

PATTERN & DESIGN IDEA BOOK
for Pre-War Homes

FEATURING HOMES IN THE RENO PARK & STOCKE-WALTER SUBDIVISIONS OF ARVADA, COLORADO

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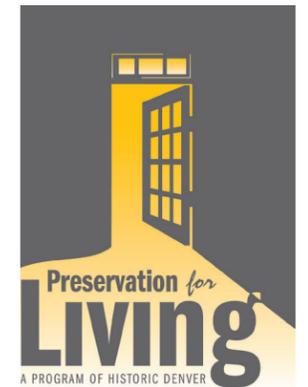
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DISCLAIMER

This book was designed as a tool to help illustrate possible ways to remodel and add onto house styles that were common in pre-WWII America. All plans and elevations were developed by graduate architecture students at the University of Colorado at Denver and are for conceptual purposes only. The user should seek professional design services when remodeling a house.

Table of Contents

OBJECTIVE.....	1
METHODOLOGY.....	2
HISTORIC CONTEXT.....	3
FLOOR PLANS	
Minimal Traditional	
Interior Remodel.....	6
Exterior Expansion.....	7
Additional Dwelling Unit.....	8
Hipped Roof Cottage	
Interior Remodel.....	10
Exterior Expansion.....	11
Bungalow	
Interior Remodel.....	13
Exterior Expansion.....	14
“Pop Top” Addition.....	15
TIPS TO KEEP IN MIND.....	16
BIBLIOGRAPHY.....	20

Objective

Arvada has long attracted residents who seek a community close to the mountains and to Denver's urban environment, but which retains a small-town feel. In Arvada, residents have enjoyed this unique balance for over a century. The allure of gold brought the earliest Anglo-American settlers to the region, but agriculture proved to be the stable economic force that would sustain this community through World War II. Homes that were built during this period, which extends from the late nineteenth century through the 1940s, reflect architectural and social trends that were evident across the nation. Romantic architecture was the norm in the earlier era, most often associated with "Victorian" or Queen Anne style. Early in the twentieth century the Bungalow form became popular, as did other forms that could be classified as "Revival." One of these is the minimal traditional form, which drew on earlier colonial traditions to evoke a feeling of nostalgia.

These homes are reflections of the time in which they were built and the values of the families that lived in them. However, homeowners are finding that the needs of a family from the early twentieth century are much different than the needs of a family today. Luckily, the quality of these homes makes them excellent candidates for sensitive remodeling to better meet today's living standards.

In order to keep these neighborhoods vibrant and attractive to potential buyers and current residents, the City of Arvada has teamed up with Historic Denver, Inc. and the Colorado Center for Community Development to design and present scenarios that can help homeowners visualize ways to expand and alter their homes without losing the unique

character of their neighborhood. Several philosophies were incorporated into the designs of this pattern book. These include the Secretary of the Interior's Standards for Rehabilitation which were written for historically designated buildings but have proven helpful in many compatible development projects. By incorporating 'Aging in Place' ideas, we hope to encourage residents to stay in the neighborhood and modify their homes to be safer and more comfortable. These long-term residents strengthen the community and are more likely to take pride in and care for their homes. Lastly, we believe it is important to consider our collective impact on natural resources. Building construction and operating costs contribute heavily to carbon emissions and it is important to be aware of the changes you can make to increase the efficiency of your home.

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

These houses are in historic districts, but only those that are within the Arvada "Olde Town Conservation Area" are required to follow the Arvada design review process. For homeowners outside of Arvada that are individually listed or listed in a historic district, please contact your local city government to determine any potential design review requirements. Even if not required, many projects can benefit by following the Standards set forth by the Secretary of the Interior. The Standards recommend retaining original materials, constructing additions at the rear, and selecting alternative but compatible materials so that new construction is easily differentiated from the original structure. Aligned with these recommendations, our goal is to address today's

programmatic and lifestyle needs while preserving the scale, materials and character of these homes. Compatible and sensitive renovations are more likely to retain their value, appeal to a wider range of buyers, and retain a cohesive neighborhood feel. The Standards are available online at www.nps.gov.

AGING IN PLACE

The Aging in Place Design philosophy, like Universal Design, can be beneficial to many people, not just the elderly and disabled groups they are intended for. Growing families will appreciate the recommended safety measures as their toddlers become more curious and mobile. Modifications such as wider doorways, lever handles, and rocker light switches are useful for all ages and make a home safer for everyone. These small changes to a renovation project will make a lasting difference in the livability of your home. Visit www.ageinplace.org to learn more.

ENERGY EFFICIENCY

Homes constructed prior to Pre-World War II were built when energy was inexpensive, which meant that fuel costs were rarely considered when these homes were designed. Therefore, many of these homes lack sufficient insulation. Although many people assume that replacing their windows is the best investment, it is an option that reaps little benefit and destroys the original fabric of the home. Often the energy loss is due to leaks *around* windows, not the panes themselves. An energy audit will identify and prioritize energy loss issues and should be the first step when pursuing energy efficiency. More information can be found at www.preservationnation.org/issues/weatherization/.

Methodology

WHY A PATTERN BOOK?

Across the nation modest homes are being demolished in order to build larger homes that often do not fit the character of their neighborhood. The full impact of this trend has not yet reached Arvada, but development pressures are expected to increase with the return of a commuter rail transit system along the Burlington Northern Rail Road corridor. By looking at the success of similar projects (notably Minnesota's *'Cape Cod and Ramblers' Pattern Book* and Wheat Ridge's *'Ranch Renovation' Idea Book*), it was decided that a pattern book would be a valuable tool for homeowners to visualize sensitive home modifications. Two pattern books were then developed: one for post-war houses and one for Arvada's two residential pre-war historic districts.

CHOOSING THE HOUSING TYPES

The Pre-War era in Arvada is reflected in two of its historic districts, the Reno Park Addition and the Stocke-Walter district. The homes in these districts reflect a variety of house forms common to the late nineteenth century and early twentieth century, including formal styles like Classic Cottage and Bungalow, with an interspersed Queen Anne, Craftsman, and Minimal Traditional. The three housing types chosen for this patternbook represent

forms that are most common in these neighborhoods and which are most in danger from development pressure. These types are:

1. Minimal Traditional

The Minimal Traditional form gained popularity during the Great Depression as an economical home. While a great deal of variation in decoration and arrangement of features is common, the basic form is a one-story structure with a rectangular plan, gable roof, and minimal decoration that reflects the colonial period.

2. Hipped Roof Cottage

The Hipped Roof Cottage was most popular in the early twentieth century and will typically feature one story with a hipped roof and square plan. Common elements would include a dormer centered on the roof and a full-width porch across the front elevation.

3. Bungalow

The Bungalow form developed from the Craftsman movement and was most popular from around 1900 to 1930. Defining characteristics include a low-pitch roof with wide overhang and exposed rafter tails, a large, open porch with substantial columns, and an overall emphasis throughout the exterior of the home on horizontality.

Size is the primary characteristic which separates the Bungalow form from the Craftsman, as the Bungalow is typically one or one-and-a-half story, while the Craftsman is almost always larger.

UNDERSTANDING THE CONTEXT

Understanding the historic context in which these homes were constructed builds an appreciation for this era and the character of these neighborhoods. The archives at the Arvada Historical Society and the Denver Public Library proved helpful for newspaper clippings. Two books, *'Centennial Arvada'* and *'Arvada Comes of Age'* and the two National Register of Historic Places district nominations prepared by Front Range Research Associates, Inc. were incredibly helpful when developing a summary of the community's history.

ABOUT THE DESIGNS

Volunteers from the neighborhood invited us to enter their homes to measure and photograph the floor plans of our three housing types. These plans are labeled Existing, and reflect alterations that have occurred over time. As alterations are common, the decision was made to work with these designs as they are instead of removing later additions. Where appropriate, the original plan for a housing type has been recreated or notated on the

existing plan to aid those whose homes more accurately represent the original form.

With these floor plans and images of the existing housing types, possible renovation solutions were designed by the Colorado Center for Community Development (CCCD). The designs provide practical updates to the houses while retaining their integrity. The designs were influenced by feedback from local realtors and current residents about desired changes.

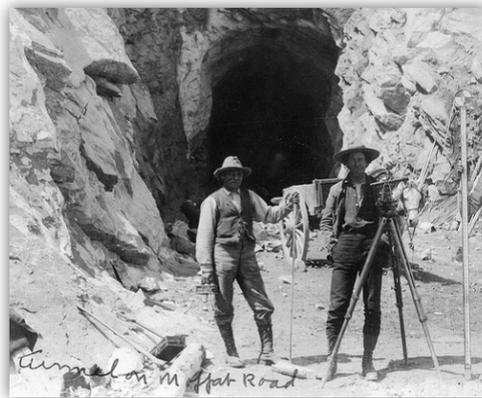
A variety of solutions were established for each housing type. The intent was to create a minor remodel option that stays within the existing footprint but maximizes efficiency, and a major remodel that creates space through an exterior addition. Two popular options were also considered, that of adding an Accessory Dwelling Unit (ADU), and adding a second story to the rear of the home, also known as a "Pop Top."

OTHER TIPS TO KEEP IN MIND

Lastly, we've included information about the Secretary of the Interior's Standards for Rehabilitation, 'Aging in Place' and energy efficiency. Keeping these philosophies in mind as you renovate will not only make your home more livable and energy efficient, but improve its resale value as well.

Historic Context

“Lay bye. Gold found.” In four words John Lowery Brown sparked the event that would change the course of Colorado history. On June 22, 1850, pioneer and prospector Lewis Ralston became the first Anglo-American to strike gold in Colorado near Vasquez Creek, which was later named Clear Creek. Though Ralston’s find did not immediately draw a multitude of settlers, the rumor and lure of gold permeated throughout the region and by 1859 the Pikes Peak gold rush exploded. Prospectors flooded the creeks along the Front Range looking for their share of prosperity and adventure. Many who came in search of gold found another treasure in the fertile land around the area now known as Arvada. As the Gold Rush calmed, the focus of the economy shifted to agriculture and the area originally known as Ralston Point was established as a service and supply center for the larger communities of Denver and Golden. The settlement grew and became a popular supply stop along the Colorado Central Railroad.



As more and more people came west, prospecting land became much more profitable than mining for gold. By 1860 farming surpassed gold panning as the primary occupation along the Ralston and Clear

Creeks, and in the last decades of the 19th century Arvada continued to grow and establish itself as a large settlement in the Denver area. With efforts driven by Benjamin Franklin Wadsworth and Louis Reno, Ralston Point continued to flourish and grow,

eventually becoming the town of Arvada. The Wadsworth and Reno families owned two large homesteads adjacent to one another. The families began to plan for a town in the 1860s, establishing central roads and a comprehensive school system. Transportation during this period consisted of horse and wagon, and mail was only available by riding into Denver.



Benjamin Wadsworth

The Colorado Central Railroad, which passed through Arvada and connected Denver to Golden, was laid in 1870 and provided a critical transportation route for trade and population growth. Realizing that this rail connection meant that their community would soon be in a very desirable location, Wadsworth and Reno laid out a plat of nine square blocks. On December 1st, 1870, Wadsworth submitted the official plat to the County Clerk in Jefferson County, changing their settlement of 100 people into the town of Arvada. By the turn of the century, the city grew from a population of one hundred to six thousand, finally becoming an incorporated municipality in 1904.

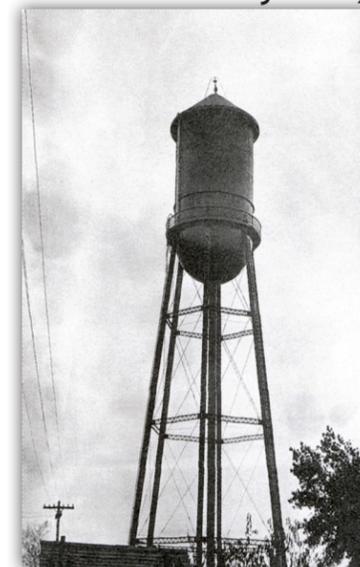
The town steadily grew until the late 1920s when the Great Depression slowed growth. Throughout the Depression and following war, few buildings were constructed. This is reflected in Reno Park and Stocke-Walter, where only a few homes were erected in the modest Minimal Traditional style. Agriculture remained the dominant industry within the community through World War II, only falling aside when population pressure made developing

the land for residential construction more profitable than farming it.

