access to sunlight is protected by the California Solar Rights Act, found in the California Public Resource Code, Division 15, Chapter 12, 25980-25986.



In this example, solar panels have been placed flat against the slope of the roof. This placement is preferred because the visual impact on the neighborhood streetscape is minimized.



In this example, the solar panels rise substantially from the roof because they are not at the same angle as the roof slope. This creates a notable visual impact and interruption of the roof form from the street.

SOLAR PANEL RESOURCES

More information about solar panels can be found on the City of Palo Alto's website: https://www.cityofpaloalto.org/gov/depts/utl/residents/solar_in_palo_alto/residential_solar/default.asp.

The California Office of Historic Preservation (OHP) also provides extensive guidance on the implementation of solar panels on historic homes or in historic districts. While this guidance is more directly relevant to the National Register Historic Districts, homeowners in other Eichler neighborhoods might find the information useful. http://ohp.parks.ca.gov/?page_id=25664

5.4 Repairing chimneys.

The fireplace is a central feature of Eichler living rooms. However, the removal of exterior chimneys is often triggered by seismic concerns. While chimneys are not a prominent feature of all Eichler models, early Eichler tracts such as University Gardens did include models with brick chimneys on the front façade. Chimneys that are visible on Eichlers anchor the visual composition of the architecture.

Effective January 1, 2011, the City of Palo Alto began enforcing the Bay Area Air Quality Management District (BAAQMD) Regulation 6, Rule 3, which prohibits the sale or resale, supply, install, or transfer of new or used wood-burning devices intended for use within district boundaries. This requirement does not apply if a wood-burning device is an installed fixture included in the sale or transfer of any real property. While the implementation of this rule does not affect existing wood-burning fireplaces in Palo Alto, residents may chose to convert their wood-burning fireplace to a gas-fueled or electric-powered fireplace.¹

¹ "Wood burning fireplaces are prohibited effective January 1, 2011," City of Palo Alto, <https://www.cityofpaloalto.org/civicax/filebank/documents/17691>.

5.4.1 When chimneys are placed prominently on a house's street façade, prioritize retention rather than removal.

- Seek strategies to structurally stabilize the chimney rather than removing it.
- Reseal the joint where roofing meets the chimney so as to prevent water intrusion.
- Repoint the mortar joints between bricks by duplicating the old mortar in strength, composition, color, and texture— so as not to cause damage due to differing porosity.
- Clean the masonry using the gentlest means possible, such as using low pressure water and detergents.
- Avoid painting any unpainted masonry or brick.



Example of an Eichler model with a prominent chimney. Although this home has been remodeled, the brick chimney appears to be in good condition and remains unpainted.

5.5 Mechanical systems and plumbing.

Heating, cooling, and other systems in Eichler homes can present challenges to upgrade. The original conditions of the buildings—such as lack of insulation and attic spaces, single-pane windows, and large expanses of glass—can create interior climates that are not always comfortable. Furthermore, plumbing and the original radiant heating system was placed within a home’s concrete slab foundation and may be difficult to repair without highly invasive intervention. Modernizing the systems of an Eichler residence in response to these issues has the potential to cause visible impacts at the exterior.

5.5.1 Repair radiant floor heating and plumbing embedded in the foundation of an Eichler residence where feasible. If repair is not considered feasible, plan for replacement systems to be as minimally visible at the exterior of the residence as possible.

- If the performance of existing radiant floor heating fails, investigate whether it can be repaired in place.
- It may be possible for copper pipes found in the heating systems of some Eichlers to

be repaired without the invasive removal of concrete. The steel pipes found in other Eichlers are much more difficult to repair if corroded.

- If replacement of in-slab plumbing is necessary, low profile floor systems are available, and are more efficient than overhead methods.
- If considering new plumbing over the roof of a home, residents are encouraged to place the new plumbing where it will not be highly visible from the street.

5.5.2 Select and install new heating and cooling equipment while considering its impact on the architectural character of a residence, as well as its performance.

- Explore options to reduce the need for air conditioning, such as window coverings, plantings that provide shade, and window films that lower heat radiation (see Section 4.2.2). Exterior or interior roller shades may be considered, as they were original window treatments for Eichler homes.

- When planning to install new air conditioning equipment, consider options that do not require equipment to be installed in a visible roof location. If exterior air conditioning equipment is required, it is preferred that it be placed at ground level, to the rear of the residence, or to the side, with appropriate screening from the street.
- Window-mounted air conditioning units are discouraged at the front façades of Eichler homes.
- Explore ductless heating and cooling systems, such as mini-split air conditioning units. An added benefit of this type of cooling system is that its equipment is relatively quiet compared to traditional air conditioning units.
- Also investigate low-profile duct systems for heating and cooling. It may be possible to place these underneath new roofing materials. Rectangular duct systems are preferable to round duct systems as their profiles have a lesser visual impact from the street.
- Spray-on insulation can be used in concert with low profile ducts.

