Conservation Guidelines

URBAN REDEVELOPMENT AUTHORITY

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

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PREFACE

This document provides the following:

a) Conservation principles, planning parameters and restoration guidelines for conservation buildings.

b) Planning parameters and envelope control guidelines for new buildings within conservation areas.

Owners, architects and engineers intending to carry out restoration works or development within conservation areas are required to comply with the guidelines accordingly.

This document is to be read in conjunction with the **Specific Façade Restoration Guidelines**, available for sale at the Customer Service Centre, 1st storey, The URA Centre at 45 Maxwell Road, Singapore 069118 or on-line through URA's website http://www.ura.gov.sg.

The following related publications are recommended as important references:

- **OBJECTIVES, PRINCIPLES AND STANDARDS FOR PRESERVATION AND CONSERVATION**

  This explains the concept and philosophy of preservation and conservation in Singapore and the framework within which creativity is encouraged to achieve quality restoration work.

- **PUBLICATIONS ON CHINATOWN, KAMPONG GLAM AND LITTLE INDIA HISTORIC DISTRICTS**

  This provides the conservation area boundary, the historical perspective, the key elements and the detailed architectural characteristics of the respective areas.

- **CONSERVATION TECHNICAL LEAFLETS**

  These explain the different aspects of conservation.

- **TECHNICAL SUPPLEMENTS TO CONSERVATION GUIDELINES**

  These address the practical aspects of conservation and share with readers the appropriate restoration techniques.

- **VIDEO ON "RESTORING THE SINGAPORE SHOPHOUSE"**

  This illustrates the best practices in restoring a conservation building.

- **ARCHITECTURAL HERITAGE SINGAPORE**

  This is a record of buildings in Singapore that have won the URA's Good Effort Awards in 1994 and the Architectural Heritage Awards from 1995 to 2004.

PART 1: OVERVIEW

1 INTRODUCTION

Historic buildings provide a valuable link to Singapore's heritage and conserving them is an important part of Singapore urban planning. So far, over 6,560 buildings have been gazetted for conservation. They are located mainly in the city centre and around its fringes, and comprise largely shophouses and bungalows.

CONSERVATION AREAS AND GUIDELINES

The conservation areas in Singapore fall into four distinct categories, and the conservation guidelines vary for each of these categories. See Key Conservation Area Map. The four categories are as follows :

Historic Districts

The four Historic Districts are Boat Quay, Chinatown, Kampong Glam and Little India. Most of the buildings in these areas are still intact, and the entire building has to be retained and restored.

Residential Historic Districts

For the Residential Historic Districts of Blair Plain, Cairnhill and Emerald Hill, a new rear extension lower than the main roof can be built for greater flexibility in adapting the building for modern living.

Secondary Settlements

Geylang and Joo Chiat are examples of Secondary Settlements where there are already many new developments. In these areas, the streetscape is to be retained and a new rear extension up to the maximum height allowed for the area can be built.

Bungalows

For bungalows, only the main house needs to be kept. The outhouse can be demolished to make way for new extensions to the main house. Large sites can be subdivided for additional new developments. For a site where flat or condominium housing development can be built, the bungalow can be used for residential purpose or as a clubhouse to serve the development.

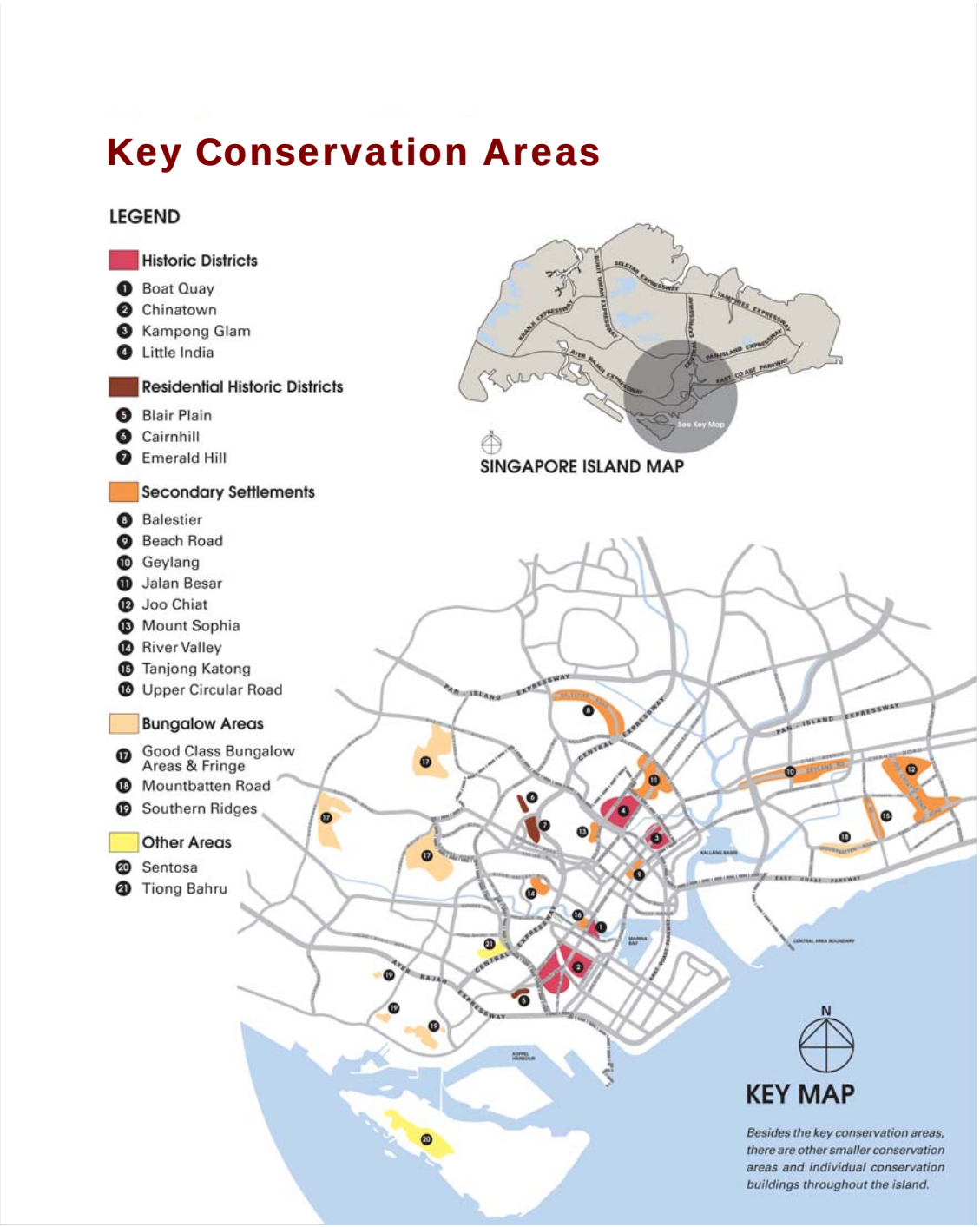
FACILITATING RESTORATION EFFORTS

The Government provides various forms of assistance to encourage private owners to restore their buildings. They include :

- waiver of development charge and car park deficiency charge, where applicable; and
- waiver of the need to provide car park lots where applicable.

Technical guidelines and standards are also drawn up to guide owners and professionals in restoring their buildings. Publications on conservation are produced to assist private owners to better understand the conservation principles and guidelines.

In addition, the government builds infrastructure and utilities to improve the environment of the conservation areas. Examples of these include pedestrian malls at Boat Quay to facilitate spillover of activities from the conservation buildings to liven up the areas.



2 CONSERVATION PRINCIPLES

Singapore's architectural history is the story of skilled craftsmen and architects who have invested in quality places for work and play. Old and new skills, past knowledge and current technologies all combine to bring the past back to productive life.

Quality restoration is more than just preserving a facade or the external shell of a building. It retains the inherent spirit and original ambience of historic buildings. It requires an appreciation and understanding of the architecture and structure of historic buildings, good practice and management.

2.1 THE "3R" PRINCIPLE

The fundamental principle of conservation applicable to all conservation buildings, irrespective of scale and complexity, is **maximum Retention, sensitive Restoration and careful Repair - the "3R"s**. Selective replacement should be considered only when absolutely necessary. Total reconstruction goes against accepted international conservation practices.

Conservation buildings are to be restored in accordance with the conservation guidelines. All original structural and architectural elements are to be retained and restored. In the event that such elements have to be repaired or replaced, their features are to be retained.

When upgrading and adapting a building to new uses, the existing structure is to be retained by strengthening and repairing the structural elements. Any alteration or strengthening to structural elements is to be done in the most sympathetic and unobtrusive way, using original methods and materials wherever possible.

Before any conservation work commences, a thorough research and documentation is to be carried out on the conservation building to ensure that restoration work is faithfully carried out. At every stage of the conservation work, the technical aspects and process of the various activities are to be documented.

2.2 APPLICATION TO THE VARIOUS CONSERVATION AREAS

In the Singapore context, conservation guidelines are applied in different degrees to the different groups of conservation areas taking into consideration their historical significance, the context of the surrounding developments and the long-term planning intention for each area. The extent of the building to be conserved and the degree of adaptation allowed are highlighted below.

The four main groups of conservation areas are:

* The Historic Districts of Boat Quay, Chinatown, Kampong Glam and Little India;
* The Residential Historic Districts of Blair Plain, Cairnhill and Emerald Hill;
* The Secondary Settlements of Balestier, Beach Road, Geylang, Jalan Besar, Jalan Jurong Kechil, Joo Chiat, Mount Sophia, River Valley, Tanjong Katong and Tiong Bahru; and
* The Bungalow Areas of the Good Class Bungalow Areas and Fringe (Chatsworth Park Conservation Area, Holland Park/Ridout Road Conservation Area and Nassim Road/Whitehouse Park Conservation Area) and the Mountbatten Road Conservation Area.

2.2.1 In the **Historic Districts of Boat Quay, Chinatown, Kampong Glam and Little India**, the entire building is to be conserved. Change of use to commercial or residential use is permitted in these historic districts. The strictest form of conservation is practised in these districts. The following may be introduced:

(a) A new jackroof.

(b) Skylight at the rear slope of the main roof and on rear secondary roofs.

(c) A roof mezzanine within the existing building envelope.

(d) A cover over the airwell.

(e) A cover over the rear court.

(f) New windows on the rear facade walls and the gable end wall.

(g) Addition of secondary doors and windows.

2.2.2 The **Residential Historic Districts of Blair Plain, Cairnhill and Emerald Hill** are smaller areas mainly for residential use. In view of the restriction in building uses, an extension at the rear lower than the main roof is permitted to make the terrace houses more attractive and liveable to suit the needs of the individual owners. The following may be introduced:

(a) A new jackroof.

(b) Skylight at the rear slope of the main roof and on rear secondary roofs.

(c) A roof mezzanine within the existing building envelope.

(d) A cover over the airwell.

(e) A cover over the rear court.

(f) New windows on the rear facade walls and the gable end wall.

(g) Addition of secondary doors and windows.

(h) An extension at the rear lower than the main roof.

2.2.3 Conservation within the **Secondary Settlements of Balestier, Beach Road, Geylang, Jalan Besar, Jalan Jurong Kechil, Joo Chiat, Mount Sophia, River Valley, Tanjong Katong and Tiong Bahru** is on a streetscape basis as the conservation buildings are adjacent to new developments. In these areas, the owners may choose to conserve the entire building or have a new rear extension up to the maximum height allowable for the area.

For the conservation shophouse, the following may be introduced:

(a) Natural colour, unglazed clay roof tiles of any size and profile.

(b) A new jackroof.

(c) Skylight at the rear slope of the main roof and on rear secondary roofs.

(d) A roof mezzanine within the existing building envelope.

(e) A cover over the airwell.

(f) A cover over the rear court.

(g) Change of the existing timber floors and staircases to reinforced concrete floors and staircases.

(h) New windows on the rear facade walls and the gable end wall.

(i) Addition of secondary doors and windows.

(j) A new rear extension up to the maximum height allowable for the area.

2.2.4 Conservation of bungalows within the **Good Class Bungalow Areas of Chatsworth Park, Holland Park/Ridout Road and Nassim Road/Whitehouse Park and Mountbatten Road Conservation Area** is on a highly selective basis. The selected bungalows represent the best of the bungalow housing stock in Singapore. The existing residential use shall be retained as these are attractive residential neighbourhoods which provide desirable residences. In the Good Class Bungalow Areas, the wooded environment is an important feature in the conservation of the bungalows.

For conservation bungalows located within a site which is allowed for flat or condominium development, the bungalow may be strata-subdivided into apartment units or converted to a clubhouse. In these areas, the owner may choose to conserve the entire building, including the outhouse, or just the main building to suit his needs and to optimise the use of land. In such cases, the following may be introduced:

(a) If the lot is large enough, subdivision of the rest of the lot for new development plots.

(b) New extensions to the sides or rear of the conservation building.

(c) Natural colour, unglazed clay roof tiles of any size and profile.

(d) A roof mezzanine within the existing building envelope.

(e) Addition of secondary doors and windows.

These guidelines are also applicable for detached buildings located in other conservation areas.

3 USE OF CONSERVATION BUILDINGS

Traditionally, shophouses are designed to provide for business premises on the ground floor and residential accommodation on the upper storeys; terrace houses and bungalows are designed purely for residential use. Structurally speaking, the original use is always the best use for a conservation building.

However, old buildings may often have to be restored and upgraded to meet modern living needs or to accommodate new uses. In restoring and adapting a conservation building to new uses, it is important to adhere to the conservation principle in order to retain the intrinsic character and historical value of the building. Alterations or strengthening of the building structure is to be done in the most sympathetic and unobtrusive way, using the original methods and materials wherever possible.

The restoration and adaptation of conservation buildings to new uses require an understanding of the behaviour of traditional buildings, traditional building construction methods, and how the buildings hold themselves together by the intricate interaction of the various elements.

4 UNDERSTANDING THE SHOPHOUSE

4.1 KEY ELEMENTS OF THE SHOPHOUSE

The conservation guidelines for shophouses and terrace houses relate to the key elements of the typology of the building.

Shophouses, an important building type in Singapore's architectural heritage, are narrow small terraced houses for business and living. Constructed between 1840 and 1960, these simple buildings are two- to three-storeys high, built in contiguous blocks with common party walls.

Quality restoration of a shophouse requires an appreciation and understanding of the architecture of the building.

In conserving a shophouse, the key elements to be respected are (See Figures 1 and 2):

(a) **Roofs**

Roofs are pitched and finished with overlapping V-profile or flat natural colour unglazed clay tiles, laid on timber battens and bonded with mortar. Where the tiles end at the edge of the front and rear shophouse roofs, they are often covered with a timber fascia complete with galvanised iron gutters and downpipes. Roofs are waterproofed using bituminous asphalt, galvanised iron flashing and copings.

(b) **Party Walls**

Party walls are principal load-bearing walls which demarcate one shophouse from its neighbour. The party walls normally protrude approximately 30cm above the roof of the shophouse and break the continuous length of the shophouses into individual lots.

Party walls are constructed of bricks laid out in continuous stretcher bond courses. The internal surfaces of the party walls are usually unpierced and unadorned. To ensure structural stability, the base of the party wall is thickened to transfer the dead-load to the base of the foundation.

(c) **Timber Structural Members**

The timber structural members include the main timber beams, the secondary timber beams, the timber floor boards and the timber rafters. The main timber beams are key horizontal structural members that run parallel to the facade, spanning from one party wall to the other. They are usually made of chengal, a hardwood timber which is resistant to the dead-load transferred from upper floors.

The secondary timber beams supporting the timber floor boards for the upper floors serve as horizontal structural members to evenly distribute the dead and live load from the upper floors to the party walls. The timber floor boards are thin horizontal structural members laid horizontally on the secondary beams and joined to one another by the traditional tongue and groove method. Timber rafters are inclined structural members supporting the pitched roof. They are in turn supported by timber purlins or roof beams spanning between the party walls.

(d) **Airwells**

Airwells are positioned between sections of the tiled roofs. They open directly to the sky to provide natural ventilation and lighting to the interior. The airwells lend interest to the spatial experience of shophouses by offering alternating naturally-lit spaces.

(e) **Rear Court**

The rear court is an open space at the back of the shophouse bounded by the rear boundary wall, the service block, the rear facade of the main part of the shophouse and the party wall. The juxtaposition of these elements produces several different rear court configurations.

The windows in the walls facing the rear court allow light to penetrate into the interior of the shophouse. They are normally casement windows of a design compatible with the windows on the front facade. The existing doors on the rear facade are either timber doors or original metal (mild steel) doors.

(f) **Timber Windows**

Shophouse windows include the timber windows of a French or casement design. French windows, found on the upper storey facade, are full-height, side-hung and double-shuttered, and may feature transom windows or fanlights above them. The timber post and rail or cast iron balustrades are part of the original design of the French windows. Casement windows are only half the height of French windows, with openings starting at the balcony rail height. Casement windows on the first storey, unlike those on the upper storeys that swing outwards, always open inwards and are recessed to allow for installation of security devices.

(g) **Timber Staircase**

Internal staircase arrangements vary between shophouses and range from straight and dog-leg designs to curved quarter and half-turn designs. Balusters and newel posts are often ornately detailed and reflect early Dutch influences. Handrails are made of polished hardwood. The retention and restoration of the original staircase is encouraged.

(h) **Front Facade**

The shophouse facade has five distinct elements:

The **Upper Floor** that projects over the five-foot way to form a covered pedestrian arcade.

The **Columns** at the front of the building that form the five-foot way colonnades and support the upper floors.

The **Five-foot Way** which serves as a sheltered space for social activities and for circulation. It is an important element that contributes to the experience of walking through a conservation area. The elements that contribute to the experience are the floor, colonnade, residential or shopfront and the ceiling. In order to retain the traditional character of the five-foot way, the original height of the covered walkway, the design and size of the columns are to be retained.