RENO PARK

The Reno Park neighborhood is roughly bounded by Ralston Road to the north, Reno Drive to the south, between Zephyr Street and Allison Street to the west and Yukon Street to the east. Reno Park was established in 1889 just west of the new town’s central commercial district on a portion of Louis Reno’s homestead. Louis Reno was one of the town’s founding fathers along with Benjamin Franklin Wadsworth. Elbert P. Argersinger platted the Reno Park Addition on September 29 and by November of 1889, eighty lots had been sold to predominately middle-class citizens. The long and narrow lots were platted in a grid system and the houses are typically set back at a uniform distance.

To attract buyers to the new town, Argersinger erected a water tower and graded two miles of streets. Shortly after, he created a second subdivision north of Reno Park. The neighborhood developed slowly during this early period with only 16 homes constructed in the first ten years, primarily for influential citizens and pioneering families.



In 1901 an electric railway was completed that connected Arvada to Denver’s streetcar system. This important upgrade increased accessibility to the state capital and the large job market in Denver, providing an incentive for city dwellers to leave the city and commute in from Arvada.

Reno Park & Stocke-Walter

Early occupants of Reno Park included John Bruce, a civil war veteran and William Benson, the Town Marshal. Henry Juchem was one of the first to build in Reno Park. Juchem operated a grocery store, served as county clerk and recorder, and was on the Town and School boards.

Reno Park continued to develop and experienced its largest period of growth between 1900 and 1920 when twenty-two percent of today's housing stock was constructed.



Some of the homes built during this period reflected the earlier Queen Anne style but showed more restraint in details. Other styles include the Simple Cottage and Bungalow styles, which became the prominent housing designs in the subdivision. The details were more simple than their high-style precedents, establishing the modest character the neighborhood would ultimately be known for.

Growth continued steadily until the late 1930s, when construction drastically declined due to limited resources. Only seven houses were built during the 1930s and were commonly constructed in the Classic Cottage and Minimal Traditional styles.

STOCKE-WALTER

The Stocke-Walter neighborhood lies east of the Arvada Downtown Historic District and is roughly bounded by Wadsworth Boulevard on the west, West 58th Avenue on the east, Ralston Road on the north and Grandview Avenue on the south. Six houses on the south side of Grandview Avenue are also included. The land was originally owned by Benjamin Franklin Wadsworth. The homes and lot sizes in this area reflect the agricultural roots of the region and the influence of transportation on the city.

The homes north of Grandview sit on irregularly shaped lots approximately 48 feet by 300 feet in size. To the west of these agricultural lots sit lots developed by Christian and Mary Stocke along Saulsbury Street. These lots are smaller and provide a transition from the agricultural section into the downtown area. The houses in this portion of the historic district are generally smaller and more modest.



Development of this area began in 1893 with the construction of one of the town's most notable residences, the home of Rev. John F. White. This commanding red-brick home stands as one of the many contributing historic structures in the area. The Stockes built two notable residences for themselves along Grandview and the area soon attracted the city's small group of high income citizens. The houses, as in Reno Park, reflected the architectural trends of the time. The Bungalow and Queen Anne styles were a popular choice, as were revival styles.

For the more modest houses on the east side of the district, homes were built in the Classic Cottage and Minimal Traditionalist styles, which appeared in the neighborhood as ornamentation became less valued and practicality and cost became driving factors in the 1930s and early 1940s. Scattered examples of Foursquare and Craftsman are also found in the district.

The Historic Districts Today

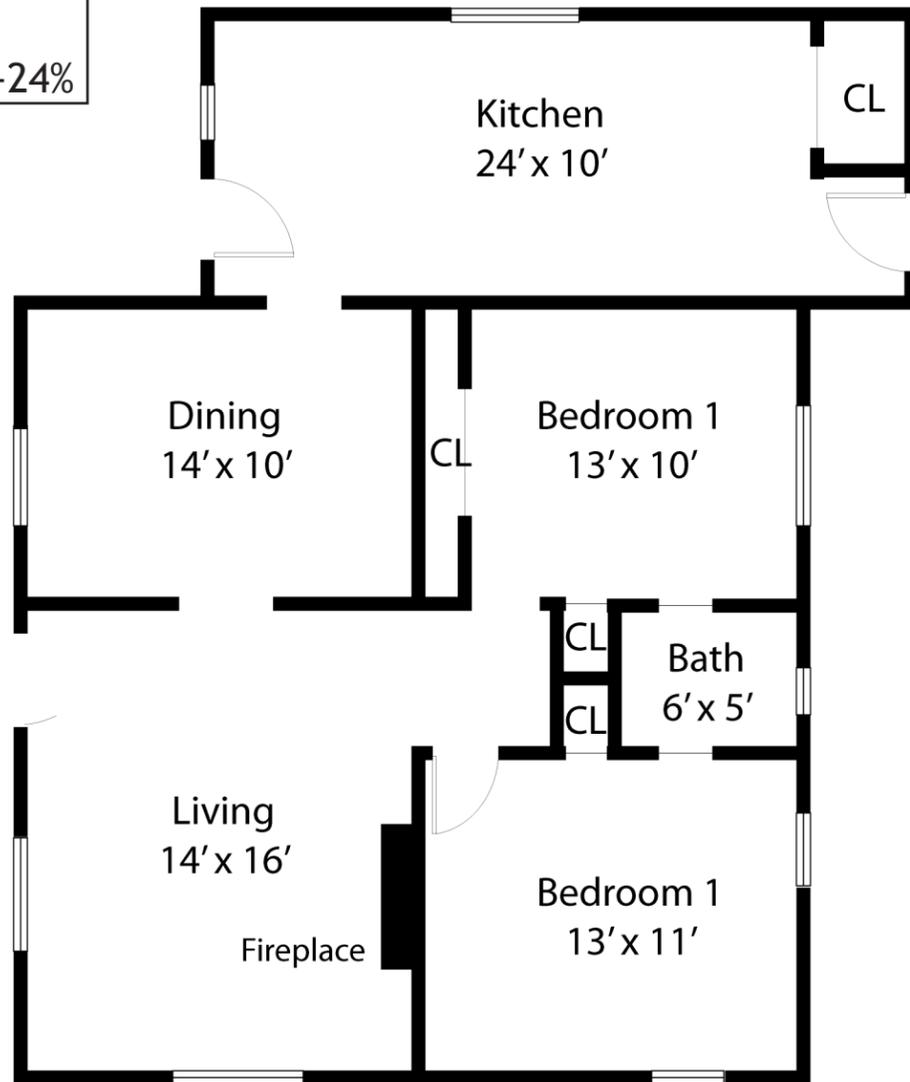
As Arvada has grown and changed, the desirable characteristics that initially attracted residents to this area have remained much the same. Over a century later, the proximity to Denver, Golden, the mountains, and the comfort of a close community, continue to draw people to this area.

The homes in these neighborhoods reflect Arvada's beginnings as a town and will continue to grow and evolve to best suit the needs of their community. The goal of this book is to provide homeowners with ideas that they can use to upgrade their homes to the comfort, size, and energy efficiency standards of the twenty-first century while still maintaining and honoring characteristics that identify these homes as part of the early development of Arvada.



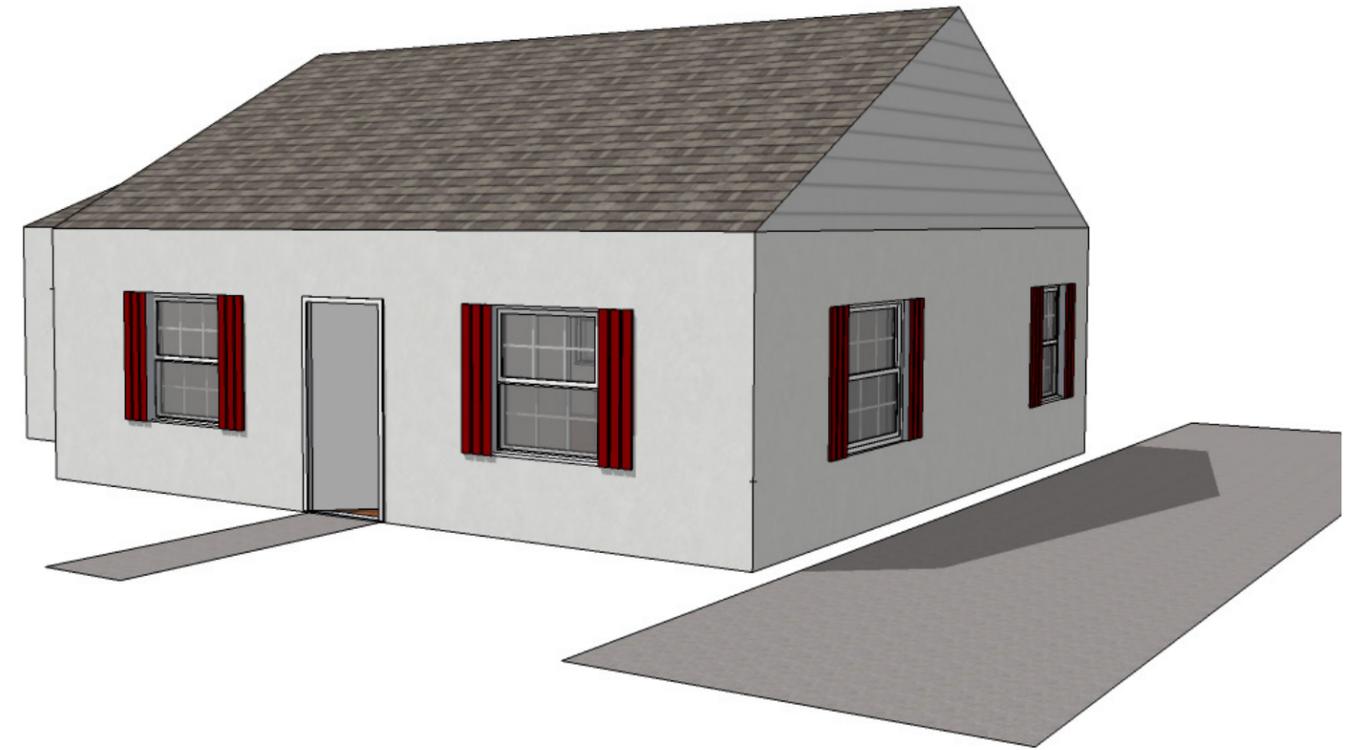
2 Bedrooms
 1 Baths
 1,400 sq. ft.
 Typical Lot
 Coverage: 22-24%

Kitchen is a non-original addition. When built, the floor plan for this home would have consisted solely of the square portion.

