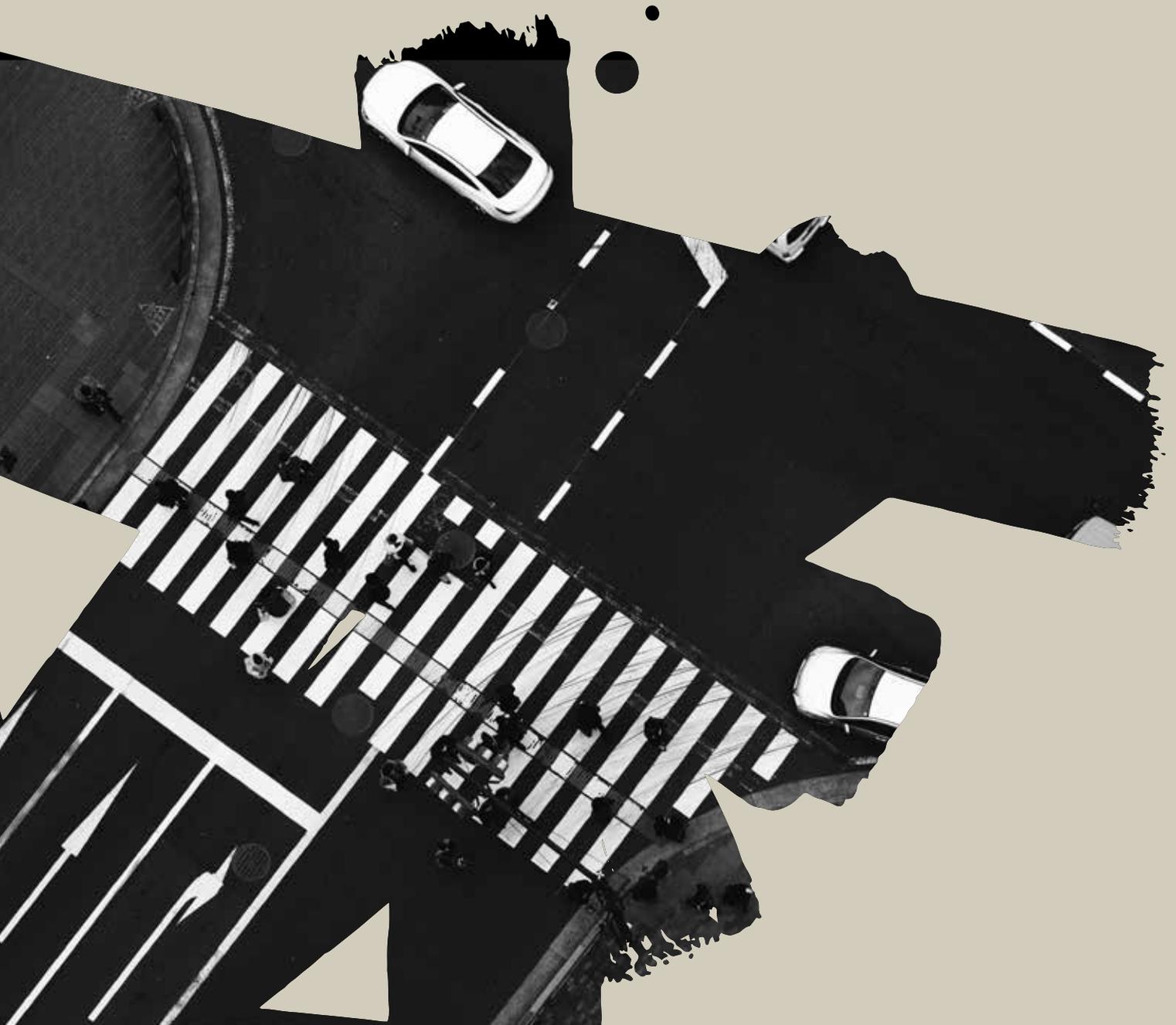


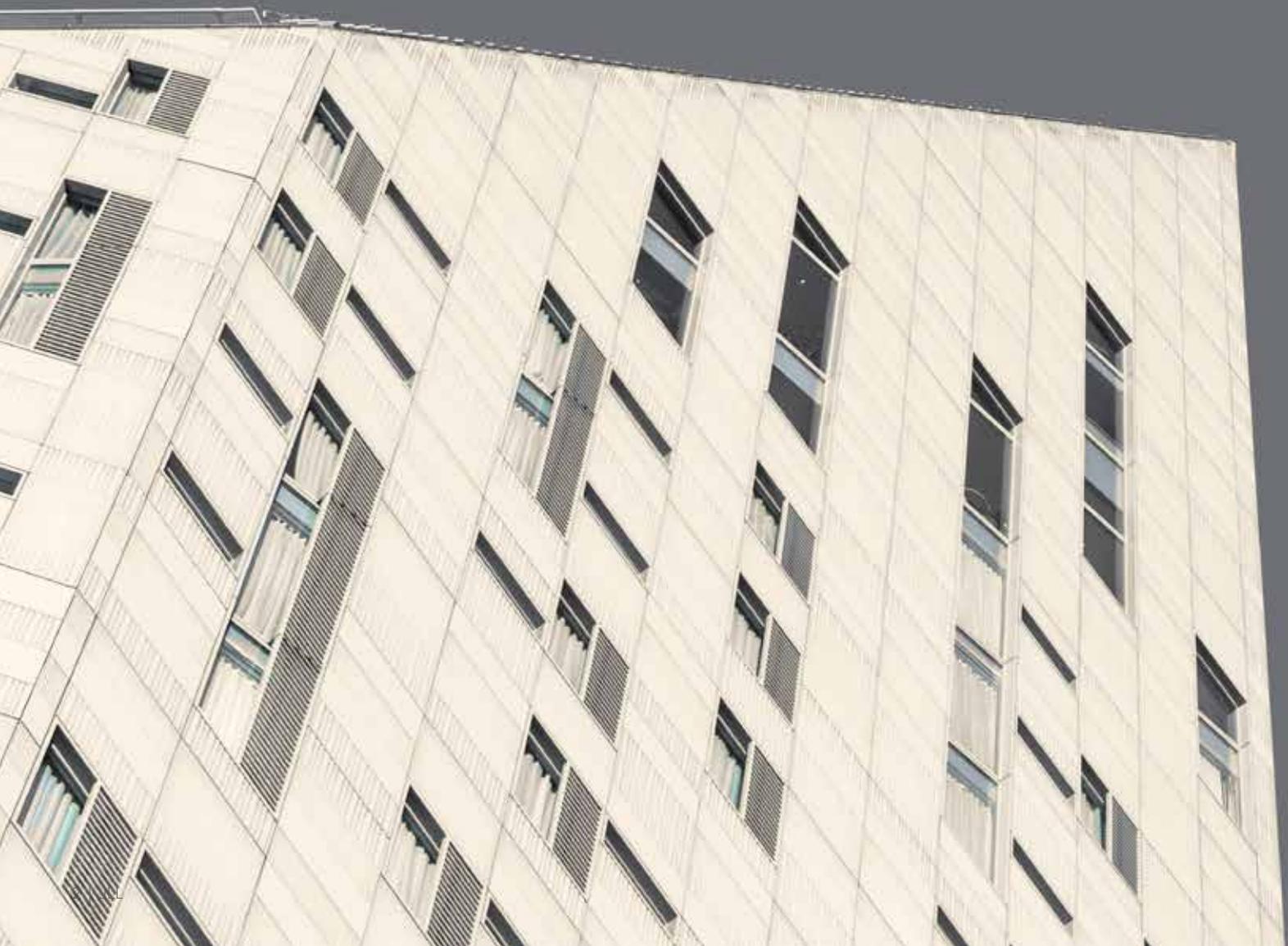
2017 July

The impact of Penang Transport Master Plan on its real estate



Background of Penang

Located off the north-western coast of Peninsular Malaysia, Penang Island is Malaysia's most heavily populated island city with a population of 1.7 million. With a rising population and increasing car ownership in a small, compact island city, the State Government needs to plan for more options and for a more efficient means of transportation to relieve the daily traffic congestion, especially during morning and evening rush hours. Other factors, such as the influx of tourists and the dynamics of economic growth, also play a role in traffic congestion.



Penang's demand drivers

Despite being the second smallest state in Malaysia, Penang attracts one of the highest levels of manufacturing investment into the country. The state has successfully attracted light industrial activity since the Free Industrial Zone was set up in 1972. Part of this success can be attributed to the draw of Penang as one of the most liveable cities in Asia, attracting not only foreign tourists but also expatriates. The capital city, George Town, was listed as one of the top best places to retire abroad in 2016 by CNN Money.

