



State of California
Department of Housing and Community Development

Minimum Architectural and Design Program Standards

Subject: Owner-Occupied Rehabilitation and Reconstruction Program (OOR),
Community Development Block Grant - Disaster Recovery (CDBG-DR)

Version: Draft 04/05/2022

Overview

1. Purpose: To establish the minimum standards for home design and construction within the OOR program.
2. Applies to: All HCD employees, individuals and organizations representing HCD while administering the OOR program.
3. Cancels:
4. Originator: OOR Housing Program
Housing and Economic Revitalization Section
CDBG-Disaster Recovery Branch
Division of Financial Assistance

1. Standards Intent

This document defines the Minimum Architectural and Design Standards (hereafter referred to as “Minimum Program Standards” or “MPS”) that shall be utilized in the design and construction process in order to support the California Department of Housing and Community Development (HCD) in the implementation of the Owner Occupied Housing Rehabilitation and Reconstruction Program (OOR) as part of California’s recovery efforts, in accordance to Federal, State, and Local requirements and in connection with appropriated disaster assistance funding under the Community Development Block Grant for Disaster Recovery Program (CDBG-DR) allocation.

The intent of the OOR Program Minimum Program Standards is to:

- Enhance consistency in the design approval process.
- Promote the use of durable resilient materials that reduce maintenance costs for the applicants.
- Create a healthy living environment for the program’s eligible applicants.
- Appliances to meet energy and water efficiency minimum requirements for the State of California.
- Balance quality of materials with cost containment principles.

These apply to Repair, Reconstruction, and MHU Replacement Type of Grant Awards of the OOR Program and shall make part of the Scope of Work (“SOW”). Current expectation will be for all program homes to comply with minimum Wildland Urban interface (“WUI”) code. The Program reserves the right to waive minimum architectural and design standards herein stated on a case-by-case basis. Waivers will be made by The Program after careful analysis of requests from the Construction Manager (CM) for a waiver.

2. Codes, Laws, and Regulations Compliance

The Construction Manager’s designs and construction under the OOR Program must comply at a minimum with the latest applicable local codes. All work performed by the OOR Construction Manager and Subcontractors must also comply with most current federal, state, and local, codes, laws, regulations, and standards.

3. Reconstruction Unit Size and Exceptions

To reduce the required time from award to completion as related to reconstruction and relocation with new construction awards, the Program will provide plans and specifications for “model homes” available to applicants. As directed by the Program, an Applicant will have a choice of two-bedroom, three-bedroom, four-bedroom, five-bedroom, and six- bedroom “model homes.” Types of designs for these “model homes” should include:

- Single-Story Homes for construction in urban or suburban lots with front, rear, and lateral yard space in accordance with zoning regulations. These types of homes must not share walls with adjacent homes (no row house nor twin house configuration). These types of homes shall have two bedroom, three-bedroom, and four-bedroom options available.
- Two-story options will be provided only in instances when lot dimensions or zoning regulations require two-story homes. Two-car garages will be incorporated in all base house designs.

All designs of “model homes” will have at least three (3) front façade design alternatives. However, if the home is to be built on a historic district the façade may have to be submitted for further permit requirements. Furthermore, all “model homes” should have options for applicants to choose from such as exterior paint color schemes (siding color/door color/roof shingle), program approved combination color schemes, cabinets color scheme, and floor color schemes.

Minimum area for spaces in the eligible model homes will be as follows:

- 2-Bedrooms 1,000 – 1,399 SQFT
- 3-Bedrooms 1,301 – 1499 SQFT
- 4-Bedrooms 1,500 – 1,799 SQFT
- 5-Bedrooms 1,800 – 2,299 SQFT
- 6-Bedrooms 2,300 – 2,499 SQFT

4. MHU Replacement Unit Size and Exceptions

To maximize productivity and allow for the GC to purchase units from multiple providers in varying sizes and floorplans, applicants will be provided homes for which they are determined eligible based on the following criteria for bedroom and bathroom configuration and square footage ranges as shown below, provided that the home fits the size requirements for the size and delivery route.

Square Foot Range	Bedrooms	Bathrooms	MHU Type (Sections)
700-999	2	2	Single
700-999	3	2	Single
800-999	2	2	Double
1000-1299	3	2	Double
1300-1599	3	2	Double
1600+	4	3	Triple

Program reserves the option to adjust MPS as necessary due to changes in the construction market conditions.