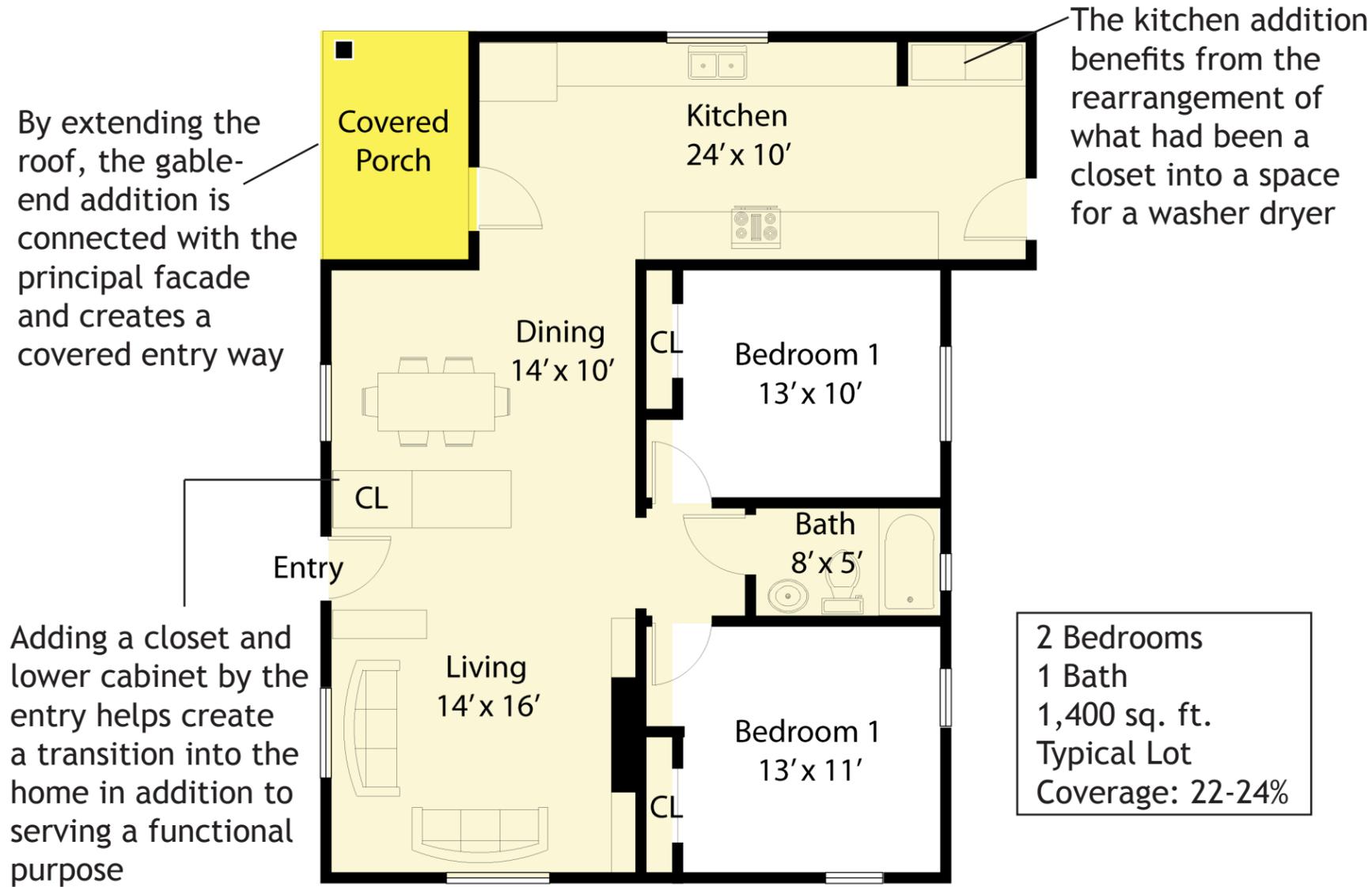


MINIMAL TRADITIONAL

The Minimal Traditional style was a pre-cursor to the widespread Ranch style. These houses were constructed in the mid-1930s through the late 1940s, during a time when materials and resources were limited. The result was a modest, efficient home with minimal detailing. The boxy, rectangular form is topped by a side-gabled roof (and sometimes a projecting front gable). The roof overhang is very shallow, and the eaves are closed. The windows typically flank a central entrance.



This Minimal Traditionalist home is yet another key example of the vernacular style scattered through Reno Park and Stocke-Walter. The lot and layout of the home offer many options for the design and configuration of a larger home more suited to fit the needs of modern home buyers. Today these homes are ideal for aging residents that cannot maintain a large home and first time home buyers. We will provide several options for home owners, from an interior remodel to a rear addition, to enhance the home for the modern age while still staying true to its aesthetically restrained style.



Interior Remodel

In this remodel, the floor plan is opened by removing the wall separating the living room and dining room. To create the sense of an entry space, a closet is proposed by the entry. This feature would serve many purposes, giving the occupant a place to transition into the house on the living room side, and serving as a decorative display with cabinets beneath on the dining room side.

To make the bathroom more usable the small closets in the bedrooms are moved and the bath extended. This significantly lengthens the room and improves accessibility.

On the exterior a modest alteration is proposed to extend the roofline in a manner consistent with the historic form and detailing of a minimal traditional form. This will enclose the space created by the setback of the kitchen addition and create a covered entry into the kitchen



Exterior Expansion

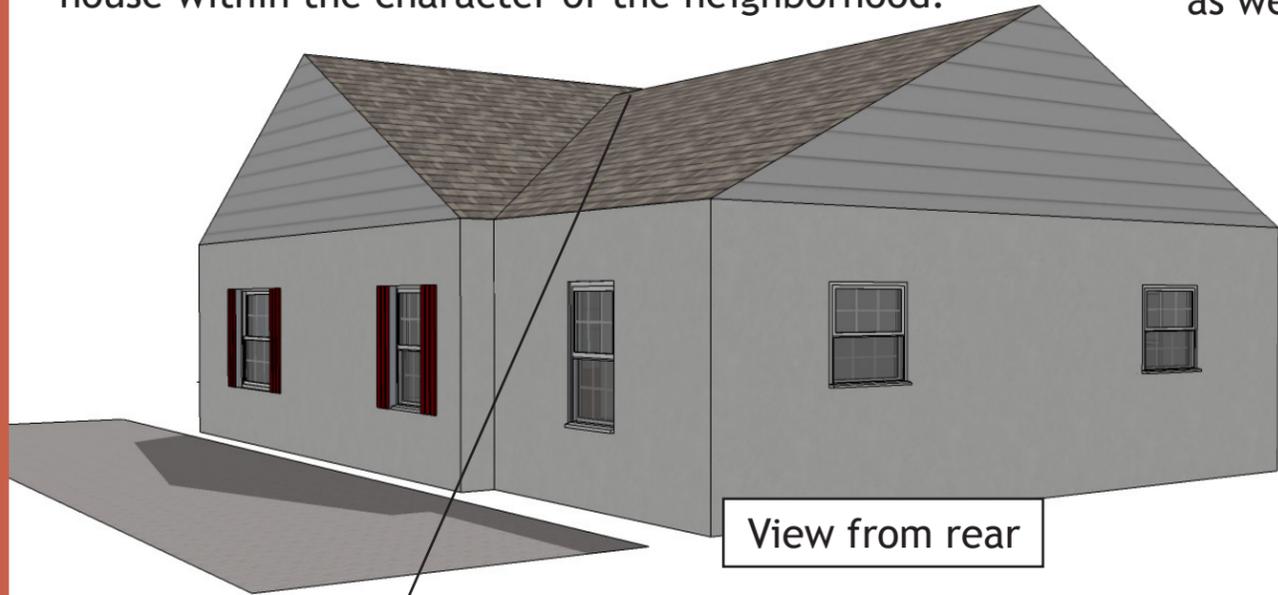
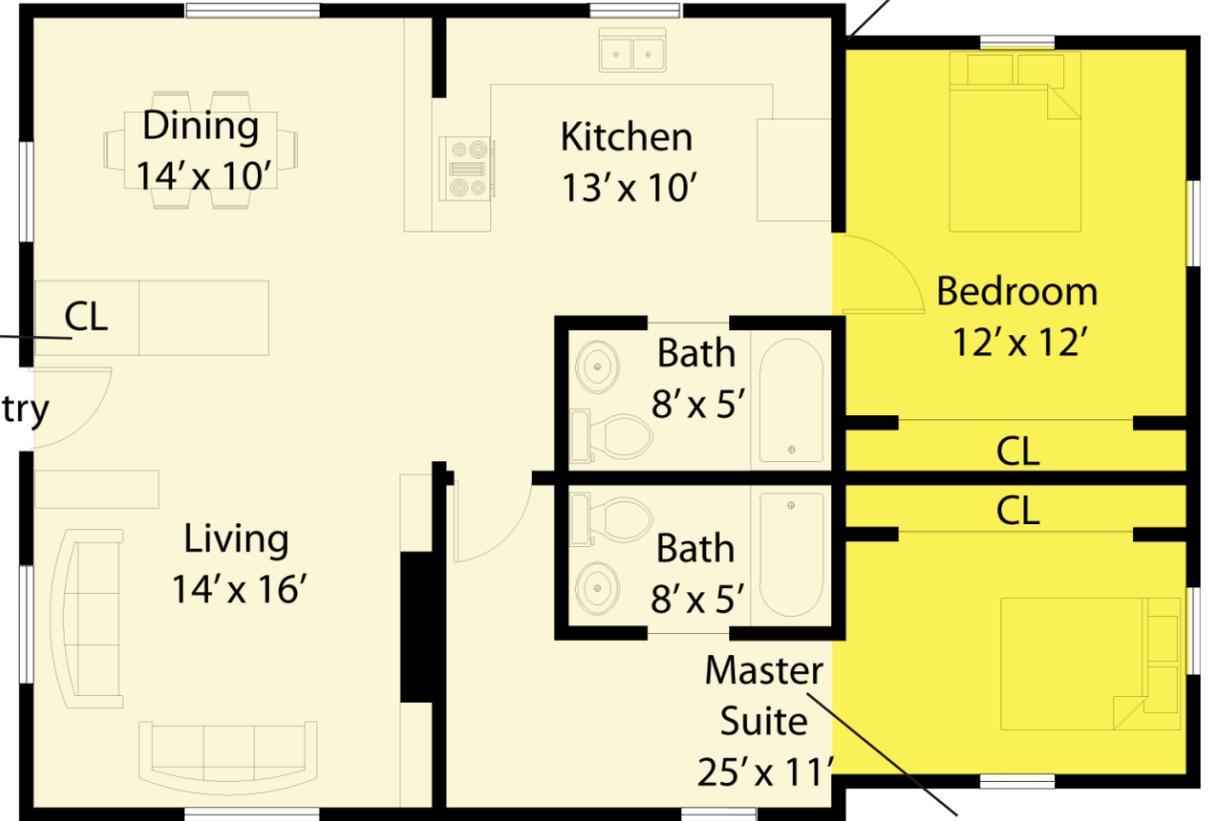
The concept for this expansion was developed with the idea that many homeowners would have this house type in its original configuration, thus, the kitchen addition is not included in this plan. What is presented here is a rear addition, allowing one bedroom to become a master suite and adding a new bedroom. A full-size kitchen with a pass through to the dining room replaces the original second bedroom of the house.

The addition respects the form and materials of the original house, as reflected in the siding and the roof form, which mimics the slope of the existing roof. The low profile of the addition retains the view from the street and keeps the house within the character of the neighborhood.

2 Bedrooms
2 Baths
1,688 sq. ft.
Typical Lot Coverage: 26-28%

The entry closet idea introduced in the remodel plan is applicable for this plan as well

A key element in creating an addition is to respect the historic form and materials while adding clues that differentiate the new from the old. In this plan, the addition is recessed just slightly from the original form to create a visual break.