*6. Guidelines for Shared Landscape,
Streetscape & Sense of Nature*

6. Guidelines for Shared Landscape, Streetscape & Sense of Nature

Palo Alto's Eichler neighborhoods are characterized by their collections of modernist houses—yet the overall pattern of front yards and street trees contribute to an idyllic suburban setting. Eichler residents have noted that their neighborhoods foster a connection with nature, which was an important guiding principle for Joseph Eichler and his architects at mid-century. The architects designed neighborhoods by considering the placement of every home in relation to its neighbors, and the landscaped setting was thought to be a continuous shared open space. Some of the distinctive features of Eichler homes, including atria and expansive rear glazing, have a strong relationship to surrounding yards and the tree canopy; these features were among the first in the nation to create an indoor-outdoor relationship. As a result, the landscaped areas of Eichler neighborhoods are truly shared and enjoyed among many residents. Patterns of paving and fencing seen from the public right-of-way are also important components of the neighborhoods that can reinforce the architectural

character of Eichler homes. Eichler architect A. Quincy Jones described an important Eichler planning principle as enabling residents to live “lot line to lot line.” Residents of Eichler neighborhoods are encouraged to consider their front yards as extensions of their home, and to make improvements to the streetscape with an eye toward supporting the overall aesthetic of the neighborhood.

*Landscaping in front of Eichler tract in Palo Alto, ca. 1980.
Source: Palo Alto Historical Association.*



6.1 Trees, plantings, and ground cover.

Landscaping, including the use of trees, shrubbery, and lawn or other ground cover, enhances Eichler properties when it follows the principles of modernist landscape design. Exterior space is defined by changes in the ground plane – paving to planting bed, lawn to patio, atrium paving to doorway. Transitions such as these are subtle but tangible threshold moments. Landscape tenets for Eichler properties reinforce the clean orthogonal and angular lines of the houses themselves, as well as a sweeping ground plane, including a flat grade with expansive low groundcover, possibly punctuated by a distinctive specimen tree or two.

Given the privacy concerns found in Eichler neighborhoods, landscaping is a method that can be employed to screen unwelcome sight lines. While it may not be possible to obscure a neighboring two-story home entirely, a resident can undertake projects within their own property that help to mitigate privacy concerns.



Good examples of an open front yard characterized by a lawn. The two examples above are typical front lawns as originally designed by Eichler.

Good examples of an open front yard that has been adapted with xeriscaping to address environmental concerns. The two examples above feature landscaping that is not original to the homes, but is appropriate to the modernist aesthetic. The open character of the yard is retained.

6.1.1 Lot grades and ground cover at the front yard should support the modernist architectural character found in Eichler neighborhoods.

- It is important to maintain the flat grade of a property's front yard. The yard frames the residence within its lot, and a flat grade generally will accentuate the horizontal orientation of an Eichler home. Berms are discouraged.
- Lawns within front yards supports the suburban character of Eichler neighborhoods. Less water-intensive ground covers with a low height are acceptable.
- Xeriscaping with drought-tolerant plants and rock features is also appropriate, but the open character of the front yard should be retained.
- A simple, uncluttered appearance is most compatible with the modernist designs of Eichlers.

6.1.2 Trees and other forms of plantings are encouraged in front yards and should be selected to reinforce the aesthetic character of a residence.

- Retain mature trees where they exist in front and side yards, as feasible.
- Residents are encouraged to plant new trees in areas of a property that are visible from the street. In front yards, trees should not be densely placed in a way that disrupts the yard's open character or obscures the residence.
- In keeping with modernist landscape design, consider planting a distinctive specimen tree within the front yard.
- Low plantings are encouraged near a home's foundation or alongside sidewalks and driveways, in order to accentuate existing edges. Rectangular planting beds are most appropriate to conform to the Eichler aesthetic.
- Hedges that line the front yard of a property and block views of the residence are discouraged.

6.1.3 While privacy concerns should be carefully addressed during the planning process, where privacy concerns have been previously introduced by new construction on adjacent lots, consider introducing trees or other plantings to block sight lines from neighboring residences.

- Where a residence has windows facing toward an Eichler home, residents should consider plantings that will block the neighbor's sight lines and provide privacy.
- New plantings can be placed at the property line or in front of a window on one's own residence.
- New trees can block sight-lines and promote privacy but they can also introduce shade or block sunlight which can influence plant selection. Consider this during the design process.

6.2 Driveways, sidewalks, and paved surfaces.

The automotive culture enabled the development of suburban neighborhoods by the mid-twentieth century. Eichler designs embody the practical mobility and sense of freedom cars provided at that time by prominently incorporating garages and carports. Given that Eichler homes were designed with attached garages and carports facing the street, Eichler neighborhoods feature an identifiable pattern of driveways that lead directly to them. Paving at the front of a residence is therefore a characteristic feature of Eichler properties, but paved surfaces should be sized and placed appropriately so that they do not overwhelm the appearance of a lot as viewed from the street.