Fortunes in Penang are probably the least affected by the plunge in oil and palm oil prices. Manufacturing and services comprise the two biggest components of Penang's economic activity. In fact, the weak Malaysian ringgit is likely to help manufacturing exports. Penang is known to be the electrical and electronic hub.

Penang Transport Master Plan

The Penang Transport Master Plan (PTMP) was commissioned by the State Government with the aim of improving the state's present transport system.

1. The PTMP includes the following infrastructure:
2. Three new highways in Penang Island (Pan Island Link (PIL) 1, PIL 2 & PIL 2A)
3. The undersea tunnel and three road bypasses – the North Coastal Paired Road (connecting Tanjong Bungah and Teluk Bahang), the Ayer Itam-Tun Dr Lim Chong Eu Expressway Bypass and the Persiaran Gurney-Tun Dr Lim Chong Eu Expressway Bypass
4. The George Town-Bayan Lepas Light Rail Transit (LRT) Line of the monorail (Ayer Itam, Tanjung Tokong, Raja Uda)
5. The cable car project linking Penang Island with the new transportation hub in Seberang Perai called Penang Sentral (Sky Cab) by Malaysian Resources Corporation Berhad (MRCB)
6. The interchange (Kulim Expressway & Juru Interchange)

While the plan had many ambitious proposals with some long-term transportation solutions linking Penang Island to the mainland territory of Seberang Perai via an undersea tunnel and cable car, the funding and feasibility of some projects have yet to be determined.