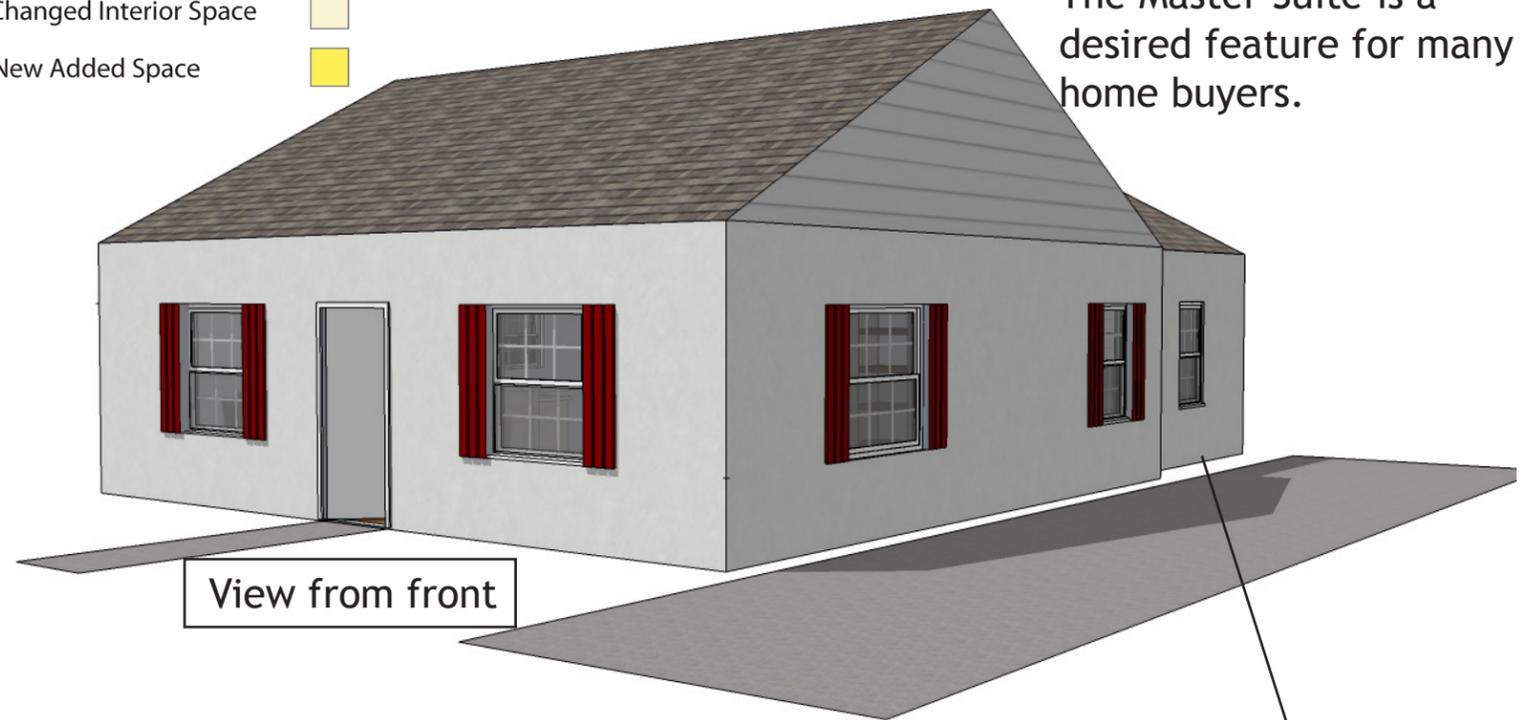


Maintaining the roof form and connecting the new gable end just below the peak of the original roof make this addition a low-profile improvement that maximizes usability without impacting the character of the neighborhood.

Changed Interior Space
New Added Space



The Master Suite is a desired feature for many home buyers.

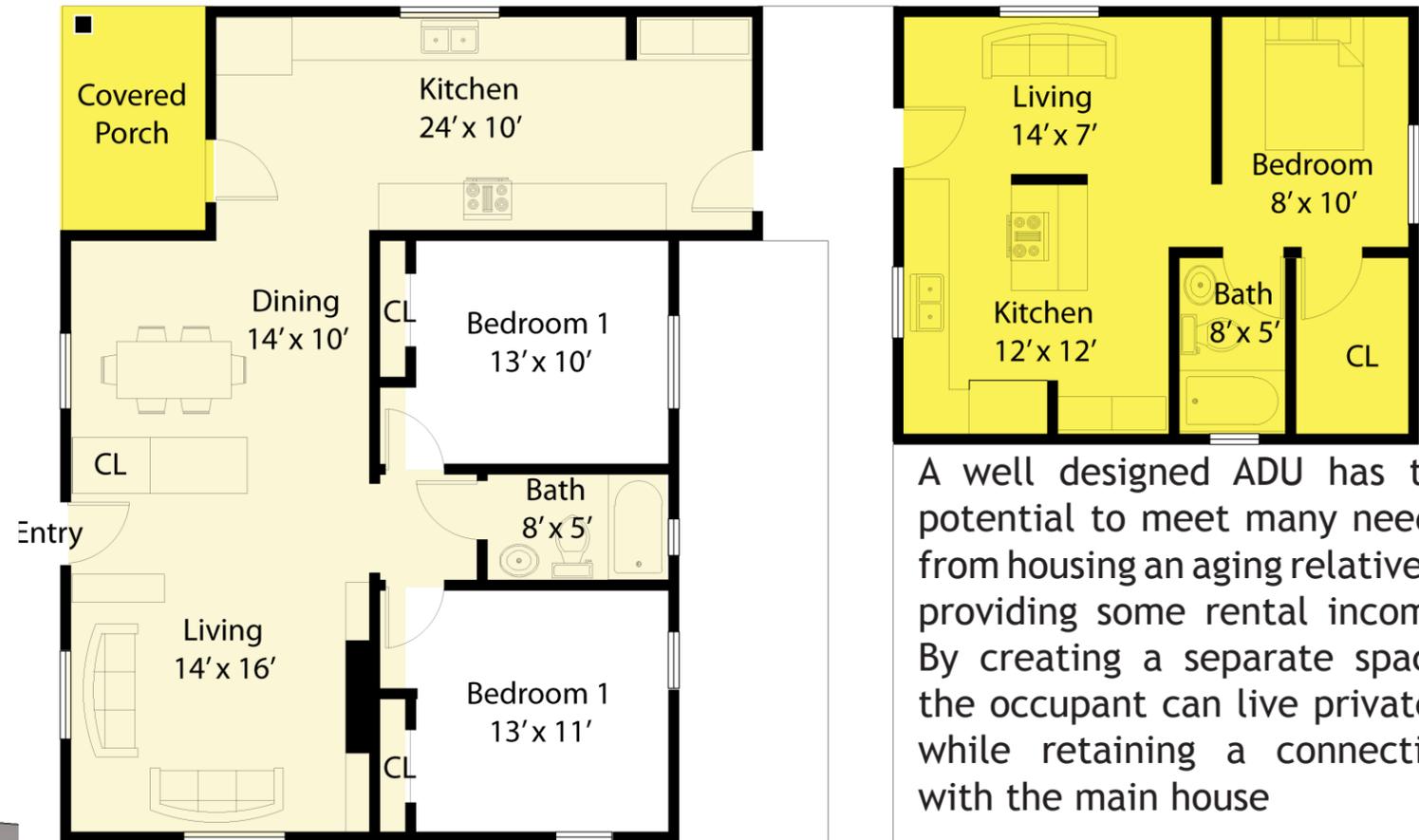


Accessory Dwelling Unit

The Accessory Dwelling Unit, or ADU, is a flexible option that adds a significant amount of space without any impact on the existing home. Depending on your lot size, this is an option that can be applied to any of the other building styles as well. Key factors to keep in mind include site placement to minimize the expense of adding utilities, and making the design complementary and subservient to the primary residence. In this example, the ADU was added to the rear of the home with a breezeway created by extending the ADU roof line. A path from the driveway allows for a private entrance.

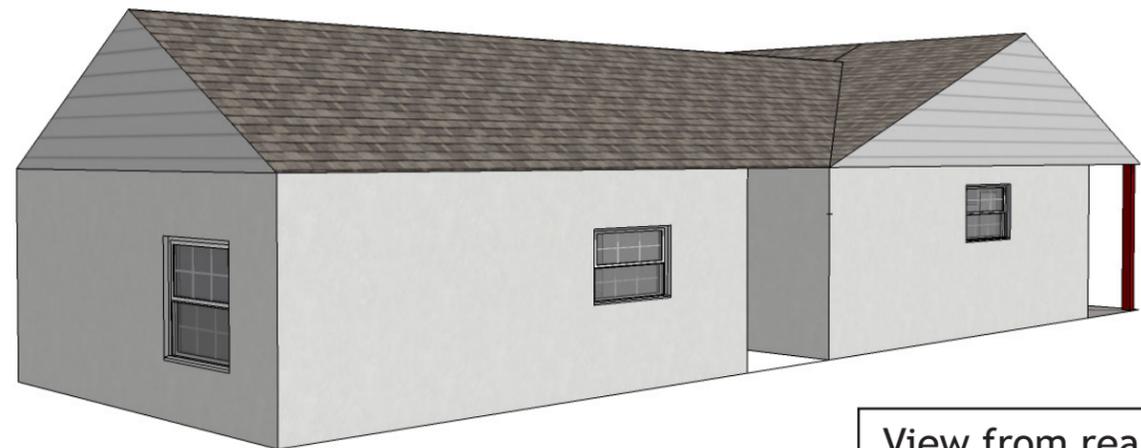


View from front

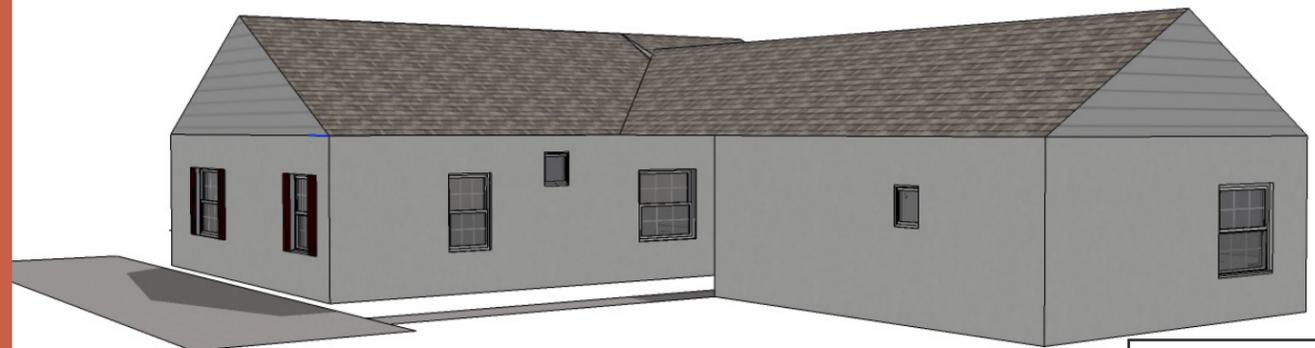


A well designed ADU has the potential to meet many needs, from housing an aging relative to providing some rental income. By creating a separate space, the occupant can live privately while retaining a connection with the main house