5. Resilience Standards

Green Building Standards

The California Green Building Standards Code serves as the program’s HUD-required Green Building Standard. All homes shall be constructed to meet all California building code (included in Title 24). Comprehensive green building standards improve the lives of residents, support community revitalization, and protect the environment. There are significant social, environmental, financial and health benefits to incorporating a comprehensive set of green building standards. While some housing Programs may start off with a partial approach to “going green”, the greatest benefits accrue from adopting a holistic green building standard that results in resource conservation, healthier living environments, and restored neighborhoods.

HCD has determined that the 2019 California Green Building Standards Code will be the requirement and expectation for all construction activity.

The California Green Building Standards (known as CALGreen Code) will require all new construction and replacement of substantially damaged residential buildings to meet the Green Building Standard, by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design.
- Energy efficiency.
- Water efficiency and conservation.
- Material conservation and resource efficiency.
- Environmental quality.

Restrictive flow rate showers, faucets, and toilets help control the demand on water use in a state sensitive to drought. CALGreen standards incorporate guidance from agencies associated with the State of California Department of Housing and Community Development and includes ENERGY STAR® and EPA certifications among their necessary construction and design requisites. Energy Star appliances help reduce household energy use and are energy efficient – becoming cost-effective.

Fire-resistant Construction

All homes shall be constructed to meet Wildland-Urban Interface code, including those not located in a zone where it is required. This approach recognizes that it operates in an area at risk of future wildfires and serves as a reasonable precaution against future property damage.

Durability

The program will select and install materials that emphasize durability and a long service life whenever practicable. These selections will ensure that homeowners do not need to make repairs for as long as possible, increasing the stability and sustainability of homeownership for low to moderate income participants.

6. Details Associated with Compliance to California Energy Code (“CEC”)

For the repair of non-substantially damaged residential structures, The Program will follow - to the extent they are applicable to the construction methods utilized - the guidelines specified in the 2019 CalGreen Checklist. When older or obsolete products are replaced as part of repair work, The Program will use products and appliances with ENERGY STAR® labels, WaterSense labels, or FEMP equivalent designations. For specific required equipment or materials for which an ENERGY STAR®- or WaterSense-labeled or FEMP-designated product do not exist, the requirement to use such products does not apply.

The intention of CEC is to reduce carbon footprint and improve efficiency; program homes, when required, will be built with whole house fan and Indoor Air Quality (“IAQ”) fan to improve ventilation and air flow. There will be a thermal envelope and “cool roof” emissivity value to reduce heat absorption.

The reduction of off-gassing through the requirement of low-VOC products generates a cleaner and healthier interior air environment. To minimize the consumption of energy and diminish reliance on the electric grid, photovoltaics (solar panels) will be required.

All projects and associated appliances are subject to Title 24 analysis and calculations to ensure compliance with California Energy standards.

A required manual is to be supplied to the authorized applicant/homeowner at the end of construction with various warranty and maintenance informational documents. The owner will have the knowledge and control to prolong the lifespan of many appliances and systems in their new home. It also gives them the knowledge to properly work such aspects as their thermostat to reduce use, and thereby lessen overall energy consumption.

7. Accessibility Accommodations

Additional modifications to increase accessibility for applicants or household members of applicants who have access and functional needs is an allowable part of the repair, reconstruction, or relocation assistance provided by the Program. Accessible features will be designed and constructed to the ADA 2010 Standards, with HUD exceptions, unless otherwise specified by the applicant through a reasonable accommodation. Accessible features will be approved by HCD / approved designee. Eligible applicants who require additional accessibility accommodations will be provided with accessibility options during the pre-construction meeting (for repair or reconstruction) or during the pre-award meeting (for relocation). Additional reasonable permanent accessibility options will be available to applicants if the applicant or a member of the household requires such accommodations. The costs associated with the accommodations may be considered in addition to the Program caps and evaluated for cost reasonableness.

8. Minimum Program Standards

The minimum program standards are stated in Appendix A of this document. They are an attempt to balance the need for long-lasting designs that will reduce the maintenance requirements and balance with cost effective designs that promote an efficient use of resources.

The following minimum program standards apply to all the eligible pathway awards under the OOR Program. The CM shall conform to these minimum requirements unless waived by the HCD in writing or design standards are needed to meet accessibility requirements.

Appendix A: Minimum Program Standards

I. Accessibility packages

a. Mobility impairment

HC-2: ADA-compliant grab bars for tub and toilet, chrome, or brushed chrome finish.

HC-3: ADA-compliant tub with seat, grab bars for tub and toilet, and hand-held shower wand.

