EARTHQUAKE SHACKS THEME DOCUMENT

CONTEXT: RESIDENTIAL (1848-1989)

SUB CONTEXT: SINGLE-FAMILY

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San Francisco Planning

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PREFACE

The development of Earthquake Shacks in San Francisco is a theme identified within the Residential Historic Context Statement's Single-Family Sub-Context, developed as part of the City's SFSurvey Cultural Resources Survey. Historic Context Statements are planning documents used to organize the events related to the development of a style of architecture, neighborhood, thematic topics or typologies, or a group of people. The Planning Department and Office of Historic Preservation rely on these documents to identify, evaluate, and designate properties across the city. These documents are not comprehensive histories or catalogues of the development of a theme in the City but are rather intended as a reference guide for future field surveyors.

CONTRIBUTOR

Melanie Bishop is an Assistant Preservation Planner with the Cultural Resources Survey Team at the City and County of San Francisco's Planning Department. Her work was overseen by Senior Preservation Planner Susan Parks, along with Principal Planner Marcelle Boudreaux. Melanie holds an M.S. in Historic Preservation from The School of the Art Institute of Chicago and meets the Secretary of the Interior's Standards for architectural history.

Trent Greenan is a Senior Architect with the Design Team at the City and County of San Francisco's Planning Department. Trent provided illustrations of the earthquake typology that are used within this document.

Woody LaBounty is the Interim President and CEO of San Francisco Heritage, a non-profit preservation advocacy organization. Woody previously worked with the Western Neighborhoods Project, a non-profit organization that shares the history and culture of the neighborhoods in western San Francisco. In addition to other organizations, Western Neighborhoods Project played a large role in the advocacy and preservation of earthquake shacks across San Francisco. Woody generously provided review and comments of this draft context statement.

Jane Cryan is a preservation advocate and founder of the movement to preserve earthquake shacks in San Francisco. This document further discusses Cryan's role in advocacy for the building type and her unpublished manuscript *Hope Chest: The True Story of San Francisco's 1906 Earthquake Refugee Shacks,* and the primary research it provides forms the basis of this document.

THEME INTRODUCTION

This theme is concerned with extant resources in San Francisco associated with relief housing, constructed in the aftermath of the 1906 Earthquake and Fire, known colloquially as "earthquake shacks." The context theme begins with the inception of San Francisco's earthquake shacks in 1906 as a solution to house displaced residents in the wake of the disaster. The theme ends in 1908 after the closure of refugee camps throughout the city and the relocation of many shacks onto private lots.

Earthquake shacks were constructed by the Department of Lands & Buildings, an advisory body that was one of six departments that were part of the larger San Francisco Relief and Red Cross Funds Corporation (also referred to as the Relief Corporation or the Relief Fund). Plans for temporary relief housing went through several iterations prior to the development of what are now known as earthquake shacks. After refugee camps closed, many residents moved earthquake shacks onto private lots, making additions and alterations to the structures as they evolved into permanent housing.

During the period addressed in this context theme, the Lands and Buildings Committee constructed approximately 5,610 earthquake shacks in three defined types known as Type A, Type B, Type C, and Type D. Type D military barracks were limited to the Speedway camp site within Golden Gate Park and the South Park camp site run by the U.S. military at the beginning of the refugee effort. No extant examples have been identified by the Department to date. Other financial support programs including the Bonus Plan, and Grant & Loan programs are referenced in this document but will be discussed in greater length as part of the 1906 Earthquake & Reconstruction Theme Document as these programs are not typically representative of a consistent typology. Previous efforts by the Department and local preservationists including Jane Cryan, founder of The Society for the Preservation and Appreciation of San Francisco's 1906 Refugee Shacks (SPASFRS), form the basis of this theme document, including the physical identifiers and features of extant earthquake shacks. Former San Francisco Planning intern Arianna Urban's thesis, *"From Green Refugee Shacks to Cozy Homes of Their Own:" San Francisco's Earthquake Relief Cottages as Vernacular Architecture* also informed this document.

The San Francisco Relief Survey: The Organization and Methods of Relief Used After the Earthquake and Fire of 1906, a comprehensive document commissioned by the Relief Corporation with demographic data that analyzed the efficiency of the relief effort six years after the Earthquake and Fire also provided significant supporting information for this document. Other Historic Context Statements and survey documents within the Citywide Survey relevant to earthquake shacks may include the following:

The 1906 Earthquake & Reconstruction Theme Document

HISTORIC CONTEXT

The 1906 Earthquake & Fires

The earthquake that struck San Francisco at 5:15AM on April 18, 1906, and the resulting fires that burned for days after the disaster, left a lasting impact on the built environment and the citizens of the city. The 1906 Earthquake and Fire struck San Francisco at an estimated 7.7-7.9 magnitude (using today's scale), lasting for less than a minute, and was felt in cities throughout the Bay Area, including San Jose, Palo Alto, San Mateo, and Berkeley.[1] While the earthquake itself levelled many structures, it was the subsequent fires that caused most of the damage. The rupturing of gas lines during the earthquake sparked fires that burned for three days, destroying buildings and displacing people across the city. The earthquake also broke main water conduits, making it difficult to control the spread of the fires. Demolishing buildings with dynamite to create firebreaks became a last resort to keep the fires at bay. Just two days after the earthquake on April 20, 1906, most of Nob Hill, Russian Hill, Telegraph Hill, the Tenderloin, downtown, and the Mission District were left in ruins.

Fig. 1. The resulting fire caused widespread damage to the downtown business district. The structure of some steel frame buildings remained including the Saint Francis Hotel and the Fairmount Hotel in the distance. (Source: Records of the U.S. Senate 1789-2015, National Archives Catalog)

The Earthquake and Fires left an estimated 3,000 people dead and another 200,000 displaced, with over 78,000 residents fleeing the city in the aftermath.[2] In total, the fire consumed approximately 4.7 square miles of San Francisco over 500 city blocks, amounting to more damage than both the Great Fire of London

[1] Arianna Urban, *"From Green Refugee Shacks to Cozy Homes of Their Own": San Francisco's Earthquake Relief Cottages as Vernacular Architecture.* Thesis. University of Oregon, 2016, 1.

[2] U.S. Army, Pacific Division, *Earthquake in California April 18, 1906: Special Report of Maj. Gen. Adolphus W. Greely, U.S.A., Commanding the Pacific Division, on the Relief Operations Conducted by the Military Authorities of the United States at San Francisco and Other Points, with Accompanying Documents* (Washington: Government Printing Office, 1906), 49-50.

(1666) and the Great Chicago Fire (1871), respectively (Fig. 2).[3] Until 1906, more than ninety percent of buildings in San Francisco were built with wood-frame construction, allowing for the fires resulting from the Earthquake to spread quickly and easily across the city. At the time, San Francisco and the United States looked to England to dictate architectural trends; therefore, most buildings were designed in styles colloquially referred to as "Victorian," including Gothic Revival, Greek Revival, Italianate, Stick/Eastlake, and Queen Anne (Fig. 3).[4] After the 1906 Earthquake and Fires, over eighty percent of the City's built environment was destroyed. The fires burned through some of the most developed and populated parts of the city at the time, leaving a large gap in San Francisco's housing stock, which spurred an immediate housing crisis and greatly impacted the city's economy.[5]

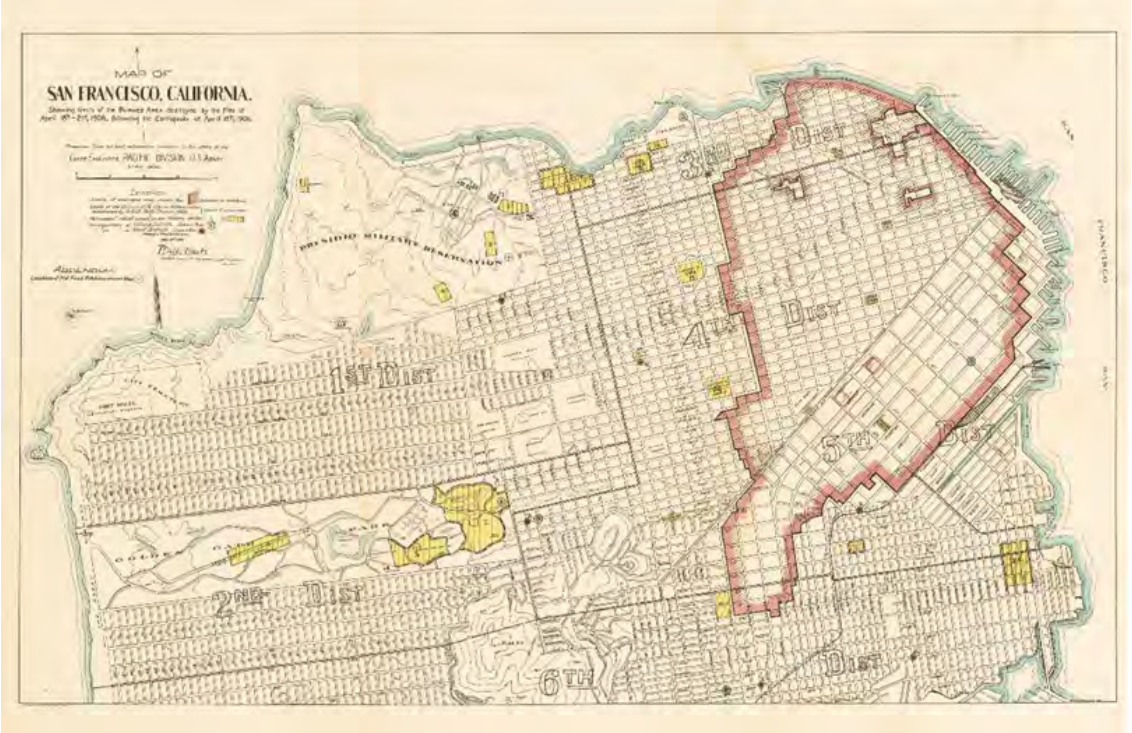


Fig. 2. San Francisco Burn Area, 1906. (Source: U.S. Army Special Report.)

At the turn of the nineteenth-century, San Francisco was in the midst of a transition that was only accelerated by the disaster. Architects had begun to gravitate towards Classical architecture as the preferred style for large-scale commercial and institutional buildings. This preference for Classical architecture increased further in 1905, when Chicago-based architect and urban planner Daniel Burnham was commissioned to design a "City Beautiful" plan for San Francisco. The plan was modeled after Burnham's plan for the 1893 World's Columbian Exhibition in Chicago but was never implemented. Even though San Francisco's City Beautiful Plan was never fully realized, the influence of the City Beautiful movement was significant, and as a result, the majority of institutional and residential buildings

[3] Charles O'Connor, et al. *The San Francisco Relief Survey: The Organization and Methods of Relief Used after the Earthquake and Fire of April 18, 1906* (The Russel Sage Foundation, New York Survey Associates, 1913), 4.
[4] San Francisco Planning, *San Francisco Preservation Bulletin No.18: Residential and Commercial Architectural Periods and Styles in San Francisco,* 4.
[5] Jane Cryan, *Hope Chest: The True Story of San Francisco's 1906 Earthquake Shacks* (unpublished manuscript, avail. San Francisco Public Library San Francisco History Center, 1999), 6.

constructed after the 1906 Earthquake and Fire were designed in the Beaux Arts or Neoclassical Style (Fig. 4.).[6]

Fig.3. San Francisco's "Four Seasons" houses constructed in the 1890s by shipwright John Whelan on the 1300 block of Waller Street. The buildings are constructed in the Queen Anne style, popular in late nineteenth and early twentieth century San Francisco. (Source: The Four Seasons Houses.)

