



# Tiong Bahru: Do It Right

**A quick guide on works to conserved Tiong Bahru pre-war units**

## **PURPOSE**

This booklet provides a guide for property owners at the conserved pre-war Singapore Improvement Trust (SIT) blocks at Tiong Bahru. Owners are required to apply to HDB for a renovation permit and to seek clearance from URA for works affecting the main building façades.

# Contents

## ❖ Introduction

- Site Map ----- 3
- Overview and History of the Pre-War SIT Flats ----- 4
- Special Characteristics ----- 7
- Parts of a Pre-War SIT Flat----- 10

## ❖ Building Guidelines: Do It Right

### First Storey Units

- Residential Front ----- 12
- Shopfronts -----16
- Upper Storey Units -----17
- Other Works -----22

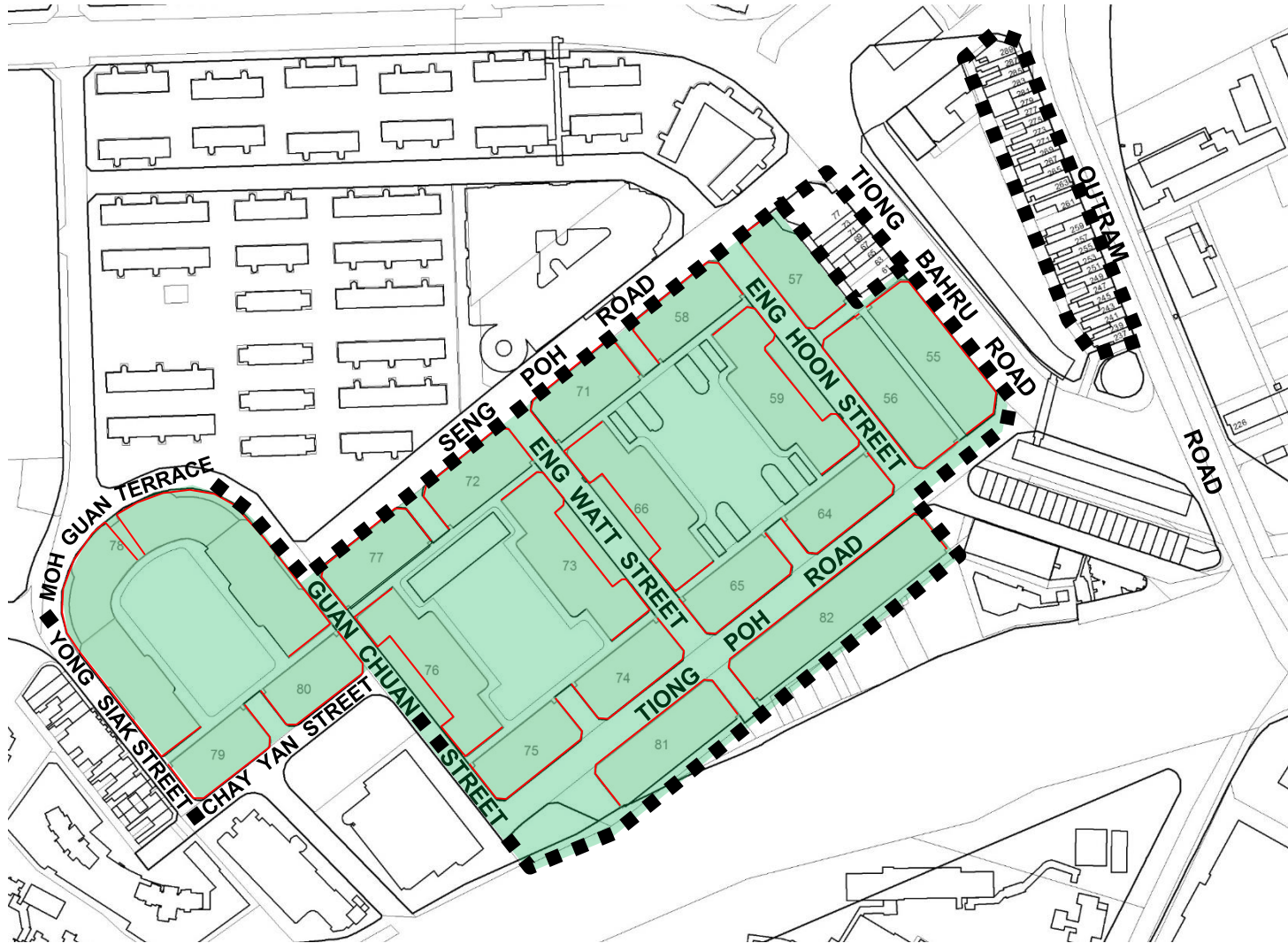
## ❖ Submission Procedure ----- 26

- Step-By-Step Guide----- 27

## ❖ Frequently Asked Questions ----- 28

# Site Map

## Tiong Bahru Pre-War SIT Flats



TIONG BAHRU  
CONSERVATION AREA

 CONSERVATION AREA

 PRE-WAR SIT FLATS

 MAIN FAÇADES



# Overview

Tiong Bahru Estate was one of the first housing estates developed by the Singapore Improvement Trust (SIT) from 1936 to 1940 as a response to housing shortage faced by a rapidly growing population. Based on contemporary European concepts of modern and social housing, and community planning, it marked an important step in Singapore's housing development before the formation of the Housing Development Board (HDB) in 1960.

This estate introduced modern living concepts to the Asian population. It is an exemplary model of an early public housing estate in Singapore. It demonstrates excellent urban design and planning principles, using simple architectural language and the then-modern material of reinforced concrete in its construction.