The LRT project and PIL highways were chosen to take place in Phase I of the PTMP as they fetch the highest economic internal rates of return (IRR) (IRR of 12.2% and 14%) compared to the other components in the PTMP.

This report will focus more on the PIL highways, the three highways and the LRT lines, as we believe these will have the highest chances of going ahead.

PIL 1

The main purpose of the PIL 1 highway is to reduce the load shouldered by the Tun Dr Lim Chong Eu Expressway(LCE) and to address the increasing congestion on the southern and central parts of Penang Island. PIL 1, which starts at the Second Penang Bridge and ends at Gurney Drive, will be mainly elevated structures and tunnels.

PIL 1 will consist of a dual three-lane, purpose-built highway with limited points of access to ensure efficiency in travel time and speed. The highway will not only address the importance of traffic dispersal from the newly opened Second Penang Bridge and the future undersea tunnel but also disperse traffic away from the historical city centre. Once completed, the highway should significantly shorten the travel time from Gurney Drive to the airport, from 45 minutes to 15 minutes.

Chart 1: Map of PIL 1

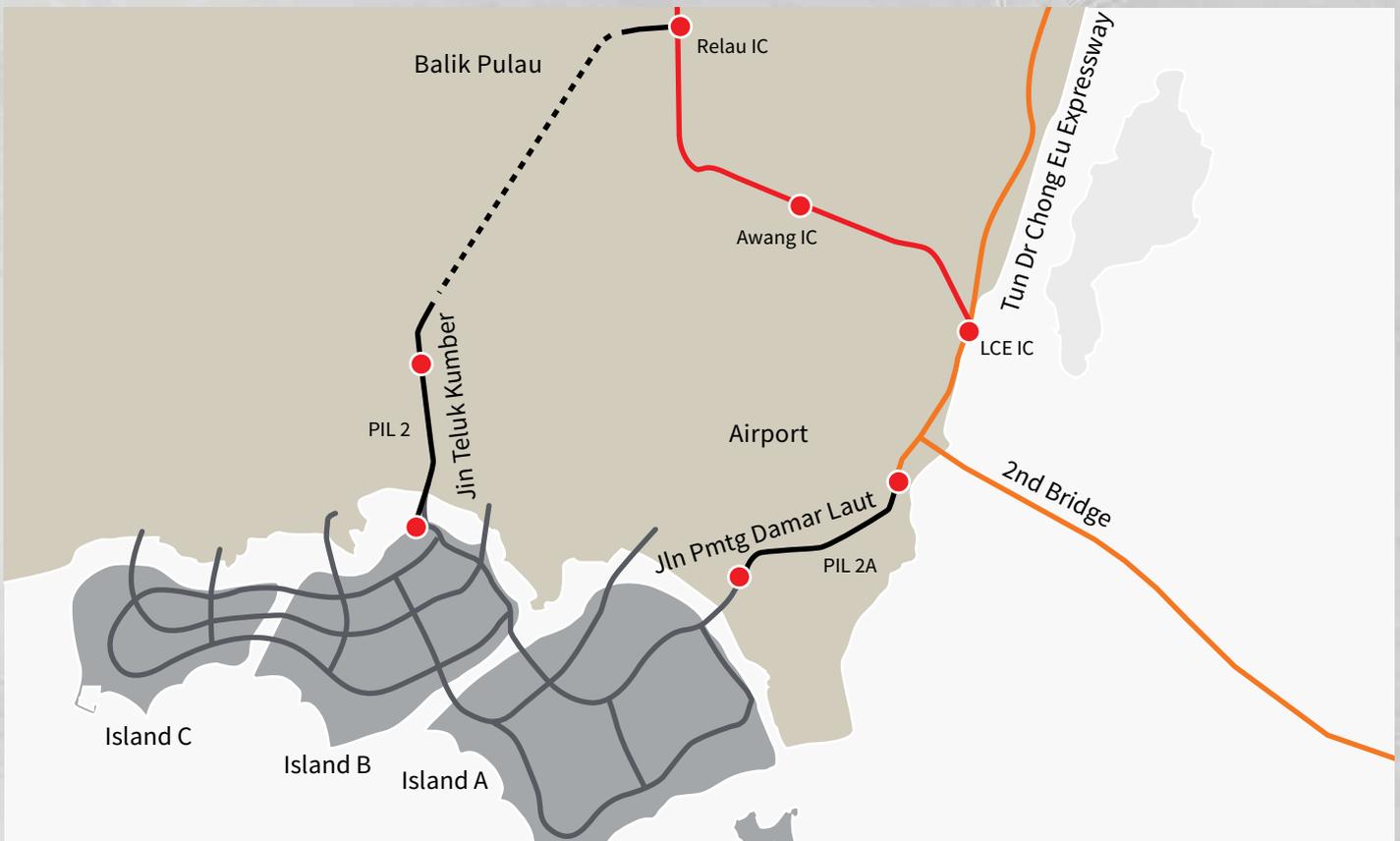


Source: SRS Consortium
Footnote: Interchange is abbreviated as IC

PIL 2 and PIL 2A

At a later stage, the other proposed PIL highways, namely PIL 2 and PIL 2A, will be constructed as dual two-lane roads. This would enhance accessibility and open up opportunities for future developments on the western (Balik Pulau) and southern (Teluk Kumbar) sides of Penang Island. The PIL 2 and PIL 2A highways will serve as major access roads for the future reclaimed islands.