HC-4: ADA-compliant roll-in shower with fold-down seat, grab bars for shower and toilet, and hand-held shower wand.

Bathroom faucet: ADA-complaint lever handles, washer-less, chrome or brushed chrome finish.

b. Hearing impairment

Smoke detector with strobe lights; Doorbell to be connected to strobe lights.

c. Wood Ramp

Minimum 36" width pressure treated wood ramp with zero-step entrance and handrails. Handrail minimum height 34" maximum height 38". Wood ramp finished with two coats of Thompson Water Seal or approved equivalent. Ramp will have an access point from the driveway to the home entrance and/or access point to the road. Ramp and handrail construction shall conform to the requirement of the UFAS, and any additional standards required by HCD.

d. Wheelchair Lift

Installed per manufacturer specifications when use of ramp is not feasible. To be approved in writing by Program on a case-by-case basis.

e. Other accommodations

Other accommodations are available. See "Accessibility Accommodations" in the document above.

II. Appliances

a. Dishwasher

ENERGY STAR certified, 24" minimum width, installed under counter.

b. Garbage disposal

½-HP minimum.

c. Range

Freestanding, gas, or electric, electronic ignition (if gas), minimum 4 burners, knob, or electronic controls.

d. Microwave with vent hood

Installed over range, integrated vent fan 100 CFM minimum, exhausted to outdoors.

e. Refrigerator

ENERGY STAR certified, minimum 18 cu ft., with freezer and ice maker. Enameled or stainless-steel finish. Undercounter and compact models not allowed.

f. Washer & Dryer Connection

Washer and dryer units are not provided. Electric, hot and cold water, and drain connections installed. Vent ducted to outside installed.

III. Bathroom

a. Vanity cabinet

Interior wood substrate must be smooth finish and water sealed, made of high-density PVC panel or water-resistant fiberboard. Sized as shown in construction plans. Water-absorbent fiberboard is not allowed.

b. Drawers

Drawer pulls and handles may be finger-pull or easy to grasp handle style, to be selected by homeowner.

c. Vanity top

Cultured marble with integrated sink.

d. Vanity sink

Integrated into vanity top, cultured marble. Drop-in sinks are not allowed.

e. Mirror

Minimum size 24"x36", preferred width of vanity cabinet. Framed, corrosion, and water-resistant.

f. Bath accessories

Metal construction, hidden screw design, corrosion resistant. Includes toilet paper holder, towel bar (minimum 24" width), hand towel holder, and robe hook.

g. Shower curtain assembly

Includes shower rod, shower curtain rings, shower curtain, and shower curtain liner. Shower curtain rod must be non-slip, rust-resistant, and expandable. Shower curtain rings must be metal and rust-resistant. Shower curtain must be water resistant fabric with rust-resistant grommets (if present). Shower curtain liner must be water resistant fabric or plastic.

h. Tub and Shower

One-piece white fiberglass shower/tub enclosure, enclosed by curtain. Showerhead Maximum 1.8-Gallons Per Minute at 80 PSI, EPA WaterSense labelled.

i. Faucet

Metal faucet body; Maximum 1.2-Gallons Per Minute at 60 PSI; Minimum 0.8-Gallons Per Minute at 20 PSI. EPA WaterSense labelled.

j. Toilet

Porcelain construction, not to exceed 1.28 gallons per flush, elongated; 17"-19" floor to bowl rim height, including the seat; EPA WaterSense labelled.

k. Fan

ENERGY STAR certified, minimum 55 CFM airflow. Controlled by humidistat with range of 50-80% relative humidity or may function as part of a whole-house ventilation system. Ducted to vent outdoors.

IV. Kitchen

a. Cabinets

Substrate constructed of high-density PVC panel, water-resistant fiberboard, or Grade B plywood. Laminate constructed of wood, plastic, or melamine. Interior wood substrate (not laminated) must be smooth finish and water sealed. Back panels minimum ¼" thickness. Minimum 10 LF upper and lower cabinets. Water-absorbent materials not allowed.

b. Countertop

Quartz or granite. Minimum 10 LF. Substrate constructed of high-density PVC panel, water-resistant fiberboard, or Grade B plywood.

c. Backsplash

Constructed from same material as countertop. Covers full length of countertop and full height from countertop surface to bottom of upper cabinet. Splashboard (low height) not allowed.

d. Drawers

Drawer pulls and handles may be finger-pull or easy to grasp handle style, to be selected by homeowner.

e. Sink

Stainless steel, minimum 18-gauge, with two equal sized compartments, minimum 22"x33"x9" size.

f. Sink faucet

Metal faucet body; Two handle; Maximum 1.8-Gallons Per Minute at 60 PSI; Not to Exceed 2.2-Gallons Per Minute at 60 PSI; Must Default to Maximum Flow Rate of 1.8-Gallons Per Minute at 60 PSI. Note: Where Complying Faucets are Unavailable, Aerators or Other Means May be Used to Achieve Reduction. EPA WaterSense labelled. Sink sprayer not allowed.

g. Kitchen appliances

See section II ("Appliances").

