

DBJ
REPORT

**The Success of
Singapore's Waterfront Revitalisation**

January 2000
Development Bank of Japan
Representative Office in Singapore

The Success of Singapore's Waterfront Revitalisation

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Introduction

The redevelopment of Singapore's waterfront areas: Boat Quay, Clarke Quay and Robertson Quay has been hailed as a success in restoring life into the country's once underdeveloped and rundown river area at the Central Business District (CBD). The Singapore River, which was then choked with garbage and sewerage in the 1970s, is now clean, with an added festive atmosphere, vibrant and attractive.

Since the completion of Boat Quay in 1992, and Clarke Quay in 1993, the Singapore River area has provided excitement and entertainment to both locals and tourists alike. Reminiscent of shophouses and warehouses of the past, Boat Quay and Clarke Quay have become must-see destinations for alfresco dining and family entertainment. Clarke Quay alone has 18,000 visitors each weekday, 40,000 on weekends, and 62,000 on Christmas day. Young Singaporeans consider Boat Quay one of the best places in Singapore to people-watch and be seen. With a good mix of high-end restaurants and bars, it is the hangout for most professionals and expatriates. Pictures 1 and 2 of the appendix show the location of the Singapore River, the location of the Singapore River planning area within the central area, and the sub-zones Boat Quay, Clarke Quay and Robertson Quay.

The river development seizes upon the huge potential catchment of the surrounding area. Adjacent to the CBD, of millions of square feet of office space, used by at least 250,000 people, there is tremendous amount of profit to be made. Developers like DBS Land invested \$186 million to restore the shophouses of Clarke Quay. Marketing cost of Boat Quay and Clarke Quay were \$1.2 million and \$4 million respectively in 1994. Monthly rent for a two-storey shophouse in Boat Quay is about \$9 to \$10 per square foot. This adds up to about \$20,000 a month, which is a premium rate to pay for a shop space. But the attraction of Boat Quay of 4000 visitors a day still enabled the place to be commercially sustainable.

Due to the high rents, tenant turnover is frequent in Boat Quay. The main survivors are bar, disco and restaurant tenants. Very little retail (except for one photography studio) is found in Boat Quay. Harry's Quayside, one of the first and surviving bars for example, makes about \$1500 a night.

Why was this project such a success in drawing the modern crowd to the area?

Through this report, we look into the various reasons for this success. We first trace the background of the area around the Singapore River and identify the factors that led to its redevelopment. We then consider the collaborative roles the public and private sector play to contribute to this success, as well as studying the various methodologies and strategies they used to conserve and transform this historic area from a lifeless, run-down area to a bustling, carnival-like entertainment hub.

Part 1 provides a vital historical background of the Singapore River area, which was a focal point of trade since it was founded. Part 2 describes the facilitative role of the Urban Redevelopment Authority (URA), Singapore's national planning and conservation

authority, in the River project, as they plan towards a tropical city of excellence. This is followed by a vision for the Singapore River area, initiated also from URA, to revive the once bustling area in the central business district. Part 4, 5 and 6 goes through each step in implementing the plans for the River area. The 7th part is a case study of Clarke Quay Festival Village. The final part identifies the success factors and gives suggestions for future similar projects. All pictures are in the appendix at the end of the report.

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Background

A Focal Point of Trade

Trading first began along the Singapore River since it was founded in 1819 and became a British colony. The Singapore River has been a focal point of trading activities when its founder, Sir Stamford Raffles declared Singapore a free port. Since then, the Singapore gradually established itself as an entreport port, serving the British colonies.

The sheltered banks of the River made excellent loading and unloading places. Ship repair-yards, warehouses and jetties soon sprang up along the banks of the River. Merchants from India, China, Thailand, Indonesia and Malaysia came to their respective anchorage off the River. The Singapore River soon became a bustling area crowded with shipping enterprises.

As trade increased along the River, *tongkangs* or rivercrafts increasingly dominated river traffic. These *tongkangs* ply the waters everyday, ferrying cargoes from ships in the open sea to warehouses along the riverbank and vice-versa, without which it would be impossible to load and unload at the wharves as the river is too shallow. The River gradually became overcrowded. Boat Quay was the most crowded of all, encompassing $\frac{3}{4}$ of all shipping business by the 1860s, because it is located nearest the mouth of the river, where its channel is also the widest, at 160 metres.

Commerce too began to develop around the River. Boat Quay, Clarke Quay and Robertson Quay was lined with offices and godowns (warehouses) built by merchants. Commercial Square, now known as Raffles Place is a stone's throw away, where financial activities were carried out.

Thus Singapore progressed as a commercial centre and a trading port with its main activities around and along the Singapore River. The River is seen as the lifeline of Singapore, which enabled the country to prosper to become the world's major trading port and financial centre.