Chart 2: Map of PIL 2 and PIL 2A



Source: The Star

Footnote: Interchange is abbreviated as IC

Tanjung Bungah-Teluk Bahang North Coastal Paired Road

While Consortium Zenith was awarded the contract to undertake the Penang Undersea Tunnel project in 2013 through a tender process, the project faces a risk of cancellation. Instead, Zenith has been instructed to focus on constructing the three highways, that is, the North Coastal Paired Road (connecting Tanjung Bungah and Teluk Bahang), the Ayer Itam-Tun Dr Lim Chong Eu Expressway Bypass and the Persiaran Gurney-Tun Dr Lim Chong Eu Expressway Bypass. Construction is scheduled to start in late 2016 and is targeted for completion by 2021.

Chart 3: Map of Tanjung Bungah-Teluk Bahang North Coastal Paired Road

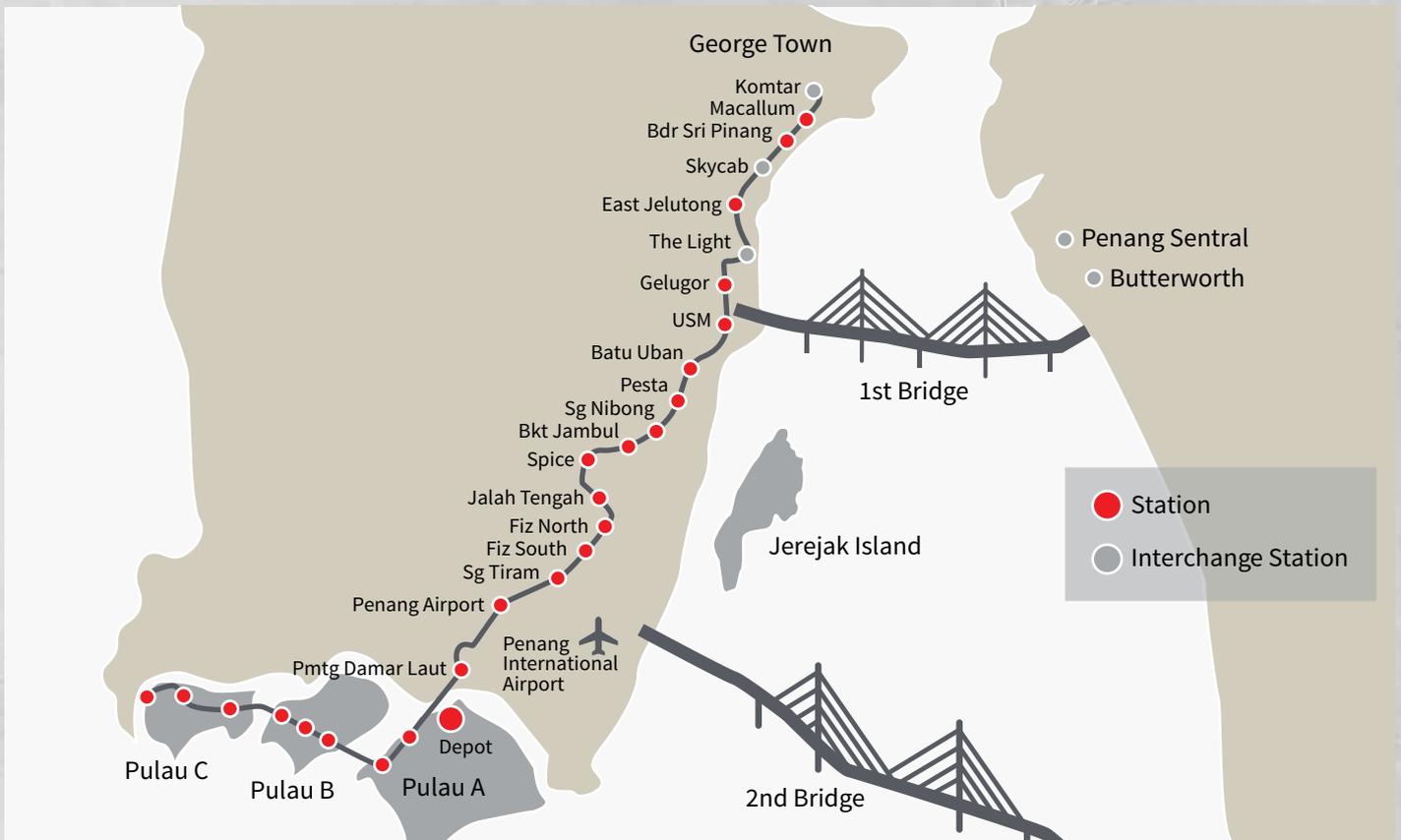


Source: SRS Consortium
Footnote: A to K represent interchanges

LRT