The retention or reintroduction of the traditional materials and finishes of the five-foot way is encouraged. Traditional finishes for the five-foot way floors include cement screed, terra cotta tiles, clay tiles, cement terrazzo, mosaic, marble-chip terrazzo or granite slab. The five-foot way often features granite edging parallel to the road side drain and granite steps. Tile patterns used on the five-foot way are sometimes repeated on the front wall of the shophouse either ending as a skirting or under the window to form a decorative wall.

Where the existing floor finishes are not original, traditional materials are to be considered. The selection of the floor finishes preferably matches the architectural style of the shophouses. For instance, it is common for Early Style shophouses to have red-coloured cement screed with gridded rope indentations and granite edge slabs. Art Deco shophouses may have marble-chip terrazzo finish in a variety of colours or mosaic finish. It is untraditional for five-foot ways to be finished in ceramic tiles or slate.

The **Timber Windows** on the upper storeys are evenly spaced across the facade and are either French windows or casement windows with timber shutters, louvred shutters are hinged on the timber window frames.

The **Roof** is finished with natural colour unglazed V-profile or flat clay tiles complete with a timber fascia and galvanised iron gutters and downpipes. The pitched roofs are supported by timber purlins which are set onto the load-bearing party walls.

The Shophouse Styles comprise the Early Shophouse Style, First Transitional Shophouse Style, Late Shophouse Style, Second Transitional Shophouse Style and the Art Deco Shophouse Style. The shophouse facade features one of these five basic styles. Within each of these styles, the first storey may be a residential front or an open shopfront.

Shophouses with residential fronts at first storey level are characterised by a double-leafed timber door flanked on both sides by timber casement windows, or by two double-leafed timber doors and a timber casement window. The main door often has a pair of half-doors, known as 'pintu pagar', which are often intricately carved. The timber-framed windows usually have timber-panelled shutters, which open inwards and vertical iron security bars.

Shophouses with shopfronts at the first storey level have a range of traditional features including demountable timber shutter boards, timber or metal sliding and folding doors, or glass display cases. Access doors are incorporated into the shopfronts and these may be single or double-leafed, glazed or timber-panelled, louvred or of rail and stile design. In restoring the shopfront, the use of one of these traditional options is encouraged.

Some residential terrace houses also feature a **Forecourt**. The forecourt is an important feature that gives spatial and green relief to the usual narrow street that is lined with traditional houses. Where it exists, it is to be retained and restored. The proportion and ornamentation of the wall and gate of the forecourt are preferably to be restored to their original expression. These include the coping, lamps, gate posts and entrance canopy.

The conservation guidelines advocate retention, restoration and repair of these main features so as to retain the key characteristics of the traditional shophouse. In adapting the building to suit modern day needs, in some areas, the rear of the building has to be set back for the reinstatement or introduction of the rear service lane and a new rear extension may be permitted.

5 UNDERSTANDING THE BUNGALOW

5.1 KEY ELEMENTS OF THE BUNGALOW

The conservation guidelines for bungalows are directly related to the typology of the building.

Large bungalows, the majority of which were built prior to World War II, are a significant part of Singapore's heritage. Bungalows are independent dwelling units which are usually one- or two-storeys high. They were first introduced into Singapore and Malaya by the British in the 1830s. They tend to be located in serene and wooded environments away from the hustle and bustle of the city.

Quality restoration of a bungalow requires an appreciation and understanding of the architecture of the building.

Bungalows in Singapore normally consist of the main building which houses the main living and dining areas and the bedrooms. An outhouse is normally part of the original design. It is linked back to the main building and houses the kitchen, toilets and servants' quarters.

In conserving a bungalow, the key elements to be respected are as follows:

(a) **Roofs**

(b) **Structural Members**

(c) **The Facades of the Building**

(d) **Doors and Windows**

(e) **Significant Interior Features Including Staircases, Decorative Mouldings, Double Volume Spaces, etc**

The design and material of the bungalows vary according to the architectural style of the building. Singapore bungalows fall into five styles. They are the Early Bungalow, the Victorian Bungalow, the Black & White Bungalow, the Art Deco Bungalow and the Modern Bungalow.

The conservation guidelines relate to the main features of each bungalow type with the retention of retaining the key characteristics of the conservation bungalow. In adapting the building to suit present day needs, the outhouse may be demolished and new extensions may be permitted for additional floor area and greater flexibility of use of the building and the site.

PART 2: PLANNING PARAMETERS AND RESTORATION GUIDELINES

2.1 HISTORIC DISTRICTS

The Historic Districts of Boat Quay, Chinatown, Kampong Glam and Little India are characterized by predominantly two- and three-storey shophouses, ranging from the Early Shophouse Style to the Art Deco Shophouse Style

- ### BOAT QUAY

  The Boat Quay Historic District, bounded by South Bridge Road, Circular Road, Lorong Telok and North Canal Road, was traditionally the centre of trading activities along the Singapore River.

  Located next to the Downtown Core, its shophouses and warehouses, which lined the river, give it a unique charm and character. Today, it is an area with predominantly commercial premises of retail and eating establishments.

- ### CHINATOWN

  The Chinatown Historic District, located south of Singapore River, is the original settlement of the Chinese community in Singapore. It is a largely intact area of shophouses with original texture and fabric, depicting the simple lifestyles of the early immigrant community. The District comprises 4 sub-districts, each with a distinctive character. They are:

  * Kreta Ayer, bounded by New Bridge Road, Park Road, Upper Cross Street, South Bridge Road, Sago Street, Trengganu Street and Smith Street, is known for its bustling street atmosphere and festive events.
  * Telok Ayer, bounded by South Bridge Road, Cross Street, Boon Tat Street, Stanley Street, McCallum Street, Amoy Street, Ann Siang Road and Erskine Road, is associated with long rows of shophouses and religious buildings along Telok Ayer Street, and hilly residential and club houses at Ann Siang Hill.
  * Bukit Pasoh, bounded by New Bridge Road, Keong Saik Road, Kreta Ayer Road, Neil Road and Cantonment Road, provides the setting for a mixture of residential, association and commercial activities.
  * Tanjong Pagar, bounded by Neil Road, Maxwell Road, Peck Seah Street, Wallich Street, Tanjong Pagar Road and Craig Road, features winding streets and a mixture of residential and commercial activities.

  There are altogether five national monuments within the Chinatown Historic District. They are the Sri Mariamman Temple and Jamae Mosque in Kreta Ayer, and the Thian Hock Keng Temple, Nagore Durgha Shrine and Al-Abrar Mosque in Telok Ayer.

- ## KAMPONG GLAM

The Kampong Glam Historic District, bounded by Ophir Road, Victoria Street, Jalan Sultan and Beach Road, was traditionally a Malay residential area with ethnic-based activities at the periphery and along Arab Street. Its unique characteristic lies in the contrast between its streetscape, with its low and uniform scale, and the large open spaces of the palace grounds.

It is largely an area of shophouses with original texture and fabric. The presence and influence of the Arabs in the early 1910s were registered by the names allocated to its streets.

The Sultan Mosque, a national monument, is located within the Kampong Glam Historic District.

- ## LITTLE INDIA

The Little India Historic District, bounded by Serangoon Road, Sungei Road and Jalan Besar, is recognised as the hub of Indian community life in Singapore. It is well patronised by local Indians and people of other ethnic origins, and Indians from abroad. It was once used for agriculture and later for cattle trade.

The District's historical value lies in its rich variety of buildings, streetscape and urban texture of its main streets, side roads, backlanes and open spaces. Most of its built fabric of the late 19th century or early 20th century is still largely intact.

The Abdul Gaffoor Mosque, a national monument, is located within the Little India Historic District.

2.1.1 PLANNING PARAMETERS

2.1.1.1 Conservation Plan

The plans (Appendix III) show the boundary of the conservation areas, the core areas, the buildings to be conserved, the residential fronts to be retained/restored, national monuments to be preserved and the envelope control sites. For buildings to be conserved, the entire building is to be restored in accordance with the conservation guidelines. Vacant lands and buildings not designated for conservation can be redeveloped subject to envelope control guidelines.

2.1.1.2 Building Use

The use shall follow the Master Plan intention for the respective areas. Residential and institutional use can be considered for sites zoned Commercial.

Hotel use can only be considered if approval is obtained from the Fire Safety and Shelter Department (FSSD), or other relevant technical agency.

Predominant storage use is not allowed. Storage use on part of a floor is allowed if it is an ancillary function.

In Chinatown, Kampong Glam and Little India, certain streets are located within the designated core area. The core area is the part of the historic district where the focal point of ethnic activities are located. It is, therefore, important that the ethnic ambience is retained.

The first storey in the core area has to be for shops or eating establishments. Certain trades are not permitted in the Historic Districts and the core areas. (See Appendix IA for Incompatible & Pollutive Trades and Appendix IB for Location of Core Areas).

2.1.1.3 Plot Ratio

The allowable plot ratio shall be the resultant of the building envelope.

2.1.1.4 Building Height

The original building height is to be retained.

2.1.1.5 Building Profile

The original building profile is to be retained. If it has undergone unauthorised alterations, the original profile is to be reinstated.

2.1.1.6 Development Charge

Under the Planning Act, development charge, equivalent to the difference between the Development Baseline and the Development Ceiling for that land, is payable in respect of any development of the land or when there is a change in the use of the land or building.

Exemption from payment of development charge, if applicable, is given in respect of the *value enhancement arising from the proposed use or use changes on the gross floor area for the building or part thereof on the land to be conserved* provided that such conservation is carried out in accordance with the approved plans and completed within a period of 2 years from the date of conservation permission.

2.1.1.7 Carparking

Provision of car parks or payment of car park deficiency charge for a conservation building is waived if the conservation guidelines are fully complied with and the conservation works are completed in accordance with the approved plans.

2.1.1.8 Strata Subdivision

Modern conservation buildings in the Historic Districts can be strata subdivided if the buildings meet the following criteria:

(a) Original purpose-built compartmentalized common staircase designed to serve different floors;

(b) Staircase forms part of the external architectural expression; and

(c) Original reinforced concrete floors and structures.

To ensure that the building will continue to be properly maintained by the multiple owners, there must be at least three strata units so that a Management Corporation will be formed under the Land Titles (Strata) Act to oversee the maintenance of the building.

[Amendment History: Circular No. URA/PB/2004/37-CUDD dated 6 Dec 2004]

2.1.2 RESTORATION GUIDELINES

Key Elements Subject To Mandatory Compliance

The following tables specify the design, location and material for all key elements. The fundamental principle, the "**3R**", is **maximum Retention, sensitive Restoration and careful Repair**. Replacement, if any, is to follow the original design and materials. New installation/addition must not drastically affect the intrinsic character of the building. Items where design and material can vary are listed in Appendix II.

Where applicable, the requirements of the relevant technical departments are to be complied with. Owners are also required to obtain the consent of the relevant parties for roof eaves, canopies and projections of any nature beyond the site boundary.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A. Roofs	
A1. Structure	For the majority of conservation shophouses with pitched tile roof, the timber structural members include the timber rafters and purlins. Timber rafters are inclined structural members which support the pitched roof. They are in turn supported by timber purlins and roof beams spanning between the party walls. The roofs are finished with overlapping V-profile or flat natural colour unglazed clay tiles laid on timber battens and bonded by mortar. Structural strengthening or supports like reinforced concrete roof beams, if required to be added, are to be sensitively designed to minimise visual impact on the traditional timber system which is to be retained.
A2. Main Roof and Rear Secondary Roof	The original profile, pitch, height, party wall and eaves projection are to be retained and restored. Traditional roofing material of small size, V-profile, unglazed, natural colour clay roof tile is to be used. Flat, interlocking clay roof tile and reinforced concrete can only be used if the existing roof is of those materials. The underside of roof eaves can be exposed or covered with plasterboard.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A3. Jackroof	Existing jackroof, if any, can be retained or removed. New jackroof can be added subject to compliance with the positioning, setbacks and maximum allowable dimensions. See Figure 1 Roof tile is to be identical to that of the main roof. Sidewall is to be solid and finished with plaster or timber/plasterboard. Front and rear openings can be fixed or openable of any infill material. If metal is used, it is to be dark anodised or colour coated.
A4. Skylight	New skylight can be added on the rear slope of the main pitched roof and on secondary pitched roof. The area of the skylight cannot exceed 30% of the subject slope of the pitched roof. New skylight can also be added on a conservation building with flat roof. While the design, treatment and materials used can vary, the height cannot exceed 1m, which is the typical roof parapet height, so that the skylight is not visible from the street level. The skylight area is to be computed as part of the 35% coverage allowable for new single storey structure on the flat roof (see item A7). Skylight is to be of transparent or translucent material on framework of timber or metal - painted or anodised or colour coated. The design, treatment and material used can vary. It can consist of glass louvres, retractable panels or even solar panels. To minimise disruption to the roofscape, the skylight cannot be an opening or void without cover.
A5. Dormer Window	Dormer window is not allowed.
A6. Use of Existing Flat Roofs	Existing flat roof can be landscaped to add interest to the roofscape. It can also be converted into usable space as an extension of the existing building. For example, if the building is used as a restaurant, the rooftop can be for outdoor dining. To meet technical department's requirements, railings of compatible design and material can be added.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A7. Structures on Existing Flat Roofs	To enable access to and use of the rooftop, new structure can be added subject to the height control of the respective conservation area. Such new structure has to comply with the following guidelines: (a) Material, Roof Form & Storey Height The structure can be of reinforced concrete or lightweight material with flat roof and single-storey in height not exceeding 3600mm. The design and treatment are to be compatible with the architecture of the conservation building. (b) Coverage The total coverage of all existing and new structures on the flat roof, including skylight but excluding moveable cover like umbrella structure and retractable awnings, cannot exceed 35% of the flat roof area. All service installations on the roof are to be grouped together and included in the 35% allowable coverage for structure on flat roof. (c) Setback The new structure is to be set back a minimum of 3m from the front and side street elevations so that it is not visually obvious from the street. Setback is not required from party wall and backlane. See Figure 2
B. Forecourt	
B1. Enclosure	The original size and ornamentation on the wall and gate are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C. Front / Side Façade	
C1. Residential Front	The original residential front is to be retained for selected street blocks as shown in Appendix III. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The following guidelines are applicable to a conservation building allowed for non-residential use: (a) The original 2 windows and 1 door first storey residential front can be changed to 2 doors and 1 window. The design and material of the new door are to match those of the original one. (b) The original timber infill panel of the first storey casement windows and doors can be replaced with clear glass. (c) Alternatively, fixed frameless or timber framed glazed panels can be added instead of secondary windows, and frameless glass doors can be added as secondary doors while the original timber windows and doors are retained and restored. This gives owners another option to keep the original architecture of the conservation building while achieving greater transparency and climatic control of the internal space.
C2. Shopfront	Design and material can vary except for selected street blocks where the original shopfront is to be retained, such as the 32 units at Bussorah Street in Kampong Glam Conservation Area as shown in Appendix III. To refer to "Specific Facade Restoration Guidelines" of the respective building.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C3. Fanlights, Windows, Doors and Vents, and Balconies or Verandahs	The original fanlights, windows, doors, vents, balconies and verandahs are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The balcony or verandah is to be kept open and not enclosed with window or fixed glazing. The inner facade behind the balcony or verandah is also to be retained and restored. The windows of the inner façade can be changed to doors for better access to the balcony or verandah. The design and material of the new door are to match those of the original one. New internal elements such as staircase landing, wall and partition cannot abut the original window or door openings and vents. Security bars at windows and doors, if any, can be retained or removed. New security bars of traditional design and material can be added. Existing mild steel frames of doors, windows and vents can be changed to powder coated aluminium frames of similar appearance as the mild steel frames.
C4. Balustrades for French Window	The original balustrade for French window is to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.
C5. Secondary Windows and Doors	New secondary casement, French or sliding window and door can be added subject to the design being compatible with those of the main window and door. The frame can be of any material. If metal is used, it is to be dark anodised or colour coated. However, owners are encouraged to use timber frames as they are more compatible to the architecture of the conservation buildings. The infill can be of timber or glass. Tinted, coloured and obscure glass can be used. Frameless fixed glass panels cannot be used in place of secondary windows on the upper storeys of a conservation building as they will lead to difficulty in accessing and maintaining the original windows. See Figure 3

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C6. Window Screen	Existing window screen, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New window screen can be added and the design is to be traditional. The frame is to be timber and the infill may be timber or obscure glass.
C7. Decorative Features	The original decorative features, if any, are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.
C8. Pintu Pagar	Existing pintu pagar, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New pintu pagar can be added and the design is to be traditional. The frame is to be timber and the infill is to be of traditional materials i.e. timber and obscure glass.
C9. Canopy	Original tile canopy, if any, is to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New tile canopy can be added at 2nd storey floor level. Traditional roofing material of small size, V-profile, unglazed, natural colour clay tiles identical to those of the main roof or green glazed Chinese clay tiles can be used. See Figure 4 Retractable awning can be added at 2nd storey floor level. It is to be sensitively installed under or at the main beam, and not cover or block any key architectural features. See Figure 5