Cleaning up the River

Intensive use of the River for trading caused the River to be polluted with industrial waste, garbage and sewerage over the years. Lighters were the identified as the main source of pollution and congestion, and thus were encouraged to relocate to the larger and newer Pasir Panjang wharves. With the rapid increase in the number of trading ships arriving into Singapore, the Singapore River could no longer sustain the rise in shipping traffic. With the government initiative to upgrade and expand the nearby Pasir Panjang Wharves, Keppel Container Terminal and Tanjong Pagar Container Terminal, there was a gradual phasing out of all port activities along the River. By 1983, all port activities were relocated to Pasir Panjang, Keppel and Tanjong Pagar. Very little activities took place at the Singapore River since. The River, which contributed enormously to the early development of Singapore, became a quiet place few visited.

On 27th February 1977, the then Prime Minister Lee Kuan Yew challenged Singapore to clean up the river. A 10-year cleaning programme was then taken up by the Ministry of Environment to clean the river. In September 1987, the Ministry of Environment's "Clean Rivers Commemoration" celebrated the success of the river clean up project.

The clean river was then ready to be transformed into a venue for recreational, tourist and business activities. In the Concept Plan by URA, the Singapore River area is seen as a key development corridor with a mix of shops, offices, hotels and homes.

Urban Redevelopment's Role in National Planning

The Urban Redevelopment Authority (URA) is the main authority in charge of revitalising the area around the River. As Singapore's national planning authority, it is a statutory board under the Ministry of National Development. This ministry is responsible for Singapore's physical development through long-term land use planning, public housing, public works, urban redevelopment and other aspects of physical development of Singapore. With Singapore's total land area of only 647.5 square kilometres, URA's planning role ensures the best use of limited land. See picture 3.

Development Guide Plans

In 1991, the URA released the revised Concept Plan. This Plan maps out the vision for Singapore's long-term physical development for a population of 4 million. With the completion of the Concept plan, URA proceeds to prepare detailed plans called Development Guide Plans (DGPs) for gazetting as the new Master Plan.

Singapore is currently divided into 55 planning areas. A DGP is prepared for each area, where the broad vision of the Concept Plan is detailed into specific proposals.

Each DGP is envisaged to cover a planning area with a population of about 150,000 served by a town centre (eg. Ang Mo Kio Town Centre in the north-east region, and Bishan Town Centre in the central region). The planning area is further divided into sub-zones, each served by a commercial centre. The size of each planning area and its sub-zones varies depending on land uses, proximity to the Central Area, and existing physical separators like expressways, rivers and open spaces. The DGP for Bishan planning area for example is further divided into 3 sub-zones, each served by a commercial centre. See diagram below.

BISHAN PLANNING AREA SUB-ZONES		
Sub-zone	Land Area	
	Ha	%
Upper Thomson	374	50
Marymount	192	26
Bishan East	177	24
Total	743	100

Picture 4 in the appendix shows Singapore's DGP, with the river planning area located within the central region.

Planning and facilitating

URA prepares long-range, as well more detailed local area plans for physical development and then co-ordinates and guides efforts to bring these plans to reality. In short, URA's plays a dual role as a *planner* and *facilitator*.

The concept plan is the long-range blueprint for Singapore's physical development into the next century, which plans ahead for a Singapore with four million people. The concept plan maintains the emphasis on economic growth and addresses new needs. This plan proposes a new Downtown area around Marina Bay, which includes the Singapore River, and four Regional Centres to follow a policy of decentralisation to avoid overcrowding the Central Area, yet maintaining adequate Downtown activities there. Land will also be allocated for business parks, transport, and sufficient land is safeguarded for increased housing.

The next planning process translates the broad vision of the Concept Plan into detailed Development Guide Plans (DGP). There are 55 in all, at a local level, and they provide development guidelines for individual areas of Singapore. The revitalising of the Singapore River (Boat Quay, Clarke Quay and Robertson Quay) is part of the DGP for the Downtown area. All DGPs are exhibited for public comment. URA works together with the private sector through public dialogue sessions to incorporate fresh and constructive ideas. This point will be further elaborated in section 4.

URA facilitates the implementation of the plans through the sale of state land to the private sector for various developments. The sale of sites programme is an innovative means of forging partnership between the government and the private sector. The government provides the land and the private sector provides the financial resources, business "know-how" and ideas. Through this programme, URA regularly releases land for sale to the private sector for development. Careful planning is done before allocating any plots of land for sale. This to ensure that adequate land is available for any future developments in order to support economic and industrial growth, and provide housing, leisure and commercial amenities.

Development Co-ordination is needed to ensure its plans are well implemented, URA conducts this by co-ordinating projects on environmental improvements, infrastructural and building works in selected areas identified for development. Other works include construction of electrical sub-stations, provision of public malls, promenades, open spaces, roads and utilities for URA's sale sites.

Giving the River a new lease of life

Dead after Dusk at the Business District

To prevent congestion and overcrowding in the city centre, decentralisation is URA's long term concept of development for Singapore. The CBD is to maintain as the core of business activities. Residential and retail activities are to be relocated at the outskirts of the CBD and beyond. The efficient road and transport system in Singapore shortened commuting time to and from the CBD.