1 Bedroom
1 Bath
480 sq. ft.
Typical Lot
Coverage: 29-31%



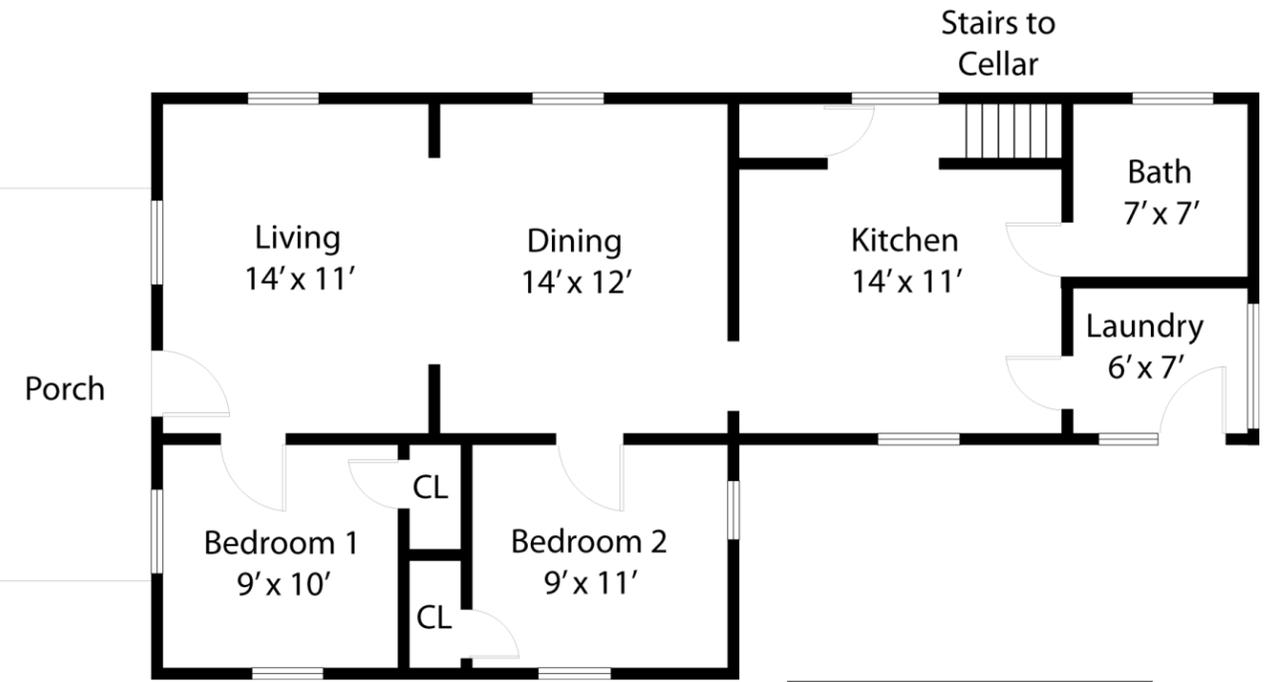
View from rear



View from rear

HIPPED ROOF COTTAGE

The Hipped Roof Cottage is a square, one-story house topped by a pyramidal hipped roof (all slopes are equal). The windows are typically double-hung and flank a central entrance. The original floor plan included two bedrooms, a kitchen and a living room. Due to its small size and modest construction, one or more additions are common at the rear, usually to house a larger kitchen and to add an indoor bathroom. This style is similar to the Classic Cottage style in its form, but the Hipped Roof Cottage is typically more modest in terms of size and architectural detailing. These cottages were often constructed for working-class housing. The solid construction and simple form of these houses are conducive to a sympathetic addition.



The original floor plan for this home would have been limited to this primary cube form.

2 Bedrooms
1 Bath
875 sq. ft.
Typical Lot
Coverage: 13-15%

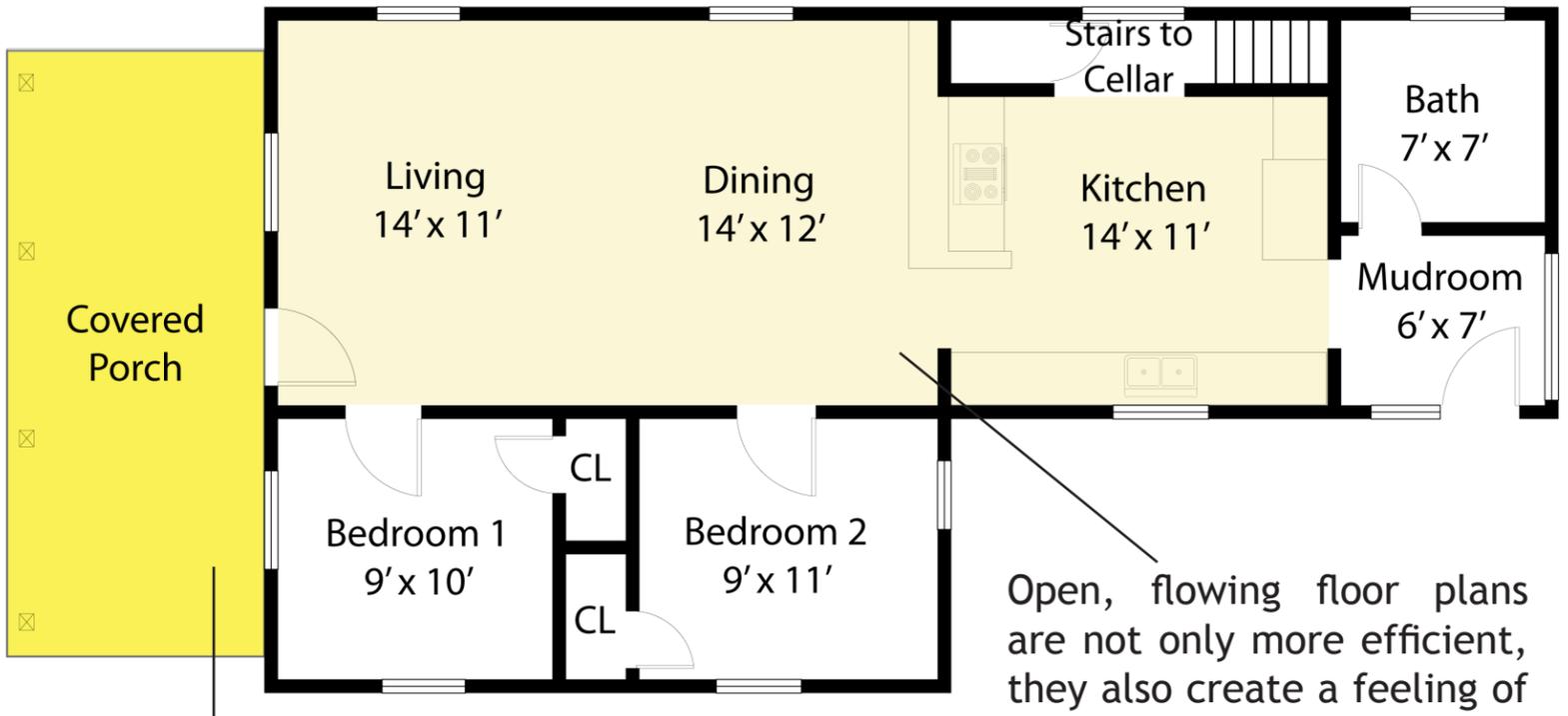
Looking at this home in particular it is evident that the original four room home has been altered significantly in the past 100 plus years. The rear of the home appears to consist of two different additions added at separate times to add a modern kitchen and a bathroom. By looking at other examples in the neighborhood it appeared that this modification was popular as both the kitchen and the bathroom became more important in a modern home. The result however is a house that appears jumbled both inside and out. From a preservation perspective the older, awkwardly proportioned additions are not as important as maintaining the view from the street and the integrity of the original home. Keeping this in mind we approached the design in a few different ways. The first option would be to keep the additions and continue to add onto the existing home, and the other option presented is to remove the additions and replace them with a single, less prominent addition to the rear.



Interior Remodel

Working with the current footprint of the home, the interior remodel plan includes removing walls between the living room, dining room, and kitchen to create an inviting, open space. With this change, the kitchen is more open and flows seamlessly into the dining room.

Recreating a full-width front porch, which reflects the historic style of the home, returns the home to a more consistent appearance with others in the neighborhood and creates a transition space from outside to inside. The porch becomes a shady oasis on hot summer days.



Open, flowing floor plans are not only more efficient, they also create a feeling of openness crucial for a home with a small footprint.

2 Bedrooms
1 Baths
875 sq. ft.
Typical Lot Coverage: 13-15%

It is not uncommon for homes that were built with porches to have lost them over the years due to deterioration. When designing a porch, look for historic photos that can help you document what was originally there. This may allow you to recreate what was lost over time.

Changed Interior Space
New Added Space

Interior View, looking towards entrance



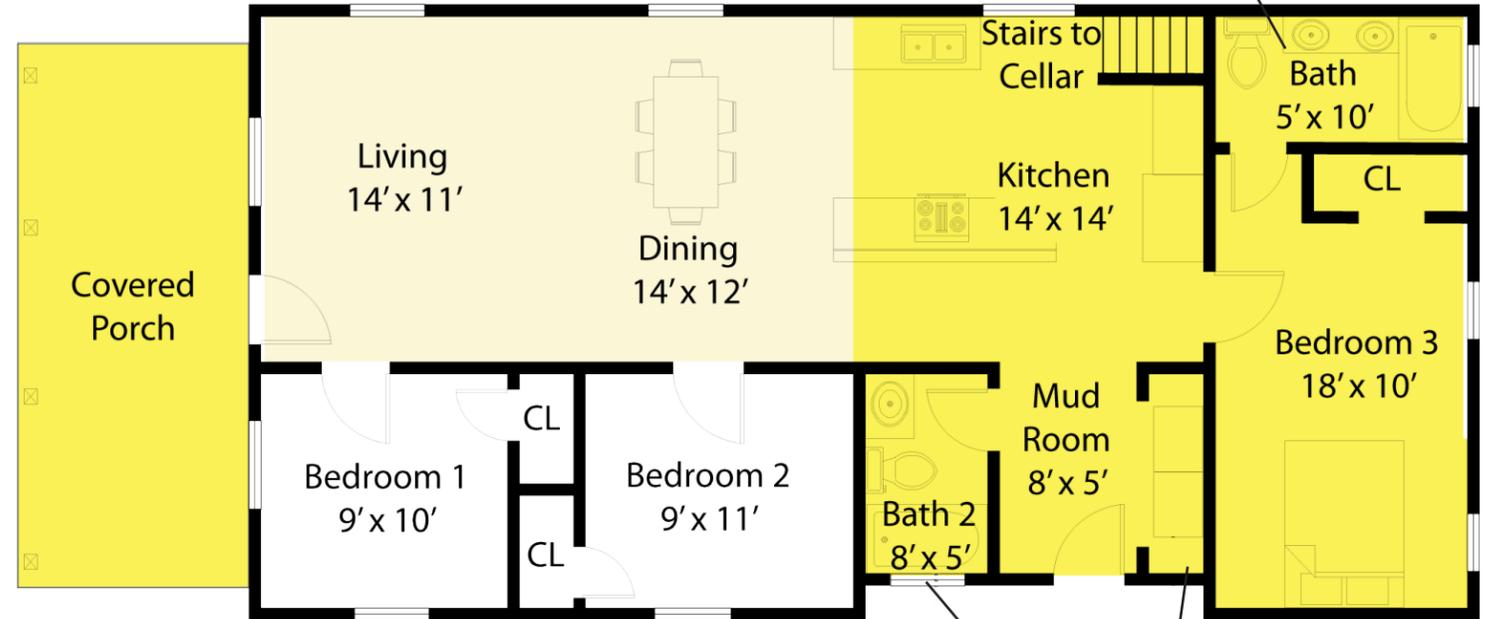
Exterior Expansion

Although many homes of this architectural style have been altered, this plan assumes your home has maintained the original square footprint. Incorporating the open plan introduced in the remodel, this plan greatly increases the size of the home by creating a rear addition. The addition respects the form and materials of the original house, as reflected in the siding and the roof. Note the roof on the addition is consistent with the slope and continues the flat portion of the original roof.

The addition is recessed slightly from the historic cottage form, creating a visual hyphen, and indicating that it is not original to the home. The new addition features a master bedroom suite along the rear wall with private bath and ample closet space. The recessed portion of the wall houses an entry door with mudroom and laundry. The kitchen is much more substantial in this plan and creates a central gathering place.

