COST OF DOING BUSINESS AND IMPACT ON CONSTRUCTION INDUSTRY

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CIDB MALAYSIA

COST OF DOING BUSINESS AND IMPACT ON CONSTRUCTION INDUSTRY

Research Collaboration:

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CREAM
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MALAYSIA

PREFACE

The high cost of doing business, particularly compliance costs, has been a significant challenge in the housing and property industry for the longest time. Such costs lead to price distortion and affect property prices and affordability. This ***Cost of Doing Business and Impact on Construction Industry*** report attempts to promote a better understanding of compliance costs involved in housing development and their impact on price sustainability.

The report provides an independent industry standpoint and industry insights on the key issues facing the industry. We believe it is only through an understanding of the issues besetting the industry that we are able to identify the roots to costs and price increase and provide transformational yet practical strategies and action plans for a more cost-effective and efficient housing delivery system.

With this in mind, the report delivers the industry's perspective of strategic recommendations on how the issue of increased costs of doing business can be adequately addressed and mitigated to ensure that house prices are retained at a more sustainable level for future house buyers.

This is, however, only the triggering point of such paradigm shift and a lot of work, mindset change and political will is required to arrive at the desired outcomes of a more efficient delivery system and sustainable house prices for the nation. The industry cannot continue to operate the same way and apply the same policies but expect costs and prices to come down miraculously. The authorities and industry must be willing to effect transformational changes to remain sustainable.

Let this research collaboration be the start to many more quality and industry-relevant research initiatives moving forward.

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EDITORIAL

This project was funded by the Construction Industry Development Board (CIDB) Malaysia and executed by the Construction Research Institute of Malaysia (CREAM) since December 2019 until August 2021. This project is a collaboration effort between CREAM and REHDA Institute. We would like to thank the following members for their contribution and support.

ABBREVIATION

AMP	Ampere
APDL	Advertising Permit and Developer's License
bn	Billion
BQ	Bumiputera Quota
B40	Bottom 40
CCC	Certificate of Completion and Compliance
CF	Certificate of Fitness
CFO	Certificate of Fitness for Occupation
COM	Commercial
CSR	Corporate social responsibility
DBKL	Dewan Bandaraya Kuala Lumpur
DC	District Council
est	Estimate
etc	Et cetera
GDV	Gross Development Value
GFA	Gross Floor Area
i.e	That is
ISF	Improvement Service Fund
IST	Individual Septic Tank
IWK	Indah Water Konsortium
IWSS	Integrated Water Supply Scheme
KM	Planning Permission (Kebenaran Merancang)
kV	Kilovolt
kVA	Kilovolt Amperes
KSAS	Kawasan Sensitif Alam Sekitar
LA	Local Authorities
LAD	Liquidated and Ascertained Damages
LAM	Board of Architects Malaysia (Lembaga Arkitek Malaysia)
LC	Low Cost
LMC	Low Medium Cost
LV	Low Voltage
MBPJ	Majlis Bandaraya Petaling Jaya
MBPP	Majlis Bandaraya Pulau Pinang
MBSA	Majlis Bandaraya Shah Alam
MBSP	Majlis Bandaraya Seberang Perai
within MC	within Municipal Council
MC	Medium Cost
MPFN	Majlis Perancang Fizikal Negara
MPSJ	Majlis Perbandaran Subang Jaya
MCMC	Malaysian Communication and Multimedia Commission
mil	Million
MVA	Megavolt Ampere
M40	Middle 40
NA	Not Available
NAPIC	National Property Information Centre
NPS	Network Pump Station
NR	Non Residential
NWC	Network Connection
OECD	Organisation for Economic Co-operation and Development
OSC	One Stop Center
PBAN	Pihak Berkuasa Air Negeri
PBT	Profit Before Taxation
PEMUDAH	Special Task Force to Facilitate Business (Pasukan Petugas Khas Pemudahcara Perniagaan)
PKJ	Perumahan Komuniti Johor
PLC	Public Listed Companies
PSF	Per Square Feet
PPU	Pencawang Pembahagian Utama
REIT	Real Estate Investment Trust
REHDA	Real Estate and Housing Developers' Association
RES/R	Residential
RI	REHDA Institute
ROCE	Return on Capital Employed
RSKU	Rumah Selangorku
RMMJ	Rumah Mampu Milik Johor
SEDCs	State Economic Development Corporations
SCC	Sewerage Capital Contribution
SPA	Sale and Purchase Agreement
SSTP	Small Sewerage Treatment System
STP	Sewerage Treatment Plant
SQ FT	Square Feet
SQ M	Square Meter
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TDC	Total Development Cost
TM	Telekom Malaysia
TNB	Tenaga Nasional Berhad
TOD	Transit Oriented Development
T20	Top 20
WPKL	Wilayah Persekutuan Kuala Lumpur

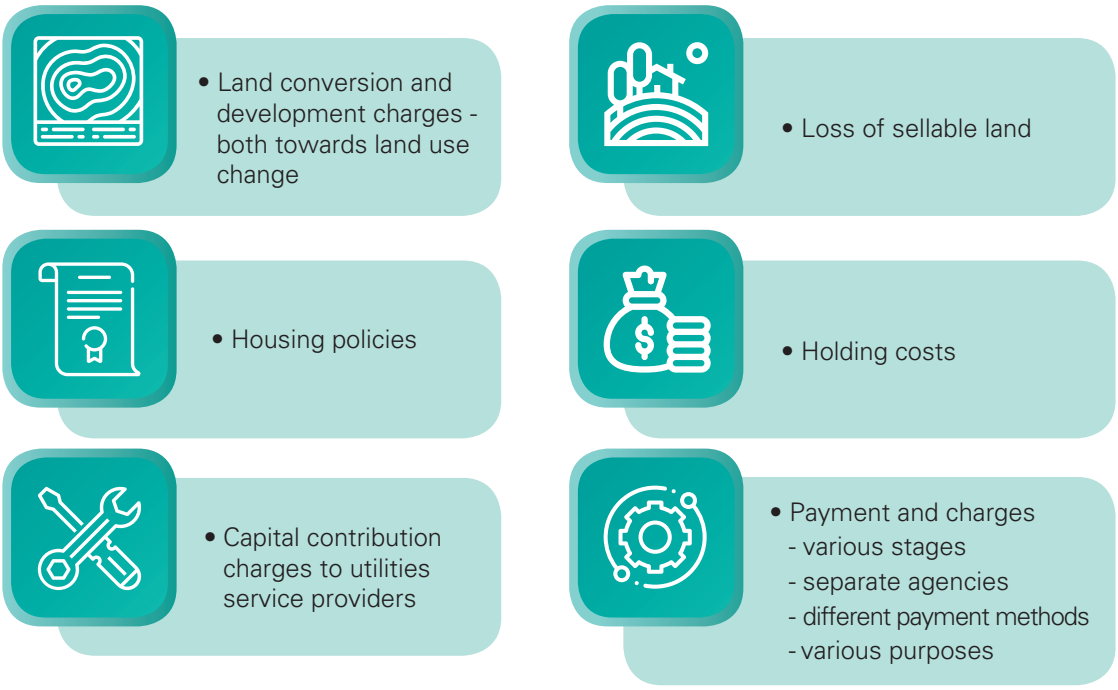
EXECUTIVE SUMMARY

1. HIGH COMPLIANCE COSTS - KEY ISSUES
2. IMPACT OF COMPLIANCE COSTS
3. TRANSFORMATIONAL RECOMMENDATIONS

KEY ISSUE 1

OVER REGULATION ADDS TO COST BUT NOT NECESSARILY VALUE OF HOUSES

1. The Malaysian housing industry is highly regulated by various laws, policies, guidelines and standards
   - Imposed at federal, state & local government levels, adding on to compliance cost for the industry
   - Prescribes certain controls and limitations on housing development throughout the various stages of housing delivery process
   - Approvals, permits and fees, payments and deposits to various agencies that will need to be executed at each stage
   - Higher standards of planning requirements
2. Regulations add to costs, limit supply and creates inflexibility to adapt to market changes
3. New compliance are imposed by separate agencies through separate laws, policies, standards and etcetera
4. The overall increase in compliance can be quite substantial when added up
5. Does not necessarily add productively to the value of the house, for example cross subsidies, holding costs and etcetera.
6. Main compliances include:



7. Do regulations constitute a barrier to development?
   - Depends on how important housing affordability is compared to other social objectives
   - Cost/benefit analyses of these regulations can be useful to assess whether the benefits outweigh the costs to the public (increased cost and reduced housing affordability)

KEY ISSUE 2 OVERZEALOUS PLANNING REQUIREMENTS REDUCE SELLABLE LAND

1. Certain percentage of land acreage is to be utilised for other uses such as public facilities, roads and drainage, open spaces and parks, utilities sites and reserves, and etcetera - to create a more liveable eco system for residents and the community
2. Beyond a certain threshold of size / population, land is surrendered for public facilities such as schools, hospitals, police station, fire station, market, community halls, places of worship and graveyards in compliance to the State's planning guidelines
3. As a result of such compliance, net sellable land, namely the portion of land that can be developed into buildings and be sold, is significantly reduced
   - Notable reduction of sellable land to only 40%-45% of total land area in recent years
   - Loss of opportunity to build and market additional housing units
   - Lesser units from the development = lesser housing supply
   - Increases land cost per unit
   - Undeveloped surrendered land for example schools. > 600 acres of such land remaining undeveloped in 3 local authorities boundaries in Selangor
   - In strata - parking requirement is a major compliance. Each additional parking lot can cost about 8.5% of Gross Development Value (GDV). Buyers who do not need them would still have to pay as part of the housing price

KEY ISSUE 3 CROSS SUBSIDIES CREATE PRICE DISTORTION

PECULIAR TO PROPERTY INDUSTRY

A. Affordable Housing

1. Private sector led
2. Quotas differ from state to state
   - Imposed across the board irrespective of project / location suitability and demand for such units
   - High quotas of up to 50% and prices capped as low as RM42,000 - fulfilment of affordable housing quota can only be implemented through cross subsidies.
3. Cross subsidy - partly funded by the open market units for feasibility. Causes price distortion
   - Cross subsidies can be as much as RM100,000 or between 10% to 20% per open market priced units
4. Policy does not consider the real demand for the said locality - often without the necessary eco system
   - Mismatch leading to unsold units. 9,127 overhang RM300,000 & below – 12% overhang RM100,000 & below (Q3 2020)
   - Unsold quota units add to holding costs. For strata, incurs maintenance service charges

KEY ISSUE 3

CROSS SUBSIDIES CREATE PRICE DISTORTION (CONT'D)

B. Bumiputera Quota

1. Quota can be as high as 50%
2. 5%-7% discount on a 30% quota translates to a 1.5%-2% cross funding by open market buyers
   - Discounts given across the board up to 15%, include buyers of high-end units
   - Cross subsidisation is not sustainable
3. Industry's main concern - release of unsold quota units
   - Unsold quota units do not get fast release for sale in the open market
   - Approval for release application is subject to various eligibility criteria and approved only in stages
   - No standard release mechanism and depends on respective state's policies and developers may be charged with levy for release of such unsold units
   - The approval for release, however, is not transparent and automatic; and developers are not guaranteed of full release over a specific time period
   - This mechanism creates uncertainty and adversely affect project marketing and cash flow planning

4. **Ties up resources and also attract additional holding costs, both in the case of Affordable Housing quota and Bumiputera quota, including interest and opportunity costs as well as maintenance costs in the case of completed units**

5. **In addition to tied resources, holding costs on unsold Bumiputera quota units can come up to 0.6% of GDV and could be higher if percentage of quota and/or percentage of unsold units are higher and held longer**

6. **Based on a RI's survey, out of 6,121 unreleased units held by a sample of 136 developers, 30% of such units have been tied up for more than 5 years**

Aging Range	Units	% units
0 - 12 months	1,256	21%
13 - 24 months	1,105	18%
25 - 36 months	891	15%
37 - 48 months	668	11%
49 - 60 months	335	5%
Beyond 60 months (beyond 5 years)	1,866	30%
TOTAL	**6,121**	**100%**

KEY ISSUE **4**

LENGTHY PROCESS OF APPROVAL - UNPRODUCTIVE, COSTLY DELAYS AND UNCERTAINTIES

1. Housing development involves a multi-tier approval process involving the federal, state and local authorities and their agencies and utility companies for different stages of the proposed development
2. Uncertainty of approval affects project planning and project implementation as well as cash flow
   - Results in higher risks, additional holding costs and expected higher returns to buffer against additional construction risks and possible additional costs
3. Unproductive and inefficient as the additional costs do not contribute productively to house quality, size or specifications
4. For example, in a township development with a GDV of around RM4 bn, each day taken for approval costs close to RM95,000. A one year approval period translates to RM35 mil in holdings costs
   - Huge amount that could have been channeled more productively to the project

SUMMARY OF COMPLIANCE COSTS IN PROPERTY DEVELOPMENT

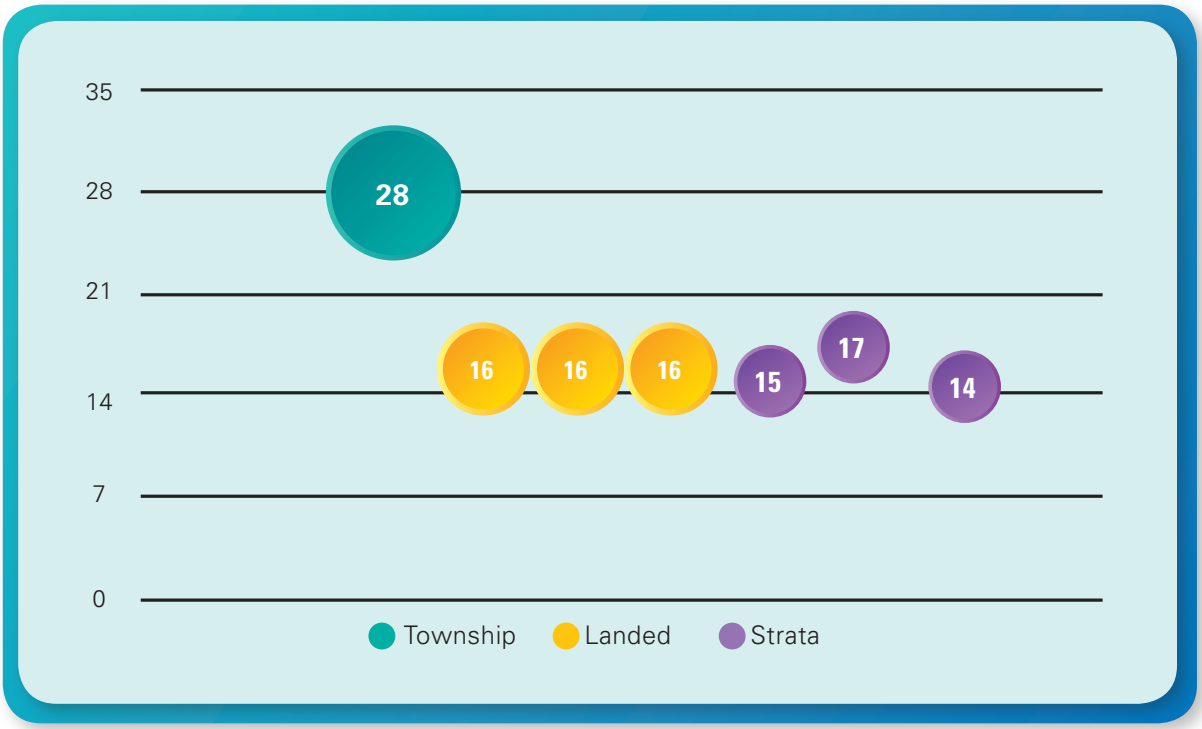
Details of Compliance (Township)	% to GDV
Conversion Premium	1% to 2%
Development Charges	1% to 2%
Capital Contribution	1.5% to 2%
Other Utilities Costs	1.5% to 2%
Loss of Sellable Land (60% surrendered)	6% to 9%
Cross Subsidies - Bumiputera Quota Discounts	1.5% to 2%
Holding Costs - Unsold Bumiputera Quota Units	0.5% to 1.5%
Holding Costs - Delays in Approvals	0.5% to 1.5%
Submission Fees, Titles etc	0.3% to 0.5%
SUB TOTAL	**13.8 % - 22.5%**
Cross Subsidies - Affordable Housing (Land, Building & Other Costs)	8 - 10%*
TOTAL	**21.8% - 32%**

May vary from project to project due to factors like location, types, sizes and other applicable policies / compliance
** Equals to about 15% to 20% cross subsidies by market driven units*

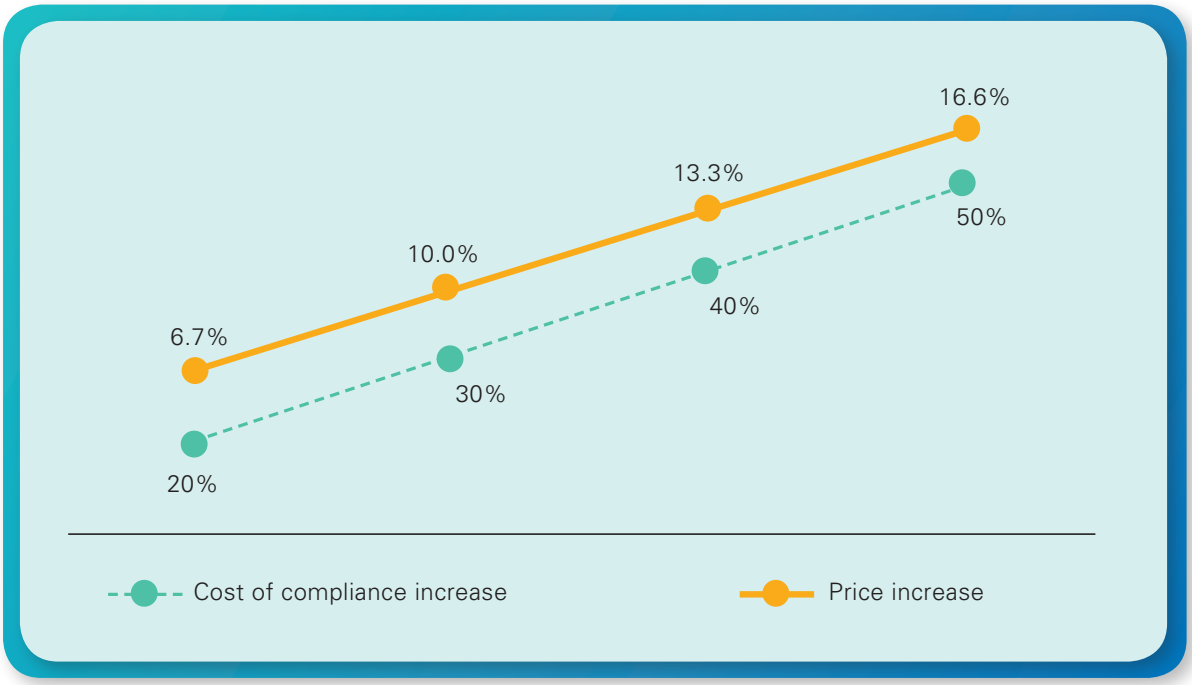
Details of Compliance (Strata Less Than 10 acres)	% to GDV
Conversion Premium	1% to 2%
Development Charges	1% to 2%
Capital Contribution	1.5% to 2%
Other Utilities Costs	0.5% to 1%
Car Park Requirements (every 1 basement / elevated car park for strata)	4% to 8%
Loss of Sellable Land / GFA (Open space, setbacks, reserves, facilities etc)	2% to 4%
Cross Subsidies - Bumiputera Quota Discounts	1.5% to 2%
Holding Costs - Unsold Bumiputera Quota Units	0.5% to 1.5%
Holding Costs - Delays in Approvals	0.5% to 1.5%
Submission Fees, Titles etc	0.3% to 0.5%
SUB TOTAL	**12.8 % - 24.5%**
Cross Subsidies - Affordable Housing (Land, Building & Other Costs)	#
TOTAL	**12.8% - 24.5%**

May vary from project to project due to factors like location, types, sizes and other applicable policies / compliance
 # Depending on policies

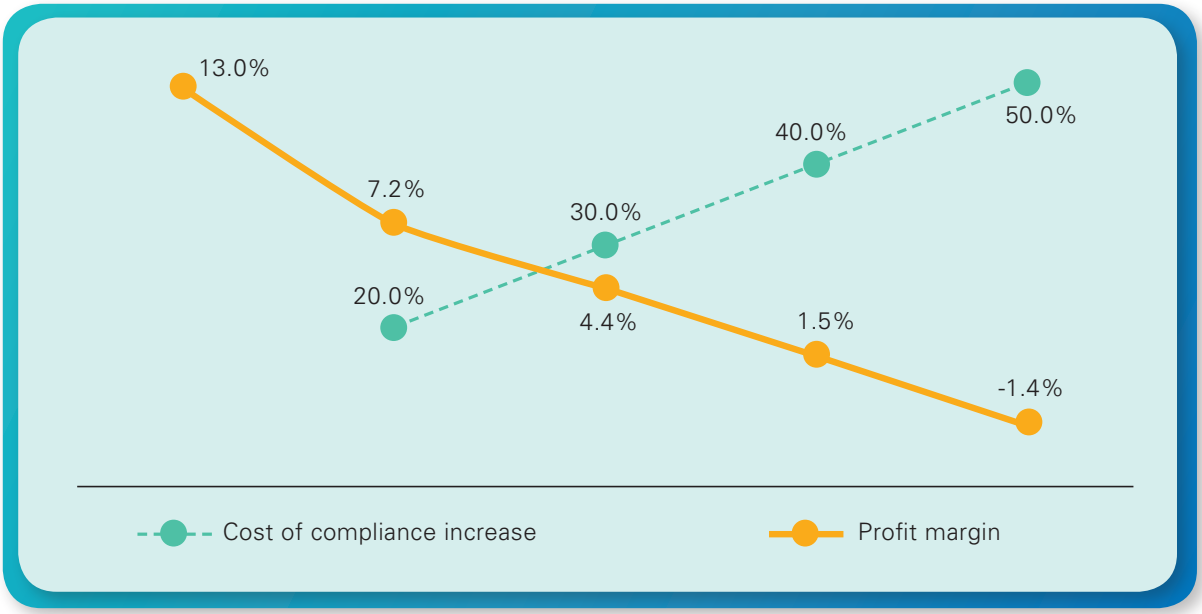
1 Compliance costs as % of GDV (Case studies of Actual Projects)



2 Impact of Increased Compliance Costs on Prices



3 Impact of Increased Compliance Costs on Profit Margin



4 Impact of Various Compliance Costs

i. Bumiputera Quota

Unsold Bumiputera Quota units still not released as of June 2020 (a sample of 136 developers)

Total units	**= 6,121 units**
Tied resources	**= RM3.8 billion**
Holding costs	**= RM3.8 billion x 0.07 p.a x 3 years**
(average 3 years)	**= RM0.8 billion**
Total holding cost	**= RM4.6 billion**

ii. Sewerage Capital Contribution (SCC)

Average annual housing production	**= 134,500 units**
Malaysia All House Price	**= RM424,901**
Annual GDV	**= RM57.15 bn**
SCC @ 1%	**= RM570 mil p.a**

iii. Approval Timelines

Example : Township Development

Each day taken – Holding Costs
= RM95,000

One year approval timeframe
= RM 35 million in holding costs or 1% of GDV

iv. Reduced Net Sellable Land

1990's Sellable Land	55%-60%	Loss of additional 20%
2020's Sellable Land	40%-45%	

For each 100 acre development, loss of 20% land equals to

- 20 acres of land loss due to additional land surrender
- RM10mil in land value
- 1,200 units of houses (loss of opportunity and lesser housing supply)
- An estimated RM540 mil in additional GDV (at RM450,000 per unit)
- Increased land costs per unit

3 THRUSTS | 7 FOCUS AREAS | 21 PRACTICAL SOLUTIONS | 14 IMPACT OF RECOMMENDATIONS

THRUST 1: REDUCE UNPRODUCTIVE COSTS

FOCUS AREAS	PRACTICAL SOLUTIONS
1. Transformation in Transparency, Speed of Approval and Streamlining of Processes • Approvals should be transparent, speedy, and with minimal discretionary authority • Follow a transparent set of rules and requirements for all steps of approval process that provides certainty in terms of approval upon meeting requirements and timing of such approval • Reduced bureaucracy, better efficiency and better speed of approval	**1. Full digital property development system incorporating pre consultation, submission, approval and payment system** • A reasonable timeline for comments and feedback must be given to applicants and adhered to by the authority to avoid unnecessary costly delays • Timeline of approval at OSC stage must also be adhered to so that applicants are aware of the total approval timeframe required for pre-consultation and approval application processes, which should not exceed 3 months to help reduce delays by two thirds of current scenarios • Processes should be further rationalised and simplified, especially in cases of smaller to medium sized developments. Proposed developments with planning permission for master layout should not be required to apply for planning approval yet again • Transparency in development information - to encourage access to supply and demand big data towards a more informed society and industry **2. Local plans to be expedited and gazetted to reduce approval timelines** **3. Self regulation - OSC 4** • Planning and building plans are given conditional approvals upon submission and declaration of full compliance by principal submitting persons **4. Payments - deposits, charges, fees to be made to an online payment centre - fees and charges for the whole process are calculated up front and paid online at the designated times** • This will help streamline the different requirements for cheque payments, cash, credit card and online payments to the respective authorities • Such a move will provide better certainty and budgeting as all charges involved are already calculated upfront through the one stop payment centre facility • Such a move will also be part of the industry's transformation towards full digitalisation
2. Cost Benefit Analyses for Proposed New Compliances	**5. Cost benefit analyses for all new compliances** • An analysis of impact on housing affordability / SWOT analysis should be a mandatory practice for the authorities prior to imposing new compliances • In line with this, there must be a review of existing legislation / guidelines that add to cost of compliance including those involving levies, charges, land related costs, cross subsidies, planning requirement and etcetera

IMPACT OF RECOMMENDATIONS

1. **A more efficient approval system**
   - Transparent set of rules and timeline, utilising digital platform with a centralised online payment system
2. **Transformation towards self-regulation**
   - Planning permission & building plan approvals via consultants
3. **A more sustainable cost increase**
   - Results in a slower rate of price escalation
4. **A halt to increased imposition of new compliance**
   - Any compliance must go through proper impact analysis

THRUST 2: MINIMISE CROSS SUBSIDIES

FOCUS AREAS	PRACTICAL SOLUTIONS
3. Affordable Housing	**6. Provision of affordable housing for B40 and M40 should be undertaken by the public sector – through targeted rental and ownership public housing programmes** • Market study be made a pre-requisite for all affordable housing development to ensure demand for specific location • This can be done on government land - the use of waqf land for affordable housing programmes to be studied and implemented accordingly - Use of economically sized waqf land in suitable location - Bridging / End Financing through Islamic Finance - Rental / Long Lease options **7. The private sector may pay contribution in lieu** of 2.5% of GDV for a limited transition period instead of physically building the affordable quota units • The contribution in lieu will help cushion the financial impact of such transition from the private to public sector • Such contribution should be be utilised for public affordable housing programmes (rental/ownership) and phased out after 10 years **8. Developers voluntarily building market driven affordable housing units shall be exempted from paying such contribution.** They are to be incentivised with higher density / plot ratio **9. Government through State Housing Board, SEDCs to buy existing unsold affordable units** from private sector to be pooled as affordable housing stock for the target groups • Government can hold such units for buyers without additional costs to the industry and other house buyers as is the case now
4. Bumiputera Quota & Discounts • Bumiputera quota units generally form up to 50% of development content and involve cross subsidies of estimated 1% to 2% of GDV in discounts and additional 1% to 2% of GDV in holding costs for unsold units for each year held • Whilst the intention to promote social engineering through such quota and discounts structure is noble, there are instances where such quota units remain unsold for extended time, causing invaluable resources to be unproductively locked up. It is timely that such quota and its release mechanism be reviewed	**10. Bumiputera discounts shall remain, but quota for Bumiputera buyers shall be kept at a maximum of 30%** in line with percentage of Bumiputera population of house buying age • New private developments - 30% of units will be reserved for 6 months upon launching. Units not taken up by Bumiputera after 6 months of launch may be sold to the open market automatically • This will facilitate purchase by interested Bumiputera without being punitive to developers and other buyers

THRUST 2: MINIMISE CROSS SUBSIDIES (CONT'D)

FOCUS AREAS	PRACTICAL SOLUTIONS
4. Bumiputera Quota & Discounts (Cont'd)	**11. Bumiputera discounts to be capped at specific ceiling price** • Not applicable for higher end properties for example price threshold targeted at the Top 20 income group based on locality (for example Malaysia : T20 Median Income of RM13,000, Mean Income of RM16,000 per month, Property price estimated at RM800,000) **12. Government to buy existing unsold Bumiputera units** to be pooled as Bumiputera housing stock for eligible target groups • Permodalan Hartanah Berhad can act as the vehicle towards this mechanism by extending its coverage to residential property • A CSR on the part of the organisation
5. Utility Service Providers to Bear Own Costs	**13. Utility Service Providers to Bear Own Capital Costs** • The practice of imposing capital contribution charges on the industry should stop as these service providers are not public sector but profit-making companies • Costs of infrastructure provision should be recovered from tariffs • Any payments towards provision of services should not be based on GDV/ selling price but should instead be based on actual costs or population equivalent in accordance to latest household sizes to reflect a fairer and just formula
6. Transformation of Infrastructure Provision	**14. Provision of infrastructure such as roads to be undertaken by government** at its own costs • New developments tapping into such infrastructure will pay per use accordingly in progress payments as construction stage advances • Includes road upgrades, highway access and etcetera.

IMPACT OF RECOMMENDATIONS

5 **A shift of social housing provision to public sector**
- Public sector to build social public housing

6 **A more mutually beneficial Bumiputera housing policy**
- Bumiputera are given the opportunity to buy housing unit without burdening developers with holding costs

7 **A more targeted Bumiputera discount**
- Discounts not for higher end segments

8 **A revised business model for utility service providers**
- Own funding for upstream costs without affecting house buyers

THRUST 3: OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY

FOCUS AREAS	PRACTICAL SOLUTIONS
7. Allow More Housing Units	**15. Total land surrender should be limited to a specified maximum cap** as a percentage of total site area(Now at estimated 60% for new township) • Planning requirements should be reviewed thoroughly for better land efficiency, in order to allow more housing units to be built on the project site. Land surrender shall be required only on need basis **16. Review of matrix for public facilities/ infrastructure required** where use of the latest technology can result in lesser land requirements for example land for sewerage treatment plants or detention pond and etcetera **17. Re-alienation of surrendered land not built** with originally intended facilities back to original owner and not to third party • The re-alienated land can be used for affordable housing or other development instead **18. Offset value of land surrendered** with payments such as conversion premium or development charges and/or compensate acres lost with extra density / plot ratio **19. To apply the use of plot ratio instead of density** for development controls • The use of plot ratio may result in similar gross floor area but will allow better flexibility in terms of sizes; offering buyers more choices at more affordable prices • Higher plot ratio will give higher number of units; higher GDV • The probable challenge of inadequate infrastructure resulting from the use of plot ratio must be addressed separately as urbanisation is the way forward for housing • Transformation of urban infrastructure must be undertaken to allow more people to live in urban areas at lower housing costs

THRUST 3: OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY (CONT'D)

FOCUS AREAS

7. **Allow More Housing Units (Cont'd)**

PRACTICAL SOLUTIONS

Density vs Plot Ratio - Size Flexibility

	Density	Plot Ratio
Land Size	3 acres or 130,680 sq ft	
Controls	100 units per acre	Say 1:2.8
Total Units/ Total Gross Floor Area	300 units or 360,000 sq ft	366,000 sq ft
Average Unit Size	1200 sq ft	1000 sq ft (500 sq ft - 1,500 sq ft)
Total Units Allowable	300 units	Average of 366 units (lesser if unit sizes increase, more if unit sizes decrease)
Unit Sizes	Developers tend to stick to optimum unit size as total number of units is restricted to 300 units only	Number of units is flexible, subject to the maximum floor area. Developers have the flexibility of building mixture of smaller, average and bigger sized units
Gross Development Value (GDV)	RM183 mil	RM183 mil (or higher depending on % of each unit type)
Prices	Say @ RM500 psf = RM600,000	Average RM500,000 per unit RM275,000 to RM750,000 per unit Say @ RM500 psf, prices can range between RM275,000 (say 550 sq ft)* to RM750,000 (say 1,500 sq ft) to cater to different space requirements and budget

THRUST 3: OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY (CONT'D)

FOCUS AREAS

7. Allow More Housing Units (Cont'd)

PRACTICAL SOLUTIONS

Density vs Plot Ratio - Higher GDV

	Density	Plot Ratio
Land Size	3 acres or 130,680 sq ft	
Controls	100 units per acre	Say 1:4
Total Units/ Total Gross Floor Area	300 units or 360,000 sq ft	522,720 sq ft
Average Unit Size	1200 sq ft	1000 sq ft (500 sq ft - 1,500 sq ft)
Total Units Allowable	300 units	Average of 522 units (lesser if unit sizes increase, more if unit sizes decrease)
Unit Sizes	Developers tend to stick to optimum unit size as total number of units is restricted to 300 units only	Number of units is flexible, subject to the maximum floor area. Developers have the flexibility of building mixture of smaller, average and bigger sized units
Gross Development Value (GDV)	RM183 mil	RM261 mil
Prices	Say @ RM500 psf = RM600,000	Average RM500,000 per unit RM275,000 to RM750,000 per unit Say @ RM500 psf, prices can range between RM275,000 (say 550 sq ft)* to RM750,000 (say 1,500 sq ft) to cater to different space requirements and budget

* *Smaller sized residential units should be allowed to cater for small sized households (young families, singles, retirees etc)*

THRUST 3: OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY (CONT'D)

FOCUS AREAS

PRACTICAL SOLUTIONS

20. TOD - Higher plot ratio lesser parking

- Higher plot ratio for Transit Oriented Developments (TOD) to allow more residents to benefit from the existing transit infrastructure
- TODs must also be given maximum exemptions in terms of parking requirement and open space requirements due to high accessibility via public transportation
- Whilst some local authorities grant parking exemptions up to 50%, such exemption should be further enhanced to help keep costs of TOD housing units as low as possible by reducing car park requirement to as high as 100% exemption

21. Flexible housing specifications

- Specifications of housing units i.e. minimum size must be made more flexible to cater for various housing need and make such units more affordable
- Smaller units for first time buyers, small families, young couples, retirees as their needs for space may differ from bigger household
- Such flexibility allows for innovative designs and concepts which can help make smaller units liveable - creative space planning and interior, adjoining units for extended families

IMPACT OF RECOMMENDATIONS

9 **A thoroughly reviewed planning requirement**
- Land surrender and matrix for public facilities on need basis

10 **Transformation of planning controls**
- Use of plot ratio without compromising basic infrastructure

11 **Higher density / higher gross floor areas**
- Developments with land surrender and/or quota imposition will be given higher density/gross floor area

12 **Transit Oriented Development (TOD)**
- Higher density and lesser parking requirement

13 **Flexibility of smaller sized units**
- Without compromising space quality and functionality

14 **A more financially feasible project**
- Enabling developers to reinvest in future projects for more housing supply

1

INTRODUCTION

1.0 INTRODUCTION

The Malaysian All House Price has been showing an upward trend in house prices, recording an All House Price of RM424,901 as at Q4 2019, an average annual increase of 11% over the last ten years from RM203,000 in 2010 *(Please refer to Figure 1.1)*. Similar upward trends are also seen in states' housing markets including Selangor, Kuala Lumpur, Penang and Johor as shown in Figure 1.1a. Whilst there may be other factors that contribute to increase in house prices, such as supply and demand, policy direction, new laws and taxation and etcetera, cost of housing production is the main driver of such increase. The cost of producing a product has a direct impact on both the price of the product and the profit earned from its sale.