6.2.1 The size and appearance of driveways should not draw attention away from the residence.

- Maintain the original location and orientation of driveways at the front of an Eichler residence.
- Expanding driveways beyond their original size is discouraged. The size of a driveway should not overwhelm the appearance of the lot.
- The most appropriate driveway materials will be solid and have a flat and even surface; turf-block pavers or highly textured materials are not appropriate for the main driveway.
- Driveways leading to garages belonging to new homes in Eichler neighborhoods should generally follow the pattern seen on surrounding homes. Curved driveways are not appropriate, except when the garage does not face directly towards the street (as found in some cul-de-sacs).

6.2.2 Walkways at the front of a property should have a minimal appearance.

- Walkways that are located in front yards leading to the main entrance of a residence should be relatively understated in design. If planning to introduce a new walkway, keep the amount of pavement to a minimum while connecting entrance doors to the driveway and sidewalk.
- Orthogonal walkway configurations are preferred in Eichler neighborhoods.

6.2.3 Limit additional paved surfaces in areas of a property that can be seen from the street.

- Residents should keep outdoor patio spaces at their homes to the rear, and/or to courtyards and interior atria that were designed for this purpose. Patios located within front yards are discouraged. If this is the best location due to solar orientation or indoor spatial relationships, introduce plantings as a screening element.
- Where additional paving may be desired for an additional vehicle or boat, consider ribbon paving or turf-block pavers.
- Large raised porches at the front of residences are not appropriate in Eichler neighborhoods, as front yards are visually shared while private living space is located at the rear.



An appropriate amount of driveway paving for a two-car garage.



More paving than appropriate; paving extends well beyond the driveway.

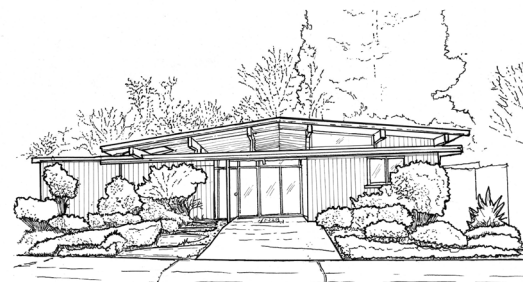
6.3 Fences

Fences and perimeter boundary features should be designed to support the modernist character of the property. The clean, orthogonal and angular lines of the Eichler houses are reinforced by modernist landscape design that has a generally horizontal orientation and an open character with expansive views of the houses themselves. The views to all houses reinforces the cohesiveness of the Eichler neighborhoods. Fences may interrupt these views, and thus require careful placement on the lot.

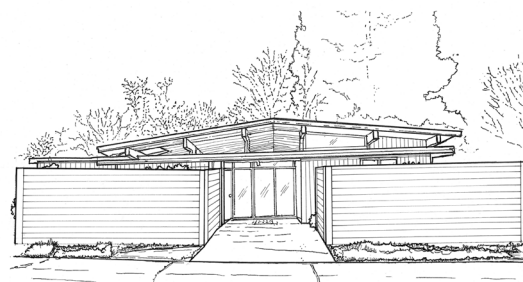
6.3.1 Place fences and other boundary features where they will not obstruct views of an Eichler residence from the street.

- Fences placed between an Eichler home and the street are generally discouraged, as these did not exist originally and do not support the character of Eichler properties. Fences placed at the front property line are particularly out of character with Eichler residences.

- If fences are constructed in the front yard, they should be placed no more than ten feet from the front wall of the house. Avoid applying veneers such as brick or stone. Use these materials as structural elements.
- On homes with garages that project toward the street, it is appropriate for fences to be placed in line with the front of the garage, parallel to the street.
- Fences can be introduced to enclose a front courtyard as long as they are flush with the front façade plane, in order to reinforce the massing and plan of the residence.
- Fences at side yards should be flush with the front façade, or set back from it to ensure the visibility of the primary façade of the house.



Example of good front yard landscaping with an appropriate balance of trees, shrubbery, and paving.



Example of an inappropriate fence. The fence is exceptionally high and not visually penetrable; additionally it encloses almost the entire front yard of the home.

6.3.2 Design of fences should be compatible with surrounding neighborhood.

- Fence designs should be modern or simple in appearance to reflect the minimalist character of the houses themselves.
- Avoid tall and visually impenetrable fences when they may block the view of the house from the street.
- The use of vertical or horizontal board, as is common in Japanese garden design, fits well with the Eichler style.
- Wood is recommended over the use of other materials, as it is compatible with the wood siding found on most Eichler residences.
- Shrubbery may be a good substitute for fencing in some cases, so long as it does not obscure views of an Eichler residence from the street.



Example of a good horizontal wood fence. This fence is especially appropriate, as it is visually penetrable.



Example of a good vertical wood fences.

