

DEPARTMENT OF GENERAL SERVICES
Real Estate Services Division

HOMEKEY Round 2



Property Evaluation and Design Guidelines



DGS
GENERAL SERVICES

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REAL ESTATE SERVICES DIVISION

Project Management and Development Branch

Architecture and Engineering Sections

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Homekey Round 2 Property Evaluation and Design Guidelines

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Purpose

The purpose of these guidelines is to provide support and information to entities planning to convert existing properties, particularly hotels or motels, for use as supportive housing for individuals or families experiencing homelessness. These guidelines are intended to serve as a resource to help decision-makers decide where to most cost-effectively and expeditiously invest time and money on property acquisitions, particularly hotel/motel conversions. Key concepts/strategies to minimize costs and time are identified throughout this guide.

The revised version of this guide incorporates lessons learned from the 2020 implementation of Project Homekey in California.

Executive Summary

The Department of Housing and Community Development, as the lead state agency for Project Homekey, partnered with the Department of General Services to provide technical assistance to HCD for program development and to local agencies for implementation of Project Homekey, a federal- and state-funded, state-administered grant program to create permanent affordable housing for people experiencing homelessness. The program enabled local agencies in 2020 to acquire 95 projects containing 6082 units, at a lower cost than other affordable housing programs in California. In 2021, the program is being funded at a higher level.

The Project program and guidelines were based on an analysis of conversion of prototype motel properties from around the state. Guidelines were developed for progressive tiers of serviceability:

Tier 1: Minimum work to provide emergency or interim (up to 30 days) housing in accordance with grant requirements;

Tier 2: Addition of cooking facilities and other improvements to meet code requirements for permanent housing (which in the current CBC is more stringent than for transient housing of 30 days or less);

Tier 3: Addition of program elements for supportive services, and bringing the property to a state of good repair;

Tier 4: Additional requirements to qualify for state and federal affordable housing tax credits; and

Tier 5: Extending the useful life of all building elements to at least 40 years and improving energy efficiency.

These Guidelines include tools to screen potential properties, as well as checklists for more detailed evaluation of properties and cost estimating, and sample unit designs for hotel/motel room conversion. Some key points are provided for property evaluations:

- The program administrator, and grant recipients or implementing agencies, need to thoroughly understand the regulatory constraints (including funding, environmental, design, and code requirements) before developing the program, and starting the property selection process, respectively. The program administrator should provide clear and complete guidelines to staff implementing the program.
- Grant recipients or implementing agencies need to have their own program – an understanding of how they will use the property after acquisition, e.g. what supportive services will be provided.
- It is recommended to maintain a single comprehensive database of potential properties for the program (e.g. statewide).
- Physical inspection by a qualified team of experts is essential to validate the feasibility of the property for housing.

The cost of converting a property to permanent housing varies depending on the following key cost drivers:

1. Change of use and code compliance: converting hotels and motels built before 1/1/2008 is not considered a change in use. Converting any other type of building (including newer hotels or motels) to residential is a change in use that will trigger the entire structure to be upgraded to meet current code;
2. Size of units: Whether they meet (or must meet) minimum unit sizes;
3. Extent of fire protection (rated walls and ceilings, extent of fire alarm and fire sprinkler systems);
4. Whether kitchens or kitchenettes are already present in units, or if plumbing, ventilation and electrical services are convenient to add kitchens;
5. Degree of accessibility provided at the property;
6. Cost of securing the property (e.g. fencing and gates);
7. Building location and configuration with respect to seismic concerns;
8. Age and condition of roof, HVAC units, and other building system;
9. Whether tax credit funding (e.g. through CTCAC) or other sources is contemplated, and what conditions such other funding requires.

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Introduction

Background

Project Homekey was conceived as a way for the State of California to use federal funds for COVID-19 response to rapidly create permanent supportive housing for individuals and families experiencing homelessness. Governor Gavin Newsom had identified homeless housing as one of the top policy priorities for his administration, and the federal CARES Act funding provided an opportunity to make progress on that priority, despite the short funding timeframe (9 months from when the act was passed on March 27, 2020, until the funds expired on December 31, 2020). Project Homekey was set up to award state-administered grants to local agencies (cities, counties, or public housing authorities, and their partner organizations) to create permanent affordable housing for people experiencing homelessness. Homekey Round 2 continues that success

The Department of Housing and Community Development (HCD), as the lead state agency for Project Homekey, partnered with the Department of General Services to provide technical assistance to HCD for program development and to local agencies for implementation. The technical assistance was critical because not all local agencies possess the expertise or experience to accomplish some of the key evaluation, appraisal or acquisition tasks. Even some of those with the expertise and experience did not have sufficient staff time available to meet the short program timelines. In both cases, DGS staff were able to support those local agencies to be successful in their implementation of Project Homekey.

These guidelines are based on findings from five properties studied by a multidisciplinary team from DGS as potential prototypes for this program. All were budget motels of varying sizes; two were in Southern California, two in the Bay Area, and one in the Central Valley. The evaluation team was dispatched to each site, documenting existing conditions, floor plans, amenity types and spaces, and conducting code and engineering analyses (civil, structural, mechanical, and electrical).

As the reviews progressed, the project team documented their evaluation process and their findings. The evaluation team received some documentation in advance (dimensioned site plans and floor plans) for some of the motels, and a geotechnical report for another, but did not receive a full set of as-builts for any of the properties.

Key Concept: Access to as-built drawings are critical to conceptual estimating. In the absence of as-builts, the evaluation team must make conservative assumptions about the existing conditions, which may result in a larger scope of work and commensurately higher cost estimates and time required than might otherwise be necessary.

In the implementation of Project Homekey, DGS provided technical assistance to local governments with property evaluations, physical needs assessments, real estate appraisals, and negotiations. This version of these Guidelines has been updated for Project Homekey 2 to incorporate lessons learned from Project Homekey 1.

Tiers

After the on-site assessments, the state developed potential scopes of work and associated costs to progressively renovate the sites to achieve an increasingly greater level of utility. These guidelines are organized around those renovation approaches, hereafter referred to as Tiers.

1. **Tier 1:** Barrier removal repairs and alterations to accommodate a fully accessible facility to comply with the California Building Code, Chapter 11B "Accessibility to Public Buildings, Public Accommodations, Commercial Buildings and Public Housing" as required by Project Homekey funding requirements. Also, any repairs to remedy immediate life safety dangers.
 - a. Local jurisdictions that have declared a shelter crisis per Government Code Section 8968 et seq. ratifies California Building Code Appendix O and locally declared emergency standards supplant all other building standard code provisions except **CBC Chapter 11B - Accessibility**. Any other alterations will trigger accessibility improvements per CBC Section 11B-233.3.4.2.
2. **Tier 2:** Repairs and alterations for the project to meet building codes based on the change in use, from transient residential (occupancy group R-1) to permanent residential (occupancy group R-2), **except kitchens**.
 - a. **Tier 2A:** Similar to Tier 2, but adds kitchenettes. This would ensure the minimum improvements for the project to meet all building codes based on the change in use, from transient residential (occupancy group R-1) to permanent residential (occupancy group R-2). Minimal cooking facilities would include a microwave, mini-fridge, and kitchen sink.
 - b. **Note:** Converting hotels and motels built before January 1, 2008 is not considered a change in use. However, converting any other type of building (including newer hotels or motels) to residential is a change in use that will trigger the entire structure to be upgraded to meet current code.
3. **Tier 3:** Added improvements to the scope to ensure the functionality of the facility and bring it to a state of good repair (for a minimum 10-year remaining useful life of any building elements).
4. **Tier 4:** Further improvements as needed to meet minimum construction standards of the California Tax Credit Allocation Committee (CTCAC) for funding of special needs housing. Most significantly, these improvements include providing minimum space standards of 250 SF (which is larger than many of the existing motel rooms), cooking facilities in each dwelling unit, and energy efficiency upgrades (to reduce total energy consumption by 10% even as the usage increases through cooking loads).

5. **Tier 5:** Construct further improvements to bring the facility up to a 40-year durable life, further improve energy efficiency, and meet requirements for additional CTCAC credits to improve competitiveness of the project for tax credits.
6. **Tier 6:** Demolition of the existing structure(s) and construction of a new, purpose-built facility of similar size. Preliminary estimates of replacing the prototype properties found the cost of Tier 6 was typically 3-4 times the cumulative cost of the other tiers of improvements to the existing facility. This reflects the value of the existing improvements. Tier 6 was not studied further.

The tiers above may be adapted to the specific constraints and policies for each of the local implementing agencies.

How to Use These Guidelines

These guidelines recommend and support the following evaluation process:

1. **Search Criteria and Screening Tools:** Local agencies can overlay the location criteria provided on maps to find hotel/motel properties that meet these criteria. Initial property screening is based on publicly available information, and some additional documentation (if provided by the property owner early on). This initial screening can be completed in 4-6 hours per property to determine if that property merits further evaluation.
2. **Research and Documents to Request:** A list of documents and information that local agencies and their support teams will need to efficiently evaluate a given property is provided.
3. **Evaluation Process and Checklist:** Detailed evaluation criteria are provided for each design discipline, along with the potential impacts of findings in these areas. The evaluation process for each property will require several days of research, at least 4 hours of site visit by each design discipline, a week or so of analysis and developing a detailed program, and a detailed breakdown cost estimate. The entire process may take 2-3 weeks.
4. **Sample Programs:** These list the spaces and functions that may be needed depending on the level of services that the local agency considers providing at a property. The sample architectural programs, in combination with the evaluation process described above, lead directly to the list of improvements on which the construction cost estimate will be based.
5. **Code Considerations:** This is a more detailed analysis of the code issues that drive the improvements, depending on the occupancy and use of the property.
6. **Cost Evaluation:** Findings of the DGS teams from five prototype properties, along with cost rough order of magnitude costs and implications.
7. **Design Tools:** Sample floor plans and Revit models for a variety of room conversions.