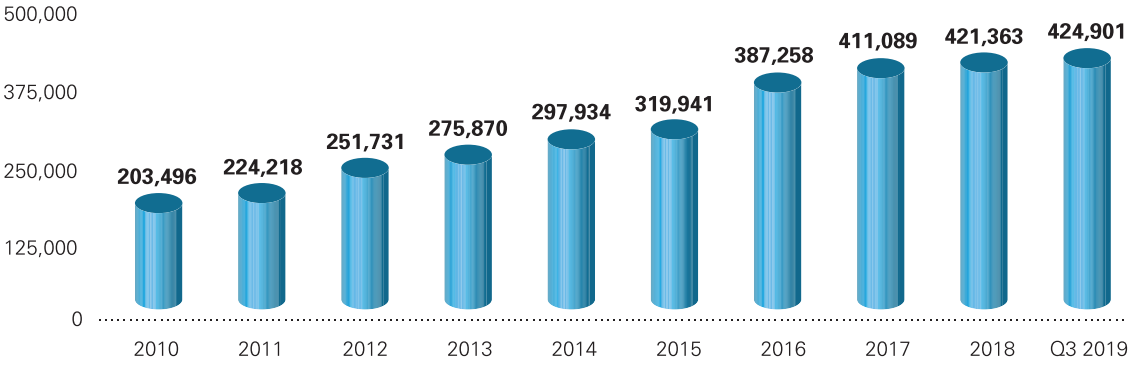
On the other hand, household incomes have not gone up significantly enough to support such price increases, hence resulting in housing affordability crisis, pushing many potential house buyers out of the market. It was reported that salary increase in 2019 averaged 5.1% and taking into account annual inflation of 2.4%, average growth in real wages stood at 2.7%. Median income in the above four states recorded average annual growth of between 10% to 15% per annum as shown in Table 1 and Figure 1.1b, of which only one third can be assumed disposable income portion increase for housing expenditure.

Table 1.1: Median Household Income, Selected States 2009 - 2016

	2009	2012	2014	2016	Average Annual Increase %
MALAYSIA	**2,841**	**3,626**	**4,585**	**5,228**	**12%**
Selangor	4,306	5,353	6,214	7,225	10%
WPKL	4,409	5,847	7,620	9,073	15%
Johor	2,958	3,650	5,197	5,652	13%
Penang	3,200	4,039	4,702	5,409	10%

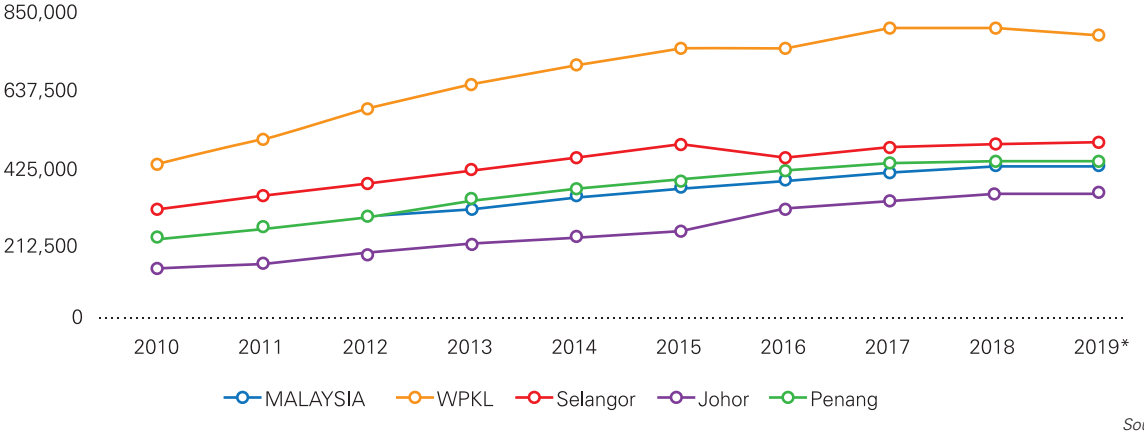
Source : DOSM

Figure 1.1: All House Price (RM), Malaysia 2010 - 2019 (Q4 figures)



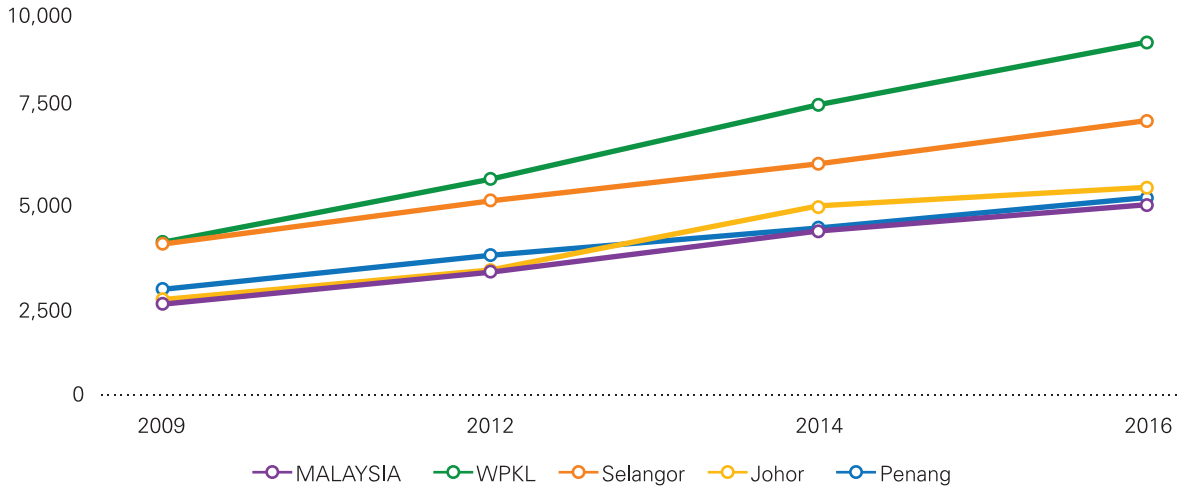
Source : NAPIC

Figure 1.1a: All House Price (RM), Selected States 2010 - 2019 (Q4 figures)



Source : NAPIC

Figure 1.1b: Median Income, Selected States, 2009 - 2016



Source : DOSM

On the supply side, high cost of doing business has been a major challenge in property development for the longest time; inevitably affecting property prices and affordability.

What is in a house price? Generally, as in other businesses, price equals total production costs and entrepreneur's return on his investment. As an introduction to subsequent issues that will be discussed in the following chapters, total production costs of a housing development include the following items:-

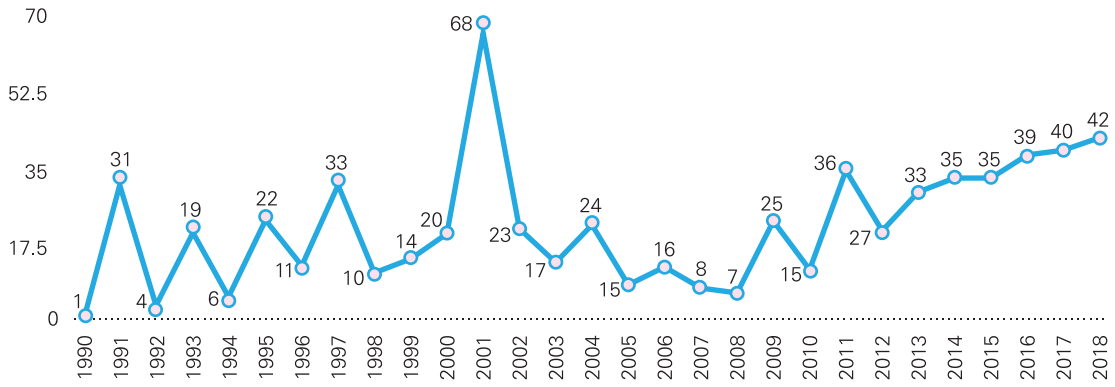
(i) Land and land related costs
(ii) Construction costs
(iii) Infrastructure and landscape costs
(iv) Fees, levies, charges and capital contributions
(v) Professional fees
(vi) Marketing
(vii) Finance Costs / Interest on financing
(viii) Contingencies

However, under each of the above cost items, there could be elements of compliance due to applicable legislation, housing policies, planning requirements, delays and holding costs, many of which do not contribute positively to the value of the housing units, or involve costs that should have been incurred by the respective service providers. Examples of these compliance costs include cross subsidies for affordable housing and Bumiputera discounts (borne by buyers of the open market units), high land costs per housing unit as a result of increased land surrender / planning controls as well as premium and development charges, capital contributions for utility services, holding costs due to time taken for approvals, to name a few. Such costs affect overall project costs, thus affecting price of houses and buyers' affordability. It is, therefore, in the interest of the *rakyat* generally and future house buyers specifically, that we look carefully at these compliance costs that have been hindering housing affordability.

At the project front, high compliance costs affect cash flow as well as project feasibility and returns, thus impacting the industry's capability to reinvest in land bank and future projects to ensure ample continuous supply of affordable housing stock into the market.

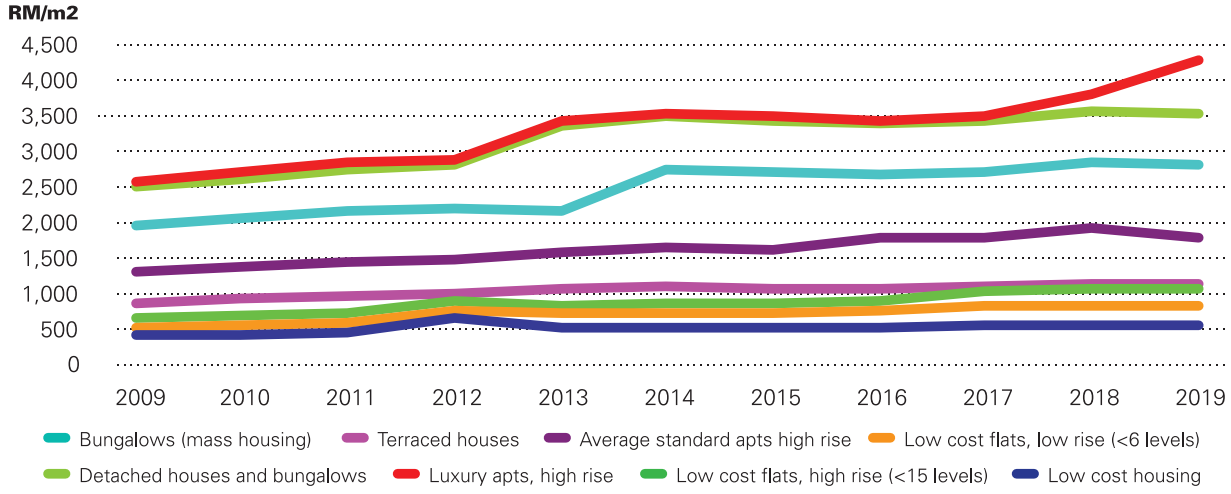
Some of the cost items in a housing development will continue to increase over the years. As an illustration, in Selangor, land costs alone have tripled from RM158 per sq m in 2010 (RM14.68 per sq ft) to RM452 per sq m in 2018 (RM42 per sq ft), recording an average of 21% per annum as charted in Figure 1.2. Land prices have also recorded constant steady increase from the Year 2012 onwards. Meanwhile construction costs for average standard high-rise apartments have also increased from an average of RM1,400 per sq m (RM130 per sq ft) in 2010 to RM1,850 per sq m (RM172 per sq ft) in 2019 (RM1,240 - RM2,425 per sq m or RM115 - RM225) as shown in Figure 1.3.

Figure 1.2: Illustration of Selangor Land Prices 1990 - 2018



Source: www.brickz.com

Figure 1.3: Residential Construction Costs Trend



Source : JUBM & Arcadis Construction Costs Handbook

1.1 THE ISSUE STATEMENT

Continued increases in costs will lead to higher prices, hence reduced affordability, reduced project feasibility and at the same time reduced profits and future supply. In order to ensure enhanced affordability for future buyers and retain prices and margins at more sustainable levels, the issue of increased costs of doing business in property development must be adequately addressed and mitigated.

This report is prepared to study and analyse the costs of doing business involved in property development contributing to increased overall development costs and prices with the objective to establish practical yet impactful solutions towards cost reduction so that house prices can be checked at more sustainable levels so that housing affordability of the *rakyat* is further enhanced.

The increase in costs of doing business is echoed by the findings of a survey carried out among REHDA members in 2019, where out of 150 respondents, 47% opined that costs have increased by between 30% to 50% whilst another 26% were of the opinion that the increase was higher, namely at 50% to 100%. They also opined that land related costs and compliance costs increased the most over the last two years, which resulted in reduced profit margin and higher house prices. In terms of the compliance cost components affecting their projects the most, the respondents have cited the following items (in rank of severity):-

1.2 RESEARCH METHODOLOGY

The following form the methodology in carrying out this research report:-

Surveys - among developers to identify main contributing factors and gauge sentiments on how such costs affect their project feasibility;

Interviews - individually / group either structured or semi structured interviews;

Discussion among task force members featuring experienced and knowledgeable industry practitioners;

Secondary data analysis; and

Case studies

1.3 SCOPE AND LIMITATION

This report intends to cover overall housing development scenario in Peninsular Malaysia with greater emphasis on policies and compliance in the states of Selangor, Kuala Lumpur, Penang and Johor. Some analysis may be based on projects in Selangor due to limited availability of data and information. Illustrations and simulations based on actual project data are used as much as possible to reflect real market situation, supplemented by secondary information. Wherever possible, this report analyses costs and data between specific time period of over around the last ten years, circa 2007 - 2019, which may vary depending on data availability and/or any other period where significant changes that impact development costs occur, as the case may be.

As project costs and compliance requirements differ from project to project and depend largely on type, size, location and area of jurisdiction of project, the study is limited to typical project scenarios. As such, whilst the analysis and findings on key issues contained herein are based on typical projects and market practices, recommendations contained herein are generally applicable to the whole housing industry, unless otherwise specifically stated.

ARTICLE 1: DEVELOPERS' SENTIMENTS' SURVEY

HOUSING POLICIES TOP LIST OF COST FACTORS AFFECTING FEASIBILITY AND PRICES

A pilot survey was conducted among REHDA members to inquire the developers on the increased cost of doing business over the past 10 years (2008 to 2019). Out of the total respondents, 23.4% of them were developers from Selangor, 13% were from Kuala Lumpur, 13% were from Penang, 9% were from Johor, 9% were from Pahang, 9% were from Kelantan, and the remaining respondents were developers from Malacca, Perak and Kedah. Key findings are highlighted as follows:

How have the overall costs of doing business increased over the last 10 years?

Increase in Overall Cost of Doing Business	Percentage of Respondents
Below 30%	11%
30% to 50%	**47%**
51% to 100%	26%
101% to 150%	9%
151% to 200%	9%

Almost half of the respondents (47%) indicated that the overall costs of doing business have increased by 30% to 50% over the past 10 years.

How much have the following costs increase over the last 10 years?

Cost Components	Average Percentage of Increase
Land Cost	**75%**
Compliance Costs	**72%**
Labour Cost	40%
Building Materials and Construction Cost	36%
Finance Cost	12%
Taxes	11%

On average, respondents claimed that land cost and compliance costs had increased significantly (75% and 72% respectively) over the last 10 years. Other significant increases include the labour cost (40%) and building materials and construction cost (36%).

How has the increase in land costs affected the feasibility of your project?

Project Feasibility: Increase in Land Cost	Percentage of Respondents
Reduced profit margin	**79%**
Higher housing price	**70%**
Opting for higher density development	55%
Build on smaller land parcels	40%
Reduction of cost components	30%
Develop lower density at increased prices	9%

Due to the increase in land cost, the majority of the developers experienced a reduced profit margin (79%) and the need to increase housing price (70%). Other developers settled with opting for higher density development (55%), building in smaller land parcels (40%) and reduction of other cost components, such as labour and construction (30%).

What are the measures taken to counter the increase in building materials and construction costs?

Project Feasibility: Increase in Building Materials/Construction Cost	Percentage of Respondents
Build smaller units	**57%**
Modify design to suit increasing cost	**55%**
Use more cost-effective materials	45%
Develop on reduced profit	45%
Increase housing prices	45%
Use the industrialized building system	26%

Due to the increase in building materials and construction cost in the past 10 years, developers tend to build on smaller units (57%) and modify the design to suit the increasing cost (55%). Developers also tend to resolve through using more cost-effective materials (45%), develop on reduced profit (45%), and increase housing price (45%).

Do you think that increased labour costs have resulted in increased productivity and workmanship quality?

Increase productivity and workmanship	Percentage of Respondents
No	**77%**
Yes	23%

Majority of the developers (77%) claimed that the increase in labour cost in the past 10 years does not result in the increase in productivity or workmanship.

How have compliance costs affected your project?

Results of Increase Compliance Cost	Percentage of Respondents
Increased in overall development cost	**85%**
Reduced profit margin	**60%**
Affects project cashflow	**51%**
Longer approval process	43%
Higher holding cost	43%
Reduced net buildable land	30%
Lesser unit/ Lesser floor areas	30%
Extended construction period/ Project delays	21%
Lower marketability unit	17%

Majority of the developers claimed that the increase in compliance cost in the past 10 years has significantly resulted in the increased in overall development cost (85%), reduced profit margin (60%) and affected project cashflow (51%). Developers also believed that compliance cost result in longer approval process (43%) and higher holding cost (43%). The negative impacts of increasing compliance costs warrant the revision on the overregulation and excessive requirement imposed by the government.

Which of the following increased compliance costs has significantly impacted the feasibility of your project?

COMPLIANCE	Percentage of Respondents	COMPLIANCE CATEGORIES	Percentage of Respondents
Housing Policies	**83%**	**Affordable Housing Quota**	**60%**
		Bumiputera Housing Quota & Discounts	**49%**
Land Matters	**81%**	**Development Charges**	**55%**
		Conversion Premium	**53%**
		Substation Premium	6%
Holding Cost/ Deposits/ Bank Guarantee	**72%**	**Holding Cost for Unsold Quota Units**	**53%**
		Deposit for APDL	30%
		Approvals Timeline	28%
		Service Charges for Quota of Unsold Units	15%
		Upfront Payments	15%
		Others	2%
Statutory Contributions	**70%**	**Sewerage**	**47%**
		Water	**40%**
		TNB	34%
		ISF	21%
		Drainage	19%
		Telecommunication	9%
		Graveyard	6%
Land Surrender	**57%**	**Open Space**	**36%**
		Retention Pond	28%
		Schools	19%
		Mosque/ Place of Worship	19%
		TNB Reserves	19%
		Drainage Reserves	15%
		Other Land Reserves	13%
		Hawkers Area	11%
		Kindergarten	9%
		Community Halls	9%
		Police/ Bomba/ etc	2%
Planning Requirements/ Planning Guidelines	**45%**	**Parking**	**32%**
		Road Widths	15%
		Safety/ Fire Safety	11%
		Drains	11%
		Spare parts	6%
		Other Changes	15%
Other Upgrading Works	**40%**	**PPU, Treatment Plants, Reservoirs, etc**	**40%**

The above survey revealed that according to developers, housing policies for affordable housing and Bumiputera quota and discounts were the top costs factors that have significantly impacted project feasibility. Another significant compliance that has negatively influenced project feasibility was land matters, in particular, the imposition of development charges and land conversion premium. Other significant compliances include holding costs, deposits and bank guarantee, followed by statutory contribution, land surrender and planning requirements.

The findings call for an investigation on the plethora of regulative policy tools for being cumbersome and inconsistent for project feasibility and developers' ability to reinvest.

2

COSTS OF DOING BUSINESS IN PROPERTY DEVELOPMENT

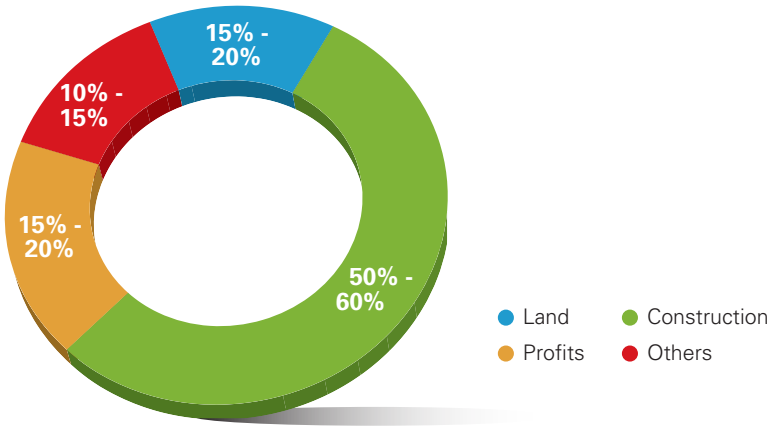
2.1 COST COMPONENTS

Property development is a process of developing land into a higher use value. The process involves complex activities and in the case of housing development in Malaysia, it goes through long gestation period spanning 5 to 6 years from land purchase to completion, making property development a high-risk business which engages with large sums of investment spread across the pre-development stage, actual construction stage and post-development stage.

In typical housing development in Malaysia, major cost components include :-

These cost components, along with the profit margin, form the basis of Gross Development Value (GDV) and sales price of the units therein. Figure 2.1 outlines the general apportionment of costs components in a housing development. Percentages, however, may differ from project to project due to various factors including location, type of development, risks, policies and others.

Figure 2.1: Cost Components of Housing Development, Estimates



Source : REHDA Institute

2.2 UNDERSTANDING GROSS DEVELOPMENT VALUE AND COST COMPONENTS IN PROPERTY DEVELOPMENT

Gross Development Value

Gross Development Value (GDV) is the estimated value that new complete development would fetch on the open market if it were to be sold in the current economic climate. GDV is dictated by market mechanisms or the forces of supply and demand which determine the value and prices of the properties for sale in the free market. It is, however, also highly dependant on overall development costs for the project to be financially feasible. The higher the costs incurred throughout the development stages, the more likely that prices will be set at a higher level. GDV will also be reflective of applicable policies in practice impacting prices, for example the respective states' affordable housing policies, Bumiputera quota and discounts.

Housing development in Malaysia is typically carried out through the Sell Then Build concept where prices are set at approval stages through the mechanism of Advertising Permit / Developer's Licence issuance by the Ministry of Housing and Local Government. With prices confirmed at predevelopment and contracted upon signing of Sale and Purchase Agreement (SPA) with buyers, often prior to physical construction, no alterations can be made further thereafter. Similarly, the time frame for delivery is also set upfront as per the signed SPA. Any delays or unforeseeable increase in costs will have to be absorbed accordingly without price adjustments.

Cost Component : LAND

Land costs include all expenses associated with land acquisition as well as other related cost incurred to prepare the land for development. Such other costs comprise interest on financing of land or similar costs of funding if not taking a bank loan, conversion premium payable to the State Government for change of land use; normally from agriculture to building category, as well as site preparations, earthwork and infrastructure costs. Land costs should ideally be capped between 15% to 20% of GDV for project feasibility.

Cost Component : DEVELOPMENT CHARGES

Development charge is levied for changes in land use, density or floor area in a development. Similar to conversion premium, different formula is applicable across different states but unlike land conversion premium, development charges are paid to local authorities. One of the most common cause of development charges is land use change where land use applied for is different from the zoning applicable to the area. For example in the case of land use change, Kuala Lumpur, Selangor and Johor use formula based on certain percentage of increased land value whereas Penang (Majlis Bandaraya Pulau Pinang) uses per sq ft basis. Development charges are also imposed for change of density, insufficient parking space, and exceeded plot ratio, where applicable.

Cost Component : TITLE APPLICATIONS

Units to be sold must be subdivided into and issued with separate individual titles, be it for landed or strata development. Title applications are made to the Land Offices / Lands and Mines Offices with a specified fee chargeable for each title issued. Preceding to such application, survey fees are paid to land surveyor for land surveying works required for the process.

Cost Component : CONSTRUCTION

The construction costs form the most significant cost incurred during project development. In general, construction costs cover piling, building and services, car park, materials, labour and construction related levies. As construction is outsourced to a main contractor, the overall construction costs, or contract sum, will also include all related costs incurred by the contractor and its sub-contractors including project management, construction and labour levies, compliance to building, materials and quality standards, main contractor's and sub-contractors' profits and interest on construction and infrastructure cost. Construction costs often account for 50% to 60% of the GDV, depending on specifications and type of properties.

Cost Component : CAPITAL CONTRIBUTIONS / REGULATORY FEES

Capital contributions are the payments made to utility service providers for the provision of electricity, water, sewerage and telecommunication services to the projects. These charges are above and in addition to the utilities infrastructure that a developer would have to provide within the development site boundary and the land required for constructing such facilities.

Other regulatory fees include contribution that have to be paid directly to local authority / relevant agencies for specific purposes in complying to regulatory requirements and applicable guidelines such as contribution towards Improvement Service Funds (ISF), graveyard contributions and other charges / fees involved in undertaking the said development whether designated as license fees, permit fees, deposits or by another name.

Cost Component : PROFESSIONAL FEES

Property development is a business that requires extensive input from the professionals. In a housing development, professionals' participation span throughout the development period from land acquisition to planning, concept and design, approval submission, costing, project supervision right up to sales and completion. Professional fees are subject to the respective professions' scale of fees.

Cost Component : MANAGEMENT AND ADMINISTRATION FEES

The management and administration fees refer to the charges for the administration of the project including rental, operational staff, costs of paperwork, office equipment, utilities or any other costs that the companies might incur to run their businesses.

Cost Component : FINANCE COSTS

In the Sell Then Build concept of housing development, buyers pay progress payments upon completion of a specific stage of development based on a statutory schedule attached to the Sale and Purchase Agreement. Project completion to such stage is funded through what is practically known as bridging financing, which attracts element of finance costs / interests.

Cost Component : MARKETING

Marketing costs cover the promotional costs to market the project and the units therein, advertising through various platforms, property exhibitions that they may participate in, real estate agents' fees, promotional items to clear inventory, and may also cover the furnished show units.

Cost Component : CONTINGENCIES

Property development, especially housing, is a long process that could take up to 6 years before project completion. Construction period alone takes between 24 to 36 months to complete and it is quite normal to have more complex high rise / integrated projects to apply for extension of time to 42 or 48 months. Given the length and complexity of the project cycle, it is important to set aside funds for contingencies to deal with expected and unforeseen circumstances such as increase in materials prices and etcetera to prepare the business with downside risk estimates.

Profits

Property development / housing development is a high risk investment that involves extensive capital which profits can be realised only after the last unit is sold and housing development account is closed and surplus monies withdrawn. The whole duration from the first dollar spent and the surplus withdrawn can take some 6-7 years. Within such time frame there are other risks involved that could possibly move the goal post including uncertainty in approvals, change in market demand situation, new policies being imposed and etcetera. All these add to the already high risks faced by the business and require high returns on investment to be a worthy venture. Profit margins of between 15% to 20% of GDV in good market condition is ideal. However, in lacklustre market and in downturns, developers are often pressed to undertake projects with lower profits of between 10% to 15%. In recent years it has been widely publicised that margins have eroded significantly compared with 1990's and early 2000's.

2.3 HOUSING DEVELOPMENT PROCESS

The housing delivery system is complex in nature. It involves compliance with requirements of Federal, State and Local Governments and subject to legislation, policies and guidelines of the three authorities. It goes through different layers of approvals, input by professionals of different technical practices and span over a long period from land purchase to expiry of developer's defect liability period. Figure 2.2 depicts such complexity and shows the various approval processes, including planning, building, developer's license and advertising and sales permit approvals, as well as other requirements related to the approvals.

Figure 2.2: Land Banking until Property Management

Source : REHDA

2.4 INCREASED COST OF DOING BUSINESS AND HOUSING AFFORDABILITY

Any increase in cost of development will inevitably translate into higher prices and reduced affordability. Housing development is a business and housing developers are business entrepreneurs who expect returns on their investment. Like any other business venture, there is a specified minimum profit margins that the project has to achieve for it not be a non starter.

In an attempt to improve housing affordability, one the popular opinion is to bring in more supply to the market. However if costs are not contained and keep on increasing, prices will not be sustainable over the long run even if the market is overloaded with supply as the basic cost elements are not reduced.

Is there any room for cost reduction in housing development?

Perhaps not directly. Land and other development costs such as materials, labour, professionals, interest costs, operational and etcetera will keep increasing in the years to come due to economic, market and inflationary factors. Lower land and construction costs per sq ft for example, may mean further location and/or lower construction quality/specifications. Prices of raw materials are continually fluctuating. Whilst construction cost forms the bulk of total development cost (up to 60% of GDV), there is actually very little room for developers to reduce construction cost given the existing construction standards, quality requirements and materials prices.

However, beyond the land, construction and other direct costs in property development there also exist other costs embedded in the various cost components termed as 'Compliance Costs', namely the costs incurred in order to comply with various policies, guidelines and regulations.

The subsequent chapters of this report will identify the key compliance costs and identify any possible window of practical cost reduction.

3

COMPLIANCE COSTS

3.0 COMPLIANCE COSTS

A compliance cost can be defined as the expenditure of money and time in conforming with government policies, legislation and regulation. Hence the increase in regulations and policies requiring conformation of the industry results in the increase in compliance cost.

Policies and legislations constantly add on to the compliance costs throughout the stages of development. The compliance costs come in different forms; the common ones are incurred in the form of :-

(i) capital based such as land conversion premiums, contribution charges, levies and fees;

(ii) reduction of net sellable land due to planning requirements, namely land surrender for public facilities, infrastructure, open space, storm water management as well as higher specifications for utility infrastructure; and

(iii) time based such as delays and uncertainty of approvals including at pre, during and post development stages, resulting in increased risks and holding costs.

Stages	Processes	Examples of Compliance Cost Incurred
Pre-Development Phase	• Site Selection • Site Acquisition • Feasibility and Market Due Diligence • Conceptual Plans • Working Drawing and Documentation • Financing and Budgets • Planning Permission and Approvals • Building Plans • Licensing & Advertising Permit	1. Conversion Premium 2. Development Charges 3. Title Application 4. Land Surrender and Construction - Public Amenities • Education (Kindergarten, Schools, etc.) • Healthcare (Clinic, Hospitals, etc.) • Safety and Security (Police Stations, etc.) • Place of Worship (Mosque, etc.) • Community Facilities (Halls, Library) • Open Space & Recreation (Neighbourhood Parks, Playgrounds, etc.) • Utilities • Graveyard • Street and Drainage • Hawkers' Centre • Others 5. Car Parks 6. Other Planning Requirements (Planning Guidelines) 7. Affordable Housing 8. Bumiputera Quota & Discount 9. Delays in Approvals 10. Fees and Deposits

Stages	Processes	Examples of Compliance Cost Incurred
Construction Phase	• Schedule Control • Quality Control • Draw Review • Tendering • Leasing • Construction Processes • Project Management • Financing • Marketing and Sales	11. Compliance to Construction Standards 12. Utility Contribution: - Construction of Facilities • telecommunication • electricity • sewerage • water • others - Capital Contribution / Connection Charges • telecommunication • electricity • sewerage • water • ISF • upgrading works of infrastructure • others 13. Fees, Deposits, Levies
Project Completion	• Delivery of Vacant Possession • Maintenance • Management • Promotion, Marketing and Sales of Unsold Units	14. Bumiputera Release Delays and Levies 15. Holding Cost on Unsold Units 16. Fees and Deposits 17. Liquidated Ascertained Damages 18. Defect Rectifications

The above compliance costs incurred are borne in the development costs and therefore reflected in the house prices. As property development does not operate in a charitable objective, all costs are passed on to home buyers as part of the housing unit, but limited to the capability of market absorption and market demand.

