

**Portable Iron Houses P30348  
Proposed Bellhouse Iron House Relocation**



**Heritage Impact Statement**

**March 2019**

Prepared for

**National Trust of Australia (Victoria)**

by

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## 1.0 INTRODUCTION

### 1.1 Project Overview

**Property:**

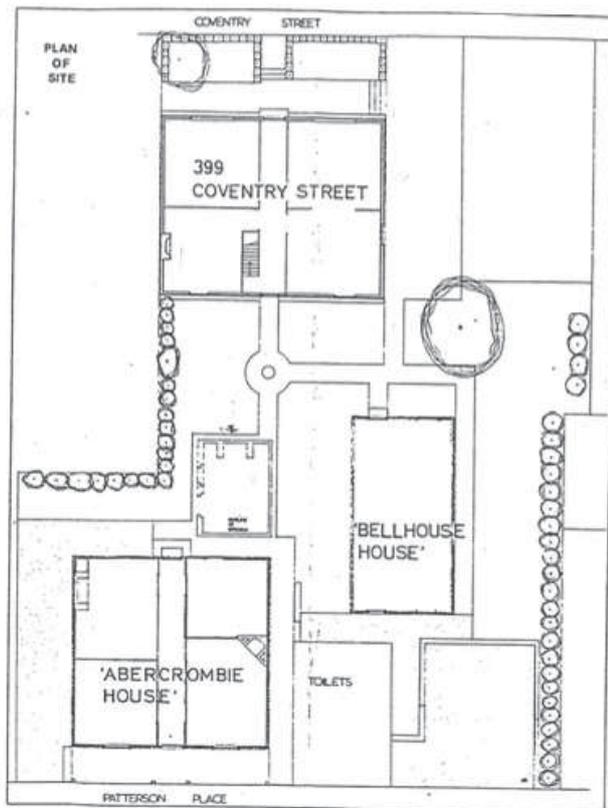
Bellhouse House, Portable Iron Houses Site, 399 Coventry Street, South Melbourne VHR1888

**Prepared by:**

Samantha Westbrooke, National Trust of Australia (Vic) Conservation Architect

**Background and Overview**

The Portable Iron Houses site contains three portable iron houses from 1850s Melbourne in a landscape setting. Constructed on the site in 1854, Patterson house (VHR 220) was purchased and saved from demolition by the National Trust of Australia (Victoria) in 1969. A second portable iron house Bellhouse House (VHR 1888), located at Moor Street in Fitzroy was purchased by the Trust and relocated to the site in 1971. Additional land at the rear of the site and facing onto Patterson Place was later acquired by the Trust, and in 1980, a third house, Abercrombie house (VHR 404), formerly at 59 Arden Street, North Melbourne, was relocated to the site. Following extensive conservation and repair works to both Patterson and Bellhouse houses, less extensive works to stabilise and repair Abercrombie house, and various landscaping and site works, in 1983 the National Trust Portable Houses complex was officially opened to the public.



Each of the houses is significant as a rare and relatively intact example of a prefabricated building from the mid nineteenth century and they are all separately included on the Victorian Heritage Register. Both Patterson House and Abercrombie House have associated land registered, however, due to the location of Bellhouse House on previously leased land, only the building is registered.

While the National Trust purchased the land associated with Patterson House and Abercrombie House (land outlined in red #1 and #2 on the aerial image below) at the time of acquisition, when Bellhouse House was moved to the site it was partially located on land leased from Powercor (#4 outlined in blue). At this time Powercor retained ownership of the site for their purposes and purchase by the Trust was not an option. For that reason the extent of listing for Bellhouse House only applies to the building footprint.



In 2017 Powercor indicated to the Trust that this land had been identified as a property that was surplus to its requirements and thus proposed to divest the property. Powercor offered the Trust two alternatives. These were:

1. Purchase the land at a 50% discount, or
2. Lease the land (on a five year lease) on a commercial basis (the Trust had previously been leasing the site for a peppercorn rent).