*Tiong Bahru Estate in 1950s*



*Tiong Bahru Estate in 2000s*

# Overview



The estate was built with the principle to encourage interaction between neighbours. Clustered around open and green spaces to form small neighbourhoods, the two to five storey low-rise blocks have five-footways and amenities at specific ground floor corner units.

These charming blocks contain a variety of apartment sizes to accommodate different family sizes. They have distinctive curved features, special corner and entrance treatments, and fair-faced brickwork. Another distinctive feature is the rear staircases, which are visually pleasing, and part of the identity of the estate. Internally, the flats are laid out following the Malayan terrace-house pattern, with an internal airwell. Overall, the estate is a reinterpretation of traditional single-family urban brick-and-timber terraces.





# Overview

Today, the estate remains relevant with new restaurants, bookshops and murals coming into the neighbourhood. Heritage trails and guided tours continue to remind the life that was, through the streets of Tiong Bahru.

Altogether 20 blocks of pre-war flats, as well as 36 units of shophouses have been conserved to keep the identity and charm of Tiong Bahru for present and future generations. The historic fabric of the estate is significant and irreplaceable. The original buildings have a variety of components such as mild steel windows with tinted green glass, pre-cast vents, timber doors and open balconies. Their detailed design and materials combine to give the estate a distinctive architecture familiar and dear to many Singaporeans.

While there is scope for alterations to adapt the flats for modern needs, any alterations should be guided to ensure that the estate's character and heritage value is protected.

## Do you know?

You can find out more about Tiong Bahru here:



URA Conservation Portal  
(<http://bit.ly/consportaltb>)



Tiong Bahru Heritage Trail  
by National Heritage Board  
(<http://bit.ly/consportaltbheritagetrail>)

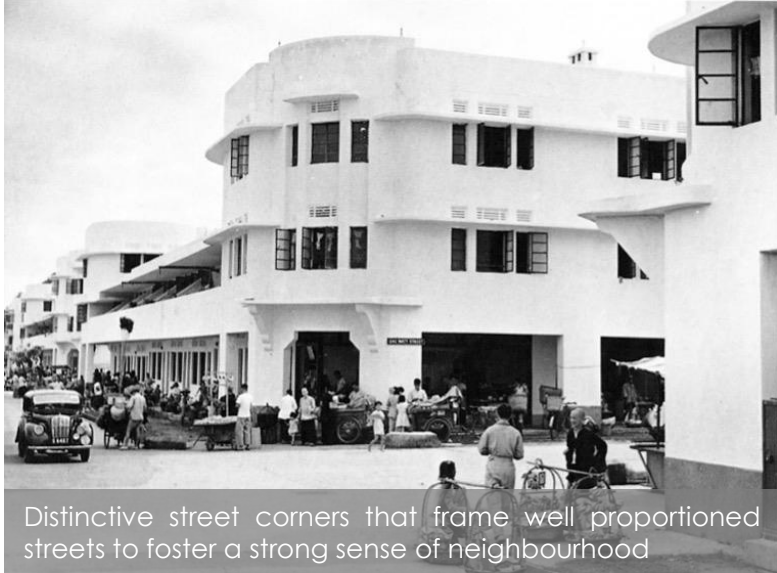


An old neighbourhood landmark which functions as a coffee shop by day and restaurant by night.



Guided tours conducted by student volunteers from ITE College West Tourism Club.

# Special Characteristics





## Special Characteristics

The Art Deco style, is a style popular in the 1930s to 50s. Art Deco designs often feature streamlined shapes and, in its heyday, represented luxury and glamour. In light of our tropical climate, several features have been adapted for the estate.



Curved sun-shades, and vents for natural ventilation



Balconies as a transitional space between the hot external climate and cool interior living space