Fig.4. Just prior to the 1906 Earthquake and Fire, Daniel Burnham's City Beautiful plan for San Francisco influenced the architects of San Francisco towards a more Classical style. Though the Plan was never realized, many buildings that were reconstructed after the 1906 Earthquake and Fire were designed in the Beaux Arts or Neoclassical style, including San Francisco's reconstructed City Hall. (Source: City and County of San Francisco.)

[6] San Francisco Planning, *Draft Reconstruction Era Edwardian Flats Historic Context Statement 1901-1915,* 2018, 17.

While many residents displaced by the disaster fled the city, some chose to stay, and nearly 300,000 people slept outdoors the night of April 18th, as they had either lost their homes or were too afraid to return.[7] The City began recovery and relief efforts almost immediately, while, "in every convenient spot outside the burned district there speedily sprang up tent cities and temporary barracks, into which the destitute crowded as fast as they could (Fig. 5)."[8] That same day, 1,700 U.S. Army troops stationed at the Presidio and other nearby posts were deployed to San Francisco to assist residents. In addition to providing medical treatment, supplies, food, water, and shelter, the Army also assisted in fighting fires throughout the city. Army efforts were overseen by Frederick Funston, who served as acting commandant at the Presidio in the absence of General Adolphus Greely. San Francisco Mayor Eugene Schmitz worked to establish a citizens committee, known as the Committee of Fifty, to help steer relief efforts at the City level. The Committee held their first meeting a few hours after the earthquake on April 18th in the basement of the damaged Hall of Justice building.[9] The Committee met several times during the days immediately following the disaster, changing locations several times as needed due to the still-raging fires.

Fig.5. Refugees built makeshift shelters across the city, including in Mission Park (pictured above), immediately following the disaster. (Source: San Francisco Public Library.)

[7] Arianna Urban, *"From Green Refugee Shacks to Cozy Homes of Their Own": San Francisco's Earthquake Relief Cottages as Vernacular Architecture.* Thesis. University of Oregon, 2016, 13.
[8] U.S. Army, *Special Report,* 34.
[9] Charles O'Connor, et al. *The San Francisco Relief Survey: The Organization and Methods of Relief Used after the Earthquake and Fire of April 18, 1906* (The Russel Sage Foundation, New York Survey Associates, 1913),4

Fig.6. A bread line in the early stages of relief distribution. (Source: Records of the U.S. Senate 1789-2015, National Archives Catalog.)

The makeshift tents and shelters throughout San Francisco quickly became unsafe and made it difficult to distribute food and supplies fairly and efficiently (Fig. 6). One of the Committee's first tasks involved mapping San Francisco into seven districts to allow for more efficient distribution of food, shelter, and other resources to citizens. Immediately following the disaster, the U.S. Army assumed most of the responsibility for the relief and recovery effort. On April 23, 1906, the American National Red Cross arrived in San Francisco to assist in the relief effort.[10] Relief efforts were a collaboration among the Army, the Committee of Fifty, the Red Cross, and the Associated Charities of San Francisco (now known as the Family Service Agency). In an attempt to remedy the issue of providing shelter, government-issued tents and nearly 250 election booths were used in various parts of the city as temporary housing, with Calvary Cemetery at the intersection of Geary and Masonic becoming a campground for hundreds of refugees.[11]

By the end of April 1906, as many as 200 "relief stations" were in operation, with each overseen by an Army officer. A segregated relief district was established for Chinese-American residents of San Francisco in Hunters Point along with a tent city in a remote part of the Presidio, with many Chinese refugees forced to clean and clear San Francisco's streets after losing their own homes.[12] By early summer 1906, it was estimated that despite relief efforts, nearly 1,000 refugees still had no form of shelter.[13] On May 13, General Greely appointed Lieutenant Colonel R.K. Evans as "commander of permanent camps" and on the same

[10] Cryan, *Hope Chest*, 15.
[11] *Hope Chest,* 10.
[12] Ibid.
[13] Ibid.

day designated the boundaries of the first 15 of what would ultimately total 31 refugee camps. Sites were designated in Golden Gate Park and the Presidio and were strictly regulated by the U.S. Army (Fig.7). Army officers applied their own rules of conduct to refugees, and little tolerance was given for camp residents who did not follow orders. Each family was provided a government-issued tent with a plank floor that was subject to daily inspection. Each of the fifteen official tent camps had running water, communal latrines, showers, laundry facilities, and kitchens.[14] Despite Army regulations, conditions in the tent camps were crowded and haphazard, and concerns rose regarding sanitation and the spread of disease. Tired of living in makeshift conditions, refugees began putting pressure on relief officials in June of 1906 to either improve camp conditions or find a better living solution for refugees.

Fig.7. A tent camp in Golden Gate Park regulated by the U.S. Army. (Source: Source: Records of the U.S. Senate 1789-2015, National Archives Catalog.)

A Solution for Better Refugee Housing

The City and Army realized tent camps were no longer sustainable with winter approaching and met with the Committee of Fifty to consider a better solution for refugee housing in early June of 1906.[15] Dr. Edward T. Devine, head of the Red Cross effort, began to advocate for "shelter more adequate than that provided by the tents."[16] Eventually, the US. Army was phased out of the relief effort, and the Committee of Fifty

[14] U.S. Army, *Special Report*, 33.
[15] Cryan, *Hope Chest, 24.*
[16] O'Connor, *The San Francisco Relief Survey,* 16.

merged with the Red Cross to form the San Francisco Relief and Red Cross Funds Corporation (also referred to as the Relief Fund or Relief Corporation) in July of 1906. Former San Francisco Mayor James D. Phelan was nominated to act as the organization's president with several other notable San Franciscans, including Rudolph Spreckles and M.H. de Young, serving on the board. This new entity consisted of five departments: Department of Finance and Publicity, Department of Bills and Demands, Department of Camps & Kitchens, Department of Special Relief & Rehabilitation, and finally, the Department of Lands & Buildings, chaired by real estate developer Thomas Magee.[17]

The Relief Fund's Department of Finance and Publicity released a bid for proposals regarding a solution for more permanent refugee housing in early summer of 1906. The refugee housing program was intended to support a group of citizens who lacked resources in the aftermath of the 1906 Earthquake and Fires. Many solutions were proposed, including subsidized and non-subsidized options, permanent or temporary, and single-family, as opposed to large apartment homes or tenement housing. Superintendent of Parks John McLaren suggested relocating all refugees to the sand dunes in the Outside Lands of the Sunset and the Richmond districts, while others called for model homes to be built throughout the city. Everyone from local newspapers to builders, both local and national, weighed in on the most appropriate solutions for refugee housing in San Francisco (Fig. 8). Cuneo Estates, using plans by architects Shea & Shea, began building dwellings of two to five rooms in three-story buildings at the intersection of Bay and Leavenworth streets.[18] Anton Frank from Chicago, Illinois, was one of many enterprising builders who arrived in San Francisco to take advantage of the housing crisis. Frank offered two-room "portable houses" with canvas roofs, while another builder proposed a prefabricated nail-free house designed in three styles.[19] While these proposals were numerous, all proposals from out of state builders were rejected due to demands for local employment and a desire that relief housing be built by local laborers.

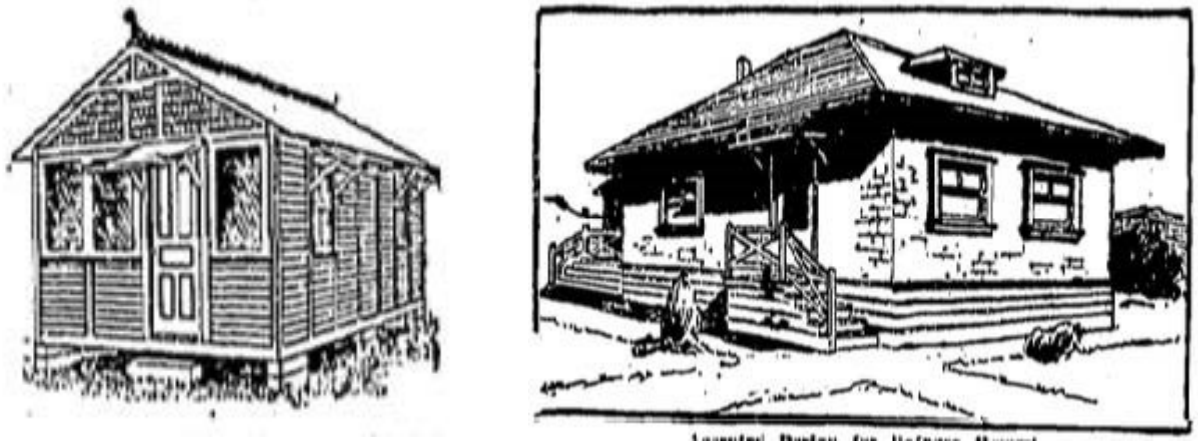


Fig. 8. Two proposals for relief housing (Source: San Francisco Chronicle.)

[17] Ibid.
[18] Cryan, *Hope Chest*, 26.
[19] Cryan, *Hope Chest*, 28.

Fig. 9. Refugee Esther Chelim stands in front of a newly constructed earthquake shack. (Source: San Francisco Public Library.)

Earthquake Shacks as Relief Housing

The Department of Lands & Buildings settled on a plan to construct mass-produced cabins as a solution for more permanent refugee housing on July 31, 1906 (Fig. 9).[20] Next, the committee was tasked with selecting a design for the cabins and where to site them. Chairman Thomas Magee of the Department of Lands & Buildings decided against constructing housing on private lands due to complications involved with leasing private property. Proposals to build housing in the outer neighborhoods of the city were rejected, as "practically all of those who were seeking shelter had formerly lived near the business center of the city…they had no desire to take up permanent residence in an outlying district where excessive expenses would have to be incurred."[21] The Relief Corporation feared that many more residents would leave the city if they were not provided with suitable shelter in a reasonable location.