The proposed Bayan Lepas LRT Line covering a distance of 30 km will have 27 stations, 19 of which will start from Komtar in the city centre, travel along the eastern corridor to Permatang Damar Laut on the southern tip of the island as seen in Chart 4. The state hopes to commence construction on the Bayan Lepas LRT by 2017. Phase I is expected to become operational by 2023 while the full line should be operational by 2030.

Chart 4: Proposed LRT alignment and stations in Penang



Source: pgmasterplan.penang.gov.my

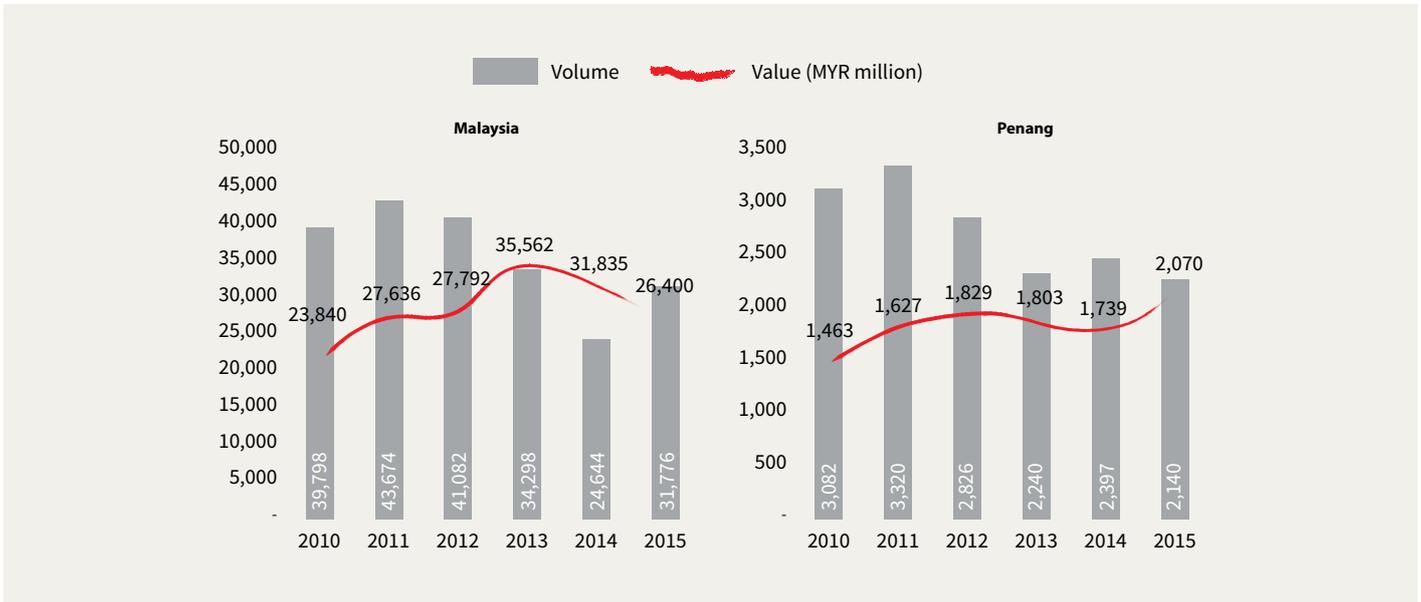
Penang's real estate performance

The outlook for Penang's real estate in 2017 will be supported by the growth in the semiconductor, electronics and tourism sectors in Penang. While the demand for industrial property has been good, speculation has been kept at bay, as the state controls the pricing and supply of industrial land. There was a modest 5.0% rise in the transaction value of industrial property in 2015.

In terms of real estate performance, Penang bucked the trend for the nation, with commercial transaction values rising 19.0% in 2015 when that of the nation was falling. We