Some window and door frames were imported all the way from England



Nostalgic decorative grilles



Tinted green glass windows protect occupants from the tropical glare and heat



## Special Characteristics



Fair-faced brickwork feature



Shady corridors

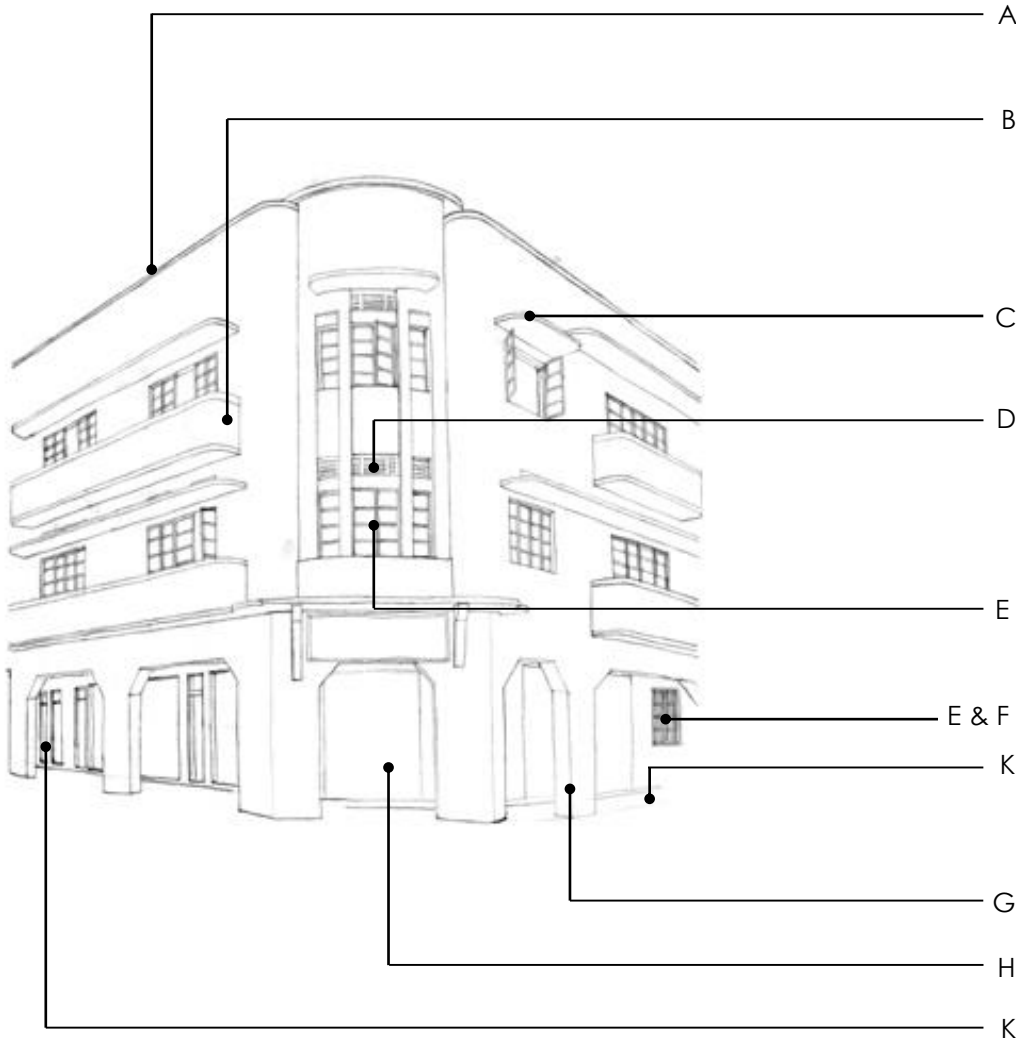


Naturally ventilated balconies



# Parts of a Pre-War SIT Flat

## Main Façades



The **Main Façade** is the front of a building that faces an open street or space (see page 3).

A: The **Flat Roof** is made of reinforced concrete.

B: **Balconies** are either protruding (see page 19) or recessed (see page 20). These semi-outdoor spaces shield the interior living spaces from the sun.

C: The **Concrete Canopies** are ledges that provide sun shading for the interior living spaces.

D: The **Vents** are precast horizontal concrete blocks to provide natural ventilation.

E: The **Windows** on the front façades are either fixed or casement with glazed panels on mild-steel frame.

F: The **Security Bars** on the first storey windows are made of metal vertical rods.

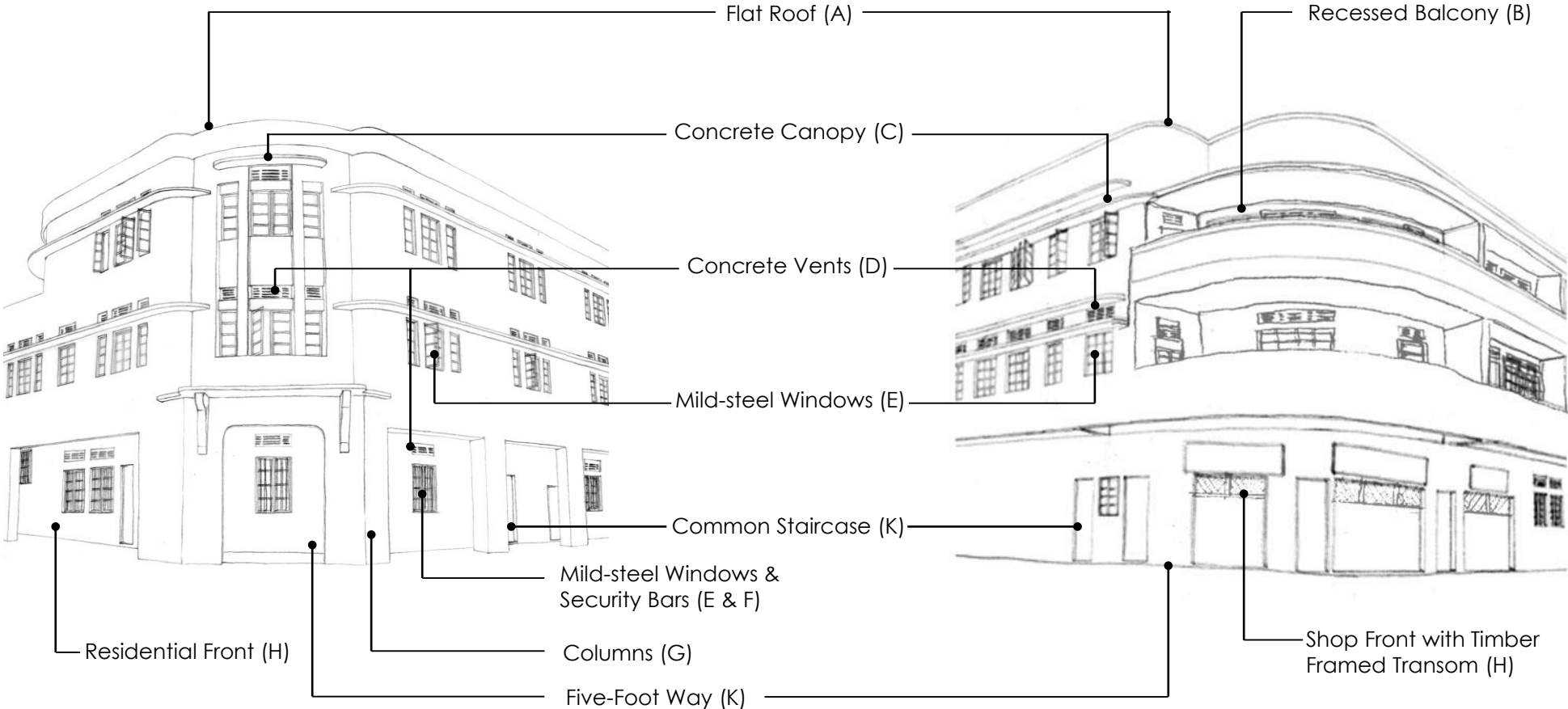
G: The **Columns** at the street fronts of the block form the five-foot way colonnades and support the upper floors.