6.4 Site and landscape lighting.

Lighting is essential for public safety and for the security of properties in Eichler neighborhoods. Exterior lighting can also be used to accentuate landscape design and the overall setting. The light level at the property line is thus a key design consideration. This is affected by the number of fixtures, their mounting height, and the lumens emitted per fixture. It is also affected by the screening and design of the fixture as well as nearby plantings or yard elements.

6.4.1 Walkway lighting should be appropriately scaled for pedestrians.

- Driveways and walkways should be clearly lit. Lighting fixtures should be designed for exterior use and should be weather resistant.
- Minimize light spill onto adjacent properties and into the night sky.
- To minimize light pollution, light fixtures should incorporate cut-off shields to direct light downward and away from adjacent areas.
- Specialized lighting may be installed in the landscape to highlight entries, trees, building features, and other architectural and landscape elements on the site.

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7. *Special Considerations:*
National Register
Historic Districts

7. Special Considerations: National Register Historic Districts

This section addresses an additional consideration that relates to Palo Alto's Eichler neighborhoods and is not fully described in the preceding guidelines. Two Eichler neighborhoods—Green Gables and Greenmeadow—are listed in the National Register of Historic Places, and other neighborhoods may choose to seek National Register Historic District status in the future.

The designation as a National Register Historic District has implications on architectural character and privacy concerns in Eichler neighborhoods. While the following guidance addresses particular issues related to National Register designation, the guidelines included in preceding sections remain relevant.

Additional resources that can assist Eichler residents in maintaining their homes while also meeting the Secretary of the Interior's Standards are included in the Appendix of this document.

7.1 Historic Districts on the National Register of Historic Places

The formal designation of Green Gables and Greenmeadow recognizes Joseph Eichler and his work as highly significant in the context of progressive housing development and modern design in the mid-twentieth-century United States. Because these neighborhoods were listed in the National Register for their architectural value, it is important that residents make attempts to maintain the characteristic materials and features that convey their homes' original designs. Therefore, residents of these neighborhoods are strongly encouraged to consider the following guidelines, with the understanding that National Register designation can be endangered through inappropriate changes that occur over time throughout a historic district. It is possible that other Eichler neighborhoods in Palo Alto are eligible to become historic districts; in the event that this is achieved in the future, these guidelines would apply to them as well.

These guidelines promote a preservation-minded approach based on the Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings. A core philosophy embedded in these guidelines is that original features should be repaired when possible, and where necessary they should be replaced with new features that match the original in appearance and material as closely as possible. The guidelines in this section recognize that residences should be updated to meet current performance standards, but that these types of improvements can be accomplished while preserving historic character.

The following guidelines are intended to inform projects that will preserve or restore the original features and overall character that make Eichler homes distinctive and immediately recognizable in Palo Alto. Therefore, these guidelines are intended to inform projects within the two National Register districts as well as to assist residents of other neighborhoods who are interested in incorporating focused preservation goals into their projects.

7.1.1 Repair original exterior cladding materials when possible, or replace, if deteriorated, to match the original materials as closely as possible.

- Retain original exterior cladding where it is in good condition. If replacing deteriorated cladding, do not remove more than is necessary.
- When selecting replacement vertical wood boards, seek an in-kind replacement—that is, one that matches the original as closely as possible in profile, dimensions, and thickness. Consider board width and depth, groove width and depth, and board texture. The goal is to create a visual match to the original cladding. It is preferred if the type of wood (such as plywood or solid redwood) matches, but this is not required if the selected product provides the same appearance as the original.
- If a home's cladding material has already been replaced with non-original materials, such as stucco, consider recladding the house in new vertical boards to improve the property's integrity. Conduct research

into what dimensions of boards may have been available for the neighborhood when it was first developed. Look at surrounding homes for possible clues, or investigate using primary sources such as original sales materials and photographs.

- Repair concrete block exterior walls using new blocks with matching dimensions, surface texture, and mortar pattern (joint width and depth).
- Do not use harmful treatments, such as sandblasting or harsh chemicals, when cleaning the exterior of a home, since these treatments can have severe impacts on historic fabric.

7.1.2 Repair original windows. If replacement is necessary, select new windows to closely match the profiles, dimensions and appearance of the original.

- As a first course of action, attempt to repair original windows rather than replace them with new. Retrofitting original windows for increased energy efficiency is a preferred measure over replacing them wholesale.

Refer to guidance in Chapter 5 regarding energy efficiency.

- If original windows must be replaced due to their poor condition, choose new windows that match the original in dimensions, divisions, and operability (i.e., sliding windows, casement windows, and fixed windows). The proportion between the size of the glass and the thickness of its frame also contributes to the character of a house and should be considered when choosing replacement windows.
- Vinyl window inserts are not appropriate in the two Eichler National Register districts.
- If a specialty glass type was used originally (such as textured obscure glass) and requires replacement, investigate new glass types that match the original in texture and appearance.
- Do not insert new windows in façade locations where they did not exist historically. This is especially true of front facades. A home's original surface-to-void ratio should be maintained. It is encouraged, however, to reinsert windows that are known to have existed originally but were later removed.