Magee found a practical solution for the location of refugee housing by designating eleven public parks and squares as the first sites for the new refugee camps. Lobos Square (present Moscone Park), Potrero Park (no longer extant), Franklin Square, Jefferson Square, Mission Park (present Mission Dolores Park), Duboce Park, Hamilton Square, Washington Square, Columbia Square (present Victoria Manalo Draves Park), Precita Park, and Portsmouth Square were chosen due to their close proximity to identified centers of

[20] Cryan, *Hope Chest*, 32.
[21] O, Connor, *The San Francisco Relief Survey,* 217.

employment [22] The effort to build new refugee housing was met with opposition as Magee did not consult the Recreation and Park Department and Parks Superintendent John McLaren prior to making these site designations. Eventually, the Lands & Buildings Department was able to strike a deal that stipulated the shacks could be placed on city parklands and the Recreation and Park Commission would "ignore" them, so long as the buildings were removed by August 1, 1907.[23] This date was later renegotiated to October 17, 1907.[24] Ironically, nothing in the Parks Commission's bylaws allowed them to authorize the construction of new housing on public park lands, and it was found to be illegal for a public agency to collect rent for housing located on City property.[25] Eventually, a total of 31 refugee camps existed across the city (Table 1).

The final design for the mass-produced cabins, or refugee shacks, was the result of a collaborative effort between the Department of Lands & Buildings, the U.S. Army represented by General Greely, and Parks Superintendent John McLaren, who was given the final say on the form and exterior color of the cabins. Department of Lands & Buildings Chairman Thomas Magee oversaw plans and selected contractors to carry out construction. Contractors, including William Mackie, L. Swenson, The Home Building & Construction Company, and the Leonard-Frost Company, were awarded contracts and were responsible for the construction of all refugee shacks. The finalized plan for the construction of new refugee housing was made public on August 1, 1906, but construction was delayed for more than a month due to uncertainty in planning the location of sites, delayed insurance adjustments, as well as several large Red Cross donors placing a stay on their donations. [26] Construction of the earthquake shacks finally began on September 10, 1906, during a lumber shortage that required city agencies to import nearly three million feet of redwood and fir lumber and cedar shingles from outside San Francisco.[27] Two planing mills were erected in the South of Market neighborhood solely for the purpose of processing earthquake shack materials as quickly and efficiently as possible.

[22] Cryan, *Hope Chest*, 32.
[23] Cryan, *Hope Chest*, 29.
[24] Ibid.
[25] O'Connor, *The San Francisco Relief Survey*, 222.
[26] O'Connor, *The San Francisco Relief Survey*, 82.
[27] Ibid.

Table 1. List of names and locations of refugee camps in San Francisco. See Appendix for Map of Refugee Camps. (Source: *Hope Chest* manuscript.)

Camp No.	Camp Name	Shelter Type	Boundaries
1	Presidio General Hospital	Tent	Presidio Grounds-Lombard Gate
2	Presidio Tennessee Hollow	Tent	Presidio Grounds-Southeast
3	Presidio Ft. Winfield Scott (designated for Chinese0-American residents)	Tent	Presidio Grounds-Northwest
4	Presidio Golf Links	Tent	Presidio Grounds-Arguello Gate
5	Children's Playground	Tent	Golden Gate Park-Recreation Grounds
6	Speedway	Barracks	Golden Gate Park-Speed Road & Middle Drive
7	Park Lodge	Tent	Golden Gate Park- Stanyan Entrance
8	Harbor View	Tent	Baker, Pierce, Chestnut, and North Point Streets
9	Lobos Square (present Moscone Park)	Shack	Chestnut, Bay, Webster, and Laguna Streets
10	Potrero Park (no longer extant)	Shack	Indiana, Third, Mariposa, and 22nd Streets
11	Bothin	Tent	Marin County, Near Sausalito
12	Ingleside (first number)	Tent	Junipero Serra Blvd, Holloway, Ocean, and Ashton Avenues
13	Franklin Square	Shack	16th, 17th, Bryant, and Hampshire Streets
14	Camp Lake	Unofficial Shacks	Market, Waller, and Laguna Streets
15	Fort Mason	Tent	Northern terminus of Van Ness Avenue
16	Jefferson Square	Shack	Laguna, Gough, Golden Gate, and Eddy Streets
17	Lafayette Square	Tent	Sacramento, Washington, Laguna, and Gough Streets
18	Mission Park	Tent	Church, Dolores, 18th, and 20th Streets
19	Duboce Park	Tent	Duboce and Sanchez Streets
20	Hamilton Square	Shack	Geary, Post, Scott, and Steiner Streets
21	Washington Square	Shack	Columbus Avenue, Filbert, Union, and Stockton Streets
22	Alamo Square	Tent	Fulton, Hayes, Scott, and Steiner Streets
23	Precita Park	Shack	Precita, Cesar Chavez (Army), Folsom, and Alabama Streets
24	Columbia Square (present Victoria Manalo Draves Park)	Shack	Harrison, Folsom, 6th, and 7th Streets
25	Richmond	Shack	13th and 14th Avenues, from Lake to Cabrillo Streets
26	Ingleside (reassigned no.)	Model Camp	Junipero Serra Blvd, Holloway, Ocean, and Ashton Avenues
27	No camp assigned this number		
28	South Park	Barracks	Brannan, Bryant, 2nd, and 3rd Streets
29	Mission Park	Shack	Church, Dolores, 18th, and 20th Streets
30	Portsmouth Square	Shack	Grant, Kearny, Sacramento, and Clay Streets
31	Garfield Square	Tent	Treat, Harrison, 16th & 17th Streets

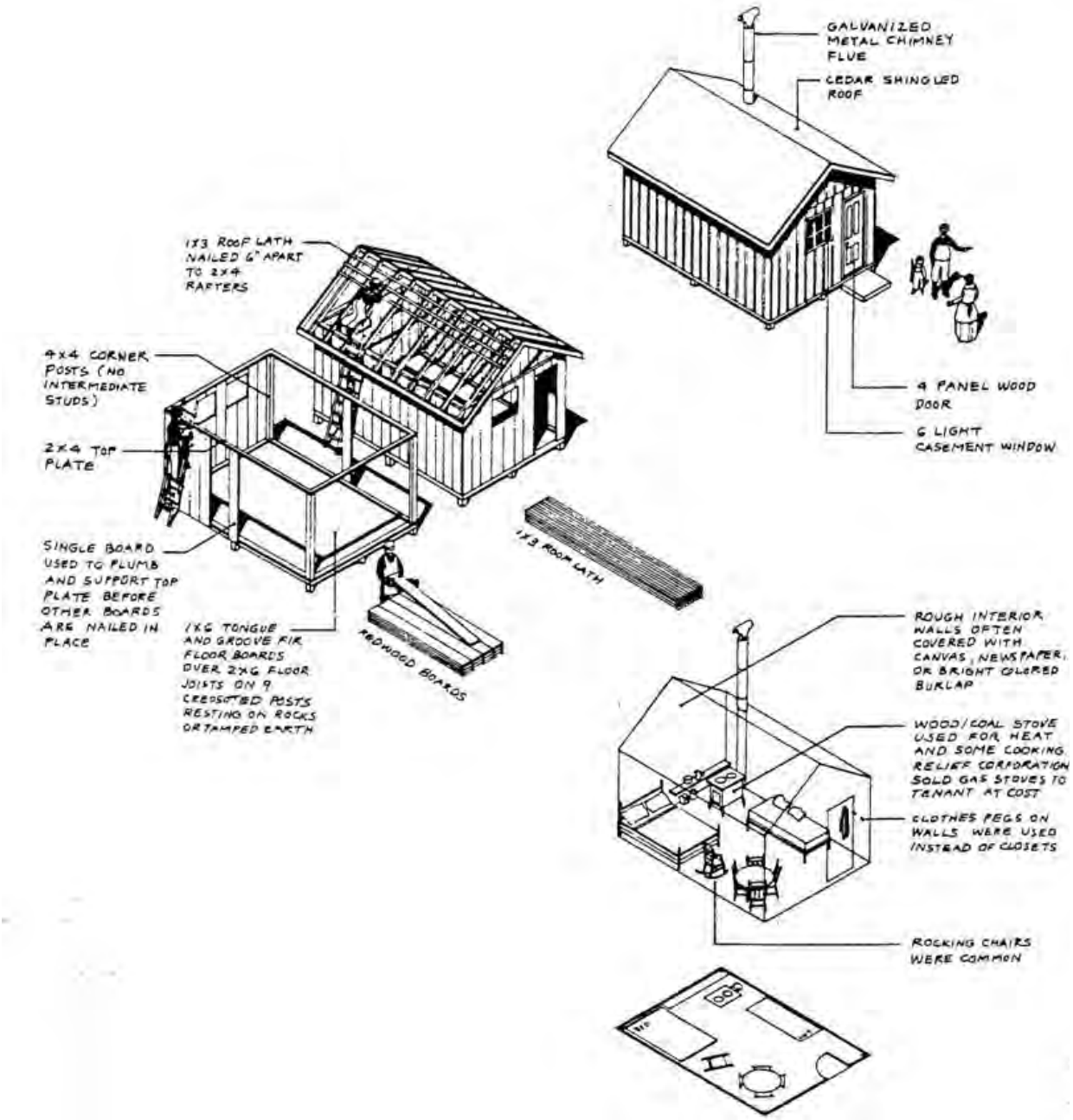


Fig.10. Refugee shack specifications. (Source: Lester Walker, *Tiny Houses.)*

Earthquake Shack Typology

The final design selected by the Department of Lands & Buildings was a small, gable-front cottage with one door and three windows. [28] Shacks were constructed in one style in one of three predetermined sizes by carpenters, bricklayers, plumbers, and other construction workers who were union members. The sizes available consisted of Type A, Type B, and Type C, as well as a less common military-style barracks known as Type D (Table 2.). [29] The construction of the Type D military barracks was done by the U.S. Army and limited to two sites: the Speedway camp site within Golden Gate Park and the South Park camp. In constructing the shacks, builders did not always adhere to the specific design specifications in an effort to construct with speed; therefore, slight variations in size, fenestration, location of elements, and detailing were common.

Refugee Shack Type	Approximate Dimensions	Construction Cost
Type A	10'x14'	$100
Type B	14'x18'	$135
Type C	15'x25'	$150

Table 2. Outline of shack types and sizes. (Source: Jane Cryan, *Hope Chest.)*[30]

Element	Materials	Dimensions
Tongue-and-groove floorboards	Fir	1"x6"
Sill and top plates	Redwood	2"x4"
Wall boards	Redwood	~5x3/4"
Roof laths	Redwood	1"x3"
Rafters	Redwood	2"x4"
Roof shingles	Cedar	5"

Table 3. Shack elements and dimensions. (Source: Jane Cryan, *Hope Chest.*)

While shacks were constructed in various sizes, they were all assembled in a similar fashion. While not prefabricated, all of the parts were pre-cut to size to avoid the need for extra tools on site (Fig. 10). All of the materials needed for one shack were laid out in plan on site and small groups of laborers were assigned to construct each structure from start to finish. Corner posts were attached to the top and bottom plates and finished at the exterior with vertical planks of redwood siding painted "park bench green" (Table 3). The exterior "park bench green" color was chosen by John McLaren as part of a personal effort to make the shacks blend into their park surroundings. The roof was constructed with a steep pitch and unique interior framing that included a collar tie halfway up the pitch of the roof. Cedar shingles were used to finish the roof and windows and doors were located underneath the gable ends to allow for the shacks to be lined up in symmetrical rows. A galvanized metal chimney was installed at the rear roof slope of every shack and was attached to either a wood or coal-burning stove, provided by the Relief Corporation at an additional cost. Oil lamp lighting was also provided by the Relief Corporation at an additional cost, though most refugee families opted for less expensive methods of heating and lighting. [31]

[28] Cryan, *Hope Chest*, 32.
[29] Cryan, *Hope Chest,* 35.
[30] $150 in December 1906 is equivalent to approximately $4,400 in 2021, still a very inexpensive sum to construct a simple house.
[31] Cryan, *Hope Chest*, 38.