H: There is either a **Residential Front** (see page 12) or **Shop Front** (see page 16) at the first storey.

K: The **Five-Foot Way** and **Front Common Staircases**, with cement screed finish, serve as a sheltered space for circulation and access to the upper storeys respectively.

# Parts of a Pre-War SIT Flat

## Main Façades





## First Storey Units: Residential Front

Most first storey units are for residential use. There are several types of residential fronts. Most originally have mild-steel windows and some have timber, or mild-steel entrance doors.



### Vents

Original pre-cast horizontal concrete vents are to be retained and restored.

### Windows

Original mild steel framed windows with textured green glazing are to be retained and restored. The original window openings cannot be modified.

### Security Bars

Original metal vertical rods should be kept.

### Doors

Original mild-steel framed and timber doors are to be retained and restored.

### Five-Foot Way

Original cement screed finish should be kept.

# First Storey Units: Residential Front

## Windows



### Acceptable Works

When it is established that the windows are beyond repair, selective replacement is allowed.

If new metal frames are proposed, their frames should also follow the size and design of the original window frames. Casement windows with clear or textured-green glazed infills are allowed. If aluminium frames are proposed, they are to be powder-coated.

The original security bars made of metal vertical rods are to be kept. If modified, owners are encouraged to reinstate the original security bars. Sliding windows can be considered if the original security bars are reinstated. Addition of another layer of security grilles compatible in design to the architecture of the building can be allowed. If aluminium grilles are proposed, they are to be powder-coated. Grilles in shiny stainless steel are not allowed.

### Some Examples of Unacceptable Works



Do not use new window designs that do not match that of the original windows of the block. Timber frames are not allowed.

**Best Practice in conservation** is to keep the original design. This means retain, repair or reinstate original mild-steel window frames with green textured or clear glass panels, and security bars.

# First Storey Units: Residential Front

## Doors



Original Timber-framed door    Original mild-steel framed door

**Best Practice in conservation** is to keep the original doors. This means retain, repair or reinstate original timber framed or mild-steel framed doors with green textured or clear glass panels.

### Acceptable Works

When it is established that the doors are beyond repair, replacement doors that match the original design, or are compatible in design to the architecture of the building are allowed.

Addition of a layer of security grilles compatible in design to the architecture of the building can be allowed. If aluminium grilles are proposed, they are to be powder-coated. Grilles in shiny stainless steel are not allowed.



Examples of timber doors compatible in design.



Some examples

### Unacceptable Works

Do not use doors that are not compatible to the architecture of the building.



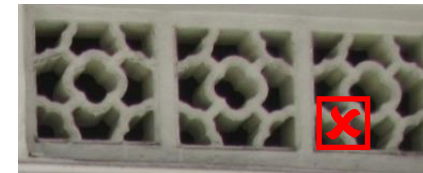
# First Storey Units: Residential Front

## Vents



### Acceptable Works

Original pre-cast horizontal concrete vents are to be kept. If they are already modified, the original design of the vents should be reinstated. The vents may be sealed on the interior with plasterboard, glass or clear plastic.



### Some Examples of Unacceptable Works

Do not use new vent designs. A/C units should not be installed on the vents.

## First Storey Unit: Shopfronts



Some corner units were originally designed as shops.

Shopfronts in Tiong Bahru have a range of traditional features including metal or timber sliding and folding doors, and metal accordion gates. Original shopfronts including the timber transom with metal mesh, should be retained, repaired or reinstated.

For shopfront units where the original design has already been changed, new designs are to be traditional and recall the historic streetscape.

Timber Framed Transoms



## Upper Storey Units

The upper storey units are for residential use. There are several types of units and most originally have balconies, mild-steel windows and doors.



### **Balcony**

The design of the balconies are originally open. These are transitional semi outdoor spaces shield the indoor spaces from the sun (see page 19 to 20).

### **Recessed Façade**

Original recessed façade at the balcony is to be retained and restored. The windows can be changed to doors (see page 21).

### **Windows**

Original mild steel framed windows with textured green glazing are to be retained and restored.

### **Vents**

Original pre-cast horizontal concrete vents are to be retained and restored.

### **Fair-faced brickwork**

Original brickwork finish is not to be painted over.



# Upper Storey Units

## Windows and Vents



**Best Practice in conservation** is to keep the original design. This means retain, repair or reinstate original mild-steel window frames with green textured or clear glass panels.



### Acceptable Works

When it is established that the windows are beyond repair, selective replacement is allowed.

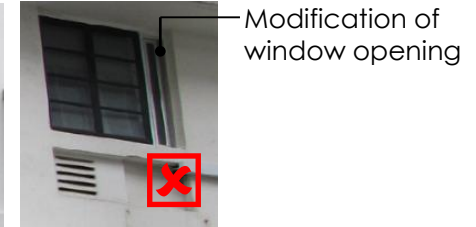
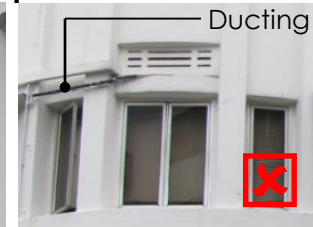
If new metal frames are proposed, their frames should also follow the size and design of the original window frames.

Casement windows with clear or textured-green glazed infills are allowed. If aluminium frames are proposed, they are to be powder-coated.