V. Interior finishes

a. Walls

Gypsum wallboard, type-A (when required).

b. Interior wall framing

Wood stud framing.

c. Interior paint

200 Zero VOC latest flat paint on ceiling; semi-gloss on trim; or equivalent plus primer; Must be Low VOC in accordance with 4.504.2.2 2019 California Residential Code. Color to be selected by applicant from program standard colors.

d. Interior doors

Semi-solid wood (preferred) or hollow-core composite construction, oak or birch veneer, 1-3/8" thickness, minimum 32" clear door opening width. Sand smooth finished, varnished, or lacquer painted.

e. Interior door hardware

Three (3) hinges and lever-handles, privacy door locks for bedrooms and bathrooms.

f. Baseboard

4"-6" height coordinated with flooring joints, installed with shoe molding, prefer solid wood 1/2" x 6".

g. Closet Shelving

Ventilated wood shelf kit with steel closet system rod, two (2) levels.

h. Flooring type

Vinyl plank installed throughout with ceramic tile in kitchen and bathrooms. Garage no floor covering. Carpet may be installed on applicant request. Flooring must meet one of the following qualifications: Meet California Department of Public Health VOC limits; CHPS Low-Emitting Material; UL GREENGUARD Gold; RFCI FloorScore program.

i. Vinyl Plank

Republic Flooring Pure SPC Max or equivalent; Attached underlayment, 6mm thickness, 20mil wear layer; 100% waterproof, 25-year residential warranty, interlocking installation.

j. Tile

Ceramic or porcelain construction. Minimum dimensions 12"x12" or 12"x24". Non-glare, slip resistant.

k. Carpet

Shaw carpet Style 50 Solid PS648 or equivalent, minimum depth 1/4", within VOC limits.

VI. Lighting

a. Lighting – general

ENERGY STAR rated, 10,000-hour minimum lamp life, LED integrated or LED bulbs. Incandescent and fluorescent bulbs are not allowed. Occupancy sensors installed bathrooms, garage, laundry room, and utility room providing automatic-off functionality.

b. Living area and bedroom lighting

Ceiling fan with light kit installed in bedrooms and living areas. Chandelier installed in dining area.

c. Bathroom lighting

Vanity light fixture above mirror. 55 CFM exhaust vent with light fixture kit.

d. Outdoor lighting

Sconces at egress points.

VII. Electrical

a. Switches

Standard switches per applicable California Electrical Code, white with white plastic cover installed 46" - 48" in height.

b. Outlets

Standard outlets, GFCIs when required by California Electrical Code, white with white plastic cover.

c. Electric vehicle charging

Electric Vehicle Supply Equipment (EVSE) per Section A4.106.82.2 requirements for electric vehicle charging spaces. Charging device not provided.

d. Photovoltaic (Solar)

Installed on rooftops subject to Title 24 feasibility analysis (shading, roof orientation). Sized based on Title 24 analysis. Batteries not provided. HVAC and Mechanical

a. HVAC system

Central heat and air conditioning with R-8 (minimum) ducting in attic. ENERGY STAR certified, sized based on code 4.507.2. Efficiency ratings as specified in Title 24 report. Mini split systems may be used when appropriate.

b. Indoor air quality (IAQ) fan

Sized per Title 24 report. Requirement may be met with properly equipped and installed bathroom vent fans.

c. Whole house fan

Installed when required by Title 24 report.

d. Water heater

Electric or gas, minimum 40 gallons. Specific type indicated in Title 24 report.

e. Thermostat

Programmable, Title 24 compliant.

VIII. Doors and Windows

a. Exterior door

Minimum 34" clear door opening width; WUI compliant (minimum 20-minute fire rating, noncombustible or ignition-resistant material, or 1-3/8" solid core); fire-retardant treated, or heavy-timber construction passing performance requirements specified by the State Fire Marshall; Security door; Solid wood (preferred), fiberglass, or steel construction; Sand smooth finishes, varnished or lacquered painted.

b. Exterior door hardware

Must have a shape designed for easy grasping with one-hand and cannot require tight pinching or wrist twisting to operate (homes with household or family members with disabilities only).

c. Windows

Low-E, multi-pane insulated glass with a minimum of 1 tempered pane or 20 Min. fire rating. Window screen in matching color to be provided. Minimum 1 year warranty.