A four or five-panel door and 6-lite casement window in a 2x3 or 2x2 configuration were typically located at one gable end with two more 6-lite windows on the opposite end. As some camps became more packed, the casement windows were sometimes replaced with sliding windows to avoid taking up additional space. In order to save on cost, the shacks did not have studs and walls and roofs were not framed out on the interior, leaving the redwood siding and roof structure visible on the inside. Earthquake shacks utilized a cove ceiling on the interior to allow space for the collar tie at the pitch of the roof. Depending upon size and type, some shacks remained a single room, while larger shacks were sometimes divided into two or three rooms.[32]

The first twenty earthquake shacks were ready for occupancy at Camp 20 in Hamilton Square on September 16, 1906, almost five months after the earthquake but just six days after the beginning of construction (Fig. 11).[33] Large amounts of shacks would not be available for two to three months, so camp officers had to come up with a plan to prioritize occupancy of the shacks. Families already living within official refugee camps organized by the Army were prioritized for housing first, followed by families living in tents and other makeshift shelters elsewhere in the city, and lastly, citizens of San Francisco who were living temporarily with friends and family outside the city.[34]

Fig. 11. Shacks ready for occupancy at Camp 20 in Hamilton Square. (Source: San Francisco Public Library.)

[32] Lester Walker, *Tiny, Tiny Houses*, (Woodstock: Overlook Press, 1987), 69-73; Cryan, *Hope Chest*, 33.
[33] O'Connor, The San Francisco Relief Survey, 82.
[34] Ibid.

Fig. 12. Refugees in the Hamilton Square camp. (Source: San Francisco Public Library.)

Life in the Camps

The San Francisco Relief Corporation became the lessor of the parklands and refugees became the lessees of their individual shack (Fig. 12). A sum of two dollars was collected each month, and if paid in full through August 1, 1907, the lessee was considered the owner of the building and was responsible for removal of the shack from the camp.[35] This system of installments allowed for the Relief Fund to avoid the issue of charging rent for housing located on city property, instead utilizing:

> A contract of purchase and sale, whereby the occupant agreed to buy outright the house occupied by him and to pay for it in monthly installments which equaled the rent formerly agreed upon. The amounts advanced on the properties by the occupants were later refunded to those who purchased lots on which to move their new houses.[36]

The installment system allowed for many refugees to become first-time homeowners in the wake of the 1906 Earthquake and Fire. In a 1907 *San Francisco Sunday Call* article, Hannah Astrup Larsen detailed how the practice of offering shacks to residents solved both the problem of providing permanent housing to refugees and eventually would reclaim the parks as public space.[37] Most importantly, Larsen saw the

[35] O'Connor, *The San Francisco Relief Survey*, 83-84.

[36] O'Connor, *The San Francisco Relief Survey*, 222.

[37] Hanna Astrup Larsen, "Enrichment of Refugees: How Relief Cottages are being hauled from the Parks and Transformed Thousands of erstwhile dependent people who become home-owners for the first time," *The San Francisco Sunday Call*, October 20, 1907.

program as an opportunity for the poorest citizens of San Francisco to move out of the cycle of poverty.[38] Payment of the installment fee was challenging for some, and the refugees could be evicted from the camps for failure to pay rent. The Relief Corporation made an example of one refugee named Mary Kelly, a resident of the Jefferson Square camp who was an active critic of the Relief Corporation and led several marches protesting camp conditions. Kelly refused to pay installments for a newly completed shack in the Jefferson Square camp. After several attempts to collect payment, Relief Corporation officers had Kelly's shack placed on a hay wagon drawn by a team of horses with Kelly still inside as a crowd of spectators watched and cheered (Fig.13). Kelly and her shack were relocated to the former Ingleside Racetrack site. A few days later, several men returned to disassemble the shack board by board until Kelly was left with only floorboards. It was then that Kelly finally decided to pay the installments due and was readmitted to the Jefferson Square camp.[39]

Mrs. Mary Kelly Defies Relief Corporation and Takes Ride in Cottage to Ingleside.

Denied Admittance, She Spends the Night on the Road.

REFUGEES FILE A MEMORIAL.

Ask Supervisors to Protest Against Removal From Parks.

PREFERS CHARGES

Piles Quickly Cured at Home

Instant Relief. Permanent Cure—Trial Package Mailed Free to All in Plain Wrapper.

Fig. 13. Mary Kelly's eviction detailed in the *San Francisco Chronicle*. (Source: *San Francisco Chronicle*.)

Initially, the Lands & Buildings Committee only intended to build 3,000 shacks. Eventually, approximately 5,610 shacks were constructed in the thirty-one official refugee camps by March of 1907 (see Table 1 for camp names). Over 16,000 San Franciscans were housed through the refugee program, and the final cost

[38] Ibid.

[39] Cryan, *Hope Chest*, 39.

to build the shacks totaled approximately $870,479 (Fig. 14).[40] Between September 1906 and June 1908, the Relief Fund spent an additional $453,000 to maintain the camps at a cost of 6 cents per day per shack.[41] Beyond gas stoves and lighting, individual shacks did not have plumbing or utilities. Instead, plumbing and other utilities were installed at each of the camp sites to allow for communal kitchens, bathrooms, and laundry facilities. Rules regarding cleanliness, order, and communal respect established by the U.S. Army in the early camps were still in place, even though the Army had been phased out of the relief effort. Health and safety were a primary concern of the relief effort, and each camp was assigned a team of surgeons, doctors, and nurses to treat patients on site. A team of first responders, pharmacists, social workers, and firefighters were also available on retainer to respond to emergencies across all camps as needed.[42]

Fig. 14. Refugee shacks at Lobos Square Camp. (Source: San Francisco Public Library.)

Many inhabitants of the camps had lost most of their possessions and had no choice but to make do with what the Relief Corporation provided (Fig. 15). Accounts of life in the camps vary: Parks Superintendent John McLaren complained that the camps were "Pestholes, breeding a pauper class, and a menace to the welfare of the community…a harbor for thieves and vagabonds and full of disease and crime."[43] While some local newspapers were quick to demonize refugees, publishing accounts of neglectful parents, violent altercations and robberies, others reported the camps as a successful solution to provide refugee housing. Several camps started schools to provide children with a greater sense of normalcy after the

[40] O' Connor, *The San Francisco Relief Survey*, 86.
[41] Ibid.
[42] O'Connor, *The San Francisco Relief Survey*, 91-92.
[43] Cryan, *Hope Chest,* 46.

upheaval caused by the Earthquake and Fires. The demographic of refugees in the camps was relatively diverse, including Irish, German, French, Italian, Puerto Rican, and Mexican populations living together in some camps. Racially restrictive and discriminatory practices against Asian residents were in place across the camps. Only 37 of the 153 shacks in Portsmouth Square were allotted to Chinese families, despite the camp's close proximity to Chinatown.[44] While not confirmed, it is likely that there were other similar types of racially discriminatory allocations across the other refugee camps. Many Chinese and Japanese refugee families opted not to apply for aid or shelter from the Relief Fund due to discrimination by the city government and lack of options for Asian residents.

Fig. 15. Refugees at an unknown camp location (Source: California State Library.)

The Bonus Plan and Grant & Loan Programs

The refugee shack program and installment payment plan were intended to support a group of citizens who lacked resources in the aftermath of the 1906 Earthquake and Fires and were viewed as "dependent" upon the City for support. The Relief Fund set up similar systems for two other identified groups: established homeowners who had lost property and those who had some resources and only required partial support. These programs were also intended to help support reconstruction and lessen the housing shortage caused by the disaster. Rents had risen significantly, as many landlords whose property survived the 1906 Earthquake and Fires saw an opportunity to regain some of their income. This made refugees reluctant to continue renting, and more people became interested in owning property.

[44] O'Connor, *The San Francisco Relief Survey*, 95.

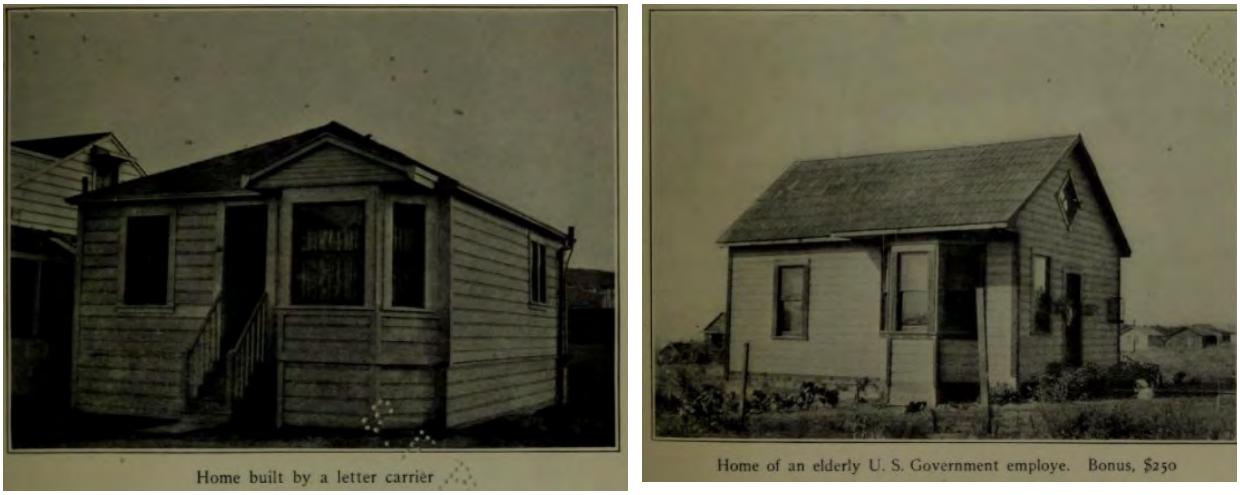


Fig.16. Examples of homes constructed through the Bonus Plan program. (Source: *The San Francisco Relief Survey*.)