Addition of a layer of security grilles compatible in design to the architecture of the building can be allowed. "Invisible wire grilles" are preferred. If aluminium grilles are proposed, they are to be powder-coated. Grilles in shiny stainless steel are not allowed.

The original pre-cast horizontal concrete vents are to be kept. If they are already modified, the original design of the vents should be reinstated. The vents may be sealed on the interior with plasterboard, glass or clear plastic.

### Some Examples of Unacceptable Works



Do not use new windows designs that do not match that of the original windows of the block. Ducting and other fixtures should not be installed on the front façade.

# Upper Storey Units

## Protruding Balconies



Some units feature protruding balconies (found at Blocks 57, 59, 66, 73, 76 and 81). These are unique features and shall be kept open. The façade behind the balcony is also to be retained, repaired or reinstated.

Addition of a layer of security grilles that is compatible in design to the architecture of the building on the interior of the balcony inner façade windows and doors can be allowed. If aluminium grilles are proposed, they are to be powder-coated. Grilles in shiny stainless steel are not allowed.



### **Protruding Balcony**

The balcony is to be kept open and must not be enclosed.

### **Windows and Doors**

Original mild steel framed windows and doors are to be retained and restored. The openings cannot be modified.

### **Vents**

Original pre-cast horizontal concrete vents are to be retained and restored.

### **Fair-faced Brick Finish**

Original brickwork finish not to be painted over.

# Upper Storey Units

## Recessed Balconies



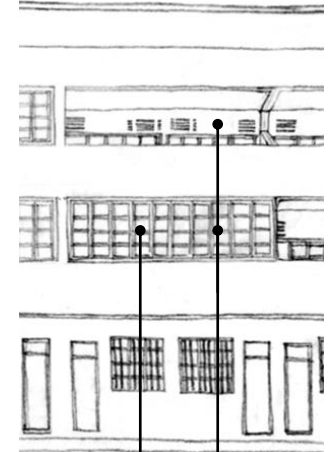
**Best Practice** in conservation is to keep the original design. This means the recessed balconies should be kept open. The effect of the balcony shields living spaces from the sun and enhances natural ventilation in the tropical climate. Even without air-conditioning, people lived comfortably in these flats in the past.



### Acceptable Works

Owners are strongly encouraged to keep the balconies open. These are unique features of the tropical architecture of the pre-war SIT flats. However, if they wish to enclose the balcony with new windows, the proportion and design of the windows shall match that of the original windows of the block. The new windows shall be mild-steel, or powder-coated aluminium frames with clear glazed infills.

The original inner façades are to be retained and restored.



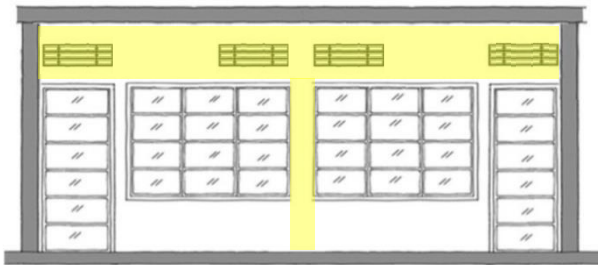


# Upper Storey Units

## Inner Façades of Recessed Balconies

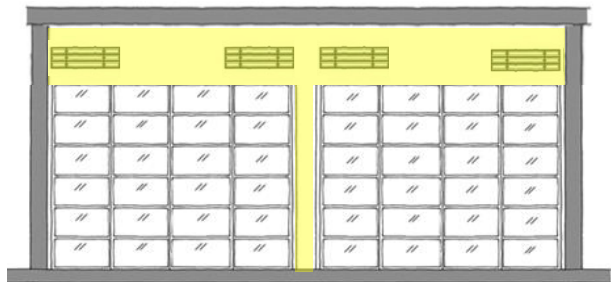
Some upper storey units have recessed balconies. There are several types of the recessed inner façades. Most originally have concrete vents, mild-steel framed windows and doors.

Original Inner Façade (**Best Practice**)



Best Practice of conservation is to retain, repair or reinstate the original recessed inner façade. The inner façade also includes the center wall that divides original windows from one another (highlighted).

Example of Allowable Inner Facade



Windows of the inner facade can be changed to full-height doors for better access to the balcony. The design and material of the new doors and windows are to match those of the original one. The inner façade is to be retained and restored, even if the balcony is enclosed with allowable window design.

## Some Examples of Unacceptable Works



Do not remove the inner façade and partition the balcony. The centre wall must be kept.



Do not use new window and door designs that do not match that of the original mild-steel frames of the block.

# Other Works: Awnings, Planter Racks & A/C Units

Town Council Guidelines for all units within the conserved pre-war SIT estate



**X** Planter racks are not allowed.

**X** Awnings are not allowed. Owners can install bamboo chicks or blinds inside the flat or balcony.

**X** Air-condensing units are not allowed at the front façade. See page 25 for HDB's air-conditioning installation guidelines.