Attachment A provides a graphic summary of the recommended Project Homekey hotel conversion process.

Search Criteria and Screening Tools

The following information will allow applicants to perform basic screening to help determine whether a particular property is suitable for use as interim or permanent supportive housing, and provides comparative costs for renovation. Not all of this information is critical, but the more of this information is available, the more accurate the comparison will be.

This information can be input into the Excel screening tool provided with these Guidelines (Attachment B). The outputs will be a preliminary point score for tax credit allocation based only on property location; and a conceptual construction cost (including general contractor's markup, profit and overhead, bonds, and a 30% design contingency).

Disclaimers:

- *The conceptual construction cost is for screening and comparison only, and **must not be used for budgeting purposes!***
- *The screening tool is designed to be easy to use and is not a substitute for a professional cost estimate completed after a detailed, in-person property evaluation.*
- *DGS statistical analysis suggests that the actual construction cost is likely to be within a range of 25% below the predicted value to 26% above.*
- *Project costs will also include property acquisition, financing, professional fees, permits and entitlements, operating reserve, and other soft costs not predicted by this screening tool.*

Information to Request

In order to facilitate accurate screening, applicants should try to obtain this information from the property owner and/or hotel/motel operator:

- Complete as-built plans (or at least site plan and floor plans)
- Hotel room map
- Room type list
- Maintenance records (e.g., age of roof and mechanical equipment)

If applicants are unable to obtain information from the hotel/motel operator, the Excel screening tool will default to the most likely or conservative value.

Location Criteria

These criteria will determine if the location provides sufficient support services, and the degree to which it is competitive for tax credit allocations.

1. Setting (rural, suburban, urban, or downtown), needed to determine the required distance to local amenities or services.
2. Distance to local amenities or services (measured in a straight line, except around barriers such as freeways, railroads, or water bodies); see California Tax Credit Allocation Committee (CTCAC) Regulations, Section 10325(c)(4)(A) for details and definitions:
 - a. Library
 - b. Grocery store
 - c. Pharmacy
 - d. Public park
 - e. Medical clinic
 - f. Senior center
 - g. Social services for homeless
 - h. Public transit stop or station

Property Attributes

These criteria describe the basic features of the property and program:

3. Property area, *obtained from site plan or Google Earth.*
4. Building footprint, *obtained from floor plans or Google Earth.*
5. Gross building floor area, *obtained from floor plans or building footprint x number of floors.*
6. Number of floors, *obtained from Google Street View.*
7. Number of elevators, *obtained from floor plans.*
8. Number of guest rooms, *obtained from hotel front desk. It is recommended to request a complete room type list.*
9. Existing mobility-accessible rooms, *obtained from floor plans and hotel room type list.*
10. Existing communications-accessible rooms, *obtained from floor plans and hotel room type list.*
11. Additional accessible rooms desired, *based on applicant's survey of local homeless population needs.*
12. In addition, for a Tier 5 option to demolish the existing structure and construct a purpose-built facility, indicate if the number of rooms proposed will differ from the existing facility, *based on applicant's survey of local homeless population needs and on potential to increase site density. If unsure, assume the same as the current number of units.*
13. Size of rooms desired for a Tier 5 (rebuild) project, *based on applicant's survey of local homeless population needs. If unsure, use 325 sq.ft. (typical extended stay room with kitchenette).*

Key Drivers – Site

These are key site factors that will potentially affect the conversion cost:

14. Length of site fencing needed, or length of property perimeter not already fenced, *obtained from site plan or from Google Earth and Google Street View.*
15. Number of vehicular gates needed, or number of vehicular driveways, *obtained from site plan or from Google Earth and Google Street View.*

Key Drivers – Architectural

These are key architectural factors that will potentially affect the conversion cost:

16. Wall and ceiling fire rating, *obtained from as-built plans.*
17. Fire sprinklers in all rooms, *obtained from as-built plans.*
18. Fire alarms in all rooms, *obtained from as-built plans.*
19. Kitchens existing in rooms, *obtained from hotel room type list.* If rooms already have kitchens, then Questions 20-23 below are moot.
20. Kitchens desired in Tier 1, *based on applicant's program and survey of local homeless population needs.* Kitchens are required for Tier 3 under CTCAC Regulations.

21. Kitchenettes desired in Tier 1? Answer "Yes" if local building official does not agree to classify the property as dormitory or boarding house, and requires a sink separate from the lavatory in each unit.
22. Rooms are 250 sq. ft. minimum AND have space for kitchens, obtained from floor plans.
23. There is space for a kitchen sink on or near a plumbing wall, obtained from floor plans. Also select "Yes" if an outside lavatory can be moved into the bathroom and the kitchen sink located where the lavatory was.
24. Age of roof, obtained from hotel operator maintenance records.

Key Drivers – Structural

These are key factors that will potentially affect the need for, and extent of, seismic retrofits:

25. Spectral acceleration response S_s and S_1 from <https://seismicmaps.org/>. Reference should be set to ASCE 41-17, Risk Category II for a new building Probability 0.02, Site Class D.
26. Landslide zone, obtained from California Geologic Survey (<https://maps.conservation.ca.gov/cgs/EQZApp/app/>).
27. Liquefaction zone, obtained from California Geologic Survey (<https://maps.conservation.ca.gov/cgs/EQZApp/app/>).
28. Soil rupture zone, obtained from California Geologic Survey (<https://maps.conservation.ca.gov/cgs/EQZApp/app/>).
29. Vertical Irregularity, obtained from as-builts or Google Street View.
30. Plan Irregularity, obtained from as-builts, floor plans, or Google Maps. Assume no seismic joints unless otherwise indicated by as-builts.

Key Drivers – Mechanical

These are key factors that will potentially affect the need for equipment replacement:

31. Number and age of rooftop air handling units or through-wall or through-window air conditioners (PTACs, or pass-through air conditioners), obtained from hotel operator maintenance records.
32. Number, size, and age of Boilers, obtained from hotel operator maintenance records.
33. Number, size, and age of Chillers, obtained from hotel operator maintenance records.

Research and Documents to Request

Once a property is selected for further evaluation, many assumptions will still need to be made as a part of this project. These assumptions can contribute significantly to the key cost drivers for each tier of improvements. Below is a list of documents and research to have available during the site visit and subsequent evaluation:

1. Local homeless needs study.
2. Room map and room type list (for use in annotating site visits and tabulating room types).
3. As-built plans (original construction, and for subsequent alterations). If these aren't available, at least obtain site plan and floor plans.
4. Property information – lot and building size.
5. Parking Information – existing number of parking spaces.
6. Original year of construction.
7. History of building improvements (including, if possible, scope, costs and year) completed since 1991, including any roof replacements, ADA/accessibility modifications, additions or significant alterations.
8. Utility Information – power, water, gas, telephone, cable, etc. (such as bills showing usage).
9. Geotechnical report from original building construction, if available.
10. Assessed value of property and structures.
11. Zoning requirements.
12. Building permit history.
13. Noise levels from surrounding facilities (example being close to an airport).
14. Odor levels from surrounding facilities.

Evaluation Process and Checklist

Once a property has been screened, project proponents may follow this process to better understand the scope of work required. The detailed evaluation requires a site visit by an architect and civil, structural, mechanical, and electrical engineers, with access to all common areas and utility rooms, typical guest rooms, the roof, and any attic space. This will require hotel/motel staff to open rooms to the evaluation team.

Key Concept: There are several items that should be evaluated and considered when selecting a property to develop that will be specific to each property, and any assumptions made should be verified through a visual and physical investigation whenever possible.

All areas of the property should be well-documented by the evaluation team during this phase of the evaluation process. Initial assessments should be comprehensive and should be used to verify any assumptions made during the screening process. It is recommended to start from the exterior of the facility and work inward from a macro to a micro scale of investigation. For instance, site measurements and photos will help define accessible path of travel, entry and exit point, and will inform design options for site security. Interior measurements will help define any modifications to improve accessibility and any finish alterations required to extend the useful life of the building.

Each team member will have a different perspective and various priorities based on their discipline. It is essential that the team lead coordinate this information in order to connect the renovation requirements to the program needs.

What follows is a checklist, by discipline, of things to look for and verify (including those items that can be reviewed in advance) in assessing hotels/motels for conversion to supportive housing. Each of these items should be documented, as applicable, by:

- Descriptive notes
- Measurements (e.g., of areas, required clearances, etc.)
 - Bring tape measure, laser measuring device, smart level, etc.
- Photographs

Best practice: Photograph the room number sign before photographing details or interiors, to enable easier identification of the location of that sequence of photographs later.