The Trust was forced to take up the option of purchasing the site due to the significant cost of taking the commercial lease option with no ongoing remuneration for the rent costs. Taking out a mortgage for purchase of the site was not something the Trust was financially in a position to do, unless the site could be immediately sold on to pay off the mortgage, with as little time spent servicing the loan as possible. As a result the National Trust Finance Committee approved the purchase of the site on the proviso that the site be sold on as soon as possible.

This permit application is therefore for the proposed careful relocation of Bellhouse House onto the land (#1) associated with Patterson House (by rotating it 90 degrees) to enable the recently purchased parcel of land to be sold out of National Trust ownership. The relocation will also allow for replacement of the deteriorated base beams and insertion of a more sympathetic timber floor (the floor is currently a concrete slab). Although the building works relate solely to Bellhouse House, the new location will impact on the listed area of Patterson House VHR404 and landscaping works will be required to accommodate the new location. Given the site is a single complex with common access and landscaping, the impacts on all three listed sites are discussed in this statement.

## 1.2 Significance & Extent

All three houses on the site have separate Victorian Heritage Register Listings. There is no land associated with Bellhouse House with only the building registered. The listing for Patterson House includes its original house lot fronting Coventry Street (#1 on the aerial view below). Abercrombie House also has land associated with its listing with a separate lot fronting Patterson Place (#2 on the aerial view below).



The existing statements of significance accompanying the Heritage Register listings for the sites are as follows:

#### **Bellhouse House VHR1888**

##### **What is significant?**

The Bellhouse iron house was erected in c1853 at 40 Moor Street, Fitzroy for Samuel Boswell. It was constructed according to the British patented system of iron founder Edward Taylor Bellhouse of Manchester. The only other surviving building on this system, or by this manufacturer, is the former ballroom at Balmoral Castle, Scotland, originally ordered from Bellhouse by Prince Albert. The patent Bellhouse system was based on a number of cast iron structural and roof plumbing elements specifically sculpted to mate with the roof and wall cladding of 5 inch (130mm) pitch corrugated iron. The horizontal wall cladding ran into channels in the cast iron stanchions. Plates for fastening the top and bottom of the stanchions to the top and bottom plates.

The back top edges of the cast iron roof gutters are shaped to fit the corrugations of the roofing iron, and in a complete building, other cast iron members such as the ridge capping would have been similarly treated. The two windows are missing, but photographs of them survive. Internally the house was lined with lath and plaster, but was designed to have a horizontal board lining fixed to vertical timber pieces set into the hollow backs of the stanchions. The culturally significant fabric includes the whole of the building, though the cladding iron has largely been replaced and the structure now stands on timber baulks and a concrete slab.

The Bellhouse iron house was moved to its South Melbourne site in 1971 by the National Trust so as to save it from complete demolition, and has preserved the exterior shell and some elements to illustrate the interior as at Fitzroy, while also displaying schematically the sort of construction designed by the manufacturer.

##### **How is it significant?**

The Bellhouse iron house is of technical, architectural and historical significance to the State of Victoria.

##### **Why is it significant?**

The Bellhouse iron house is of technical and architectural significance as an extremely rare and relatively intact example of the innovative portable iron structures constructed according to the British patented system of Edward Taylor Bellhouse of Manchester. It is the only surviving building

by ET Bellhouse in Victoria and Australia and is thought to be one of only two buildings constructed on the Bellhouse system surviving in the world. The other example is the former ballroom at Balmoral Castle, Scotland, originally ordered from Bellhouse by Prince Albert.

The Bellhouse iron house is of significance for its potential to be used to illustrate and educate on the technology of portable iron houses imported during the gold rushes, which are an important and increasingly rare aspect of Victoria's heritage.

The Bellhouse iron house is of historical significance as one of the few surviving examples in Victoria of imported prefabricated iron houses of the 1850s. The use of imported prefabricated iron houses such as this in Victoria in the early 1850s reflected the rapid increase in population, scarcity of building materials, and high labour costs, all which were related to the rush for gold. Though not on its original site, the Bellhouse iron house provides an insight into one aspect of the migrant experience in the 1850s in Victoria.