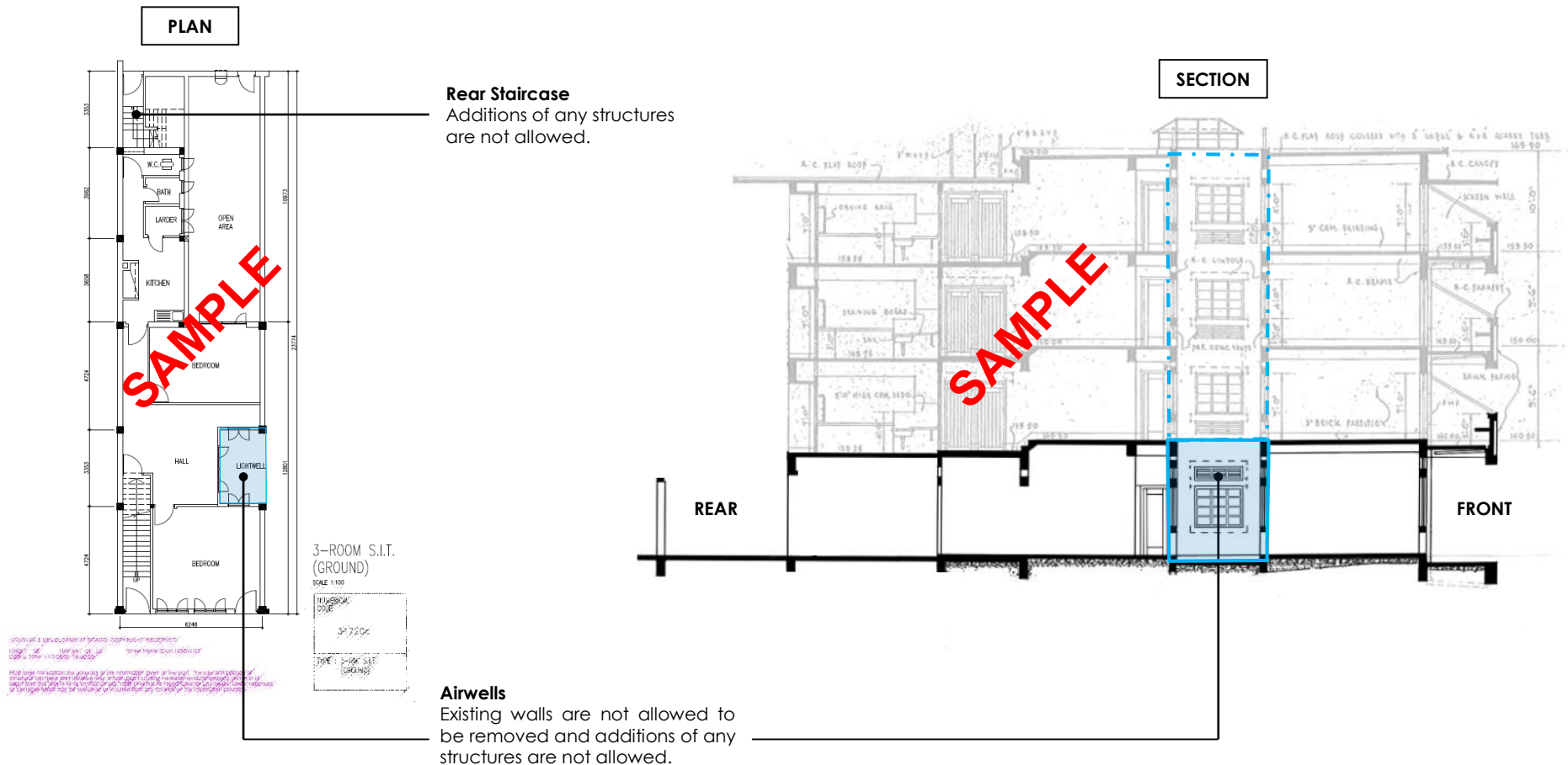
**X** Common areas are managed by the Town Council. Works that go outside the unit space onto the common area are not allowed.

# Other Works: Airwell & Rear Staircase

## HDB Guidelines for all units within the conserved pre-war SIT estate

The air well spaces and rear staircases are marked as common area under the maintenance of the Town Council. Flat owners are not allowed to modify the original air well spaces and rear staircases. For example, the existing walls around an airwell are not allowed to be removed to expand the unit floor area.

Addition of any structures such as floor, roof or fixtures such as air conditioning units within the air well are also not allowed.