The Bonus Plan program was set up to grant "bonuses" to property owners to help rebuild property that had been lost. The Department of Lands and Buildings would provide 33 1/3 percent of the cost of a home, with the provision that the amount granted to one person would not exceed $500.[45] This program was limited to those who were rebuilding within the defined burn area and was considered the most generous program. The program was announced in August 1906 and remained available until October 1, 1906. Relief funds totaling $400,000 were allocated to this program, with an additional $100,000 appropriated in February 1907, when the program reopened for a brief two-week period. Approximately 885 dwellings were constructed using the Bonus Plan program.[46] After receiving approval from the city, residents typically constructed their new house within one to fourteen months. An estimated 490 homes were constructed through the Bonus Plan program.[47] Data compiled through the *San Francisco Relief Survey* indicates that all the homes were wood-frame construction with most consisting of two stories, though they ranged from one to four stories. Unlike earthquake shacks, homes constructed through the Bonus Plan program ranged in form and style and did not follow a consistent format (Fig. 16.). Property owners were free to construct whatever type of home would suit their needs. The earthquake shack and Bonus Plan programs were prioritized for funding by the Department of Lands and Buildings as they provided shelter to displaced residents. An extant example of a home constructed using the Bonus Plan program is located at 357 Union Street in the North Beach neighborhood.[48]

[45] O' Connor, San Francisco Relief Survey, 239.
[46] Ibid.
[47] O'Connor, San Francisco Relief Survey, 248.
[48] San Francisco Planning, *Historic Resource Evaluation Response: 357 Union Street, February 6, 2019 (2017-005738ENV).*

Fig. 17. Examples of homes constructed through the Grant & Loan Program. (Source: *The San Francisco Relief Survey*.)

The Grant & Loan program was the created to support property owners who required assistance with grants or loans to build or commission new homes for themselves in the wake of the housing shortage in San Francisco.[49] The Department of Special Relief and Rehabilitation worked with the Department of Lands and Buildings, to create a separate Housing Committee that was charged with overseeing this program, the last of the housing programs to be put into place during the relief effort. The *San Francisco Relief Survey* states that applicants for this program consisted of two groups. First were those applicants who planned and built their own houses but received aid from the relief funds. The maximum cost of each house was set by the Committee, and the applicant was required to pay most of the cost with a small amount distributed by the Relief Fund in the form of a grant. The second group consisted of applicants who wanted to purchase houses constructed by the Committee. In some instances, the grant would cover the entire cost of the house, while others used the grant to supplement other forms of payment.[50] In both cases, applicants were required to demonstrate that they had suffered a material loss as a result of the Earthquake and Fires, that they were unable to secure other housing, or that they had secured a lot within the City and County of San Francisco on which to build. Through this program, many citizens who had not owned property prior to the Earthquake and Fires were able to become homeowners. Approximately 1,572 dwellings were constructed using the Grant & Loan program during its tenure from November 1906 through July 1907.[51] Of these, 543 families had homes planned and built for them by the committee while 1,029 families were given aid to build according to their own plans (Fig. 17).[52] Homes that were constructed by the committee ranged from one to five rooms and were often clad in wood shingles but varied stylistically and in size. Homes associated with the Grant & Loan program are not as easily identified as they do not follow the same typology but may be confirmed using deed or loan documentation. Each of these programs were intended to support the construction of new housing in San Francisco and to restabilize the city after the disaster.

Closure of Refugee Camps & Relocation of Earthquake Shacks

Per the agreement signed between the San Francisco Relief Corporation and the Department of Recreation and Parks, San Francisco's refugee camps began closing in August 1907. Per the agreement, rental installments were refunded to occupants upon their removal of the shack from the camp site. Of the

[49] O'Connor, *San Francisco Relief Survey*, 218, 219.
[50] O' Connor, *San Francisco Relief Survey*, 253.
[51] O'Connor, *San Francisco Relief Survey,* 257.
[52] Ibid.

$117,521 collected in installment payments from refugees, only $8,148 was not returned due to failure to comply with regulations.[53] The refugee shack program was a success, in that it provided many refugees with their first home. After transferring ownership of many shacks to refugees, the Relief Corporation was still left with a surplus; as a result, the Corporation began offering shacks first at a discounted rate for outright purchase, and then gave them away for free. In order to be allowed to move the shack, refugees had to show proof of a deed to a lot "contiguous with the San Francisco Bay." Additionally, an inspection and certificate of cleanliness was required from the Department of Health prior to moving the shack to a private lot.[54] Of the approximately 5,610 shacks that were built, the *San Francisco Relief Survey* estimates that 5,343 shacks were moved onto private lands after the closure of refugee camps across the city. Earthquake shacks were both an interim and permanent solution to San Francisco's refugee and housing crisis.

Fig. 18. Refugees and teamsters readying an earthquake shack to be moved off site onto a private lot. (Source: San Francisco Public Library.)

The moving of houses was not a new concept in San Francisco. Dating back to the 1850s, large, wood-frame houses were often moved rather than demolished and reconstructed as they were considered a valuable, durable construction type. The cost of moving the shacks by horse and wagon ranged from $12-$100 and there were additional permit fees associated with moving a shack onto a private lot (Fig. 18).[55] While the shacks were small and lightweight, they often had to be braced due to their box-frame construction to prevent structural failure during a move (Fig. 19). Since the shacks were made to be easily assembled and disassembled, many refugees moved the shacks themselves, with some carrying parts on their backs in order to avoid paying the moving fee.[56] Firsthand accounts of the movement of earthquake shacks describe a memorable sight:

[53] O' Connor, *San Francisco Relief Survey, 222.*
[54] Cryan, *Hope Chest,* 41.
[55] Urban, Arianna. *"From Green Refugee Shacks to Cozy Homes of Their Own": San Francisco's Earthquake Relief Cottages as Vernacular Architecture.* Thesis. University of Oregon, 2016, 51.
[56] Cryan, *Hope Chest*, 41.

Everywhere one goes, from the Ferry to the Cliff House, one sees teams laden with little green cottages, moving hither and tither, without any concerted destination. Sometimes, the windows are removed, and the sides of the skeleton habitations reinforced with cross cleats; sometimes they look as if they had been picked up by some giant hand and sat upon the wagon body while the family was cooking dinner, because the inhabitants are inside of them, the furniture is undisturbed, and everything is going on just as it has always done—except that the house is travelling. It is a strange sight to see a procession of these refugee cottages moving down fashionable Van Ness Avenue or busy Fillmore Street, faces peering from the windows, and men, women and children going about their household tasks as if their little home was securely perched upon a cement foundation and surrounded by a garden and a fence.[57]

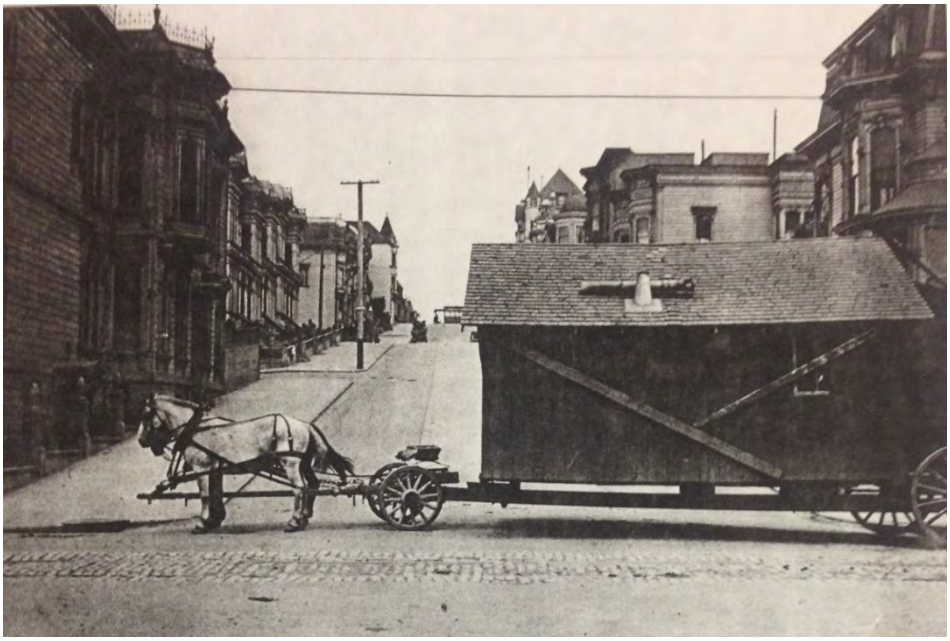


Fig. 19. An earthquake shack in route to its new location with cross-bracing to prevent collapse. (Source: *Tiny Houses*.)

Refugee camps closed in phases continuing into 1908, with the last camp, Lobos Square, closing on June 30, 1908.[58] The area near the Ingleside Racetrack became a popular resettlement area, with nearly 200 shacks relocated to lots within the neighborhood.[59] Bernal Heights was also an attractive place to relocate due its unique location, solid bedrock, and numerous vacant lots. The neighborhood had been surveyed and subdivided by 1907, but it was still largely undeveloped and was not subject to many of the new building and fire codes implemented downtown and in more central neighborhoods following the disaster. Additionally, many neighborhoods near the 31 refugee camps saw an influx of new residents and refugee shacks (Fig. 20).

[57] Louis J. Stellman, "Moving 200,000 Refugees." *San Francisco Chronicle,* August 11, 1907.
[58] Cryan, *Hope Chest*, 118.
[59] Cryan, *Hope Chest,* 41.

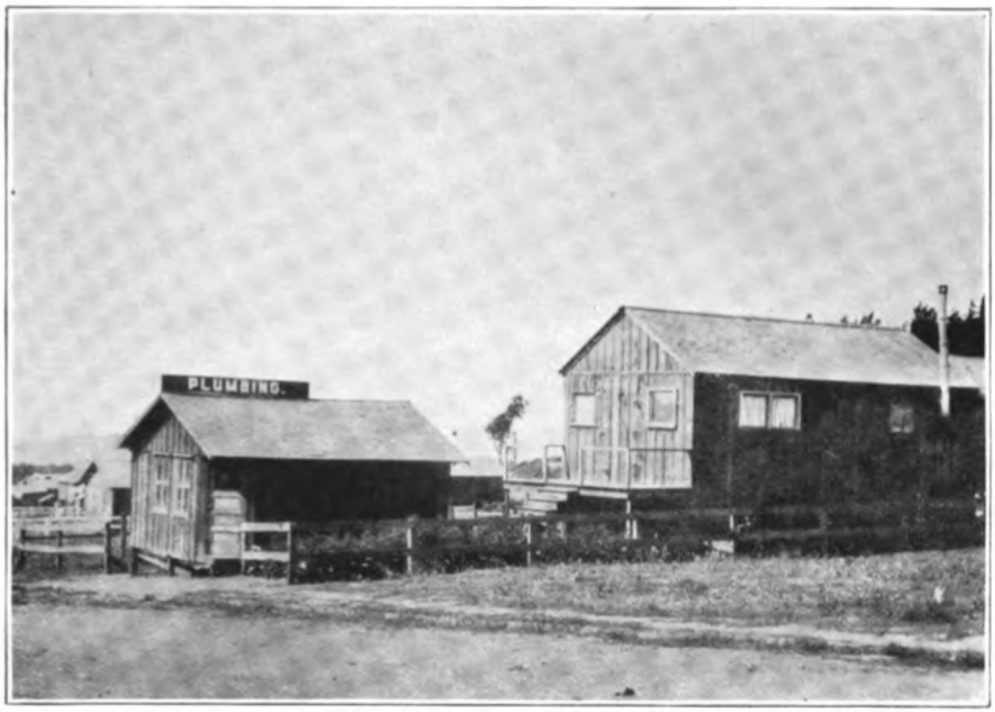


Fig. 20. An earthquake shack relocated and repurposed to serve a plumbing business. (Source: *The San Francisco Relief Survey*.)