General

1. Occupancy rate
2. Years since major renovation and scope of renovation
 - a. List all alterations, year, and cost

Architecture

1. Number of building floors
 - a. 2 stories or less – elevator not required
 - b. 3 stories or more – upgrades to elevator typically required, some additional adaptable units may be required
2. Fire protection (sprinklers, fire-rated demising walls)
 - a. Sprinklers Present – low cost initial conversion to permanent housing
 - b. Sprinklers Not Present – higher cost initial conversion due to required fire sprinklers
3. Building type
 - a. Building construction type (e.g., V-B)
 - b. Shape
 - i. U, H, L – focused security, smaller footprint, more seismic considerations
 - ii. Linear – longer corridors, larger footprint, distributed security needs
 - c. Circulation
 - i. Interior corridor – More stringent fire separation; more likely fire protection is existing
 - ii. Exterior corridors (balconies) – less stringent fire separation; less likely fire protection is existing
 - iii. Check corridor/walkway widths, changes in level, surface materials, guards, protruding objects, maneuvering clearances at doors, etc.
 - iv. Stairs: Check for tread material, markings, rise/run, nosings, closed risers, guards and handrails (including returns)

4. Fire partitions and 1-hour horizontal separations
 - a. Smoke barriers (50 occ's max.)
 - b. Draft stopping
5. Building envelope and systems (see also other disciplines below): Age and condition
 - a. Type of roof structure
 - b. Kitchen equipment (including in common areas)
 - c. Security systems such as closed-circuit television (CCTV), PA, and alarms
 - d. Elevator:
 - i. Cab: dimensions, controls, annunciators, emergency communication, signage, grab bars, permit
 - ii. Threshold and doors
 - iii. Hall: Call buttons, annunciators, signage, maneuvering clearances
 - e. Window types
6. Guest rooms
 - a. Number of guest rooms of each type (Note: 80 rooms total appears to be a minimum to make the undertaking worthwhile)
 - b. Confirm number of accessible rooms of each type:
 - i. Mobility-accessible (5% min. required; 10% for CTCAC)
 - ii. Adaptable
 - iii. Communications-accessible (2% min. required; 4% for CTCAC)
 - c. Describe amenities (kitchenette, bathrooms)
 - i. Consider how to provide kitchens (sink, refrigerator, microwave, 2-burner range, and range hood) or kitchenettes (sink, mini-fridge, and microwave) if none exist
 - d. Dimensions, area, and photos of each type of guest room
 - e. General condition of rooms
7. Common and utility areas
 - a. Visual observations of all common and staff areas (e.g., lobby, offices, public and employee restrooms, employee break rooms and kitchens, housekeeping, maintenance/janitorial spaces, storage, utility rooms, etc.)
 - b. Dimensions, area, and photos of common and staff areas
 - c. General condition of common and staff areas
 - d. Number of washers/dryers (for housekeeping use and for guest use)
 - e. Trash and recycling area details – indoor/outdoor locations, and area in sq. ft.
8. Neighborhood amenities – site verification
 - a. Parks
 - b. Grocery stores
 - c. Hospitals
 - d. Library
 - e. Social services / senior center
 - f. Public transportation
 - g. Laundromat

Civil Engineering

1. Overall site review

- a. FEMA flood map
- b. Review local zoning requirements
- c. Parking
- d. Site configuration and security
 - i. Prefer single point of entry near office
 - ii. Able to secure site with fencing and gates?
 - iii. Able to ensure Area of Refuge within fenced area?
- 2. Review County parcel information
 - a. Lot acreage
 - b. Lot property lines
 - c. Lot dimensions
- 3. Google Earth research
 - a. Safe site access to amenities nearby
 - b. Accessible path connecting building to adjacent streets
 - c. Sidewalks, crosswalks and lighting
 - d. Transit stops
 - e. Freeway access
 - f. Commercial areas
 - g. Parking stall count, including accessible stalls
 - h. Review general repair of facilities
 - i. Review entry and exit routes for vehicles
 - j. Review large vehicle access for emergency and waste pick up
 - k. Review square footage of paving and landscape
- 4. Review of on-site and utilities conditions
 - a. Augment remote access review, using camera, measuring tools, electronic level
 - b. Confirm items found in remote access review, including counts and dimensions
 - c. Observe drainage patterns and slopes to check for possible water ponding and flooding of building in case of major storms
 - d. Overall landscape conditions
 - i. Types of plants
 - ii. Automatic irrigation system
 - e. Record site conditions for pavements, drainage, walls, fences, security, landscape and slopes
 - f. Record site entry/exit concerns
 - g. Record demolition or trash removal requirements
 - h. Acquire the sizes of existing on-site water, sanitary sewer, gas, and storm drain lines, and learn of any inadequacies
 - i. Record utilities including fire hydrants, fire department connections, post indicator valves, backflow preventer devices
 - j. Record sizes, locations and deficiencies of the above items
 - k. Record potential site hazards such as storm water hazards or soil sliding with respect to, or from, adjacent parcels, on-site ground stability, slopes, falling or tripping hazards
- 5. Review Paths of Travel in accordance with 2019 California Building Code, Volume 1, Chapters 10 and 11B

- a. Record walkway surface irregularities, dimensions and slope deficiencies
- b. Record access to parking stalls from buildings
- c. Record deficiencies in stall dimensions, slopes, signage and marking
- d. Record access to adjacent street sidewalks
- e. Record deficiencies in surface irregularities, dimensions, slopes, signage, markings and railings for ramps and curb cuts
- f. Record numbers of parking and electric vehicle charging spaces including car accessible, van accessible, and total numbers

Structural Engineering

1. Perform a Rapid Review per Federal Emergency Management Agency ([FEMA](#)) [P-154](#) (data collection forms available at <https://www.atcouncil.org/images/FEMA%20P-154DataCollectionFormsThirdEdition.pdf>)
2. Determine S_s and S_1 values (see <https://seismicmaps.org/>). Reference should be set to ASCE 41-17, Risk Category II for a new building, Site Class D, unless otherwise noted by soil conditions.
 - a. Properties within northern California and the Central Valley typically fall in the “Moderately High” seismicity region, which might avoid substantial seismic retrofits. In general, the Bay Area, the Los Angeles basin, and the coastal regions connecting between them are most vulnerable for seismic retrofits because they are located in the “very high” seismicity region. Surrounding areas would fall in the “high” seismicity region, which might require some sort of retrofits as well, but not as intensive as a “very high” seismicity region.
 - b. Geohazards: Sites should be screened for known geological hazards (surface rupture, liquefaction, and landslides; see <https://maps.conservation.ca.gov/cgs/EQZApp/app/>).
3. Identify seismic mitigations completed and needed.
 - a. Tier 2 analysis triggers:
 - i. Cost of alterations since 1995 exceeds 25% of replacement value
or
 - ii. Building mass increased by 10% from original construction
 - b. Identify soft story construction
 - c. Ensure adequate seismic joints at building irregularities

Mechanical Engineering

1. Condition of each system, remaining useful life, and/or last replacement date
 - a. Estimate operations and maintenance cost
 - b. Equipment access (rooftop, confined space)
2. Review utility bills
3. Property Location could affect service life
 - a. Coastal: sea spray, mist, fog are potential issues
 - b. Inland: dust, industrial pollutants, maintenance travel are potential issues

4. HVAC System (including level of heating, cooling, ventilating, and exhausting of each space to determine if the amounts are adequate)
 - a. Central System
 - i. Single equipment failure could affect entire building
 - ii. Requires qualified maintenance personnel
 - b. Terminal Units
 - i. Each system is independent of others
 - ii. Simpler maintenance (replace filters)
 - c. Restroom and kitchen exhaust ventilation
5. Plumbing systems:
 - a. Hot water source
 - b. Plumbing systems
 - c. Plumbing fixtures
 - d. Incoming utilities
 - e. Fire sprinkler system (quick response sprinklers req'd)
 - f. Kitchen equipment
 - g. Laundry Conversion
 - i. Neutralize soap suds in waste
 - ii. Ventilation if gas-fired
6. Elevator machine room

Electrical Engineering

1. Utility services:
 - a. Power
 - i. Electrical information on service transformer, service meter, main switchboard, sub panelboards
 - ii. Analyze existing loads and future loads for upgrading electrical service
 - iii. Electrical outlets, receptacles inside room
 - iv. Possible location for grid-tied photovoltaic system to offset energy usage
 - v. Emergency generator, if any
 - b. Communication
 - i. Telephone/data, Wi-Fi service
 - ii. Entertainment
 - iii. Television
2. Lighting
 - a. Indoor lighting
 - i. Room
 - ii. Bathroom
 - b. Outdoor lighting
 - i. Corridor egress
 - ii. Site and parking lighting
 - c. Exit signs
 - d. Lighting control system
3. Security system
 - a. CCTV and DVR systems

- b. Public address systems
 - c. Door entry controls
4. Fire Alarm system
 - a. Fire Alarm Control Panel (FACP)
 - b. Indoor smoke and heat detectors and audio/visual Annunciators
 - c. Exterior devices: alarms and pull stations
5. ADA requirements

Property Appraisal and Acquisition

Property Identification

Site Selection

In Homekey 1, RELPS assisted numerous local agencies in a variety of ways in the site selection phase of the process. Depending on the specific request for assistance, State real estate officers can assist in :

- tracking down ownership entities and/or confirming decision makers for opportunities generated;
- verified owner interest in participation; creating a mechanism to start preliminary negotiations; and
- facilitating negotiations between local agency representatives and property owners (in some cases actually conducting the negotiations on the local agency's behalf).

In addition, RELPS tracks all requests for assistance with HCD to ensure each stakeholder gets the services needed and in a timely fashion. RELPS works directly with the "Ambassadors" from HCD and other real estate professionals working on Project Homekey to address any concern or request logged into the tracking system implemented as part of the State's response.