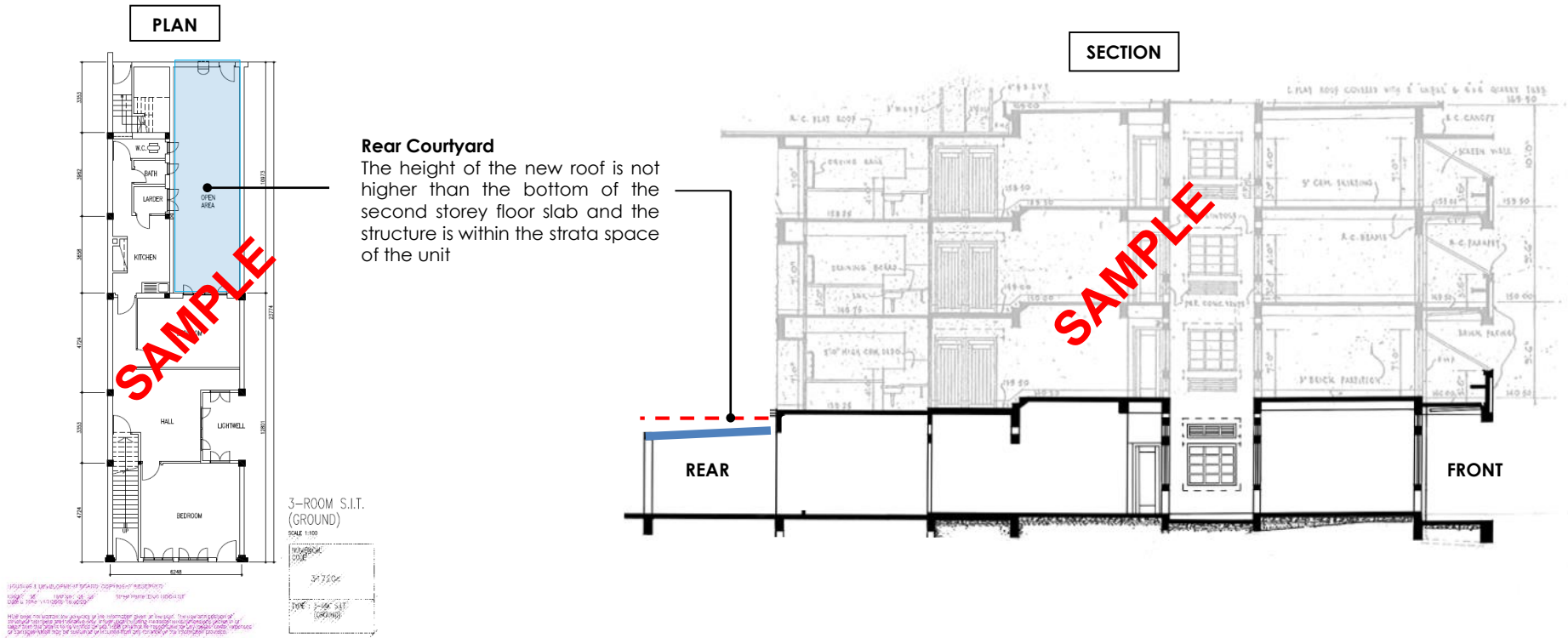




# Other Works: Rear courtyard under Private Ownership

For first storey units which the HDB allows roof covering over the rear court owned by the first storey unit

Addition of roof coverings over the rear court involve Category 2 Works to conserved buildings. The owner has to engage a Professional Engineer (Qualified Person) to submit the necessary drawings to obtain the clearances from URA, BCA and FSSD, and seek HDB's approval prior commencement of works.



Please submit the original unit plan (which can be obtained from HDB) to show that the rear court is part of the property. All privately owned courtyards do not have staircases which provide access from the first storey to the upper storeys.

A new roof of any profile and material can be added over the rear court, provided the roof is not higher than the ceiling level of the unit. A section is also required to show that all works are within the property boundary. Any covering within the courtyard should be within the space owned by owner and not encroach onto the 2nd storey level, or the backlane.

## Other Works: A/C Units

### Guidelines for installing air-conditioning (A/C) units

A/C units are not allowed on the front façade. If owners require air-conditioning for their premise, A/C units are to be located to the back of the building.

Under HDB's guidelines, A/C units are allowed to be installed on the rear exterior wall, staircase wall, along the back lane or on top of the covered private courtyard. They should be neatly placed.

New installations or replacements of A/C units in the airwell are also not allowed.



 Allowable locations for A/C units at the back of the building

### Do you know?

HDB has specific requirements for A/C installation works:

- Air-conditioners must be installed by a BCA trained air-conditioner installer
- Submit the SP Services Ltd (SPSL) Form CS/5H endorsed by HDB to SPSL for testing of any new wiring
- You need to submit an installation report to the HDB Branch managing your flat within 14 days after installation. Alternatively, you can email the installation report to the HDB Branch.

You can find out more at HDB's website:  
<http://www.hdb.gov.sg/cs/infoweb/residential/living-in-an-hdb-flat/renovation/guidelines/air-conditioner-installation-works>

## Submission Procedure

### **Owners must obtain URA clearance and HDB permission before commencement of any works to the main façades.**

- 1) Before owners plan their renovation works, please refer to the “Guidelines” of this booklet (page 12 to 25) for the allowable works.
- 2) If the works affect the main facades (see page 3), submit proposal and obtain URA's clearance via e-Services. Please refer to the Step-By-Step Guide on page 27.
- 3) Submit proposal and obtain Renovation Permit from HDB
- 4) Carry out works only after approval has been obtained from URA and HDB.

**Important Note:** To prevent abortive work, please only carry out works after obtaining approvals from URA and HDB. You will be required to rectify the works carried out that do not comply with conservation guidelines.

Works to the main façades listed in this guide are mainly Category 3 Works. These are minimal and localised, and for the purpose of repair or restoration of the conserved flats.

Submissions for building works classified under Category 3 Works can be made by a Qualified Person (Registered Architect or Professional Engineer) or by owners or their contractors.

An application to URA is to be submitted online via:

### **URA e-Services (Apply for Category 3 Works for Conserved Buildings)**

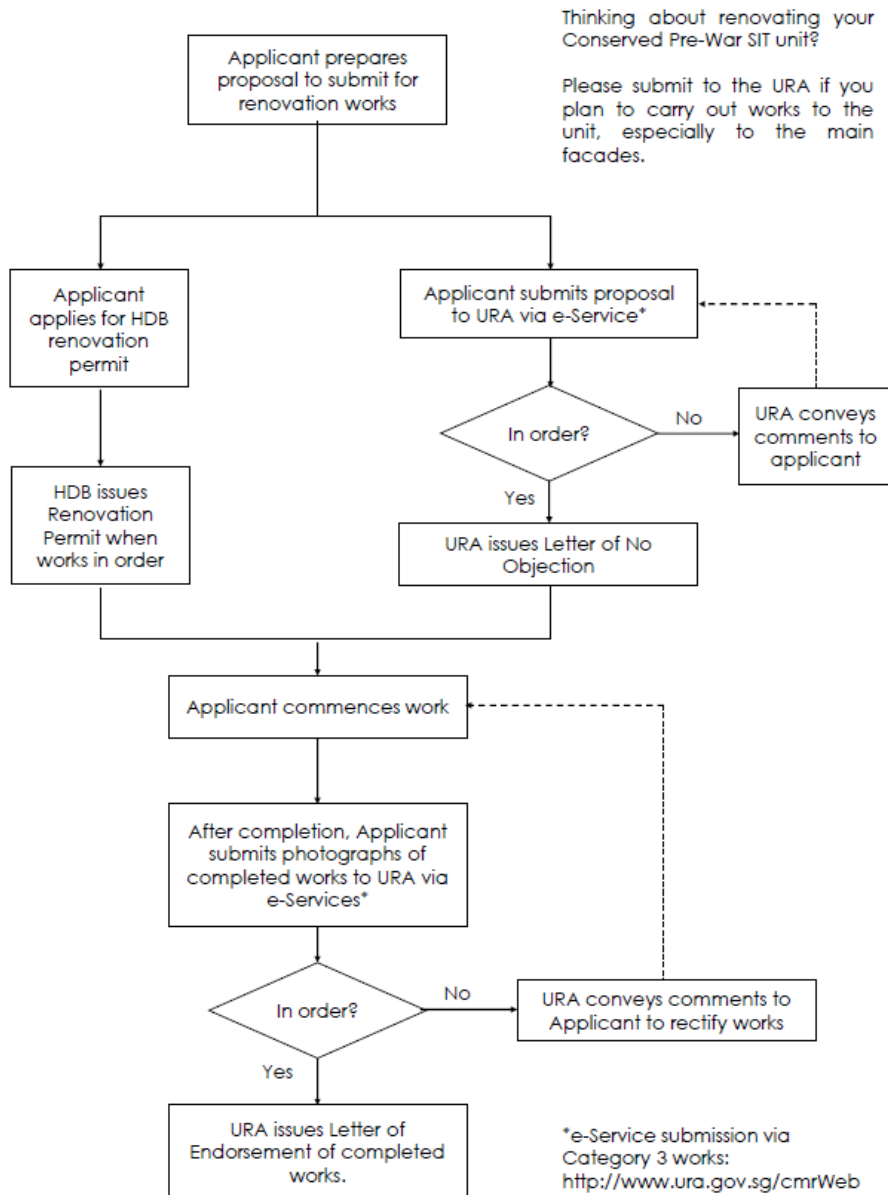
<https://www.ura.gov.sg/Corporate/E-Services/Conservation>

There are other types of work that require a formal submission to URA. These are classified as Category 1 and Category 2 Works.



# Submission Procedure

## Step-By-Step Guide



### Application to URA

Generally, we will require the following documents in order to evaluate your proposed renovation works:

- Photographs taken of the main façades with the extent of your unit marked out
- Standard HDB flat plan
- Proposed works drawn over original HDB flat plan with standard red (demolition) and blue (proposed) colour annotations
- Scaled elevation drawings & door/window schedule
- Owner's consent

### Application to HDB

All renovation works in your flat require an application for a Renovation Permit. This can be submitted electronically at: <http://www.hdb.gov.sg/myhdbpage>

More details about HDB's requirements at [www.hdb.gov.sg/cs/infoweb/residential/living-in-an-hdb-flat/renovation/applying-for-approval](http://www.hdb.gov.sg/cs/infoweb/residential/living-in-an-hdb-flat/renovation/applying-for-approval)

## Frequently Asked Questions

### Who can I contact to discuss works to my flat?

If you require any clarification, please send us an enquiry at: <https://www.ura.sg/contactus>

### What is meant by “retain”, “repair” and “reinstatement”?

*Retain* refers to keeping existing architectural features in situ, or in place. *Repair* involves fixing broken or faulty architectural features. *Reinstatement* means putting back in place a missing architectural feature or reversing an inappropriate past modification, to the original intended design and material.

### Where are commercial uses allowed?

The Master Plan shows the location of commercially zoned 1<sup>st</sup> storey premises. Please check the Master Plan online at: <https://www.ura.sg/masterplan>

### Who can I inform if there is water leakage at my roof?

Please inform Tanjong Pagar Town Council on estate maintenance such as water leakage at your roof or issues pertaining to the common areas.

### Who should I inform when selling my flat?

Please contact HDB Bukit Merah Branch for an appointment to inspect the unit.

The relevant agencies will check for unauthorised renovation works carried out to the flat before the sale and purchase can be completed. Owners will be required to rectify any unauthorised renovation works at the point of sale.

Works approved by HDB can remain for the purpose of the sale.

### What should I be aware of when buying a flat?

If the existing main façade of the flat has been modified and does not comply with conservation guidelines, you will be required to restore the architectural features when you carry out works as the new owner of the flat.

### Contact Information

#### Urban Redevelopment Authority Conservation Department

12<sup>th</sup> Storey  
45 Maxwell Road, The URA Centre,  
Singapore 069118  
Contact: <https://www.ura.sg/contactus>  
Website: [www.ura.gov.sg](http://www.ura.gov.sg)

E-Service for Category 3 Works:  
<https://www.ura.gov.sg/cmrWeb/>

Home Office Guidelines:  
<http://www.ura.gov.sg/uol/home-office>

#### Housing Development Board Bukit Merah Branch

Block 166 Bukit Merah Central  
#03-3529  
Singapore 150166  
Email: [bbmadmin@mailbox.hdb.gov.sg](mailto:bbmadmin@mailbox.hdb.gov.sg)

Renovation Guide:  
<http://www.hdb.gov.sg/cs/infoweb/residential/living-in-an-hdb-flat/renovation>

#### Tanjong Pagar Town Council

Block 166 Bukit Merah Central  
#03-3527  
Singapore 150166  
Phone: 1800 272 6415  
Email: [feedback@tptc.org.sg](mailto:feedback@tptc.org.sg)  
Website: <http://www.tptc.org.sg>

**For enquiries and feedback on this guide,  
please contact us at: <https://www.ura.sg/contactus>**

Office Address:  
Conservation Department  
12<sup>th</sup> Storey  
45 Maxwell Road, The URA Centre,  
Singapore 069118

Website: [www.ura.gov.sg](http://www.ura.gov.sg)



To make Singapore a great city to live, work and play in

Copyright, Urban Redevelopment Authority,  
Apr 2019 v1.1.