It is no wonder that the CBD, which specialises in office activities only, is largely quiet at night. This unintended phenomena is what the URA tries to reverse, in order to make fuller use of valuable land within the city, beyond office hours, creating a 24 hour environment. The revitalisation of the Singapore River hopes to reverse this trend.

Treasures within Boat Quay, Clarke Quay and Robertson Quay

The URA aims to build Singapore into a city that is in touch with the past and into the future. Historical buildings and warehouses along Boat Quay, Clarke Quay and Robertson Quay are distinct in their architectural heritage, reflecting uses in the past. Integrating these old warehouses with new developments, will create an environment whereby parts of the River's history is retained, yet creating buildings catering for today's needs. With systematic redevelopment, the differing characteristics will survive into the future.

Adaptive reuse, which is the revitalisation of a building with little economic value to a new economic viable entity, is one of the main tools URA uses for the buildings along the River. It seeks to preserve the external architectural envelope of the building and the environment ambience of the area, while modifying the internal spaces of the building to suit the uses for today.

Mixed-use development is URA's second tool. The River area's relatively large size of 96 ha and strategic location makes it feasible for a mix of entertainment, hotel, retail, office and residential activities, all located within a planned area. Large amounts of capital, long leasing periods and financial viability can be assumed.

Planning, Co-operating and Implementing

Vision, Objectives and Strategies

The vision originated by the URA is for the area to be an exciting activity corridor that capitalises on the riverfrontage and reflects its unique character. This will give the River a new economic role by generating activities which will meet the recreational and leisure needs of both tourists and Singaporeans

Three objectives have to be done in order to realise the vision

1. To strengthen the shopping, eating, recreation and entertainment facilities
2. To upgrade the quality of the environment
3. To improve the vehicular access and linkages in the Robertson Quay sub-zone

The following planning strategies are used

1. Land use
 - Develop the planning area into a vibrant mix of residential and commercial uses.
 - Encourage the phasing out or existing industries and warehouses by allowing uses of higher values.
2. Urbanscape/Environment
 - Conserve/retain building of architectural merit and historical significance.
 - Establish focal points and activity nodes to create attractive environments for the different sub-zones.
 - Provide pedestrian malls and promenades, and bridges across Merchant Road and the River for better accessibility to the waterfront.
3. Transportation
 - Provide boat landing points to facilitate water-related activities.
 - Extend Saiboo Street across Singapore River and widen River Valley Close and Mohamed Sultan Road to cater for anticipated increase in traffic volume from redevelopments.

Analysis of the existing conditions

URA divided the planning area into 3 sub-zones: Boat Quay, Clarke Quay and Robertson Quay. Each is to be developed to draw out its distinctive architectural style, to recapture its original character and ambience. Each area will create its own niche to draw the crowds. Boat Quay will draw the office crowd looking for a trendy place to dine and drink. 21,308 square metres or 2.1 ha of land in Clarke Quay sub-zone will be redeveloped into a festival village, with a variety of entertainments like theme parks and cultural shows. The remaining land in Clarke Quay sub-zone will be privately developed. These projects include the shopping centre Riverside Point and Merchant Court Hotel. Robertson Quay will be redeveloped for high-end private accommodation.

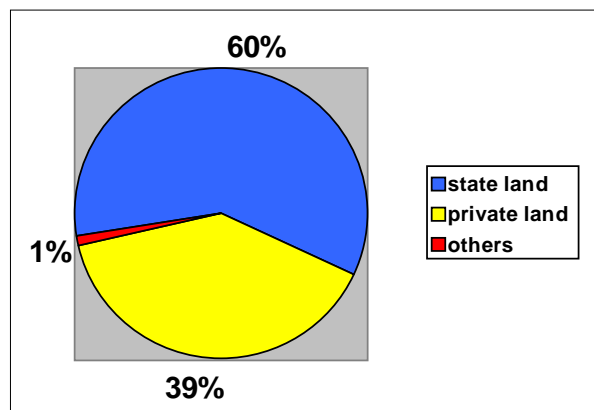
The following diagram further illustrates the sub-zone areas

Sub Zone	Land Area	
	Ha	%
Boat Quay	15	16
Clarke Quay	30	31
Robertson Quay	51	53
Total	96	100

The river's existing conditions make it easy to develop its surrounding area. The topography is flat and valley-like, bounded by high land with Fort Canning Park to the north and Pearl's Hill to the south. The river channel is sufficiently wide, and does not overflow its banks.

The Singapore River is approximately 2.5 km long, with its widest point at Boat Quay of 160m in breadth. It is bounded by River Valley Road and Mohamed Sultan Road to the north, Boat Quay to the east, North Canal Road and Havelock Road to the south, and Zion Road to the west. It is approximately 96 hectares, which includes 10 hectares of waterbody.

The then population, which is based on the 1990 census, is 3388. There is a total number of 2320 housing units, consisting of 60 low-density and 2260 high-density housing. 60% of the existing land is state-owned and 39% privately owned land. See diagram below.