3 Bedrooms
2 Bath
1,225 sq. ft.
Typical Lot
Coverage: 18-20%

Keeping the master bedroom at the rear of the home has many benefits including privacy and windows that face into the rear yard. A master suite such as this would be a valuable asset if this home were put on the market



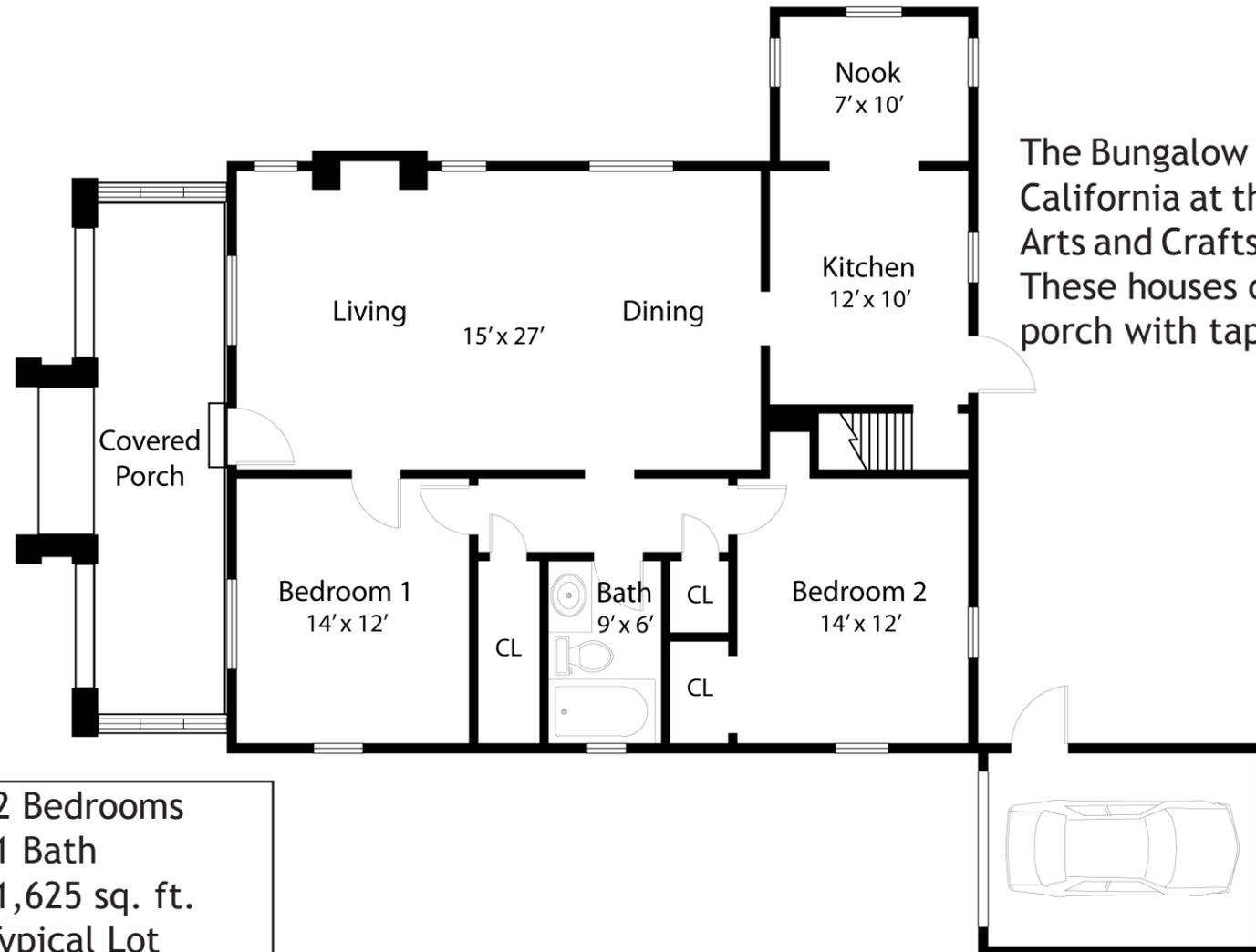
The addition creates enough room for what are now considered necessary amenities like a second bathroom and laundry area



View from rear

BUNGALOW

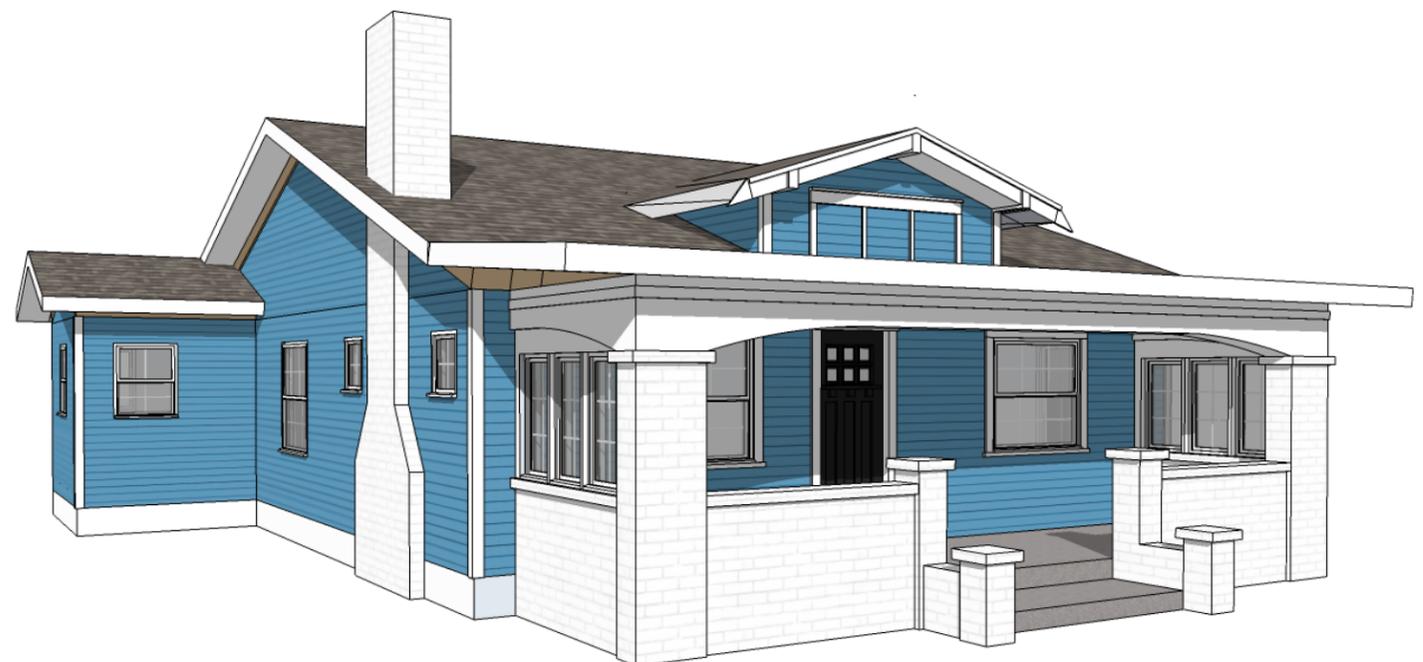
The Bungalow style was widely popularized by the work of Greene & Greene Architects in California at the beginning of the Twentieth century. These homes were influenced by the Arts and Crafts Movement, which valued simplicity and utility of authentic craftsmanship. These houses can be identified by their low sloping roofs, exposed rafter tails and broad porch with tapered columns. Windows are usually double-hung with divided lights.



2 Bedrooms
1 Bath
1,625 sq. ft.
Typical Lot
Coverage: 25-27%



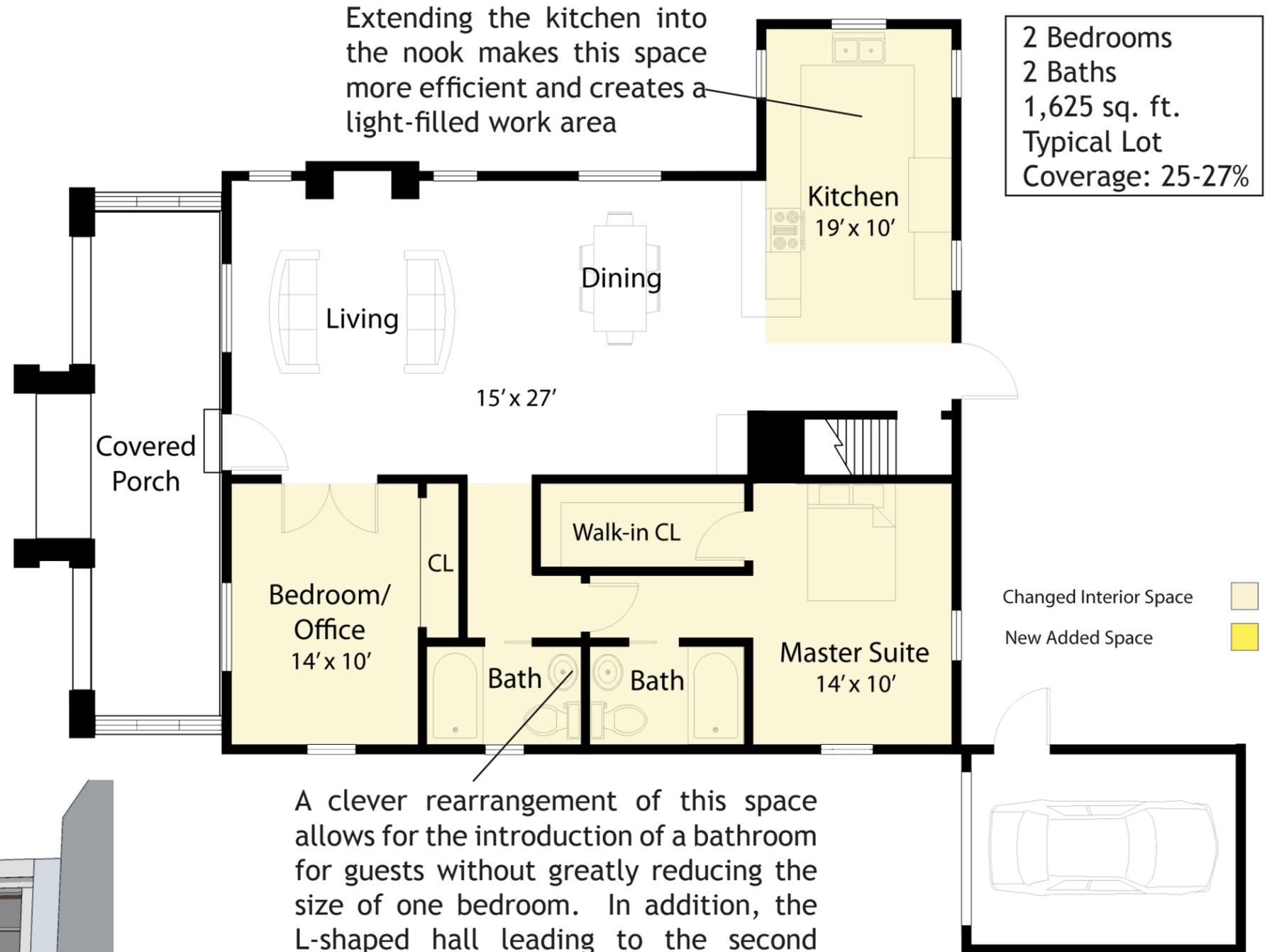
This Craftsman Bungalow has retained all the charm and character of its earlier days, from its classic porch to the interior door frames, making it a good example of the bungalow style. Like many homeowners in both Reno Park and Stocke-Walter, the owners of this home believe in the longevity of their home's classic aesthetic. When looking at this design it is hard to suggest changing anything, but with new needs and desires of the ever changing American family it is often necessary for home owners to expand and enhance their historic homes. With this in mind we set out to design three distinct adaptations that would benefit the home and the occupants. Using the house as a model of most bungalows in the area we will try to illustrate several different ways to handle this beautiful and unique style.



Interior Remodel

To remodel the interior of this home, the walls defining the kitchen and the protruding nook were removed to create a more substantial cooking area and open the floor plan. This configuration creates a seating area by the kitchen counter that serves as an informal eating or visiting area, and still retains the more formal dining area.

The bedroom space is made more functional by removing a portion of the hallway while reconfiguring the plumbing to create a bathroom for use by guests, and a generous full bathroom in the master suite.