In a survey conducted among REHDA members to gauge insights into developers' sentiments on the increase in costs over the past 10 year period i.e. 2009 to 2019, respondents have cited that land costs and compliance costs have increased the most, and as a result such increases have led to increased overall development costs, reduced profit margin and affecting project cash flow. *Please see Article 1 - Developers' Sentiments Survey*.

Key Issues Resulting in High Compliance Costs

The following have been identified as key issues that lead to increased costs of doing business and high compliance costs in housing development:-

a. Over regulation;

b. Reduced sellable land as a result of planning requirements;

c. Housing policies involving cross subsidies;

d. Delays and uncertainties of approvals; and

e. As a result of the above, prices have increased and affordability compromised. Additionally profits are reduced, affecting capabilities to reinvest.

3.1 OVER REGULATION

The Malaysian housing industry is highly regulated by various laws, policies, guidelines and standards. These regulations are imposed at federal, state & local government levels, adding on to compliance cost for the industry.

Federal	Malaysia Plan, National Physical Plan, National Housing Policies and related sub policies, Acts, Regulations and Bylaws, Guidelines, Circulars
	Licensing and advertising permits
	Construction standards - Safety, Quality, Technology
	Taxation
State	State policies, State Land Rules and other legislation and bylaws, Guidelines
	Land matters - transaction and transfers, land use, titles, restrictions, subdivision etcetera
	Land taxes
Local Authorities	Bylaws, Guidelines
	Planning and Development Order
	Building Plans
	Construction, Completion and Compliance
	Strata management

Some of the main ones include:-

Legislation

- Housing Development (Control & Licensing) Act 1966 (Act 118) and Regulations
- National Land Code 1965 (Act 65)
- Uniform Building By Laws 1984
- State Land Rules - Various states
- Strata Titles Act 1985 (Act 318)
- Town and Country Planning Act 1976 (Act 172)
- Street, Drainage and Building Act 1974 (Act 133)
- Local Government Act 1976 (Act 171)
- Energy Commission Act 2001 (Act 610)
- Electricity Supply Act 1990 (Act 447)
- Personal Data Protection Act 2010 (Act 709)
- Water Services Industry Act 2006 (Act 655)
- Construction Industry Development Board Act 1994 (Act 520)
- Malaysian Communications and Multimedia Act 1998 (Act 588)
- Strata Management Act 2013 (Act 757)
- Other Legislations

Policies, Guidelines and Standards

National Physical Plan	National Housing Policy and sub policies	State Housing Policies	Planning Policies - Structure, Local and Special Area Plans
Planning Guidelines	Construction Industry Standards	Malaysian Standards	Other guidelines

Each of the above prescribes certain controls and limitations on housing development throughout the various stages of housing delivery process. Alongside such controls are approvals, permits and fees, payments or deposits to various agencies that will need to be executed at each stage. Regulations add to costs, limit supply and creates inflexibility to adapt to market changes.

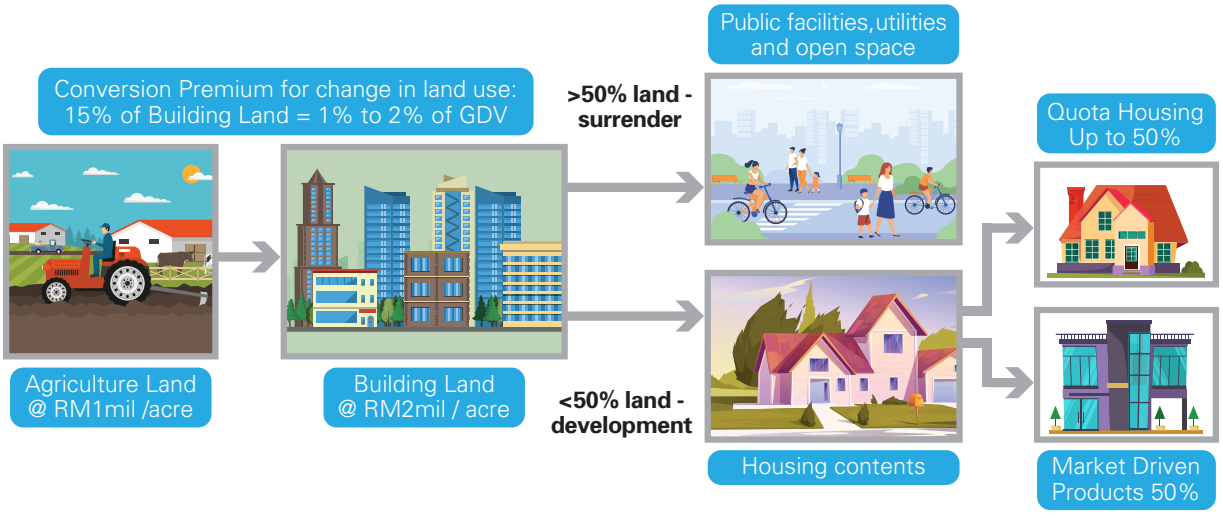
New compliance are imposed by separate agencies through separate laws, policies, standards and etcetera which may seem insignificant on its own. However, when added up the overall increase in compliance can be quite substantial.

Conversion and Development Charges

Conversion premium for change in land use (in the case of housing development normally from agriculture to building) is a major land cost. Charged based on varied formula and generally about 15% of building land value, conversion premium is payable to the State Authority. It translates to about 1% to 2% of GDV on average, depending on location and land value.

This is charged on full acreage of land, of which, in a township development, more than 50% will be surrendered back for public facilities, utilities and open space, and out of the balance up to 50% of housing contents are reserved for affordable housing as illustrated in Figure 3.1.

Figure 3.1: Conversion of Land for Housing Development



Source: RI Calculations

As earlier stated, formula for land conversion premium varies from authority to authority, depending on the respective State's Land Rules.

Table 3.1: Conversion Premium from Agricultural Land to Building Land (Residential)

STATE	CONVERSION PREMIUM
Selangor	15% of land value under building category
Kuala Lumpur	15% of land value under building category
Johor	RM100 - RM1,000+ per plot (landed); RM1,500 - RM5,000+ (highrise)
Penang	15% of land value under building category

Source : Various States' Land Rules

Similarly, Development Charges are imposed under the Town and Country Planning Act and the respective state rules on projects with land use change, density increase, insufficient parking space, exceeded plot ratio or public facilities not provided. Development charges are payable to local authority based on a specified formula, once again varying from one state to another. *Please refer Table 3.2* for details on Development Charges. One of the most common imposition of development charges is for land use change / rezoning. Notwithstanding conversion premium is already charged on land use conversion, development charge is also imposed on land use change / amendment resulting in increase in land value at between 10% - 30% of increase in land value. Kuala Lumpur charges 30% of land value whilst Penang applies two different formula for the two local authorities i.e. 7.5% to 12.5% of increase in land value for Majlis Bandaraya Seberang Prai and RM12 - RM21 per sq ft for Majlis Bandaraya Pulau Pinang.

Whilst the two charges i.e. conversion premium and development charges are paid under different legislation to different authorities, the basis of the imposition is the same, namely for change in land use. This will add to increased costs at another 1% - 2% of GDV generally.

Table 3.2: Development Charges - KL, Selangor, Johor, Penang

Categories	Kuala Lumpur	Selangor	Johor	Penang	
				MBPP	MBSP
Landuse change/ alteration	30% of the land value	• City council: 30% x increase in land value • Local council: 30% x increase in land value • District council: 20% x increase in land value	• International zone: 30% x increase of land value • City council: 25% x increase in land value • Local council: 15% x increase in land value • District council: 10% x increase in land value	• RM 15 per sqft housing • RM 21 per sqft commercial	Rezoning: i- Local developer: 7.5% of differences in land value from original land use as compared to applied land use ii- Foreign developer: 12.5% of differences in land value from original land use as compared to applied land use
Change of density	-	• City council: 30% x increase in land value • Local council: 30% x increase in land value • District council: 20% x increase in land value	• International zone: 30% x increase of land value • City council: 25% x increase in land value • Local council: 15% x increase in land value • District council: 10% x increase in land value	• RM 15 per sqft housing • RM 21 per sqft commercial	Exceed density: RM 3.75/sqft
Insufficient parking space	RM 15,000 / per parking lot	No specifically stated charges for Selangor State under this category	No specifically stated charges for Johor State under this category	• Parking: RM 25,000 • Motorcycle: RM2,500	Fees/charges based on "one to one" concept (depending on the exact development value, which consists of land costs, construction costs and current development costs determine by MBSP Valuation Department)

Table 3.2: Development Charges - KL, Selangor, Johor, Penang (cont'd)

Categories	Kuala Lumpur	Selangor	Johor	Penang	
				MBPP	MBSP
Parking lot for car wash services in the building	RM 5,000 / for every lot	No specifically stated charges for Selangor State under this category	No specifically stated charges for Johor State under this category	Other public facilities that cannot be provided such as schools, open spaces range from RM210 to RM450 per sqft (applicable until 31.12.2019)	No available charges for the area under jurisdiction MBSP under this category
Exceed plot ratio	No available charges for Kuala Lumpur State under this category	No specifically stated charges for Selangor State under this category	No specifically stated charges for Johor State under this category	No specifically stated charges for the area under jurisdiction of MBPP under this category	RM 5.25 per sqft
	Source: Garis panduan pengiraan caj pembangunan, Isf dan cagaran/ deposit runtuhan (2006 JPRB,DBKL)	*Source: Kaedah-kaedah caj pemajuan 2010:http://www.jpbdselangor.gov.my*	*Source: Kaedah-kaedah caj pemajuan negeri johor 2018: https://jpbd.johor. gov.my/*	*Source: Majlis Perbandaran Pulau Pinang*	*Source: Majlis Perbandaran Seberang Perai*

Payment and Charges

In line with the various approvals and permits required throughout the delivery system, developers must pay fees, deposits and contributions payable to numerous approving agencies requiring differing payment methods. Some of these payments are to be made via bank drafts, bank guarantees, cash or online payments. The lack of uniformity in payment methods also contributes to added compliance. Regulations result in increased compliance and financial costs and create inefficiency as such payments / fees are paid separately to different agencies using differing methods. The payments include:-

Table 3.3: Housing Delivery - Example of Payments Made to Various Agencies

	Approval Process	Payments
1	Tenaga Nasional Berhad (TNB)	• Connection Charges • Streetlighting Connection Charges • Deposits / Performance Guarantee • Meter deposits
2	Indah Water Konsortium (IWK)	• Sewerage Capital Contribution
3	Malaysian Communication and Multimedia Commission (MCMC) / Telco	• Processing fees • Contribution charges
4	Water Concessionaires	• Capital Cost Contribution • Connection charges • Integrated Water Supply System • Water meters • Deposits / Performance Guarantee
5	One Stop Centre (OSC)	• Fees
6	Planning	• Development Charges • Improvement Service Fund • Drainage Contribution • Highway Access fees / Main road upgrading, if applicable • Application Fees

Table 3.3: Housing Delivery - Example of Payments Made to Various Agencies (cont'd)

	Approval Process	Payments
7	Developer's Licence	• Opening of Housing Development Account • Deposit for Licence (Bank Guarantee) • Application fees • Renewal fees
8	Conversion / Subdivision	• Conversion Premium • Title Application fees
9	Others	• Tree Planting Contribution, if applicable • Others

Source: Various Agencies

Capital Contribution Charges to Utilities Service Providers

The country's utilities services used to be provided by government agencies, namely Jabatan Bekalan Elektrik (electricity), Jabatan Bekalan Air (water), Jabatan Telekom (telecommunications) and Jabatan Perkhidmatan Pembetungan (sewerage). In line with the countries move towards privatisation, these services have been taken over by privatised bodies, some of which are publicly listed.

These services are considered essential for housing development and developers are made to pay for costs of provision of such services within the site boundaries and/or tapping into / upgrading of existing services. In addition, developers are paying for upstream costs of these services through capital contribution charges. Capital costs in any business should be borne by the service provider and charged out to consumers through product pricing and not otherwise. Similarly, the utility service providers should bear their respective capital costs and subsequently charge the consumers through tariff and monthly bills.

Much has been debated about why the utility companies are charging developers instead of undertaking their upstream costs and charging consumers through tariffs, including the reasoning that they cannot refuse services if they find the project not feasible to supply, buyers may not move in and use the supply, as well as low and prescriptive tariff rates at consumers' level. The fact, however, remains that charging capital contribution charges on a project results in increased costs and pricing, resulting in reduced affordability. These capital contribution charges can add up to between 1.5% to 2% of GDV, i.e up to RM10,000 in a RM500,000 unit.

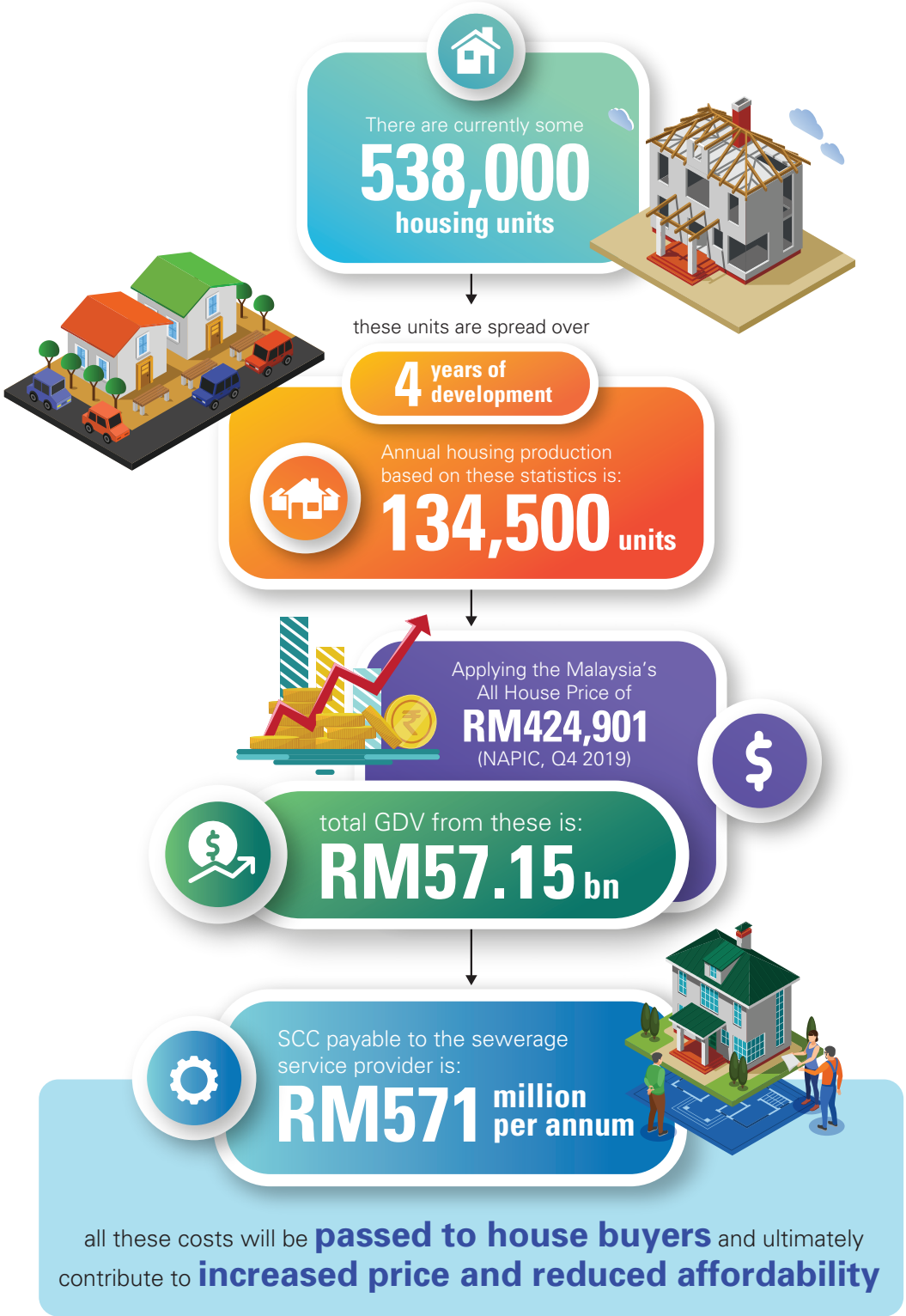
It should also be noted that some of these utility service providers are public listed profit making companies. In 2018, Tenaga nasional Berhad (TNB) raked in RM50.39 bn in revenue and RM5.04 bn in profit before taxation whilst Telekom Malaysia (TM) recorded a revenue of RM11.82 bn and RM17.4 mil profit before taxation. Why should house buyers pay for their capital costs even before they subscribe to the services?

Details of charges for the utilities service provision are highlighted separately in Tables 3.5 to 3.8 in this report.

Formula used in these contribution charges is also debatable as they are commonly charged based on GDV / selling price. For example, sewerage capital contribution (SCC) is charged at 1% of GDV, irrespective of population equivalent in the unit. This effectively means the contribution increases parallel to increase in selling prices irrespective of what is the actual costs for the upstream work developers are paying for and such formula is inequitable and not sustainable for the housing development industry.

For illustration, an example of a development project comprising 600 units of condominiums with full facilities at a selling price of RM600,000 per unit will attract a sewerage capital contribution of RM3.6 mil. A similar development of 600 condominium units in similar location, similar distance to existing regional sewerage treatment plant and similar density albeit marketed at a lower price due to smaller floor area and unavailability of such extensive facilities, say at RM400,000 per unit will pay sewerage capital contribution totalling RM2.4 million only. Similarly, assuming an exact second block of the RM400,000 condominium is launched a few months later at RM500,000 per unit, the SCC payable now is RM3 mil for exactly the same product in the same location. What is then the real cost of sewerage service provision? Obviously there is element of cross subsidisation in the SCC formula at different levels (i) cross subsidy towards lower priced property and (ii) cross subsidy towards the service provider's capital costs.

There are currently some 538,000 housing units in various stages of development (Jabatan Perumahan Negara, as at 31 October 2019). Assuming these units are spread over 4 years of development, the annual housing production based on these statistics is 134,500 units. Applying the Malaysia's All House Price of RM424,901 (NAPIC, Q4 2019), the total GDV from these units is RM57.15 bn and SCC payable by the housing industry alone to the sewerage service provider is RM571 million per annum. Inevitably, all these costs will be passed to house buyers and ultimately contribute to increased price and reduced affordability.



The following Table 3.4 illustrates the amount of capital contribution charges payable in some typical housing development projects (actual project costs).

Table 3.4a: Housing Delivery - Illustration of Capital Contribution Charges (Utilities)

PROJECT TYPE	STRATA	LANDED	TOWNSHIP	AFFORDABLE HOUSING	REMARKS
ELECTRICITY	2,399,719	466,542	12,000,000	730,250	Not inclusive other costs - land, sub stations
WATER	1,032,494	-NA-	10,700,000	671,500	Not inclusive land, reservoir, incoming and reticulation pipes, IWSS etc
SEWERAGE	6,204,821	1,626,706	8,900,000	4,366,790	Not inclusive land, reticulation pipe, upgrades if applicable
TELECOMMU-NICATIONS	-NA-	202,153	41,000,000	145,881	Not inclusive cabling, trunking
OTHERS:					
ISF	340,000	121,010	3,580,000	-NA-	
DRAINAGE	40,500	16,050	-NA-	361,400	
TOTAL	9,677,874	2,432,461	76,180,000	6,275,821	
% OVER GDV	1.8%	1.5%	1.8%	1.5%	

Note : NA - Figures not specified as a separate item in actual project costs

Source: REHDA Institute

The above capital contribution charges are in addition to any works, upgrading, construction, land supply and etcetera that a developer will have to undertake within the site boundaries. In a typical township development, such costs can be very high as illustrated in Table 3.4b:-

Table 3.4b: Housing Delivery - Illustration of Utility Charges (Contribution & Others)

TOWNSHIP DEVELOPMENT - OTHER UTILITIES COSTS (ACTUAL PROJECT COSTS)	
Land for TNB Reserves, Reservoir, Sewerage Treatment Plant - (A total of 10.3 acres or 1.5% of total site area)	5,800,000
Construction costs for substations, water systems, sewer reticulation pipes Including : Substation construction @ RM240,000 per unit : Water reservoir @ RM8.6 mil per unit : Reticulation pipe @ RM20 mil : Integrated Water Supply System @ RM6.3 mil : Sewer reticulation pipe @ RM2.4 mil, and etcetera	67,300,000
Percentage Over GDV (%)	**1.7%**
Total % of Contribution + Other Utilities Costs	**3.5%**

Source: REHDA Institute

Table 3.5: Electricity Connection Charges

Kilowatt Maximum Demand	Type of metering	CONNECTION CHARGE (where the substation building and the land is to be leased to TNB at a nominal cost of RM10 or no substation is required)	CONNECTION CHARGE (where the substation building is to be built and the land has to be purchased by TNB at a price agreed with the owner)
	1 Phase	RM 250 (Low cost house < RM25,000)	RM 400 (Low cost house < RM25,000)
	3 Phase (overhead)	RM 750	RM 1,150
Up to 10	1 Phase	RM 450	RM 680
11 to 37	3 phase whole current/ underground (cut-out fuse ≤ 60 Amp)	RM 1,700	RM 2,500
38 to 60	20 – 100 Amp 3 phases whole current (cut-out fuse = 100 Amp)	RM 2,700	RM 4,100
61 to 90	150/5 current transformer	RM 4,050	RM 6,100
91 to 120	200/5 current transformer	RM 5,400	RM 8,150
121 to 180	300/5 current transformer	RM 8,100	RM 12,250
181 to 240	400/5 current transformer	RM 10,800	RM 16,300
241 to 360	600/5 current transformer	RM 16,200	RM 24,500
361 to 480	800/5 current transformer	RM 21,600	RM 32,650
481 to 600	1000/5 current transformer	RM 27,000	RM 40,800
601 to 720	1200/5 current transformer	RM 32,400	RM 48,950
721 to 900	1500/5 current transformer	RM 40,500	RM 61,200
901 to 1200	2000/5 current transformer	RM 54,000	RM 81,600

Source: Tenaga Nasional Berhad (TNB)

Table 3.6: Water Capital Contribution Rates for Residential Premises Developed by Developer

Types of premises	Rates per premises (Where supply mains or service reservoirs are constructed by developer)	Rates per premises (RM) (Where supply mains or service reservoirs are constructed by licensee)
Low/low medium/medium cost house/flat	RM 75	RM 75 + (0.40 x A) + (0.80 x B)
Any time of premises with selling price / market value above RM70,000.00 to RM150,000.00	RM 300	RM 300 + (0.40 x A) + (0.80 x B)
Any time of premises with selling price / market value above RM150,000.00 to RM300,000.00	RM 500	RM 500 + (0.40 x A) + (0.80 x B)
Any time of premises with selling price / market value above RM300,000.00 to RM500,000.00	RM 1,000	RM 1,000 + (0.40 x A) + (0.80 x B)
Any time of premises with selling price / market value above RM500,000.00	RM 1,500	RM 1,500 + (0.40 x A) + (0.80 x B)

A = Estimated water demand where supply mains are constructed by the licensee
B = Estimated water demand where service reservoirs are constructed by the licensee

Source: Water Services Industry (Water Services Deposits, Fees and Charges) Regulations 2014

Table 3.7: Rate of Sewerage Capital Contribution for Residential Development

Category Contribution	Rate
Any developer or person who constructs the following building and connects the building to a public sewer: • Building which is intended for sale and has been sold;	1.00% of selling price of each unit
• Residential building which is intended for sale but has not been sold;	1.00% of selling price of each unit
• Building which is not intended for sale;	1.00% of selling price of each unit
• Building which is intended for sale but has not been sold, excluding residential building in paragraph (b).	1.00% of selling price of each unit
Any developer or person who constructs low costs residential building and connects the specific buildings to a public sewer	RM1000 for each project
Any developer or person who constructs a sewage treatment works without a sludge processing facility or standby power generator or both in relation to low costs residential building	RM1000 for each project
Any developer or person who constructs a septic tank or communal septic tank that requires an off-site sludge processing facility in relation to low costs residential building	RM1000 for each project

Source: Water Services Industry (Sewerage Capital Contribution Fund) Regulations 2011

Table 3.8: Telecommunication Smart Partnership Programme

Telecommunication	RM2,500 to RM4,000 per unit
High Speed Broadband Infrastructure	RM4,000 to RM6,000 per unit

Source: Telekom Malaysia Berhad

The question of whether a regulation constitutes a barrier to development may sometimes depend on how important housing affordability is compared to other social objectives. Whilst regulations are put in place to protect the general public and promote sustainable, orderly development, cost/benefit analyses of these regulations can be useful to assess whether the benefits outweigh the costs to the public, namely increased cost of housing /and reduced housing affordability.

Can the country move towards reducing regulations and let the industry self regulate instead? The nearest the industry has ever achieved in moving towards self regulation is through issuance of Certificate of Completion and Compliance (CCC) by professionals. In April 2007, the Government had launched the improvement to enhance the competitiveness of Malaysia globally through the issuance of the Certificate of Completion and Compliance (CCC) by Professional Architects and Professional Engineers as well as Building Draughtsman registered with the Board of Architects Malaysia (LAM) to replace the Certificate of Fitness for Occupation (CFO) issued by the local authorities.

3.2 REDUCED SELLABLE LAND

All property developments are governed by the Town and Country Planning Act and the various planning guidelines and plans relevant to the type and location of development being undertaken. In a development, a certain percentage of land acreage is to be put aside for other uses such as public facilities, roads and drainage, open spaces and parks, utilities sites and reserves, and etcetera to create a more liveable eco system for residents and the community. This is especially so in township developments, where beyond a certain threshold of size / population, land have to be surrendered for facilities such as schools, hospitals, police station, fire station, market, community halls, places of worship and graveyards in compliance to the State's planning guidelines.

Public amenities

- Education (Kindergarten, Schools, etc.)
- Healthcare (Clinic, Hospitals, etc.)
- Safety and Security (Police Stations, Fire station etc.)
- Place of Worship (Mosque, etc.)
- Community Facilities (Halls, Library)
- Open Space & Recreation (Neighbourhood Parks, Playgrounds, etc.)
- Graveyard
- Street and Drainage
- Hawkers' Centre
- Others

Road and drainage

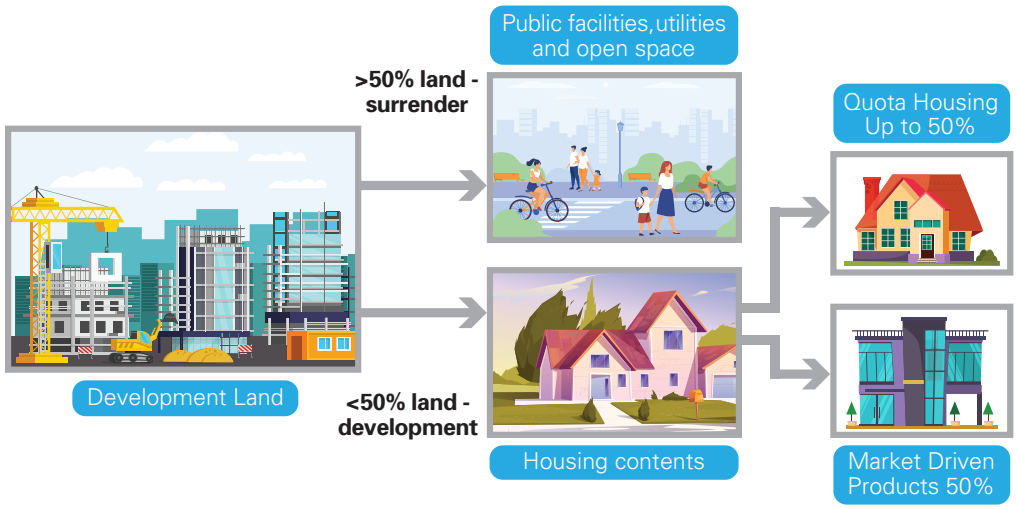
- Road reserves
- Drainage
- Detention ponds

Utilities

- Reservoir
- Electric Sub Stations
- Sewerage Treatment Plants
- Others

As a result of such compliance, net sellable land, namely the portion of land that can be developed into buildings and be sold, is significantly reduced.

Figure 3.2: Development Project - Land Use in Township Development



Source: REHDA Institute

Figure 3.2 illustrates the general scenario in a township development where theoretically, developers have to surrender an average of 50% of the land for other uses, namely public facilities, open space, utilities, road and drainage and etcetera. The actual percentage can actually surpass 50% thus reducing the balance net sellable land further.

Whilst land requirement for public facilities has been revised in recent years for better efficiency *(Tables 3.11 & 3.12)*, there is still increased land surrender as a result of complying to planning requirements. For ease of comparison, we have used Selangor Planning Guidelines which was first established in 2007 and subsequently revised in 2010 and 2016. Some of these increases include:

Land area for primary and secondary schools (from 9 to 10 acres for secondary schools, from 6 to 6.5 acres for primary schools for every 10,000 population)

Road width (Increase in main road width from 100' to 132', local road from 50' to 66', pedestrian walkway from 4' to >5')

Land surrender for cemetery

Detention pond at 5% of site area

Table 3.9a: Increased Road Sizes, Selangor 2007 - 2016

	Planning Guidelines First Edition 2007	Planning Guidelines Second Edition 2010	Planning Guidelines Third Edition 20016
Express Highway	200'	200'	200'
Highway	132'	132'	132'
Main road	100'	132'	132'
Collector road	66'	66'	66'
Local road	50'	66'	66'
Side road	20'	20'	20'
Backlane	15'	15'	15'
Pedestrian walkway	4'	5'	>5'

Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Pertama (2007); Edisi Kedua (2010); Edisi Ketiga (2016)

For each 1 meter increase in road width, and for every kilometre of road, an extra 1,000 sq m would have been surrendered. In the case of increase in local road width from 50' to 66' i.e. additional 16' or about 5 meters, for each kilometre of such road, an additional 5,000 sq m or slightly above an acre would have been surrendered.

- Increased lot sizes for housing - reduces number of units that can be built

  Selangor Planning Guidelines Y2016 vs Y2010 / Y2007

  - Medium cost minimum lot size 18' x 65' against 18' x 60'
  - Single storey terrace houses minimum lot size of 20' x 70' against 20' x 60'
  - Semi detached housing minimum lot size at 35' x 65' (2010) from 35' x 60' (2007)
  - Zero lot housing minimum lot size of 45' x 70' against 40' x 70'
  - Cluster housing minimum lot size of 30' x 60' against 30' x 55'

Table 3.9b: Increased Lot Sizes for Housing, Selangor 2007 - 2016

	1st Edition 2007	2nd Edition 2010	3rd Edition 2016	1st Edition 2007	2nd Edition 2010	3rd Edition 2016	1st Edition 2007	2nd Edition 2010	3rd Edition 2016
	Low Cost			**Low Medium Cost**			**Medium Cost**		
Lot size	18'x55'	18'x55'	18'x55'	18'x60'	18'x60'	18'x60'	18'x60'	18'x60'	18'x65'
	Terrace			**SELANGORKU Housing**			**Semi Detach Housing**		
Lot size	20'x60'	20'x60'	1storey: 20'x70' 2storey: 20'x60'	N/A	N/A	1storey: 20'x60' 2storey: 18'x60'	40'x75'	40'x70'	45'x70'
	Zero lot housing			**Bungalow**			**Cluster**		
Lot size	40'x 75'	40'x70'	45'x70'	50'x75'	50'x75'	50'x75'	30'x60'	30'x55'	30'x60'

Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Pertama (2007); Edisi Kedua (2010); Edisi Ketiga (2016)

Inflexibility of housing specifications, particularly in terms of built up area, limit developers' creativity in building smaller yet efficient units. The bigger the unit size, lesser units can be built on the same piece of land and this applies to both landed and strata development.

- Strata Development
  - Service road at 66' instead of previously 50' to 66'
  - Parking lot requirement to 2 parking lots per housing unit + 20% visitors + 2% with ramp facilities
  - Increased visitors' parking requirement for townhouses by 10%, 20% motorcycle parking and 2% from total number of parking lot with ramp facility
  - 10% open space, 70% of which must be functional open space
  - Minimum 750 sq ft gross floor area for medium cost (700 sq ft in 2010)
  - Minimum 850 sq ft gross floor area for high costs / market driven units (750 sq ft in 2010)
  - Minimum size of 22' x 70' for townhouses (no previous minimum sizing)
  - Increase in internal circulation road for landed strata to 40' one way and 50' two way as opposed to 30' one way and 40' two way in 2010

The above changes effectively means reduced net sellable area as a larger portion of the subject land is being surrendered for non commercial usage in compliance of the relevant planning guidelines *(see Tables 3.11 - 3.14)*. The increased minimum housing size further restricts flexibility and the number of houses that can be built on the land. All these add to costs of a housing unit.

In a strata development, any additional parking lot requirement could cost an average of *RM35,000 per lot for basement parking and *RM27,000 per lot for elevated car park (*actual project figures). Added to it a 20% visitor's parking requirement, the cost per average parking lot can be in the region of RM42,000 and RM32,000 respectively.