URA identifies the Singapore River area's strengths and weaknesses in order to maximise the potential of the area by building upon its strengths and improving upon its weaknesses.

Strengths to be turned to opportunities

- Location adjacent to the CBD, and a mere 600 metres away from the Orchard Road shopping belt.
- Its central location is well served by major arterial roads and has a direct link to the Central Expressway.
- Many buildings within the area are of architectural merit and historical significance, which can be conserved for adaptive reuse.
- Ample vacant land is available for development, environmental improvement and provision of infrastructure facilities.

Weaknesses to be improved upon

- Incompatible uses of certain industrial and warehouse land in Robertson Quay. URA decided that no industrial land would be provided within the planning area given its proximity to the CBD and the objective to turn Singapore River area from its previous trading and warehousing use into a residential, leisure and recreational area. These warehouses will be converted to non-industrial uses.
- Lack of pedestrian linkages within the area and to the riverfront, which will limit movement and activities. In this, URA intends to build a continuous promenade along the River for visitors to enjoy uninterrupted walk by the riverside.

Pictures 5 and 6 illustrate the strengths and weaknesses.

Land Use Proposal

URA identified the existing land use and proposed future land use for the River area, which was presented to the public and open for comment. See diagrams below.

Existing Land Use Distribution		
Broad Land Use	Land Area	
	Ha	%
Residential	2.9	3.0
Commercial	25.2	26.2
Industry	8.3	8.6
Institutional	0.4	0.4
Open Space & Recreational	3.0	3.1
Roads & Infrastructure	30.9	32.1
Waterbody	10.8	11.2
Undeveloped Land	14.8	15.4
Total	96.3	100

Proposed Land Use		
Broad Land Use	Land Area	
	Ha	%
Residential	3.4	3.6
Commercial	42.1	43.7
Industry	-	-
Institutional	0.7	0.7
Open Space & Recreational	9.9	10.3
Roads & Infrastructure	27.3	28.3
Waterbody	10.8	11.2
Others	2.1	2.2
Total	96.3	100

Planning Review for the Singapore River area commenced in 1990 and a draft plan was completed in May 1992. In August 1992, an exhibition of the draft plan was held at Raffles City, one of Singapore's major shopping centre and hotel. This is followed by a

public dialogue in April 1993 to obtain feedback on the plan. Then, the plan was refined and developed into the Draft Master Plan. Following that, the suggestions were being incorporated into the detailed development plans for the Singapore River planning area.

Suggestions from the public are mainly related to urban design and environment like:

- Provide cultural focus at Robertson Quay.
- Create more 'urban' landscaping in the lower reaches of the river and more 'natural' landscaping in the upper reaches.
- Emphasise the historical heritage of the river in the detailed design of the promenade.
- Introduce interest and surprise along the promenade and in the spaces between buildings.
- Provide for different types of boating activities.

In the proposed land use plan, land proposed for residential use can accommodate a total of about 3370 dwelling units, an increase of 1000 units over the existing number, making up of all high density housing. The commercial floor area will be increased by about 400,000 square metres, from the existing 583,000 square metres to 984,000 square metres. No industrial land will be provided.

The success of this project depends on the partnership of the public and private sectors and the imagination and management skills of the developers involved. The private sector is encouraged to participate by developing private lands according to guide plans as well as through future URA Sales Sites. These planning and design guide plans are released by the Development and Building Control Division.

While the URA is co-ordinating the planning and development, it also works with other government agencies like Public Works Department, Parks and Recreational Department, Port of Singapore Authority, Ministry of Environment and Singapore Tourism Board. The government's role is thus to provide the planning framework, infrastructure facilities and actual implementation of projects. Picture 7 shows the zoning and plot ration plan.

A Different Strategy for each sub-zone

Considering the unique characteristics of each sub-zone, a different strategy is used for each sub-zone, in order to maximise its potential.

The focal point of activity along Boat Quay will include commercial and entertainment activities. Clarke Quay, which consists predominantly of low-rise warehouses, will be redeveloped into a festival village. New uses include retail, dining, entertainment, and recreational activities. Hotel and accommodation facilities are to complement these land use activities. As for Robertson Quay, hotel and high-end residential developments will be the predominant activity. Approximately 35% of the land in Robertson Quay is in public ownership, and will be developed through the URA Sale of Sites Programme or developed by URA. The remaining 65% is private land. URA intends to amalgamate

private land into parcels of suitable sizes for redevelopment, where developers would follow planning and design guidelines by URA.

Boat Quay Sub-Zone

Boat Quay was the first area designated for redevelopment and the restoration of the terrace shophouses to their original design. Most of the 117 shophouses on site bounded by Boat Quay, South Canal Road, Circular Road and South Bridge Road are privately owned. Conservation project will thus be privately implemented, but guided by URA.