Real Estate Title Consultative Services

DGS Real Property Services Section (RPSS) provides consultation services regarding real property and personal property related to the acquisition of real estate and the examination of a property's conditions of title, including examination of recorded and unrecorded encumbrances, and how these may impact a particular program acquisition decision, the acquisition schedule, the potential need to mitigate an item prior to the close of escrow, as well as possible methods of issue resolution. In addition to consultation, RPSS provides a written Limited Scope Real Estate Title Acquisition Due Diligence Summary of Analysis for potential acquisition sites. The scope of services provided for a particular property will vary depending on the specific request for assistance from the local agency and what technical assistance is approved by HCD.

Scope of Work: The limited scope real estate title acquisition review analyzes a client provided preliminary report and its readily available reference documents (including the vesting deed and references identified within the deed), the subject property's ParcelQuest property detail report (drawn from County Tax Records), and its Assessor's Parcel Map in order to identify and report on a specific set of items therein that could

precipitate the need for additional research, mitigation, or otherwise impact a buyer's decision to acquire the subject property or the overall acquisition schedule.

The listed items will be ranked for their potential to adversely impact the overall acquisition schedule or decision to acquire the subject property. The ranking considers the need for the buyer to analyze, mitigate, negotiate, amend, develop, and approve a mutually beneficial transaction and related documents sufficient to close escrow. The listed items will be assigned an "Acquisition Sensitivity" rating identified by the following categories:

1) High – items that may, during the decision to acquire phase or at the onset of negotiations, require immediate consideration or early action by the buyer (e.g., purchase options, first rights of negotiation, deed restrictions, deeds of trust, CC&Rs, lis pendens, etc.);

2) Normal – items that are generally project/program specific with acquisition decision consideration and action schedules that are best determined by the buyer during its normal course of acquisition due diligence activities (e.g., utility easements; road easements, abutter's rights, etc.); and,

3) Nominal – items that typically do not adversely impact the decision to acquire or the acquisition schedules (e.g., general title company disclaimers for taxes and assessments, supplemental or escaped tax assessments, taxes and assessments levied by water, sewer or storm drain districts, rights of public, etc.).

As available, and for additional informational purposes only, a subject property ParcelQuest Natural Hazard Report may be included with the review package.

Additionally, RPSS is available to provide HCD with Administrative Summary of Appraisal Document reviews of the appraisal reports received by HCD for consideration pursuant to its grant program requirements.

Appraisal and Appraisal Consultative Services

RPSS provides consultation and guidance on the hiring and contracting of independent real estate appraisers for real and, when valuing a going concern, personal property, with the goal of obtaining appraisal reports prepared and signed by a Certified Real Estate Appraiser in good standing (pursuant to Part 3, commencing with Section 11300 of Division 4 of the Business and Professions Code, and the California Code of Regulations, Title 10, Section 3701 who possesses the appropriate background, education, training, and expertise to accept the assignment.

RPSS is also available, on a limited basis as resources are available, to provide Uniform Standards of Professional Appraisal Practice (USPAP)-compliant appraisal reports of the proposed acquisition properties.

Environmental Clearance

Property acquisition of commercial property requires an Environmental Site Assessment (ESA) to determine existing or potential environmental contamination as part of the due diligence for property acquisition. The Phase 1 ESA includes visual inspection and records review.

The DGS Environmental Unit contracts with hazardous material consultants to prepare and publish Phase I Environmental Site Assessment (ESA) of specific properties in question (PIQs), as requested by local agencies (Applicants). Each ESA is conducted in general accordance with ASTM Standard E1527-13. The overall objective of the Phase I ESA includes documenting the history of the site in the context of use, storage, treatment, and disposal of potentially hazardous substances and wastes. Also, the ESA identifies recognized environmental conditions (REC), historic RECs, and other environmental features. The Phase I ESA report provides a reliable and valuable resource for decision-makers.

The initial step for each PIQ includes sharing the scope of services and budget for concurrence with the Client Agency (HCD) and Applicant. The ESA includes a few tasks to obtain information regarding the potential for existing hazardous substances and petroleum product impacts at the PIQ, which requires cooperation and permission from the Client Agency and Applicant. For example, aside from the review of regulatory agency files, tasks include visual survey of the PIQ, interviewing current or past owners/operators and local governmental officials regarding current and past uses of the PIQ, etc. This process can be time consuming.

The information gather is followed by preparation of the report and draft review for comments, then concludes with report finalization. The effort typically takes about six weeks from Task Order development to the Phase I ESA completion. This schedule is necessary to determine environmental issues and related complications for real estate due diligence strategy and planning.

If the Phase 1 ESA identifies potential contamination, the property will take longer to investigate and, for public agencies at least, to acquire. There would be a need to proceed to a Phase 2 ESA, which includes more detailed investigation such as actual sampling of soil, air, groundwater and/or building materials, and chemical analysis for hazardous substances. It is likely that a property requiring a Phase 2 ESA is not a good candidate for quick construction or conversion to residential use.

Sample Programs

Interim and permanent supportive housing for individuals or families experiencing homelessness has specific programmatic requirements similar to those typical of multi-family residential projects, with the added need for office space for program services, and with an additional focus on safety and security concerns for residents. Two sample programs were defined a means of creating a primary conceptual design and cost estimate.

See Attachment C – Programming Estimate for specific programmatic renovation tasks associated with these program items.

Interim Supportive Housing

The first program created is intended to be applied as a means of quickly converting existing motel facilities to temporary or “interim” housing. The programmatic elements defined here are intended to be the basis of design to transition motels to supportive housing. The following is a sample of the program included in Tier 1 and Tier 2 improvements:

1. Individual dwelling units to include a private restroom, sleeping and living area
 - a. Optional kitchenettes; see Code Considerations and Assumptions, Items 1 and 5, below
2. Accessible units with mobility and communication features as required by code (may require upgrading existing accessible units)
 - a. Optional additional accessible units, as necessary to satisfy local needs
 - b. As an alternative to converting entire additional units with fully accessible restrooms, 1 or more units could be converted to additional shared accessible restrooms (less convenient than individual accessible restrooms, but less expensive)
3. Community laundry facility, unless there is already an existing public laundry facility within ½ mile of property
4. Unassigned parking; typically, the existing motel parking will only accommodate a transient housing use, however additional local parking requirements should be verified
5. Main Office with reception area and connected offices for program staff and a general facility manager
 - a. Classroom / meeting room for adult education, health and wellness, or skill building classes – common space to accommodate up to 50% of residents, at 14 sq. ft. per resident, or 960 sq. ft. maximum, whichever is less
 - b. Kitchen, attached to the classroom
 - c. Case Manager – 1 office space, assume 150 sq. ft. This space may also accommodate health or behavioral health services
 - d. General manager's office – 1 office space, assume 150 sq. ft.
 - e. Accessible restroom – assume 64 sq. ft.
 - f. Storage for tables, chairs, office supplies, seasonal decorations, etc.
6. Pool removal (due to potential liability) and replacement with landscaping
7. Outdoor community space, e.g., pet park, community garden, or a barbecue patio are examples of spaces that can replace the pool area or excess parking
8. Security systems:
 - a. Secured perimeter fencing with automatic gate
 - b. Communications to gate areas, to screen guests and visitors
 - c. CCTV system
 - d. Door controls
9. Bike parking/exterior storage to the extent possible
10. Shelf outside unit for meal delivery (Interim housing only)
11. Mailboxes in secured area for residents only
12. Wardrobe (where built-in closets are not existing)

13. Path of travel upgrades as required to make all ground floor community spaces and designated units accessible, including parking
14. Equipment Upgrades and State of Good Repair Items
 - a. Pavement
 - b. Site water supply
 - c. Landscaping
 - d. Exterior circulation
 - e. Roofing
 - f. Other building envelope
 - g. Doors
 - h. Windows
 - i. Flooring
 - j. Other interior finishes and furnishings
 - k. Plumbing systems
 - l. HVAC systems
 - m. Electrical systems
 - n. Interior lighting
 - o. Site lighting
 - p. Pavement striping
 - q. Drainage systems, including roof drainage (gutters and downspouts), surface drainage (curb and gutters), and subsurface drainage (drain inlets, access covers, and piping)
 - r. Fire, domestic, and irrigation water back flow preventers

Permanent Supportive Housing

In order to create a conceptual design that moves from interim housing to permanent housing, the programmatic elements below should be considered in addition to the items listed on the Interim Supportive Housing list above. Whenever moving direct from motel to permanent housing, both program lists should be included to comply with both building code and with the local needs of future residents. When transitioning from interim to permanent housing, Tier 3 and Tier 4 improvements include the following elements:

1. Individual dwelling units with a minimum area of 250 sq. ft., to include a private restroom, sleeping and living area; a private cooking area that includes a kitchen sink, cooktop, hood and microwave
2. Accessible units with mobility and communication features as required by code (may require upgrading existing accessible units and also creating new accessible units)
3. Convert commercial laundry facility to larger community laundry facility to accommodate 1 washer and dryer per every 15 dwelling units
4. Assigned resident, employee and visitor parking
 - a. Additional parking may be required; consult local jurisdictions, and consider variances or waivers as required to accommodate the local market needs of future residents
5. "Interim Supportive Housing" program items 5-14 above
6. Optional Program Elements to increase energy efficiency:

- a. Carport parking with photovoltaic (PV) Panels
- b. Additional Accessible dwelling units with mobility and communication features
- c. Additional offices for program staff
- d. Additional energy efficiency features in all rooms and across the facility

Code Considerations and Assumptions

Declaration of Shelter Crisis:

If the Governing Body under Government Code section 8698-8698.2 declares a shelter crisis, "Political subdivisions may, in place of such standards, enact municipal health and safety standards to be operative during the housing emergency consistent with ensuring minimal public health and safety." (GC 8698.1 (b))

- a. No renovations/upgrades are required under this Declaration of Shelter Crisis to convert properties to residential facilities, except those required by Project Homekey funding requirements such as compliance with California Building Code Chapter 11B.