#### **Patterson House (Iron House) VHR404**

The Iron House fronting 399 Coventry Street, South Melbourne and still located on the original site was imported and erected in 1853 for local speculator Robert Patterson. The portable iron structure of utilitarian design and unknown manufacture is constructed of a tee and angle section wrought iron frame clad with five inch pitch corrugated sheet, which is partitioned and lined internally with horizontal boards to form an attic cottage of six rooms.

Portable iron structures were a significant British manufacture of the period 1840-60 and the South Melbourne house, originally one of a large number imported to Victoria, is of international importance as one of very few surviving prefabricated iron cottages in the world.

The house is a fine intact example of a building type which proliferated in the gold rush era of the burgeoning Colony of Victoria and is of paramount technological rather than stylistic importance. The portable iron house at 399 Coventry Street, South Melbourne, survives essentially intact, and is being systematically and meticulously restored by the National Trust of Australia (Victoria) as a museum exhibit. Of world significance.

#### **Abercrombie House VHR220**

The iron house, formerly at 59 Arden Street, North Melbourne, and now at the National Trust Iron House Museum at 399 Coventry Street, South Melbourne, was most probably manufactured by Morewood and Rogers of London as a four room gable roof cottage with front veranda and intended for export to the British colonies. Andrew Abercrombie erected this portable iron house in North Melbourne in 1853. A brick kitchen was added prior to 1858.

Portable iron houses were manufactured in great numbers in Great Britain in the mid-19th century, largely to meet exigencies of accommodation in the colonies at this time. The iron house at North Melbourne is a unique survivor of a building type erected in great numbers in this area of Melbourne; and a rare example of a portable iron cottage in the world. These structures, historically important in representing a short lived period of frantic settlement during the Victorian gold rushes, are of great significance to the history of industrial technology.

The iron house has been removed and located at the National Trust of Australia (Victoria) iron house museum in South Melbourne. The fabric is in good condition with important archaeological data preserved during the removal operations undertaken in 1979. The building is of world significance.

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## 2.0 DESCRIPTION OF PROPOSED WORKS

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### 2.1 Relocating Bellhouse House

The works proposed to relocate Bellhouse House are documented in the following methodology and engineering drawings prepared by Donald C. Nicholls C. P. Engineer:

- Cover Letter Daniel Campbell of Melbourne Cranes Pty Ltd, outlining the relocation methodology, dated 22.02.2019
- Drawings 1 of 4 – 4 of 4 dated 21.02.2019

And the following architectural prepared by TANDEM Design Studio:

- A01 18\_016 NTV – 399 Coventry - Existing Site Plan
- A02 18\_016 NTV – 399 Coventry - Proposed Site Plan
- A11 18\_016 NTV – 399 Coventry – Existing Plan & Section
- A12 18\_016 NTV – 399 Coventry - Proposed Plan & Section
- A20 18\_016 NTV – 399 Coventry – Building Elevations
- A21 18\_016 NTV – 399 Coventry – Building Elevations 2
- A22 18\_016 NTV – 399 Coventry – Bellhouse Elevations

Provided below is a summary of proposed works to relocate Bellhouse House as outlined in the drawings.

The following works will be undertaken to Bellhouse House to prepare it for relocation.

- Cut and remove existing concrete slab floor within Bellhouse House (this slab is not attached to the perimeter walls or structure of the building in any way, including removal from site).
- Internally frame the perimeter walls with 90 x 45 softwood F8 cut to length on site as outlined on Architects Drawing A22 using timber infill of portal columns as the fixing point and using existing fixing holes in the iron posts.
- Internally cross and laterally brace the structure with 90 x 45 softwood F8 cut to length on site, once again using the timber infill of the portal columns as the fixing point.
- The structure as a whole will be jacked/raised using hydraulic 4 x point system ensuring the structure is raised evenly.
- Once raised the structure will be propped temporarily to allow the removal and replacement of the base timber beams with structural steel. Existing fixing points on the post bases will be used to connect to the new steel beams.
- The hoisting structure (using H pattern spreader bars connected by dropper slings to designated lifting eyes as outlined in engineer's drawings 2 of 4 and 3 of 4) will then be fixed to the steel base beams and the structure will be hoisted by mobile crane to footings at the new location.