On September 8, 1985, URA advised the owners in that area to amalgamate their lands into one and to submit their restoration design based on this. Much persuasion was needed to convince the private owners to co-operate. There were problems of finance and clearance of rent-controlled tenants. To break the deadlock, URA revised the conservation guidelines, which now allow the owners flexibility to submit proposals for individual land lots, which included incentives, charge waivers and compensations.

Shophouse owners are to finance their own restoration works, with some government subsidy. These include waivers of development and car park deficiency charges when they conserve their buildings according to URA guidelines. Owners can save about \$32,000 per deficient carpark lot and not readapting the building to other uses.

In addition, when approval is granted for the conservation of the properties, based on URA's guidelines, owners can recover possession of their properties for new uses by seeking help from the Tenants Compensation Board. URA also offers assistance to settle their old tenants. Owners are obliged to complete the rehabilitation of their properties by July 1991, failing which the Government will acquire them.

Presently, a host of activities take place at Boat Quay, following its official launch in 17 July 1993. Fashion shows, costume parades, cultural dance, boat races, and music and entertainment activities are found there. A food festival was jointly organised by Singapore Tourism Board, Singapore Airlines, and American Express in July 1995. This festival coincides with Boat Quay's first anniversary. This event was marketed at a cost of \$1.2 million. Boat Quay Association, a council formed by the tenants also invested \$210,000 in the event. Approximately 8000 people visited Boat Quay per day in that month.

The main draw of Boat Quay is the Al Fresco dining beside the river. This relaxing, cooling and free atmosphere gives a feeling of being close to nature. It is an ideal place meet new friends, establish business contacts or just enjoy the company of friends. Boat Quay has established its niche as a food and entertainment hub beside the river which draws mainly the young Singaporeans and tourists. Monthly rent of a 2 storey shophouse is about \$20,000 a month.

In order for Boat Quay to draw a bigger crowd, URA drew new guidelines to allow more space for outdoor dining. Previously, tenants had to move their tables at least 1.2 metres from the river edge for safety. But tenants voiced that it is too small an area for outdoor dining since alfresco dining is the Main draw. These are the new guidelines:

- Each tenant can rent an area between 20 square metres and 48 square metres on the 5-6 m wide mall.
- On average, each would take about 30 square metres, costing \$650 per month. This area is 50% more space than the previous guideline. Tenants can put up about 6 to 15 tables, depending on their sizes.
- Dining space on the mall must face each shop directly and be of the same length as the shop front. This is to prevent spillovers and disputes among tenants.

Pictures 8 and 9 show Boat Quay.

Clarke Quay Sub-Zone

Clarke Quay consists of 60 shophouses and godowns spread over 21,308 square metres on 5 parcels of land. In early 1989, URA invited tenders from developers for Clarke Quay. URA looked towards an investor keen on a large-scale conservation project, developing the area as one integrated enterprise. There will be minimum control on the internal upgrading work. Developers will be free to adapt and amend the plans to suit their requirements, while external restoration will have to be restored according to the guidelines from URA.

The following criteria is used to evaluate tenders:

- Creative proposals that would bring life back to the Singapore River and their contribution to the overall economy of Singapore.
- The development experience and the experience of tenderer's professional consultants/management items.
- Financial capabilities to undertake this project.
- The proposed restoration standard and construction cost for conservation and development.
- The tender price.
- The proposed construction period.

The sale site was awarded to DBS Land in October 1989 for 99 years. The developer is Clarke Quay Private Limited, a wholly owned subsidiary for DBS land. It is being marketed and managed by DBS Land's Raffles International Limited. DBS Land is a subsidiary of DBS Bank, the largest banking group in Southeast Asia and is ranked among the top 100 banks in the world.

The whole restoration project took 3.5 years from concept to opening. The restoration cost adds up to \$186 million, the largest restoration project in Singapore. It includes the \$54 million price paid for the land plus restoration and interest costs. Clarke Quay opened on 21 November 1993.

The project contains many historic structures that required varying degrees of restoration. Where there is a need for new buildings, they are designed to complement the older neighbours in terms of proportion, scale, height, roofing and façade details. The selection of materials, finishes and colour is based upon precedent.

The project concept is to be an integrated scheme of a Festival Market Place featuring attractions, entertainment, shopping and food and beverage facilities. The completed project is aimed to be commercially viable and self-supporting. Research was done meticulously into demand and supply. They concluded that alfresco dining and pedestrianised malls are in high demand, while Indian food and cineplexes are not. Clarke Quay is modelled loosely on London's Covent Garden and San Francisco's Pier 39. The present Clarke Quay houses about 176 shops and 17 restaurants. The proportion is planned to have 28% of the land allocated for retail, 45% for food and beverage, 14% for attractions and 13% offices.

The 21,308 square metre large area in Clarke Quay necessitates the combining of different elements to add variety, giving a broad-based appeal, for place to be sustainable. It will give a carnival-like, village style to attract office crowds, tourists and families. DBS Land foresees 6.5 million people visiting Clarke Quay yearly. 30% of Singaporeans are predicted to visit the area 4.3 times a year.