Original Building Construction:

Review the building for compliance with the building code in which the building was originally constructed.

- a. If no alterations are proposed to the facility, then no code upgrades to current building code will be triggered.
- b. If alterations are proposed to the facility, the alterations must comply with the current building standards codes but the facility as a whole is evaluated under the provisions of the codes in effect at the time it was originally built.
- c. Under the Homekey grant provisions, if the facility does not meet accessibility requirements from the current California Building Code and Fair Housing Act, it must be altered to meet those requirements.
- d. New buildings and additions must comply with the current building standards codes.

Conversion of Hotels/Motels to Permanent Housing

1. Fire/Life Safety:

- a. For facilities originally built under the International Building Code (IBC) or California Building Code using IBC as a model code – generally those permitted on or after January 1, 2008 – a change in occupancy would apply and trigger building upgrades to meet the new occupancy group.

The Uniform Building Code (UBC) defined hotels and apartments in the same occupancy group. Buildings originally constructed under the UBC

model code (in California, those permitted before January 1, 2008) may result in no required upgrades from R-1 to R-2. Consultation with the local building official is recommended.

- b. Hotels and motels typically serving transient occupants (defined in the California Building Code, or CBC, as occupants residing 30 days or less) are classified in the current CBC as occupancy group R-1. By converting these facilities to permanent housing, the project will change the occupancy group to R-2.
 - i. It is assumed that personal care services will not be provided. If the residents are supervised 24/7 and the facility provides on-site personal care services,¹ then the occupancy group would be classified as R-2.1. Each step up brings commensurately stricter requirements.
 - ii. This change assumes the post-renovation facility is classified as R-2 Occupancy and Dormitory or Boarding House use; if instead defined as R-2 Residential Dwelling Unit, then 1 kitchen sink must be installed in each unit (per CBC Table 2902.1 and CPC Table 422.1). Interim housing options (Tier 1) are assumed to be classified as dormitories, thus avoiding the kitchen sink requirement for residential dwelling units. If the local building official does not concur with the dormitory or boarding house classification, then a kitchen sink may be required in addition to the lavatory; see Item 5 below.
- c. Fire separation partitions, horizontal separation, and draft stopping are required for both R-1 and R-2 occupancies. However, many hotel/motel properties (especially those considered "budget motels") may not have met code at the time of construction. As-builts may help determine this, but inspections are needed to confirm.
 - i. **Fire separation partitions:** Required per CBC Section 420.2 – 420.6; must comply with CBC Section 708.3. Section 708.3 requires fire separation partitions to be 1-hour rated construction, except that if the building is Type V-B construction, ½-hour rated construction is acceptable provided they have an automatic sprinkler system (which is required in any case for Occupancy Group R-2).

¹ Per CBC Section 202, "Personal care services" means "the care of persons who do not require medical care. Personal care involves responsibility for the safety of the persons while inside the building."

- ii. **Draft stopping:** Required per CBC Section 420.2 – 420.6; must comply with CBC Section 708.4.

Exception: “Attic fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m²) or above **every two dwelling units**, whichever is smaller.”

Note: ½" gypsum board = fireblocking material per CBC Section 718.2.1.

Interpretation: If the ceilings are rated and so long as draftstopping is provided in the attic every two dwelling units at the partition line, the fire partitions are not required to be continuous from the foundation/floor/ceiling to the sheathing above.

- iii. **Horizontal separation:** 1-hour ceiling assemblies are required per CBC Section 420.2.

- d. **Fire sprinklers:** Fire sprinklers are required per CBC Section 420.5, complying with Section 903.2.8. Fire sprinklers typically require a separate water supply from the domestic and irrigation water. Fire sprinkler supply may be combined with fire hydrant supply.

- i. **Recommended Design Solution:** Given that the properties we evaluated all had exterior balconies and overhangs, we determined the most cost-effective means of routing fire sprinkler systems is to route them along the undersides of the balconies and overhangs (which require sprinklers in any case), and then run a lateral into each room. That minimizes the amount of piping that must be threaded through the existing structure.

- e. **Exiting:** In general, the corridors, exterior balconies and stairways must be 44" minimum clear width (36" minimum for balconies and stairs serving an occupant load less than 50, which would equate to approximately 25 dwelling units depending on size). Balconies measuring 48" wide were common, but in some cases the pass-through air conditioners (PTACs) protruded more than 4" into the balcony, thus reducing the exit width below 44". In those cases, the PTACs would need to be re-mounted so they protrude more into the room, and less into the balcony.

2. **Accessibility Triggers – Path of Travel:**

Any construction that exceeds the “valuation threshold” (currently \$170,466 in 2020) must upgrade the accessible path of travel serving all accessible guest rooms and common spaces, per CBC Section 11B-202.4. It is likely that any motel

conversion will exceed this threshold. Areas that typically need to be upgraded to meet current code accessibility requirements include:

- a. Pedestrian walkway from public sidewalk to motel front door and to accessible dwelling units, including any ramps and curb ramps.
 - b. Elevator (if provided; typically, at hotels and motels of 3 or more stories)
 - c. Doors to motel lobby, offices, and other common areas.
 - d. Common area spaces such as laundry rooms, program offices, kitchens, and classrooms.
 - e. Reception desk (if this feature is retained in the conversion).
 - f. Public and employee restrooms.
3. **Accessibility Triggers – Guest Rooms:** Any modification of hotel or motel guest rooms is likely to trigger accessibility upgrades under CBC Section 11B-233.3.4. This generally requires that 5% of all units must be made accessible to people with mobility impairments, and 2% of units must be made accessibility to people with communication impairments.
- a. The mobility-accessible units must have accessible:
 - i. Doors, including thresholds and door hardware;
 - ii. Window controls, receptacles, light switches, thermostats, etc.;
 - iii. Work surfaces, including kitchenettes, where provided; and
 - iv. Restrooms (including lavatory, mirror, toilet, toilet paper holder, hooks, shelves, grab bars, and either roll-in or transfer-type shower or transfer-type bathtub).
 - b. The communication-accessible units must include:
 - i. Visual fire alarm devices;
 - ii. Visual smoke detector and carbon monoxide detector;
 - iii. Hard-wired doorbell;
 - iv. Peep-hole in door; and
 - v. Visual notification for building entry intercom, if provided.
 - c. Projects pursuing tax credits must also comply with CTCAC regulations (California Code of Regulations Title 4, Division 17, Chapter 1) Section 10325(f)(7)(K), which requires the proportion of accessible units be doubled, to 10% mobility-accessible and 4% communications-accessible.
4. **Parking Requirements:** Most motels have adequate parking for the number of units as transient use.
- a. Depending on the local zoning code, the parking requirements for permanent housing have higher parking requirements per dwelling unit. In these locations, combining rooms has the effect of reducing the total parking required.

- b. Alternatively, project sponsors may seek reduction of the parking requirements through the entitlement process.
- c. Parking demand should be considered and includes not only the needs of the residents, but guest parking and facility staff. Although one might assume that individuals or families experiencing homelessness have no need for parking, that assumption does not consider that many homeless people live in their cars. It also ignores the potential for upward mobility, as formerly homeless people gain the ability to purchase cars.

Conversion of Commercial Properties

In Homekey 1, DGS was not involved in conversion of commercial properties (office buildings or retail buildings) to residential use. However, the following functional and code provisions would be relevant for such a conversion:

1. Fire/Life Safety:

- a. Office buildings or retail buildings are classified as Occupancy Group B. By converting these facilities to permanent housing, the project will change the occupancy group to R-2.
- b. Height and Area: Commercial properties typically have relatively large areas without fire separation. Group R-2 requires smaller maximum floor areas for the same type of construction, plus fire partitions separating dwelling units from each other, from circulation areas (corridors, stairwalls, etc.) and from other uses. Office and retail buildings that are already subdivided into small tenant spaces separated by fire-rated walls are more amenable to conversion for residential use. One strategy for commercial buildings too large to meet Group R-2 height or area limitations could be to convert them to mixed use structures, with separated occupancies per CBC Section 508.4.
- c. Interior environment: CBC Chapter 12 requires each dwelling unit to have access to light and air via windows. Buildings with wide floor plates and/or blank walls may require more intervention to provide windows (creating openings in structural walls, or courts vertically through the structure). In addition, residential dwelling units require acoustical separation from adjacent units or commons spaces, and individual control of ventilation and temperature, which are not necessarily required for commercial structures. That may require changes to building systems as follows.
- d. Building systems: The design and layout of building systems for commercial buildings often do not meet the needs for residential use. These systems need to be thoroughly evaluated in order to adequately scope and understand the extent of modifications needed to suit residential use:

- a. Structural: Offices and stores have high live load requirements than residential occupancies, so the structural systems are likely to be more than adequate.
- b. Mechanical: Large zones for office and retail spaces will need to be subdivided into separate zones for each residential unit. Additional exhaust ducts may need to be added to serve the greater number of kitchens and bathrooms.
- c. Plumbing: Additional piping will be needed to serve kitchens and bathrooms.
- d. Electrical: Office and retail uses typically have higher demand and therefore capacity is probably ample to serve residential use. However, circuiting may need to be reconfigured to meet residential needs.
- e. Fire alarm: Fire alarm layouts will change, and addition of carbon monoxide detectors may be required with the addition of kitchens.
- f. Fire sprinkler: New Group R-2 occupancies (including conversions from other occupancy groups) must include fire sprinkler systems. The layout of existing sprinkler systems may need to change.