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C10. Dado Tiles	The following guidelines are applicable to a conservation building with dado tiles: (a) If the tiles are intact, the original tile panel is to be retained. (b) If there are cracked or missing tiles, (i) Leave the tile panel as it is, (ii) Replace the missing tiles with tiles matching the original tiles, or (iii) Patch up the gaps with colour cement to match the colour of the tiles. (c) If the majority of the tiles are damaged or missing, (i) Remove the tile panel if tiles of matching design cannot be found, or (ii) Replace the tile panel totally with tiles of the same genre as the original tiles.
C11. Timber Surfaces	Timber surfaces can be either painted or stained.
C12. Shanghai Plaster Finish	For a building with existing unpainted Shanghai plaster finish, the finish is to be retained and restored. If the Shanghai plaster finish is already painted over, then the building can be repainted although the owner is encouraged to remove the paint work and revert to the original Shanghai plaster finish.
C13. Fair-faced Brickwalls	For a building with existing unpainted fair-faced brickwalls, the fair-faced brickwalls are to be retained and restored If the fair-faced brickwalls are already painted over, then the walls can be repainted although the owner is encouraged to remove the paint work and revert to the original fair-faced finish.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
D. Five-Foot Way	
D1. Floors	The level of the five-foot way is to match the adjacent units and open walkway where possible. Where the difference in level is not more than 175mm, a ramp is to be provided. The gradient of the ramp cannot be steeper than 1:10. The flooring can be of any material provided it does not have a highly polished gloss finish. As shophouses are typically under different ownership and restored at different times, an owner has the following options: (a) Liaise with neighbours to level the ramp. (b) Provide gradual ramps. (c) Keep the existing step if the adjacent units are not restored. See Figure 6
D2. Ceiling	Exposed upper floor structure of timber boards and timber joists is preferred. Existing exposed reinforced concrete floor above, if any, can remain. False ceiling of timber frame and plaster timber board, not lower than the front façade beam, can be added. Variations in design and use of alternative compatible material can also be added at the main entrance.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
E. End Gable Wall	
E1. Windows, Doors and Vents	Existing openings such as casement windows, doors and vents, if any, can be retained or sealed up. New openings, casement windows, doors and vents can be added subject to retention of the solid and void expression of the end gable wall. The design and material of the new windows and doors are to match those of the front façade upper storey windows. To refer to 'Specific Facade Restoration Guidelines' of the subject building. Vents can be of any material. If metal is used, it is to be dark anodised or colour coated. See Figure 7 New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
E2. Canopies	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material, similar to that of the main roof. See Figure 7
F. Rear Facade Of Main Building	
F1. Window Facing Rear Court	The original windows facing the rear court can be retained and restored, or changed to French windows subject to the design and material matching those of the front facade. See Figure 8 New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.
F2. Vents	Existing vents, if any, can be retained or removed. New vents of any material can be added. If metal is used, it is to be dark anodised or colour coated.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
F3. Canopies	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material, similar to that of the main roof.
G. Rear Service Block	
G1. Windows and Openings Facing Rear Court	Existing windows and openings, if any, can be retained and restored. New casement and French windows with or without brickwall between windows, can be added subject to the design and material matching those of the front façade upper storey windows. Existing openings can also be infilled with grilles. If metal is used, it is to be dark anodised or colour coated. See Figure 9 New internal elements such as staircase landing, wall and partition cannot abut the original window openings and vents.
G2. Vents	Existing vents, if any, can be retained or removed. New vents of any material can be added. If metal is used, it is to be dark anodised or colour coated.
G3. Canopies	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material similar to that of the main roof.
H. Rear Court	
H1. Roof	A new roof of any profile can be added over the rear court, provided the roof is not higher than the 2nd storey floor level. Jackroof and skylight can be introduced in the new roof which can be reinforced concrete, light weight material or same roof material as the main roof. If metal is used, it is to be dark anodised or colour coated. Reinforced concrete flat roof can be used as a roof garden and landscape furniture can be considered. The rear boundary wall can be raised up to the sill height of the 2nd storey windows to form a parapet. The space along the parapet can be used to house condensing units. See Figure 10

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
H2. External Staircase	External staircases within rear courts are distinctive architectural features of the conservation buildings. Owners are encouraged to keep them so as to contribute to the charm and character of the area. However, existing external staircase, if any, can be retained or removed. New external staircase of any material can be added. If metal is used, it is to be dark anodised or colour coated. For selected streetblocks where the external staircases are intact, they will be required to be kept and their function as secondary access routes can be retained. These street blocks are Nos. 15 to 43 (odd nos. only) Tanjong Pagar Road in the Tanjong Pagar Conservation Area.
I. Rear Boundary Wall	
I1. Wall Height	The original height of the wall is to be retained, except when the rear court is to be roofed over and the wall has to be raised up to the 2nd storey floor level to give sufficient headroom. The wall can also be raised to the sill height of the 2nd storey windows to form a parapet if it is required to meet the minimum parapet height for roof terrace over the rear court or for screening of condensing units. See Figure 10
I2. Windows and Vents	At upper storeys, new vents and casement windows can be added subject to the design and material matching those of the front façade upper storey windows. At the 1st storey, only vents and high level windows can be added. Vents can be of any material. If metal is used, it is to be dark anodised or colour coated. The frames of high level windows are to match those of the upper storey front façade windows and the infill can be glass. New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.

RESTORATION GUIDELINES HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
I3. Doors	Existing door position can be retained or changed. The doorway can be enlarged subject to a width of not more than 1800mm. Timber or metal can be used. If metal is used, it is to be dark anodised or colour coated.
I4. Canopy	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material, similar to that of the main roof.
J. Airwell	
J1. Size	The original size and location is to be retained and restored
J2. Roof	A new roof of any profile can be added over the airwell, provided the roof is lower than the eave of the main roof. No other above ground structure or slab is to be added within the airwell space. Light weight transparent or translucent roof covering is to be used. If metal framework is used, it is to be dark anodised or colour coated. See Figure 11
J3. Windows	The original windows are to be retained and restored. New casement/French windows can be added subject to the design and material matching those of the front façade upper storey windows. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.
J4. Enclosure	Original decorative or ornamental features, if any, at the airwell are to be retained and restored. The existing windows/openings in only one of the three sides of the airwell, excluding the existing party wall, can be fully walled up.

RESTORATION GUIDELINES HISTORIC DISTRICTS		
Key Internal Elements		**Design / Location / Material**
K.	**Floors**	
K1.	**Structure**	For the majority of the conservation shophouses, the structural members include the timber main beams, the timber floor joists and the timber floor boards. The timber floor joists which support the timber floor boards for the upper floors also serve as horizontal structural members that help to evenly distribute the dead and live load from the upper floors to the party walls. The timber floor boards are thin horizontal structural members laid to one another by the traditional tongue and groove method. Horizontal and/or vertical structural supports, if required to be added, are to abut the party walls to minimise impact on the existing structural system which is to be retained. For original reinforced concrete framed buildings, the original structural grids are to be retained. New columns, if required to be added, are to align with and respect the original grids. Provided the structural integrity of the building is not compromised, flexibility to shift some columns to meet the specific operational/ functional requirements can be considered on a need-to basis.
K2.	**Upper Storey Levels**	The existing level, timber floor and structural system are to be retained and restored. If the existing floors are reinforced concrete, the same material can be retained. Voids up to 25% of the floor area of each floor, can be introduced. For wet areas eg toilets and kitchen, reinforced concrete floor can be used.
K3.	**1st Storey Level**	The existing floor level can be raised to meet the minimum platform level required by the relevant technical department. Part of the existing level can be lowered for landscaping/ponds.
K4.	**Basement**	New basement is not allowed.

RESTORATION GUIDELINES HISTORIC DISTRICTS		
Key Internal Elements		**Design / Location / Material**
L.	**Party Wall**	
L1.	**Structure**	Party walls are principal load-bearing walls which are constructed of brick laid out in continuous stretcher bond courses. The internal surfaces of the party wall are usually unpierced and unadorned. To ensure structural stability, the base of the party wall is thickened to transfer the dead-load to the base of the foundation.
L2.	**Openings**	The first 3-metre length of the load-bearing party wall perpendicular to the 1st storey shopfront is to be retained as it is the minimum length required to retain the fine-grained character of the shophouses meaningfully. Slight reductions or variations within the first 3m can be considered on a need-to basis. Openings in the load-bearing party walls can be introduced, provided the total width of the openings is less than 50% of the total length of the party wall within the building envelope. For original reinforced concrete framed buildings, there is no control on party wall openings and the first 3-metre length of the party wall perpendicular to the 1st storey shopfront need not be retained.
M.	**Staircase**	Existing staircase can be retained, removed or relocated. New staircase to replace or supplement the existing one is to be constructed in timber or metal if the building has timber floors. The layout and railing design of the new staircase can vary. Reinforced concrete staircase, only if existing, can be retained. New staircase cannot abut any door or window openings or vents at the front, side and rear facades, airwell, rear service block or end gable wall.

RESTORATION GUIDELINES		
HISTORIC DISTRICTS		
Key Internal Elements		**Design / Location / Material**
N	**Roof Mezzanine**	New roof mezzanine can be added within the building envelope. The new floor level is to be set back: (a) A minimum of 1500mm from the inner face of the front facade wall if it is not lower than the top of the window/fanlight at the front facade of the uppermost storey. (b) A minimum of 2500mm from the inner face of the front facade wall if it is lower than the top of the window/fanlight at the front facade of the uppermost storey. If the front façade has an existing balcony, it is not necessary to set back the new floor. The floor cannot abut any window/door or transom/fanlight. Minimum headroom and floor area are subject to compliance with the requirements of relevant technical departments. Traditional material of timber floor boards on timber joists are to be used. Reinforced concrete can be used only if the existing uppermost floor is of the same material. See Figure 12

RESTORATION GUIDELINES HISTORIC DISTRICTS		
Mechanical & Electrical and Others		**Design / Location / Material**
O.	**Flue**	Existing masonry flue, if any, can be retained, repositioned or removed. New flue can be added. Repositioned or new flue is to be located in either the rear slope of the main roof or the rear secondary roofs or abutting the wall of rear facade/rear service block within the rear court. It can also abut the rear service block wall of the adjacent unit. The roof of the flue can be pitched or flat and is to be lower than the ridge of the main roof See Figure 13 All external walls are to be of plastered brick or plaster board, and the roof to be unglazed natural colour clay tiles of profile identical to the main roof or of reinforced concrete. Alternatively, metal flues can be exposed and painted the same colour as the background wall. The use of electrostatic air cleaning system is encouraged.
P.	**Exhaust Fan**	Exhaust fan is to be placed at the rear facade or rear service block facing the rear court. Any material can be used. If metal is used, it is to be dark anodised or colour coated.
Q.	**Lift Shaft**	Lifts can be added, provided the shaft is on the rear slope of the main roof or on the secondary roof and lower than the roof ridge of the main roof.
R.	**Conduits and Pipes**	Rainwater downpipes, gas pipes and air-condensing conduit pipes can be mounted on the surface of the rear wall. The air-condensing conduit pipes are to be properly encased and neatly laid out. All other utility/conduit pipes are not to be mounted on the surface of the external walls, unless specifically required by the relevant technical departments. Exposed lightning tape and conductor are to be installed at a location least obtrusive from the front exterior.

RESTORATION GUIDELINES HISTORIC DISTRICTS		
Mechanical & Electrical and Others		**Design / Location / Material**
S.	**Air Conditioning System**	Condensing units are to be integrated within the building envelope at the rear in a recess created within the rear boundary wall, or an opening created within the roof of the rear service block. The opening is to be properly screened. If metal is used for the screening, it is to be dark anodised or colour coated. See Figure 14 However, due to practical constraints in integrating the units within the building envelope and the differing needs of tenants and users, the condensing units can be neatly or compactly placed at the rear and lined along the parapet, party walls or rear service block walls. The units are to be screened unless they are small and not visible from the street level. See Figure 15 Other locations for placing the condensing units can be considered on the merits of each case if there are particular site constraints, eg when the conservation building is “back-to-back” with another building. **Note**: These guidelines will be applicable when restoration works are carried out to unrestored conservation buildings and when standard additions and alterations (A&A) works are carried out to restored buildings.
T.	**Rooftop Mechanical & Electrical Plants and Services**	Mechanical & electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.

2.1.3 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 15)

- Figure 1: Jackroof
- Figure 2: Allowable Structures on Existing Flat Roofs
- Figure 3: Secondary Windows
- Figure 4: Canopy
- Figure 5: Retractable Awning
- Figure 6: Five-Foot Way Floors
- Figure 7: End Gable Wall
- Figure 8: Rear Façade of Main Building
- Figure 9: Rear Service Block
- Figure 10: Rear Court and Rear Boundary Wall
- Figure 11: Airwell
- Figure 12: Roof Mezzanine
- Figure 13: Flue
- Figure 14: Condensing Units Integrated within Building Envelope
- Figure 15: Condensing Units Placed at Rear Parapet and Walls

2.2 RESIDENTIAL HISTORIC DISTRICTS

The historic buildings in Blair Plain, Cairnhill and Emerald Hill Conservation Areas are predominantly two-and three-storey terrace houses which stand in contrast to the neighbouring new and modern high-rise developments. Their low-rise urban form coupled with their narrow streets and architectural significance gives a streetscape not commonly found in Singapore.

- **BLAIR PLAIN**

  The Blair Plain Historic District, located to the west of the Downtown Core, is still an attractive residential area with some commercial activities along Kampong Bahru Road. It is a compact cluster of two-and three-storey shophouses and residential terrace houses of the Early, Transitional, Late Shophouse and Art Deco Styles.

- **CAIRNHILL**

  The Cairnhill Historic District, located to the north-west of the Downtown Core, is a quiet residential area of predominantly two-storey terrace houses built in the Late Shophouse and Art Deco Styles. Today, though the area is surrounded by high-rise buildings of varying scale, the charm of the pre-war terrace houses is still retained.

- **EMERALD HILL**

  The Emerald Hill Historic District located to the north-west of the Downtown Core, is an attractive and quiet residential area. It has some commercial premises in the shopping zone along Orchard Road. The predominantly two-storey terrace houses showcase a variety of architectural styles ranging from Transitional to Art Deco Styles built over ninety years. There are some modern high-rise buildings towards the northern end of Emerald Hill Road.

2.2.1 PLANNING PARAMETERS

2.2.1.1 Conservation Plan

The plans (Appendix III) show the boundary of the conservation areas, the buildings to be conserved, the residential fronts to be retained/restored, and the envelope control sites. For buildings to be conserved, the entire building is to be restored in accordance with the conservation guidelines. Vacant lands and buildings not designated for conservation can be redeveloped subject to envelope control guidelines.

2.2.1.2 Building Use

The use shall follow the Master Plan intention for the respective areas which are predominantly for residential use. The exceptions are as follows:

Blair Plain:	House Nos. 1 to 89 (Odd Nos.) Kampong Bahru Road are zoned Commercial.
	House No. 167 Neil Road, House Nos. 52 and 54 Blair Road and House Nos. 63, 64, 68 & 69 Spottiswoode Park Road are zoned Residential with Commercial at the 1st storey. As they are within a residential area, it is preferable that they are used for residential purpose.
Cairnhill:	House No. 56 Cairnhill Road is zoned Commercial.
Emerald Hill:	House No. 180 Orchard Road (Peranakan Place), House No. 202 Orchard Road, House Nos. 2, 3, 5, 7 and 9 Emerald Hill Road and House Nos. 17 to 49 (Odd Nos.) Cuppage Road are zoned Commercial.

2.2.1.3 Plot Ratio

The allowable plot ratio shall be the resultant of the building envelope.

2.2.1.4 Building Height

The original building height is to be retained.

2.2.1.5 Building Profile

The original building profile is to be retained. If it has undergone unauthorised alteration, the original profile is to be reinstated.

2.2.1.6 Rear Extension

The predominant use in these areas is residential. In view of the restriction on use, all units can have extension at the rear of the main conservation building. The rear extension is to be lower than the main roof and not to exceed the allowable number of storeys for landed housing development ie 3 storeys.

2.2.1.7 Development Charge

Under the Planning Act, development charge, equivalent to the difference between the Development Baseline and the Development Ceiling for that land, is payable in respect of any development of the land or when there is a change in the use of the land or building

However, exemption from payment of development charge, if applicable, is given in respect of the *value enhancement arising from the proposed use or use changes on the gross floor area for the building or part thereof on the land to be conserved* provided that such conservation is carried out in accordance with the approved plans and completed within a period of 2 years from the date of conservation permission.

2.2.1.8 Carparking

Provision of car parks or payment of car parks deficiency charge for a conservation building is waived if the conservation guidelines are fully complied with and the conservation works are completed in accordance with the approved plans.

2.2.2 RESTORATION GUIDELINES

Key Elements Subject To Mandatory Compliance

The following tables specify the design, location and material for all key elements. The fundamental principle, the "**3R**", is **maximum Retention, sensitive Restoration and careful Repair**. Replacement, if any, is to follow the original design and materials. New installation/addition must not drastically affect the intrinsic character of the building. Items where design and material can vary are listed in Appendix II.