In light of these forecasts, rental rates are \$16-\$20 per square foot for a ground floor shop and \$8-\$10 per square foot for upper levels. This rate is a premium compared to rates at Liang Court, the nearest shopping and residential development to Clarke Quay, with major retailers like Daimaru. Liang Court charges \$15-\$18 per square foot for a ground floor shop and \$6-\$8 for its upper levels. But, based on market research and the proposed rental charges, the project may generate an annual income of between \$21 million and \$54 million. DBS Land will be able to break even in 3 to 5 years.

Pictures 10 and 11 show Clarke Quay.

Robertson Quay Sub-Zone

Robertson Quay, bounded by Clemenceau Avenue, Havelock Road, Zion Road and River Valley Road, is being redeveloped for high-end residential and hotel uses. Singapore Repertory Theatre, a home base for the arts, will also be relocated there. Through the sale of sites programme, URA sells state land to private developers for housing developments.

List of developments along Robertson Quay

- Great World City. It comprises 304 apartments, offices and a shopping mall.
- Mirage Tower, comprising 248 condominium units.
- The Quayside, a mixed development of 79 apartments and retail.
- Robertson Walk, a Mediterranean style development of 163 service apartments, retail shops and restaurants.
- Robertson Quay Hotel. It has 151 rooms.

- UE Square. It is a mixed development, with 345 residential apartments and 130 service apartments.
- Riverside View, which is a mixed development of 72 apartments and shops.
- King's Centre, an eight-storey office cum hotel development.
- 2B Complex, a mixed development of 70 apartments and commercial space.
- River Place, a 509 unit condominium.
- Hotel Next to Saiboo Street.

Pictures 12 and 13 show 2 developments along Robertson Quay.

Majority of the projects along Robertson Quay was completed by 1998. Most of the developments, of 99 year lease and free hold tenures are mixed with shops, an intentional move to keep the area alive at night. River side living may have its drawbacks, like noise and air pollution, long queues to carpark and lifts. Developers will need to minimise such disturbances by having well-designed buildings.

Such drawbacks, however, do not hinder the demand of this area. Riverwalk Galleria, for example, can fetch up to \$1300 per square foot and \$4000 a month rent for an 800 square foot, two- bedroom unit. The Quayside can expect monthly rents of \$3500 to \$5000 for an apartment.

More than half of the homes by the river are service or rental apartments. Home buyers are limited mainly to UE Square and Mirage Tower. Riverfront homes cater mainly to expatriates, who want to live near the CBD offices, or the young professionals and trendy types who enjoy inner city living.

Infrastructural Improvements

URA intends to enhance the quality of the environment along the Singapore River by building a continuous promenade, constructing a river wall, building new bridges and restoring old ones, creating open spaces and parks and improving the road system around the planning area.

Building a Continuous Promenade

Building a continuous promenade on both banks of the river is one of URA's plans to create a quality pedestrian experience along the Singapore River. Tenders were called in September 1997 and construction began at the end of that year. The continuous promenade, stretching from Fullerton Building near the mouth of the river, to Great World City on Kim Seng road, was completed in early 1999. The promenade enabled pedestrians to enjoy an uninterrupted walk along the full length of the Singapore River.

The first stretch of promenade was constructed by URA along Boat Quay. Since then, many developers have also participated in designing and building promenades fronting their developments. Developers like UOB Plaza, Clarke Quay, Riverside Point and Merchant Court Hotel, who have completed their promenade earlier, have turned their

promenades into venues for outdoor activities and enjoyment, which proved commercially successful.

The promenade is tree-lined, with a distinct, distinct cast-iron balustrade and specially designed street lamps to create a special ambience in the day and night. The promenade is at least 4 metres wide including tree planting and a paved walkway at the edge of the river. Boat Quay, Clarke Quay and Robertson Quay each have their distinct design.

National Development Minister Mah Bow Tan opened the largely completed 3-kilometre promenade on 30th November 1999. The promenade has created 8000 square metres of available space, which the Land Office intends to give out short-term leases or temporary occupation licences, usually for one year to encourage the establishment of outdoor kiosks and refreshment areas along the river. See picture 14.

Reconstructing the River Wall

Reconstructing and fortifying the river wall will enable pedestrians to stroll closer to the water edge, creating a garden-like atmosphere. The new river wall is designed by URA and built by the Ministry of Environment (ENV) at a cost of \$100 million, which include works to improve the river bed to facilitate development along the river and boat travel. More boat landing points will be added along the wall to make river transport an attractive alternative.

Works on the entire river wall, stretching some 6 kilometres on both sides of the river, began in 1992. Most parts of the river wall were reconstructed by end 1997. The final phase of the reconstruction fronting Fullerton Building was completed by early 1999.

The plan to reconstruct and fortify the wall was initiated in 1974, was part of the “great river clean-up” campaign aimed at making the polluted Singapore River clean and habitable again. ENV undertook the first phase of the reconstruction work in 1992, which included damming and dredging the water and some piling works.