2. Accessibility: The same considerations as listed above for hotel/motel conversions would apply.

3. Parking: Automobile and bicycle parking requirements are determined by local zoning codes. Parking demand for residential properties will differ from that required for commercial properties. Project proponents need to ascertain if additional parking is required, or if the local authority having jurisdiction would be likely to grant a variance if additional parking cannot be provided. Since automobile parking is space-consuming, some jurisdictions may allow parking to be reduced in exchange for transit passes, additional bicycle facilities, etc.

General Project Requirements

1. Structural Upgrade Triggers:

- a. The vulnerability of an existing structure can be quickly assessed using the FEMA P-154 checklist. The key factors are:
 - i. Proximity to fault zone
 - ii. Deficient soils (prone to surface rupture, liquefaction, or landslides)
 - iii. Irregular building configuration (can be mitigated by seismic joints)
- b. Seismic Zone: Sites with S_s values less than 1.000g and S_1 values less than 0.400g are considered Moderately High Seismic Zones. Buildings within these zones will have a much better chance of passing the FEMA P-154 Rapid Review when compared to High and Very High Seismic Zones. Sites

within these zones are less likely to require seismic retrofit if a mandatory analysis is triggered by the cost of the remodel or added mass.

- c. The potential requirement for seismic retrofit per code is triggered if either:
 - i. Cumulative alterations occurring after adoption of the 1995 California Building Code total 25% or more of the replacement cost of the structure (this requires a tabulation with estimated cost of all improvements since January 1, 1996); or
 - ii. Seismic force increases by 10%. This usually happens by adding mass to the structure, such as fire sprinklers. Calculating the approximate mass of the original building requires as-builts of the existing structure.
 - d. A Tier 2 structural analysis is triggered by one of the above conditions.
2. **Cooking Facilities:** The provision of cooking facilities can be costly; therefore, facilities to prepare meals may vary between interim and permanent housing programs.
- a. **For interim housing** (potentially for periods of 1 week to 6 months, with an average assumed stay of 3-4 months), there may be options short of full cooking facilities:
 - i. Delivery of prepared meals to each unit. This is the model followed under Project Roomkey.
 - ii. Minimal meal preparation (kitchenette) in each dwelling unit:
 - 1. Mini-fridge
 - 2. Microwave oven
 - iii. Communal meal preparation in the common room kitchen (post-COVID).
 - iv. CBC Table 2902.1 requires a kitchen sink (separate from the lavatory) in each residential dwelling unit.
 - 1. It may be possible to designate the interim housing as Dormitories or Boarding House, or otherwise not a full dwelling unit, to avoid the kitchen sink requirement.
 - 2. Note that when using the California Plumbing Code, Table 422.1, similar to CBC Table 2902.1, use "Dormitory" to determine the minimum fixture count, as communal living is not specified under the "Apartment house/unit" housing type.
 - v. Applicants should verify this code interpretation with the local building official before finalizing their program and budget.
 - b. **For permanent housing**, CTCAC regulations dictate a standard that each unit has, at a minimum, a sink, a stove, and a refrigerator. Microwave

ovens and garbage disposals are also recommended. Dishwashers and ovens are not recommended. The challenges of adding such kitchens to small motel rooms include space, plumbing, exhaust, and electrical services.

- i. **Space:** A kitchen with a full-size refrigerator would typically require 6' to 8' along a wall, and with clear working space, needs an area of at least 30-40 sq. ft. This simply will not fit in small motel rooms of 225 sq. ft. or less.
 - ii. **Plumbing:** Budget motels typically have all plumbing fixtures along the back wall of each unit, with the units arranged back-to-back, and all the plumbing runs in the wall that forms the spine of the building. It would be cost-prohibitive to extend water, waste, and vent piping outside of this spine. More typical hotel rooms have plumbing along the room side of the bathroom wall as well, which would facilitate locating the kitchenette back-to-back with the bathroom.
 - iii. **Exhaust:** Stoves require exhaust ventilation to the exterior. It can be difficult to thread ductwork through the existing structure where none exists, unless the kitchen is adjacent to an exterior wall.
 - iv. **Electrical:** The electrical code requires refrigerators and electric stoves to each have a separate circuit, and a separate circuit for the microwave oven is also recommended. (Gas stoves were not practical as there was no gas piping to the individual rooms.) Each motel room typically has just a single circuit for receptacles, thus a combined room would have two circuits for receptacles. Leaving at least one circuit for receptacles, the kitchen would require at least 2 more circuits per unit, thus doubling the number of circuits – and the electrical demand.
 - c. **Recommended Design Solution:** Additional space is provided by combining two adjacent guest rooms into a single dwelling unit. The bathroom from one of those rooms can be converted to a kitchenette. The existing lavatory plumbing can be converted to serve the kitchen sink. The existing bathroom exhaust fan can be removed and the duct extended to a range hood. However, since the electrical supply and distribution system is not typically sized for double the load and number of circuits, it may be necessary to construct a parallel electrical system all the way back to the utility transformer to serve the kitchen.
3. **Laundry Facilities:** CTCAC Regulations require one clothes washer and one dryer for every 15 dwelling units. Hotels and motels typically have housekeeping laundry with a few industrial-sized washers and dryers, and storage for extra

linens (sheets, towels, etc.). In addition, some motels have coin-operated laundry machines for guest use located in a separate vending area.

- a. **Design Solution:** Convert housekeeping laundry to residents' laundry room. Remove linen storage and industrial laundry equipment and replace with laundromat-style equipment. In order to provide a sufficient quantity of machines, the smallest vended machines available should be used. It may be necessary to re-plumb gas, water, waste, and vent pipes to accommodate the additional machines.
 - b. **Alternative Solution:** Providing residential laundry on-site might not be necessary if a commercial laundromat is located nearby.
4. **Carbon Monoxide Detectors:** Pursuant to Health and Safety Code Section 17926, carbon monoxide detection shall be installed in all existing Group R buildings served by fuel-burning heating or cooking facilities or with enclosed garages, as required in CBC Section 915.

Cost Evaluation

The findings from the five prototype evaluations conducted by DGS are presented below. Most of these findings can be generalized to any conversion of budget motels to supportive housing. These evaluations did not separate the cost of Tier 1 accessibility or immediate life safety improvements from other costs related to a change in occupancy. Nor did they include a detailed estimate of the costs to replace the existing structures with new purpose-built supportive housing facilities, or replacement of all building systems, so the evaluations below discuss only Tiers 1-5, with Tiers 1 and 2 combined. DGS had these cost estimates validated by a third party, and also compared the Tier 4 costs with CTCAC applications for similar projects.

Estimates in the tables below and those discussed elsewhere in this guide include:

1. Prevailing wage contracts and job training programs, as required by the Homekey NOFA;
2. Allowances for general conditions;
3. General contractor's profit and overhead;
4. Bonds; and
5. 30% contingency for conceptual level of design.

The cost estimates do not include:

1. Property acquisition;
2. "Soft costs" such as surveying, design, and permit fees;
3. Financing costs;
4. Operating reserves; or
5. Developer's fee.

Property acquisition will be estimated by appraisal. Implementing agencies will need to evaluate the other “soft costs” and financial costs based on their respective experiences.

Summary of Costs

The tables below reflect the estimated costs for each facility in 2020 dollars, including impacts to the number of rooms available for housing, at each tier.

Table 1: Cumulative Costs by Tier

Tier	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.	Med.
Tiers 1&2	\$ 48,659	\$58,772	\$62,339	\$33,693	\$42,814	\$49,255	\$48,659
Tier 3	\$56,587	\$64,684	\$69,105	\$45,153	\$59,582	\$59,024	\$59,582
Tier 4	\$138,979	\$160,273	\$154,751	\$143,849	\$134,580	\$146,486	\$143,849
Tier 5	\$170,599	\$174,576	\$173,341	\$171,885	\$146,329	\$167,346	\$171,885

Table 1 shows the estimated construction (“hard”) costs per unit to bring each sample property up to each of the 5 tiers of service described above.

Table 2: Impacts to Units

	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.	Med.
Existing units	126	90	284	137	122	151.8	126
Tier 4 units	61	44	141	63	60	73.8	61
% of units	48%	49%	50%	46%	49%	49%	49%

Table 2 shows the impact to the number of rooms caused by Tier 4 requirements for minimum room size and full kitchens.

The minimum cost to convert a property to permanent housing and meet code safety requirements (Tiers 1 & 2) ranged from about \$34,000 to \$62,000 per unit. The additional incremental cost to bring the properties up to a state of good repair (Tier 3) averaged about \$10,000 per unit.

The need to meet minimum building standards for tax credit financing requirements (Tier 4) added over \$90,000 to the base cost, on average – of which about \$50,000 is due to reducing the number of units by half, and the balance due to the additional scope of construction required.

Another \$20,000 or so per unit, primarily in additional energy efficiency and renewable energy measures (Tier 5), would make these projects more competitive for tax increment financing.