7.1.3 Maintain historic doors and garage doors, and if necessary select new doors with a similar design to the original.

- If a door or garage door is original to a residence, make every attempt to repair the feature rather than replace it.
- If a door is deteriorated, or if it has been replaced in the past, choose a new door that is close to the appearance of the original. Generally, simple and flat single door leafs with no panels or glazing are most appropriate for Eichler homes.
- If possible, retain original door hardware (knob and escutcheon plate) where remaining, and repair when necessary. If hardware is missing, investigate available new products that approximate the appearance of the original. If accessibility is a concern, consider a lever handle with a simple, unornamented contemporary look.
- Retain recessed entrances, particularly those located at the front façade and visible from the public right-of-way.
- Retain sidelites where they exist adjacent to doors; obscure glass can be inserted into these windows if privacy is a concern.

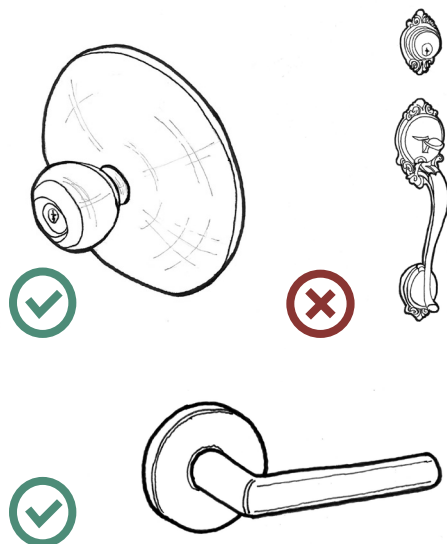
- It is preferable for garage doors to be covered in vertical board that is similar in configuration to the cladding on the rest of the house, as was typically done when the houses were constructed. If this cannot be accomplished, the best alternative is a plain, smooth-surface garage door with no paneling or glazing (see Section 5.2.3).

7.1.4 Strive to preserve the character-defining exterior features of an Eichler residence.

- In the National Register districts, prioritize retaining existing courtyards and atria over enclosing them.
- Beams may experience cracking or rotting. In these instances, investigate the severity of damage, and attempt to repair the beam whenever possible using appropriate methods such as epoxy injection or Dutchman patches. If required, replace portions of the beam with the help of professionals in order to match the dimensions and performance of the original beams.
- Keep original features such as projecting trellises, and repair when necessary to preserve the feature's historic appearance.



Retain historic garage doors with vertical wood cladding.



Top Left: This round, convex escutcheon plate approximates the original appearance of Eichler door hardware.

Top Right: This highly ornamented handle set with a thumb lever is not appropriate for an Eichler Home.

Bottom: This lever handle is a compatible replacement for Eichler door hardware because it has a minimal, modern aesthetic.

- Homeowners who wish to preserve interior features are encouraged to do so, as the interior spatial arrangement of Eichler homes have significance. However, the interiors of homes are generally not factored in to the integrity of a neighborhood when assessing eligibility for the National Register.

7.1.5 Design additions to homes in National Register districts with the goal of being differentiated from and subordinate to the original home.

- Design a new addition in such a way that it cannot be mistaken as an original component of the house or convey a false sense of historical development.
- Subtle differentiation is preferred to distinguish a new addition within a historic district. Using drastically different massing or cladding materials is not appropriate. Strategies include constructing a roof that is lower in height than the roof of the original residence, as well as selecting a cladding material with slightly different board widths than what was used originally.
- Scale new additions to preserve the primacy of the original massing.
- The two existing National Register districts, Greenmeadow and Green Gables, also have SSO status. However, second-story additions are not encouraged in any historic districts that may be designated in the future, as a measure to retain the integrity of the district.
- Plan an addition with the goal of avoiding impacts to important historic materials and features. Place the addition where it has the least potential to affect distinctive windows, courtyards, and other features.
- Additions proposed for houses in National Register districts should also follow the guidance presented in Section 4.1.

SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Additional information at: <https://www.nps.gov/tps/standards/rehabilitation.htm>.

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8. Process Improvement Suggestions

8. Process Improvement Suggestions

This section provides recommended considerations and steps for improved project planning and review in the City of Palo Alto.

Project Review for National Register Historic Districts

For CEQA conformance and preservation of the Greenmeadow and Green Gables Historic Districts' integrity, the Eichler Neighborhoods Design Guidelines recommends that the Palo Alto Planning and Community Environment Department use the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (the Standards) to review major projects associated with contributing properties to the historic districts.

The body of guidance contained within the Standards forms the primary analytic tool that federal agencies and local government bodies across the United States use to evaluate the potential impacts

of proposed projects on the integrity of historic properties. This guidance is meant to inform a range of proposed projects with appropriate considerations and approaches that would accommodate desired project objectives while also retaining the distinctive features and forms that define the historic character of a property (often referred to as character-defining features, or integrity).