The following works will be undertaken at the new location:

- Set out for new footings and dig and pour concrete for new stumps.
- Undertake a letter drop to neighbours in relation to use of the crane in Patterson Place.
- Set crane up in Patterson Place and rig load and slowly lift into position onto the new stumps.
- Remove props and make good
- Build new internal timber framed floor with hardwood floorboards and two timber steps to the entry door.

### 2.2 Landscaping Works

The following landscape drawings prepared by Justin Buckley, Horticultural Manager at the Trust (overlaid on the TANDEM Drawings A01 and A02) outline the proposed landscape works resulting from the relocation of Bellhouse House.

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- Landscape Plan - Existing Conditions
- Proposed Landscape Plan

Minimal changes are proposed for the landscape as a result of moving of Bellhouse House. The key changes are:

- removal of the small section of lawn
- narrowing of the western boundary garden bed to allow better access from rear of Patterson house to enter Bellhouse House.
- Extending the area of brick paving to accommodate this access
- Minor reduction in the depth of the garden beds at the rear entry to Patterson house to allow a brick path width of 110cm to be maintained for wheeled traffic. This path will run to the north and east of the relocated Bellhouse House.
- All trees as identified on the plan will be retained. The *Cotoneaster* and the *Pyrus* will be pruned (crown reduction and lifting). The *Citrus* and *Lagerstroemia* will be unaffected.

In addition a new 2.1 metre high timber paling fence will be constructed on the north and west boundaries of the site (#4) to be sold.

## 3.0 IMPACT OF PROPOSED WORKS

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### 3.1 Impacts on Bellhouse House

Bellhouse House is not located on its original site and was relocated to this site from Moor Street, Fitzroy in 1974.

The alterations proposed to Bellhouse House as a result of the relocation are minimal and involve change to non-original sections.

The first change will involve the replacement of the existing deteriorated base beams with galvanised steel universal beams. The timber base beams are not original and replaced earlier timber beams installed in 1974 when the building was moved to the site. The use of timber beams was based on an assumption that such a structure would have been supported on baulks of timber. At the time that the structure was acquired by the Trust, it was unfloored with no base beams (posts sitting on the ground). The bolt fixing of the posts to the new beams will utilise existing holes and will use the same fastening methods as existing.



The existing timber base beam of the building, which is deteriorated and requires replacement

It is proposed to replace these deteriorated timber base beams (which would require replacement anyway) to assist with relocation of Bellhouse House, as the steel beams, once in place can form part of the lifting and can also stay in place once the structure is moved. This simplifies the method of relocation, minimising the disturbance to original structural elements and the steel beams will remain as distinguishable but sympathetic later change.

The second change will be replacement of the existing slab floor with a timber-framed floor with hardboard floorboards. This type of floor is considered to be more sympathetic and true to the structure than the existing concrete slab floor, which was laid at the time the building was moved to the site. The building will be further elevated than it was previously on the site; however this is more in keeping with its elevation when used as a residence as seen in the historic photograph below, which shows the building at Moor Street when it was in use as a residence.



**Bellhouse House when it was used as a residence in Moor Street, Fitzroy and was elevated off the ground and accessed by timber steps.**

The proposed internal bracing and lifting method has been devised so there is minimal pressure placed on the existing structure to allow for the relocation. The bracing will be fixed to the timber post inserts of the cast iron posts. None of these posts survived from the original structure but they have been inserted since the move in 1974. The timber inserts were originally in place as a fixing base for internal lining. New timber post inserts will be installed as required to ensure that adequate fixing and structural stability can be achieved. Fixing of any new timbers into the posts will utilise existing fixing positions (holes) that are original to the structure.



**The current interior of Bellhouse House showing the internal timber posts inserted into the structural cast iron posts – these will be used as the fixing points for the perimeter and cross lateral bracing.**

Due to the minimal intervention to the existing significant structure and the proposal to lift it in its current state, conservation works are not considered as a necessary part of the relocation project. The Trust is however aware that the structure is due for conservation works, which are better to take place once the structure is relocated and the new site and works to the overall site can be considered as one. As a result conservation works will be the subject of a separate permit/permit exemption in the future.