Key Scope/Cost Drivers by Tier

- I. For **Tiers 1 and 2**, kitchenettes, fire and life safety upgrades drive costs. Given that hotels and motels are classified as temporary residences in California, these (or similar) fire/life safety upgrades will likely be required at any hotel newer than 2008. Permanent housing in older properties is not considered a change of use under the UBC and therefore only the accessibility and immediate life safety issues (e.g. fire alarm upgrades, replacing railings) would need to be addressed.

Table 3: Tier 1 & 2 Cost Drivers by Location, per unit

Scope Item	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.
Kitchenettes	N/A	\$16,309	N/A	N/A	N/A	\$16,309
Fire-rating	\$5,271	\$7,445	\$16,302	\$1,048	\$18,337	\$11,681
Seismic upgrade	\$4,952	\$5,600	\$16,436	\$4,554	\$0	\$6,308
Fire protection	\$4,723	\$7,526	\$6,618	\$0	\$6,745	\$5,122
Replace roofing	\$3,908	\$4,676	\$4,153	\$0	\$0	\$2,547
Fire alarm upgrades	\$2,110	\$0	\$0	\$5,171	\$66	\$1,470
Replace railings	\$1,379	\$555	\$249	\$0	\$354	\$507

N/A: Kitchenette costs for other properties was not readily available.

Tier 1 and 2 Notes:

1. The largest cost for Tier 2 – permanent housing would be the provision of cooking facilities where none exist. Minimum cooking facilities for permanent housing include a sink (separate from the bathroom lavatory), a mini refrigerator (typically up to 4.5 cubic feet), and a microwave oven or 2-burner plug-in electric stove. Some hotels already have kitchenettes in each room, often with just the microwave oven and mini-fridge. See costs and discussion under Tier 4 Note 2 for kitchens and kitchenettes.
 - a. **Key Concept:** Acquiring properties with existing kitchenettes eliminates the biggest conversion cost.

2. The most significant variable on this table affecting the cost was the need to fire-separate each unit. While one of the evaluated properties (SoCal 2) already had 1-hour rated walls and ceilings, it was the exception of the properties studied.
 - a. **Key Concept:** Most of the properties did not appear to have the fire-rated walls between units required by code. Properties that do not already meet this requirement may need to have the walls between units stripped and rebuilt. It is critical to understand the code under which these properties were built to determine if this retrofit is required.

3. The next most significant issue was seismic retrofit. One site (Bay 2) was an outlier due to proximity to a dangerous fault, location on soil prone to liquefaction, and an irregular building configuration. As a result, it should be discounted from generalized discussions on scope and cost. It should also be noted that the other three properties with costs in this category were themselves near a fault, had irregular building configurations, or both.
 - a. **Key Concept:** Preliminary seismic reviews should be part of initial assessments due to direct and ancillary costs. As seismic retrofits generally require removing the roof to secure the roof diaphragm to the walls for lateral stability, this will result in having to replace one roof that was otherwise in good condition.
 - i. **Note:** Irregular building configurations can be mitigated by seismic joints.
4. The third significant issue was fire protection systems. Only one of the motels assessed had the required fire sprinklers.
 - a. **Key Concept:** In identifying hotels to purchase, it is important to identify which hotels have compliant fire sprinklers.

II. **Tier 3** costs will be entirely dependent upon the condition of each individual property. DGS' review indicated that even though the hotels surveyed were older, their commercial use has generally kept them in reasonable condition.

Table 4: Tier 3 Cost Drivers by Location, per unit

Scope Item	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.
Replace Boiler/Chiller	\$3,586	\$146	\$496	\$4,745	\$2,311	\$2,257
Replace PTACs	\$1,400	\$0	\$786	\$0	\$7,378	\$1,913
Site security/fencing	\$2,697	\$2,176	\$316	\$2,479	\$791	\$1,692
Convert laundry	\$1,140	\$1,053	\$719	\$1,120	\$945	\$995
Replace roofing	\$0	\$0	\$0	\$0	\$3,431	\$686
Replace exhaust fans	\$648	\$663	\$653	\$596	\$659	\$644
Pavement repairs	\$61	\$320	\$1,155	\$460	\$32	\$405
Water softener	\$0	\$0	\$951	\$0	\$0	\$190
Replace railings	\$0	\$0	\$682	\$0	\$0	\$136

Tier 3 Notes:

1. The most common requirement to achieve a state of good repair was to replace or upgrade mechanical equipment, including pass-through air conditioners, restroom exhaust fans, boilers and chillers (combined average cost/unit of \$5,000). This varied significantly depending on the age of the equipment.
 - a. **Key Concept:** In identifying hotels to purchase, inquire about the age (and if possible, the condition) of the mechanical equipment.
 2. Roof replacement was also common, at an average cost per unit of \$3,700. However, the roofing costs for three of the properties was shifted from Tier 3 to Tiers 1 & 2 because the seismic retrofit required the removal of the roof.
 3. The proposed residents for a given housing conversion can trigger security concerns that need to be addressed. Since most motels have rooms directly accessed from the exterior, the most feasible means of providing security is to use security fencing around the site, supplemented by a CCTV system. The cost differential between sites that are already fenced and have a single point of access (and thus required only gates and controls at \$300-800/unit) and those that are more open (and thus required extensive fencing at a cost of \$2,200-2,700/unit) is significant.
 - a. **Key Concept:** In identifying hotels to purchase, programs requiring site security should review aerial site images for perimeter security measures.
 4. Other potential repairs were primarily a function of the age and maintenance of the facility, and as a result varied noticeably from one property to another.
 - a. **Key Concept:** A visual review of a potential property is recommended.
 5. In Tier 2, DGS included costs to provide amenities and support services, such as converting employee break rooms to classrooms, converting the housekeeping laundry facilities to a laundromat for residents, etc. We have estimated that cost at \$700-1100/unit. This cost would vary depending on the program amenities desired.
 - a. **Key Concept:** These costs scale based upon the size of the property.
- III. **Tier 4** improvements followed the CTCAC "Minimum Construction Standards" as defined in the California Code of Regulations, Title 4, Division 17, Chapter 1 (Section 10325.f.7), as a guide for development.

In order to better define the scope of work, the design team made some assumptions based on the proposed use of permanent supportive housing for people experiencing homelessness, defined as the "Special Needs" housing type, at 90% occupancy. These criteria are focused on energy efficiency and sustainable design practices, but also have some minimum design standards such

as a minimum unit size of 250 square feet, cooking facilities, a 10% post-rehabilitation improvement over existing conditions energy efficiency, low-water landscaping, and Energy Star appliances.

Tier 4 triggers three key requirements that significantly impact the cost.

Table 5: Tier 4 Cost Drivers by Location, per unit

Scope Item	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.
10% energy efficiency	\$25,002	\$36,116	\$17,689	\$16,817	\$28,467	\$24,818
Paired units/kitchens	\$18,745	\$20,156	\$20,409	\$26,379	\$12,852	\$19,708
Replace landscaping	\$2,656	\$3,449	\$2,298	\$1,714	\$2,700	\$2,563

Tier 4 Notes:

1. The most significant factor for Tier 4 costs was the failure to meet the minimum room size requirements of 250 square feet (single room occupancy).
 - a. **Key Concept:** Most of the budget motel rooms were found to be less than 250 square feet – typically 160-225 square feet, though a few larger rooms could meet the minimum size requirement. Even the larger rooms still require modifications and in most cases, pairing with an adjacent room, to be able to accommodate cooking facilities.
 - b. **Key Concept:** If motels proposed for purchase are found to have room sizes that do not meet this minimum, the most cost-effective and least disruptive means of enlarging units was found to be combining adjacent rooms by building a doorway between them. This reduces the unit count to half or less.²
 - i. **Note:** The Tier 4 increases in costs per unit are not only driven by the total construction costs, but also by the reduction in the number of rooms (effectively doubling the cost per unit).
 - ii. **Also:** Size – and therefore density – of units affects the cost per unit. Alternative plans could combine 3 existing units to 2 new units. This would lead to higher total construction costs (since there would be more new walls and other impacts in the middle unit to be split),

² In the case studies, a building would often have an odd number of rooms on each side.

but that cost would be divided by more units. DGS did not estimate this approach.

2. The second major impact in this tier is the requirement for a kitchen (CTCAC requires a sink, refrigerator and stove, though a microwave oven was also recommended). The kitchen, in turn, requires plumbing, exhaust ventilation (range hood), and additional electrical power.
 - a. **Key Concept:** DGS found that plumbing and exhaust could be cost-effectively addressed in a combined room by converting the extra restroom (which already has plumbing and exhaust) into the kitchen.
 - b. **Key Concept:** The electrical needs of the kitchen required installation of a new electrical system parallel to the existing system (see Attachment C for more details).
 - c. **Key Concept:** Most motels had some sort of kitchen in the employee break room. It would be worth considering whether a communal kitchen might prove a more cost-effective means of meeting a requirement for full cooking facilities, rather than in-room kitchens or kitchenettes.
 - d. **Key Concept:** If CTCAC regulations don't apply, in non-accessible units, cooking facilities could be as simple as a kitchenette with a microwave oven, a mini-fridge and a kitchen sink. This would reduce the cost of cooking facilities from an average of \$36,000 per unit to about \$16,000 per unit, and double the number of units.
 - e. **Key Concept:** The cost of the full kitchen in Tier 4 is the incremental difference between constructing a kitchenette in Tier 2. If a full kitchen needs to replace an existing kitchenette, this cost would increase by about \$16,000 per unit.
3. The third major impact on cost was driven by the need to improve energy efficiency by 10% post-rehabilitation. This proved difficult given the increased electrical need demanded by the kitchens, essentially doubling the existing energy consumption. Therefore, the need to offset this increased electrical load and improve the energy efficiency of the properties requires the need to generate electricity. The most easily accessible method today is to install photovoltaic panels. However, it is unlikely that rooftop panels are possible, as budget hotels are typically constructed using light wood framing and roof trusses, which cannot support the weight. DGS' cost estimates therefore assumed new covered parking stalls, adding \$16,000-36,000 per unit.
 - a. **Key Concept:** A power purchase agreement would reduce or even eliminate these costs and should be considered in conversions.