Earthquake shacks became starter homes for some of the poorest residents of the city. Many existing residents who had maintained their property were reluctant to accept refugees moving into their neighborhoods. Due to this discrimination, many refugees attempted to disguise the appearance of their new home as former refugee housing when making alterations to their newly relocated shacks. A 1909 *San Francisco Call* article by Anna Pratt Simpson titled, "From Green Refugee Shacks to Cozy Homes of their Own" states, "the several hundred families assisted may have had wildly different ideas about the arrangement of their houses, but upon one thing they all agree, and that was the elimination of everything that suggested the relief cottage. Particularly were they all busy painting out every vestige of green, the color that made the refugee settlements look like a lot of orphan children, all dressed alike."[60] Refugees moving shacks onto private lots tended to group together in order to take advantage of communal water and plumbing to save costs. The San Francisco Relief Survey found that about 70% of cottage families occupied a lot with at least one other cottage.[61]

Anna Pratt Simpson's *San Francisco Call* article further described typical alterations to the shacks that were often cobbled together from multiple individual shacks and altered to incorporate boxed bay windows, shingle cladding, and casement windows (Fig. 21). The exterior board and batten siding that is emblematic of the earthquake shack typology was often replaced with wood shingle cladding, a material popularized at the turn of the century.[62] Other more ornate elements including gables, turrets, bay windows, and stylistic features were added dependent upon the owner's taste:

[60] Anna Pratt Simpson," From Green Refugee Shacks to Cozy Homes of their Own," *The San Francisco Sunday Call,* May 2, 1909

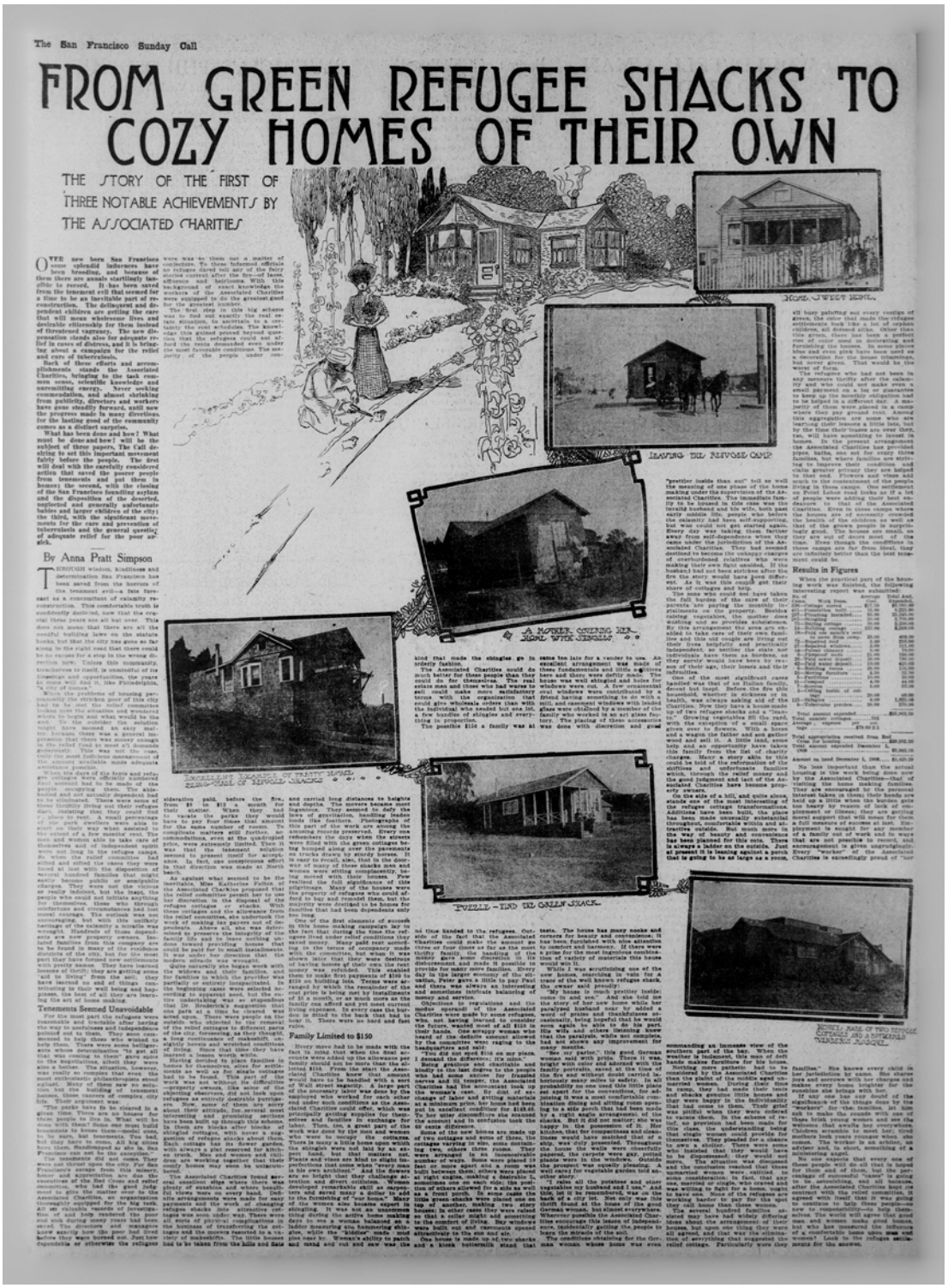
[61] O' Connor, *The San Francisco Relief Survey*, 233.

[62] Larsen, "Enrichment of the Refugees."; Stellman, "Moving 20,000 Refugees."

> Some of the new homes are made up of two cottages and some of three, the cottages varying in size, some containing two, others three rooms. They were arranged in an inconceivable number of ways. Some were placed 10 feet or more apart and a room was built between them; others were placed at right angles making a desirable L, sometimes one on each side; the position of others allowed for a side as well as a front porch. In some cases, the little green shacks were placed on top of one another, making two story houses; in other cases, they were raised so that a cellar might add something to the comfort of living. Bay windows were built out and casements opened attractively to the sun and air.[63]

The modifications made to earthquake shacks were related to the popular materials and architectural styles of the time. After nearly a year residing in refugee camps, residents were eager to resume normal life and remake these structures from a temporary shelter to a more permanent home. While many of the extant earthquake shacks have been altered, they retain their original form and because of this are often recognizable.

[63] Simpson, "From Green Refugee Shacks to Cozy Homes of Their Own."



The San Francisco Sunday Call

FROM GREEN REFUGEE SHACKS TO COZY HOMES OF THEIR OWN

THE STORY OF THE FIRST OF THREE NOTABLE ACHIEVEMENTS BY THE ASSOCIATED CHARITIES

By Anna Pratt Simpson

Results in Figures

Family Limited to $150

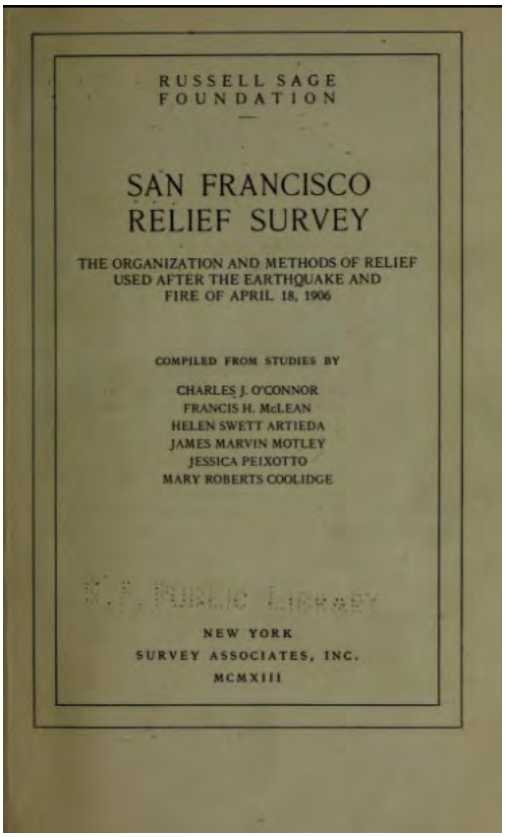
Tenements Seemed Unavoidable

Fig. 21. A 1909 article in *The San Francisco Sunday Call* by Anna Pratt Simpson. (Source*: The San Francisco Call*, May 9, 1909).

The 1913 San Francisco Relief Survey

The Relief Corporation realized the significance of the relief effort in San Francisco and the value it provided as an example to other cities in the wake of disaster and to San Francisco in the event of a future earthquake. In 1913, the Corporation commissioned *The San Francisco Relief Survey: The Organization and Methods of Relief Used After the Earthquake and Fire of 1906,* a comprehensive document with demographic data that analyzed the efficiency of the relief effort six years after the Earthquake and Fire (Fig. 22). The report provides useful statistics and an overview of the earthquake shack, bonus plan, and loan & grant programs. A section at the end of the document, titled "Lessons of the Relief Survey" lists problems encountered during the relief effort and potential solutions or things that may have been done differently. This report provided a significant amount of information for this theme document.

After the relocation of shacks onto private lands, refugees did their best to resume life after the 1906 Earthquake and Fires. Earthquake shacks blended into neighborhoods and were surrounded by the conventional residential development occurring throughout the twentieth century. Many shacks were demolished and replaced with more modern structures, or were continuously altered and added onto over time, diminishing their overall appearance as an earthquake shack.