An additional lot requirement results in direct increase of 8% in price (of houses RM500,000 and below) before taking into account other multiplied costs such as finance costs, professional fees, profits and etcetera that may be based on total construction costs. Buyers who may not require two parking lots are paying at least 8% more upfront for the space they do not need. In general, car park costs per sq ft are as follows:-

Table 3.10a: Cost of Car Park, Kuala Lumpur

Car Park Category	No of Levels	Costs per sq ft	Costs per lot at 300 sq ft gross floor area per lot
Basement Carpark	< 3 levels	RM125 - RM215	RM37,500 - 64,500
Elevated Carpark	< 4 levels	RM88 - RM140	RM26,400 - 42,000

Source: JUBM & Arcadia Construction Cost Handbook 2020

Table 3.10b shows a simulation of cost of car park requirement as a percentage of GDV for different parking provision from 0 to 2 car parks per unit plus 20% visitors' lot.

Impact of additional parking requirements on house prices is further analysed in Chapter 4 of this report.

Table 3.10b: Simulation on Cost of Car Park to GDV

Project Type : Affordable Housing below RM500,000 - Condominium

Cost Elements	Car Park Requirements per Housing Unit						
	(A) 0	(B) 1	(C) 1+10%	(D) 1+20%	(E) 2	(F) 2+10%	(G) 2+20%
Land Cost per unit	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Building Cost	160,000	160,000	160,000	160,000	160,000	160,000	160,000
Car Park	0	35,000	38,500	42,000	70,000	73,500	77,000
Regulatory Fees	15,500	15,500	15,500	15,500	15,500	15,500	15,500
Others at 15%	41,325	46,575	47,100	47,625	51,825	52,350	52,875
Profit at 15%	47,524	53,561	54,165	54,769	59,599	60,203	60,806
Estimated Price	364,349	410,636	415,265	419,894	456,924	461,553	466,181
% of carpark to GDV	0	8.5%	9.3%	10.0%	15.3%	15.9%	16.5%

Note : G = Current Requirement. The increase in car park requirements increase prices and increase percentage of car park costs to GDV

Source: RI's calculations

Assumptions : A parking lot costs RM35,000 on average. Land costs, Building Costs and Regulatory Costs remaining constant while other costs (interest, professional fees, administration and etcetera.) and profits move as total costs increase

Table 3.11: Land Surrender for Public Facility for An Urban Area (Federal PLANMalaysia), 1997

Type of Public Facility	Population					
	5000	10000	20000	30000	40000	50000
[a]Estimated Typical Size (Acreage)	80	160	320	480	640	800
Health clinic	0.5	0.5	5.0	5.0	30.0	30.0
Secondary school	0	11.0	23.0	34.5	46.0	57.5
Primary school	7.5	7.5	15.0	30.0	37.5	45.0
Kindergarten	0.4	0.8	1.6	2.4	3.2	4.0
Urban/ Community Police station	2.0	2.0	7.5	7.5	7.5	7.5
Multipurpose/ Community Hall	0.3	0.3	0.5	0.8	1.0	1.3
Library	0.3	0.3	0.6	0.6	0.6	0.6
Post office	0	0.0	0.8	0.8	0.8	0.8
Mosque/ Surau	1.2	1.2	2.5	2.5	2.5	2.5
Cemetery Muslim	1.8	1.8	4.9	4.9	9.8	9.8
Cemetery Non Muslim	0.7	0.7	2.0	2.0	4.0	4.0
Total Acreage Surrendered (Acre)	**14.7**	**26.1**	**63.4**	**90.9**	**142.9**	**162.9**
	18.3%	**16.3%**	**19.8%**	**18.9%**	**22.3%**	**20.4%**

a: Assumption; average acreage, category A area and flat land.

Source: Garis Panduan Kemudahan Masyarakat (1997), Garis Panduan Perancangan Tempat Ibadat Islam (1997), & Garis Panduan Perancangan Tanah Perkuburan Islam dan Bukan Islam (1997).

Table 3.12: Land Surrender for Public Facility for An Urban Area (Federal PLANMalaysia), 2011

Type of Public Facility	Population					
	5000	10000	20000	30000	40000	50000
[a]Estimated Typical Size (Acreage)	80	160	320	480	640	800
Primary School	3.75	3.75	3.75	7.5	7.5	11.25
Secondary School	0	7.5	15	22.5	30	37.5
Clinic/ Health Clinic/ Hospital	0	0	3	10.0	10	20
Police Station	1	1	1	1.00	4.25	4.25
Fire Station	0.5	0.5	0.5	0.5	4	4
Multipurpose Hall/ Public Hall/ Community Hall	0.35	0.63	0.63	1.00	1.00	1.00
Library	0.3	0.6	0.6	0.6	0.6	0.6
Mosque/ Surau	0.61	2.47	2.47	2.47	2.47	2.47
Non-Muslim Place of Worship	0.61	0.61	0.61	0.61	0.61	0.61
Cemetery Muslim	0	0	2.5	5.0	7.5	10.0
Cemetery Non-Muslim	0	0	2.5	2.5	2.5	2.5
Total Acreage Surrendered (Acre)	**7.12**	**17.06**	**32.56**	**53.68**	**70.43**	**94.18**
	8.9%	**10.7%**	**10.2%**	**11.2%**	**11.0%**	**11.8%**

a: Assumption; average acreage, category A area and flat land.

Source: Garis Panduan Perancangan Perumahan (2016), Kemudahan Masyarakat (2013), Masjid dan Surau (2011), & Tokong, Kuil, Gereja dan Gurdwara (2011)

Table 3.13: Land Surrender for Public Facility for Selangor, 2007

Type of Public Facility	Population					
	5000	10000	20000	30000	40000	50000
[a]Estimated Typical Size (Acreage)	80	160	320	480	640	800
Health Clinic	0.00	0.00	6.00	6.00	30.00	30.00
Secondary School	0.00	9.00	18.00	27.00	36.00	45.00
Primary School	6.00	6.00	12.00	24.00	30.00	36.00
Kindergarten	0.36	0.72	1.44	2.16	2.88	3.60
Urban/ Community Police station	2.50	2.50	7.50	7.50	7.50	7.50
Fire Station	0.00	0.00	4.00	4.00	4.00	7.50
Community Centre	4.00	4.00	7.50	7.50	7.50	7.50
Library	0.00	0.50	0.50	0.50	0.50	3.00
Post Office	0.00	0.00	0.74	1.48	1.48	2.25
Mosque/ Surau	0.50	0.50	3.00	3.00	3.00	3.00
Non-Muslim Place of Worship	1.20	1.20	1.20	1.20	1.20	1.20
Muslim Cemetery	0.00	5.00	10.00	15.00	20.00	20.00
Non-Muslim Cemetery	0.00	1.00	2.00	2.00	3.00	3.00
Total Acreage (Acre)	**14.56**	**30.42**	**73.88**	**101.34**	**147.06**	**169.55**
	18.2%	**19.0%**	**23.1%**	**21.1%**	**23.0%**	**21.2%**

a: Assumption; average acreage, category A area and flat land

Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Pertama (2007)

Table 3.14: Land Surrender for Public Facility for Selangor, 2016

Type of Public Facility	Population					
	5000	10000	20000	30000	40000	50000
[a]Estimated Typical Size (Acreage)	80	160	320	480	640	800
Hospital/ Health Clinic	0.0	0.0	3.0	7.5	7.5	10.0
Secondary School	0.0	10.0	20.0	30.0	40.0	50.0
Primary School	6.5	6.5	13.0	26.0	32.5	39.0
Urban/ Community Police Station	2.5	2.5	7.5	7.5	7.5	7.5
Fire Station	0.0	0.0	0.0	0.0	0.0	5.0
Mosque/ Surau	0.5	0.5	3.0	3.0	3.0	3.0
Non-Muslim Place of Worship	1.2	1.2	1.2	1.2	1.2	1.2
Muslim Cemetery	0.0	5.0	10.0	15.0	17.5	17.5
Non-Muslim Cemetery	0.0	5.0	7.5	7.5	7.5	7.5
Community Centre	0.5	0.5	1.5	1.5	1.5	1.5
Library	0.4	0.6	0.6	0.6	0.6	0.6
Total Acreage (Acre)	**11.6**	**31.8**	**67.3**	**99.8**	**118.8**	**142.8**
	14.5%	**19.9%**	**21.0%**	**20.8%**	**18.6%**	**17.9%**

a: Assumption; average acreage, category A area and flat land

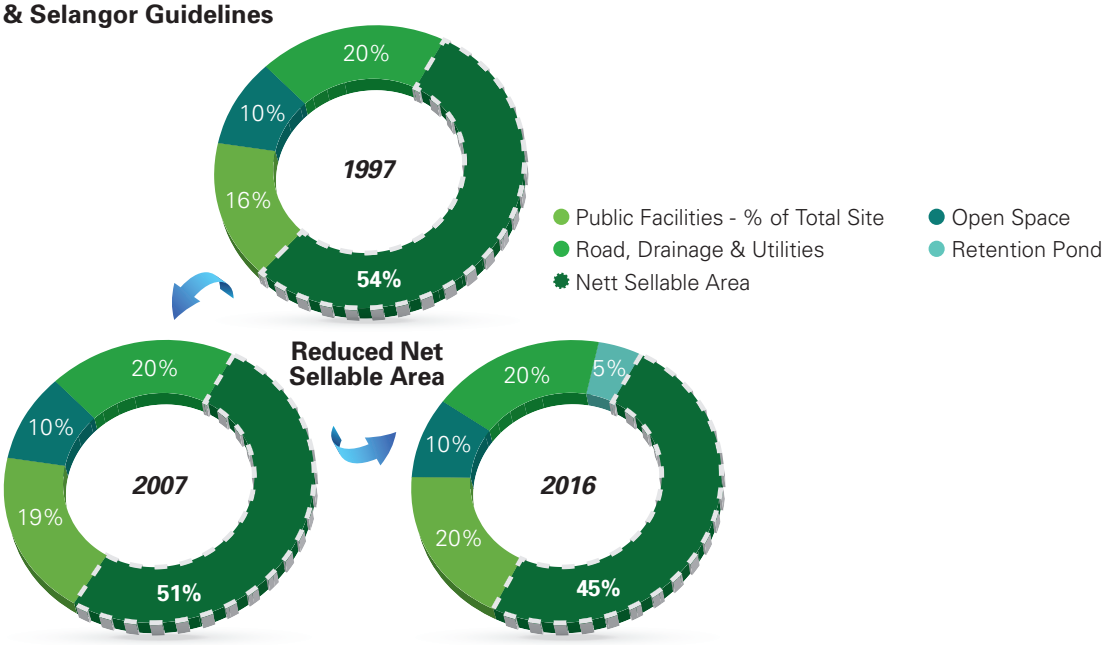
Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Ketiga (2016)

Table 3.15: Township Development - Simulation of Nett Sellable Area (Guidelines 2007 vs 2016)

	2007 Selangor Planning Guidelines						
Population	**5000**	**10000**	**20000**	**30000**	**40000**	**50000**	
Estimated Acreage	**80**	**160**	**320**	**480**	**640**	**800**	**Average**
Public Facilities Land Surrender	14.6	30.4	73.9	101.3	147.1	169.6	
Public Facilities - % of Total Site	18.2%	19.0%	23.1%	21.1%	23.0%	21.2%	20.9%
Open Space	10%	10%	10%	10%	10%	10%	10%
Road, Drainage & Utilities	20%	20%	20%	20%	20%	20%	20%
Retention Pond (30% of Open space)	0%	0%	0%	0%	0%	0%	0%
Total Land Surrender	48.2%	49.0%	53.1%	51.1%	53.0%	51.2%	50.9%
Nett Sellable Area	51.8%	51.0%	46.9%	48.9%	47.0%	48.8%	49.1%
	2016 Selangor Planning Guidelines						
Public Facilities Land Surrender	11.6	31.8	67.3	99.8	118.8	142.8	
Public Facilities - % of Total Site	14.5%	19.9%	21.0%	20.8%	18.6%	17.9%	18.8%
Open Space	10%	10%	10%	10%	10%	10%	10%
Road, Drainage & Utilities	20%	20%	20%	20%	20%	20%	20%
Retention Pond	5%	5%	5%	5%	5%	5%	5%
Total Land Surrender	49.5%	54.9%	56.0%	55.8%	53.6%	52.9%	54%
Nett Sellable Area	50.5%	45.1%	44.0%	44.2%	46.4%	47.2%	46.2%

Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Pertama (2010) & Ketiga (2016) & REHDA Institute Estimates

Figure 3.3: Land Surrender & Net Sellable Area in 300-acre Township Development 1997, 2007 & 2016, Federal & Selangor Guidelines



Source: Federal & Selangor Guidelines

Based on the matrix of population sizes for each public facility required as per Tables 3.11 to 3.15, it is simulated that net sellable land has decreased over the years comparing planning guidelines over the last 20 years, namely 1997 Federal Planning Guidelines, 2007's Selangor Planning Guidelines First Edition and 2016's Selangor Planning Guidelines Third Edition. Taking a township of 10,000 population, a notable decrease from 55% (1997) to 51%(2007) and 45%(2016) in net sellable land is recorded.

Against a development size of estimated 160 acres, 10% reduction in sellable land (2007's 55% vs 2016's 45% for a 10,000 population catchment) effectively means an additional 16 acres is lost. Based on a 60 units per acre density for strata development content, this would translate to loss of opportunity to build and market an additional 960 housing units and the returns that come with such investment. More importantly, less supply can be churned out of the remaining land, thus increasing per unit land cost.

It is also noted that one of the bigger components of land surrender for public facilities is for primary and secondary schools. Selangor's matrix requires 1 primary school of 6 acres on flat land or 8 acres on hilly land for every 3,000-7,500 population catchment. Travel distance is kept at 0.4km - 0.8km radius and this small radius has resulted in overlapping of provision especially in highly urban / populated areas of Subang Jaya, Shah Alam & Petaling Jaya, leading to undeveloped surrendered primary school land. Both Petaling Jaya and Shah Alam still have over 100 acres of school reserved land remaining undeveloped, whilst Subang Jaya municipality area has over 400 acres of such land surrendered by private developers remaining undeveloped (Table 3.17). It may be timely to review and assess whether the undeveloped plots already made available can cater for future needs for schools in the short to medium term and in the same exercise review the requirement for schools be it in terms of population catchment, travel radius or land sizes to ensure a more efficient land utilisation.

Table 3.16: Township Development - Provision of Primary and Secondary Schools, Selangor

	2016 Selangor Planning Guidelines	
	Primary School	**Secondary School**
Population Catchment	**1: 3,000 to 7,000 population**	**1: 9,000 population**
Minimum Site Size	6 acres (flat); 8 acres (hilly)	8 -12 acres (flat)
Location	Distance & Travel Time within 0.4km - 0.8km radius or 10 minutes walking distance	Distance & Travel Time within 0.8km - 1.6km radius or 20 minutes walking distance

Source: Manual Garis Panduan & Piawaian Perancangan Negeri Selangor Edisi Ketiga (2016)

Table 3.17: Land Surrender for Public School Development in Selected Urban Areas in Selangor

Local Authority	**Developed**				**Undeveloped**				**Total**	
	Primary (Acre)	Secondary (Acre)	Integrated (Acre)	Total	Primary (Acre)	Secondary (Acre)	Integrated (Acre)	%	Acre	%
MBPJ (Refer Figure 3.4a – 3.4c)	213.7	227.3	41.43	482.43 (82%)	52.86	0	52.64	105.5 (18%)	587.93	100%
MBSA (Refer Figure 3.5a – 3.5c)	279.8	396.1	48.2	724.1 (87%)	41.65	0	69.24	110.89 (13%)	834.99	100%
MPSJ (Refer Figure 3.6a – 3.6c)	292.1	237.8	71	600.9 (60%)	130.8	118.6	155.7	405.1 (40%)	1006	100%

Source: Gunatanah semasa & zoning MBPJ, MBSA & MPSJ, iPLAN, 2018

Figures 3.4 to 3.6 illustrate the surrendered land for schools - developed and undeveloped, in selected localities. Extensive parcels of undeveloped land (in black circles in the stated figures) can be seen for primary schools site in populated areas of Petaling Jaya and Subang Jaya, even in areas already developed with residential housing and not only in new township / development areas.

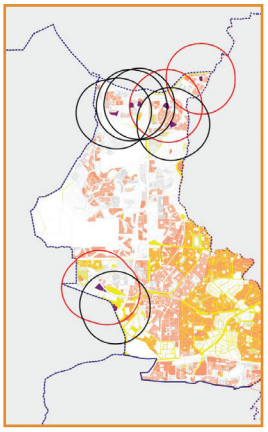


Figure 3.4a: MBPJ Integrated School with 1.6km radius

Figure 3.4b: MBPJ Secondary School with 1.6km radius

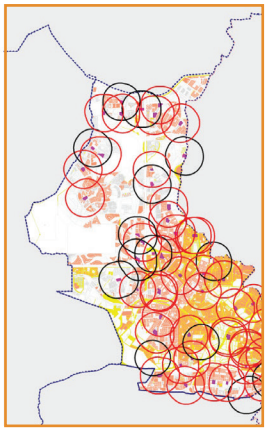


Figure 3.4c: MBPJ Primary School with 0.8km radius

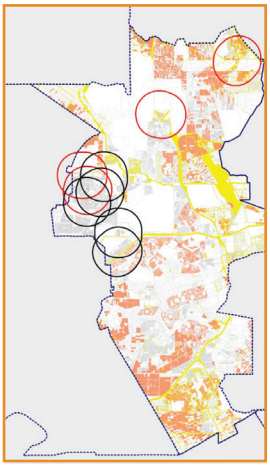


Figure 3.5a: MBSA Integrated School with 1.6km radius

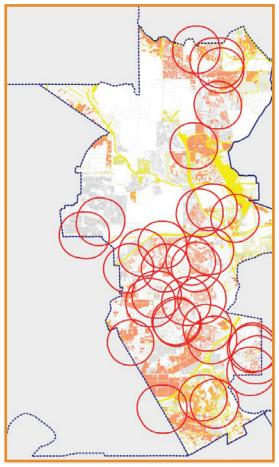


Figure 3.5b: MBSA Secondary School with 1.6km radius

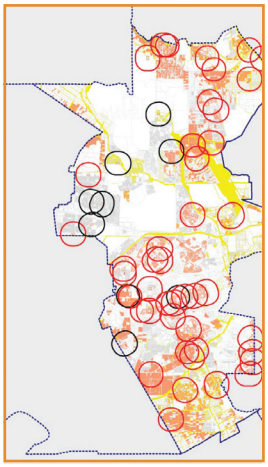


Figure 3.5c: MBSA Primary School with 0.8km radius

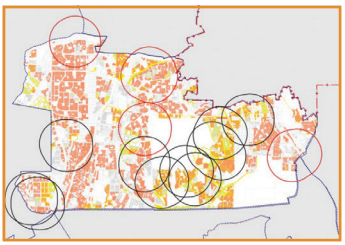


Figure 3.6a: MPSJ Integrated School with 1.6km radius

Figure 3.6b: MPSJ Secondary School with 1.6km radius

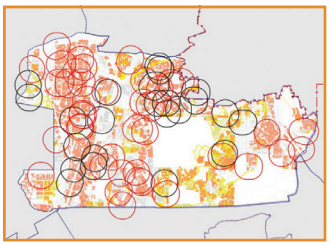


Figure 3.6c: MPSJ Primary School with 0.8km radius

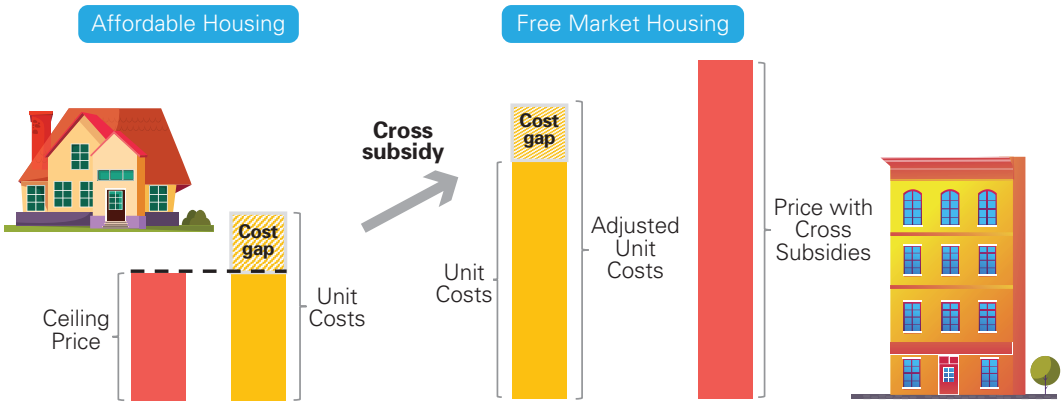
Source: MapInfo, Google Earth Pro, https://iplan.townplan.gov.my/public/geoportal

3.3 CROSS SUBSIDIES RESULTING FROM HOUSING POLICIES

Affordable Housing

In line with the country's homeownership aspiration to provide access to adequate and affordable housing for the *rakyat*, provision of affordable housing has been top on the government's agenda, albeit by imposing quotas on private sector developments instead of through public led initiatives. These quotas differ from state to state; in terms of threshold of compliance, housing types and sizes, prices and target markets. With high quotas of up to 50% and prices capped as low as RM42,000, fulfilment of affordable housing quota requirement by the private sector can only be implemented through cross subsidies. Through this cross subsidy model, the affordable housing segment is part funded by the open market units, which are priced to bridge the gaps between ceiling prices and actual costs of developing the affordable units, in order to ensure that the whole project is financially feasible.

Figure 3.7: Cross Subsidy for Affordable Housing



Source: REHDA Institute

Affordable housing quota is imposed based on respective states' policies and often categorised on development size / zones across the board on all developments irrespective of project / location suitability and effective demand for such units.

Depending on land value and pricing of controlled price units, these cross subsidies can be as much as RM100,000 per market driven unit, or between 10% to 20% of GDV on average.

The affordable housing policies are also onerous on the industry, particularly in the following areas:-

- Land scarcity / unsuitability of location.
- High land cost.
- Approval / development process involves many tiers and agencies, long gestation period attracts high holding / finance / opportunity costs.
- Onerous planning and design requirements.
- Rigid density, lack / absence of use of plot ratio limits number of units and does not promote development of mixed unit types and sizes.
- High specifications and design standards are imposed on affordable housing units - for example minimum size of 700 sq ft with 3 bedrooms for low costs and as big as 1,200 sq ft for other affordable housing units.
- Mismatch between supply and demand due to lack of coordination between land use and transport planning.
- Mismatch as a result of overall imposition of states' quota in all projects irrespective whether there is actual real demand for such housing units in the specific locations/unsuitability of locations.
- Mismatch due to the absence of close monitoring of supply and demand situation.
- Poor maintenance of social housing units i.e. low cost, low medium cost – lots of money is being spent to maintain these privately owned units.

Table 3.18: Affordable Housing Policies for Kuala Lumpur, Selangor, Johor & Penang

KUALA LUMPUR

Development Size Quota	Quota	Development Charges Exemption	Selling Price	Built-Up Size
Dasar Residensi Wilayah (Rumah Mampu Milik Wilayah Persekutuan)	Private Land			≤900 sqft
Type of Land / **Range Quota (%)** Private 30%-70% Government 50%-100%	70%	70%	RM295,000	
	50%	50%	RM290,000	
	30%	30%	RM245,000	
	Government Land			
Criteria: Minimum 3 rooms, 2 bathrooms, kitchen, dining area, yard for laundry and 1 covered parking.	100%	100%	RM265,000	
	70%	70%	RM260,000	
	50%	50%	RM255,000	

SELANGOR

Development Size Quota	Housing Types		Selling Price	Built-Up Size
Zone / Density 1 120 units per acre 2 100 units per acre 3 90 units per acre • Max. 80 units/acre for development ≤10 acres under mixed development (RSKU 2.0 & Free Market in one development scheme)	Apartment	A	RM42,000	700 sqft
		B	RM100,000	750 sqft
		C	RM150,000	800 sqft
		D	RM200,000	900 sqft
		E	RM250,000	900 sqft
	Landed (Town House/ Terrace)	A	RM42,000	700 sqft (Town House)
		B	RM100,000	750 sqft (Town House)
		C	RM200,000	1,000 sqft (Town House)
		D	RM250,000	900 sqft (Terrace 20'x60')

JOHOR

Development Size Quota	Type	Percentage	Selling Price	Built-Up Size
DPRJ: *Dasar Perumahan Rakyat Johor* Basic requirement: Land / Percentage 3 – 5 ac. 20% of total developed unit > 5 ac. 40% of total developed unit *PKJ – Perumahan Komuniti Johor* *RMMJ – Rumah Mampu Milik Johor*	Within Iskandar Malaysia			
	PKJ A	5%	RM42,000	720 sqft
	PKJ B	10%	RM80,000	850 sqft
	RMMJ	20%	RM150,000	1000 sqft
	Outside Iskandar Malaysia			
	PKJ A	10%	RM42,000	720 sqft
	PKJ B	15%	RM80,000	850 sqft
	RMMJ	10%	RM140,000 – RM150,000	1000 sqft

Table 3.18: Affordable Housing Policies for Kuala Lumpur, Selangor, Johor & Penang (cont'd)

	Development Size Quota	Housing Types		Selling Price	Built-Up Size
PENANG	**100% Affordable Housing Scheme** Plot Ratio / Percentage Option 1: 2.8 : 1 — 100% (2.8:1) Option 2: 3.5 : 1 — 100% (2.8:1) Additional 25% from 2.8:1	Plot Ratio 2.8 : 1	100% (2.8:1)	RM300,000	850 sqft
		Plot Ratio 3.5 : 1	100% (2.8:1)	RM300,000	850 sqft
			Additional 25% from 2.8:1	RM150,000	750 sqft
	Low Cost and Low Medium Cost Housing Northeast District / Southwest District LMC: 30% / 30% or; LC & LMC: – / 15% & 15% • 30% for: - 150 units and above outside development area - 100 units and above within development area	Low Cost Housing		RM42,000	≥ 650 sqft
		Low Medium Cost Housing		RM75,500	650 sqft – 750 sqft

Source : States' Affordable Housing Policies

Kuala Lumpur and Penang allow a ceiling price of RM300,000 whilst Selangor and Johor cap at RM250,000 and RM150,000 respectively. Sizes vary with minimum floor area prescribed at between 600 sq ft to 1,000 sq ft.

Using the ceiling prices for apartments as an example the construction costs of these affordable units are tabulated as follows:-

Table 3.19: Cost of Affordable Housing Units (Strata)

STATE	Apartment Size sq ft	Ceiling Price RM	Building Costs RM per sq ft	Building Costs per unit RM	Land Costs per unit RM	Other Costs	Cross Subsidies
KUALA LUMPUR	800	300,000	170	136,000	160,000	50,000	-46,000
SELANGOR	900	250,000	170	153,000	100,000	50,000	-53,000
JOHOR	1,000	150,000	170	170,000	100,000	50,000	-170,000
PENANG	850	300,000	170	144,500	150,000	50,000	-44,500

Source: REHDA Institute

Table 3.19 indicates that the affordable housing maximum price is generally barely enough to cover for building costs and land costs only. Adding in other development costs including landscape, titles application, regulatory fees and capital contributions, marketing, professional fees, interest costs and etcetera, another RM50,000 to RM100,000 per unit will have to be cross subsidised by the non quota unit, thus increasing prices for the non quota segment.

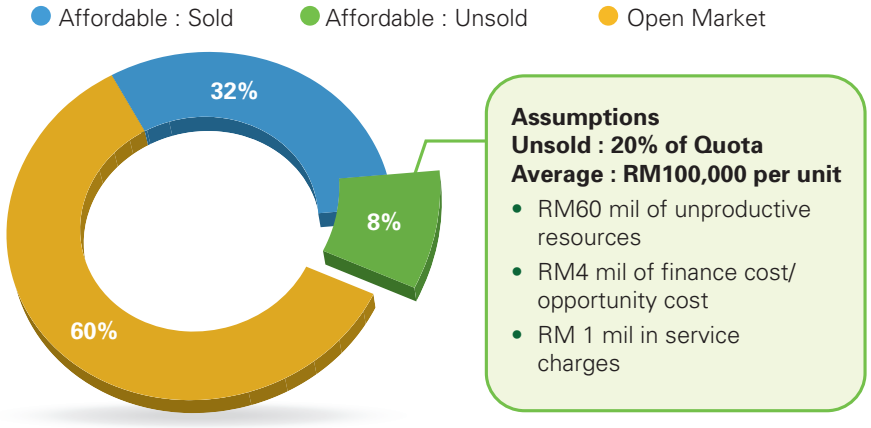
Affordable housing quota is imposed on all development exceeding a certain threshold in size, for example, 3 acres in Johor. What the policy does not take into account is the real demand for affordable housing in the said locality. Affordable housing requires an extensive eco system that would enable dwellers to live, travel, work and play within close proximity so as not to add to cost of living. Often cases where developments exceeding the size threshold but located in areas not suitable for affordable housing due to distance and unavailability of easy access to public transport, are still imposed with such quota, leading to unsold units and holding costs. As at Q4 2019, there were 10,253 overhang residential units of RM300,000 and below of which 1,743 (17%) units were RM100,000 and below as detailed in table 3.20.

Table 3.20: Unsold Units, Selected States, Q4 2019

STATES	RM0 - RM100,000	RM100,001 - RM200,000	RM200,001 - RM300,000	>RM300,000	Total
MALAYSIA	**1,743**	**2,910**	**5,600**	**20,411**	**30,664**
WPKL	0	77	549	1,979	2,605
Selangor	438	440	231	3,578	4,687
Johor	288	415	55	4,869	5,627
Penang	287	309	0	2,757	3,353

Source: NAPIC

Figure 3.8: Affordable Quota - Unsold Units



Source : RI Calculations

In township developments, due to the size of land involved, the quota often results in huge number of affordable housing units. Figure 3.8 provides and illustration of a new township of about 600 acres in Selangor with 3,000 units of affordable housing of various categories. Assuming an average price of RM100,000 per unit, a 20% unsold stock translates into RM60 million of unproductive resources attracting finance costs of another RM4 million should the units remain unsold for a year upon completion. In addition, in the case of strata development there will be other related holding costs involved such as maintenance service charges and etcetera.

Bumiputera Quota & Discounts

Similar to affordable housing, Bumiputera quota and discounts are part of States' housing policy to encourage Bumiputera home ownership. Such discounts, which can be as high as 15%, *(see Table 3.22)* is cross subsidised by the open market segment; arriving at the same end result, namely higher prices of houses. For example, a 5% - 7% discount on a 30% bumiputera quota effectively translates to a 1.5% - 2% of GDV cross funding by the open market segment i.e. open market buyers are paying higher prices to share out the cross subsidy that enables such bumiputera discount to be in place.

Cross subsidisation in property development is not sustainable as price of open market housing units can only be adjusted upwards in uptrend market condition and is restricted by market demand. Whilst the intent to help Bumiputera to own houses is noble, discounts are provided across the board and not categorised by ceiling pricing. It is not a targeted policy to assist those who needed help with home ownership and is unfair to open market purchasers as Bumiputera buyers of higher end properties for example RM1 million and above would still be given the 5% - 15% discounts. Such buyers have high purchasing power and should not be getting cross subsidised discounted prices.

However, the industry's main concern on the issue of Bumiputera quota is more of in cases where quota units remain unsold. Quota units not sold do not get fast release for sale in the open market. Approval for release application is subject to various eligibility criteria and approved only in stages. There is no standard release mechanism and release, if any, depends on respective state's policies where developers may be charged with levy for release of such unsold units. The approval for release, however, is not transparent and automatic; and developers are not guaranteed of full release over a specific time period. This mechanism creates uncertainty and adversely affect project marketing and cash flow planning. In a survey among REHDA members undertaken in June 2020, a total of 136 developers responded to a set of questionnaire aimed at assessing the extent of the unsold Bumiputera quota units in their respective projects. The main findings of the survey are summarised as follow:-

I. Out of a total 36,726 units launched in their projects, a total of 6,121 quota units remain unsold and unreleased, at a GDV of RM3.8 bn;

II. On average, the quota imposed is more than 30%;

III. Majority of the respondents hold unsold Bumiputera quota units priced at RM500,000 and above;

IV. 46% of the 6,121 unsold quota units have been in the market for more than 36 months, namely beyond completion date; 30% of such units have been held unsold and unreleased beyond 60 months (5 years)

V. Five top feedback from members on the subject of unsold Bumiputera quota include:-

The unsold Bumiputera Quota release process takes a long time to get approval	The Government should have an efficient Bumiputera Quota release mechanism	An automatic release mechanism of the Bumiputera quota should be applied	Introduce an online submission and approval for release of unsold Bumiputera units	Waive or reduce amount of penalty payment on release of Bumiputera units

Aging of Unsold Bumiputera Quota Units yet to be released (from launch date):

Range	No. of responses	Units	% units
0-12 months	25	1,256	21%
13-24 months	31	1,105	18%
25-36 months	34	891	15%
37-48 months	21	668	11%
49-60 months	23	335	5%
Beyond 60 months (beyond 5 years)	29	1,866	30%
TOTAL	**163**	**6,121**	**100%**

Total GDV of unsold Bumiputera Quota units still not released as of June 2020

Type	RM
Landed	1,890,714,728
Strata	1,208,735,798
Mixed	548,983,969
Township	155,390,893
TOTAL	**3,803,825,388**

Based on the above number of unsold units held by a sample size of 136 developers, total holding costs (tied capital plus related holding costs) involved on assumption that the units have been held as quota units for 3 years are illustrated as follows:-

Tied resources	=	RM3.8 bn
Holding costs (3 years)	=	RM0.8 bn
Total holding costs	**=**	**RM4.6 bn**

136 respondents is only a small fraction of the industry, where there are about 2,500 active developer's licences issued by KPKT. On the assumption that similar predicament is faced by other developers, the RM4.6 bn in tied resources could easily balloon up 18 fold to RM80 bn.