The Historic Preservation Ordinance should be revised to be consistent with the terminology of the ADU Ordinance: "For properties listed in the Palo Alto Historic Inventory, the California Register of Historical Resources, the National Register of Historic Places, or considered a historic resource after completion of a historic resource evaluation, compliance with the appropriate *Secretary of Interior's Standards for the Treatment of Historic Properties* shall be required, as determined by the Planning Director."

Adherence to the Standards for Rehabilitation would ensure that the Greenmeadow and Green Gables Historic Districts (as well as future historic districts) retain their physical integrity and remain eligible for listing in the National Register. Additional information and guidance related to the Standards is included in Chapter 7: Special Considerations.

Design Review Training & Raising Awareness of Neighborhood ACCs

At least two Eichler neighborhoods, Greenmeadow and Charleston Meadows, have active Architectural Control Committees that review projects using their CC&Rs. Since there are a lot of new residents who may not be aware of the existence and role that the ACCs hold, the Eichler Neighborhood Design Guidelines recommends that the neighborhoods raise awareness of the ACC review process. This will help residents to understand that their projects are subject to ACC review prior to going to the

Palo Alto Planning and Community Environment Department for building permits. Raising awareness may occur via the distribution of fliers throughout the neighborhood and advertisement on community web boards or newsletters, or as part of a welcome packet for new homeowners. The neighborhood ACC may also consider hosting regular community meetings to introduce the committee to residents and explain their purview and review process. Realtors who sell Eichler houses in Palo Alto should also be educated in the existence of active ACCs in relevant tracts so that they can share this information with potential buyers and new homeowners.

In addition, the Eichler Neighborhood Design Guidelines recommends that Architectural Control Committee members review this document in detail and use it to supplement the CC&Rs. Review standards should be consistent across all committee members.

As a National Register Historic District, Greenmeadow's ACC may also consider seeking training from an architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualifications in how to conduct project review using the National Park Service's *Secretary of the Interior's Standards for the Treatment of Historic*

Properties (the Standards). Training may also be provided by such entities as the State Office of Historic Preservation, the California Preservation Foundation, or similar preservation-based non-profit organizations.

Designation of Additional National Register Historic Districts

The Eichler Neighborhood Design Guidelines recommends nominating additional tracts for listing in the National Register, where community interest exists. Tracts such as Triple El and Los Arboles have architectural cohesion that equals or surpasses the existing Greenmeadow and Green Gables Historic Districts. These tracts may be eligible for listing. Los Arboles Addition #2 includes original two-story Eichlers, which are unique and may be eligible for individual listing, as well.

Potential Modifications to Zoning Code Related to Eichler Neighborhoods

In 2016, the City Council directed Planning staff to "return to Council with a preliminary evaluation of an Eichler overlay zone or strengthening the Individual

Review (IR) Guidelines to incorporate Eichler design and privacy compatibility where appropriate, and depending on the context of the lot, make allowance for second stories, adjustments to setbacks and possibly other accommodations."¹ This would constitute a zoning code adjustment. In 2017, the City Council directed staff to return with potential Eichler design guidelines relating to ADUs, including the zoning code adjustment of lowering height limits.

Use of these Design Guidelines in association with any discretionary planning process or for review of homes in any special district will be as established by Council in Palo Alto Municipal Code Chapter 18.12. Council adoption of any regulatory ordinance related to use of these Design Guidelines (or a subset of these Design Guidelines) is a legislative process requiring review and recommendation by the Planning and Transportation Commission.

¹ City of Palo Alto City Council Transcript, Special Meeting (May 2, 2016), 68, <https://www.cityofpaloalto.org/civicax/filebank/documents/53289>

9. Appendices

Appendix A – Glossary of Terms

Awning window: A top-hinged window that swings the bottom edge outward; designed especially to admit air while excluding rain.

Bay window: The common term for a minor projection containing a window that extends beyond the surrounding façade plane.

Casement window: A window with the sash hinged on the jamb (vertical side member).

Clapboard siding: A siding material consisting of narrow wood boards applied horizontally, with the lower edge overlapping the board below.

Clerestory window: A high section of a wall that contains windows above eye level; the purpose is to admit light, fresh air, or both.

Eave: The lower edge of a roof slope that intersects with the exterior wall.

Escutcheon: The protective or ornamental plate around a keyhole, door handle, or light switch.

Façade: An exterior building face.

Façade plane: The predominant plane at which the physical features of a façade are arranged.

Fenestration: The physical arrangement of windows on a building's exterior walls.

Fixed window: A window sash that does not move or open.

Gable: The upper area of an exterior wall that is located between the roof slopes.

Hipped roof: A roof form where all sides slope between the roof ridge and eaves.

Historicist architecture: Architecture that is heavily influenced by past movements, sometimes freely interpreted.

Infill: New construction located within an existing, historic setting.