Interior View, looking from entrance



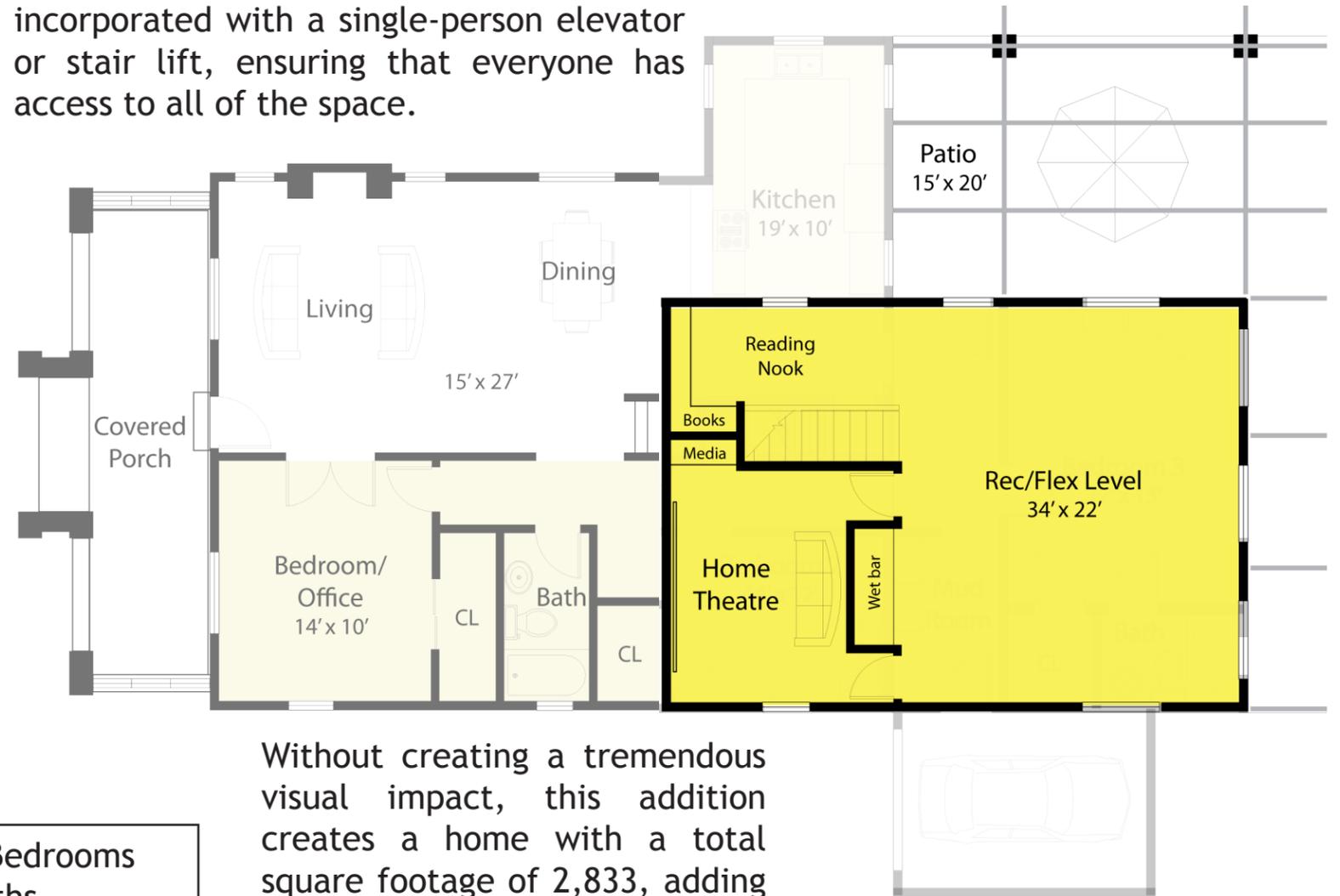
A clever rearrangement of this space allows for the introduction of a bathroom for guests without greatly reducing the size of one bedroom. In addition, the L-shaped hall leading to the second bedroom increases privacy and creates the opportunity for a display along the wall visible to visitors.

“Pop Top” Addition

A second-story addition is popular with many owners of smaller homes. However, If done without consideration of the scale and massing of the original building, the addition could alter the character of not only the home but that of the entire neighborhood.

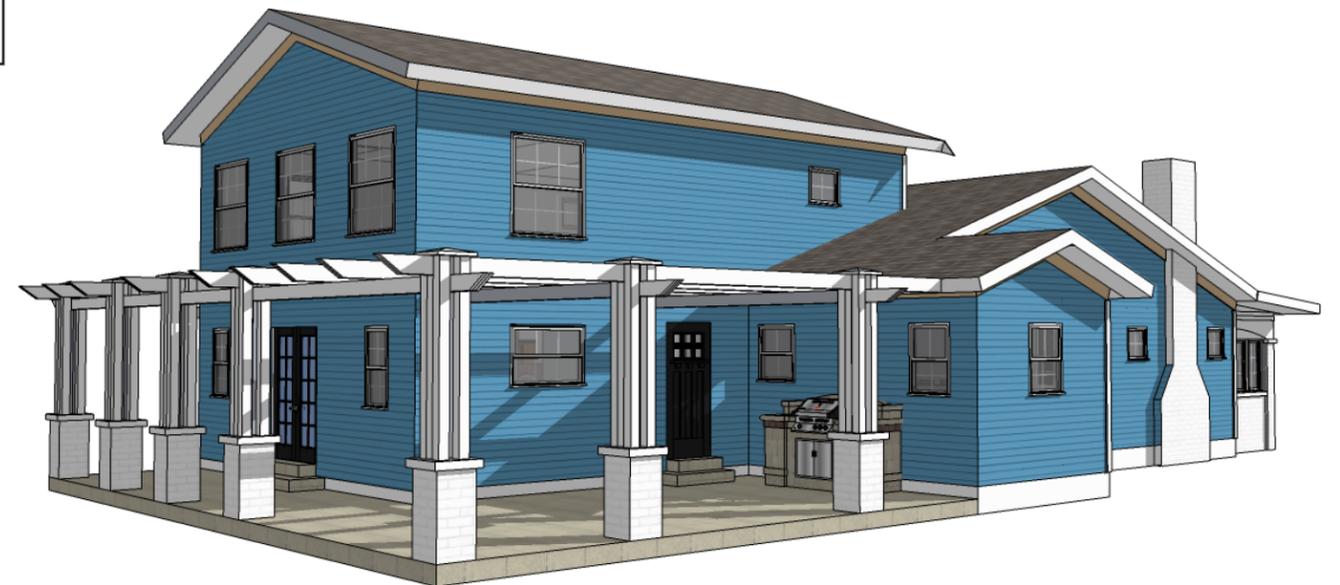
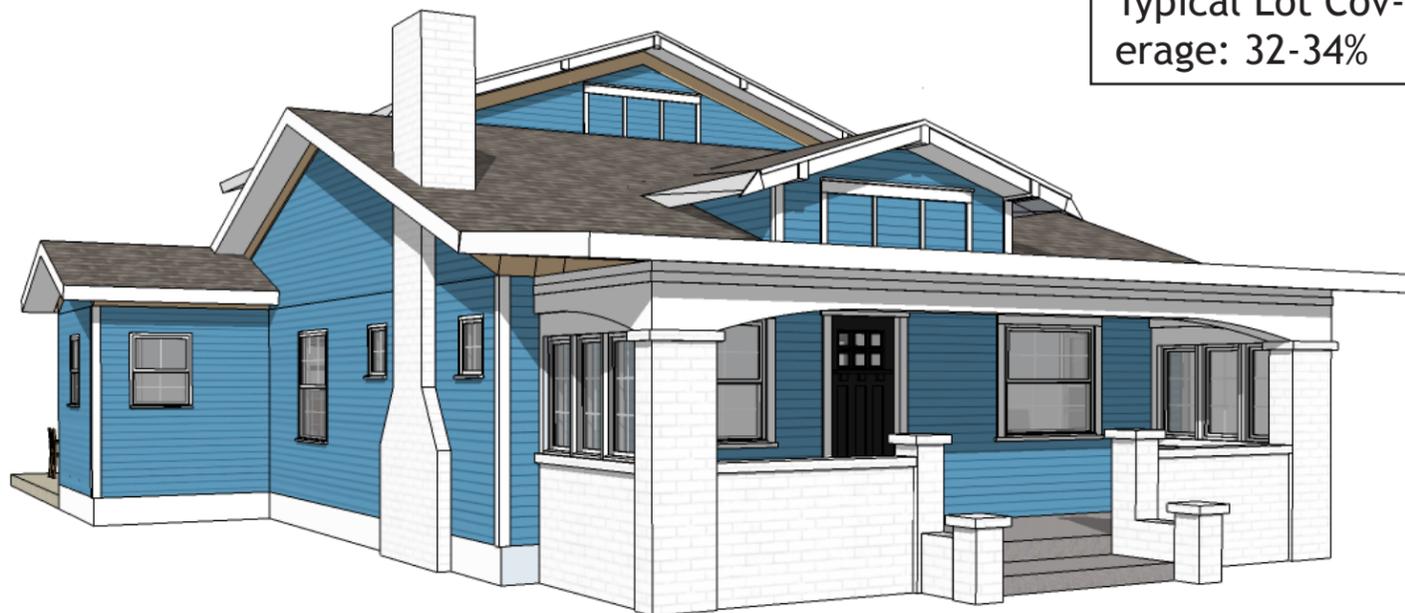
Here is an example of how a second story addition can be added to the bungalow form without compromising the home’s integrity. Referencing images of historic bungalows built with a second story as precedent, this addition builds on the footprint introduced in the Exterior Expansion plan. Using a similar roof pitch and decorative elements as found on the original front dormer, and anchoring the addition below the ridge line of the roof, the new addition reflects the character of the historic home while remaining visually subservient.

If mobility is a concern, this plan can be incorporated with a single-person elevator or stair lift, ensuring that everyone has access to all of the space.



4-5 Bedrooms
 2 Baths
 2,833 sq. ft.
 Typical Lot Coverage: 32-34%

Without creating a tremendous visual impact, this addition creates a home with a total square footage of 2,833, adding 1,208 square feet to the original!



TIPS TO KEEP IN MIND

Incorporating these ideas into your remodel project will result in a home that you can grow into. Aging in Place ideas can benefit families of all ages, while the energy efficiency section will help reduce your energy costs. The Secretary of the Interior's Standards for Rehabilitation will help your remodel project be compatible with the neighborhood and preserve the character of your unique home.

ENERGY EFFICIENCY

Often the motivation for improving the energy efficiency of a home is to increase comfort and reduce utility bills. Homes built during the pre-war years often lack sufficient insulation, which is a major cause of energy loss. While replacing windows is usually the most publicized step to increase the energy efficiency of a home, other, more crucial steps should be taken first. An energy audit will analyze the overall operation of the building which will help you prioritize the improvements so that you make the best investment. More information can be found online at www.preservationnation.org/issues/weatherization/.

ACTIVE MEASURES

- Before any work is done to increase energy efficiency, hire an energy auditor to analyze your home. They will be able to identify problem areas and help you invest wisely in home improvements.
- Properly insulate attic and basement space. Homes from this era typically lack sufficient insulation and any savings gained from new appliances or other improvements will be lost if the building envelope is not properly sealed.
- Weather-strip around the window sash (the movable part of a window) and apply caulk between the frame, trim and wall to decrease air infiltration.
- In addition to windows and doors, air infiltration is common around plumbing penetrations, electrical outlets and recessed lighting. Insulating these areas will ensure that conditioned air is not lost to the outside.
- Add storm windows.
- Insulate hot water pipes.
- Inspect the radiator system and bleed off any air in the lines. Excess air will prevent warm air from properly flowing through the pipes.
- Replace an older boiler or furnace with a high-efficiency system and make sure it is correctly sized.