The separate listing of the three houses on the site makes management problematic. With relocation of Bellhouse House on the site with the other two houses, more certainty of the future of the site will be provided. And if this were to occur it is also considered prudent to undertake a review of the VHR listing of the three houses and the whole Trust site. A reviewed listing could acknowledge the importance of the Trust association and museum use of the site and to consolidate the registration. The Trust would be willing to undertake a substantial amount of this review by providing the historical background and a draft statement of significance.

## 3.2 Impacts on the Overall Site

Although not listed as a whole, the site, complete with all three portable iron houses, is also significant for its association over almost thirty years with the National Trust of Australia (Victoria). The portable houses site and complex represents an important innovation in Trust policy to actively work to preserve and interpret an area of nineteenth century building technology. The relocation of Bellhouse House on the site will not impact on this significance and if anything will help to ensure the longevity of the site and its continuing use as a portable house museum.

The proposed relocation of Bellhouse House has been an unanticipated change on this site that is considered necessary to maintain the viability of the Portable Iron Houses site. The Trust were placed in a position where purchase of the site was the only viable option, but on the proviso that the newly purchased land be sold within 12 months as the Trust was not in the position to service such a loan long term. The relocation of Bellhouse House onto Patterson House parcel of land was considered the best option for ongoing operations of the site.

While the proposed new location of Bellhouse House will encroach on the rear yard behind Patterson House at 399 Coventry Street, this area of the site contains no significant elements relating to 399 Coventry Street other than indicating the boundaries of the original back yard for this building. Given later additions to the rear of Patterson House have previously been removed by the Trust, the existing rear yard and its openness is not an accurate depiction of its previous appearance. As a result the location of Bellhouse House to the rear will not impact on the significance of the site, and will provide a more accurate depiction of the small nature of these small house blocks, that most likely also contained outbuildings. There will be no impacts on the Abercrombie House heritage listing as Bellhouse House will be located on Patterson House land.

The landscape treatment around the iron houses was designed and constructed in the early 1980s to a design prepared by Trust landscape architect, Peter Watts. It includes flowerbeds and shrubbery areas, lawn and brick, basalt and gravel paving. Patterson House is the only building on its original site and no original landscaping has been retained from the period prior to ownership by the Trust. As a result the proposed landscape works will not alter any significant fabric and will retain a similar landscape treatment with brick paving and shrubbery. The proposed new fences are standard timber paling fences typical of the adjoining boundary fences and typical of this urban environment.

None of the plants on the site are of appreciable age or significance and no trees are proposed for removal. The *Cotoneaster glaucophyllus* is regarded as an environmental weed, however, it is a finer specimen than most and considered by the Trust as worthy of retention.

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## 4.0 CONCLUSIONS

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The proposed relocation of Bellhouse House on the Portable Iron Houses site will involve minimal change to Bellhouse House, which is not on its original site. Changes which are proposed to the structure such as new steel base beams and a new timber floor, are sympathetic and will improve the appearance and interpretation of the building. The proposed lifting methodology has been devised to minimise pressure on the original structural elements and has been carefully considered by an engineer experienced in building lifting projects. The VHR listing of the site only includes the footprint of the building, so there will be no impact on the extent of the Bellhouse House or any other associated elements or land.

There will also be no negative impacts on the Patterson House site, which will be the new location for the structure. The new structure will be at the rear of Patterson House and landscape changes will retain the existing materials, which are a later non-significant change to the site. There will be no impacts on the VHR extent of Abercrombie House.

Although the Portable Iron Houses site will be more cramped than previously, the proposed relocation is required to retain the viability of the Portable Iron Houses site. Relocation of Bellhouse House will allow for the sale of 6 Patterson Place and will mitigate the financial burden caused by the forced purchase of a formerly leased site. The proposed move will also trigger a reassessment of the whole site in relation to significance and management. The outcome of this will be a more holistic understanding of the significance of the site and its future management and maintenance needs.