

## A.32 USA (Chicago) – 1871 – Fire

**Case Study:** **Keywords:** Non-displaced / returns, Hosting, Collective Centres, Household NFIs, Construction materials, Transitional Shelter, Rental support, Cash, Guidelines.

### Country:

USA

### Project location:

Chicago

### Disaster:

Great Chicago Fire

### Disaster date:

8<sup>th</sup> to 10<sup>th</sup> October, 1871

### Number of houses destroyed:

18,000 buildings

### Number of people displaced:

100,000 left homeless (a third of the population of Chicago)

### Project outputs:

45 per cent of the homeless were assisted by Chicago Relief and Aid Society

8000 one-room "isolated houses"

6,000 free rail tickets out of town

Four barracks housing 1,000 families

8000 one-room "isolated houses"

### Shelter size:

17.8 m<sup>2</sup> for 3 people or less

29.7 m<sup>2</sup> for more than 3 people

### Materials cost per shelter:

US\$ 125 for materials and basic

non-food items (approximately

US\$ 2,375 at today's prices)



### Project timeline

1874 –	– Society officially finishes its work, having received US\$ 5m in donations
20 months –	– Jubilee week to celebrate the city's recovery
8 weeks –	– 15,000 families provided with food, fuel or shelter
6 weeks –	– Estimate of relief costs for the first 6 months of approximately US\$ 4m (US\$ 800m at today's prices)
1 month –	– Of 6,259 applications for isolated houses, 4,564 had been approved
2 weeks –	– Barracks erected. Distribution of materials for "isolated houses" begins
1 week –	– Responsibility for relief transferred to the "Chicago Relief and Aid Society"
8-10 October 1871 –	– Disaster date

This is one of an ongoing series of "historical" case studies to show how thinking on humanitarian sheltering has evolved. (see also *Section D* of *Shelter Projects 2008*, *Section C* of *Shelter Projects 2009* and *Section C* of *Shelter Projects 2010*)

### Project description

The response included non-food item distribution, the building of barracks and one-room shelter construction. The response was administered by the Chicago Relief and Aid Society, a voluntary body, first established with the aim of supporting the poor in areas that the local authorities could not or would not support. The Society used a "scientific charity" method, employing paid professionals to carry out the policies of the executive board, emphasising the importance of public health issues and encouraging self-reliance amongst recipients of aid.

### Strengths and weaknesses

- ✓ Use of a non-political, voluntary body as relief administrator reduced potential for corruption.
- ✓ Prioritisation of key-worker support ensured reconstruction work was not hampered.
- ✓ Support of beneficiaries in having their own shelters, rather than living in collective centres, kept the "dependent" population low.
- ✓ Use of relief as economic stimulus meant recovery was reasonably fast.
- ✗ Moralising approach to shelter response. Beneficiary selection was based on class and "worthiness" and not necessarily on need.
- ✗ Long-term sustainability of shelter solutions not fully

considered. Many temporary homes were still used but were in poor condition years later.

- ✗ The Society held on to a surplus of funds through periods of severe economic difficulty, including when protestors marched on the Society's offices in 1873 shouting "Bread or death!".

- Many of the challenges faced by the Society are similar to challenges faced today.

- Chicago benefitted from being economically important and reconstruction began quickly. Over 200 stone buildings were under construction within two months of the fire

- The relief response was aided by the swift arrival of donations from other States and even overseas.



View after the Chicago Fire  
Photo: Lovejoy&Foster

### Before the fire

The city of Chicago had a population of around 300,000 people. The city was a growing manufacturing centre. Chicago was known for its leadership and innovation in public health issues, largely due to the activities of the Chicago Relief and Aid Society.

Many of the working classes of Chicago lived within the city limits. The city centre was a mix of expensive stone buildings and cheap wooden-frame houses.

Fires were common in Chicago. The City Fire Marshal reported earlier in 1871 that the previous 12 months had seen 600 fires.

### After the fire

The Great Chicago Fire started on the evening of Sunday 8<sup>th</sup> October 1871. After two days, the fire burnt itself out and rain helped douse the flames.

The fire destroyed nine square kilometres of Chicago, making a third of the population homeless and destroying 18,000 buildings and 200km of wooden pavements. Around half of the damage was insured, but as several insurance companies were burnt out, perhaps only half this was ever paid out.

Those people living in cheap or rented accommodation lost everything.

However, some important parts of the city remained intact, including its heavy industries and its rail infrastructure.

### Coordination

In the immediate panic, during and after the fire, there were concerns about public order. The mayor imposed martial law.

Five days after the fire had begun, the mayor handed over responsibility for the administration of relief and reconstruction to the Chicago Relief and Aid Society.

The Society immediately divided itself into eight committees forming a structure not dissimilar to today's coordination systems.

### Response

The Society offered different types of shelter and non-food item support:

- 6,000 free rail tickets to those wishing to leave the city
- 8,000 one-room shelters, "isolated houses"
- Barrack accommodation with furniture for 5,000 people
- Rental payments at US\$ 10/month (US\$ 190 equivalent today)
- Furniture, stoves and fuel to families that did not require other shelter support.