Landscape: The physical and aesthetic setting of a place, typically defined by natural features but also incorporating spatial relationships, views, furnishings, and circulation routes.

Lite: A piece of glass located within a window.

Massing: The distribution of a building's volume through space.

Parapet: The area of a building's exterior walls where they extend above a roof; it can be flat or stepped/shaped.

Porch: A component of a building that shelters a building entrance and contains occupiable space.

Post and beam: A type of timber construction in which vertical posts and horizontal beams create a framework that carries both the floor and roof loads.

Rafter tail: The exterior expression of a roof structure below the eaves. Rafter tails are sometimes applied decorative elements and commonly have shaped or scrolled ends.

Setback: The distance between a property line and a building, especially at the front of a lot.

Shed roof: A roof form characterized by a single slope.

Streetscape: The visual character of a roadway's setting, including paving, plant life, and adjacent buildings and structures.

Stucco: An exterior finish composed of some combination of portland cement, lime and sand, which are mixed with water and applied to a wall in a wet coating and allowed to dry.

Surface-to-void ratio: The proportional relationship between solid wall areas and window/door openings.

Tongue and groove: A type of wood siding in which each board has a thin ridge along one edge (the "tongue") and a slot (the "groove") on the other; the boards fit close together, nearly flush.

Window frame: The overall framework that surrounds and supports the entire window (including the window sash) - comprised of the head (top), jambs (sides), and sill (bottom).

Window sash: The frame that contains the glazing (glass panes); the window sash may be operable (movable).

Appendix B – List of Acronyms and Abbreviations

ACC: Architectural Control Committee

ADU: Accessory Dwelling Unit

BAAQMD: Bay Area Air Quality Management

District **CC&R:** Conditions, Covenants, and Restrictions

CEQA: California Environmental Quality Act

CMU: Concrete Masonry Unit

Esri: Environmental Systems Research Institute

FEMA: Federal Emergency Management Agency

GIS: Geographic Information System

IR: Individual Review

NHL: National Historic Landmark

NPS: National Park Service

OHP: Office of Historic Preservation

PAMC: Palo Alto Municipal Code

SFHA: Special Flood Hazards Area

SOI Standards: *Secretary of the Interior's Standards for the Treatment of Historic Properties*

SSO: Single Story Overlay

Appendix C – Additional Resources & Works Cited

The National Park Service Preservation Briefs and other relevant publications provide additional guidance and technical recommendations that may supplement the information provided in these design guidelines. The following links are resources for further information to inform project planning, and most have been incorporated throughout the design guidelines.

National Park Service Preservation Briefs
<http://www.nps.gov/tps/how-to-preserve/briefs.htm>

National Park Service Preservation Tech Notes
<http://www.nps.gov/tps/how-to-preserve/tech-notes.htm>

National Park Service Technical Preservation Services – Sustainability
<https://www.nps.gov/tps/sustainability.htm>

Preservation Briefs

"Preservation Brief 3: Improving Energy Efficiency in Historic Buildings." National Park Service. <https://www.nps.gov/tps/how-to-preserve/briefs/3-improve-energy-efficiency.htm>

"Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows." National Park Service. <https://www.nps.gov/tps/how-to-preserve/briefs/13-steel-windows.htm>

"Preservation Brief 14: New Exterior Additions to Historic Buildings: Preservation Concerns." National Park Service. <https://www.nps.gov/tps/how-to-preserve/briefs/14-exterior-additions.htm>

Bulletins & Guidelines

"Installing Solar Panels and Meeting the Secretary of the Interior's Standards." National Park Service. <https://www.nps.gov/tps/sustainability/new-technology/solar-on-historic.htm>.

"National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation." National Park Service. <https://www.nps.gov/nr/publications/bulletins/nrb15/Index.htm>.

"Repair and Upgrade Windows and Doors." National Park Service. <https://www.nps.gov/tps/sustainability/energy-efficiency/weatherization/windows-doors.htm>

"Replacement Windows that Meet the Standards." National Park Service. <https://www.nps.gov/tps/standards/applying-rehabilitation/successful-rehab/windows-replacement.htm>

"Saving Windows, Saving Money." Preservation Green Lab of the National Trust for Historic Preservation. <http://forum.savingplaces.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=bf32a244-b322-3e11-a93c-2d3a1d4ed243&forceDialog=0>

"The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings." National Park Service. <https://www.nps.gov/tps/standards/rehabilitation/sustainability-guidelines.pdf>.

"Palo Alto Single-Family Individual Review Guidelines." City of Palo Alto. June 10, 2005. <http://www.cityofpaloalto.org/civicax/filebank/documents/6479>.

"Zoning Ordinance Technical Manual for Single-Family Residential Zones." City of Palo Alto. December 13, 2006. <http://www.cityofpaloalto.org/civicax/filebank/documents/8569>

Websites

Eichler Network - www.eichlernetwork.com
The Glass Box - www.theglassbox.typepad.com
Redneck Modern - www.redneckmodern.com

Books

Adamson, Paul and Marty Arbunich. *Eichler: Modernism Rebuilds the American Dream*. Salt Lake City: Gibbs Smith Publisher, 2002.