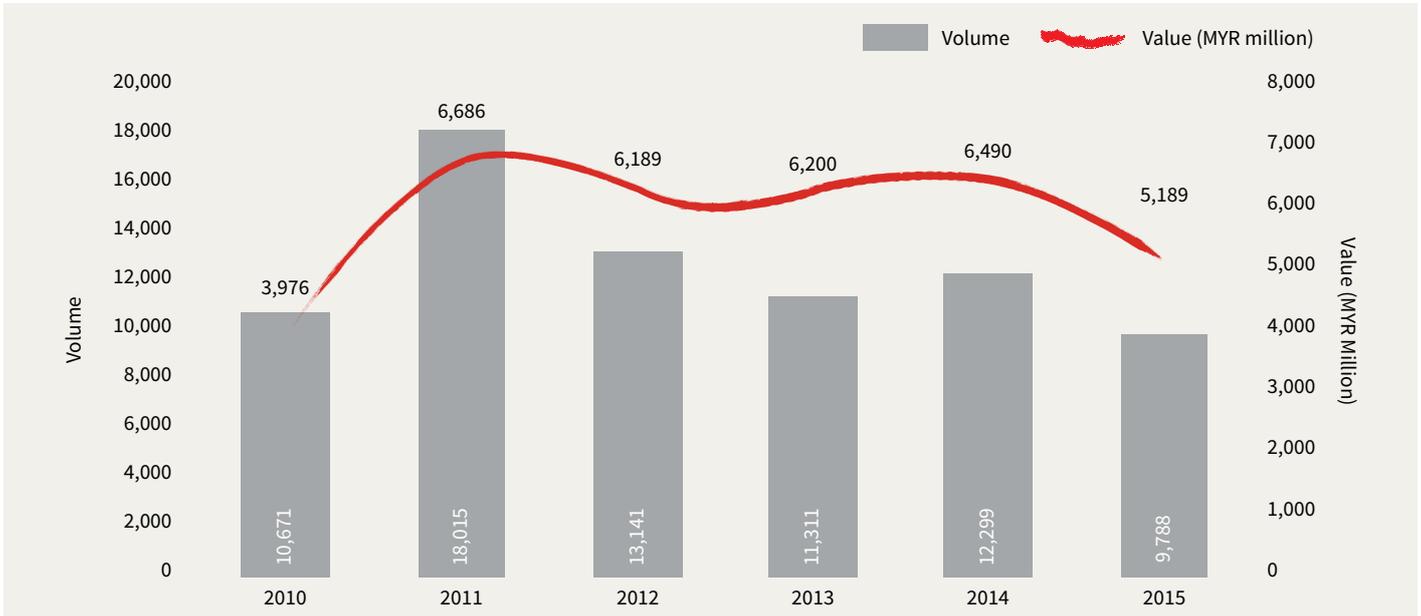
note that the National Property Information Centre's (NAPIC) commercial transaction values include those of pre-war shophouses, which have been performing better. Incoming shop unit supply in Penang in 2015 grew by a modest 4.3%. In the same year, Penang had the highest number of transactions among states, with transactions for shop units rising 131.0% to 3,237 in 2015. We believe quite a number of these units were purchased with the intention for activity related to tourist attractions.

Chart 5: Volume and Value of Commercial Transactions in Penang versus Malaysia



Source: NAPIC, 2011, 2013 and 2015, JLL 2016

Chart 6: Volume and Value of Residential Property Transactions in Penang



Source: NAPIC, JLL, 2016

Impact of new highways

As the state grows, so will the supportive service activity, which will have a positive impact on demand for Penang's office space. The construction of the LRT lines and new highways under the PTMP would allow a faster pace of decentralisation from the current CBD in George Town. Better connectivity will enhance the demand by businesses seeking to lease space in commercial property located near the planned LRT stations.