4. In addition to the PV panels, the energy efficient scope of work included upgrading LED lighting and replacing old windows with double pane.
 - a. **Key Concept:** Depending on the age and condition of the existing property, additional energy efficiency considerations may be needed, and these may also differ based on location and climate.

IV. **Tier 5** costs are designed to reduce the overall lifecycle costs and make a project more competitive in the Tax Credit Allocation process.

There are different criteria for each specific projects type, such as Large Family projects, Senior projects and those projects identified as “At-Risk” projects. Only those improvements defined under the “Special Needs” projects were considered in this sample set.

Items included for consideration were measures intended to increase energy efficiency by 15-20% post-rehabilitation, as well as project commissioning and xeriscaping. Given the variety of existing conditions of the properties inspected, the state’s design team recommended different improvements for each of the motels.

Table 6: Tier 5 Cost Drivers by Location, per unit

Scope Item	SoCal 1	Bay 1	Bay 2	SoCal 2	Central	Avg.
Photovoltaics	\$10,042	\$11,451	\$9,535	\$2,900	\$9,270	\$8,640
HVAC system	\$17,804	\$0	\$0	\$18,725	\$0	\$7,306
Digital controls	\$2,594	\$3,396	\$4,190	\$2,642	\$2,490	\$3,062

Tier 5 Notes:

1. The increase by 5-10% in additional energy efficiency was the primary cost driver. At each property, additional carports and PV areas were calculated to offset the increase in electrical loads, averaging \$8,000 per unit. This increase in PV panel area was easily achievable given the existing parking configuration in the location studied, but may vary depending on site orientation and climate.
 - a. **Key Concept:** The increase in PV panels alone could not produce the required 5-10% increase in energy efficiency alone, therefore more measures were needed.
 - b. **Key Concept:** HVAC upgrades in prior tiers should be factored into the energy savings needed.
2. Building control systems were another cost driver at an average of \$3,000 a unit.

- a. **Key Concept:** Some mechanical and electrical upgrades required in Tier 3 for the addition of kitchens may trigger the need to upgrade these same controls, and may prove to be more cost-effective if done in conjunction with other renovations.

Recommendations and Lessons Learned

Recommendations below are based on experience of the DGS technical assistance teams. Many of these reflect program successes, not just on lessons learned from failures or challenges.

Technical Assistance

Because some of the geographic areas most in need of Project Homekey had constraints that would have prevented them from participating in the program without support, the State provision of technical assistance was crucial to ensuring equitable dispersal of grant funds. DGS technical assistance may cover property evaluation, physical needs assessments, environmental site assessments, real estate appraisals and negotiations, and project scoping and design.

Kitchens

One of the biggest cost drivers in the conversion of hotel or motel rooms to permanent housing is the addition of kitchens in each room. This requires plumbing, additional electrical, and ventilation systems to be extended to the kitchen areas (and usually electrical system capacities to be increased). The additional construction also takes a lot of time, during which the property is not available to provide housing. There are two ways to mitigate or minimize this cost:

1. Select properties for purchase that already have kitchens or kitchenettes in each room. "Extended stay" hotels typically meet this requirement. While the per-room purchase cost may be slightly higher, the overall cost is significantly lower by avoiding the construction and delays.
2. Consider the model of "Single Room Occupancy" apartments with shared kitchens. Most hotels and many motels have commercial cooking facilities (e.g. for "breakfast bars") that could be used as shared kitchens. This option was not considered for Project Homekey because the justification for the program was to provide separate living facilities for people at risk of COVID-19, and shared kitchens would have increased their risk of catching and spreading the virus. Outside the pandemic environment, however, this may be a viable strategy to reduce remodeling costs.

Building Code Constraints

The Project Homekey program requirements were well developed in terms of reflecting the key regulatory issues such as Americans with Disabilities Act and Fair Housing Act standards, that could not be modified. Some constraints are inherent in the building code itself, which could be modified:

1. CBC section 1207.4.2 requires each efficiency dwelling unit be provided with a separate closet. However, the conversion of a hotel or motel room to permanent

housing usually incorporates whatever closet space there is into the new kitchen. Constructing a new closet would be costly (and take away space from the main living room; see discussion below re: HSC 17958.1). A better solution is to provide a wardrobe, which accomplishes the same purpose, but as a piece of furniture is cheaper and more flexible.

2. The electrical code requires refrigerators and cooking appliances to each be on an individual circuit. Adding kitchenettes where none exist therefore requires many more electrical circuits (typically each hotel or motel room has only one circuit; in a few cases DGS found a hotel with 2 circuits per room, but more often there were multiple rooms on a single circuit). In the typical case this requirement triples the number of circuits, increasing the calculated load and requiring new switchgear and transformers. A clarification allowing microwave ovens and min-refrigerators to share circuits with other uses would eliminate the additional electrical capacity requirements for kitchenettes. (Full kitchens, with electric stoves and full-size refrigerators, should still require the additional circuits.)

Shelter Crisis for Interim Housing

More time for implementation of the program may have allowed more local agencies to become familiar with, and make use of, specific provisions in state law:

1. Government Code section 8698 et seq (see Code Considerations above) allows local agencies' governing bodies to create exceptions from the CBC, upon declaration of a shelter crisis. This process takes time. In DGS's experience, only Los Angeles County and the City of El Monte took advantage of that provision, and only because they already had such declarations in place. However, since the funding program required properties to be upgraded to meet current accessibility codes, the GC 8698 provisions didn't save local agencies much time or money.

2. Health and Safety Code section 17958.1 allows a city or county to reduce the minimum size of efficiency dwelling units from 220 SF (for main living area only, per CBC section 1207.4.1) to 150 SF (total). Since many hotel and motel rooms would not meet the minimum floor area in the regular building code, they required combining pairs of rooms to meet minimum unit sizes. However, in jurisdictions where an ordinance was adopted per HSC 17958.1, each hotel or motel room could be used for a living unit.

Design Tools

Sample Room Configurations - Revit Models

See Attachment D for sample motel room configurations encountered by the DGS team, along with ideas about how to convert these room types to interim or permanent supportive housing. Revit models of these sample room configurations and remodel proposals are also available.

Cost Estimating Template

See Attachment C for a cost estimating template based on the program requirements. The costs are based on hotel/motel conversions, located in California, for calendar year

2020. Costs may need to be adjusted for different locations and for escalation beyond 2020. This template is not valid for other project types.

References and Resources

California Building Standards Codes (California Code of Regulations, Title 24):
<https://www.dgs.ca.gov/BSC/Codes> or <https://up.codes/codes/california>

California Department of Housing and Community Development: Notice of Funding Availability (NOFA), Homekey Program Round 2, September 9, 2021:
https://homekey.hcd.ca.gov/sites/default/files/2021-09/NOFA_Homekey_0.pdf

California law: <https://leginfo.legislature.ca.gov/faces/codes.xhtml>

California Tax Credit Allocation Committee (CTCAC) Regulations Implementing the Federal and State Low Income Housing Tax Credit Laws (California Code of Regulations, Title 4, Division 17, Chapter 1):
<https://www.treasurer.ca.gov/ctcac/programreg/regulations.asp>

History of the California Building Code: <https://www.dgs.ca.gov/BSC/About/History-of-the-California-Building-Code--Title-24-Part-2>

Library of Uniform Building Codes (1927 – 1994):
<https://digitalassets.lib.berkeley.edu/ubc/>

List of Attachments

Attachment A: Project Homekey Motel Conversion Process Summary

Attachment B: Screening Tool (Microsoft Excel)

Attachment C: Programming Matrix

Attachment D: Sample room configurations (Revit models)

A101 – Convert 2-bed to ADA unit (240 sq. ft.)

A102 – Add Kitchenette to 2-bed unit (240 sq. ft.)

A103 – Convert 1-bed to ADA unit (194 sq. ft.)

A104 – Add Kitchenette to 1-bed unit (194 sq. ft.)

A105 – Add Kitchenette to 1-bed unit (205 sq. ft.)

A106 – Convert 1-bed to ADA unit (205 sq. ft.)

A107 – Combine (2) 1-bed units to (1) ADA 1 Bedroom Apartment (388 sq. ft.)

A108 – Combine (2) 1-bed units to (1) ADA 1 Bedroom Apartment (371 sq. ft.)

A109 – Combine (2) units end-to-end (388 sq. ft.)

A110 – Combine (2) units end-to-end (354 sq. ft.)

A111 – Combine (3) 1-bed units to (1) ADA 1 Bedroom Apartment and (1) 1 Bedroom Apartment

A112 – Add Kitchenette to 1-bed units (194 sq. ft. and 240 sq. ft.)

A113 – Furniture Legend

Attachment E: Programming Estimate