IX. Exterior

a. Roofing

30-year CertainTeed, IKO, GAF, or comparable composition architectural shingles or high-grade laminate shingles. Cool roof qualified shingles to be used when required by Title 24 report. Class A fire rated. Pre-designed truss framing or traditional wood framing. Where provided, valley flashing must not be less than 26-gauge galvanized sheet metal over a 36" wide No. 72 ASTM cap sheet.

b. WUI components

See section X ("WUI").

c. Cladding

Fiber Cement Board (Hardi-Board or equivalent) 6-1/4" lap siding (conceal nail method), Smooth finish; Fastened with 0.090" ring shank, 1-1/2" long, 0.215" head or 11 gauge 1-1/2" ring shank roofing nail @ 6" O.C. into plywood sheathing.

d. Weather resistive barrier

No. 15 asphalt felt or other approved water-resistive barrier.

e. Framing

Wood stud framing, per structural drawings.

f. Exterior paint

Minimum two (2) coats exterior grade.

g. Moisture control

Vapor Retarder and 4" Thick Base of 1/2" or Larger Capillary Break or Approved Equivalent Installed.

h. Foundation

Slab on grade unless site conditions require a different construction.

i. Insulation

Fiberglass, cellulose, or mineral wool installed to QII (Quality Insulation Installation) specifications

X. WUI

a. Exterior Decking and Stairs

Model home plans do not feature or require exterior decking or stairs. If required, walking surfaces of decks, porches, balconies, and stairs within 10' of the building must be constructed of non-combustible, fire-retardant treated, or heavy-timber construction. Alternative materials can be used if they are ignition-resistant and pass performance requirements specified by the State Fire Marshall.

b. Exterior Walls

5/8" Type-X gypsum sheathing installed behind exterior cladding.

c. Eaves and porch ceilings

HZ10" Hardiepanel or equivalent, smooth finish, pre-primed.

d. Roofing

See "Roofing" section.

e. Underfloor

Model home plans do not feature exposed areas underfloor or have overhangs. If required, exposed underfloor, underside of cantilevered and overhanging decks, balconies, and similar appendages shall be non-combustible, ignition-resistant, 5/8" Type-X gypsum sheathing behind exterior covering, exterior portion of 1-hour assembly, meet performance criteria SFM Standard 12-7A-3 or be enclosed to grade.

f. Vents

Attic vents and underfloor vent openings must resist the intrusion of flame and embers or shall be a minimum of 1/16" and maximum 1/8" corrosion-resistant, non-combustible wire mesh or equivalent; combustible vents on top of roofs may be covered with this material to comply; ventilation openings on the underside of eaves are not permitted, unless a SFM-approved vent is installed, or the attic is fire sprinklered; vents of 1/16" min. and 1/8" max. Corrosion-resistant and non-combustible wire mesh or equivalent that are more than 12' from a walking surface or grade below are allowed.

g. Windows

See "Windows" section.

h. Exterior doors

See "Exterior Doors" section.

XI. General

a. Construction Waste Reduction, Disposal, and Recycling

Recycle and/or Salvage for Reuse a Minimum of 65% of Nonhazardous Construction and Demolition Waste in Accordance with One of the Following: 1) Comply with a More Stringent Local Construction and Demolition Waste Management Ordinance; or 2) Construction Waste Management Plan.

b. Doorbell

Hardwired installation.

c. Communications wiring

CAT-6 and cable wiring installed where appropriate.

d. Attic staircase

One pull-down attic staircase to be provided, insulated to same level as surrounding ceiling.

e. Composite wood products

Hardwood plywood, particleboard, and medium density fiberboard composite wood products shall meet the requirements for formaldehyde as specified by the CARB's formaldehyde limit.

f. Driveway

Program will install gravel unless required by code – 4 – 6" washed, well graded gravel or crushed rock. Material placed to a minimum thickness of 12". Driveway entrance minimum 20'x10' - will be adjusted if necessary to cover all vehicular ingress and egress, provide ample turning radius.

g. Natural gas service

Homes will be plumbed for natural gas when gas service is available to the property. Homes without gas service to the property will be designed and built as electric only.