Ditto, Jerry. *Eichler Homes: Design for Living*. San Francisco: Chronicle Books, 1995.

National Register Nominations

Green Gables, Palo Alto, CA. National Register of Historic Places Registration Form. United States Department of the Interior. July 28, 2005. <http://www.cityofpaloalto.org/civicax/filebank/documents/61600>.

Greenmeadow, Palo Alto, CA. National Register of Historic Places Registration Form. United States Department of the Interior. July 28, 2005. <http://www.cityofpaloalto.org/civicax/filebank/documents/61601>.

Mapping Data

City of Palo Alto City Council Staff Report. "Single Story Overlay District Fees and Policy Direction on Alternatives" (ID #5907). June 29, 2015. <http://www.cityofpaloalto.org/civicax/filebank/documents/47895>.

City of Palo Alto City Council Staff Report. "Los Arboles Single Story Overlay Rezoning" (ID #6101). November 9, 2015. <http://www.cityofpaloalto.org/civicax/filebank/documents/49653>.

Special Flood Hazard Area. Federal Emergency Management Agency (FEMA). 2017.

"Single-Story Overlay Districts in Palo Alto." Scribble Maps. https://www.scribblemaps.com/maps/view/Single-story_overlay_districts_in_Palo_Alto/5w49nv_ojm

Appendix D – Mapping Methodology

Mapping Eichler Tract Boundaries

Page & Turnbull conducted primary and secondary source research to determine and verify the location and boundaries of all Eichler tracts in Palo Alto. Existing mapping was not always comprehensive. Page & Turnbull referenced the extensive information¹ collected by real estate agents specializing in the sale of Eichler homes - including Eichler For Sale and John Fyten.² Additionally, a detailed search of the *San Francisco Chronicle* archive yielded historic advertisements and articles which helped confirm that Eichler Homes was associated with particular tracts, and to confirm construction dates.

¹ For example, open source mapping on Google Maps shows incomplete and inconsistent information; see, "Palo Alto Eichler Neighborhoods," <https://www.google.com/maps/d/viewer?mid=1gw8aWutltgd2CXmHLG2ns0EQNGs&hl=en&ll=37.44950546750888%2C-122.13819259002684&z=13>, and "Bay Area Eichler Subdivisions," <https://www.google.com/maps/d/viewer?mid=1TiLl1G5o6dfDtdTKvtVKP3OFJs&hl=en&ll=37.44793227069421%2C-122.13028614465332&z=13>.

² "Palo Alto Eichler Homes," Eichler For Sale, <https://www.eichlerforsale.com/palo-alto-eichlers.php>; "Where to Look in Palo Alto," John Fyten, <http://johnfyten.com/eichler-city-midcentury-modern-in-silicon-valley/where-to-look-in-palo-alto/>.

The original Eichler tract maps were not located during the process of this project. However, Page & Turnbull was able to compare the information found in the above sources with the parcel maps available through the County of Santa Clara Office of the Assessor; parcel maps from the County of Santa Clara indicated the boundaries of the original subdivisions, and sometimes indicated the tract name. Page & Turnbull then confirmed the boundaries of the tracts through a site survey in February 2017.

Page & Turnbull mapped thirty-one single-family Eichler Tracts. Smaller pockets of Eichler homes, which may only include as few as one or two homes, exist throughout Palo Alto, but these isolated examples were not constructed as full tracts, and were not mapped for these design guidelines.

ArcGIS

The maps in this document were produced and revised using ArcMap between February and October 2017. They utilized city boundary, street centerlines, and parcels spatial (GIS) data from the City of Palo Alto and dated 2015. The basemap used in most maps is Environmental Systems Research Institute's (Esri's) World Light Gray Canvas Base last modified

in October 2017. Its service layer credits are Esri, HERE, DeLorme, MapmyIndia, ©OpenStreetMap contributors, and the GIS user community.

The Eichler Tracts spatial data was created by Page & Turnbull as is further discussed in Chapter 1. The Single Story Overlay Combining Districts spatial data was created by Page & Turnbull based on the following resources: the June 29, 2015 City of Palo Alto City Council Staff Report (Single Story Overlay District Fees and Policy Direction on Alternatives; ID # 5907), the November 9, 2015 City of Palo Alto City Council Staff Report (Los Arboles Single Story Overlay Rezoning; ID # 6101), and the online ©Scribble Maps Single-story overlay districts in Palo Alto. The Flood Areas spatial data was provided by the City of Palo Alto, originated from the Federal Emergency Management Agency (FEMA), and is dated 2017.

The spatial data for the contributing and non-contributing properties of the Green Gables and Greenmeadow historic districts was created by Page & Turnbull based on information in the National Register nomination forms.



PAGE & TURNBULL