The early policy of offering free train passes out of Chicago to allow

people to relocate was quickly stopped as the Society felt that too many skilled workers necessary for reconstruction work were leaving.

### Selection of beneficiaries

Selection of beneficiaries was informed by class, skillset, ability to work and vulnerability.

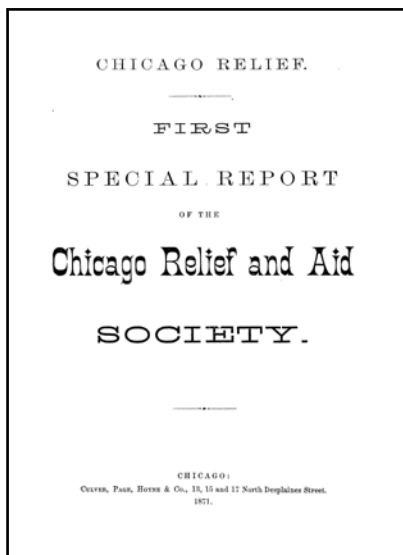
Although the vulnerable were a priority, the Society felt that the "workshy" did not fall into this category. In a Society report the "St. Paul's Rule" is mentioned:

*"He who does not work, neither shall he eat."*

The two main shelter solutions, barracks or isolated houses (one-room timber-frame shelters), were allocated more or less on the basis of class. Those from the lowest social groups were housed in barracks.

The isolated houses were reserved for skilled workers or the "respectable" labouring poor, who were needed for reconstruction work and who the Society felt needed a home of their own to maintain their pride and prevent their morals from slipping.

Beneficiaries had to "make an application" to receive the materials to build. In most cases, the isolated house was donated by the Society. In cases where they believed the family to have sufficient financial



The Chicago Relief and Aid Society coordinated the response. The quotes here are taken from their own reports.

resources, recipients were asked to pay back 75 per cent of the value of the shelter over one-year, interest-free.

A "Bureau of Special Relief" was set up to seek out those too proud to ask for assistance. A mechanism was set up to enable this class of beneficiaries to:

*"Seek relief where publicity could be avoided, and the shock be lessened to their sensitiveness and reserve."*

### Barracks

The Society decided that the number of people living in barracks should be limited:

*"So large a number, brought into promiscuous and involuntary association, would almost certainly engender disease and promote idleness, disorder, and vice."*

The Society was worried that housing people in barracks would reduce their incentive to work, endangering the moral wellbeing of the whole city. This meant that schools and churches that had been used as temporary collective centres were closed as soon as possible.

The cost for housing a family of five people in barracks, including the provision of furniture, was calculated as US\$ 80 for six months, not including food and fuel.

Barracks inhabitants were:

*"Under the constant and careful supervision of medical and police superintendents, their moral and sanitary condition is unquestionably better than that which has heretofore obtained in that class."*

### Implementation

The Society divided the city into districts and then established a series of charity bureaus responsible for assessing beneficiary claims. The supply depots were connected by telegraph.

Beneficiaries were constantly monitored, and each person had his or her own "ledger" completed by a Society representative. Assessors reported in turn to their superintendent, who reported to the General Superintendent. Included in each ledger was the amount of relief supplied and *"whether they are idle or industrious"*.

After five weeks, the Society had a "clerical force" of 498 people at district-level, 111 people working on warehousing and distribution and 34 people working on the planning committees.

In the end, the Society supported around 45 per cent of those affected by the fire with shelter.

### Beneficiary feedback

The Society set up a mechanism for beneficiary feedback by placing an advertisement in all newspapers for people to contact the Superintendent of the Chicago Relief and Aid Society with details of cheating or overlooked beneficiaries.

### DRR and suburbanisation

New fire regulations were proposed in November 1871 largely banning wooden houses within the city limits, meaning that only the wealthy could construct houses in the city centre. Despite protests, they were eventually passed but without effective penalties for breaking the rules.

Chicago faced further notable but smaller fires in both 1873 and 1874. Stricter safety codes were not put in place until insurers threatened to boycott the Chicago

property market.

The fire led to the suburbanisation of Chicago. New buildings and fire-safety codes led to many working class families moving to new plots in the suburbs. The building of the "isolated houses" outside the city limits was encouraged by lower land prices and a policy that exempted wooden buildings outside the city limits from taxes.

As only richer families could afford the stone buildings that conformed with new fire safety regulations, the centre of Chicago became the business and commercial district, with accommodation for the wealthy. The Society did not appear to find this situation problematic at the time, but several years later the new suburbs of small wooden houses had in some places become overcrowded tenements.

### Technical solutions

The Society provided two types of house: a larger 20' x 16' (29.7 m<sup>2</sup>) model for families of more than three people and a smaller 12' x 16' (17.8 m<sup>2</sup>) model.