Unsold units tie up resources and also attract additional holding costs, both in the case of affordable housing quota and Bumiputera quota, including interest and opportunity costs as well as maintenance costs in the case of completed units. Table 3.21 illustrates holding costs on unsold Bumiputera quota units in a township development assuming 50% of the quota units remaining unsold for one year. At 30% quota and assuming 50% of such quota from the open market segment are unsold and not released for one year after CCC, holding costs can come up to 0.6% of GDV and could be higher if percentage of quota and/or percentage of unsold units are higher than assumed.

Table 3.21: Holding Costs for Unsold Bumiputera Quota Units, Township (Actual project content/GDV)

Open Market Units	Total Bumiputera Units @ 30%	Total GDV for Bumiputera Units @ 7% discounts
4500	1350 units @ RM550,000 average price	RM 690.5 mil
Unsold Quota Units @ 50 %	675	RM 345.3 mil
Holding costs		**RM24.2 mil**
	Estimated % of holding costs for 1 year	**0.6% of Total GDV**

Assumptions :
- *60% open market, 40% affordable housing, GDV of RM4 bn*
- *30% Bumiputera quota on open market*
- *50% of Bumiputera quota from the open market segment are unsold and not released to open market in the first year upon CCC*
- *Not inclusive of GDV of the unsold units*

Source: RI's calculations

Table 3.22: Bumiputera Quota Discounts and Release Mechanism for Kuala Lumpur, Selangor, Johor & Penang

	Quota & Discount	Selling Prices	Stages of Release Mechanism
KUALA LUMPUR	• 30% for all housing and commercial development (as per Development order). • 5% discount.	• 5% off to Bumiputera buyers purchase under Non-Bumiputera Quota units • The allocated unit may be applied for release based due to Bumiputera buyer selecting another unit. • Developer to provide transaction proof for release application of Bumiputera units.	**1st Stage** • When project reaches 50%. • All non-Bumiputera units are sold. • DBKL to release 30% of unsold Bumiputera units. **2nd Stage** • When project reaches 80%. • All units are sold and provide copy of SPA. • DBKL to release 50% of unsold Bumiputera units. **3rd Stage** • Upon 100% project completion • All units are sold and provide copy of SPA. • DBKL to release 80% of unsold Bumiputera units. **4th Stage** • Upon 6 months after 100% project completion with the issuance of Certificate of Completion and Compliance (CCC). • All units are sold and provide copy of SPA. • DBKL to release 100% of unsold Bumiputera units.

Table 3.22: Bumiputera Quota Discounts and Release Mechanism for Kuala Lumpur, Selangor, Johor & Penang (cont'd)

SELANGOR

Quota & Discount

Quota & Discount

- Development <10 acres: min. 50% Bumiputera Quota with 7% discount.
- Development >10 acres as below:

i) Within MC

Types of Res. Building	% of develop-ment	% of BQ
LC	20%	70%
LMC	20%	60%
MC	10%	50%
Others	-	50%

ii) Within DC

Types of Res. Building	% of develop-ment	% of BQ
LC	20%	70%
LMC	10%	60%
MC	10%	50%
Others	-	50%

iii) Outside MC/DC

Types of Res. Building	% of develop-ment	% of BQ
LC	20%	70%
LMC	10%	60%
MC	10%	50%
Others	-	50%

Fines & Penalties and Contribution to State Government

Fines & Penalties

- Sale of Bumiputera units without the approval from State Government shall be subject to penalties and fines as follows:

Types of Building	Penalty
Residential	12% of selling price (7% Bumiputera Discount + 5% Fines)
Residential (LC)	7% of selling price

Contribution to State Government

Types of Building	Contribu-tion on BQ release (%)
Residential	7% of selling price

Stages of Release Mechanism

1st Stage
- Project progress on site 50%
- Release 20%

2nd Stage
- Project progress on site 75%
- Release 30%

3rd Stage
- Project progress on site completed with CF/CCC
- Release 30%

4th Stage
- Project progress on site 6 months after CF/CCC
- Release 20%

JOHOR

Quota & Discount

- 40% imposed on all residential, commercial and industrial development.
- 15% Bumiputera discount for all property for sale.

Contribution to State Government

- Contribution for release approval:

Areaof Dev.	Per-centage
RES	7.5 %
COM	

Procedure of Release Mechanism

- Non-Bumiputera units need to be sold first.
- After 12 months from the stamp duty date.
- Project progress reach 50% or more.
- Duration of 6 months for subsequent release (Pass, Reject and Deferral).
- Consideration of release approval:
  - ≤ RM250k – exception granted for Studio Apartment component only.
  - ≥ RM251k – based by the State Government approval.

Stages of Release Mechanism

1st Stage
- Housing and commercial 30%
- Industrial 60%

2nd Stage
- Housing and commercial 30%
- Industrial 40%

3rd Stage
- Housing and commercial 40%

PENANG

Quota & Discount

- 30% of Bumiputera quota will be imposed on all developments.
- 5% discount.

Contribution to State Government

- Contribution of 5% from the selling price of unsold Bumiputera unit to be paid to Akaun Amanah Perumahan Bumiputera Pulau Pinang.

Procedure of Release Mechanism Stages of Release Mechanism

- To apply for release when construction progress at site reaches 80%, certified by registered architect.
- 5% Bumiputera lot discount must be clearly stated in the advertisement.

Source: Various Local Authorities

3.4 DELAYS AND UNCERTAINTIES OF APPROVALS

One Stop Centre

Housing development involves a complex approval process involving the federal, state and local authorities and their agencies for different stages of the proposed development.

Pre development approvals including planning permission and building plan are submitted through a One Stop Centre (OSC) at the local government level . The OSC, initiated by the Ministry of Housing and Local Government in April, 2007 was intended to improve the planning system delivery and procedures at all local planning authorities by coordinating and shortening the approval process. There are currently 104 OSCs in the country. The best case scenario for development approvals through the OSC system, in theory, involves 67 days in total. This is where local plan for the development area is in place and development proposals submitted complies with all the requirements of the all relevant plans and no pre-consultation is required *(See Figure 3.9a - OSC Scenario 1a)*.

Table 3.23a: Scenario of OSC Approval Time Frame

	Scenario 1a (with Local Plan)	**Scenario 1b** (without Local Plan)	**Scenario 2a** (with Local Plan)	**Scenario 2b** (without Local Plan)	**Scenario 3a** (with Local Plan)	**Scenario 3b** (without Local Plan)
Pre-consultation	-	-	90	90	180	180
OSC Step 1	1	1	1	1	1	1
OSC Step 2 & Step 3	25	50	25	50	25	50
OSC Step 4	5	5	5	5	5	5
OSC Step 5	1	1	1	1	1	1
OSC Step 6	3	3	3	3	3	3
OSC Step 7	24	24	24	24	24	24
OSC Step 8	5	5	5	5	5	5
OSC Step 9	3	3	3	3	3	3
Total (Days)	**67**	**92**	**157**	**182**	**247**	**272**
Total Days of Delay	**0**	**25**	**90**	**115**	**180**	**205**
Assumption	Without pre-consultation with the local plan	Without pre-consultation without the local plan	3 months pre-consultation with the local plan	3 months pre-consultation without the local plan	6 months pre-consultation with the local plan	6 months pre-consultation without the local plan

Source : RI Calculations, OSC

By way of timeline, approvals via OSC could take anywhere between 67 days (ideal case, where no pre-consultation is required and local plan is in existence) to 272 days or more (extreme case, where developers have to go through about 6 months pre-consultation process, and local plan is not in existence) as detailed out in Figures 3.9a to 3.9f. There is also market indication that it could take longer that 272 days in some projects and local authorities, especially in more complex developments and if further delays are experienced along the way i.e in addition to lengthy pre consultation period and absence of local plans.

Such uncertainty affects project planning and project implementation as well as cash flow, and as a result, attracts higher risks and lead to additional holding costs. In the absence of certainty of approval within a specific time frame, higher returns are required to buffer against additional construction risks and possible additional costs. This is inefficient as the additional costs do not contribute productively to house quality, size or specifications.

Table 3.23b: Scenario of OSC Approval Time Frame and Holding Costs

	Scenario 1a (with Local Plan)	**Scenario 1b** (without Local Plan)	**Scenario 2a** (with Local Plan)	**Scenario 2b** (without Local Plan)	**Scenario 3a** (with Local Plan)	**Scenario 3b** (without Local Plan)
Approval time frame	**67**	**92**	**157**	**182**	**247**	**272**
Total Days of Delay Against Scenario 1a	**0**	**25**	**90**	**115**	**180**	**205**
Costs of Delays per day at 7% p.a.	RM192per day for every RM1 mil land costs	4800	17280	22080	34560	39360
Assumption	Without pre-consultation with the local plan	Without pre-consultation without the local plan	3 months pre-consultation with the local plan	3 months pre-consultation without the local plan	6 months pre-consultation with the local plan	6 months pre-consultation without the local plan

Source: RI Calculations, OSC

Delays in approval as illustrated above can cost huge holding costs in typical development where costs are high and can go as much as 0.5% to 1% of GDV.

Table 3.24: Simulation of Scenario 3b of OSC approval in Township Development

Township 673 acres, GDV at RM4.3 bn	
Approval time frame (Scenario 3b)	272 days
Land Costs at 580,000 per acre	393,000,000
Conversion Premium	12,000,000
Earthwork	89,000,000
Total Land Related Costs	494,000,000
Holding Cost per day per RM1mil	192
Holding Cost per day for Total Land Costs	94,848
Total Holding Costs in Scenario 3b	25,798,656
% of Holding Cost over GDV	0.60%
*Scenario 3B : 6 months pre-consultation without the local plan	

Source: RI Calculations, Actual Project

Table 3.24 illustrates that holding cost on land related costs for the said township for each day of approval time at OSC (pre consultation) level is RM94,848 per day. This is a huge cost to the development as the same amount could have been channeled more productively to other development aspects benefitting the buyers and community for better cost efficiency and enhanced affordability.

The World Bank Doing Business Report 2020 ranked Malaysia the 2nd amongst global economies in the area of dealing with construction permits. Whilst this is a commendable achievement that reflects the authorities' commitment to further improve and enhance the country's competitiveness, it should be noted that the scoring is generally based on construction of standardised warehouse, which is a much simpler version of property development. Nevertheless, similar enhancement can be undertaken on other development types to reduce approval process and time frame to achieve better efficiency and reduce costs. It has been reported that the National Council for Local Authority in January 2020 has agreed to expand the application of OSC 3.0 Plus Manual which could reduce approval period for project applications between 49% - 80%, or from around 250 days to 83 days. *(Malay Mail, 10 January 2020)*.

The Ministry of Housing and Local Government has since launched the OSC 3 Plus Online System for selected local authorities where flow charts for planning permission and building plan approvals for various categories of development have been reviewed as follows:-

Table 3.25: OSC3 Plus Online System

Categories	Small	Medium	Large (A)	Large (B)
Planning Permission				
Minimum (days)	42	57	300	71
Maximum (days)	98	99		115
Building Approval				
Minimum (days)	50			
Maximum (days)	92			

Source: KPKT

Criteria by Categories

Small

- *Development of one residential unit in line with expressed condition and/or with approved layout plan;*
- *Low risk development;*
- *Development that is in line with expressed condition and/or with approved layout plan - single component / integrated development, Plot ratio of 1:2 (subject to Local Plan)*

Medium

- *New township with mixed development and public utility infrastructure;*
- *New development / phase with approved layout for single component or mixed development and individual / strata titles;*
- *Development that is in line with expressed condition and with approved layout having single composition or integrated development, Plot ratio 1:2 (subject to Local Plan)*

Large (A)

- *New development that requires the advice of National Physical Plan Council (MPFN)*

Large (B)

- *Development of single composition or integrated development with plot ratio 1:3, private utility infrastructure / sewerage treatment plant, utility infrastructure within PMU 25MWa/132KV/275KV*

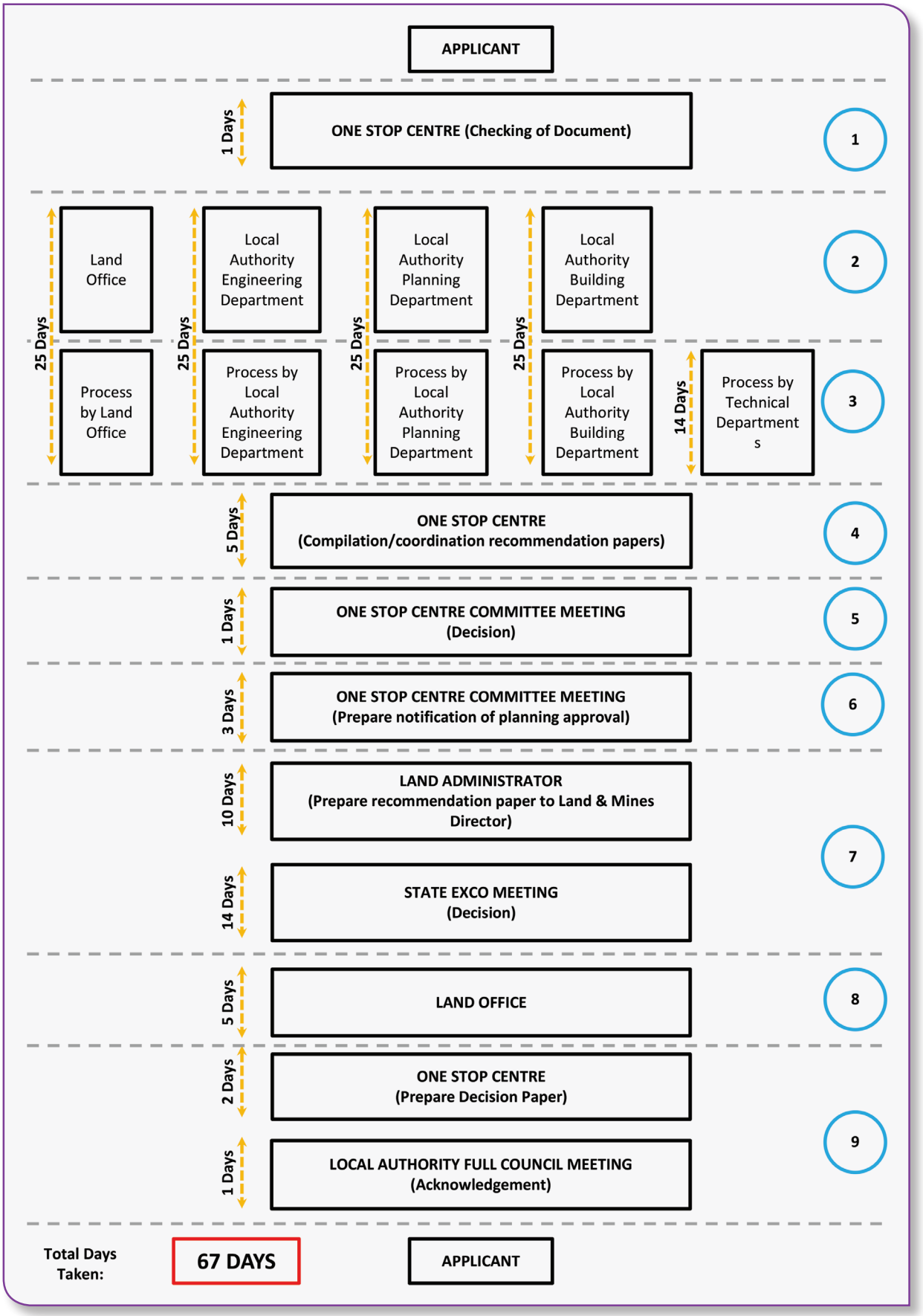
Detailed flow charts for the OSC 3 Plus for the above approval processes are tabulated in Figure 3.10a and Figure 3.10b.

Speed of Approval

It was recently reported that in United Kingdom (UK), Housing Minister Robert Jenrick was looking at speeding up the planning system to approve construction projects such as new homes with some developments to be allowed automatically *(Reuters, 2 August 2020)*. A simpler, faster, people-focused system was to be introduced to empower development where new homes, hospitals, schools shops and offices will be allowed automatically. This will be supported by a "permission in principle" approach to ensure balance, with appropriate checks as necessary.

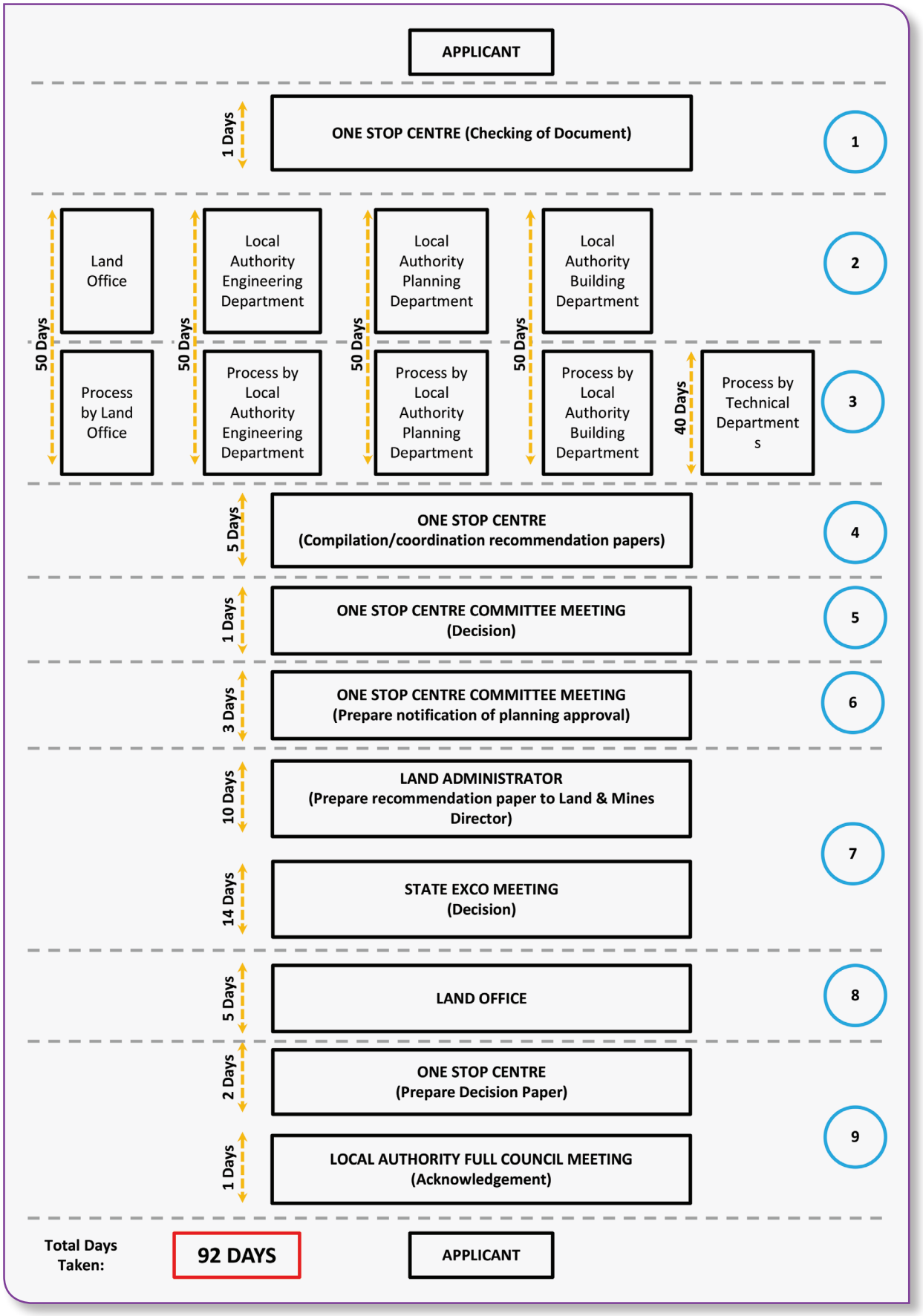
Whilst the move is motivated by the urgent need to keep up with fast rising demand for housing, the issues behind the motivation remain similar with Malaysia's i.e. time taken for approval and the slow pace of consultations.

Figure 3.9a: Days Taken for Scenario 1a: Without Pre-consultation with Local Plan



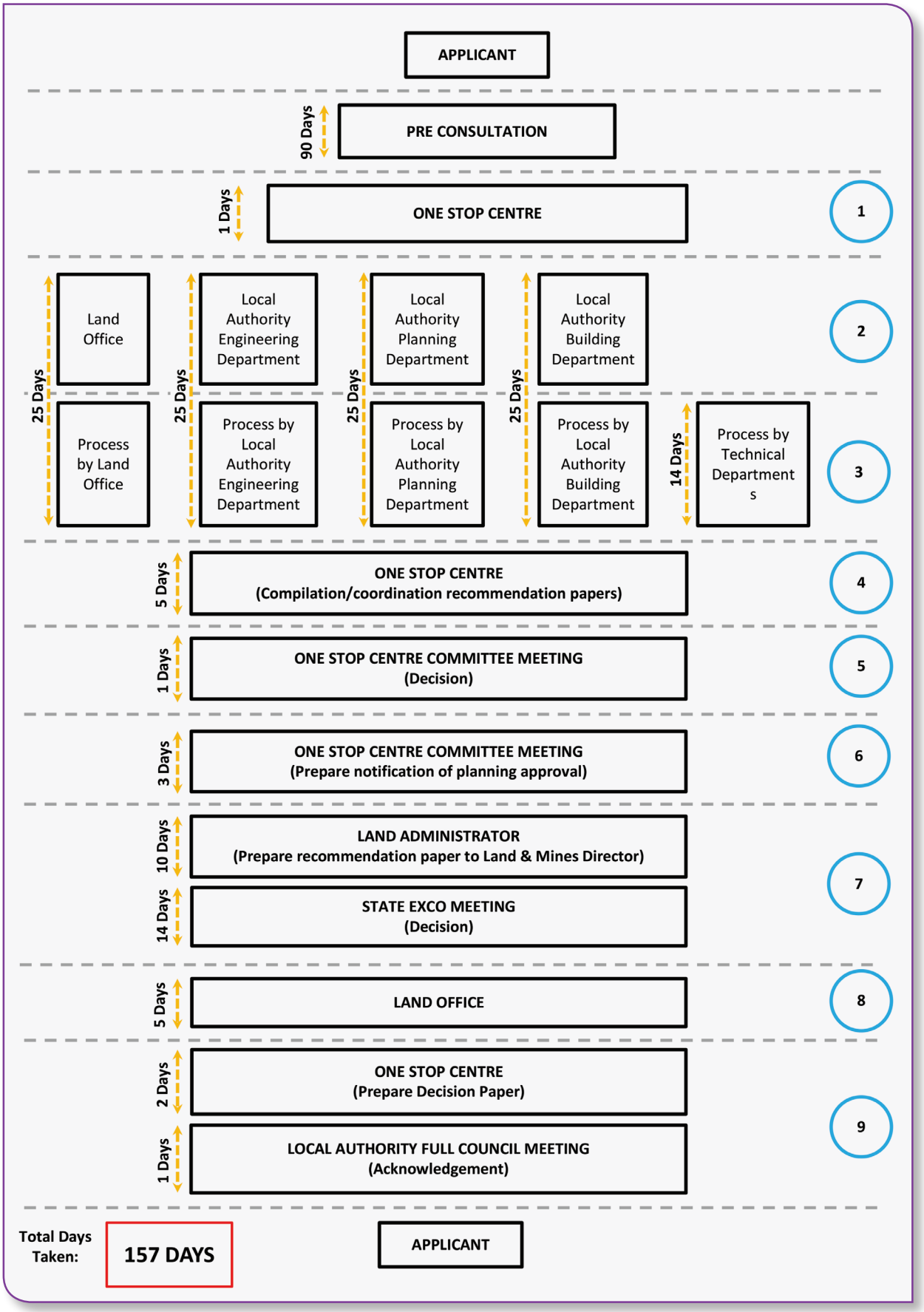
Source: Modified from REHDA Property Industry Overview, 2017

Figure 3.9b: Days Taken for Scenario 1b: Without Pre-consultation without Local Plan



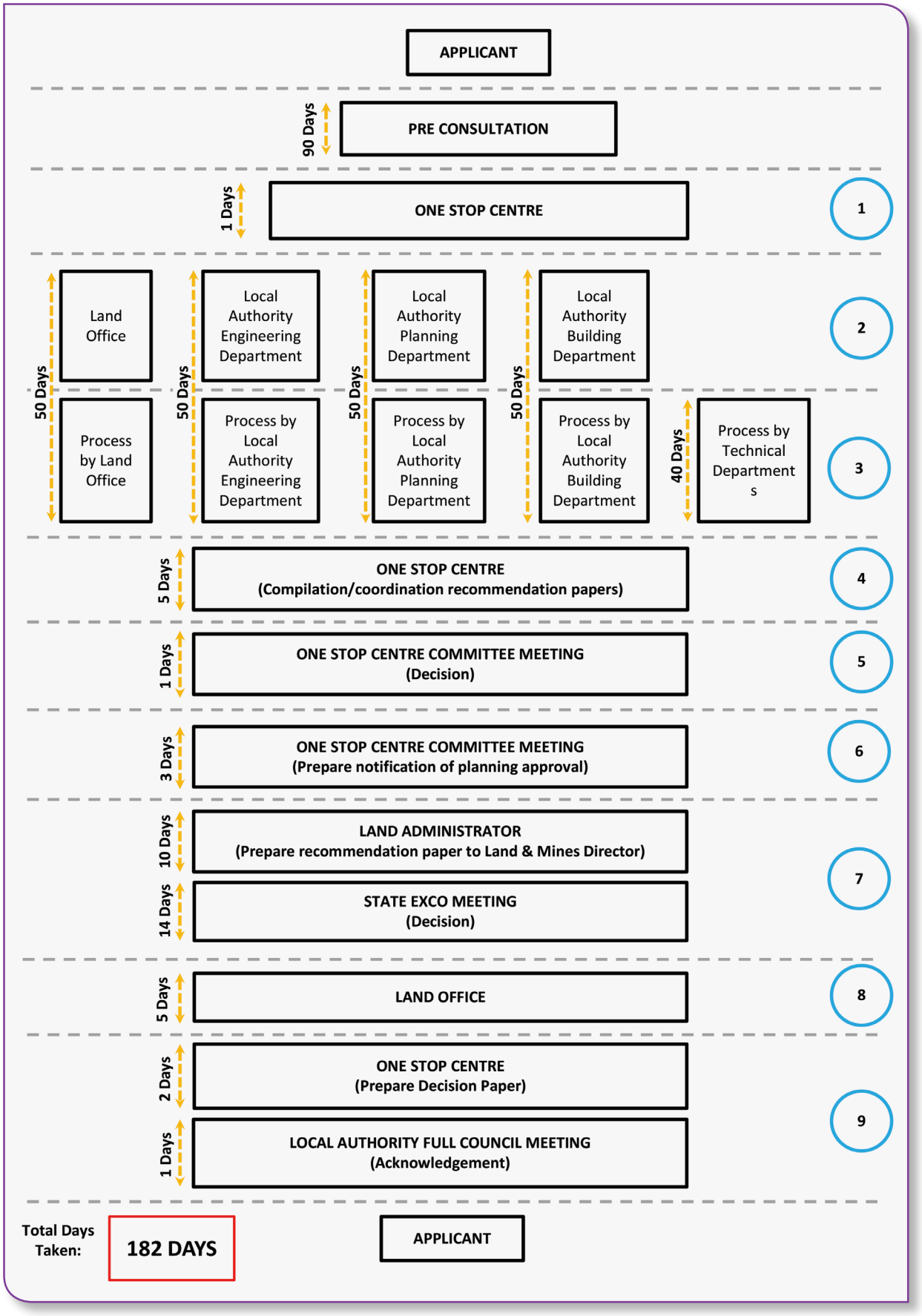
Source: Modified from REHDA Property Industry Overview, 2017

Figure 3.9c: Days Taken for Scenario 2a: 3 Months Pre-consultation with Local Plan



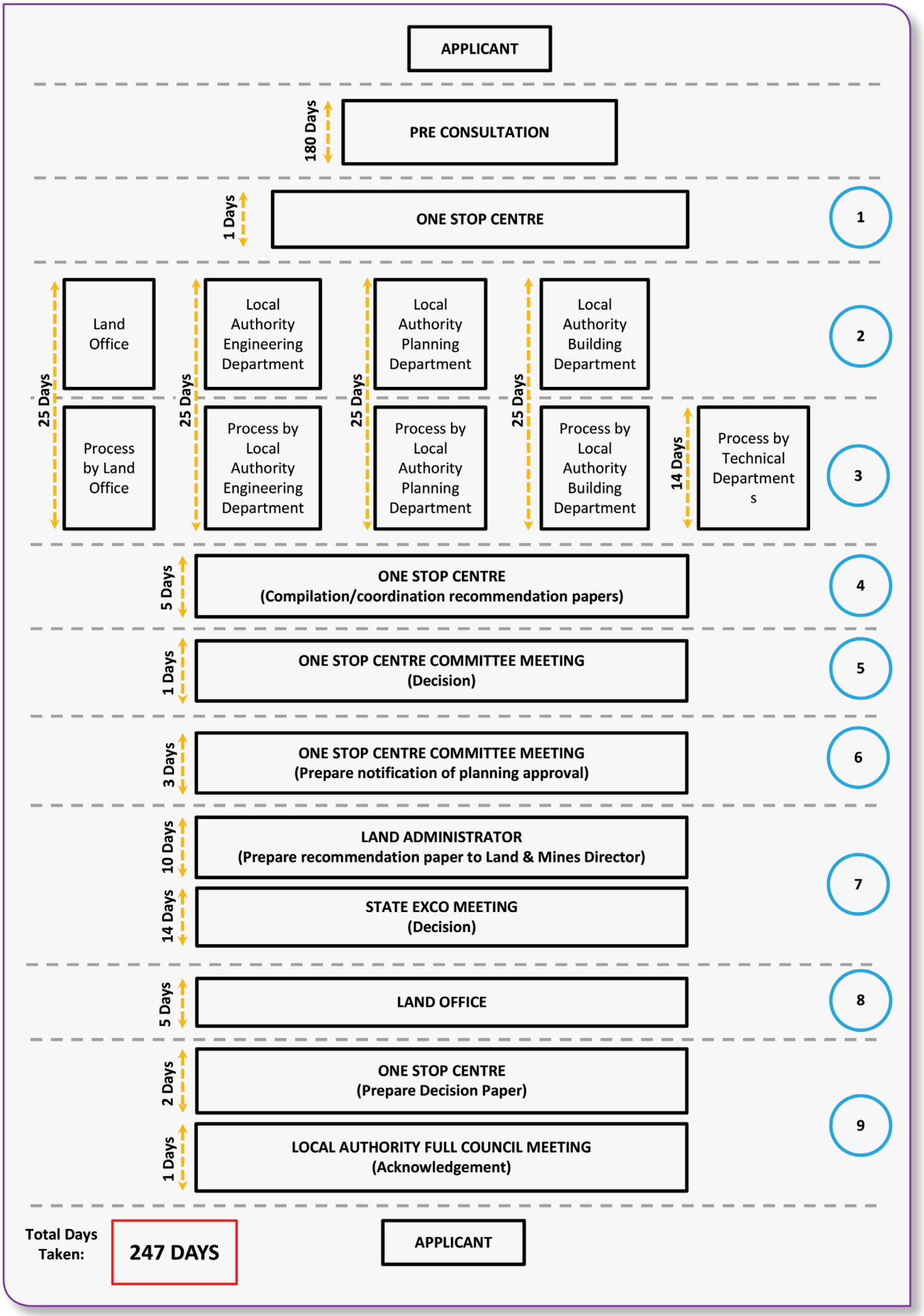
Source: Modified from REHDA Property Industry Overview, 2017

Figure 3.9d: Days Taken for Scenario 2b: 3 Months Pre-consultation without Local Plan