EASY CHANGES ADD UP

- Install low-flow or aerated faucets to reduce water use.
- Replace incandescent bulbs with CFL light bulbs, which will last longer and use less energy. CFL-specific light fixtures are optimal.
- Install a programmable thermostat.
- Use the inherent energy efficient design features of your home. During the summer, open windows at night to let cool air in. In the morning, shut the windows and close the blinds to keep the cool air inside. In the winter, switch the routine and open windows during the day and close them at night.
- Lower the thermostat by 10 degrees at night and when you leave.
- Ensure the flue damper of your fireplace is tightly closed when not in use. Consider installing temporary insulation in the flue during the summer months so cold air does not escape.
- Replace furnace air filters regularly and routinely dust baseboard heaters.
- Plant trees and lattice vines to shade your home. Deciduous trees will shade the home in the summer and allow sunlight in during the cold winter months.

AGING IN PLACE + MULTI-GENERATIONAL HOMES

The National Association of Home Builders defines Aging in Place as “living in one’s home independently regardless of age or ability.” As the Baby Boomer Generation ages, the majority wish to remain in a familiar and comfortable environment. The ‘Aging in Place’ philosophy helps homeowners plan for the future by suggesting changes that will make a home more comfortable, safe, and accessible as their health care needs change. These modifications can also aid growing families: slip-resistant floors, detachable shower heads, and varied counter heights allow young children to be more independent. For more ideas and information, please visit the National Association of Home Builders’ web site at www.nahb.org/.

A SAFER HOME

- Poor lighting is often the cause of preventable accidents. Additional lighting in dark hallways and stairways will minimize the risk of tripping. If feasible, add a skylight to increase the natural light in your home. Lighting from multiple directions (such as track lighting) will reduce glare and shadows.
- Ranch homes are great for ‘Aging in Place’ because of their single level layout. As stairs become a hassle, it is important to have alternative access; Have at least one no-step entry into the house, with an awning for protection.
- To prevent tripping, ensure all material transitions are flush: from carpet to linoleum or tile and over thresholds.
- As part of your remodeling project, and when feasible, widen doorways and hallways to at least 3 feet for ease of mobility.
- Install levered door handles rather than knobs and ‘rocker’ light switches. These are easier for people of all ages to operate.
- Design flexible rooms to accommodate future needs. A nursery or child’s room may later become an office.
- Choose hard, non-slip flooring which will be safer and easier to clean.
- Make room for a bench or shelf near the entrance to set groceries or keys.
- If you are adding a second level, stack closets so an elevator can be installed at a later date if needed.

IN THE KITCHEN

- Lower cabinet height two to three inches below conventional height for ease of access.
- Varied counter top heights and side-by-side refrigerators will accommodate cooks of all heights and abilities.
- A wall mounted oven will reduce the need to bend and lift heavy dishes.
- Contrasting colors for the counter tops and floors will help those with diminishing depth perception.
- Add a roll-out tray or lazy susan to base cabinets.

IN THE BATHROOM

- Add a detachable shower head and grab bars in the shower.
- If you choose to remodel your bathroom, add plywood reinforcement beneath the sheetrock to allow for future installation of grab bars.
- A curbless shower will help adapt changing needs.
- Wall-mounted sinks provide the space needed for a wheelchair and gives an airy feeling to a small bathroom.
- Slip resistant flooring in the bathroom can prevent slips and falls.
- Lever faucet handles and anti-scald controls prevent burns.
- Lastly, a front-loading washing machine and dryer will make chores easier. If feasible, raise the appliances a foot off the ground to reduce the need to bend.

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

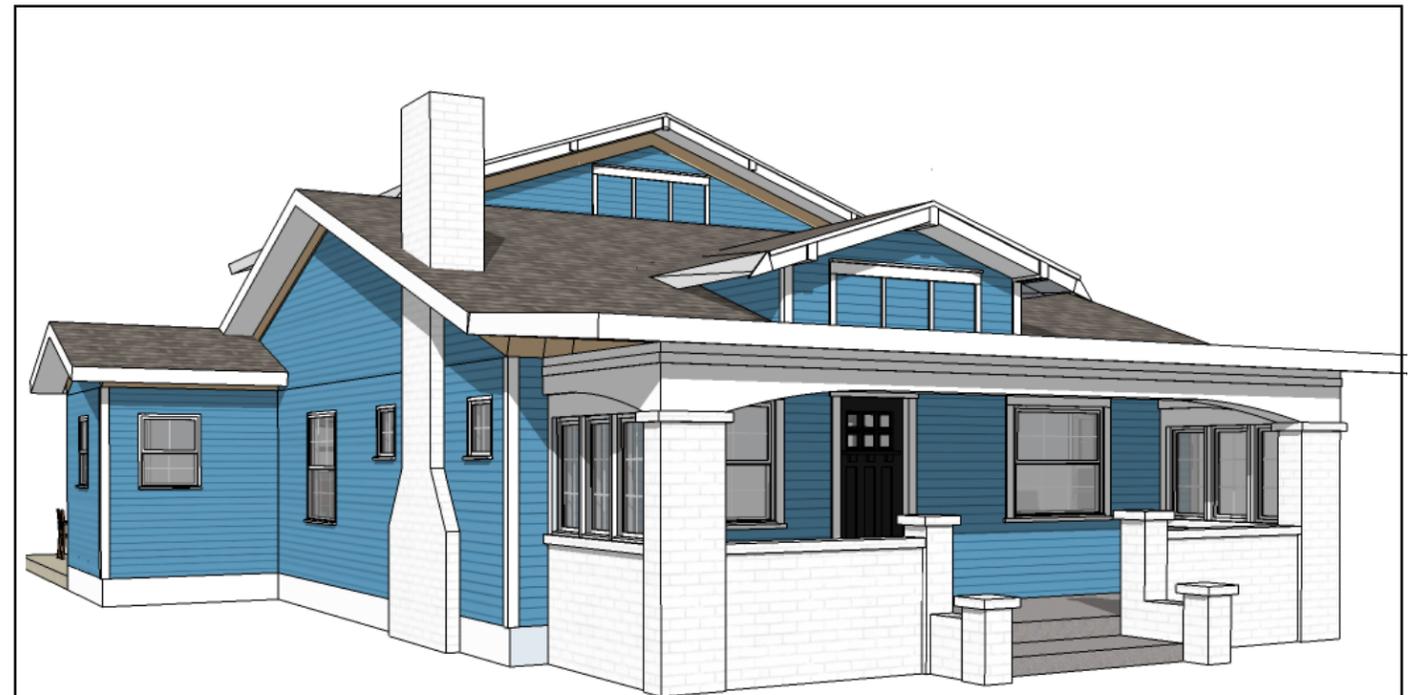
The Secretary of the Interior's Standards for Rehabilitation were originally intended for the proper maintenance of old and historic properties. Since then, they have helped shape design guidelines across the nation, and are widely used by architects, preservationists and city planners. As the homes in the pre-war neighborhoods of Reno Park and Stocke-Walter are located in historic districts, following the Secretary of the Interiors Standards will be necessary to retain the historic significance for these homes, and will help retain the mass, character and scale of the neighborhood. The Standards are available online at www.nps.org. The City of Arvada has developed design guidelines for Olde Town Arvada, available online at: <http://static.arvada.org/docs/1250610523Design%20Guidelines%20for%20Olde%20Town%20Arvada.pdf>. Both Denver and Boulder's guidelines are based on the *Standards* and are a valuable tool when designing a compatible addition. The City of Denver's Design Guidelines are available at www.denvergov.org/preservation.

- Place the addition at the rear of the building so the character-defining features of the original building are not obscured or destroyed.
- Keep as much of the historic fabric and materials as possible.
- Design an addition so that it is compatible but can clearly be differentiated from the original building.
- Use materials, mass, scale, color and the relationship of solids and voids to create a compatible but different addition.
- Consider the neighboring buildings and stay within the mass, scale and character of the neighborhood.
- If you choose to add a second story, set it back to be more inconspicuous.
- Maintain the relationship of the structure and its site, such as its setback from the street.
- Design additions and alterations to be compatible in terms of size, scale and appearance with the main building.

Below is an example of how to integrate an addition into the existing house. The addition (to the rear) is clad in matching siding, but is differentiated from the original material via the use of a niche to create a visual hyphen.



An alternate solution would be to use a material for wall cladding that was different from, but visually compatible with, the original siding.



The image above shows how an addition can be positioned in a way that retains the character of the original house.

By setting the addition back from the front of the house it is less conspicuous and does not dominate the view from the street. The addition is compatible with both the architectural style of the house and the character of the neighborhood because the roof form of the addition is consistent with the shape, pitch, material and massing of the existing home. Mature vegetation creates a friendly and established feeling. Respecting the unifying character of the neighborhood will result in a more compatible and marketable home.

THE PERMITTING PROCESS + CONTRACTOR SELECTION

Now that you have ideas in mind and potential plans, it is important to educate yourself on your local permitting process and begin interviewing contractors. As this guide focuses on homes in Arvada, the permitting process for that municipality is detailed. As building codes and permit requirements vary from community to community, it is recommended that you contact your local permitting authority early in the planning process to ensure compliance and avoid unpleasant (and expensive) surprises.

THE ARVADA PERMITTING PROCESS

A Project that is Restricted to the Interior:

- If the scope of your project involves work that includes structural, electrical, plumbing, and/or mechanical improvements it will be necessary to receive a permit from the City. A permit is applied for before work begins so that the Arvada Building Division can review it for compliance with the International Building Code (IBC).

To learn more about the IBC go to: <http://www.iccsafe.org>

- Building permit applications can be found on the City & Community of Arvada website: <http://arvada.org/residents/permit-guides-and-applications/>

A Project that Expands the Existing Building Footprint:

- A site plan must be prepared that shows the existing building and any other improvements to the site (sheds, etc), their dimensions, and their relationship to the property lines. The new addition should also be evident on the plan with correct dimensions. The site plan should also include distances from the buildings to the property lines, the size of the lot, and the relationship of the property to the streets.
- Once prepared this plan is reviewed by the Code Enforcement Division to ensure that it meets zoning requirements. To find out about the zoning for your specific property please visit the interactive map at:
<http://maps.arvada.org/website/arvada/Generic/viewer.htm>
- After the site plan has been approved by Code Enforcement the application will then be considered by the Building Division for compliance with the IBC.

For questions regarding zoning and other restrictions please contact Code Enforcement at 720-898-7465.

For questions regarding building codes and structural considerations please contact the Building Division at 720-898-7465.

CONTRACTOR SELECTION GUIDANCE

- Always have a contract, even if a friend is doing the work. Contracts spell out the work that is expected, when the money is to be paid, and other details that can become lost as a project proceeds.
- Request references, and *follow up on them*.
- If you are interviewing a contractor to work on your historic home and they continuously try to push replacement products or quick fixes, be wary.
- Request proof of licensure and insurance. Their level of insurance should be equal to the value of your home at a minimum.
- Don't pay in full up front. Payment of a percentage of the contract up-front is acceptable as it allows the contractor to purchase supplies, but always withhold a retainer until the work is complete and all final details have been approved.
- Questions to ask: How busy are you? Who will be doing the work? Have you completed a job like this before?

ACCESSORY DWELLING UNIT (ADU) GUIDANCE

The ADU is advocated in this guide as a good choice to add on living space to a home with a small square footage without compromising visual integrity. However, rules for ADU construction will vary, so always be sure to contact the local planning office to discuss your project before spending too much time and money. The following are examples of rules that pertain to Arvada specifically.

- In Arvada, the ADU can be no larger than 800 square feet or 40% of the principal dwelling unit.
- An ADU is limited to a studio or one-bedroom unit.
- An on-site parking space for each ADU is required.
- The owner of the property must reside on the property.
- The ADU is subordinate to the principal structure, and the ADU entrance cannot be directly visible from the street.

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Many hours were spent at the Arvada Historical Society and the Denver Public Library, searching through print and archived materials. If you are interested in learning more about the pre-war years in Arvada, we would suggest a trip to the Arvada Historical Society located in the historic McIlvoy House at 7307 Grandview Avenue, Arvada. Call 303-431-1261 for hours and availability.

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