RUSSELL SAGE
FOUNDATION

SAN FRANCISCO
RELIEF SURVEY

THE ORGANIZATION AND METHODS OF RELIEF
USED AFTER THE EARTHQUAKE AND
FIRE OF APRIL 18, 1906

COMPILED FROM STUDIES BY

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NEW YORK
SURVEY ASSOCIATES, INC.
MCMXIII

Fig. 22. Title page of *The San Francisco Relief Survey.*

Earthquake Shack Preservation Efforts

Efforts to preserve San Francisco's extant earthquake shacks have been ongoing since Jane Cryan formed The Society for the Preservation and Appreciation of San Francisco's 1906 Refugee Shacks (SPASFRS) on October 1, 1983. After discovering the cottage she rented in 1982 was a combination of three "Type A" refugee shacks and a free-standing "Type B" shack and proposed for demolition, Cryan appealed the San Francisco Landmarks Preservation Board. As a result, the combination of earthquake shacks at 1227 24th Avenue was listed as San Francisco Landmark No. 171 (Fig.23).[64] In 1985, Cryan was also involved in advocating for the relocation of the "Goldie Shacks" located in the Richmond District at 485 34th Avenue and proposed for demolition. The demolition was appealed successfully, and the two Type A shacks were moved to the Presidio by the U.S. Army to be part of the Army Museum's 1906 Earthquake exhibit (Fig. 24, 25).[65] The National Park Service maintains the earthquake shacks now as part of their oversight of the former Presidio.

The Society for the Preservation and Appreciation of San Francisco's 1906 Earthquake Shacks was disbanded by Cryan in the late 1990s and her archive was donated to the San Francisco Public Library. An unpublished manuscript authored by Cryan and titled *Hope Chest* details the history of the refugee shack program and is available for viewing at the San Francisco History Center. Cryan continues to be consulted as a local expert in certifying earthquake shacks through the City of San Francisco and her research and preliminary survey list are regularly consulted by the Department and have been integrated into this theme document.

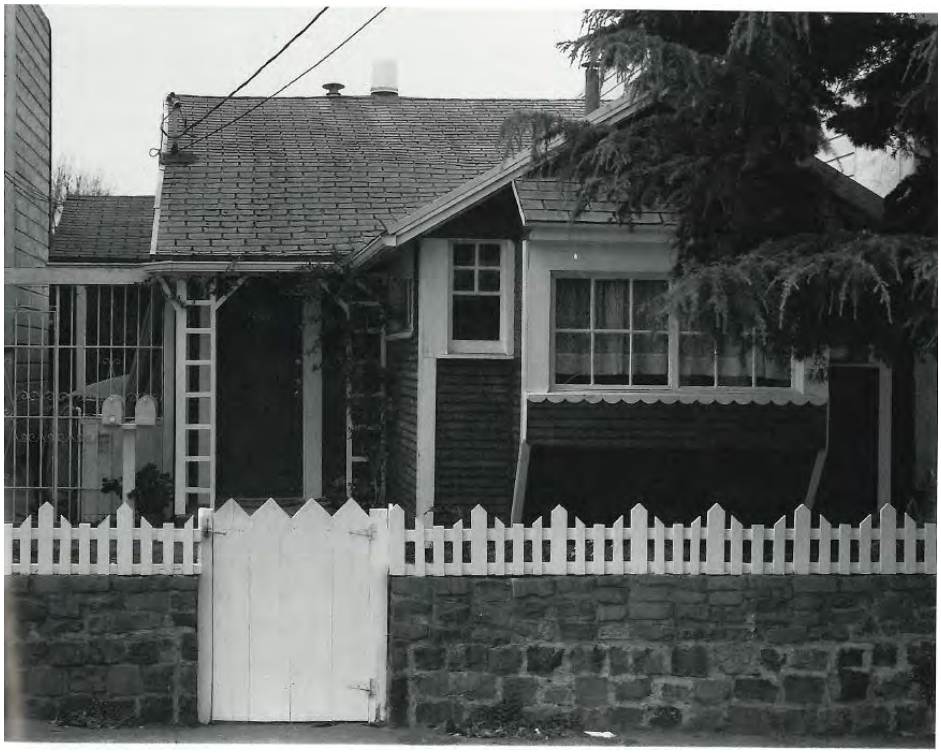

Fig. 23. 1227 24th Avenue, San Francisco Landmark No. 171. (Source: Patrick McGrew, *Landmarks of San Francisco*.)

[64] Cryan, *Hope Chest*, 6.
[65] Ibid.

Golden Gate NRA, Museum Program, Veronica A. Tedeschi Collection, GOGA 22192 and GOGA 22193

Fig. 24. Two Type A shacks, known as the "Goldie Shacks" were moved from 485 34th Avenue to the grounds of the Presidio. (Source: Veronica A. Tedeschi Collection, NPS.gov.)

Fig. 25. Interior detail of the cove ceiling visible in one the Goldie Shacks at the Presido. (Source: Arianna Urban.)

The Western Neighborhoods Project, a local history and advocacy organization, has also been active in preserving earthquake shacks. In 2002, the organization was involved in saving four earthquake shacks that had been cobbled together into two dwellings located at 4329 and 4331 Kirkham Street (Fig. 26).[66] Through a four-year project, one shack was entirely restored and displayed on Market Street in April 2006 as part of the centennial remembrance of the 1906 Earthquake and Fire. In 2008, this shack was moved to its permanent home at the San Francisco Zoo's Conservation Corner. The other three shacks were donated to the Fifth Avenue Institute in Oakland near Jack London Square, where two of the shacks have been fully restored. The Western Neighborhoods Project continues to advocate for earthquake shacks and offers educational resources for the public.

Fig. 26. Four shacks formerly located at 4329 and 4331 Kirkham Street were moved to the San Francisco Zoo and to Oakland's Jack London Square. (Source: N. Moses Corette.)

In 2016, a reconnaissance-level survey was conducted of extant earthquake shacks in San Francisco and the surrounding Bay area. The survey was a collaborative effort between the San Francisco Planning Department, Jane Cryan and Curbed.com. In total, 45 sites containing earthquake shacks were surveyed and authenticated by the project team. The survey also identified similarities between forms of the identified shacks and as a result, ten major types of altered shacks were identified in order to assist Planning staff in future identification. Three of the most common types are discussed in the evaluative framework of this document. Interest in San Francisco's earthquake shacks has been renewed due to the real estate boom of the last decade. As new development occurs or property owners apply for building permits, more earthquake shacks have been uncovered by the Department using Cryan's research as guidance and precedent. In evaluating potential historic resources including earthquake shacks, Department staff utilizes National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria. While earthquake shacks are likely to meet one or two significance criteria, the issue of *integrity*, or "the

[66] "1906 Earthquake Refugee Shacks," Outside Lands.org, Western Neighborhood Project, 2007. https://www.outsidelands.org/shacks.php

ability of a property to convey its significance," is frequently raised. As earthquake shacks were altered over time to suit their owner's new needs, many likely do not resemble their original form.

Survey Guide

For surveyors conducting fieldwork as part of the Citywide Cultural Resources Survey and interested members of the public, there are several indicators from the public right of way that may indicate a property is a potential earthquake shack. Since many earthquake shacks were altered over time, they may not be immediately recognizable. Surveyors should look for original features of earthquake shacks that may have been retained in addition to other visual cues listed below.

Earthquake shacks in their original form retain the following features:

- Vertical board & batten siding
- "Park Bench Green" exterior color
- Pitched gable roof
- Galvanized metal chimney
- Redwood shingle roof
- Dimensions similar to the identified Earthquake Shack Types:
    - Type A: 10'x14'
    - Type B: 14'x18'
    - Type C: 15'x25'
- 6-pane divided light windows

Since earthquake shacks were moved from the refugee camps onto private lots and altered over time, it is highly unlikely that extant earthquake shacks retain their original form and all of their original features. Indicators of a building that may be an altered earthquake shack include:

- Location on the rear or middle of a large lot or location on the rear of the lot behind a primary building
- Small-scale form and massing
- Wood-shingle cladding
- Pitched gable roof

The 2016 Earthquake Shack Survey conducted in partnership with the Department, Jane Cryan, and Curbed.com identified similarities between forms of extant identified shacks and as a result, ten major types of altered shacks were identified in order to assist Planning staff in future identification. The typology is defined by chosen characteristics including entry orientation, roof form, and shack combinations. Below are illustrations of the earthquake shack in its original form and three of the most commonly altered earthquake shack types.

Illustrations to be added

Type One. One-story over garage/two story (lifted to accommodate garage underneath or two shacks stacked on top of each other).

Type Two. L or T shape (two or more shacks combined in perpendicular format).

Type Three. Front elevation modification (porches/bay/other projections or ornamentation added to front elevation).

EVALUATION CRITERIA

Statement of Significance:

Resources considered within this theme are likely to be significant under Criteria A/1 (Events) and C/3 (Architecture) as an excellent example of the earthquake shack typology associated with the 1906 Earthquake and Fires. Refugee cottages or "earthquake shacks" were constructed in direct response to a need for emergency housing following the 1906 Earthquake and Fires that destroyed almost 80% of San Francisco's building stock. Earthquake shacks are significant for their association with arguably the most important event to affect San Francisco during the twentieth century: the 1906 Earthquake and Fires. The disaster shaped the modern development of the city and extant earthquake shacks are rare surviving examples of emergency housing built during the Reconstruction period. Most extant earthquake shacks were moved from their original location on public land to a permanent location outside of the area of damage once the property owner had recovered physically and financially from the disaster. As a result, many earthquake shacks were added onto and modified over time to suit owner's new needs. Earthquake shacks can also be considered significant if they embody the distinctive characteristics of a type, period, or method of construction. More altered earthquake shacks may qualify as significant under Criterion A/1 (Events) whereas more architecturally intact earthquake shacks will qualify as significant under both Criterion A/1 (Events) and Criterion C/3 (Architecture). Earthquake shacks are typically found on individual parcels throughout the city of San Francisco, so it is unlikely that an intact grouping exists such that it would constitute a significant district.

Period of Significance:

1906-1915

Justification of Period of Significance:

The period of significance begins in 1906 with the construction of earthquake shacks as relief housing in the wake of the 1906 Earthquake and Fire. Earthquake shacks were typically constructed between 1906-1908, the year all refugee camps closed across the city. The period of significance ends in 1915, the year that marks the end of the Reconstruction period. This date was chosen to account for alterations to earthquake shacks

	that occurred as part of their relocation onto private lots across the city.
Geographic Boundaries:	Citywide; Concentrations of shacks are commonly located close to former refugee camps
Related Themes of Significance:	1906 Earthquake & Reconstruction
Criteria for Eligibility:	NRHP: A/C; CR: 1/3
Associated Property Type(s):	Residential—Single-Family, Detached
Property Type Description(s):	Single Family, Detached. Associated property types are typically limited to single-family residences, though some earthquake shacks may have been converted into multi-family residences or commercial uses. Examples are typically one- to two-stories in height and retain their vernacular style.