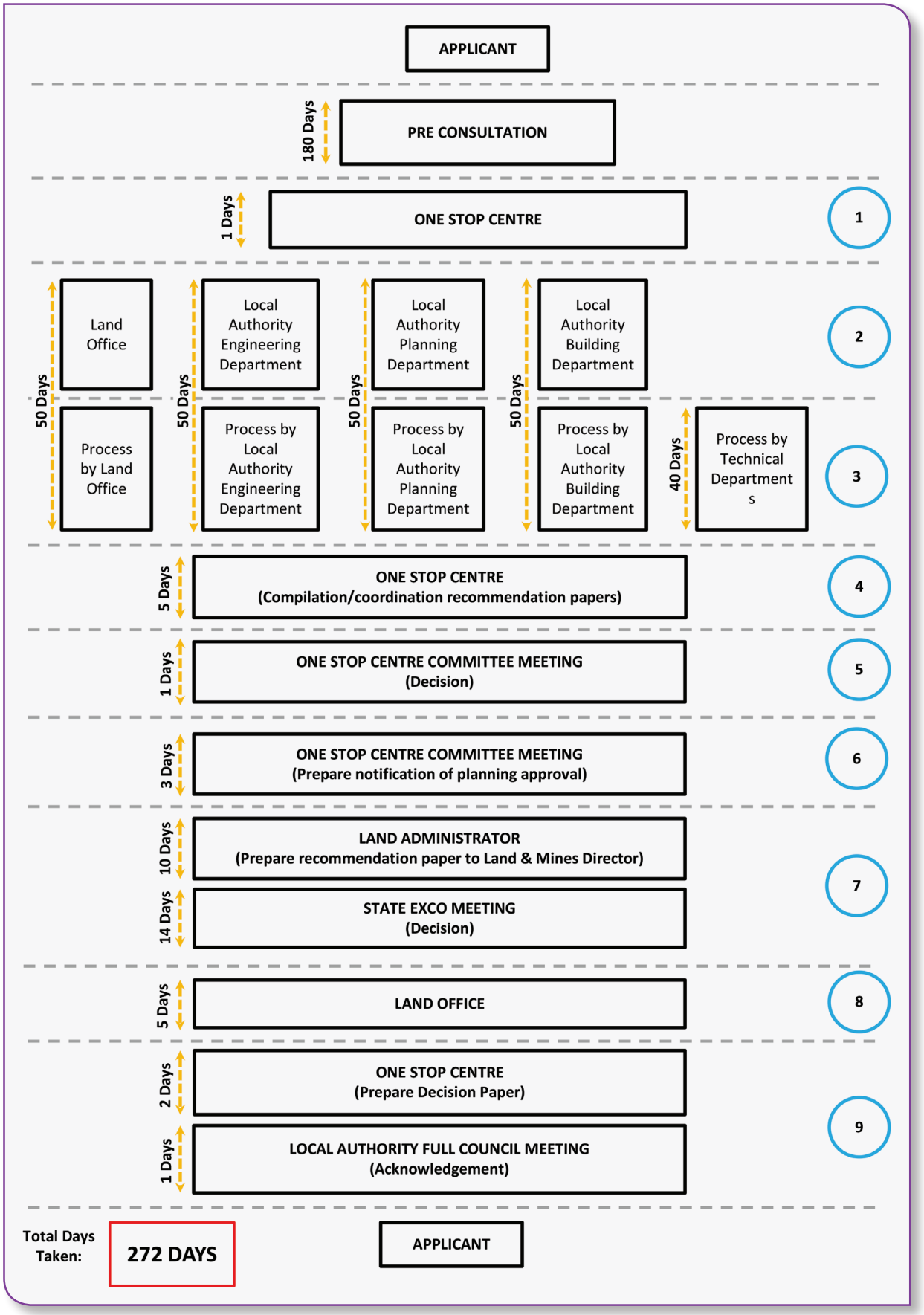
Source: Modified from REHDA Property Industry Overview, 2017

Figure 3.9e: Days Taken for Scenario 3a: 6 Months Pre-consultation with Local Plan



Source: Modified from REHDA Property Industry Overview, 2017

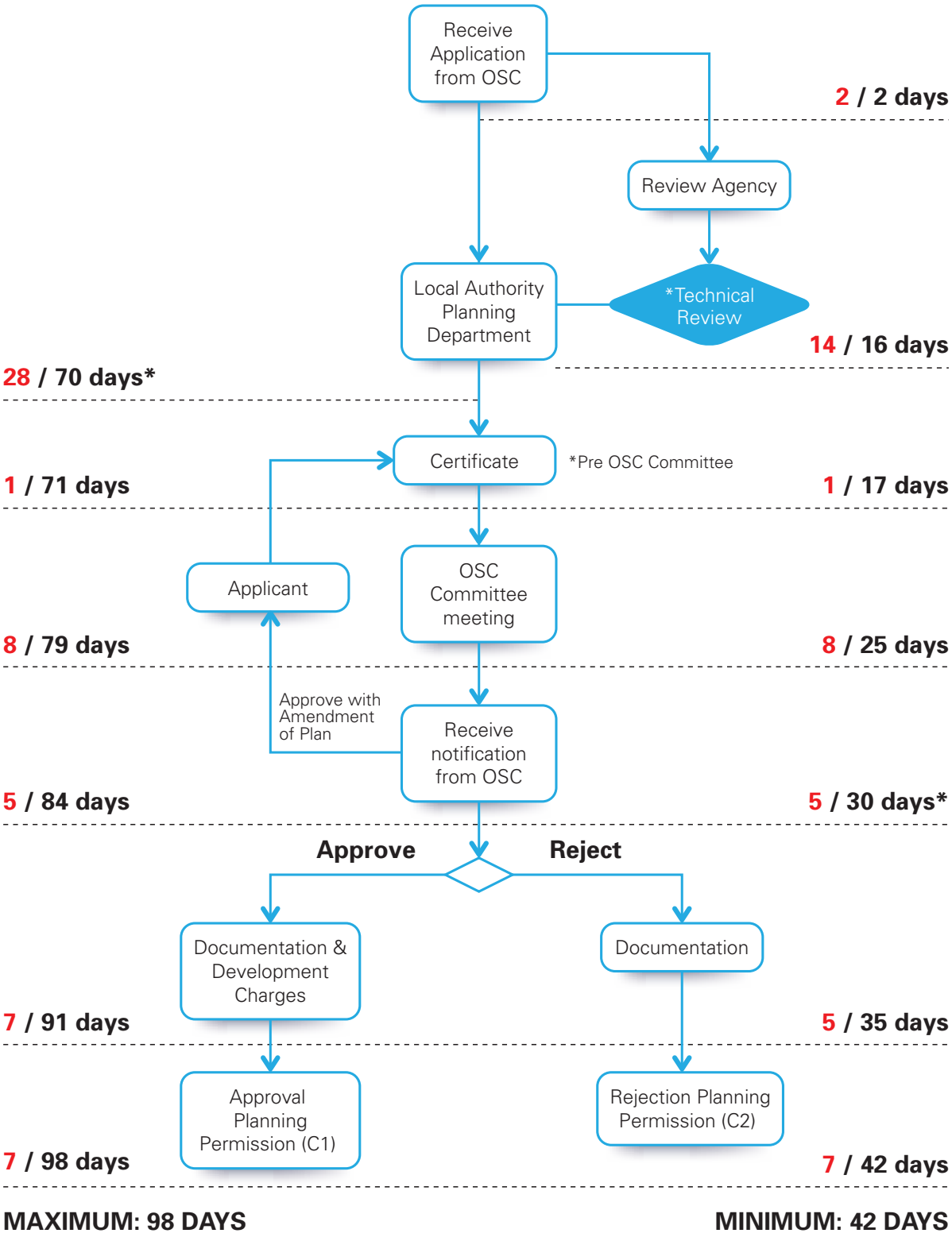
Figure 3.9f: Days taken scenario 3b: 6 Months Pre-consultation without Local Plan



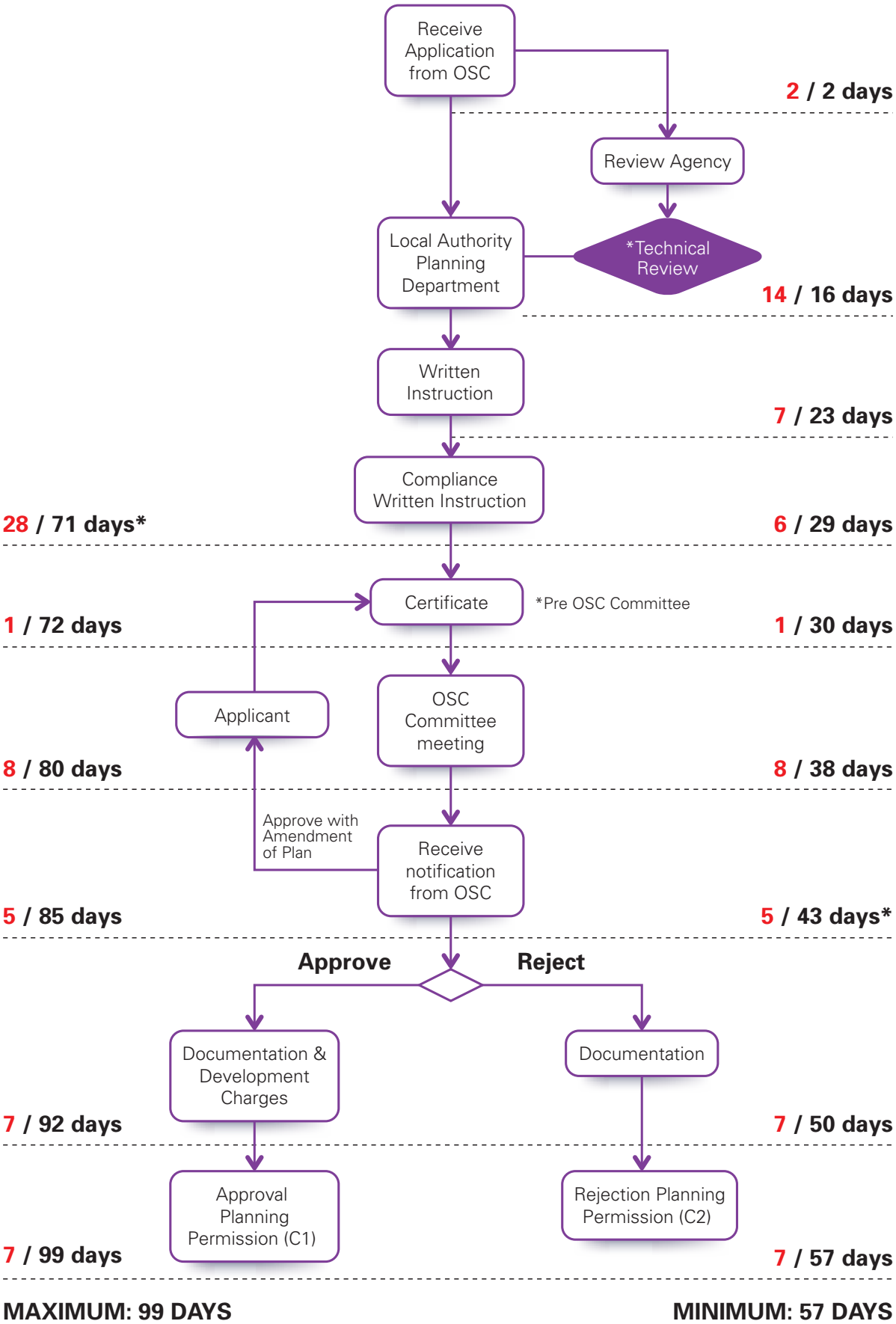
Source: Modified from REHDA Property Industry Overview, 2017

Figure 3.10a: OSC 3 Plus Online System - Planning Permission

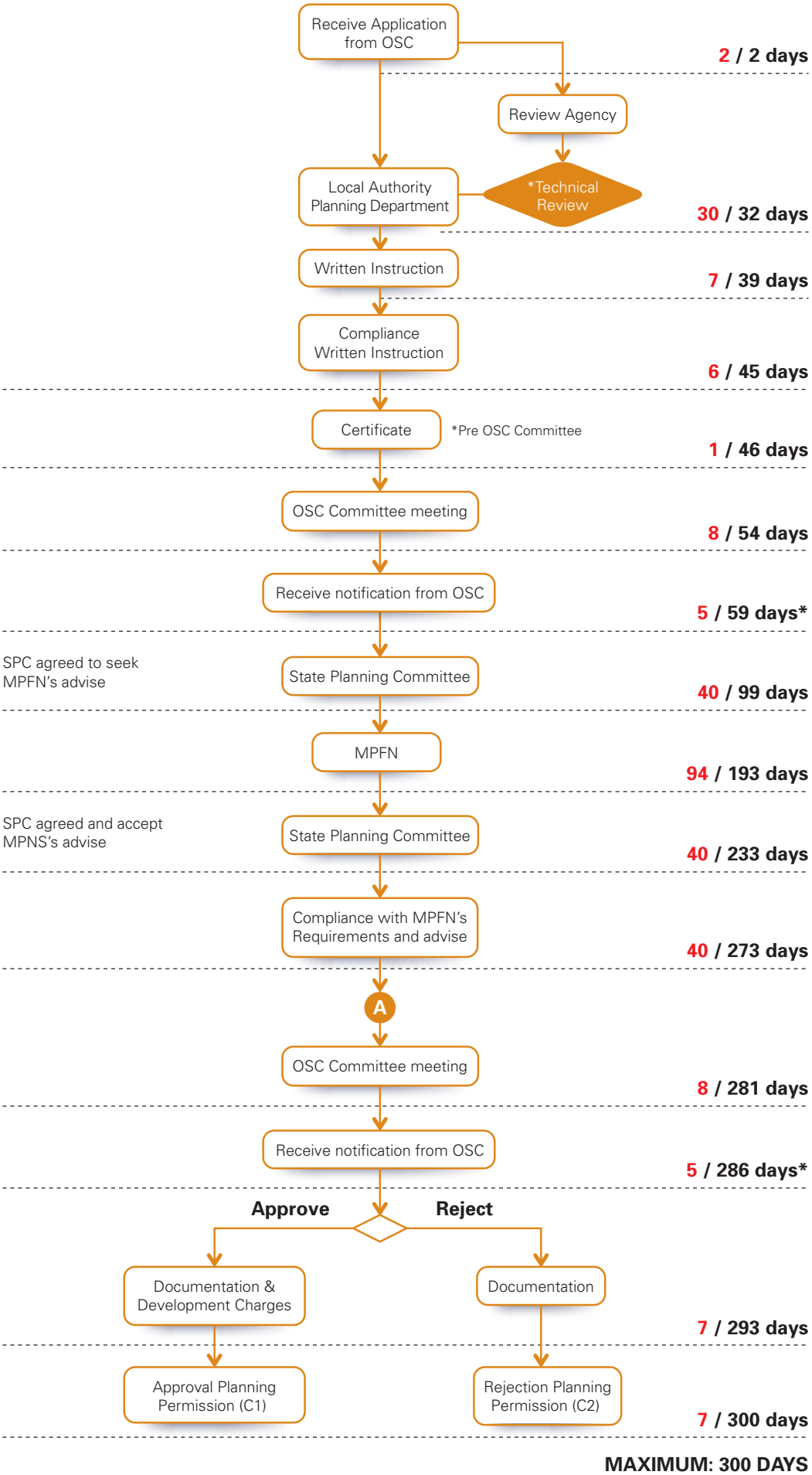
Planning Permission (*KM*) Workflow Chart – Small Category



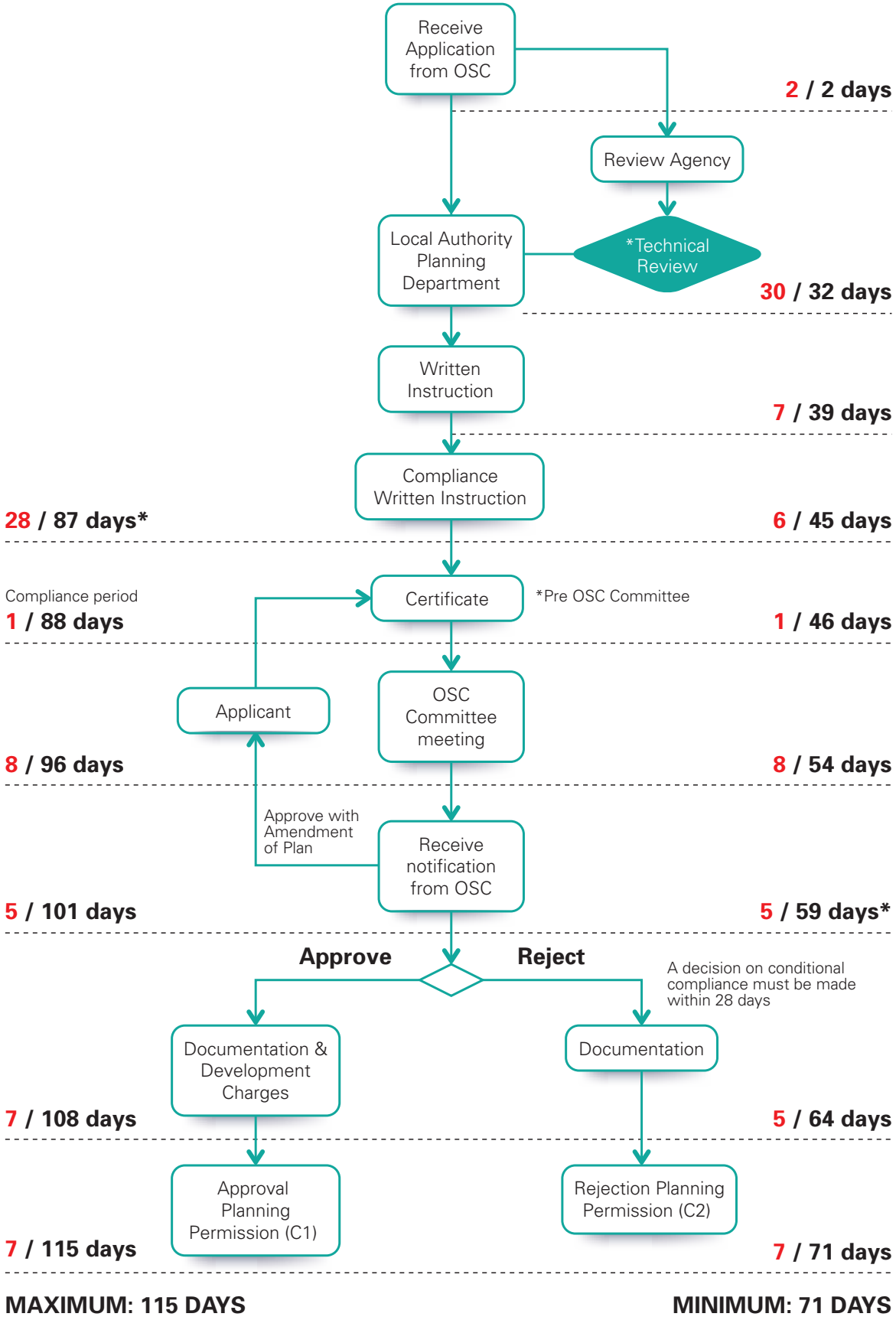
Planning Permission (*KM*) Workflow Chart – Medium Category



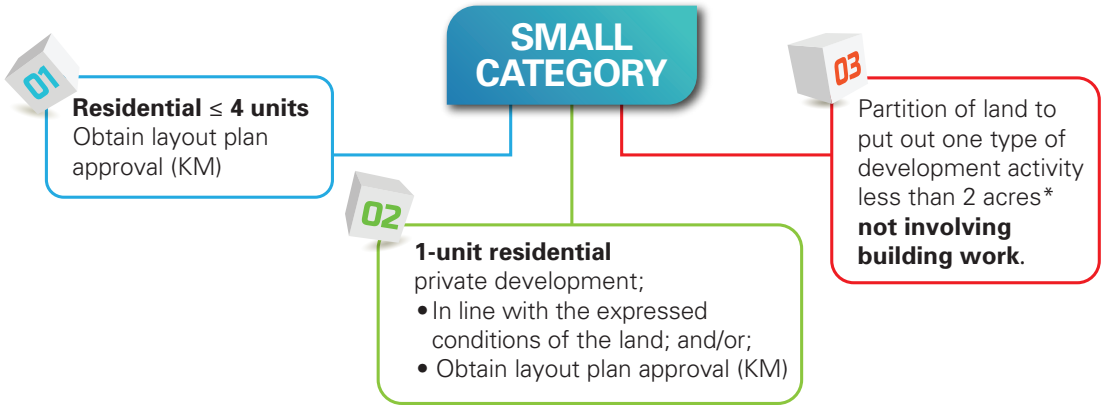
Planning Permission (*KM*) Workflow Chart – Large Category (A)



Planning Permission (*KM*) Workflow Chart – Large Category (B)

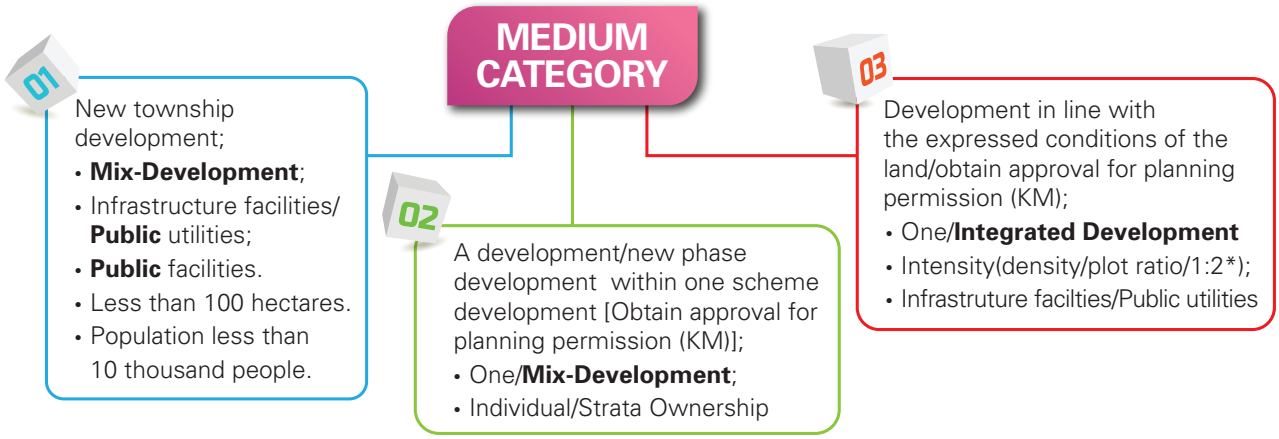


GENERAL CRITERIA FOR PLANNING PERMISSION (KM) - SMALL CATEGORY

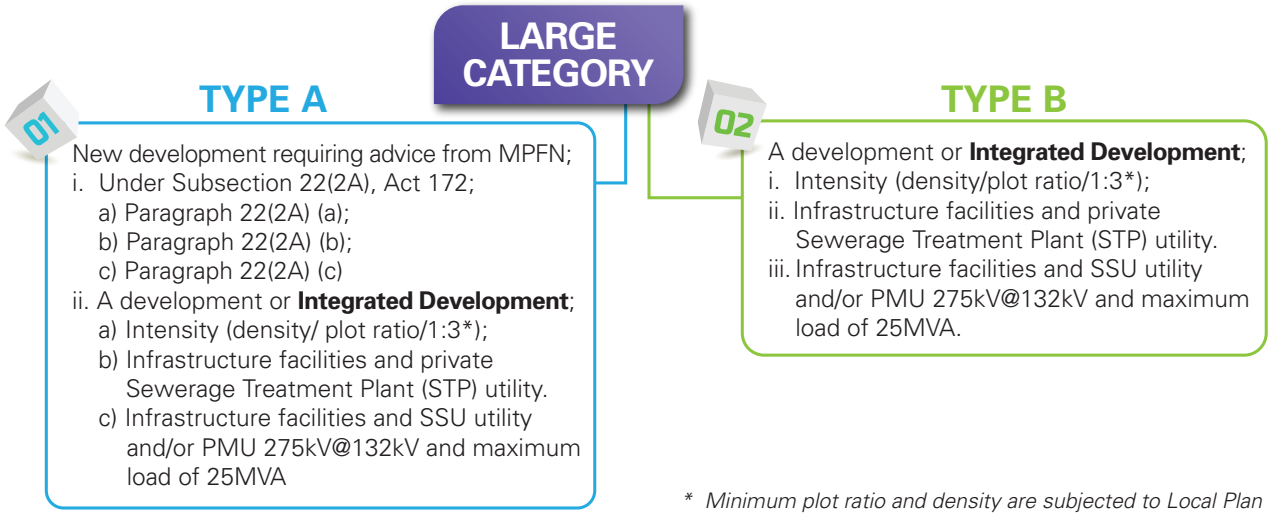


** Determination for area is subjected to Local Governments*

GENERAL CRITERIA FOR PLANNING PERMISSION (KM) - MEDIUM CATEGORY



GENERAL CRITERIA FOR PLANNING PERMISSION (KM) - LARGE CATEGORY



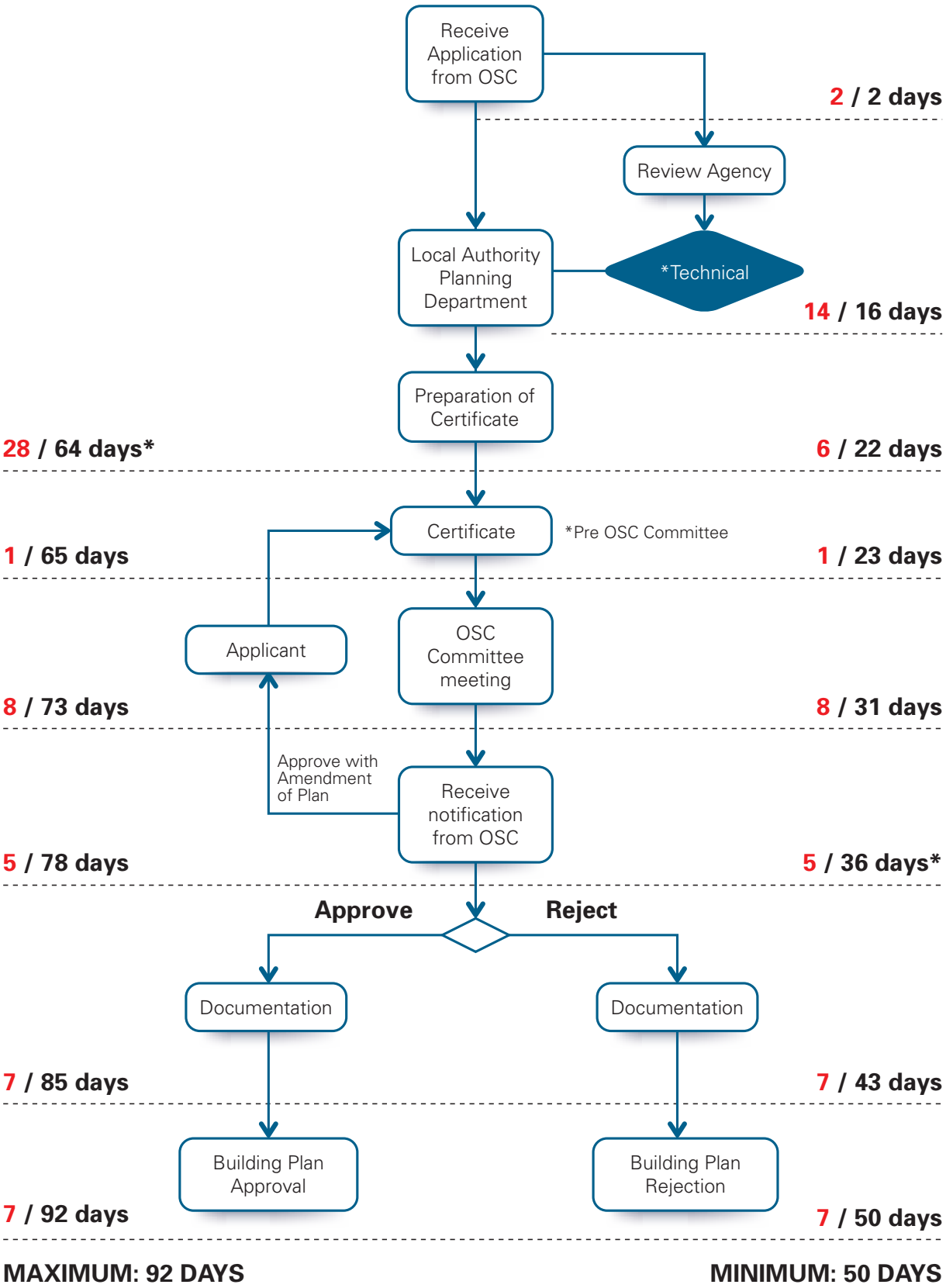
** Minimum plot ratio and density are subjected to Local Plan*

Table 3.26: Specific Criteria for Planning Permission by Categories

CATEGORY	PLANMalaysia	TNB	IWK	PBAN
LARGE A	1) Reference for MPFN 22(2A); i.Town : > 100 hectares/ population > 10,000 people; ii.Infrastructure or country's key facilties; iii.Development on the summit/ hillside (KSAS development plan).	1) Main Switch Station-Voltan 275kV @132kV & Maximum Load > 25MVA (Single Customer/ Public Distribution License); 2) Main Entrance Substation - Voltan 275kV@132 kV & Maximum load > 25MVA (mix development).	1) Sewerage Treatment Plant-STPS and Network Pump Station-NPS. [Sewerage Treatment Plant under building/ private Sewerage Treatment Plant (STP)].	1) Load > 10,000 litre/ day 2) Pipe length from tapping point to metre point is more than 30m 3) Pipe size: >150mm 4) Water tank; i. 460,000 litre/day – Johor ii. 460,000 litre/day - Pulau Pinang iii. 100,000 litre/day - Kelantan iv. 227,000 litre/day - Perak v. 1,000,000 litre/ day - Selangor vi. 1,000,000 litre/ day - Putrajaya vii. 1,000,000 litre/day - Kuala Lumpur viii. 227,000 litre/ day – N Sembilan ix. 363,687 litre/day - Pahang x. 227,000 litre/day - Terengganu xi. 325,000 litre/day - Melaka xii. 227,000 litre/ day - Kedah
LARGE B	n/a			
MEDIUM	n/a	1) Main Switch Station-Voltan 33kV @11kV & Maximum Load 350kVA up to 25MVA (Single Customer/ Public Distribution License); 2) Main Divider Substation/ Electricity Substation - Voltan 33kV@11 kV & Maximum load > 350kVA up to 25MVA (mix development).	1) Public Sewerage Treatment Plant and Pump Station;	
SMALL	n/a	1) Electricity Substation Requirement depends on existing system availability Voltan 11kV@ LV & Maximum Load up to 350kVA (mix development/Single Customer)	1) Single Connection (Network Connection-NWC)/ Individual Septic Tank-IST/ Small Sewerage Treatment System-SSTS.	1) Load < 10,000 litre/ day

Figure 3.10b: OSC 3 Plus Online System - Building Plan

Building Plan Workflow Chart



Source: MANUAL OSC 3.0 PLUS, Proses dan Prosedur Cadangan Pemajuan Serta Perlaksanaan Pusar Setempat (OSC), KPKT

3.5 SUMMARY OF COMPLIANCE COSTS

Table 3.27: Summary of Compliance Costs as % of GDV, Estimates

Details of Compliance (Township)	% to GDV
Conversion Premium	1% to 2%
Development Charges	1% to 2%
Capital Contribution	1.5% to 2%
Other Utilities Costs	1.5% to 2%
Loss of Sellable Land (60% surrendered)	6% to 9%
Cross Subsidies - Bumiputera Quota Discounts	1.5% to 2%
Holding Costs - Unsold Bumiputera Quota Units	0.5% to 1.5%
Holding Costs - Delays in Approvals	0.5% to 1.5%
Submission Fees, Titles etc	0.3% to 0.5%
SUB TOTAL	**13.8 % - 22.5%**
Cross Subsidies - Affordable Housing (Land, Building & Other Costs)	**8 - 10%***
TOTAL	**21.8% - 32%**

* Equals to about 15% to 20% cross subsidies by market driven units.

Details of Compliance (Strata Less Than 10 acres)	% to GDV
Conversion Premium	1% to 2%
Development Charges	1% to 2%
Capital Contribution	1.5% to 2%
Other Utilities Costs	0.5% to 1%
Car Park Requirements (every 1 basement / elevated car park for strata)	4% to 8%
Loss of Sellable Land / GFA (Open space, setbacks, reserves,facilities etc)	2% to 4%
Cross Subsidies - Bumiputera Quota Discounts	1.5% to 2%
Holding Costs - Unsold Bumiputera Quota Units	0.5% to 1.5%
Holding Costs - Delays in Approvals	0.5% to 1.5%
Submission Fees, Titles etc	0.3% to 0.5%
SUB TOTAL	**12.8% - 24.5%**
Cross Subsidies - Affordable Housing (Land, Building & Other Costs)	**#**
TOTAL	**12.8% - 24.5%**

Depending on policies

Source: RI's calculations

Based on details provided in the foregoing sections of this chapter it can be summarised that cost of compliance generally accounts to between 21% to 32% and 12% to 25% of GDV for township and strata developments respectively as shown in Table 3.27.

However, this may vary from project to project due to factors like location, types, sizes and other applicable legislation and guideline.

ARTICLE 2: EASE OF DOING BUSINESS IN MALAYSIA: CONSTRUCTION PERMITS

Introduction

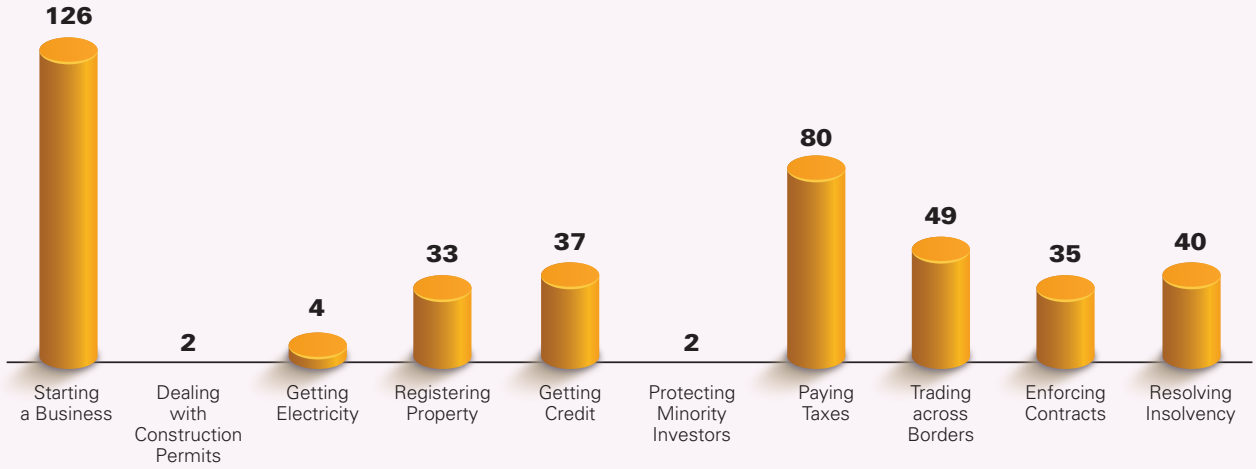
In line with the country's aspiration to achieve a developed nation status, Malaysia had undertaken six business reforms in 2017 to promote a more conducive business environment to further stimulate country's economic growth. Such reforms had resulted towards Malaysia ranked 15th across 190 economies in the business regulations and ease of doing business as published by the World Bank *Group's Doing Business 2019: Training for Reform report*[1]. Malaysia's ranking had improved to 12th position globally with the score of 81.5 based on *Doing Business 2020 report*[2]. This significant result had been contributed by the public and private sector members' collaboration and commitment within the technical working groups under the Special Task Force to Facilitate Business (PEMUDAH) to improve the ease-of-doing business environment[3].