Where applicable, the requirements of the relevant technical departments are to be complied with. Owners are also required to obtain the consent of the relevant parties for roof eaves, canopies and projections of any nature beyond the site boundary.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A. Roofs	
A1. Structure	For the majority of conservation shophouses with pitched tile roof, the timber structural members include the timber rafters and purlins. Timber rafters are inclined structural members which support the pitched roof. They are in turn supported by timber purlins and roof beams spanning between the party walls. The roofs are finished with overlapping V-profile or flat natural colour unglazed clay tiles laid on timber battens and bonded by mortar. Structural strengthening or supports like reinforced concrete roof beams, if required to be added, is to be sensitively designed to minimise visual impact on the traditional timber system which is to be retained.
A2. Main Roof and Rear Secondary Roof	The original profile, pitch, height, party wall and eaves projection is to be retained and restored. Traditional roofing material of small size, V-profile, unglazed, natural colour clay roof tile is to be used. Flat, interlocking clay roof tile and reinforced concrete are allowed only if the existing roof is of those materials. The underside of roof eaves can be exposed or covered with plasterboard.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A3. Jackroof	Existing jackroof, if any, can be retained or removed. New jackroof can be added subject to compliance with the positioning, setbacks and maximum allowable dimensions. See Figure 1 Roof tile is to be identical to that of the main roof. Sidewall is to be finished with plaster or timber/ plasterboard or glazed panels. Front and rear openings can be fixed or openable of any infill material. If metal is used, it is to be dark anodised or colour coated.
A4. Skylight	New skylight can be added on the rear slope of the main pitched roof, on secondary pitched roof and on the rear slope of new jackroof. Skylight on the jack roof is to be located beyond the first quarter of the rear slope of the jackroof to keep the character of a typical jackroof. See Figure 1 The total area of the skylight cannot exceed 30% of the subject slope of the pitched roof. New skylight can also be added on a conservation building with flat roof. While the design, treatment and materials used can vary, the height cannot exceed 1m, which is the typical roof parapet height, so that the skylight is not visible from the street level. The skylight area is to be computed as part of the 35% coverage allowable for new single storey structure on the flat roof. See item A7 The skylight is to be of transparent or translucent material on framework of timber or metal - painted or anodised or colour coated. The design, treatment and material used can vary. It can consist of glass louvres, retractable panels or even solar panels. To minimise disruption to the roofscape, the skylight cannot be an opening or void without cover.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
A5. Dormer Window	Dormer window cannot be added.
A6. Use of Existing Flat Roof	Existing flat roof can be landscaped to add interest to the roofscape. To meet technical department's requirements, railings of compatible design and material can be added.
A7. Structure on Existing Flat Roof	To enable access to and use of the rooftop, new structure can be added subject to the height control of the respective conservation area. Such new structure has to comply with the following guidelines: (a) Material, Roof Form & Storey Height The structure can be of reinforced concrete or lightweight material with flat roof and single-storey in height not exceeding 3600mm. The design and treatment are to be compatible with the architecture of the conservation building. (a) Coverage The total coverage of all existing and new structures on the flat roof, including skylights but excluding moveable covers eg umbrella structures and retractable awnings, cannot exceed 35% of the flat roof area. All service installations on the roof are to be grouped together and included in the 35% allowable coverage for structure on flat roof. (a) Setback The new structure is to be set back a minimum of 3m from the front and side street elevations so that it is not visually obvious from the street. Setback is not required from party wall and backlane. See Figure 2
B. Forecourt	
B1. Enclosure	The original size and ornamentation of the wall and gate are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C. Front / Side Façade	
C1. Residential Front	The original residential fronts are to be retained for residential conservation buildings. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The following guidelines are applicable to a conservation building allowed for non-residential use: (a) The original 2 windows and 1 door first storey residential front can be changed to 2 doors and 1 window. The design and material of the new door are to match those of the original one. (b) The original timber infill panel of the first storey casement windows and doors can be replaced with clear glass. (c) Alternatively, fixed frameless or timber framed glazed panels can be added instead of secondary windows, and frameless glass doors can be added as secondary doors while the original timber windows and doors are retained and restored. This gives owners another option to keep the original architecture of the conservation building while achieving greater transparency and climatic control of the internal space.
C2. Shopfront *(only for units where commercial use is allowed)*	Design and material can vary
C3. Fanlights, Windows, Doors, Vents, Balconies and Verandahs	The original fanlights, windows, doors, vents, balconies and verandahs are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The balcony or verandah is to be kept open and not enclosed with window or fixed glazing. The inner facade behind the balcony or verandah is also to be retained and restored. The windows of the inner façade can be changed to doors for better access to the balcony or verandah. The design and material of the new door are to match those of the original one. (continued on next page)

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS		
Key External Elements		**Design / Location / Material**
	Fanlights, Windows, Doors, Vents, Balconies and Verandahs (continued)	New internal elements such as staircase landing, wall and partition cannot abut the original window or door openings and vents. Security bars at windows and doors, if any, can be retained or removed. New security bars of traditional design and material can be added. Existing mild steel frames of doors, windows and vents can be changed to powder coated aluminium frames of similar appearance as the mild steel frames.
C4.	**Balustrades for French Window**	The original balustrade for French window is to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.
C5.	**Secondary Window and Door**	New secondary casement, French or sliding window and door can be added subject to the design being compatible with those of the main window and door. The frame can be of any material. If metal is used, it is to be dark anodised or colour coated. However, owners are encouraged to use timber frames as they are more compatible to the architecture of the conservation buildings. The infill can be of timber or glass. Tinted, coloured and obscure glass can be used. Frameless fixed glass panels cannot be used in place of secondary windows on the upper storeys of a conservation building as they will lead to difficulty in accessing and maintaining the original windows. See Figure 3
C6.	**Window Screen**	Existing window screen, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New window screen can be added and the design is to be traditional. The frame is to be timber and the infill can be timber or obscure glass.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C7. Decorative Features	The original decorative features, if any, are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.
C8. Pintu Pagar	Existing pintu pagar, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New pintu pagar can be added and the design is to be traditional. The frame is to be timber and the infill is to be of traditional material, ie timber or obscure glass.
C9. Canopy	Original tile canopy, if any, is be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New tile canopy can be added at 2nd storey floor level. Traditional roofing material of small size, V-profile, unglazed, natural colour clay tiles or flat interlocking clay roof tiles identical to those of the main roof, or green glazed Chinese clay tiles can be used. See Figure 4 Retractable awning can be added at 2nd storey floor level. It is to be sensitively installed under or at the main beam, and not cover or block any key architectural features. See Figure 5

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
C10. Dado Tiles	The following guidelines are applicable to a conservation building with dado tiles: (a) If the tiles are intact, the original tile panel is to be retained. (b) If there are cracked or missing tiles, (i) Leave the tile panel as it is, (ii) Replace the missing tiles with tiles matching the original tiles, or (iii) Patch up the gaps with colour cement to match the colour of the tiles. (c) If the majority of the tiles are damaged or missing, (i) Remove the tile panel if tiles of matching design cannot be found, or (ii) Replace the tile panel totally with tiles of the same genre as the original tiles.
C11. Timber Surfaces	Timber surfaces can be either painted or stained.
C12. Shanghai Plaster Finish	For a building with existing unpainted Shanghai plaster finish, the finish is to be retained and restored. If the Shanghai plaster finish is already painted over, then the building can be repainted although the owner is encouraged to remove the paint work and revert to the original Shanghai plaster finish.
C13. Fair-faced Brickwalls	For a building with existing unpainted fair-faced brickwalls, the fair-faced brickwalls are to be retained and restored. If the fair-faced brickwalls are already painted over, then the walls can be repainted although the owner is encouraged to remove the paint work and revert to the original fair-faced finish.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
D. Five-Foot Way	
D1. Floors	The level of the five-foot way is to match the adjacent units and open walkway where possible. Where the difference in level is not more than 175mm, a ramp is to be provided. See Figure 6 The gradient of the ramp cannot be steeper than 1:10. The flooring can be of any material provided it does not have a highly polished gloss finish. As shophouses are typically under different ownership and restored at different times, an owner has the following options: (a) Liaise with neighbours to level the ramp. (b) Provide gradual ramps. (c) Keep the existing step if the adjacent units are not restored.
D2. Ceiling	Exposed upper floor structure of timber boards and timber joists is preferred. Existing exposed reinforced concrete floor above, if any, can remain. False ceiling of timber frame and plaster timber board, not lower than the front façade beam, can be added. Variations in design and use of alternative compatible material can also be added at the main entrance of the building.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS		
Key External Elements		**Design / Location / Material**
E.	**End Gable Wall**	
E1.	**Windows, Doors and Vents**	Existing openings such as casement windows, doors and vents, if any, can be retained or sealed up. New openings, casement windows, doors and vents can be added subject to retention of the solid and void expression of the end gable wall. The design and material of the new windows and doors are to match those of the front façade upper storey windows. To refer to 'Specific Facade Restoration Guidelines' of the subject building. Vents can be of any material. If metal is used, it is to be dark anodised or colour coated. See Figure 7 New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
E2.	**Canopies**	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material, similar to that of the main roof. See Figure 7
F.	**Rear Facade Of Main Building**	
F1.	**Window Facing Rear Court**	If the existing rear court is kept, the original windows can be retained and restored, or replaced with new French or casement windows. The frames are to be timber and the infill can be timber or glass. See Figure 8 New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.
F2.	**Vents**	Existing vents, if any, can be retained or removed. New vents of any material can be added. If metal is used, it is to be dark anodised or colour coated.
F3.	**Canopies**	New canopies over doors and windows with a projection of not more than 450mm, can be added. The frame is to be timber and the roof material similar to that of the main roof.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
G. Rear Service Block	
G1. Windows and Openings Facing Rear Court	If the existing rear service block is kept, existing windows and openings, if any, can be retained and restored. New casement and French windows with or without brickwall between windows can be added. The frames are to be timber and the infill can be timber or glass. Existing openings can also be infilled with grilles. See Figure 9 New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
G2. Vents	Existing vents, if any, can be retained or removed. New vents of any material can be added. If metal is used, it is to be dark anodised or colour coated.
G3. Canopies	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material similar to that of the main roof.
H. Rear Court	
H1. Roof	A new roof of any profile can be added over the rear court, provided the roof is not higher than the 2nd storey floor level. Jackroof and skylight can be introduced in the new roof which can be reinforced concrete, light weight material or same roof material as the main roof. If metal is used, it is to be dark anodised or colour coated. Reinforced concrete flat roof can be used as a roof garden and landscape furniture can be considered. The rear boundary wall can be raised up to the sill height of the 2nd storey windows to form a parapet. The space along the parapet can be used to house condensing units. See Figure 10

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
H2. External Staircase	External staircases within rear courts are distinctive architectural features of the conservation buildings. Owners are encouraged to keep them so as to contribute to the charm and character of the area. However, existing external staircase, if any, can be retained or removed. New external staircase of any material can be added. If metal is used, it is to be dark anodised or colour coated.
I. Rear Boundary Wall	
I1. Wall Height	If the existing rear court is retained, the original height of the wall is to be retained, except when the rear court is to be roofed over and the wall has to be raised up to the 2nd storey floor level to give sufficient headroom. The wall can also be raised to the sill height of the 2nd storey windows to form a parapet if it is required to meet the minimum parapet height for roof terrace over the rear court or for screening of condensing units. See Figure 10
I2. Windows and Vents	At upper storeys, new vents and casement windows can be added. At the 1st storey, only vents and high level windows can be added. Vents can be of any material. If metal is used, it is to be dark anodised or colour coated. Casement and high level windows are to be timber frame and the infill can be timber/ glass. New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.
I3. Doors	Existing door position can be retained or changed. The doorway can be enlarged subject to a width of not more than 1800mm. Timber or metal can be used. If metal is used, it is to be dark anodised or colour coated.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key External Elements	**Design / Location / Material**
I4. Canopy	New canopies over doors and windows with a projection of not more than 450mm, can be added. The frame is to be timber and the roof material, similar to that of the main roof.
J. Airwell	
J1. Size	The original size and location is to be retained and restored.
J2. Roof	A new roof of any profile can be added over the airwell, provided the roof is lower than the eave of the main roof. No other above ground structure or slab is to be added within the airwell space. Light weight transparent or translucent roof covering is to be used. If metal framework is used, it is to be dark anodised or colour coated. See Figure 11
J3. Windows	The original windows is to be retained and restored. New casement or French windows can be added subject to the design and material matching those of the front façade upper storey windows. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New internal elements such as staircase landing, wall and partition cannot abut the original window openings and vents.
J4. Enclosure	Original decorative or ornamental features, if any, at the airwell are to be retained and restored. The existing windows/openings in only one of the three sides of the airwell, excluding the existing party wall, can be fully walled up.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key Internal Elements	**Design / Location / Material**
K. Floors	
K1. Structure	For the majority of the conservation shophouses, the structural members include the timber main beams, the timber floor joists and the timber floor boards. The timber floor joists which support the timber floor boards for the upper floors also serve as horizontal structural members that help to evenly distribute the dead and live load from the upper floors to the party walls. The timber floor boards are thin horizontal structural members laid to one another by the traditional tongue and groove method. Horizontal and/or vertical structural supports, if required to be added, are to abut the party walls to minimise impact on the existing structural system which is to be retained. For original reinforced concrete framed buildings, the original structural grids are to be retained. New columns, if required to be added, are to align with and respect the original grids. Provided the structural integrity of the building is not compromised, flexibility to shift some columns to meet the specific operational/ functional requirements can be considered on a need-to basis.
K2. Upper Storey Levels	The existing level, timber floor and structural system is to be retained and restored. If the existing floors are reinforced concrete, the same material can be retained. Voids up to 25% of the floor area of each floor, can be introduced. For wet areas eg toilets and kitchen, reinforced concrete floor can be used.
K3. 1st Storey Level	The existing floor level can be raised to meet minimum platform level required by the relevant technical department. Part of the existing level can be lowered for landscaping/ ponds.
K4. Basement	New basement is not allowed.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key Internal Elements	**Design / Location / Material**
L. Party Wall	
L1. Structure	Party walls are principal load-bearing walls which are constructed of brick laid out in continuous stretcher bond courses. The internal surfaces of the party wall are usually unpierced and unadorned. To ensure structural stability, the base of the party wall is thickened to transfer the dead-load to the base of the foundation.
L2. Openings	The first 3-metre length of the load-bearing party wall perpendicular to the 1st storey shopfront is to be retained as it is the minimum length required to retain the fine-grained character of the shophouses meaningfully. Slight reductions or variations within the first 3m can be considered on a need-to basis. Openings in the load-bearing party walls can be introduced provided the total width of the openings is less than 50% of the total length of the party wall within the building envelope. For original reinforced concrete framed buildings, there is no control on party wall openings and the first 3-metre length of the party wall perpendicular to the 1st storey shopfront need not be retained.
M. Staircase	Existing staircase can be retained or removed or relocated. New staircase to replace or supplement the existing one is to be constructed in timber or metal if the building has timber floors. The layout and railing design of the new staircase can vary. Reinforced concrete staircase, only if existing, can be retained. New staircase cannot abut any door or window openings or vents at the front, side and rear facades, airwell, rear service block or end gable wall.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key Internal Elements	**Design / Location / Material**
N. Roof Mezzanine	New roof mezzanine can be added within the building envelope. The new floor level is to be set back: (a) A minimum of 1500mm from the inner face of the front facade wall if it is not lower than the top of the fanlight/window at the front facade of the uppermost storey. (b) A minimum of 2500mm from the inner face of the front facade wall if it is lower than the top of the fanlight/window at the front facade of the uppermost storey. If the front façade has an existing balcony, it is not necessary to set back the new floor. The floor cannot abut any window/ door or transom/ fanlight. Minimum headroom and floor area are subject to compliance with the requirements of relevant technical departments. Traditional material of timber floor boards on timber joists is to be used. Reinforced concrete can be used only if the existing uppermost floor is of the same material. See Figure 12
O. New Rear Extension *If the rear of the main conservation building is to be extended, the following guidelines are applicable instead of items F, G, H, I and J.*	
O1. Roof	The new roof can be of any material and is to be lower than the eaves of the main conservation building. If metal is used, it is to be dark anodised or colour coated. If a pitched tile roof is proposed, it can be higher than the eaves of the main conservation building but lower than the ridge of the main roof. The material and pitch are to be the same as those of the main roof. See Figure 13
O2. Windows, Doors and Vents	Design and material can vary.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Key Internal Elements	**Design / Location / Material**
O3. Canopy	Canopies, if any, are to have projection of not more than 450mm.
O4. Rear Boundary Wall	If the rear boundary wall abuts the adjacent lot boundary ie without a backlane, the rear boundary wall height is to be retained and a minimum rear setback of 3m is to be provided for the extension.
O5. Floors	Additional floors of any material can be constructed over the entire rear space. The new rear extension cannot exceed the allowable number of storeys for landed housing development ie 3 storeys. The new floor levels need not be the same as the original floor levels. New basement is not allowed.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Mechanical & Electrical and Others	**Design / Location / Material**
P. Flue	Existing masonry flue, if any, can be retained, repositioned or removed. New flue can be added. Repositioned or new flue is to be located in either the rear slope of the main roof or the rear secondary roofs or abutting the wall of rear facade/rear service block within the rear court. It can also abut the rear service block wall of the adjacent unit. The roof of the flue can be pitched or flat and is to be lower than the ridge of the main roof. See Figure 14 All external walls are to be of plastered brick or plasterboard, and the roof to be unglazed natural colour clay tiles of profile identical to the main roof or of reinforced concrete. Alternatively, metal flues can be exposed and painted the same colour as the background wall. The use of electrostatic air cleaning system is encouraged.
Q. Exhaust Fan	Exhaust fan is to be placed at the rear facade or rear service block facing the rear court. Any material can be used. If metal is used, it is to be dark anodised or colour coated.
R. Lift Shaft	Lifts can be added, provided the shaft is on the rear slope of the main roof or on the secondary roof and lower than the roof ridge of the main roof.
S. Conduits and Pipes	Rainwater downpipes, gas pipes and air-condensing conduit pipes can be mounted on the surface of the rear wall. The air-condensing conduit pipes are to be properly encased and neatly laid out. All other utility/conduit pipes are not to be mounted on the surface of the external walls, unless specifically required by relevant technical departments. Exposed lightning tape and conductor are to be at a location least obtrusive from the front exterior.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Mechanical & Electrical and Others	**Design / Location / Material**
T. Air Conditioning System	Condensing units are to be integrated within the building envelope at the rear in a recess created within the rear boundary wall, or an opening created within the roof of the rear service block. The opening is to be properly screened. If metal is used for the screening, it is to be dark anodised or colour coated. See Figure 15 However, due to practical constraints in integrating the units within the building envelope and the differing needs of tenants and users, the condensing units can be neatly or compactly placed at the rear and lined along the parapet, party walls or rear service block walls. The units are to be screened unless they are small and not visible from the street level. See Figure 16 Other locations for placing the condensing units can be considered on the merits of each case if there are particular site constraints, eg when the conservation building is “back-to-back” with another building. **Note:** These guidelines will be applicable when restoration works are carried out to unrestored conservation buildings and when standard additions and alterations (A&A) works are carried out to restored buildings.
U. Rooftop Mechanical & Electrical Plants and Services	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.

RESTORATION GUIDELINES RESIDENTIAL HISTORIC DISTRICTS	
Mechanical & Electrical and Others	**Design / Location / Material**
T. Air Conditioning System	Condensing units are to be integrated within the building envelope at the rear in a recess created within the rear boundary wall, or an opening created within the roof of the rear service block. The opening is to be properly screened. If metal is used for the screening, it is to be dark anodised or colour coated. See Figure 15 However, due to practical constraints in integrating the units within the building envelope and the differing needs of tenants and users, the condensing units can be neatly or compactly placed at the rear and lined along the parapet, party walls or rear service block walls. The units are to be screened unless they are small and not visible from the street level. See Figure 16 Other locations for placing the condensing units can be considered on the merits of each case if there are particular site constraints, eg when the conservation building is “back-to-back” with another building. **Note:** These guidelines will be applicable when restoration works are carried out to unrestored conservation buildings and when standard additions and alterations (A&A) works are carried out to restored buildings.
U. Rooftop Mechanical & Electrical Plants and Services	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.