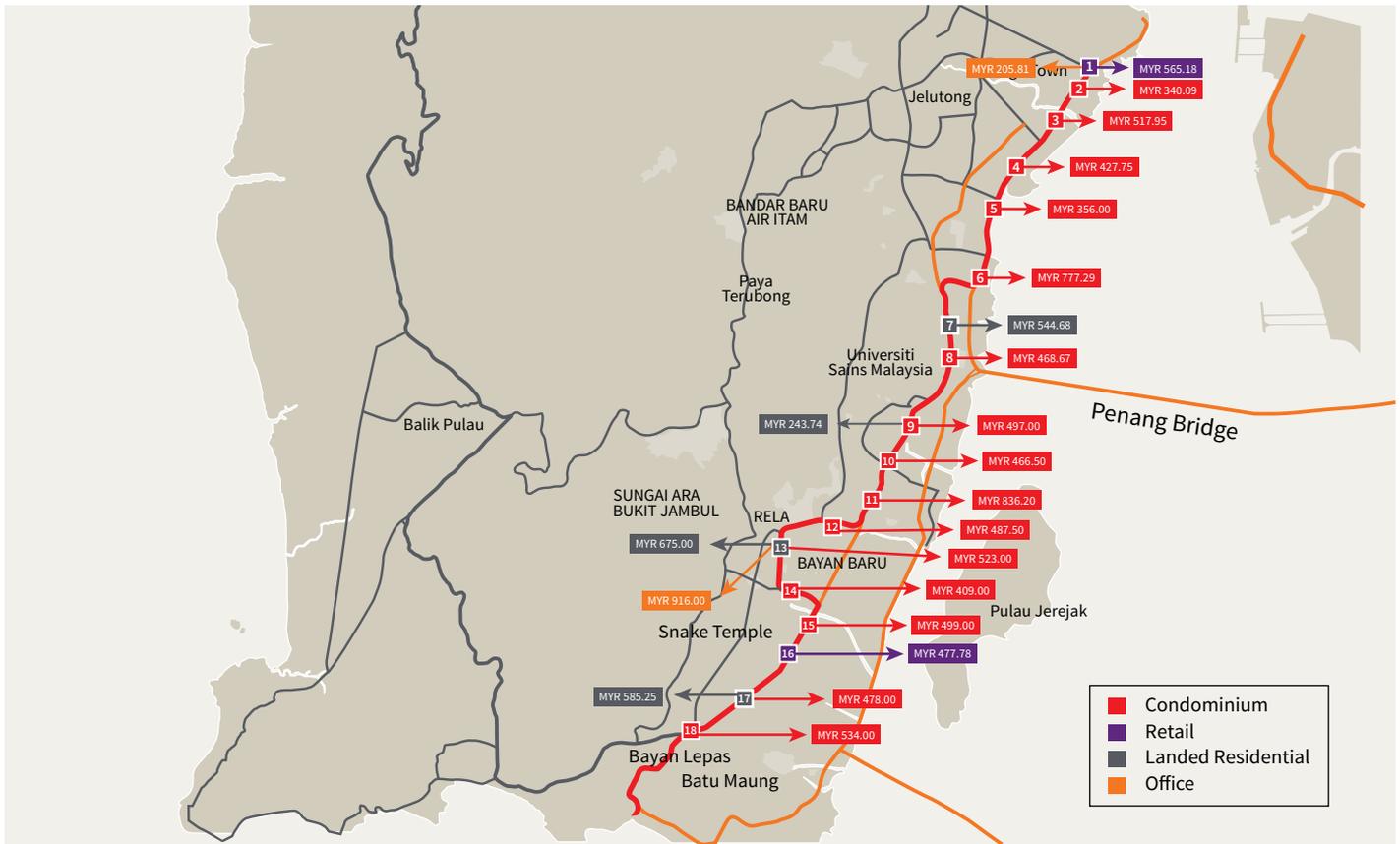
The PIL highways should benefit both the industrial and office sectors, as they will enhance accessibility for workers along the Eastern Corridor of Penang Island.

For the residential sector, the construction of the Northern Coastal Paired Road will shorten travel time from the airport or the Second Penang Bridge to the northern coastal areas from Tanjung Tokong to Telok Bahang, benefiting hotels and serviced apartments in the coastal area. This area is popular with expatriates and tourists who visit the beaches or stay in the luxury condominiums in Gurney Drive, Tanjung Tokong and Tanjung Bungah. Some of the apartments or condominiums named by Penang for Expats are Miami Green and Island Resorts, Batu Feringghi. Apartments and condominiums that are popular among expats near the hillside or the beach are Marina Tower, Surin, The Waterfront, Coastal Towers and The Cove.

Closer to town, the older mix of luxury and prime developments along Gurney Drive, such as Silverton, Gurney Paragon, The Regency, Gurney Park, and 8 and 11 Gurney, are likely to lose their seaviews with the impending construction of a new coastal road bringing direct traffic from Telok Bahang and Tanjung Bungah to this area.

Improved accessibility to areas that are not in prime property areas will boost demand for homes that were otherwise not on the investor's radar. Before the completion of the Tun Dr Lim Chong Eu Expressway, Bayswater Condominium (connected to the expressway) had a market value of MYR 300,000. After the completion of the expressway, the property appreciated 50.0% to MYR 450,000 in 2008. We believe the appreciation of property along the new PIL highways could be more definitive than those along the LRT lines.

Chart 7: Price per Square Foot for Property along the Proposed Bayan Lepas LRT Line



Source: NAPIC, propwall, propertyguru, penangproperties, google.com

Impact of LRT

While the LRT lines are likely to have a positive impact on land and property values along the stops, how much the increase will depend on how well planned and seamlessly integrated the neighbourhood housing and transit-oriented developments are, around these stops.

The impact of the LRT lines on the price of residential property can vary across countries, with property value premiums ranging between 3.0% and 40.0% depending on the distance from the station. For instance, in the East Burnside area, Portland, which is within 500 m of the transit, were, on average, 10.6% greater in value than homes outside the 500 m range. Property within a 500-m walking distance generally experienced higher property values the closer a property is to the station. Within the immediate station area, however, nuisance effects, such as noise and increased traffic, would have a negative bearing on the values of properties closest to the stations.