The World Bank's *Doing Business 2020* measures 12 areas of business activity; (1) starting a business; (2) employing workers (3) dealing with construction permits; (4) getting electricity; (5) registering property; (6) getting credit; (7) protecting minority investors; (8) paying taxes; (9) trading across borders; (10) contracting with the government (coming soon); (11) enforcing contracts and (12) resolving insolvency. However, it is noted that the employing workers and contracting with the government indicator sets are not included in the ease of doing business ranking[4].

Doing Business Indicator – Dealing with Construction Permits

This discussion focuses on one of the *Doing Business 2020* indicators which is dealing with construction permits. It refers to the procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system. Figure 3(i) signifies Malaysia was ranked 2nd amongst global economies in the area of dealing with construction permits. This is due to the regulatory reforms that made starting a business and dealing with construction permits easier in Malaysia[5].

Figure 3(i): Rankings on Doing Business Topics - Malaysia



Adapted: World Bank (2020)

Note: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank

Meanwhile, Figure 3(ii) depicts Malaysia's ranking in the construction permits as compared to other economies. It shows Malaysia had scored 89.9 in dealing with construction permits.

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1 World Bank.2019. *Doing Business 2019:Training for Reform*.Washington,DC: World Bank.DOI:10.1596/978-1-4648-1326-9.License:Creative Commons Attribution CC BY 3.0 IGO.

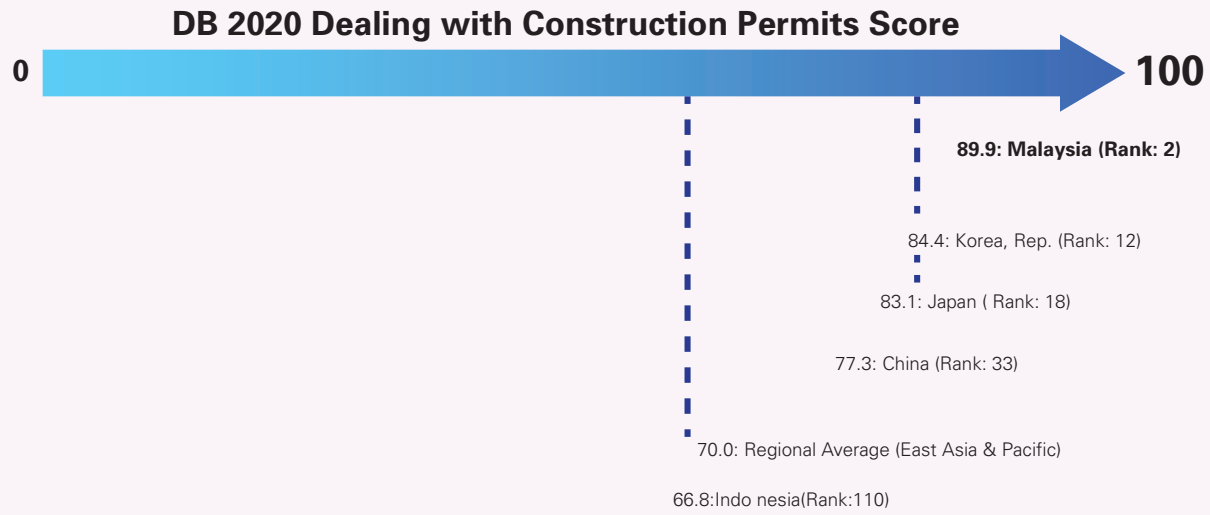
2 World Bank.2020.Doing Business 2020. Washington,DC: World Bank.DOI:10.1596/978-1-4648-1440-2.License:Creative Commons Attribution CC BY 3.0 IGO.

3 *The Star Online*, "Malaysia ranks 12th in World Bank Doing Business 2020 report," October 24, 2019, https://www.thestar.com.my/business/businessnews/2019/10/24/malaysia-ranks-12th-in-world-bank-doing-business-2020-report (accessed April 1, 2020).

4 World Bank. 2020. Doing Business 2020.

5 *The Edge Financial Daily*, "M'sia's improved ease of doing business due to successful reforms," October 29, 2019, https://www.theedgemarkets.com/article/msias-improved-ease-doing-business-due-succesful-reforms (accessed April 1,2020).

Figure 3(ii): Dealing with Construction Permits in Malaysia and Comparator Economies -Ranking and Score



Note: The ranking of economies on the ease of dealing with construction permits is determined by sorting their scores for dealing with construction permits. These scores are the simple average of the scores for each of the component indicators.

Source: World Bank (2020)

Table 3(i) reflects Malaysia's achievement across all 4 indicators in dealing with construction permits in Malaysia as compared to East Asia & Pacific and OECD high income economies[6]. There are 9 procedures involved to legally build a warehouse in Malaysia, a relatively lower value than East Asia & Pacific and OECD high income economies. Consequently, it takes only 41 days in Malaysia to deal with construction permits. In addition, its cost is the lowest at 1.3% of warehouse value, as compared to East Asia & Pacific and OECD high income economies.

Table 3(i): Dealing with Construction Permits - Malaysia

Standardized Warehouse	
Estimated value of warehouse	MYR 2,188,617
City Covered	Kuala Lumpur

Indicator	**Malaysia**	**East Asia & Pacific**	**OECD high income**	**Best Regulatory Performance**
Procedures (number)	9	14.8	12.7	None in 2018/19
Time (days)	41	132.3	152.3	None in 2018/19
Cost (% of warehouse value)	1.3	3.2	1.5	None in 2018/19
Building quality control index (0-15)	13.0	9.4	11.6	15.0 (6 Economies)

Source: World Bank (2020)

6 World Bank.2020. *Doing Business 2020*

Table 3(ii) shows the details of dealing with construction permits in Malaysia with regard to procedures, time and cost. It signifies the time to complete and associated cost to be involved for each procedure in dealing with construction permits in Malaysia. It should be noted that Malaysia had streamlined the process of dealing with construction permits by eliminating the road and drainage inspection performed by Kuala Lumpur City Hall[7]. Furthermore, the process of obtaining the sewerage connection which took 12 days as reported in *Doing Business* 2019 is no longer applicable in Table 3(ii). This had reduced the number of days undertaken to complete the procedures in dealing with construction permits in Malaysia from 54 days to 41 days[8].

Nonetheless, such improvement in dealing with construction permits in Malaysia is largely contributed by the establishment of One Stop Centre (OSC) at all Local Authorities (LA) in July 2007 to expedite the approval of construction permits[9]. The purpose of its establishment is to overcome the delay in processing development proposals at Local Authorities (LA); delay in issuing Certificate of Fitness for Occupation (CFO); too many non-technical conditions imposed by LA; different interpretation of legislations [Act 171, Act 172, Act 133 & UBBL (1984)]; different procedures and processes adopted at federal, state and LA level; overlapping procedures and lack of delegation of power; lack of transparency and no full disclosure on technical requirements and conditions amongst others[10]. The OSC later had been replaced with OSC 3.0 effective in June 2014. The OSC 3.0 incorporates six main process of construction focusing on reducing procedures, time and cost and adopts World Bank's methodology and best practices around the world[11].

Table 3(ii): Details on Dealing with Construction Permits in Malaysia - Procedure, Time and Cost

No.	Procedures	Time to Complete	Associated Costs
1.	Obtain technical conditions from the Water Authority SYABAS	2 days	no charge
2.	Submit and obtain development approval through OSC	30 days	MYR 3,600
3.	Submit pre-construction notifications to OSC	1 day	no charge
4.	Request final utilities inspections through OSC	1 day	MYR 24,049
5.	Receive final inspection from water utility	1 day	no charge
6.	Receive fire safety inspection	1 day	no charge
7.	Obtain clearance letters from OSC-single window	1 day	no charge
8.	Builder's principal submitting person files the certificate of completion and compliance (CCC)	1 day	no charge
9.	Obtain water connection	3 days	MYR 1, 600

Adapted: World Bank (2020)

Note: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

7 World Bank.2020. *Doing Business 2020.*

8 World Bank.2019. *Doing Business 2019: Training for Reform;* World Bank.2020.*Doing Business 2020.*

9 S.Thirilogachandran, "Implementation of OSC 3.0: An Overview and Issues on the Ground," PAM NC Professional Practice Seminar, Penang, April 8, 2017, http://www.architecturemalaysia.com/Files/Pool/87_170417_1517361736_pam_nc_seminar_osc_30_08042017.pptx (accessed September 18,2019) ; Seo Kian Haw, Andy,"Dealing with Construction Permits-Malaysia's Case Study," Seminar on the First Steps of Successful Reform in Doing Business, Taipei, Chinese Taipei, October 5-6,2010, http://www.mddb.apec.org/documents/2010/EC/SEM3?10-ec-Sem3-004.pdf.(accessed September 18, 2019).

10 Seo, "Dealing with Construction Permits."

11 S.Thirilogachandran, "Implementation of OSC 3.0."

Under the OSC, the Certificate of Completion and Compliance (CCC) had been introduced to replace the Certificate of Fitness for Occupation (CFO). Table 3(iii) presents the summary of CCC and CFO.

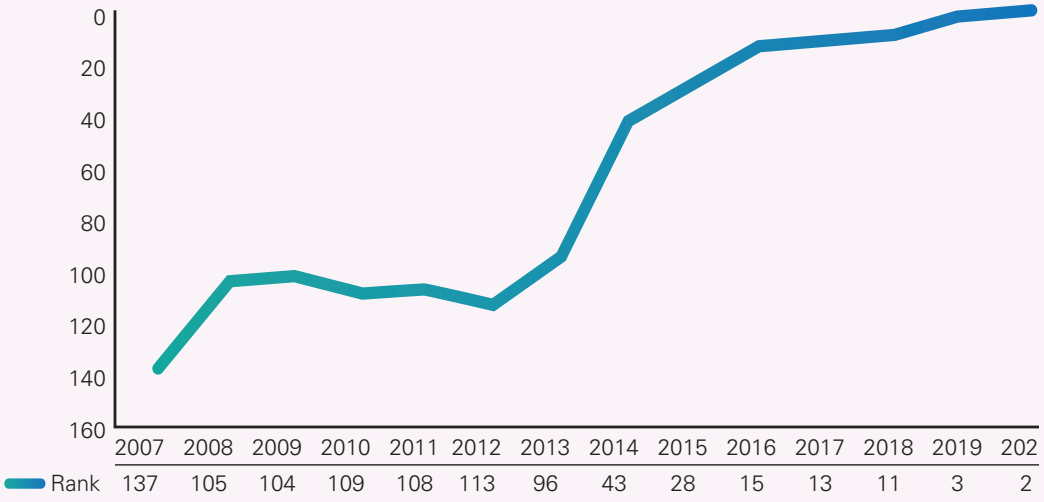
Table 3(iii): Summary of Certificate of Completion and Compliance (CCC) and Certificate of Fitness for Occupation (CFO)

CCC	CFO
- Introduced by the Street, Drainage and Building (Amendment) Act 2007 (Amendment Act)	- Under the Uniform By-Laws of the Street, Drainage and Building Act 1974 (Act 133)
- Issued by Professionals [Principal Submitting Person (PSP): Architects, Engineers and Registered Draughtsman]	- Issued by local authority (LA)
- Self-regulation by professionals - It will enhance the development of the property and building sector	- Delays due to factors such as noncompliance by the developer for the submission of Form E and its enclosures to the LA, additional conditions imposed by the LA at the time of application of CFO, the involvement of many technical agencies and the lack of technical officers to process the CFO
- Immediately issued upon completion of the proposed development	- Purchasers of properties could not occupy or renovate their properties if the CFO was not issued

Source: Seo (2010) ; Cheong (2007)

Figure 3(iii) depicts Malaysia's ranking in dealing with construction permits based on Doing Business reports from the period of 2007 to 2020. It signifies the country's ranking has improved dramatically over time. Malaysia was ranked at the 137th position across the global economies based on Doing Business 2007 report. However, the country had reached the 2nd position globally in dealing with the construction permits based on Doing Business 2020 report.

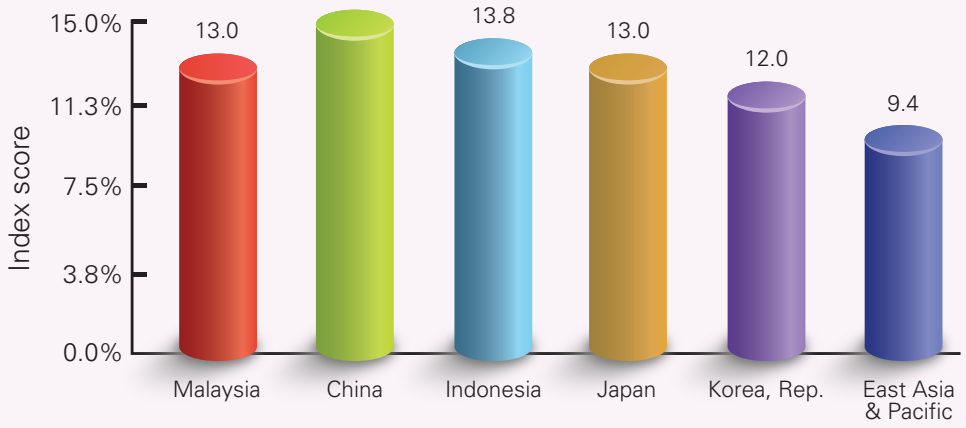
Figure 3(iii): Malaysia's Ranking in Dealing with Construction Permits, 2007-2020



Adapted: World Bank, Doing Business reports, various years

Furthermore, the building quality control index has been used to measure the quality in dealing with construction permits. Figure 3(iv) reflects that Malaysia and Japan scored 13.0 out of 15.0 for the index score as compared to other economies.

Figure 3(iv): Dealing with Construction Permits in Malaysia and Comparator Economies - Measure of Quality



Source: World Bank (2020)

Table 3(iv) provides further insight pertaining to the measurement of quality in dealing with the construction permits in Malaysia. It signifies professional certifications index contributed the highest score with the value of 4.0 followed by quality control after construction index with the value of 3.0. Nonetheless, the lowest score of 1.0 are from quality control before construction index as well as liability and insurance regimes index.

Table 3(iv): Details on Dealing with Construction Permits in Malaysia – Measure of Quality

	Score
Building quality control index (0-15)	13.0
Quality of building regulations index (0-2)	2.0
Quality control before construction index (0-1)	1.0
Quality control during construction index (0-3)	2.0
Quality control after construction index (0-3)	3.0
Liability and insurance regimes index (0-2)	1.0
Professional certifications index (0-4)	4.0

Adapted: World Bank (2020)

Note: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

Moving Forward

In order for Malaysia to achieve a developed nation status, the regulatory framework pertaining to the procedures in dealing with the construction permits need to be further enhanced by the government. It is vital to note that the property sector is indeed an important driver for the country's economic growth. The Manual of OSC 3.0 plus which had been published by the Ministry of Housing and Local Government in 2019 is a testimony of the government to improve on its delivery system to facilitate the process of construction permits in Malaysia[12]. This reflects the commitment by the government to further enhance its business competitiveness in the global market to create a more friendly business environment for potential investors. Besides, *Doing Business 2020 report* denotes that Malaysia's on-going reform initiatives had enhanced competitiveness, productivity and governance in the ease of doing business and promote investments[13]. Indeed, it is vital for Malaysia to exhibit a continuous reform momentum to further excel in its business competitiveness globally.

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12 Jabatan Kerajaan Tempatan, Kementerian Perumahan dan Kerajaan Tempatan. Putrajaya. 2019. "Manual OSC 3.0 Plus: Proses and Prosedur Cadangan Pemajuan Serta Pelaksanaan Pusat Setempat (OSC)," Edisi Pertama 2019, http://jkt.kpkt.gov.my/sites/default/files/2020-02/Manual%20OSC%203.0%20Plus%20Print%2011022020.pdf (accessed April 18, 2020).

13 *The Star Online*, "Malaysia ranks 12th."

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9. World Bank. *Doing Business reports (various years)*

4

ANALYSIS OF IMPACT

4

4.0 ANALYSIS OF IMPACT

This Chapter will examine the impact of compliance cost in a property development and how it impacts house prices and profitability of a project. In this Chapter, compliance cost is defined as the costs in complying with regulations, policies, standards, guidelines and other terms and requirements imposed by the authorities on the project.

Table 4.1 below details out the costs discussed in the preceding Chapter 3 and illustrates where such costs are embedded in the overall total development costs of a housing project. For the purpose of this analysis, such compliance costs will be identified and analysed to assess the following:-

a. How they add up to result in increased development costs and eventually house prices. Towards this, case studies involving actual project costs for township, landed and strata development will be used;

b. How compliance have increased over a period of time as a result of changes in legislation, policies, guidelines and etcetera;

c. How changes in compliance costs impact development costs, prices and profits.

4.1 COMPLIANCE COSTS AS A PERCENTAGE OF GROSS DEVELOPMENT VALUE (GDV)

Table 4.1 identifies the typical compliance costs for a housing development. The compliance, however, differs from project to project depending on State policies, guidelines, type and size of development.

Table 4.1: Typical Housing Development Costs

A	Gross Development Value	Compliance Costs Identified
	1 Price of Market Driven Products 2 Price of Low Cost / Affordable Housing *Minus* : Discounts on Bumiputera quota	• Affordable housing cross subsidy • Bumiputera discounts cross subsidy • Holding costs on Unsold/Unreleased unsold units • Levy for Bumiputera quota release • Opportunity loss to build other market driven products for the density granted • Reduced nett sellable land due to land surrender • Low density
B	**Total Development Costs**	
	1 Land	• Reduced nett sellable land due to land surrender • Low density • Delays in approvals at OSC
	2 Conversion Premium	Conversion Premium
	3 Development Charges	Development charges for change of land use
	4 Earthworks	
	5 Title Application	Charges, time loss pending approvals
	6 Infrastructure	Wider road and other planning requirements Construction of utilities infrastructure (if not calculated as part of regulatory fees)

Table 4.1: Typical Housing Development Costs (cont'd)

B	Total Development Costs (cont'd)	
	7 Landscape	Rooftop not included in landscape areas calculation
	8 Construction	Minimum unit size Standards and specifications Construction & labour levy Additional parking requirement
	9 Regulatory Fees	Fees, Deposits, Performance Guarantees
	ISF Contribution	ISF Contribution
	Drainage Contribution	Drainage Contribution
	Utilities & Capital Contribution - Water, Sewerage, Connection charges, telecommunication network	Capital Contribution on upstream works Land Surrendered for facilities Costs of construction of facilities
	10 Professional Fees	
	11 Admin and Management	Payment of various fees/deposit/guarantees to various parties at different stage of development using different methods
	12 Finance Costs	Holding Cost due to delays - OSC, release of unsold bumiputera quota
	13 Marketing & Advertisement	
	14 Contingencies	
C	**Developer's Profit (A-B)**	Higher risks due to uncertainties, delays, long development gestation period, high capital investment and increasing costs over development period

Source: REHDA Institute

The following Tables 4.1a - 4.1g represent case studies on actual projects indicating compliance costs identifies in Table 4.1 over Total GDV.

Table 4.1a: Typical Housing Development Cost - Compliance (Township, Selangor)

TOWNSHIP, SELANGOR	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	4,175,000,000	432,535,000	Affordable Housing
		107,000,000	Bumiputera Quota Discounts
		19,400,000	Holding Costs 20% unsold for 1 year
	4,175,000,000	**558,935,000**	**Cross subsidies added to costs**
Total Development Costs			
Land Costs	393,000,000	271,700,000	Estimated 55% land Surrender
Conversion Premium	12,000,000	12,000,000	
Development Charges			
Earthwork	89,000,000		Included
Infrastructure Costs	524,000,000	114,000,000	Utilities Infrastructure
Title Application	8,000,000	8,000,000	
Construction Costs	1,825,000,000	132,000,000	Parking
		558935000	Cross subsidies
Statutory / Regulatory Fees	39,000,000	39,000,000	Contributions & Fees
Professional Fees	95,000,000		
Administration & Management	300,000,000		
Finance Interest	116,000,000	17,290,000	Delays OSC 6 months
Marketing and Advertisement	85,000,000		
Contingencies	50,000,000		
Total Development Costs	**3,536,000,000**	**1,152,925,000**	
Compliance Costs over GDV		**28%**	

**development span of over 13 years, 600 acres*

Source: REHDA Institute

Table 4.1b: Typical Housing Development Cost - Compliance (Landed, Penang)

LANDED, PENANG	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	162,000,000	720,000	Levy for Bumiputera Quota Release
	162,000,000	**720,000**	**Cross subsidies**
Total Development Costs			
Land Costs	36,000,000	14,412,300	Estimated 30% land Surrender
Conversion Premium	4,100,000	4,100,000	Rezoning
Development Charges			
Earthwork	7,941,000		
Infrastructure Costs	536,000	536,000	Utilities Infrastructure
Title Application	150,000	150,000	
Construction Costs	66,000,000		
		720,000	Cross subsidies
Statutory / Regulatory Fees	5,700,000	5,700,000	Contributions & Fees
Professional Fees	2,000,000		
Administration & Management	600,000		
Finance Interest	1,600,000		
Marketing and Advertisement	2,800,000		
Contingencies	1,000,000		
Total Development Costs	**128,427,000**	**25,618,300**	
Compliance Costs over GDV		**16%**	

Note : Without Affordable Housing Quota Imposition

Source: REHDA Institute

Table 4.1c: Typical Housing Development Cost - Compliance (Landed, Selangor)

LANDED,SELANGOR	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	65,000,000	4,110,000	Bumiputera Quota Discount
		253,890	Holding costs for 20% unsold units for 1 year
	65,000,000	**4,363,890**	Cross Subsidies
Total Development Costs			
Land Costs	2,520,000	2,031,600	Estimated 30% land Surrender ie. 10% for open space
Conversion Premium	252,000	252,000	Conversion
Development Charges			
Earthwork	4,000,000		Included
Infrastructure Costs	5,700,000	3,800,000	Utilities Infrastructure, contribution to main infrastructure
Title Application	72,000	72,000	
Construction Costs	32,000,000		
		4,363,890	Cross Subsidies
Statutory / Regulatory Fees	132,000	132,000	some included in Infrastructure Costs
Professional Fees	1,420,000		
Administration & Management	1,900,000		
Finance Interest	850,000		
Marketing and Advertisement	2,930,000		
Contingencies	1,200,000		
Total Development Costs	**52,976,000**	**10,651,490**	
Compliance Costs over GDV		**16.4%**	

Note : Without Affordable Housing Quota Imposition, With Contribution to main infrastructure (roads, highways etc)

Source: REHDA Institute

Table 4.1d: Typical Housing Development Cost - Compliance (Landed, Negeri Sembilan)

LANDED, N SEMBILAN	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	34,000,000	1,020,000	Bumiputera Quota Discount
		132,804	Holding costs for 20% unsold units for 1 year
	34,000,000	**1,152,804**	**Cross Subsidies**
Total Development Costs			
Land Costs	2,400,000	1,711,200	Min of 30% land Surrender
Conversion Premium	34,000	34,000	Conversion
Development Charges			
Earthwork	3,270,000		
Infrastructure Costs	3,000,000	1,600,000	Utilities Infrastructure, contribution to main infrastructure
Title Application	13,000	13,000	
Construction Costs	18,000,000		
		1,152,804	Cross subsidies
Statutory / Regulatory Fees	970,000	970,000	some included in Infrastructure Costs
Professional Fees	463,000		
Administration & Management			
Finance Interest	550,000		
Marketing and Advertisement	930,000		
Contingencies	0		
Total Development Costs	**29,630,000**	**5,481,004**	
Compliance Costs over GDV		**16.1%**	

Note : Without Affordable Housing Quota Imposition

Source: REHDA Institute

Based on the case studies in Tables 4.1a - 4.1d, compliance costs for landed development is typically at around 16% of GDV. A self contained township of about 600 acres size, on the other hand are imposed with more compliance as a result of land surrender for public facilities and also affordable housing policy imposition. In the case study as illustrated in Table 4.1a, compliance costs incurred are estimated at 28% of GDV. Any gap between the range of compliance costs from one project to another depends largely on whether more compliance is imposed; affordable housing policy, Bumiputera quota and discount and surrender of land for public facilities and utilities being the more common ones.

Table 4.1e: Typical Housing Development Cost - Compliance (Strata, Kuala Lumpur)

STRATA, KUALA LUMPUR	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	550,000,000	8,250,000	Bumiputera Quota Discount
		2,194,500	Holding costs for 20% unsold units for 1 year
	550,000,000	**10,444,500**	
Total Development Costs (TDC)			
Land Costs	60,000,000	0	5% for 10 acres above
Conversion Premium	800,000	800,000	Conversion
Development Charges	5,820,000	5,820,000	
Earthwork	4,500,000		
Infrastructure Costs	7,640,000		
Title Application	1,200,000		
Construction Costs	285,000,000	55,000,000	Car parks
		10,444,500	Cross subsidies
Statutory / Regulatory Fees	10,000,000	10,000,000	Contributions
Professional Fees	20,200,000		
Administration & Management	25,000,000		
Finance Interest	6,000,000		
Marketing and Advertisement	10,000,000		
Contingencies	0		
Total Development Costs	**436,160,000**	**82,064,500**	
Compliance Costs over GDV		**15%**	

Note : Without Affordable Housing Quota Imposition

Source: REHDA Institute

Table 4.1f: Typical Housing Development Cost - Compliance (Strata Mixed Use, Selangor)

STRATA MIXED USE, SELANGOR	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	346,000,000		Bumiputera Quota Discount
	346,000,000	**0**	
Total Development Costs			
Land Costs	14,000,000	0	Min of 10% open space
Conversion Premium	3,400,000	3,400,000	Conversion
Development Charges	0	0	
Earthwork	675,000		
Infrastructure Costs	18,000,000		
Title Application	1,300,000		
Construction Costs	175,000,000	48,000,000	Car parks
Statutory / Regulatory Fees	6,800,000	6,800,000	Contributions
Professional Fees	10,800,000		
Administration & Management	9,200,000		
Finance Interest	3,400,000		
Marketing and Advertisement	20,000,000		
Contingencies	10,000,000		
Total Development Costs	**272,575,000**	**58,200,000**	
Compliance Costs over GDV		**17%**	

Note : SOHO, Serviced Apartments & Shop Office

Source: REHDA Institute

Table 4.1g: Typical Housing Development Cost - Compliance (Serviced Apartments, Kuala Lumpur)

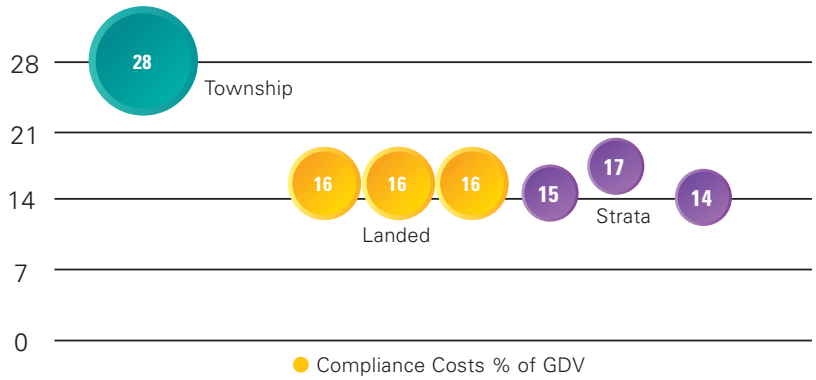
SERVICED APARTMENTS, KUALA LUMPUR	Value / Cost (RM)	Main Compliance Cost (RM)	
Gross Development Value	285,000,000	5,700,000	Bumiputera Quota Discount
		1,484,280	Holding costs for 20% unsold units for 1 year
	285,000,000	**7,184,280**	
Total Development Costs			
Land Costs	8,100,000	0	
Conversion Premium	3,705,000	3,705,000	Conversion
Development Charges - Included	0	0	
Earthwork	1,000,000		
Infrastructure Costs	3,100,000		
Title Application	640,000		
Construction Costs	150,000,000	25,200,000	Car parks
		7,184,280	Cross subsidies
Statutory / Regulatory Fees	4,200,000	4,200,000	Contributions
Professional Fees	8,100,000		
Administration & Management	6,400,000		
Finance Interest	8,400,000		
Marketing and Advertisement	7,800,000		
Contingencies	10,000,000		
Total Development Costs	**211,445,000**	**40,289,280**	
Compliance Costs over GDV		**14.1%**	

Note : Serviced Apartments on 1+ acre land

Source: REHDA Institute

Tables 4.1e to 4.1g show that compliance costs for strata developments are typically 14% - 17% of GDV depending on various factors including land size, land use (condominium/serviced apartments/mixed use), car park and bumiputera quota requirements. The land sizes for strata projects in the case studies above are smaller and below the threshold for affordable housing and public facilities requirements. Based on the above case studies, the biggest component of compliance for strata development is parking requirement (at 1:2.2), accounting to between 17% - 27% of building costs or 8%-15% of GDV, depending on sales price whereby the lower the price, the bigger the percentage of car park costs against GDV.

Figure 4.1: Compliance Costs as a Percentage of GDV



Source: REHDA Institute

Notes: The percentage depends largely on the compliance imposition - whether they include affordable housing and Bumiputera quota and discounts, or other input costs involving land related matters, car parking requirements, contribution charges etc.

4.2 CHANGES IN COMPLIANCE COSTS AND IMPACT ON PRICES

Compliances, being input costs to a development will have a direct impact on development costs and house prices. This is illustrated in the following tables, where changes in selected compliance costs are simulated to show how such changes affect prices.

Table 4.2: Changes in Compliance Costs Effect on Pricing

	TOWNSHIP - RM mil								
Compliance over TDC	-50%	-40%	-30%	-20%	**33%**	+ 20%	+ 30%	+ 40%	+ 50%
					Or 28% of GDV				
Compliance	304.27	365.12	425.97	486.82	608.53	730.24	791.09	851.94	912.80
Cross Subsidies	280.00	336.00	392.00	448.00	560.00	672.0	728.00	784.00	840.00
Other Costs	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00
TDC	2,959.27	3,076.12	3,192.97	3,309.82	3,541.00	3,777.24	3,894.09	4,010.94	4,127.80
Profit 15%	443.89	461.42	478.95	496.47	531.15	566.59	584.11	601.64	619.17
GDV	3,403.15	3,537.54	3,671.92	3,806.30	4,072.15	4,343.82	4,478.20	4,612.58	4,746.96
Price per unit	0.454	0.472	0.490	0.508	0.543	0.579	0.597	0.615	0.633
Price Increase	-16.4%	-13.1%	-9.8%	-6.5%	0.0%	6.7%	10.0%	13.3%	16.6%
Assumptions	*Township Development; Current position : 33% compliance over TDC* *Other costs constant; Profit remaining constant at 15%*								

Table 4.2: Changes in Compliance Costs Effect on Pricing (cont'd)

	STRATA - RM mil								
Compliance over TDC	-50%	-40%	-30%	-20%	**19%**	+ 20%	+ 30%	+ 40%	+ 50%
					Or 15% of GDV				
Compliance	36.20	43.44	50.68	57.92	72.40	86.88	94.12	101.36	108.60
Cross Subsidies	5.22	6.26	7.31	8.35	10.44	12.53	13.57	14.62	15.66
Other Costs	354.00	354.00	354.00	354.00	354.00	354.00	354.00	354.00	354.00
TDC	395.42	403.70	411.99	420.27	436.00	453.41	461.69	469.98	478.26
Profit 15%	59.31	60.56	61.80	63.04	65.40	68.01	69.25	70.50	71.74
GDV	454.73	464.26	473.79	483.31	501.40	521.42	530.95	540.47	550.00
Price per unit	0.669	0.683	0.697	0.711	0.737	0.767	0.781	0.795	0.809
Price Increase	-9.3%	-7.4%	-5.5%	-3.6%	0.0%	4.0%	5.9%	7.8%	9.7%
Assumptions	*Strata Development; Current position : 19% compliance over TDC* *Other costs constant; Profit remaining constant at 15%*								

Source: RI's calculations

In a strata development, especially on smaller size of land, parking requirements pose the bulk of the compliance cost.