2.2.3 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 16)

- Figure 1: Jackroof and Skylight on Jackroof
- Figure 2: Allowable Structures on Existing Flat Roofs
- Figure 3: Secondary Windows
- Figure 4: Canopy
- Figure 5: Retractable Awning
- Figure 6: Five-Foot Way Floors
- Figure 7: End Gable Wall
- Figure 8: Rear Façade of Main Building
- Figure 9: Rear Service Block
- Figure 10: Rear Court and Rear Boundary Wall
- Figure 11: Airwell
- Figure 12: Roof Mezzanine
- Figure 13: New Rear Extension
- Figure 14: Flue
- Figure 15: Condensing Units Integrated within Building Envelope
- Figure 16: Condensing Units Placed at Rear Parapet and Walls

2.3 SECONDARY SETTLEMENTS

The Secondary Settlements in areas like Balestier, Beach Road, Geylang, Jalan Besar, Jalan Jurong Kechil, Joo Chiat, Mount Sophia, River Valley, Tanjong Katong and Tiong Bahru were largely developed between the 1900s and the 1960s as a result of outward movement of the population from the city centre. Besides shophouses of various styles, some of the areas also have bungalows of the Early, Victorian and Art Deco Styles.

- ## BALESTIER

  The Balestier Conservation Area is located along Balestier Road, between Thomson Road and Moulmein Road. The street blocks comprise a mix of two-storey pre-war shophouses as well as more recent three- to six-storey shop / flat developments.

  The buildings reflect the evolution of physical development since the 1840s and serve as reminders of the history of the area. The shophouses range from the Early Shophouse Style to the ornate Late Shophouse and the more streamlined Modern Style built after World War Two.

  Of particular visual interest are the ornate Late Style shophouses at the junctions of Kim Keat Road and Jalan Kemanan.

  Other key landmarks are the old Balestier Market from the 1920s and the Gochor Tua Pek Kong Temple and Wayang Stage with history which can be traced back to the 1840s.

- ## BEACH ROAD

  The Beach Road Conservation Area is located just north of the Downtown Core. It consists of buildings along Purvis Street, Liang Seah Street and Tan Quee Lan Street which are the roads linking the major thoroughfares of North Bridge Road and South Bridge Road.

  The Beach Road Area was designated the European Town during the time of Raffles. It was located between the Commercial Quarter and Kampong Glam, and was the original seafront before reclamation. Its sea-frontage (which has since been reclaimed) made it the main European residential area as well as that of the wealthy Asians. The area is mainly dominated by two- and three-storey shophouses built in blocks of identical architectural features and ornamentations, with each block being different from the other.

- ## GEYLANG

  The Geylang Conservation Area is located 5km to the east of the city and stretches along Geylang Road and selected lorongs.

  Historically, the area was probably a processing centre for local agricultural produce and fishing. Its history dates as far back as the 1840s when the British Government resettled the Malay floating village at the mouth of the Singapore River to this area. Today, the wide range of shophouses along Geylang Road; the combination of the low-rise bungalows and rows of shophouses along the lorongs provide a gentle contrast, giving this area a rich architectural heritage.

- ## JALAN BESAR

The Jalan Besar Conservation Area is located just outside the boundaries of the Little India Historic District and stretches along Jalan Besar and Foch Road, the upper portions of Tessensohn Road, Race Course Road and Tyrwhitt Road, along Cavan Road and Hamilton Road, parts of Serangoon Road, Lavender Street, Kitchener Road, Sam Leong Road, Maude Road, Desker Road and Rowell Road. It also includes the ornate row of terrace houses along Petain Road and a short stretch of Syed Alwi Road.

The area was originally an estate of over six acres extending from Serangoon Road to Jalan Besar, where historically, sireh and nipah were extensively cultivated. The area is significant for its historic streetscapes created by buildings with a variety of vernacular architecture of the late 19th and early 20th centuries, a period in Singapore's history when the elaborately decorated shophouses flourished.

- ## JALAN JURONG KECHIL

The Jalan Jurong Kechil Conservation Area is situated at the junction of Upper Bukit Timah Road and Jalan Jurong Kechil. It consists of ten two-storey Transitional style shophouses and three Art Deco Style single-storey terraces which contribute to the streetscape experience of the Anak Bukit area.

Their pre-war architecture make the remaining row of shophouses stand out as an important landmark located at the entrances to the Anak Bukit area.

- ## JOO CHIAT

The Joo Chiat Conservation Area stretches along the entire main Joo Chiat Road, the upper portion of Onan Road, parts of Joo Chiat Terrace, Joo Chiat Place, Everitt Road, Koon Seng Road and Tembeling Road. It also includes the stretch of East Coast Road from Marshall Road to Telok Kurau Road.

The area was originally part of a coconut plantation which stretched inland from the coast to what is Geylang Serai today. The area is not only rich in architecture and history but is also a thriving commercial and residential node today. Joo Chiat, with rich historical links to the Peranakan culture, is a renowned food paradise. A wide variety of shophouses and bungalow styles which reflect the prevailing architecture at the turn of the century can be found within this area.

- ## MOUNT SOPHIA

The Mount Sophia Conservation Area, located between the historically important areas of Fort Canning / Bras Basah, the Little India and Jalan Besar Conservation Areas, is an important part of the old inner city of Singapore since the turn of the 19th century.

The different shophouse styles which chart the evolution of developments along Selegie Road gave this important trunk road its signature streetscape. The largely intact terrace houses along Niven Road present a charming intimate streetscape while the shophouses along Mackenzie Road remain vibrant after many years. Marking the entrance to Mount Sophia are the Church of Christ of Malaya and Sophia Flats, both established landmarks of the area.

- ## RIVER VALLEY

The River Valley Conservation Area is adjacent to the Robertson Quay area to the south of River Valley Road. It consists of buildings lining Mohamed Sultan Road from its junction with River Valley Road up to its junction with Kim Yam Road. The area also includes stretches of Tong Watt Road and Kim Yam Road near Mohamed Sultan Road and a group of buildings located at the junction of Kim Yam Road and River Valley Road.

The shophouses within this area played an important role in the early trading activities of Singapore which was centred on the Singapore River. These shophouses catered to the owners and workers of the godowns and warehouses along the river. The shophouses are mainly of the Late Shophouse and Transitional Shophouse Styles.

- ## TANJONG KATONG

The Tanjong Katong Conservation Area is located along Tanjong Katong Road, between Dunman Road and Mountbatten Road.

The ornate Late Style and the more geometric Art Deco Style shophouses together with the more streamlined Modern Style shophouses built after the World War Two provide the critical mass that gives this historic road its sense of place and help anchor the social memory for both residents and visitors. Other landmarks along the road are the former Tanjong Katong Girls School, built in 1954 by the then Public Works Department. The Tanjong Katong Post Office and the Telecom Exchange Building are also prominent markers.

- ## TIONG BAHRU

The Tiong Bahru Conservation Area is bounded by Outram Road, Seng Poh Road, Yong Siak Street and the Central Expressway.

Tiong Bahru estate, the first public housing in Singapore, is well known and valued by Singaporeans. The flats built by the then Singapore Improvement Trust mark an important period of public housing in Singapore before the formation of Housing Development Board. The estate is a illustration of the distinctive planning and architectural ideas prevalent in British public housing of the same period.

The two rows of shophouses within the area and the single-storey building located within the streetblock along Outram Road are closely associated to Tiong Bahru estate, being very much a part of its physical fabric. Fronting Tiong Bahru and Outram Road, they are highly visible to those who pass through the area.

2.3.1 PLANNING PARAMETERS

2.3.1.1 Conservation Plan

The plans (Appendix III) show the boundary of the conservation areas, the buildings to be conserved, the residential fronts to be retained/restored, national monuments to be preserved and the envelope control sites. For buildings to be conserved, the entire building are to be restored in accordance with the conservation guidelines. Vacant lands and buildings not designated for conservation can be redeveloped subject to envelope control guidelines.

2.3.1.2 Building Use

The building use is to follow the Master Plan intention for the respective areas.

2.3.1.3 Plot Ratio

The plot ratio shall be the resultant of the building envelope of the conservation building or part thereof to be conserved, as well as that of the new extension(s) if any, and subject to the maximum prescribed permissible plot ratio in the Master Plan for the respective areas.

2.3.1.4 Restoration / Development Options

Shophouse
The applicant can consider the following options:

i) to conserve the entire shophouse building.

OR

ii) to conserve the main shophouse building with a new rear extension as shown in Figure 1. The new rear extension is subject to Development Control guidelines and the requirements of relevant technical departments. The number of storeys allowable for new rear extensions differ from area to area (See para 1.6 below).

For conservation buildings with asymmetrical main roofs where the rear slope is longer than the front slope, the length of rear slope can be adjusted to achieve a symmetrical main roof so that there is sufficient depth for a meaningful rear extension. The 600mm minimum gap between the main building and the new rear extension is still applicable.

For the Geylang Conservation Area, the new extensions are also subject to the Geylang Urban Design Guidelines.

For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area (ie House Nos. 61 to 69 Syed Alwi Road; 183 to 191 (Odd Nos) Jalan Besar; 3 to 21 (Odd Nos), 29 to 109 (Odd Nos) Rowell Road; and 16 to 62 (Even Nos), 66 to 120 (Even Nos), 65 to 111 (Odd Nos), 119 to 129 (Odd Nos) Desker Road), Option (ii) above does not apply and the entire building is to be conserved.

For the Pre-war SIT flats at Blocks 55 to 59, 64 to 66 & 71 to 82 in the Tiong Bahru Conservation Area, Option (ii) above does not apply and the entire building is to be conserved.

For shophouses with 2 main buildings in the River Valley Conservation Area, both the main buildings are to be conserved. New rear extension is to be located beyond the 2 main buildings. Except for 301 to 309 (Odd Nos) River Valley Road, option (ii) is applicable. See Figure 1.

Detached Building
For detached building, please refer to Part 2.4 on "Bungalows".

2.3.1.5 Building Profile

For both shophouses and detached buildings, the original profile of the building or part thereof to be conserved is to be retained. If it has undergone unauthorised alteration, the original profile is to be reinstated.

2.3.1.6 Building Height

The original height of the building or part thereof to be conserved is to be retained.

The allowable number of storeys that can be built up for new extensions are as follows:

Conservation Area	Allowable Number of Storeys for New Extensions*
Balestier	Up to 6 storeys
Beach Road	Up to 5 storeys
Geylang	Along main Geylang Road: Up to 4 storeys Up to 6 storeys (west of Kallang Paya Lebar Expressway) Along the Lorongs:up to 8 storeys Also subject to the Geylang Urban Design Guidelines (GUDG)
Jalan Besar	South of Syed Alwi Road: Not Applicable *(conservation of entire building)* Rest of Jalan Besar Conservation Area: Up to 6 storeys
Jalan Jurong Kechil	Up to 4 storeys
Joo Chiat	Up to 5 storeys
Mount Sophia	Up to 36m AMSL
River Valley	Up to 10 storeys
Tanjong Katong	Up to 4 storeys For units no. 241-259 (odd nos. only): up to 5 storeys
Tiong Bahru	Shophouses: Up to 4 storeys Blocks 55-59, 64-66, 71-82: Not applicable (*conservation of entire building)*

* The allowable number of storeys for new extensions is guided by the allowable storey height of the respective Planning Areas and the development type. For landed housing, it cannot exceed 3 storeys.

2.3.1.7 Service Lane

Under all restoration/development options, the rear is to be set back in compliance with the service lane widening requirements, where applicable.

2.3.1.8 Development Charge

Under the Planning Act, development charge, equivalent to the difference between the Development Baseline and the Development Ceiling for that land, is payable in respect of any development of the land or when there is a change in the use of the land or building.

However, exemption from payment of development charge, if applicable, is given in respect of the *value enhancement arising from the proposed use or use changes on the gross floor area for the building or part thereof on the land to be conserved* provided that such conservation is carried out in accordance with the approved plans and completed within a period of 2 years from the date of conservation permission.

Development charge, where applicable, shall be leviable to the new extension(s), as well as to any new floor areas e.g. roof mezzanines within the envelope of the building to be conserved.

2.3.1.9 Carparking

Provision of car parks or payment of car parks deficiency charge for a conservation building or any part thereof that is conserved is waived if the conservation guidelines are fully complied with and the conservation works are completed in accordance with the approved plans.

The requirement for provision of carparking spaces under the Parking Places (Provision of Parking Places and Parking Spaces) Rules and any statutory modifications or re-enactments thereof for the time being in force shall be complied with in full for the new extension(s).

2.3.2 RESTORATION GUIDELINES

Key Elements Subject To Mandatory Compliance

Conservation in the Secondary Settlements is mainly on a streetscape basis. Owners are given the option to conserve the entire building or just the main building of the shophouse or detached building. New extensions to the sides and rear, if any, are subject to the controls herein, Development Control guidelines and the requirements of relevant technical departments.

The tables on the following pages specify the design, location and material for all key elements.

Note:
For conservation shophouses south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area, the entire building is to be conserved. In addition, for conservation shophouses along Desker Road, Rowell Road, and Nos. 183 to 191 (Odd Nos.) Jalan Besar, the detailed controls are identical to those for the Historic District of Little India, and will be highlighted where necessary. Applicants are requested to refer to the section on 'Historic Districts - Planning Parameters and Restoration Guidelines for Conservation Buildings' for more details.

The fundamental principle, the "**3R**", is **maximum Retention, sensitive Restoration and careful Repair**. This principle applies to key elements which are significant to the conservation buildings and the streetscape. Replacement, if any, is to follow the original design and materials. New installation/addition does not drastically affect the intrinsic character of the building. Items where design and material can vary are listed in Appendix II.

Where applicable, the requirements of the relevant technical departments are to be complied with. Owners are also required to obtain the consent of the relevant parties for roof eaves, canopies and projections of any nature beyond the site boundary.

RESTORATION GUIDELINES	
SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
A. Roofs	
A1. Structure	For the majority of conservation shophouses with pitched tile roof, the timber structural members include the timber rafters and purlins. Timber rafters are inclined structural members which support the pitched roof. They are in turn supported by timber purlins and roof beams spanning between the party walls. The roofs are finished with overlapping V-profile or flat natural colour unglazed clay tiles laid on timber battens and bonded by mortar. Structural strengthening or supports like reinforced concrete roof beams, if required to be added, are to be sensitively designed to minimise visual impact on the traditional timber system which is to be retained.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
A2. Main Roof and Rear Secondary Roof	The original profile, pitch, height, party wall and eaves projection is to be retained and restored. Unglazed, natural colour clay roof tiles, of any size and profile are to be used*. Existing reinforced concrete roof can be retained. The underside of roof eaves can be exposed or covered with plasterboard. To facilitate the addition of a link or staircase and to reduce the fire-escape distance, a mono-pitched tile roof adjacent to the party wall can be added between the main conservation building and the new rear extension. The addition is akin to the typical roof form of a rear service block. As such, it is complementary to the architecture and character of a traditional shophouse. See Figure 2
A3. Jackroof	Existing jackroof, if any, can be retained or removed. New jackroof can be added subject to compliance with the positioning, setbacks and maximum allowable dimensions. See Figure 3 Roof tile is to be identical to that of the main roof. Sidewall can be finished with plaster or timber/plasterboard or glazed panels. Front and rear openings can be fixed or openable of any infill material. If metal is used, it is to be dark anodised or colour coated.
* *For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area, small size, V-profile, unglazed, natural colour clay roof tile is to be used where the same is existing.*	

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
A4. Skylight	New skylight can be added on the rear slope of the main pitched roof, on secondary pitched roof and on the rear slope of new jackroof. Skylight on the jack roof is to be located beyond the first quarter of the rear slope of the jackroof to keep the character of a typical jackroof. See Figure 3 The total area of the skylight cannot exceed 30% of the subject slope of the pitched roof. New skylight can also be added on a conservation building with flat roof. While the design, treatment and materials used can vary, the height cannot exceed 1m, which is the typical roof parapet height, so that the skylight is not visible from the street level. The skylight area is to be computed as part of the 35% coverage allowable for new single storey structure on the flat roof (see item A7). The skylight is to be of transparent or translucent material on framework of timber or metal - painted or anodised or colour coated. The design, treatment and material used can vary. It can consist of glass louvres, retractable panels or even solar panels. To minimise disruption to the roofscape, the skylight cannot be an opening or void without cover.
A5. Dormer Window	Not allowed.
A6. Use of Existing Flat Roofs	Existing flat roof can be landscaped to add interest and vibrancy to the roofscape. It can also be converted into usable space as an extension of the existing building. For example, if the building is used as a restaurant, the rooftop can be for outdoor dining. To meet technical department's requirements, railings of compatible design and material can be added.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
A7. Allowable Structures on Existing Flat Roofs	To enable access to and use of the rooftop, new structure can be added subject to the height control of the respective conservation area. Such new structure has to comply with the following guidelines: (a) Material, Roof Form & Storey Height The structure can be of reinforced concrete or lightweight material with flat roof and single-storey in height not exceeding 3600mm. The design and treatment are to be compatible with the architecture of the conservation building. (a) Coverage The total coverage of all existing and new structures on the flat roof, including skylights but excluding moveable covers eg umbrella structures and retractable awnings, cannot exceed 35% of the flat roof area. All service installations on the roof are to be grouped together and included in the 35% allowable coverage for structure on flat roof. (a) Setback The new structure is to be set back a minimum of 3m from the front and side street elevations so that it is not visually obvious from the street. Setback is not required from party wall and backlane. See Figure 4
B. Forecourt	
B1. Enclosure	The original size and ornamentation of the wall and gate are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. To facilitate surface carparking provision, the entrance can be widened and the forecourt lowered to be at-grade with the road*. The original ornamentation and design of wall and gate are to be restored.
* *Not applicable to conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area.*	