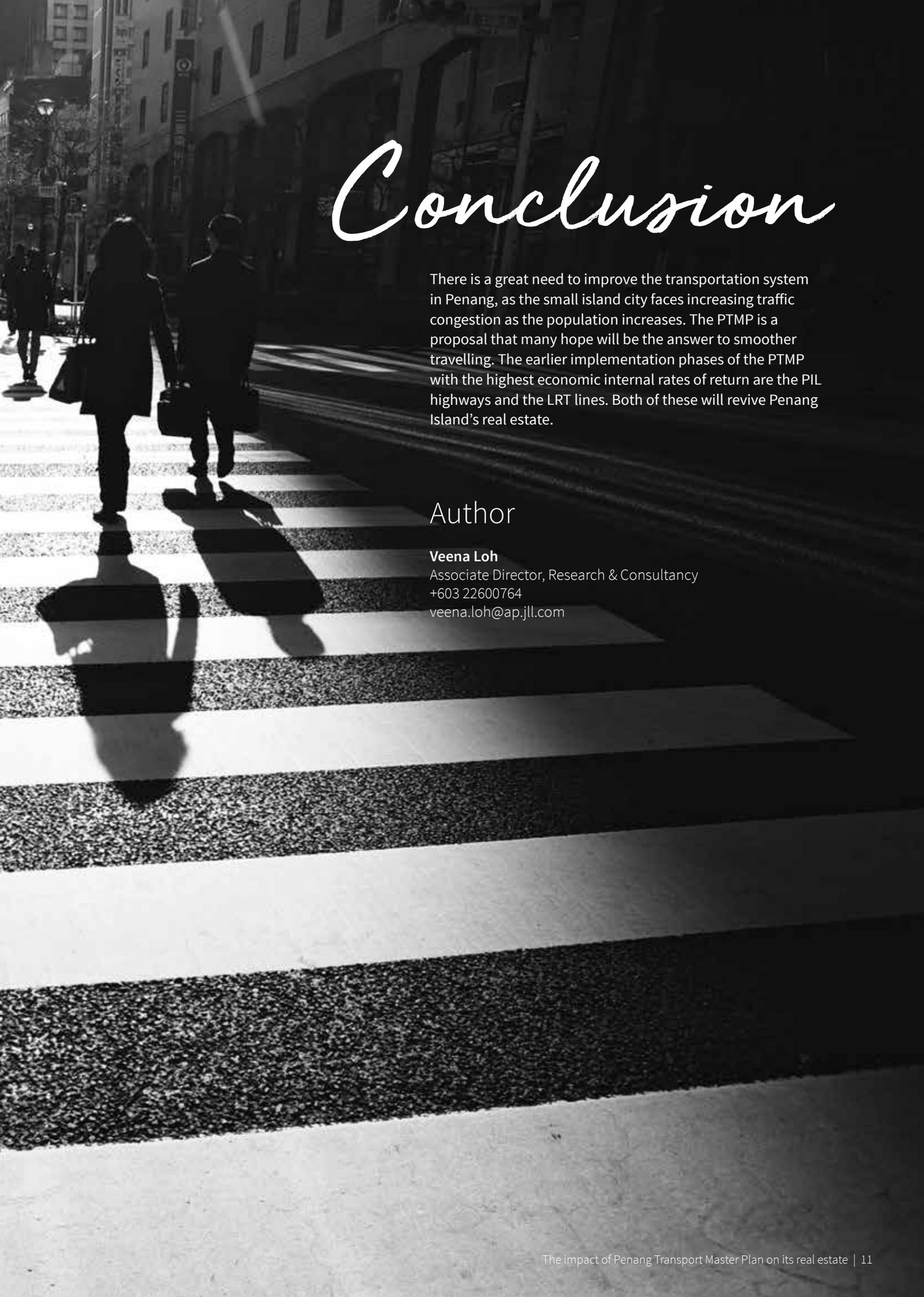
Not all impacts are as straightforward as this. There are cases when property prices of more affluent neighbourhoods may decline after a link-up with the LRT line. This may be due to such factors as noise, perceptions of crime and visual intrusion. The value received from better accessibility and connectivity was not enough to compensate for the nuisance effects from the LRT station.

Currently, the prices of property along the proposed LRT line range from around MYR 300 to MYR 800 per sq ft.

The MYR 48 billion PTMP links many small townships in suburban areas, thereby bringing people to work in the CBD and the free trade zones in Bayan Lepas. We believe that the impact on real estate will be positive for most of the links by LRT and will be beneficial for most of the stations, as the prices are relatively comparable. Macallum LRT Station and East Jelutong LRT Station will benefit the most, whereas property around The Light Station with an affluent neighborhood may not necessarily see a positive impact if the nuisance effect from noise and traffic is perceived to affect the tranquil and scenic high-end waterfront properties.

Overall, the net effect will be beneficial to the state, providing a faster, timely and more efficient means of transporting locals, expatriates and tourists in Penang. Certainly, the PTMP will help to raise the liveability of Penang Island and thereby retain talent and expats.

With the commencement of PTMP construction work in 2017-18, demand for Penang property across all sectors should recover from speculative interest once the stops are identified and gain further from genuine occupiers post construction, particularly along the proposed highways and LRT routes.



Conclusion

There is a great need to improve the transportation system in Penang, as the small island city faces increasing traffic congestion as the population increases. The PTMP is a proposal that many hope will be the answer to smoother travelling. The earlier implementation phases of the PTMP with the highest economic internal rates of return are the PIL highways and the LRT lines. Both of these will revive Penang Island's real estate.

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