URA’s design seeks to retain each of the quay’s unique historic profile. Clarke Quay, the riverbank has vertical walls, while embankments along Robertson Quay slope down to the water. At Boat Quay, the wall has steps leading down to the water. See picture 15.

Bridging the Singapore River

In order to improve the accessibility within the area, 3 new pedestrian bridges will be built, and 2 historic bridges, Ord and Read Bridges restored. These will complement the 9 existing bridges along the 2.5 kilometre river. Upon completion, pedestrian crossings will be spaced at an average of 270 metres apart.

The 3 new bridges are built along the upstream, at Robertson Quay, at a cost of \$7.4 million. The first bridge was completed in mid 1998, linking two residential developments – The Quayside and River Place. The other two was completed in early

1999, one linking Kim Seng Park to Jiat Kim Street, the other linking Robertson Quay to Riverview Hotel.

Ord and Read Bridges were refurbished at a cost of \$2.8 million. The 112-year-old Ord Bridge was raised by 1 metre to create extra headroom for riverboats to pass under. This is to facilitate transport and tourism, for passengers commuting by boat to travel between Boat Quay, Clarke Quay and Robertson Quay.

These 5 bridges are designed with a special lighting to bring out their unique sculptural structures at night, to create a distinct ambience for visitors, which will add to the romantic and festive dimension to the river at night. See picture 16.

Improving transportation

To improve vehicular access, River Valley Close and Mohamed Sultan Road were widened, in view of the increased traffic in the area. Saiboo Street was extended across Singapore River to provide a convenient link from Havelock Road to the north bank of Robertson Quay. Other roads like Martin Road, Killiney Road, Unity Road, Nanson Road and Tew Chew Street were upgraded to improve traffic flow.

8 sites were identified as public landing points for embarkation and disembarkation. Some of the private developments along the river may be allowed to provide their own landing points. River cruises and paddle boating can be organised by licensed organisations, but all boats are required to be licensed by PSA. Cruise operators and operators running other boating activities are required to obtain separate licenses.

Clarke Quay Festival Village – Where the River comes to life

At Clarke Quay, Singapore's only riverside festival village the challenge is to create an active, "must see" attraction at this historic district.

Clarke Quay recreates the bustling market atmosphere of bygone days with rows of charming little shops, practitioners of vanishing trades, and pushcarts peddling antiques, costume jewellery, desserts and local delicacies.

Other highlights include more than 80 air-conditioned shops offering fashion, home furnishings, souvenirs, and an array of food outlets ranging from Asian cuisine to Western food outlets, a Satay Club, pubs, karaoke bars, live entertainment, wine bars, and discos.

Satay Club offers diners the pleasure of eating satay in an old fashioned way on wooden tables and benches in a street ambience. The colourful and brightly-lit street is filled with the aroma of satay, grilled seafood and other local foods. The weekly Sunday Flea Mart adds colour and flavour to the street activities in Clarke Quay. Visitors can bargain through 70 stalls selling collectibles like antique watches, arts and crafts, phone cards, toys, fashion accessories and other bric-a-bracs.

Catch phrases like “Never a dull moment”, “Feast to your heart’s content”, “Drink and make merry” all portray the excitement attracting the young and old, locals and tourists.

Regular cultural events like the traditional Chinese street opera, the weekly Sunday Flea Mart featuring a jumble sale of 70 stalls and the satay club attract a constant flow of tourists. Seasonal promotions like the River of Lights Festival, a Millennium Countdown Party, a Christmas Eve Countdown and Beatles Unlimited ensure that attractions always keep up to market demands and trends.

Clarke Quay works closely with Singapore Tourism Board, tour agencies, local and foreign press to market attractive packages for potential visitors. Colourful brochures and advertisements are seen islandwide and given out liberally to tourists. It is estimated that Clarke Quay spent an average of S\$4 million on marketing in 1994, its second year of opening. Clarke Quay also has its own web page with the address at <http://www.clarkequay.com.sg>. Picture 17 shows part of a brochure advertising for Clarke Quay.

Clarke Quay was named after Sir Andrew Clarke, the second governor of Singapore, who arrived in 1873. He took steps to establish British control in the Straits Settlement. These measures created a stability conducive for business, which established Singapore as a trading destination.

In 1996, DBS Land received the Outstanding Contribution to Tourism Award for its projects over a span of 18 years that included conservation projects like Clarke Quay. The awards are presented by Singapore Tourist Promotion Board to recognise organisations that made significant contributions to the tourism industry in Singapore. Clarke Quay also won awards, including the International Council of Shopping Centre (ICSC) Design Award in 1995.

Clarke Quay MRT station is expected to be completed by year 2001. URA announced the launch of the Land Parcel at Clarke Quay MRT Station for sale on the 29 September 1999. The land parcel at Clarke Quay MRT Station is a prime site with a long frontage to Eu Tong Sen Street, providing the development on the land parcel panoramic views of the river, Fort Canning Hill and the city skyline. When completed, the developments on the land parcel will be fully integrated with the future Clarke Quay MRT Station. See Picture 18.