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
C. Front/Side Façade	
C1. Residential Front	The original residential fronts are to be retained for residential conservation buildings. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The following guidelines are applicable to a conservation building allowed for non-residential use: (a) The original 2 windows and 1 door first storey residential front can be changed to 2 doors and 1 window. The design and material of the new door are to match those of the original one. (b) The original timber infill panel of the first storey casement windows and doors can be replaced with clear glass. (c) Alternatively, fixed frameless or timber framed glazed panels can be added instead of secondary windows, and frameless glass doors can be added as secondary doors while the original timber windows and doors are retained and restored. This gives owners another option to keep the original architecture of the conservation building while achieving greater transparency and climatic control of the internal space.
C2. Shopfront *(only for units where commercial use is allowed)*	Design and material can vary
C3. Fanlights, Windows, Doors, Vents, Balconies and Verandahs	The original fanlights, windows, doors, vents, balconies and verandahs are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. The balcony or verandah is to be kept open and not enclosed with window or fixed glazing. The inner facade behind the balcony or verandah is also to be retained and restored. The windows of the inner façade can be changed to doors for better access to the balcony or verandah. The design and material of the new door are to match those of the original one.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
Fanlights, Windows, Doors, Vents, Balconies and Verandahs (continued)	New internal elements such as staircase landing, wall and partition cannot abut the original window or door openings and vents. Security bars at windows and doors, if any, can be retained or removed. New security bars of traditional design and material can be added. Existing mild steel frames of doors, windows and vents can be changed to powder coated aluminium frames of similar appearance as the mild steel frames.
C4. Balustrades for French Window	The original balustrade for French windows is to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.
C5. Secondary Window and Door	New secondary casement, French or sliding window and door can be added subject to the design being compatible with those of the main window and door. The frame can be of any material. If metal is used, it is to be dark anodised or colour coated. However, owners are encouraged to use timber frames as they are more compatible to the architecture of the conservation buildings. The infill can be of timber or glass. Tinted, coloured and obscure glass can be used. Frameless fixed glass panels are not to be used in place of secondary windows on the upper storeys of a conservation building as they will lead to difficulty in accessing and maintaining the original windows. See Figure 5
C6. Window Screen	Existing window screen, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New window screen can be added and the design is to be traditional. The frame is to be timber and the infill can be timber or obscure glass.
C7. Decorative Features	The original decorative features, if any, are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
C8. Pintu Pagar	Existing pintu pagar, if any, can be retained or removed. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New pintu pagar can be added and the design are to be traditional. The frame is to be timber and the infill is to be of traditional materials i.e. timber and obscure glass.
C9. Canopy	Original tile canopy, if any, is to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject building. New tile canopy can be added at 2nd storey floor level. Roofing material of unglazed, natural colour clay tiles identical to those of the main roof or green glazed Chinese clay tiles can be used. See Figure 6 Retractable awning can be added at 2nd storey floor level. It is to be sensitively installed under or at the main beam, and not cover or block any key architectural features. See Figure 7
C10. Dado Tiles	The following guidelines are applicable to a conservation building with dado tiles: (a) If the tiles are intact, the original tile panel is to be retained. (b) If there are cracked or missing tiles, (i) Leave the tile panel as it is, (ii) Replace the missing tiles with tiles matching the original tiles, or (iii) Patch up the gaps with colour cement to match the colour of the tiles. (c) If the majority of the tiles are damaged or missing, (i) Remove the tile panel if tiles of matching design cannot be found, or (ii) Replace the tile panel totally with tiles of the same genre as the original tiles.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
C11. Timber Surfaces	Timber surfaces can be either painted or stained.
C12. Shanghai Plaster Finish	For a building with existing unpainted Shanghai plaster finish, the finish is to be retained and restored. If the Shanghai plaster finish is already painted over, then the building can be repainted although the owner is encouraged to remove the paint work and revert to the original Shanghai plaster finish.
C13. Fair-faced Brickwalls	For a building with existing unpainted fair-faced brickwalls, the fair-faced brickwalls is to be retained and restored. If the fair-faced brickwalls are already painted over, then the walls can be repainted although the owner is encouraged to remove the paint work and revert to the original fair-faced finish.
D. Five-Foot Way	
D1. Floors	The level of the five-foot way is to match the adjacent units and open walkway where possible. Where the difference in level is not more than 175mm, a ramp is to be provided. The gradient of the ramp cannot be steeper than 1:10. The flooring can be of any material provided it does not have a highly polished gloss finish. As shophouses are typically under different ownership and restored at different times, an owner has the following options: (a) Liaise with neighbours to level the ramp. (b) Provide gradual ramps. (c) Keep the existing step if the adjacent units are not restored. See Figure 8
D2. Ceiling	Exposed upper floor structure of timber boards and timber joists, reinforced concrete*, or false ceiling of timber frame and plaster timber board, not lower than the front façade beam, can be added. Variations in design and use of alternative compatible material can also be added at the main entrance of the building.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS		
Key External Elements		**Design / Location / Material**
*	*For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 62 and 71 to 82 in the Tiong Bahru Conservation Area, reinforced concrete five-foot way ceiling can be used only if existing is the same.*	
E.	**End Gable Wall**	
E1.	**Windows, Doors and Vents**	Existing openings such as casement windows, doors and vents, if any, can be retained or sealed up. New openings, casement windows, doors and vents can be added subject to retention of the solid and void expression of the end gable wall. The design and material of the new windows and doors are to match those of the front façade upper storey windows. To refer to 'Specific Facade Restoration Guidelines' of the subject building. Vents can be of any material. If metal is used, it is to be dark anodised or colour coated. See Figure 9 New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
E2.	**Canopies**	New canopies over doors and windows with a projection of not more than 450mm can be added. The frame is to be timber and the roof material, similar to that of the main roof. See Figure 9
F.	**Rear Facade of Main Building***	Existing openings can be retained or sealed up, and new ones can be added. The resultant solid and void expression of the rear facade is to be compatible with the subject building. Design and material of doors and windows are to preferably match those on the upper storeys of the front facade. Metal vents are to preferably be dark anodised or colour coated. See Figure 10 New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
G. Rear Service Block*	If the existing rear service block is retained and restored, existing openings can be retained or sealed up, and new ones can be added. The resultant solid and void expression of the rear facade is to be compatible with the subject building. Design and material of doors and windows are to preferably match those on the upper storeys of the front façade. Metal vents are to preferably be dark anodised or colour coated See Figure 11 New internal elements such as staircase landing, wall and partition cannot abut the window openings and vents

* *Conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area are to comply with the following:*

Rear Facade of Main Building

i Original windows facing rear court are to be retained and restored. Design and material of windows are to match those on the front facade.

ii Existing vents can be retained or sealed up and new vents can be added. Vents can be fixed or openable of any infill material.

If metal is used, it is to be dark anodised or colour coated.

Rear Service Block

i Original openings facing rear court can be retained and restored or infilled with casement/French windows with or without brickwall between windows. New openings can be added subject to the retention of the solid and void expression of the subject facade.

ii Design and material of new windows are to match those on the front facade.

iii Existing vents can be retained or sealed up and new vents can be added. Vents can be fixed or openable of any infill material.

If metal is used, it is to be dark anodised or colour coated.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
H. Rear Court	
H1. Roof	A new roof of any profile can be added over the rear court, provided the roof is not higher than the 2nd storey floor level. Jackroof and skylight can be introduced in the new roof which can be reinforced concrete, light weight material or same roof material as the main roof. If metal is used, it is to be dark anodised or colour coated. Reinforced concrete flat roof can be used as a roof garden and landscape furniture can be considered. The rear boundary wall can be raised up to the sill height of the 2nd storey windows to form a parapet. The space along the parapet can be used to house condensing units. See Figure 12
H2. External Staircase	External staircases within rear courts are distinctive architectural features of the conservation buildings. Owners are encouraged to keep them so as to contribute to the charm and character of the area. However, existing external staircase, if any, can be retained or removed, New external staircase of any material can be added. If metal is used, it is to be dark anodised or colour coated. For selected streetblocks where the external staircases are intact, they will be required to be kept and their function as secondary access routes can be retained. These street blocks are Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
I. Rear Boundary Wall	
I1. Wall Height	If the existing rear court is retained, the original height of the wall is to be retained except when the rear court is to be roofed over and the wall has to be raised up to the 2nd storey floor level to give sufficient headroom. The wall can also be raised to the sill height of the 2nd storey windows to form a parapet if it is required to meet the minimum parapet height for roof terrace over the rear court or screening of condensing units. See Figure 12
I2. Openings*	New doors, windows and vent openings can be added. The resultant solid and void expression of the subject wall is to be compatible with the subject building. Design and material of doors and windows are to preferably match those on the upper storeys of the front facade. Metal vents are to be preferably dark anodised or colour coated. New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
I3. Canopy	New canopies over doors and windows with a projection of not more than 450mm, can be added. The frame is to be timber and the roof material, similar to that of the main roof.
*	*Conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area are to comply with the following:* ***Doors*** *Existing door position can be retained or changed. The doorway can be enlarged subject to a width of not more than 1800mm.* ***Windows*** *(i) At upper storeys, new casement windows can be added subject to the design and material matching those on the front facade.* *(ii) At the 1st storey, only high level windows can be added. The windows are to be timber framed with glass or timber infill.* ***Vents*** *Existing vents can be retained or sealed up, and new vents can be added. Vents can be fixed or openable of any material. If metal is used, it is to be dark anodised or colour coated.*

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key External Elements	**Design / Location / Material**
J. Airwell* *Applicable to shophouse with 2 main buildings where the central airwell is to be retained. For shophouse with only 1 main building, the airwell need not be retained.*	
J1. Size	The original size and location are to be retained and restored.
J2. Roof	A new roof of any profile can be added over the airwell, provided the roof is lower than the eave of the main roof. No other above ground structure or slab can be added within the airwell space. Light weight transparent or translucent roof covering is to be used. If metal framework is used, it is to be dark anodised or colour coated. See Figure 13
J3. Windows**	Design and material of windows are to preferably match those on the upper storeys of the front facade. New internal elements such as staircase landing, wall and partition cannot abut the window or door openings and vents.
J4. Enclosure	Original decorative or ornamental features, if any, at the airwell are to be retained and restored. The existing windows/openings in only one of the three sides of the airwell, excluding the existing party wall, can be fully walled up.
** *For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area, the following are applicable:* *(i) The original windows around the airwell are to be retained and restored.* *(ii) New windows around airwell are to match those on the front facade.*	

RESTORATION GUIDELINES		
SECONDARY SETTLEMENTS		
Key Internal Elements		**Design / Location / Material**
K.	**Floors**	
K1.	**Upper Storey Levels***	The existing level is to be retained. Voids are allowed up to 25% of the floor area of each floor, can be introduced. Existing timber floor with timber boards on timber joists is encouraged to be retained and restored.* Horizontal and/or vertical structural supports, if required to be added, are to abut the party walls to minimise impact on the existing structural system. For original reinforced concrete framed buildings, the original structural grids are to be retained. New columns, if required to be added, are to align with and respect the original grids. Provided the structural integrity of the building is not compromised, flexibility to shift some columns to meet the specific operational/ functional requirements can be considered on a need-to basis.
K2.	**1st Storey Level**	The existing floor level can be raised to meet minimum platform level required by relevant departments. Part of the existing level can be lowered for landscaping/ponds.
K3.	**Basement**	New basement is not allowed.
*	*For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area, original timber upper floors with timber boards on timber joists are to be retained and restored.*	
L.	**Party Wall**	
L1.	**Structure**	Party walls are principal load-bearing walls which are constructed of brick laid out in continuous stretcher bond courses. The internal surfaces of the party wall are usually unpierced and unadorned. To ensure structural stability, the base of the party wall is thickened to transfer the dead-load to the base of the foundation.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Key Internal Elements	**Design / Location / Material**
L2. Openings	The first 3-metre length of the load-bearing wall perpendicular to the 1st storey shopfront is to be retained as it is the minimum length required to retain the fine-grained character of the shophouses meaningfully. Slight reductions or variations within the first 3m can be considered on a need-to basis. For the rest of the party wall, there is no control on the percentage of openings to be introduced in the party wall. For original reinforced concrete framed buildings, there is no control on party wall openings and the first 3-metre length of the party wall perpendicular to the 1st storey shopfront need not be retained.
M. Staircase*	Existing staircase can be retained or removed or relocated. New staircase to replace or supplement the existing one can be of any material. The layout and railing design of the new staircase can vary. New staircase cannot abut any door or window openings or vents at the front, side and rear facades, airwell, rear service block or end gable wall.
N. Roof Mezzanine	New roof mezzanine can be added within the building envelope. The new floor level is to be set back: (a) A minimum of 1500mm from the inner face of the front facade wall if it is not lower than the top of the fanlight/window at the front facade of the uppermost storey. (b) A minimum of 2500mm from the inner face of the front facade wall if it is lower than the top of the fanlight/window at the front facade of the uppermost storey. If the front façade has an existing balcony, it is not necessary to set back the new floor. The floor cannot abut any window/door or transom/fanlight. See Figure 14 Minimum headroom and floor area are subject to compliance with the requirements of relevant technical departments. Floors of timber boards on timber joists are encouraged. **

RESTORATION GUIDELINES	
SECONDARY SETTLEMENTS	
Key Internal Elements	**Design / Location / Material**
*	*For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area, traditional material of timber is to be used with timber or steel stringer. Reinforced concrete can be used only if the existing staircase is of the same material.*
**	*For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 nad 71 to 82 in the Tiong Bahru Conservation Area, the floor of the roof mezzanine is to be of timber boards on timber joists if the existing uppermost floor is of timber.*

RESTORATION GUIDELINES		
SECONDARY SETTLEMENTS		
Key Elements		**Design / Location / Material**
O.	**New Rear Extension*** *For New Rear Extension, the following guidelines are applicable instead of items F, G, H, I and J.* *(* Not applicable for shophouses south of Syed Alwi Road in Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area)*	
O1.	**Roof** *	Design and material can vary.
*	*For new rear extensions to the conservation shophouses in the Geylang Conservation Area, the roof forms are also subject to the Geylang Urban Design Guidelines.*	
O2.	**Front/Side Facade**	Design and material can vary. The new rear extension that protrudes above the eaves of the main pitched roof is to be set back a minimum of 600mm clear from the main conservation building for articulation between the old and new buildings. To give greater design flexibility in the treatment of the new rear extension, façade articulations of the new rear extensions such as fins, ledges and planter boxes, can be considered within the 600mm set back. See Figure 15
O3.	**End Gable Wall**	Design and material can vary.
O4.	**Rear Facade**	Design and material can vary.
O5.	**New Rear Extensions for Corner Shophouse Units***	For corner units fronting two roads, the new rear extension can start from the pitched roof ridge of the corner block which is to be retained and restored, and from the eave of the main pitched roof of the conservation building. For corner units with end gable walls, the new rear extension can start from the eave of the main pitched roof of the conservation building with a minimum 600mm clear set back, similar to the guidelines for the rest of intermediate conservation buildings. For corner units with flat roofs, the new rear extension can start after the main conservation building and the side wall can be in line with the side facade or end gable wall. If there are distinctive architectural features such as staircores, they are to be retained and restored, and the new rear extension is to be adequately set back from these elements. See Figure 16

RESTORATION GUIDELINES	
SECONDARY SETTLEMENTS	
Key Elements	**Design / Location / Material**
O6. Floors *	Floor levels, including any basement and roof mezzanine, are to comply with Development Control guidelines. * The floors of the new extension can be of any material.
* *For new rear extensions to conservation shophouses in the Geylang Conservation Area, the floor levels are also subject to the Geylang Urban Design Guidelines.*	
O7. Car Parks	Carparking spaces, if required, are to be provided within the new rear extension. Ingress and egress are to be taken from existing/proposed rear service road.

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Mechanical & Electrical and Others	**Design / Location / Material**
P. Flue	Original masonry flue, if any, can be retained, repositioned or removed. New flue can be added. Repositioned or new flue is to be located in either the rear slope of the main roof or the rear secondary roofs or abutting the wall of rear facade/rear service block within the rear court. It can also abut the rear service block wall of the adjacent unit. The roof of the flue can be pitched or flat and is to be lower than the ridge of the main roof. See Figure 17 All external walls are to be of plastered brick or plasterboard and the roof to be unglazed, natural colour clay tiles of profile identical to the main roof or of reinforced concrete. Alternatively, metal flues can be exposed and painted the same colour as the background wall. The use of electrostatic air cleaning system is encouraged.
Q. Exhaust Fan	Exhaust fan is to be placed at the rear facade or rear service block facing the rear court. Any material can be used. If metal is used, it is to be dark anodised or colour coated. *
R. Lift Shaft	Lifts can be added, provided the shaft is on the rear slope of the main roof or on the secondary roof and lower than the roof ridge of the main roof.
***** *For conservation buildings south of Syed Alwi Road in the Jalan Besar Conservation Area and Blocks 55 to 59, 64 to 66 and 71 to 82 in the Tiong Bahru Conservation Area, metal vents are to be dark anodised or colour coated.*	

RESTORATION GUIDELINES SECONDARY SETTLEMENTS	
Mechanical & Electrical and Others	**Design / Location / Material**
S. Conduits and Pipes	Rainwater downpipes, gas pipes and air-condensing conduit pipes can be mounted on the surface of the rear wall. The air-condensing conduit pipes are to be properly encased and neatly laid out. All other utility/conduit pipes are not to be mounted on the surface of the external walls, unless specifically required by relevant technical departments. Exposed lightning tape and conductor are to be installed at a location least obtrusive from the exterior.
T. Air Conditioning System	Condensing units are to be integrated within the building envelope at the rear in a recess created within the rear boundary wall, or an opening created within the roof of the rear service block. The opening is to be properly screened. If metal is used for the screening, it is to be dark anodised or colour coated. See Figure 18 However, due to practical constraints in integrating the units within the building envelope and the differing needs of tenants and users, the condensing units can be neatly or compactly placed at the rear and lined along the parapet, party walls or rear service block walls The units are to be screened unless they are small and not visible from the street level. See Figure 19 Other locations for placing the condensing units can be considered on the merits of each case if there are particular site constraints, eg when the conservation building is “back-to-back” with another building. **Note**: These guidelines will be applicable when restoration works are carried out to unrestored conservation buildings and when standard additions and alterations (A&A) works are carried out to restored buildings. ***For Secondary Settlements within Central Area*** For developments within the Central Area, all condensing units and rooftop M&E plants and services located on the new extensions or new developments are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks, on Roofs and Building Facades Within the Central Area". See URA’s Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA /PB/2004/29-CUDD).