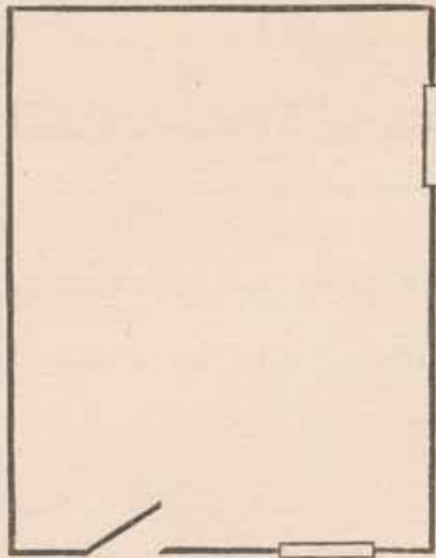
The house design was a wooden structure with a double iron chimney. Walls were lined on the inside with thick felt paper.

Along with the materials for the house, the Society provided chairs, a table, a bed, bedding, a stove and kitchen equipment. The total cost of the materials and non-food items was US\$ 125 (approximately US\$ 2,375 at today's prices).

The houses were designed to be erected by the families themselves, possibly with the assistance of professionals that the family would pay for. If the beneficiaries were *"widows, the infirm or otherwise helpless persons"* then the Society built the house.

The Society assumed that the houses would be improved on at a later date (some families upgraded with second stories or extensions), and provided a screen to allow for the division of the house into two rooms as the family wished.

HOUSE WITH ONE ROOM.

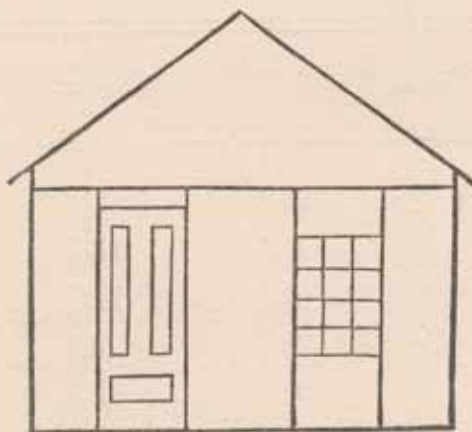


*Dimensions.*

Size . . . . . 12 × 16  
 Height of Sides . . . . . 8 feet.  
 Studs . . . . . 16 inches from centres.

*Material.*

Studs . . . . . 52 pieces 2 × 4 8  
 Joists for 2 Floors . . . 18 pieces 2 × 6 12  
 Rafters . . . . . 10 pieces 2 × 4 8  
 Sills . . . . . 2 pieces 2 × 6 16  
 Plates and Ridge . . . 3 pieces 2 × 4 16  
 Girders . . . . . 4 pieces 2 × 4 16  
 Sides . . . . . 500 feet 8 ft. boards.  
 Floor . . . 300 feet matched 16 ft. boards.  
 Floor Attic, 200 feet rough 16 ft. boards.  
 Roof . . . 500 feet rough 8 ft boards.  
 Battens . . . . . 66 pieces.  
 Door and Frame.  
 Two Windows and Frames.  
 Door Trimmings.  
 30 pounds 10 d. Nails. 5 pounds 20 d.  
 Nails. 5 pounds 8 d. Nails.



Perhaps the earliest recorded drawing and bill of quantities for a one room shelter  
 Source: Report of the Chicago Relief and Aid Society of Disbursement of Contributions  
 for the Sufferers by the Chicago Fire, 1874

**Logistics**

65 million linear feet of timber were destroyed by the fire. Demand for rebuilding was high, and the cost of timber rose dramatically. The Shelter Committee, led by a businessman in charge of one of Chicago's biggest lumber firms, anticipated this and pre-ordered large quantities of timber in the first few days of the response at 80 per cent of the market price that was reached just two weeks later.

The first load of timber was delivered on the same day that the final flames were extinguished.

In the first five days after the fire, 330 rail carriages of goods were received as donations. None of the cars arrived with way-bills. At this point *"the law of humanity was paramount to the laws of commerce"* and most items were distributed without being recorded.

Initially, mainly second-hand summer clothing was available. This could not provide sufficient protection for the winter. The Society supported a number of "Ladies Societies" to produce winter clothes. This employed many women who were otherwise without work after the fire.

**Materials list for a shelter**

Materials	Quantity
Studs 2"x4" (8 ft lengths)	52
Joists for 2 floors 2"x6" (12 ft lengths)	18
Rafters 2"x4" (8ft lengths)	10
Sills 2"x6" (16ft lengths)	2
Plates and Ridge 2"x4" (16ft lengths)	3
Girders 2"x4" (16ft lengths)	4
Sides (8ft boards)	500ft.
Floor (16 ft boards)	300ft.
Floor Attic (16 ft boards)	200ft.
Roof (8ft boards)	500ft.
Battens	66
Door and Frame	
Two Windows and Frames	
Door Trimmings	
Nails 10.d	30lb
Nails 20 d.	5lb
Nails 8d.	5lb