The 1.3 ha site is to be sold as a “White” Site to allow the successful developer maximum flexibility to decide on the best mix of commercial, residential and hotel uses.

The concept of “White” sites was introduced in 1995 by URA to give developers more flexibility in development options on certain land parcels sold by the state. Developers will have the flexibility to decide on the mix of uses and respective quantum of floor space for each use, as long as the total permissible Gross Floor Area for the whole development is not exceeded.

Successful tenderers of “White” sites may, during the lease period, change the mix of use or quantum of each use as stipulated in the conditions of tender without the need to pay differential premium. This is to allow “white” site developers to respond to changing market conditions without incurring additional land premium.

Conclusion

The success of Singapore’s waterfront revitalisation can be attributed to these factors:

1. Successfully creating a niche for the place in order to draw in the crowd.
 2. The project being well planned.
 3. Historic and geographic factors.
- 1) The main attraction of the river is the al fresco, or outdoor dining by the edge of the river. With restaurants and bars and amusements arcades offering a popular venue for a night on the town, it is the main dining and entertainment centres in the city. Singaporeans consider Boat Quay to offer the best dining in Singapore, despite the high prices. Famous restaurants and bars from all over the world locate at Boat Quay.

Diners consider the outdoor dining by the riverside a good getaway from the stress of city life. A diner commented that “sitting in the restaurant is like sitting inside an office. Outside, time passes faster, the conversation flows more easily and it feels cool and free”. Boat Quay, just adjacent to the central business district provides a convenient and trendy place to take business clients to lunch or simply to enjoy dinner with friends under the stars. For this reason, Boat Quay attracts a cosmopolitan crowd.

Young Singaporeans and tourists alike go to pubs and lounges to increase their social circle. No one wants to be left out among the cool and hip image. The “I’ve been there” and “I’ve tried that” cachet, encourages locals and tourists alike to the area.

Clarke Quay, being Singapore’s only riverside village, with both old and new facades and a picturesque mix of modern facilities is an ideal place for a leisure-seeker. Year round activities like the weekend Flea Market, Satay Club, Traditional Chinese Street Opera and Boat rides ensure a constant stream of customers to the area. Seasonal activities like the Christmas Eve Countdown and Millennium Countdown ensure an increased flow of tourists and locals during festive seasons.

- 2) The well-organised planning and good co-ordination of both the public and private sectors and the willingness to co-operate with one another ensured the success of this project. The public sector, which includes various government institutions play mainly a facilitative role, by making state land available for private development and provide infrastructure. Success depends on the creativity, initiative and expertise of the private developers to transform the area into an entertainment hub.

At least 5 government bodies, the Urban Redevelopment Authority (URA), Singapore Tourism Board (STB), Ministry of the Environment (ENV), Public Works

Department (PWD), Parks and Recreation Department and Port of Singapore Authority (PSA) are involved in this project, each responsible for a specific area. The river wall is built by ENV, the continuous promenade is built by URA and other private developers, STB is in charge of the River Taxis and trees and flowers along the River are planted by Parks and Recreation Department. URA gives guidelines of restoring the shophouses to the private developers.

The Singapore River Business Committee, a committee initiated by STB and consisting of a representative from each private developer is set up to create synergy among developers to promote the Singapore River area as a whole. This ensures a healthy competition among developers, preventing advertising overlap, saving costs and increases efficiency.

Shophouses along Boat Quay for example consists of different owners, making it difficult to co-ordinate, centralise and market the area as a whole. Forming the council will enable individual owners to work together in organising activities like the boat race, food festivals and fashion shows.

Owners like Clarke Quay Private Limited keeps up to the changing market demands by constantly evaluating as well as changing their tenant mix of retail, food and beverage and offices in Clarke Quay. New marketing strategies are being initiated to ensure that Clarke Quay remains an attractive place for both locals and tourists.

- 3) The central location of Boat Quay, Clarke Quay and Robertson Quay, well linked by major roads and expressway makes travelling there an ease. URA's plan to widen and repair roads near the river ensures that traffic flow is free, to prevent any hindering factors to visit the area. Clarke Quay Mass Rapid Transit Station is expected to open within these 2 years. The completion of Clarke Quay station will further increase accessibility to the area and draw even more crowd.

The Singapore River is seen by many Singaporeans as the lifeline of Singapore, because Singapore's history began as a trading port where trading began along the Singapore River in the 1800s. History serves as a basis of drawing the young and old to the place. The old shophouses of the past, being restored and adapted to commercial uses, gives locals and tourists a taste of the past, adapted to modern surroundings. This unique ambience is rarely found in other parts of Singapore.

The Singapore River's other advantage is its relatively small size, approximately 3 kilometres long, with its widest point at 160 metres. Its manageable flow and narrow channel makes redevelopment simple to plan and carry out.

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