RESTORATION GUIDELINES	
SECONDARY SETTLEMENTS	
Mechanical & Electrical and Others	**Design / Location / Material**
U **Rooftop Mechanical & Electrical Plants and Services**	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.

2.3.3 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 19)

- Figure 1: Development Options for Shophouses
- Figure 2: New Link
- Figure 3: Jackroof and Skylight on Jackroof
- Figure 4: Allowable Structures on Existing Flat Roofs
- Figure 5: Secondary Windows
- Figure 6: Canopy
- Figure 7: Retractable Awning
- Figure 8: Five-Foot Way Floors
- Figure 9: End Gable Wall
- Figure 10: Rear Façade of Main Building
- Figure 11: Rear Service Block
- Figure 12: Rear Court and Rear Boundary Wall
- Figure 13: Airwell
- Figure 14: Roof Mezzanine
- Figure 15: Rear Extension
- Figure 16: New Rear Extensions for Corner Shophouse Units
- Figure 17: Flue
- Figure 18: Condensing Units Integrated within Building Envelope
- Figure 19: Condensing Units Placed at Rear Parapet and Walls

2.4 BUNGALOWS

Bungalows are independent dwelling units usually of one- or two-storeys. They tend to be located in serene and wooded environments away from the hustle and bustle of the city. Bungalows were first introduced into Singapore and Malaya by the British in the 1830s. The early versions of the bungalow were largely one-storey and had timber floors elevated on brick piers or timber posts to allow air circulation underneath.

The old bungalows in Singapore generally fall into five types. These are:

1 **The Early Bungalow (1860s)**
This bungalow is characterised by single storey buildings on stilts constructed either of timber or masonry.

2 **The Victorian Bungalow (1870-1890s)**
This bungalow is characterised by the heavy application of decorative ornamentation on the facade.

3 **The Black and White Bungalow (1900-1920s)**
This bungalow is characterised by its half-timber construction, broad, simple, over-hanging hipped roof and the sharp definition of openings in the plain white walls.

4 **The Art Deco Bungalow (Late 1920s-1930s)**
This bungalow is characterised by the simple, geometric streamlining of the classical motifs on its facade.

5 **The Modern Bungalow (1950s-1960s)**
This bungalow is characterised by its geometric, free-form approach.

For a detailed description of each type of bungalow, please refer to Part 1 on 'Understanding the Bungalows'.

2.4.1 PLANNING PARAMETERS

2.4.1.1 Conservation Plan

The plans (Appendix III) show the boundary of the conservation areas and the buildings to be conserved. The different types of bungalows to be conserved are largely located within the following conservation areas:

(a) **Good Class Bungalow Areas**
i. Chatsworth Park
ii. Holland Park & Ridout Road
iii. Nassim Road & White House Park

(b) **Mountbatten Road**

(c) **Southern Ridges**

Some are located within gazetted Conservation Areas like Joo Chiat and Geylang while a few are stand-alone conservation bungalows.

2.4.1.2 Building Use

The use shall follow the Master Plan intention for the respective areas.

2.4.1.3 Plot Ratio

The plot ratio for the bungalows within the Good Class Bungalow Areas, Mountbatten Road and Southern Ridges shall be the resultant of the building envelope of the conservation building or part thereof to be conserved, as well as that of the new extension(s), if any, which are to comply with the development control and planning guidelines for the areas.

For the other bungalows, the plot ratio shall be the resultant of the building envelope of the conservation building or part thereof to be conserved, as well as that of the new extension(s) if any, and subject to the maximum prescribed permissible plot ratio in the Master Plan for the respective areas.

For bungalows located on sites with GPR control and gazetted for conservation after 7 Jun 2004, the GFA of the bungalows can be computed as additional GFA over and above the Master Plan GPR.

[Amendment History: Circular No. URA/PB/2004/13-CUDD dated 7 June 2004]

2.4.1.4 Conservation Bungalows and Intensification

The applicant can consider the following options:

(a) To conserve the entire bungalow including the outhouse.

OR

(b) To conserve only the main building. If there is vacant land to the rear or sides, new extensions can be added subject to Development Control guidelines, the allowable building height of the area, and the requirements of relevant technical departments.

See Figure 1

New Extensions

New extensions are not to adversely affect the visibility of the conservation bungalows. In other words, the conservation bungalows are to be clearly discernible from the new developments.

Setbacks and interfacing zones are to be maintained so that there is articulation between the old and the new.

- **Setback**
  To safeguard the prominence of the conservation bungalow, the new extensions are to be recessed from the front facade line of the conservation bungalow and restricted to the rear wherever possible. Exceptions can be considered based on merits of the case if extensions are located at a considerable distance away from the conservation bungalow.

  The new extensions are also to comply with the prevailing Development Control guidelines such as boundary setback and buffer provisions.

- **Interfacing zone**
  An interfacing zone is to be provided around the conservation building to separate it from the new extensions. The new extensions generally cannot encroach onto the interfacing zone, although proposals to make use of the interfacing zone to integrate the old and new buildings may be allowed subject to evaluation on the effectiveness and suitability of such proposals from the architectural point of view.

- **Linkage**
  Linkages can be added between the new extensions and the conservation bungalow. The new extensions are not to abut the conservation bungalow directly as this will obliterate the original features on the facades. The sketch in Figure 2 can be used as a guide.

The design of the new extensions is to be compatible to the conservation bungalow. Compatibility need not, however, mean a direct replication of the conservation bungalow.

These serve only as broad guidelines and are not meant to dictate developments on the sites. The detailed parameters and guidelines for each site will be established with the applicants at the planning application stage.

See Annexure 1 and Figures 3(a) to 3(e) for the specific parameters and controls for new extensions for bungalows at Mountbatten Road.

2.4.1.5 SUBDIVISION OF LAND

For bungalows located on larger sites, the land can be subdivided to accommodate the conservation bungalow and for redevelopment of the remaining site.

In the Good Class Bungalow Areas, as a concession to facilitate the subdivision of land, one sub-standard plot size of not less than 1000 sq m can be considered provided the total land area together with the conservation bungalow plot is not less than 2800 sq m. Please refer to Figure 4 for illustration.

At Mountbatten Road, the balance land within the larger conservation bungalow lots can be subdivided into additional bungalow/semi-detached plots. The conservation bungalow and the new extensions can also be strata-subdivided into apartment units.

At other locations, the subdivision of the conservation bungalow lot and the new developments are subject to current planning and Development Control guidelines.

2.4.1.6 Development Charge

Under the Planning Act, development charge, equivalent to the difference between the Development Baseline and the Development Ceiling for that land, is payable in respect of any development of the land or when there is a change in the use of the land or building.

Exemption from payment of development charge, if applicable, is given in respect of the *value enhancement arising from the proposed use or use changes on the gross floor area for the building or part thereof on the land to be conserved* provided that such conservation is carried out in accordance with the approved plans and completed within a period of 2 years from the date of conservation permission.

Development charge, where applicable, shall be leviable to the new extension(s), as well as to any new floor areas e.g. roof mezzanines within the envelope of the building to be conserved.

2.4.1.7 Carparking

Provision of car parks or payment of car parks deficiency charge for a conservation building or any part thereof that is conserved is waived if the conservation guidelines are fully complied with and the conservation works are completed in accordance with the approved plans.

The requirement for provision of carparking spaces under the Parking Places (Provision of Parking Places and Parking Spaces) Rules and any statutory modifications or re-enactments thereof for the time being in force shall be complied with in full for the new extension(s).

2.4.2 RESTORATION GUIDELINES

Key Elements Subject To Mandatory Compliance

The following tables specify the design, location and material for all key elements. The fundamental principle, the "**3R**", is **maximum Retention, sensitive Restoration and careful Repair**. Replacement, if any, is to follow the original design and materials. New installation/addition must not drastically affect the intrinsic character of the building. Items where design and material can vary are listed in Appendix II.

Where applicable, the requirements of the relevant technical departments are to be complied with. Owners are also required to obtain the consent of the relevant parties for roof eaves, canopies and projections of any nature beyond the site boundary.

RESTORATION GUIDELINES		
BUNGALOWS		
Key External Elements		**Design / Location / Material**
A.	**Roof**	
A1.	**Main Roof**	The original profile, pitch, height and eaves projection are to be retained and restored. Unglazed, natural colour clay roof tiles, of any size and profile, are to be used. Existing reinforced concrete roof can be retained. The underside of roof eaves can be exposed or covered with plasterboard. Structural strengthening or supports like reinforced concrete roof beams, if required to be added, are to be sensitively designed to minimise visual impact on the traditional timber system which is to be retained.
A2.	**Jackroof**	New jackroof is not allowed.
A3.	**Skylight**	Subject to evaluation.
A4.	**Dormer Windows**	Subject to evaluation.
B.	**Building Facades**	
B1.	**Architectural Features (Windows and doors, ornaments, etc)**	The original fanlights, windows, doors and vents are to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject bungalow. New internal elements such as staircase landing, wall and partition are not to abut the original window or door openings. Security bars at windows and doors, if any, can be retained or removed. New security bars of traditional design and material can be added. Existing mild steel frames of doors, windows and vents can be changed to powder coated aluminium frames of similar appearance as the mild steel frames.

RESTORATION GUIDELINES		
BUNGALOWS		
Key External Elements		**Design / Location / Material**
B2.	**Canopy / Porch / Verandah / Balcony / Balustrades**	The original canopy, porch, verandah, balcony and balustrades are to be retained and restored. The inner facade behind the balcony or verandah is also to be retained and restored. To refer to 'Specific Facade Restoration Guidelines' of the subject bungalow. The balconies and verandahs can be enclosed with new windows subject to the design and material matching those of the respective facade. This is not applicable to terrace or open to sky balcony or verandah. Frameless clear glass with sensitive installation details can be considered subject to the merits of the case. However, owners are encouraged to keep the verandahs and balconies open as they add depth and façade articulation to the building.
B3.	**Secondary Windows and Doors**	New secondary casement, French or sliding window and door can be added subject to the design being compatible with those of the main window and door. The frame can be of any material. If metal is used, it is to be dark anodised or colour coated. The infill can be of timber or glass. Tinted, coloured and obscure glass can be used.
B4.	**Timber Surfaces**	Timber surfaces can be either painted or stained.
B5.	**Shanghai Plaster Finish**	For a building with existing unpainted Shanghai plaster finish, the finish is to be retained and restored. If the Shanghai plaster finish is already painted over, then the building can be repainted although the owner is encouraged to remove the paint work and revert to the original Shanghai plaster finish.
B6.	**Fair-faced Brickwalls**	For a building with existing unpainted fair-faced brickwalls, the fair-faced brickwalls are to be retained and restored If the fair-faced brickwalls are already painted over, then the walls can be repainted although the owner is encouraged to remove the paint work and revert to the original fair-faced finish.
C.	**Outhouse**	To refer to 'Specific Facade Restoration Guidelines' of the subject bungalow. The applicant has the choice to keep or demolish the outhouse for new extension.

RESTORATION GUIDELINES BUNGALOWS	
Key Internal Elements	**Design / Location / Material**
D. Floors	
D1. Structure	The existing structural system is to be retained and restored. Horizontal and/or vertical structural supports, if required to be added, are to abut the load-bearing walls to minimise impact on the existing structural system which is to be retained. For original reinforced concrete framed buildings, the original structural grids are to be retained. New columns, if required to be added, are to align with and respect the original grids. Provided the structural integrity of the building is not compromised, flexibility to shift some columns to meet the specific operational/ functional requirements can be considered on a need-to basis.
D2. Upper Floors	The existing level, timber floor and structural system are to be retained and restored. If the existing floors are reinforced concrete, the same material can be retained. Voids up to 25% of the floor area of each floor, can be introduced. For wet areas eg toilets and kitchen, reinforced concrete floor can be used. The floor material can vary for new extension linked to the conservation bungalow.
D3. Raised Ground Floor	Conservation bungalows, which are raised more than 1m from the ground, can have an additional floor below with different façade design and material, and subject to the following : (a) The structural stability of the bungalow is to be maintained. (b) The facades of the additional floor is set back based on a 45-degree control from the underside of the existing floor slab of the bungalow. (c) The resultant storey height of the bungalow complies with the height control for the area. See Figure 5

RESTORATION GUIDELINES	
BUNGALOWS	
Key Internal Elements	**Design / Location / Material**
D4. Basement	New basement are to be located only within the new extension. Basement is not allowed under the conservation bungalow.
E. Staircase	Existing staircase can be retained, removed or relocated. New staircase to replace or supplement the existing one is to be constructed in timber or metal if the building has timber floors. The layout and railing design of the new staircase can vary. New staircase cannot abut any door or window openings or vents at the front, side and rear facades. Reinforced concrete staircase, only if existing, can be retained. Owners may be required to keep the original staircase if it is a unique feature of the building.
F. Internal Finishes	Some buildings have internal ceiling/wall/floor finishes that give a distinctive character to the building. Owners may be required to keep such original finishes.

RESTORATION GUIDELINES BUNGALOWS	
Mechanical & Electrical and Others	**Design / Location / Material**
G. Exhaust Fan	Fan is to be placed behind vents. The design of the vent is to be compatible with the character of the conservation bungalow. Opening for exhaust fan is to be timber framed fixed timber louvre/precast concrete/porcelain vents.
H. Air-conditioning System	Condensing units are to be located out of sight from public road and be least obtrusive from the exterior. The condensing units are to be screened unless they are small and not visible from the street levels. See Figure 6 For developments within the Central Area, they are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks on Roofs and Building Facades Within the Central Area". See URA's Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA/PB/2004/29-CUDD)

2.4.3 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 6 and Annexure 1)

- Figure 1: Extent of Building to be Conserved
- Figure 2: New Extension to Conservation Bungalows
- Figures 3(a) to 3(e): Schematic Diagrams of New Extension
- Figure 4: Good Class Bungalow Area
- Figure 5: Additional Floor below Conservation Bungalows
- Figure 6: Air-Condensing System
- Annexure 1: Bungalows at Mountbatten Road

PART 3: ENVELOPE CONTROL GUIDELINES

Envelope control sites are vacant lands and buildings located within Conservation Areas, but not designated for conservation. The Conservation Plans in Appendix III show their location within each of the Historic Districts, Residential Historic Districts and Secondary Settlements. These sites can be redeveloped subject to envelope control guidelines. The envelope is defined by the front facade, the roof and rear facade. Envelope control sites in the Geylang Conservation Area are also subject to the Geylang Urban Design Guidelines (GUDG).

The Historic Districts and Residential Historic Districts have two types of envelope control sites:

a) **Infill Development**
Sites located between or adjacent to conservation buildings.

b) **Independent Development**
Stand-alone sites or sites located within a streetblock without any conservation building.

The Secondary Settlements have three types of envelope control sites:

a) **Type I Infill Development**
Sites located between or adjacent to conservation buildings. The total width of the site and adjacent envelope control sites, if any, is not more than the width of two typical shophouse units.

b) **Type II Infill Development**
Sites located between or adjacent to conservation buildings. The total width of the site and adjacent envelope control sites, if any, is more than the width of two typical shophouse units.

c) **Independent Development**
Stand-alone sites or sites located within a streetblock without any conservation building.

3.1 PLANNING PARAMETERS

3.1.1 Building use

Historic Districts

The use shall follow the Master Plan intention of the respective areas. If the site is located within the core area, the first storey must be for shops or eating establishments. The Conservation Plans show the extent of the designated core areas in Chinatown, Kampong Glam and Little India. Certain trades are not permitted in the Historic Districts and the core areas. (See Appendix IA for Incompatible & Pollutive Trades and Appendix IB for Location of Core Areas).

Residential Historic Districts

Blair Plain: Based on the Master Plan, the entire area is zoned Residential except for House Nos. 1 to 89 (Odd Nos.) Kampong Bahru Road which is for commercial use. House Nos. 167 Neil Road; 52 and 54 Blair Road; 63, 64, 68 and 69 Spottiswoode Park Road, are zoned Residential with Commercial at the first storey. As they are in a residential area, it is preferable that they are used for residential purpose.

Emerald Hill: Based on the Master Plan, the entire area is zoned Residential except for House Nos. 180 Orchard Road (Peranakan Place), House No. 202 Orchard Road, House Nos. 2, 3, 5, 7 and 9 Emerald Hill Road and House Nos. 17 to 49 (Odd Nos.) Cuppage Road which are zoned Commercial.

Secondary Settlements

The use shall follow the Master Plan intention of the respective areas.

3.1.2 Plot Ratio

Historic Districts & Residential Historic Districts

The plot ratio shall be the resultant of the building envelope following the envelope control guidelines and, where applicable, subject to the maximum permissible plot ratio determined by the Competent Authority.

Secondary Settlements

The plot ratio shall follow the prescribed maximum permissible plot ratio in the Master Plan for the respective areas.

3.1.3 Development Charge

Under the Planning Act, development charge, equivalent to the difference between the Development Baseline and the Development Ceiling for that land, is payable in respect of any development of the land or when there is a change in the use of the land or building.

3.1.4 Carparking

Car parks shall be provided in accordance with the Parking Places (Provision of Parking Places and Parking Spaces) Rules and any statutory modifications or re-enactments thereof for the time being in force.