Criterion A/1 Eligibility Standards:

Extant earthquake shacks may be eligible under Criterion A/1 for their association with events or patterns of events significant to San Francisco, California, or national history. In consideration of the historic context above, earthquake shacks are associated with the 1906 Earthquake and Fires and resulting Reconstruction period. The 1906 Earthquake and Fires mark a transitional point in the history and development of San Francisco and the earthquake shack typology is unique to this event and period. While most earthquake shacks were constructed between 1906-1908 when the last refugee camps closed, many were moved onto private lots and altered throughout the Reconstruction period ending in 1915. The relocation and alteration of earthquake shacks during the reconstruction period is tied to the property type's significance under Criterion A/1. While typically alterations can be a disqualifier for eligibility, there is a greater flexibility for alterations to earthquake shacks if they do not alter the overall form, massing, and vernacular construction enough to affect the building's legibility as an earthquake shack. Most earthquake shacks will be considered for eligibility under Criterion A/1. The property *may* be considered an eligible resource under Criterion A/1, if it meets the following:

- Constructed between 1906-1908 in direct association with the 1906 Earthquake & Fires and refugee housing program
- Conveys its significance as a form of vernacular refugee housing from the early twentieth century

Character-Defining Features:

Character-defining features of earthquake shacks under Criterion A/1 would be those elements that convey its historic use as refugee housing, then permanent residential housing, and identify its general era of construction. The following are anticipated character-defining features of a significant earthquake shack under Criterion A/1:

- Box-frame construction, small-scale massing, and overall form
- Rectangular shape and approximate dimensions of associated earthquake shack type(s) A, B, or C
- Architectural elements typical of earthquake shacks original construction including but not limited to pitched gable roof, board and batten siding, and cedar shake shingle roof
- Alterations that are compatible with the earthquake shack form and design and potentially date from the reconstruction period including wood shingle cladding, bays, porches or other projections

Integrity Considerations:

Properties eligible under Criterion A/1 should retain some aspects of integrity dating to the period when the building achieved significance, with an emphasis on integrity of feeling and association. Integrity of Location and Setting is not a required aspect of integrity as part of earthquake shack's significance is relocation from refugee camps to private lots and the building's transition from temporary to permanent housing. Multiple relocations of the building will not disqualify an earthquake shack for eligibility under Criterion A/1. Enough of the property's original design, materials, and workmanship should also remain intact to support an understanding of the building's era of construction (thus supporting integrity of feeling and association). Additionally, an earthquake shack's rarity relative to extant examples in San Francisco should be taken into consideration. Per guidance provided in *National Register Bulletin 15*, "The rarity and poor condition […] of other extant examples of the type may justify accepting a greater degree of alteration or fewer features, provided that enough of the property survives for it to be a significant resource."[50] Thus a highly altered or even relocated example of an early residence may still be eligible for register listing, despite its diminished integrity, if few or no other examples of its type or era are known to exist or if all other known examples have even further compromised integrity. The investigator must still demonstrate that enough core physical features remain to convey its significant historical associations.

Fig. 29. 364 Richland Avenue. (Source: San Francisco Planning Department.)

364 Richland Avenue (Eligible)

The subject building at 364 Richland Avenue is located in the Bernal Heights neighborhood and is an example of an earthquake shack that is considered eligible under Criterion A/1. The property's location in Bernal Heights, a neighborhood that was a popular place for refugees to relocate, and additional research indicated the subject building is an example of a Type C earthquake refugee shack, which typically had approximate measurements of 15'x25'. The subject property has undergone alterations over time and was raised to insert a garage, but retains character-defining features that are indicators of its likely history as an earthquake shack, including redwood board & batten siding, pitched gable roof, galvanized metal chimney, and approximate measurements of 15'x25' in plan. The overall form and massing of the structure and additional retained elements convey the subject building's construction as an earthquake shack and the subject property and building at 364 Richland Avenue were determined individually eligible for listing on the NRHP or CRHR under Criterion A/1 (Events) for its association with one of the most important events to affect San Francisco in the twentieth century: the 1906 Earthquake and Fires. The subject property was determined to only be eligible under Criterion A/1 due to the raising of the shack and insertion of garage.

Criterion C/3 Eligibility Standards:

Earthquake shacks are potentially eligible as examples of a type, style, or design and may additionally be eligible as embodying distinctive methods of construction unique to the earthquake shack typology. The method of construction used by the Relief Corporation in constructing earthquake shacks is unique to this typology. Materials were precut in uniform sizes, and the method of assembly was the same for the three defined types of earthquake shacks (A, B, and C) in order to ensure efficiency. Earthquake shacks can be considered eligible under Criterion C/3 if they retain more original design features in addition to their overall form and massing. While it is unlikely that an unaltered earthquake shack is extant, earthquake shacks that retain more of their original features will rise to the level of eligibility under Criterion C/3 in addition to Criterion A/1. Heavily altered earthquake shacks would not be considered eligible under Criterion C/3. The property *may* be considered an eligible resource under Criterion C/3, if it meets the following:

- Constructed between 1906-1908 in direct association with the 1906 Earthquake & Fires and refugee housing program
- Conveys its significance as a form of vernacular refugee housing from the early twentieth century
- Must have high levels of integrity, particularly integrity of design, materials, and workmanship, and be a highly intact example of an earthquake shack in its original form

Character-Defining Features:

Character-defining features of earthquake shacks significant under Criterion C/3 would be those elements that represent its significant design qualities relative to its date of construction. The following are anticipated character-defining features of a significant earthquake shack under Criterion C/3:

- Box-frame construction, small-scale massing, and overall form
- Rectangular shape and approximate dimensions of associated earthquake shack type(s) A, B, or C
- Pitched gable roof
- “Park Bench Green” paint color
- Board & Batten siding
- Cedar shake shingles
- Metal galvanized chimney

Integrity Considerations:

Properties eligible under Criterion C/3 should retain the majority of its aspects of integrity dating to the period when the significant design was completed, with an emphasis of integrity of design, materials, and workmanship. The building’s significant design qualities should remain readily apparent, and the majority of original features and materials that convey the significant design should remain extant. . Integrity of Location and Setting is not a required aspect of integrity as part of earthquake shack’s significance is relocation from refugee camps to private lots and the building’s transition from temporary to permanent housing. Multiple relocations of the building will not disqualify an earthquake shack for eligibility under Criterion A/1. Similar to Criterion A/1, the rarity should also inform integrity evaluations—although relative to a particular building’s architectural features and type rather than its geographic location.

Fig. 30. 369 Valley Street (Source: San Francisco Planning Department.)

369 Valley Street (Eligible)

The subject building at 369 Valley Street is located in the Noe Valley neighborhood and is an example of an earthquake shack considered eligible under both A/1 and C/3. Further research conducted by the Department indicated that the subject property contained two earthquake shacks: one Type B and one Type A shack combined to form the L-shaped residence in 1907. The Type B shack located at the front of the property contains a boxed bay window located below the front-facing gable roof. All elevations are clad in wood shingles and double-hung wood windows are used throughout apart from one original 3x2 divided lite casement window located along the east elevation. The Department determined the subject property at 369 Valley Street is eligible for listing on the NRHP or CRHR under Criterion A/1 (Events) for its association with the 1906 Earthquake and Fire and Criterion C/3 (Architecture) as a rare example of a distinctive type, method, and period of construction. The subject property was found to be eligible under both Criterion A/1 and C/3 due to the retention of its original form and massing. Additionally, the alterations to the subject property are in keeping with alterations that were commonly made to earthquake shacks during the Reconstruction period.

Fig. 28. 48 Peralta Avenue. (Photo provided by project applicant.)

48 Peralta Avenue (Ineligible)

The subject building at 48 Peralta Avenue is located in the Bernal Heights neighborhood and is an example of an earthquake shack that was determined ineligible for listing on the California Register of Historic Resources or National Register of Historic Places. The subject property was moved to its current lot from 333 Peralta Avenue in 1948. The property's close proximity to the Precita Park refugee camp and additional research indicated that the subject building (excluding the rear addition) is similar in scale, massing, and overall form to a Type C earthquake refugee shack, which typically had approximate measurements of 15'x25'. The subject property has undergone extensive alterations over time, mostly outside of the Reconstruction period, and does not retain a majority of the character-defining features associated with earthquake shacks, including redwood board and batten siding, galvanized metal chimney, and redwood shingle roof. 48 Peralta Avenue retains only the overall form, massing, and pitched gable roof associated with earthquake shacks. These physical characteristics alone are not enough to convey the significance of the property. Due to this loss of physical integrity, the subject building and property at 48 Peralta Avenue were determined to be ineligible for listing on the NRHP or CRHR.

BIBLIOGRAPHY

"1906 Earthquake Refugee Shacks," Outside Lands.org, Western Neighborhood Project, 2007. https://www.outsidelands.org/shacks.php

Bronson, William. The Earth Shook, the Sky Burned (Garden City: Doubleday & Company Inc, 1959), 51.

Cryan, Jane. *Hope Chest: The True Story of San Francisco's 1906 Earthquake Shacks* (unpublished manuscript, avail. San Francisco Public Library, San Francisco History Center, 1999).

Cryan, Jane. *Society for the Preservation and Appreciation of San Francisco Refugee Shacks (SPASFRS).* San Francisco, CA: San Francisco Public Library: San Francisco History Center, 2002. Web. February 9, 2021.

San Francisco Planning, *Historic Resource Evaluation Response: 357 Union Street, February 6, 2019 (2017-005738ENV).*

Larsen, Hannah Astrup. "Enrichment of the Refugees," *The San Francisco Call,* October 20, 1907.

"Remembering Earthquake Shacks, San Francisco's Original Tiny Homes," Curbed San Francisco, 2019. https://sf.curbed.com/2017/4/18/15333168/sf-quake-shack-houses-camps

San Francisco Planning, *Draft Reconstruction Era Edwardian Flats Historic Context Statement 1901-1915,* 2018.

San Francisco Planning, *San Francisco Preservation Bulletin No.18: Residential and Commercial Architectural Periods and Styles in San Francisco,* January 2003.

Simpson, Anna Pratt, "From Green Refugee Shacks To Cozy Homes of their Own," The San Francisco Sunday Call, 2 May 1909.

Stellman, Louis J. "Moving 20,000 Refugees." The San Francisco Chronicle, August 11, 1907.

Urban, Arianna. *"From Green Refugee Shacks to Cozy Homes of Their Own": San Francisco's Earthquake Relief Cottages as Vernacular Architecture.* Thesis. University of Oregon, 2016.

O'Connor, Charles et al. *The San Francisco Relief Survey: The Organization and Methods of Relief Used after the Earthquake and Fire of April 18, 1906* (The Russel Sage Foundation, New York Survey Associates, 1913),4

The Society for the Preservation and Appreciation of San Francisco's 1906 Earthquake Refugee Shacks Jane Cryan, Founder-Director materials and letter to Diane Nicholson, Golden Gate National Recreation Area curator dated 4 December 1997, Presidio Ranger files.

U.S. Army, Pacific Division, Earthquake in California April 18, 1906: Special Report of Maj. Gen. Adolphus W. Greely, U.S.A., Commanding the Pacific Division, on the Relief Operations Conducted by the Military Authorities of the United States at San Francisco and Other Points, with Accompanying Documents (Washington: Government Printing Office, 1906).

Walker, Lester. *Tiny, Tiny Houses*. Woodstock: Overlook Press, 1987.