3.2 ENVELOPE CONTROL GUIDELINES

3.2.1 New Building

The objective of the envelope control guidelines is to ensure that new buildings will continue to respect:

(a) The characteristics of the existing street, such as the provision of covered walkways and the continuity of the streetscape, and

(b) The overall scale and character of the area.

3.2.2 Items/Key Elements For Compliance

The guidelines for the envelope control sites within the Historic Districts and Residential Historic Districts, and the Secondary Settlements are listed in the following tables. Where applicable, the requirements of the relevant technical departments are to be complied with.

3.3 STRUCTURAL STABILITY OF ADJACENT CONSERVATION BUILDINGS

A professional engineer is to be engaged to ensure that the structural stability of the adjacent conservation buildings are not adversely affected by the new building. This is particularly essential when a new basement is to be constructed next to a conservation building. All reasonable care and protection are to be accorded to the adjacent conservation buildings to ensure retention of their structural integrity.

ENVELOPE CONTROL GUIDELINES		
HISTORIC DISTRICTS AND RESIDENTIAL HISTORIC DISTRICTS		
Key Elements	**Infill Development**	**Independent Development**
A. Building Height	The allowable number of storeys is shown in the Conservation Plans in Appendix III. The overall scale of the building, in terms of the springing line, roof ridge or top of the roof parapet where applicable, is to match that of the adjacent conservation buildings. If the adjacent conservation buildings have different heights, the higher building forms the basis of the height control. See Figure 1	The allowable number of storeys is shown in the Conservation Plans in Appendix III. The floor-to-floor height is to comply with Development Control guidelines. In Emerald Hill Conservation Area, two rows of buildings along Emerald Hill Road and Saunders Road are under street block control as shown in plan URA/CUD Plan Release 1/2006E. [Amendment History: Circular No. URA/PB/2006/12-CUDD dated 5 Jun 2006]
B. Setback	Front and rear facades of the building are to line up with the adjacent conservation buildings.	The road reserve lines and current Development Control setback requirements are applicable. In Emerald Hill Conservation Area, two rows of buildings along Emerald Hill Road and Saunders Road are under street block control as shown in plan URA/CUD Plan Release 1/2006E. [Amendment History: Circular No. URA/PB/2006/12-CUDD dated 5 Jun 2006]
C. Roof	Form and material can vary.	Form and material can vary.
D. Front Facade	Design and material can vary.	Design and material can vary.

ENVELOPE CONTROL GUIDELINES		
HISTORIC DISTRICTS AND RESIDENTIAL HISTORIC DISTRICTS		
Key Elements	**Infill Development**	**Independent Development**
D1. Covered Walkway	Colonnaded covered walkway is to be provided to maintain the continuity of the streetscape. The width and height are to match that of adjacent conservation buildings and the soffit height cannot exceed 3.6m. The floor level is to match that of the adjacent conservation building. Where the difference in level is not more than 175mm, a ramp is to be provided. The gradient of the ramps cannot be steeper than 1:10. The flooring can be of any materials provided it does not have a highly polished gloss finish.	Covered walkway is to be provided to maintain the character of the streetscape. The width and height are to comply with Development Control guidelines. The floor level is to match that of open walkway.
E. Side Facade	Design and material can vary.	Design and material can vary.
F. Rear Facade	Design and material can vary.	Design and material can vary.
G. Party Wall	The party wall form of development is to be kept. Party wall, if existing, is to be retained. Any party wall exposed as external wall cannot have any opening.	Any party wall exposed as external wall cannot have any opening.
H. Basement	Basement can be considered on a case to case basis and it must not affect the structural stability of adjacent conservation buildings. [Amendment History: Modified in Nov 2006 for clarity to applicants]	Basement is allowed.
I. Mechanical/Electrical		
I1. Flue and Vent	Flue and vent are to be located at the rear and their height, not higher than the ridge of the main roof.	Flue and vent are to be located at the rear.

ENVELOPE CONTROL GUIDELINES		
HISTORIC DISTRICTS AND RESIDENTIAL HISTORIC DISTRICTS		
Key Elements	**Infill Development**	**Independent Development**
I2. Lift Shaft	Lift shaft is to be located at the rear slope of the main roof or on secondary roof. The height cannot exceed the ridge of the main roof.	Lift shaft can be at any location.
I3. Air Conditioning System	Condensing units are to be located out of sight from public road and be least obtrusive from the exterior. The condensing units are to be screened unless they are small and not visible from the street levels. See Figure 2 For developments within the Central Area, they are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks on Roofs and Building Facades Within the Central Area". See URA's Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA/ PB/2004/29-CUDD)	Condensing units are to be located out of sight from public road and be least obtrusive from the exterior. The condensing units are to be screened unless they are small and not visible from the street levels. See Figure 2 For developments within the Central Area, they are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks on Roofs and Building Facades Within the Central Area". See URA's Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA/ PB/2004/29-CUDD)
I4. Rooftop Mechanical & Electrical Plants and Services	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of

ENVELOPE CONTROL GUIDELINES		
HISTORIC DISTRICTS AND RESIDENTIAL HISTORIC DISTRICTS		
Key Elements	**Infill Development**	**Independent Development**
	void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.	void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.
J. Signages	Please refer to Part 4 on "Signage Guidelines" for conservation buildings.	Please refer to Part 4 on "Signage Guidelines" for conservation buildings.

ENVELOPE CONTROL GUIDELINES			
SECONDARY SETTLEMENTS			
Key Elements		**Type I Infill Development**	**Type II Infill & Independent Development**
A.	**Building Height***	The overall scale of the main building fronting the road, in terms of the springing line, roof ridge or top of the roof parapet where applicable, is to match that of the adjacent conservation buildings. If the adjacent conservation buildings have different heights, the higher building forms the basis of the height control. See Figure 3 The rear can be developed up to the maximum number of storeys allowable within the respective areas. The floor-to-floor height of the rear is to comply with Development Control guidelines.	Development can be up to the maximum number of storeys allowable within the respective areas. The floor-to-floor height is to comply with Development Control Guidelines.
B.	**Setback***	Front façade of the building is to line up with the adjacent conservation buildings. The rear is to be set back to the rear service road widening line.	The road reserve lines and current Development Control setback requirements are applicable.
C.	**Roof***	Form and material can vary	Form and material can vary
D.	**Front Facade**	Design and material can vary.	Design and material can vary.
D1.	**Covered Walkway***	Colonnaded covered walkway is to be provided to maintain the continuity of the streetscape. The width and height are to match that of adjacent conservation buildings and the soffit height cannot exceed 3.6m. The floor level is to match that of the adjacent conservation building. Where the difference in level is not more than 175mm, a ramp is to be provided. The gradient of the ramps cannot be steeper than 1:10. The flooring can be of any material provided it does not Have a highly polished gloss finish.	Covered walkway is to be provided to maintain the character of the streetscape. The width and height of covered walkways are to comply with Development Control guidelines. The floor level is to match that of open walkway.
*	*For Geylang Conservation Area, the building height, setbacks, roof forms and covered walkway of envelope control sites are also subject to the Geylang Urban Design Guidelines.*		

ENVELOPE CONTROL GUIDELINES		
SECONDARY SETTLEMENTS		
Key Elements	**Type I Infill Development**	**Type II Infill & Independent Development**
E. Side Facade	Design and material can vary.	Design and material can vary.
F. Rear Facade	Design and material can vary.	Design and material can vary.
G. Party Wall	The party wall form of development is to be kept. Party wall, if existing, is to be retained. Any party wall exposed as external wall cannot have any opening.	For Type II Infill Development, the party wall form of development is to be kept. Party wall, if existing, is to be retained. Any party wall exposed as external wall cannot have any opening.
H. Basement	Basement can be considered on a case to case basis and it must not affect the structural stability of adjacent conservation buildings. [Amendment History: Modified in Nov 2006 for clarity to applicants]	For Type II Infill Development, basement can be considered on a case to case basis and it must not affect the structural stability of adjacent conservation buildings. [Amendment History: Modified in Nov 2006 for clarity to applicants] For Independent Development, basement is allowed.
I. Mechanical/Electrical		
I1. Flue and Vent	Flue and vent are to be located at the rear.	Flue and vent are to be located at the rear.
I2. Lift Shaft	Lift shaft is to be located away from the road and not on the front slope of the main roof.	Lift shaft can be at any location.

ENVELOPE CONTROL GUIDELINES		
SECONDARY SETTLEMENTS		
Key Elements	**Type I Infill Development**	**Type II Infill & Independent Development**
I3. Air Conditioning System	Condensing units are to be located out of sight from public road and be least obtrusive from the exterior. The condensing units are to be screened unless they are small and not visible from the street levels. See Figure 2 For developments within the Central Area, they are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks on Roofs and Building Facades Within the Central Area". See URA's Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA/ PB/2004/29-CUDD)	Condensing units are to be located out of sight from public road and be least obtrusive from the exterior. The condensing units are to be screened unless they are small and not visible from the street levels. See Figure 2 For developments within the Central Area, they are to comply with the screening requirements stipulated in the "Screening of Mechanical & Electrical Services and Car Parks on Roofs and Building Facades Within the Central Area". See URA's Circular to Professional Institutes dated 6 Sep 2004 (Circular No: URA/ PB/2004/29-CUDD)
I4. Rooftop Mechanical & Electrical Plants and Services	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.	Mechanical & Electrical plants and rooftop services are to be visually screened from the top and all sides. If metal is used for the screening, it is to be dark anodised or colour coated. The spacing of trellises, louvres or other similar types of construction used for screening are to be equal or less than the depth of its individual members. The screening elements are to be orientated to cut off views of the services from the street level and surrounding buildings. If perforated panels are used, the porosity (i.e. percentage of void-to-solid) of the perforated panels is to be equal or less than 25% and the size of openings cannot exceed 30mm in diameter.
J. Signages	Please refer to Part 4 on "Signage Guidelines" for conservation buildings.	Please refer to Part 4 on "Signage Guidelines" for conservation buildings.

3.4 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 3)

- Figure 1: Building Height of Infill Developments at Historic and Residential Historic Districts
- Figure 2: Air Conditioning System
- Figure 3: Building Height of Type I Infill Developments at Secondary Settlements

PART 4: SIGNAGE GUIDELINES

Building signs have many functions. They also add interest and character to a building particularly if it is designated part of a conservation area.

4.1 SIGNS IN CONSERVATION AREAS

Two types of signs are common in conservation areas.

4.1.1 Traditional Signs

These take the form of carved timber panels with gold-painted Chinese characters sometimes combined with English translations, and letterings/characters formed in plaster relief or painted onto timber boards or metal panels. The degree of embellishment varies considerably. Traditional signs are not self-illuminating.

Owners are encouraged to retain existing traditional signs that have acquired significance eg plaster relief signs on the outer face of columns, beams, friezes and pediments. The replacement of signage wordings, logo or building name at the pediment, column, beam and frieze by new owners without marring the decorative features of the building, can be considered.

The replacement of the signage wordings on the pediment with the year the building was restored cannot be supported.

4.1.2 Contemporary Signs

These are made usually of plastic with characters or words formed in contrasting colours, and can be lit from within their casings, ie self-illuminating. Some contemporary signs include painted metal panels and cloth banners to publicise events or promote sale.

4.2 DESIGN, LOCATION AND SIZE OF SIGNS

Business signs are useful, interesting and attractive when thoughtfully and tastefully designed, and compatible with the character of the building and streetscape. As such, care is to be taken when designing such signs.

Signs are to be carefully positioned so that they are clear and easy to read from the street level and do not visually dominate the building. Most important of all, they do not cover or block any key architectural features.

A sensitively planned and designed sign will complement a building's heritage. The incorrect use of signage can severely compromise the character and unity of a building and its setting.

The following guidelines are applicable to business signs which also have to comply with the requirements of the relevant technical departments. Variations can be considered based on the merits of each case.

SIGNAGE GUIDELINES		
KEY ELEMENTS		**LOCATION / SIZE**
A	**Forecourt Wall**	Signs can be mounted on top or on the surface of a forecourt wall. They are to be confined within the width or surface area of the wall, and do not cover or block any architectural features. See Figure 1
B	**Front Facade**	
B1	**Shopfront & Residential Front**	For a shopfront (either full-width or with side staircase entrance), signs can be mounted within the transom panel. For an original residential front, signs can be mounted above the entrance door and are not to exceed the width of the door. See Figure 2
B2	**Five- Foot Way**	Signs can be suspended within the clear width between the column and the party wall. The underside of the sign is to have a minimum headroom clearance of 2500mm above the walkway level. See Figure 3
B3	**First Storey Column**	Signs can be projected from a column or mounted on the surface of column. For signs projected from a column, the following are applicable : (a) They are located at the left hand side of the building as viewed from the road. (b) They do not exceed the height of the column shaft. (c) They do not project beyond existing roadside drain at first storey. (d) The width is not more than 600mm. (e) The underside of the sign is to have a minimum headroom clearance of 2500mm above the walkway level. For signs on the surface of column, individual letters or sign panel cannot be larger than the surface of the column and must follow the shape of the column. See Figure 4

SIGNAGE GUIDELINES	
KEY ELEMENTS	**LOCATION / SIZE**
B4 Frieze	Individual letters or sign panel can be mounted within a frieze or suspended from a frieze. See Figure 5
B5 Upper Storey Facade	Signs can be projected from an upper storey pilaster. They are to be located at the left hand side of the building as viewed from the road. The overall height of the sign (inclusive of the suspension brackets) cannot exceed the shaft of the pilaster. See Figure 6 For a building of Art Deco or Modern style, individual letters or panel sign sensitively planned and designed, can be mounted on the facade. They cannot cover or block any architectural features. See Figure 7
C End Gable Wall	Sign can be mounted within the width of an entrance to a five-foot way and a door to the upper storey, where applicable. Variations in the size and location can be considered on merits of the case if they meet the following criteria: (a) The sign is attractively designed. (b) It comprises mural painting on the wall, individual letters and graphics, or flat-mounted display panels. Projected sign is not allowed. (c) The sign does not cover or block any architectural elements or features/ornaments. (d) It does not overwhelm or adversely impact on the architectural character of the building. See Figure 8
D Rear Wall	Signs can be mounted above a rear door and not to exceed the width of the door. Variations can be considered based on the merits of the case. See Figure 9

Note : Business signs can incorporate small advertisements, up to one-third of the overall content of each sign. Small independent advertisement signs projecting from the front facade column/pilaster can be considered based on the merits of the case.

4.3 APPROVAL FOR CONSERVATION SIGNAGE

All signage proposals within Conservation Areas (except for premium service) are to be submitted directly to the Advertising Licensing Section of the Building and Construction Authority (BCA).

Premium service for signage proposals is available at The URA Centre, 11th storey. A fee of $40 (subject to GST) will be charged and the submission is processed on-the-spot. Please note that this service is only for proposals that comply fully with the signage guidelines.

4.4 DRAWINGS & ILLUSTRATIONS

(Click here to see Figure 1 to Figure 9)

- Figure 1: Forecourt Wall
- Figure 2: Shopfront and Residential Front
- Figure 3: Five-Foot Way
- Figure 4: First Storey Column
- Figure 5: Frieze
- Figure 6: Upper Storey Façade (Pilaster)
- Figure 7: Upper Storey Façade (Art Deco and Modern Style)
- Figure 8: End Gable Wall
- Figure 9: Rear Wall

PART 5: APPENDICES

APPENDIX IA - INCOMPATIBLE AND POLLUTIVE TRADES

Incompatible Trades Not Allowed Inside the Core Areas

(See Appendix 1B for location of core areas)

1 Western fast-food restaurants

2 Supermarkets

3 Karaoke lounges, nightclubs, discotheques and amusement centres

4 Building materials/car showrooms

5 Nursing Homes

6 Western knock-down furniture

7 Health Centres (except at the upper storeys for Chinatown and Little India only)

8 Bars/pubs and Nightclubs (except at the upper storeys for Chinatown only)

9 In addition to the Kampong Glam Core Area, bars/pubs and nightclubs are also not allowed within buildings along Kandahar, Baghdad, Pahang and Aliwal Streets, Haji Lane and Sultan Gate, as shown in the plan in Appendix 1C

10 Offices (except at the upper storeys)

Pollutive Trades Not Allowed Inside and Outside the Core Areas

(See Appendix 1B for location of core areas)

1 Engineering, spray-painting, welding, plumbing, motor, metal, joinery workshops

2 Tyres and battery shops

3 Printing presses

4 Plastic products manufacturing

5 Industries

Note:

Warehouse stores are not allowed. They may only be considered if such a use is ancillary to the main use. Places of worship, unless previously authorised, are not allowed within the conservation buildings. They should be located on land zoned for places of worship.

APPENDIX IB – LOCATION OF CORE AREAS

1 Chinatown Historic District

2 Kampong Glam Historic District

3 Little India Historic District

APPENDIX IC – KAMPONG GLAM CONSERVATION AREA (EXTENDED EXCLUSION BOUNDARY)

(Click here to see location plan)

APPENDIX II - LIST OF ITEMS WHERE DESIGN AND MATERIALS CAN VARY

The following items can vary in design and material:

- Gutter and Rainwater Downpipe*
- Colour of Building**
- Letter Box
- Security Provision***
- Lighting Fixture
- Meter Box

* *The provision of gutter and rainwater downpipe is optional. If provided, clearance from the relevant technical department is required at Building Plan stage.*

** *Except for selected buildings where colour is a requirement in the 'Specific Facade Restoration Guidelines'*.

*** *Security Provision refers to grilles at the rear of the building and fences along side/rear boundary walls*

APPENDIX III - **CONSERVATION AREA PLANS**

Historic Districts

- Boat Quay
- Chinatown
- Kampong Glam
- Little India

Residential Historic Districts

- Blair Plain
- Cairnhill
- Emerald Hill

Secondary Settlements

- Balestier
- Beach Road
- Geylang
- Jalan Besar
- Jalan Jurong Kechil
- Joo Chiat
- Mount Sophia
- River Valley
- Tanjong Katong
- Tiong Bahru

Bungalows

- Chatsworth Park
- Ridout Road & Holland Park
- Nassim Road & White House Park
- Mountbatten Road

- Southern Ridges