Table 4.3a: Car Park Requirement and Prices

Project Type : Affordable Housing below RM500,000 - Condominium

Total Acres : 6 acres

Total Units : 390

Cost Elements	**Car Park Requirements per Housing Unit**						
	(A) 0	**(B) 1**	**(C) 1+10%**	**(D) 1+20%**	**(E) 2**	**(F) 2+10%**	**(G) 2+20%**
Land Cost per unit	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Building Cost	160,000	160,000	160,000	160,000	160,000	160,000	160,000
Car Park	0	35,000	38,500	42,000	70,000	73,500	77,000
Regulatory Fees	15,500	15,500	15,500	15,500	15,500	15,500	15,500
Others	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Profit at 15%	48,075	53,325	53,850	54,375	58,575	59,100	59,625
Estimated Price	**368,575**	**408,825**	**412,850**	**416,875**	**449,075**	**453,100**	**457,125**
% of carpark to GDV	**0**	**8.6%**	**9.3%**	**10.1%**	**15.6%**	**16.2%**	**16.8%**

Note : G = Current Requirement in Selangor. F = Requirement in Kuala Lumpur, Johor and Penang.
The increase in car park requirements increase prices and increase percentage of car park costs to GDV

Source: RI's calculations

Assuming a developer builds the same condominium at 4 different states and assuming all other costs except for land costs, remain constant, the prices of the said condominium unit will be as follows:-

Table 4.3b: Car Park Requirement and Prices - Selected States

Cost Elements	Car Park vs House Price			
	Selangor	**KL**	**Johor**	**Penang***
	1:2+20%	**1:2+10%**	**1:2+10%**	**1:2+10%**
Land Cost per unit	100,000	150,000	100,000	100,000
Building Cost	160,000	160,000	160,000	160,000
Car Park	**77,000**	**73,500**	**73,500**	**73,500**
Regulatory Fees	15,500	15,500	15,500	15,500
Others	45,000	45,000	45,000	45,000
Profit at 15%	59,625	66,600	59,100	59,100
Estimated Price	**457,125**	**510,600**	**453,100**	**453,100**
% of carpark to GDV	**16.8%**	**14.4%**	**16.2%**	**16.2%**

** Penang - 2 bays per unit to be provided, one of which can be sold. Visitors' parking is additional 10%*

Source: RI's calculations

The Dynamics of Pricing

Theoretically, any increase in compliance cost will have direct impact of house prices, and in the above simulation as detailed in Table 4.2, prices can increase as much as 16.6% on average if compliance costs in a township development shoot up by 50%. Similar rise in a strata development will result in an average of 10% price increase. In reality, however, other costs will also increase due to inflation, market demand, change in policy direction, particularly land, building materials and interest costs and as such actual price increase can be much more than shown above.

Likewise, in a case where compliance costs are reduced by 50%, in theory prices are shown as can be lowered by 16% and 9% on average in township and strata development respectively. However, with increase in other costs of doing business including land price, building materials and construction, interest costs, and possibly new imposition of regulations and new downside risks, such savings can be quickly eroded and prices will at best be retained more sustainably. It is therefore, important that compliance costs is further reduced so that the rate of increase in house prices is slowed down for better affordability.

4.3 CHANGES IN COMPLIANCE COSTS AND IMPACT ON PROFITS

Compliance Costs and Profitability

How much profits do developers make out of a housing development?

Table 4.4: Return on Capital Employed (ROCE) for Property Companies, 2008-2018

Company	Market Cap (RM mil)	Return on Capital Employed (ROCE) (%)										
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
IOI Properties Group Bhd	6,112	NA	NA	NA	NA	NA	10%	8%	6%	6%	6%	4%
S P Setia Bhd	5,781	10%	7%	10%	9%	9%	7%	7%	12%	9%	7%	5%
Sime Darby Property Bhd	5,135	NA	NA	NA	NA	NA	NA	NA	NA	NA	4%	2%
UOA Development Bhd	4,011	NA	NA	45%	25%	19%	22%	15%	19%	23%	14%	11%
Malaysian Resources Corporation Bhd	3,419	1%	3%	4%	4%	10%	1%	8%	11%	11%	5%	3%
UEM Sunrise Bhd	3,403	3%	4%	5%	5%	6%	7%	5%	3%	2%	2%	4%
OSK Holdings Bhd	1,984	3%	6%	4%	4%	41%	7%	7%	9%	5%	9%	7%
Eco World Development Group Bhd	1,929	0%	-1%	0%	0%	3%	8%	3%	2%	4%	6%	4%
IGB Bhd	1,887	0%	0%	0%	-2%	-1%	7%	10%	7%	8%	7%	8%
Mah Sing Group Bhd	1,881	17%	14%	13%	11%	14%	12%	12%	10%	10%	9%	7%
Matrix Concepts Holdings Bhd	1,580	NA	NA	NA	NA	40%	36%	35%	NA	34%	21%	21%
YNH Property Bhd	1,363	17%	10%	10%	9%	8%	7%	9%	4%	8%	9%	7%
TA Global Bhd	1,277	NA	8%	3%	4%	4%	4%	5%	1%	2%	5%	7%
Tropicana Corporation Bhd	1,208	8%	7%	4%	5%	6%	11%	8%	5%	2%	5%	6%
Eastern & Oriental Bhd	1,010	13%	0%	6%	4%	10%	9%	9%	9%	2%	5%	7%
AVERAGE ROCE (%)		**7%**	**5%**	**9%**	**7%**	**13%**	**11%**	**10%**	**8%**	**9%**	**8%**	**7%**

Note: Market capitalisation size as at 6th November 2019

Source:RI's calculations based on Company Annual Reports (various years)

As a background, in general, the property industry average return on capital employed (ROCE) has always been in the single-digit territory except for a period of three years from 2012 until 2014, of which, the high annual ROCE for some companies had pushed the average ROCE to double-digit territory for that three-year consecutive period. By comparison, a few other industries had recorded double-digit industry average ROCE every year within the same period namely Transportation & Logistics (11%-15%), Telecommunications & Media (11% - 48%), Healthcare (13% - 25%) and Technology (12% - 25%), while most other industries (Utilities 9% - 14%, Consumer Products 6% - 21%) also recorded double-digit numbers for most of the years throughout the period of 2008-2018 as shown in Table 4.5. Across industries, the property industry's profit levels are similar to that of the construction, plantation and banking, recording an average of 8.45% returns on capital employed.

Table 4.5: Average Return on Capital Employed (ROCE) Across Industries, 2008-2018

Year	Plantation	Utilities	Construc-tion	Transpor-tation & Logistics	Telecom-munica-tions & Media	Energy	Healthcare	REITs	Technology	Property	Consumer Products & Services (Automo-tive)	Financial Services (Banking)
'08	16%	13%	4%	13%	11%	6%	17%	9%	12%	7%	13%	7%
'09	12%	12%	3%	11%	17%	20%	18%	7%	12%	5%	9%	6%
'10	12%	11%	5%	13%	20%	20%	25%	6%	12%	9%	11%	6%
'11	16%	14%	9%	12%	23%	20%	13%	6%	14%	6%	19%	7%
'12	11%	13%	12%	15%	32%	15%	17%	7%	14%	13%	21%	8%
'13	9%	12%	9%	14%	39%	8%	17%	7%	17%	11%	14%	8%
'14	10%	12%	13%	14%	48%	-2%	16%	7%	21%	10%	16%	7%
'15	7%	10%	12%	14%	57%	11%	15%	7%	25%	8%	15%	7%
'16	9%	10%	11%	11%	27%	5%	14%	6%	23%	9%	8%	6%
'17	10%	9%	11%	11%	24%	10%	13%	7%	25%	8%	6%	6%
'18	7%	9%	10%	11%	22%	5%	13%	7%	21%	7%	13%	6%

Source:RI's calculations based on Company Annual Reports (various years)

Reducing profit is further demonstrated in the downtrend gross operating surplus margin of companies undertaking residential property construction from 8.5% in 2005 to 8.4% in 2010 and 7.2% in 2015 as shown in Table 4.6 below. *(Input Output Tables 2005,2010,2015)*

Table 4.6: Input-Output Table for Domestic Production, Residential & Non Residential (2005, 2010 and 2015)

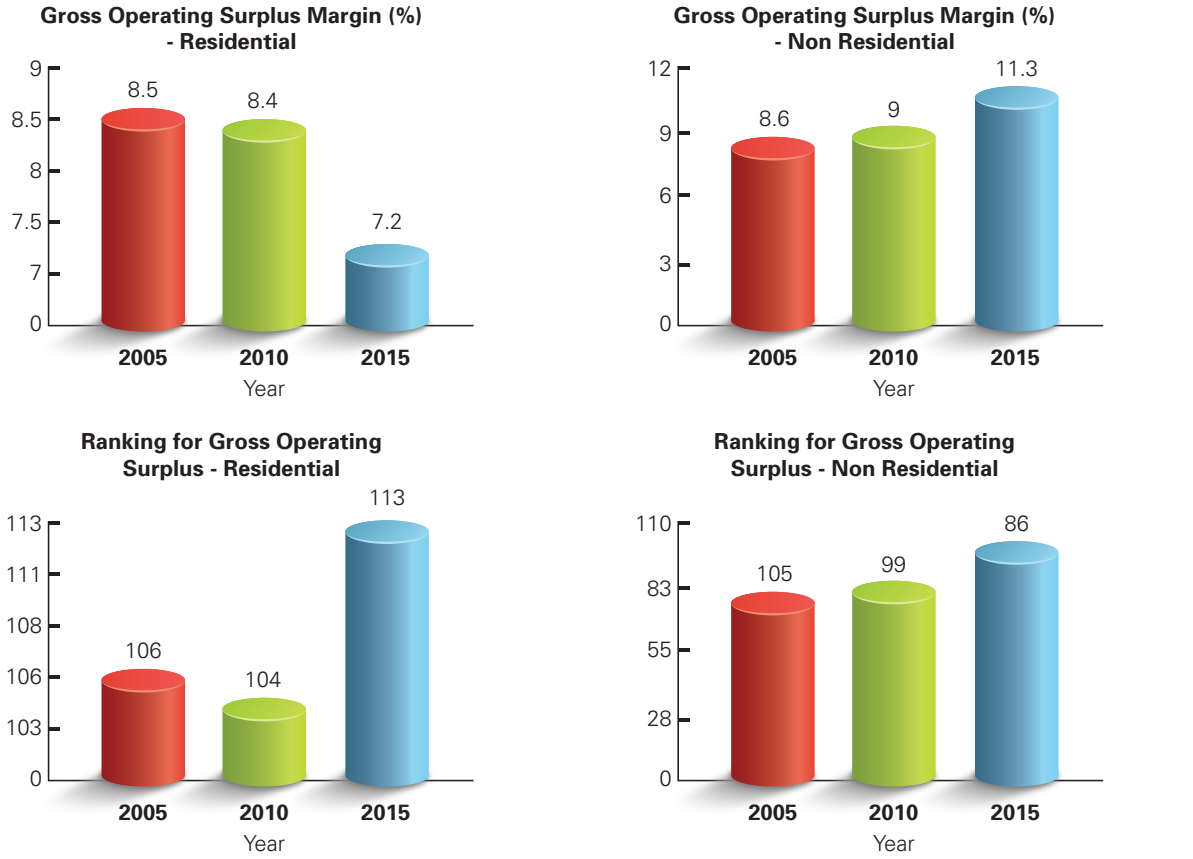
Year	2005		2010		2015	
	R	NR	R	NR	R	NR
Gross Output (RM'000)	14,829,704	10,974,865	20,362,175	27,046,848	46,422,565	46,505,029
Value added (RM'000)	3,732,806	2,746,016	6,760,118	8,809,035	14,735,072	14,727,033
Operating Surplus (RM'000)	1,265,484	944,995	1,713,688	2,432,364	3,320,376	5,237,263
Value added Margin (%)	25.2	25.0	33.2	32.6	31.7	31.7
Gross Operating Surplus Margin (%)	**8.5**	**8.6**	**8.4**	**9.0**	**7.2**	**11.3**
Ranking for Gross Operating Surplus Margin	106	105	104	99	113	86

Note:
1. R-Residential; NR-Non Residential
2. Year 2005: based on 120 industries; Year 2010 and 2015: based on 124 industries
3. Ranking for gross operating surplus margin with 1 being the highest margin

Source: Department of Statistics, Malaysia

The single digit margin is comparatively lower than those of most economic sectors. Based on 2015 domestic production gross output and operating surplus data published by the Department of Statistics Malaysia, residential and non residential sectors ranked 113th and 86th respectively in terms of gross operating surplus margin among 124 sectors.

Figure 4.2: Gross Operating Surplus and Ranking for Gross Operating Surplus, Residential and Non Residential; 2005,2010,2015



Source: DOSM

At the company level, based on analysis on public property listed companies' (PLCs) profit before taxation (PBT) numbers from 1993 to 2018, the following trends have been observed *(Source: Property Companies Annual Reports on Profits 1995 to 2018)*:

i) those companies that recorded higher profits, circa 30% to 50% during mid 1990's - 2000 recorded around 19% to 35% in PBT in the last 5 years;

ii) 64% of the property companies recorded PBT of an average of 25% and below in the last 10 years (2009-2018);

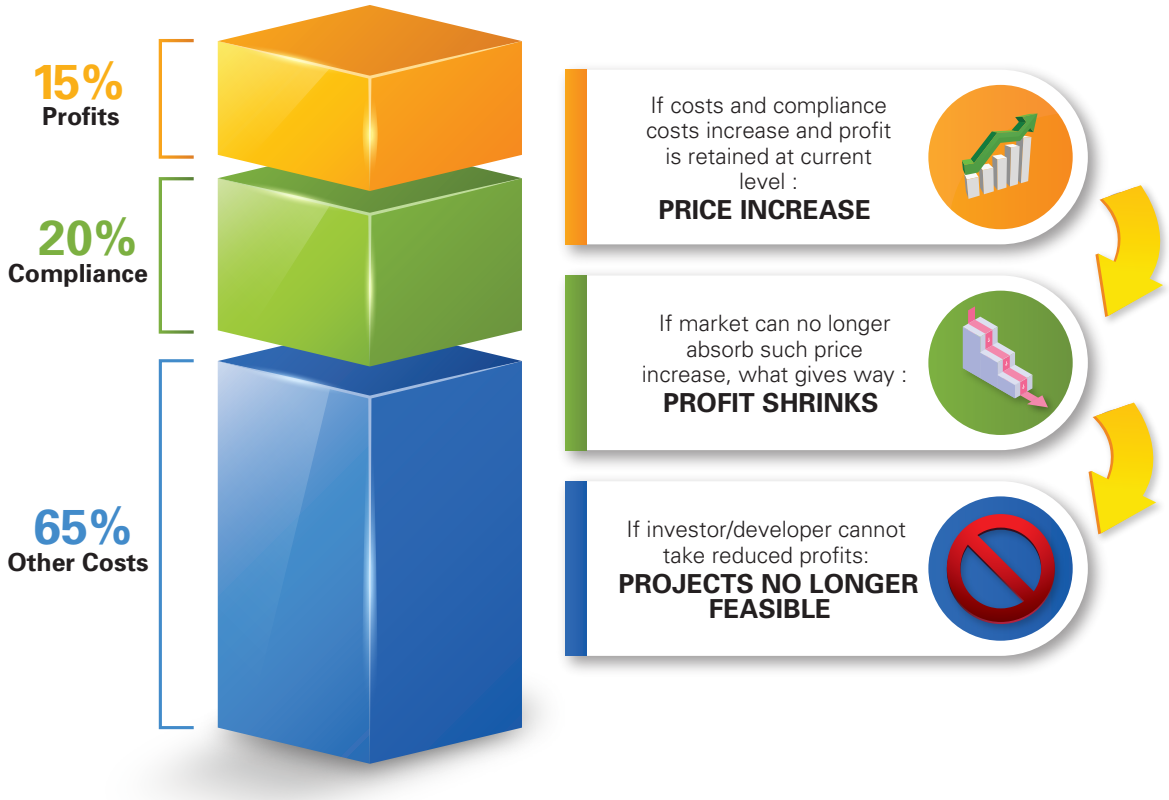
iii) 48% of the property companies recorded average PBT of between 19% and below in the last 10 years (2009-2018); all of which revealing that profits of property PLCs have moderated over the last two decades and majority are now recording circa 20% in PBT on average.

At project level, profits are determined by various factors including:-

- Total costs of development;
- Gestation period of project;
- Risks, especially
  - Changes in legislation, policies and imposition of new laws, levies and requirements;
  - Market demand;
  - Increased costs due to various factors;
  - Possibility of LAD due to delays in completion; and
- Other relevant factors.

Generally a feasible development project should provide the investor with a return of between 15% to 20%. Housing development spans over a minimum of 5 to 6 years from the first ringgit invested (land purchase) to the closing of project account. The lengthy period exposes the investment to many uncertainties and downside risks that could result in additional costs and affect project profitability and viability. By industry practice, a 15% to 20% return on such high risks and capital intensive investment is fair as it gives buffer against various risk factors and is acceptable to financial institutions for funding purposes. It is, however, quite common for smaller projects, for example, a singly built low / medium rise apartment block to accept a lower margin of around 10% to 12% as the overall approval time frame and phased developments (if any) may be shorter as compared to townships. The myth of property developers making huge profits of 30% to 50% is no longer applicable in the housing industry today and with tightened regulations and increased compliance, profit margins can only be squeezed downwards especially when the market struggles with lack lustre demand and reduced affordability. Property development being a long term business investment, it should also be noted that profitability is important to the firm for reinvestment in future projects, especially for land purchases for future projects. Enhanced capabilities to reinvest will ensure business sustainability and also continuity in future supply of housing units into the market.

Figure 4.3: Compliance vs Price and Profits



However, as costs increase, prices will be pushed up as developers try to retain the existing profit level to remain viable. The market, however, will not be able to absorb much price increase especially in flat market conditions coupled with affordability crisis among house buyers. Profits shrinkage is inevitable at some point if cost increases are not well curbed and eventually the project will become not feasible to be carried out. The end result will be reduced supply and even higher house prices in the longer run as well as loss of economic multiplier effects from the said development.

CASE STUDIES

The following **case studies** illustrate changes in profit due to increased cost of doing business and compliance.

CASE 1:
A - Increased Costs, Retained Pricing, Shrinking Profits
B - Increased Costs, Retained Profits, Increased Price

Table 4.7: Case Study based on Assumptions A & B

	TOWNSHIP - RM mil								
Assumptions A	*Township Development* *Current position : 33% compliance over TDC as base (28% of GDV)* *Compliance costs increase as shown, Other costs constant* ***Prices** to remain at baseline levels*								
Compliance over TDC	-50%	-40%	-30%	-20%	**33%**	+ 20%	+ 30%	+ 40%	+ 50%
					(Base level) Or 28% of GDV				
Compliance	304.27	365.12	425.97	486.82	608.53	730.24	791.09	851.94	912.80
Cross Subsidies	280.00	336.00	392.00	448.00	560.00	672.00	728.00	784.00	840.00
Other Costs	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00
TDC	2,959.27	3,076.12	3,192.97	3,309.82	3,541.00	3,777.24	3,894.09	4,010.94	4,127.80
Profit	1,112.89	996.03	879.18	762.33	531.15	294.91	178.06	61.21	-55.65
GDV	4,072.15	4,072.15	4,072.15	4,072.15	4,072.15	4,072.15	4,072.15	4,072.15	4,072.15
Price per unit	0.543	0.543	0.543	0.543	0.543	0.543	0.543	0.543	0.543
Profit over GDV	**27.3%**	**24.5%**	**21.6%**	**18.7%**	**13.0%**	**7.2%**	**4.4%**	**1.5%**	**-1.4%**
Assumptions B	*Township Development* *Current position : 33% compliance over TDC as base* *Compliance costs increase as shown, Other costs constant* ***Profits** to remain at baseline levels*								
Compliance over TDC	-50%	-40%	-30%	-20%	**33%**	+ 20%	+ 30%	+ 40%	+ 50%
					(Base level) Or 28% of GDV				
Compliance	304.27	365.12	425.97	486.82	608.53	730.24	791.09	851.94	912.80
Cross Subsidies	280.00	336.00	392.00	448.00	560.00	672.00	728.00	784.00	840.00
Other Costs	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00	2,375.00
TDC	**2,959.27**	**3,076.12**	**3,192.97**	**3,309.82**	**3,541.00**	**3,777.24**	**3,894.09**	**4,010.94**	**4,127.80**
Price per unit	**0.454**	**0.472**	**0.490**	**0.508**	**0.543**	**0.579**	**0.597**	**0.615**	**0.633**
Profit over GDV	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%

Source: RI's Calculations

Analysis :

- In a scenario where price is to be retained at base level at RM543,000 per unit (Assumption A: current, 33% compliance over TDC/ 28% of GDV), a 20% increase in compliance costs will erode profits from 15% of TDC to 7.8% of TDC, making the project not viable any longer.
- If profits are to be retained at base level of 13% of GDV, other costs remaining constant (Assumption B), a 20% increase in compliance costs will push price up by 7%. A 50% increase in compliance costs translates to 16.6% price increase, barring other cost increase. It should be noted that with inflation and higher demand for land in strategic location suitable for development, costs will definitely go up. Increased compliance will only amplify such increase and push prices up further.

CASE 2:
- Increased Compliance Costs (Reduced Net Sellable Area) Over Different Periods

For the purpose of analysis on increase in compliance, a different period gap is used (1997 vs 2016 to assess the impact of changes in planning requirements between the first edition (Federal Planning Guidelines 1997) and the current guidelines applicable to Selangor (Third Edition of Selangor Planning Guidelines 2016). The former is used as Selangor's first edition of the Planning Guidelines were only introduced in 2007.

Analysis

- Essentially, the amount of land surrendered for public facilities, utilities and infrastructure determines the net sellable land available for development and subsequently the development content mix and GDV of the project. As profits depend directly on GDV and costs, reduction in net sellable area leads to reduced profits.
- Table 4.8 shows the differences in profit margins for two different periods, with similar development content and similar costs as a percentage to GDV. A 100 acre development circa 1990's with 55% land efficiency could fetch profit of about 30% of GDV and with shrunk net sellable area (45%) the same piece of land can only achieve 20% in margin.
- Due to lower profit, developers have to build more units and at higher prices to reach feasible level of returns on investment.
- Reduced profits affect a developer's capacity to reinvest, especially in a market where costs, particularly land, keep increasing.
- Assuming the net sellable land be retained at the 55% (1997) level to today, the GDV of the project can go up by about 40% i.e. from RM500 mil to RM700 mil, depending on development composition, as more units can be built on the 10% extra land i.e. additional 10 acres. For illustration purpose, at a density of 60 units per acre for open market strata development, a maximum additional 600 units apartments can be added to the development content. Profit margin will be retained in the range of 19% to 20%.

1990's	55% net land
Y2020	45% net land
Difference	10% decrease or 10 acres
	Equals 600 additional units (additional RM200 mil in GDV)

Source: RI's Calculations

Table 4.8: Planning Permissions Over 2 Different Periods (1990's vs 2010's)
100 acres, Selangor

	1997 (Federal JPBD)	2016 (Selangor)	2020 - Assuming Current Costs at 55% efficiency i.e. at 1997 level
Net Sellable Area	**55% efficiency**	**45% efficiency**	**55% efficiency**
	Value / Cost (RM)	**Value / Cost (RM)**	**Value / Cost (RM)**
Gross Development Value	220,000,000	501,000,000	700,000,000
Total Development Costs	154,000,000	402,000,000	568,000,000
Profit margin over GDV	30%	20%	19%

Note: Federal JPBD Guidelines is used as Selangor's Planning Guidelines First Edition was only introduced in 2007

Source: RI's Calculations

CASE 3:
Increased Compliance Costs (All Costs) Over Different Periods

Using the same piece of development, the following represent a simulation of increased compliance cost as a result of increased compliance and regulatory requirements imposed on the project over different periods:-

Table 4.9: Components of Compliance Costs Over 2 Periods

	1990's	2020
Net Sellable Area	**55%**	**45%**
Gross Development Value		Up to 50% affordable housing quota
- **Low Cost / Affordable Housing**	30% low cost / low medium costs	Up to 70% Bumi quota for affordable housing and 50% for open market at 7% discounts
- **Bumiputera quota & discounts**	30% Bumi Quota at 5% discounts Low cost segment can be built at later stage	Affordable housing segment to be built first / concurrent with rest of development Bigger minimum size / higher specifications
Total Development Costs		
Land Costs	Conversion Premium (formula difference)	Conversion premium (formula difference)
	Surrendered Land, est 45%	Surrendered land, est 55%
	Cross Subsidy - land for Low Cost Housing	Cross subsidy - land for affordable housing
		Development charges for land use change
Infrastructure and Landscape	Utilities Infra Provision	Utilities Infra Provision
Construction Costs	Cross Subsidy for Low cost / low medium cost Housing Specs for low cost	Cross Subsidy for affordable housing. Specs for affordable housing Additional parking bay (1:2.2)
Statutory Contribution	Charges, Fees and Deposits	ISF, Drainage, Graveyard, Charges, Fees, Deposits and Capital Contribution - Sewerage, Water, Electricity and Telecommunications
Others		Holding cost for Unsold Bumiputera quota - 20% for 1 year OSC delay - 6 months pre consultation

Source: REHDA Institute

Translating the above costs into figures, the following Tables 4.10 and 4.11 illustrate the increased compliance costs in a project over the last 20-30 years.

Table 4.10: Compliance Cost, 1990's

100 acres, Selangor - 1990's

	1990's			
Net Sellable Area	**55% efficiency**	**Compliance Costs**	**% of GDV**	**Details**
	Value / Cost (RM)	**RM**		
Gross Development Value	220,000,000			
		3,300,000	1.5%	Bumiputera quota discount 30% at 5%
Total Development Costs				
Land Costs	34,000,000	3,000,000	1.4%	Conversion Premium
		8,250,000	3.8%	Surrendered Land
		1,200,000	0.5%	Cross Subsidy - land for Low Cost Housing
Infrastructure and Landscape		2,000,000	0.9%	Utilities Infra Provision
Construction Costs	101,500,000	12,000,000	5.5%	Cross Subsidy for Low Cost Housing
		14,400,000	6.5%	Parking 1:1+10%
Statutory Contribution	500,000	500,000	0.2%	Charges, Fees and Deposits
Others	15,000,000			
Total Development Costs	151,000,000			
Profit margin over GDV	31%			
Total Compliance Costs		44,650,000		
Compliance Costs over GDV		20%	20%	

Source: RI's Calculations

Table 4.11: Compliance Cost, 2020's

100 acres, Selangor - 2020

	2020			
Net Sellable Area	**45% efficiency**	**Compliance Costs**	**% over GDV**	**Details**
	Value / Cost (RM)	**(RM)**		
Gross Development Value	501,000,000			
		17,500,000	3.5%	Bumiputera quota 50% discount at 7%
Total Development Costs				
Land Costs	125,000,000	12,000,000	2.4%	Conversion Premium
		9,000,000	1.8%	Development Charges
		31,000,000	6.2%	Surrendered Land 62 acres
		6,650,000	1.3%	Cross Subsidy - land for Affordable Housing 13.3 acres
Infrastructure and Landscape		12,000,000	2.4%	Utilities Infra Provision
Construction Costs	230,000,000	16,000,000	3.2%	Cross Subsidy for Affordable Housing
		39,200,000	7.8%	Parking 1:2+20%
Statutory Contribution	7,500,000	7,500,000	1.5%	ISF, Drainage, Capital Contribution, Fees and Deposits
Others	40,600,000			
Total Development Costs	403,100,000			
Profit over GDV	20%			
Total Compliance Costs		150,850,000		
Compliance Costs over GDV		30%	30%	

Source: RI's Calculations

Analysis:

- Cost of compliance increased by 50% in percentage point and tripled in ringgit terms in 2020 against 1990's, mainly due to new requirements such as development charges, statutory contributions, increased requirements in terms of percentage of affordable housing composition, bumiputera quota and discounts, surrender of land for public facilities, infrastructure and utilities, parking requirement as well as overall increase in costs of land, construction and other relevant costs.
- Profit is reduced from around 31% to 20%. Further increases in compliance may wipe up profits and render project not feasible to be undertaken.

ARTICLE 3: PROFITS OF PROPERTY FIRMS

Analysis on the profit numbers

The Return on Capital Employed (ROCE) measures a company's profitability and the efficiency with which its capital is used. This financial ratio simply measures how well a company is generating profits from its capital. As ROCE measures profitability in relation to invested capital, it is important for capital-intensive companies or firms which require large upfront investments to start producing goods. Telecommunication firms and companies in the energy industries traditionally top the list for capital-intensive companies, followed by transportation and logistics, which also include the auto manufacturers. Other capital-intensive industries include healthcare, construction and hospitality as well as property, to name a few.

The ROCE for companies in the property industry in Malaysia were studied for a timeline of 2008 until 2018 as per Table 4(i). All of the studied companies are the ones with a market capitalization size of above RM1 billion. Generally, the property companies historically recorded an annual single-digit ROCE throughout the timeline of the study, except for these three companies: (1) UOA Development Berhad; (2) Mah Sing Group Berhad; and (3) Matrix Concept Holdings Berhad. They registered an annual historical ROCE of mostly high double-digit figures that range up to 45%.

Table 4(i): Return on Capital Employed (ROCE) for Property Companies, 2008-2018

Company	Market Cap (RM mil)	Return on Capital Employed (ROCE) (%)										
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
IOI Properties Group Bhd	6,112	NA	NA	NA	NA	NA	10%	8%	6%	6%	6%	4%
S P Setia Bhd	5,781	10%	7%	10%	9%	9%	7%	7%	12%	9%	7%	5%
Sime Darby Property Bhd	5,135	NA	NA	NA	NA	NA	NA	NA	NA	NA	4%	2%
UOA Development Bhd	4,011	NA	NA	45%	25%	19%	22%	15%	19%	23%	14%	11%
Malaysian Resources Corporation Bhd	3,419	1%	3%	4%	4%	10%	1%	8%	11%	11%	5%	3%
UEM Sunrise Bhd	3,403	3%	4%	5%	5%	6%	7%	5%	3%	2%	2%	4%
OSK Holdings Bhd	1,984	3%	6%	4%	4%	41%	7%	7%	9%	5%	9%	7%
Eco World Development Group Bhd	1,929	0%	-1%	0%	0%	3%	8%	3%	2%	4%	6%	4%
IGB Bhd	1,887	0%	0%	0%	-2%	-1%	7%	10%	7%	8%	7%	8%
Mah Sing Group Bhd	1,881	17%	14%	13%	11%	14%	12%	12%	10%	10%	9%	7%
Matrix Concepts Holdings Bhd	1,580	NA	NA	NA	NA	40%	36%	35%	NA	34%	21%	21%
YNH Property Bhd	1,363	17%	10%	10%	9%	8%	7%	9%	4%	8%	9%	7%
TA Global Bhd	1,277	NA	8%	3%	4%	4%	4%	5%	1%	2%	5%	7%
Tropicana Corporation Bhd	1,208	8%	7%	4%	5%	6%	11%	8%	5%	2%	5%	6%
Eastern & Oriental Bhd	1,010	13%	0%	6%	4%	10%	9%	9%	9%	2%	5%	7%
AVERAGE ROCE (%)		**7%**	**5%**	**9%**	**7%**	**13%**	**11%**	**10%**	**8%**	**9%**	**8%**	**7%**

Note: Market capitalization size as at 6th November 2019

Source:RI's calculations based on Company Annual Reports (various years)

On the other hand, the average ROCE across industries is based on the annual average for the ROCE of all the companies within that particular industry as compared to the other industries. By referring to Table 4(ii), a few industries had recorded double-digit industry average ROCE for every year namely: (1) Transportation & Logistics, (2) Telecommunications & Media, (3) Healthcare and (4) Technology for the same timeline. In addition, the other industries had the same double-digit numbers for most of the years throughout the timeline of study.

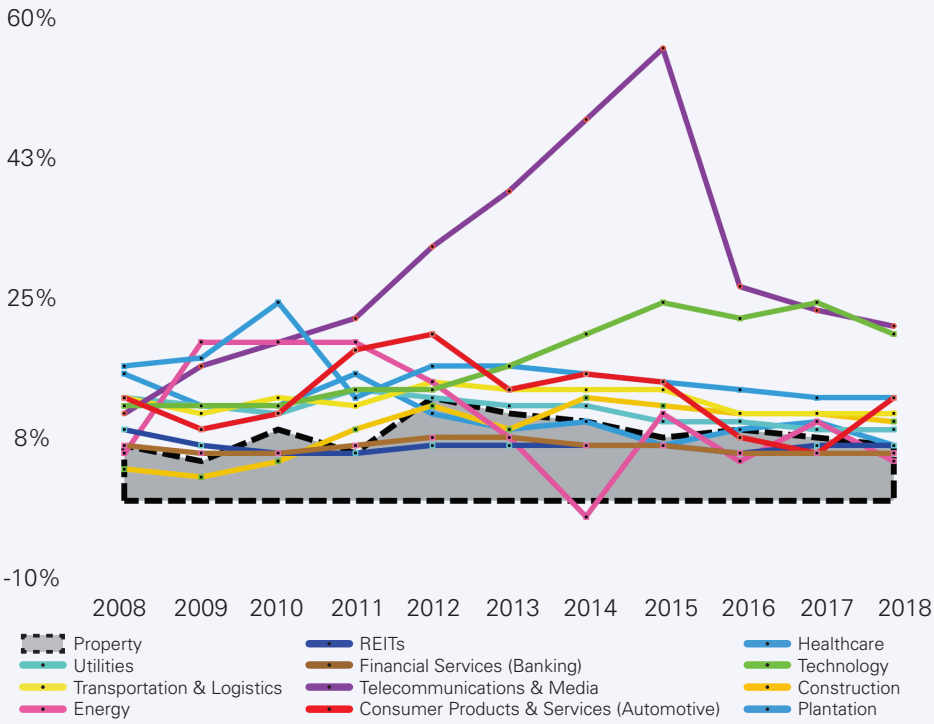
Table 4(ii): Average Return on Capital Employed (ROCE) Across Industries, 2008-2018

Year	Planta-tion	Utilities	Con-struc-tion	Transpor-tation & Logistics	Telecom-munica-tions & Media	Energy	Health-care	REITs	Tech-nology	Prop-erty	Consumer Products & Services (Automo-tive)	Financial Services (Banking)
'08	16%	13%	4%	13%	11%	6%	17%	9%	12%	7%	13%	7%
'09	12%	12%	3%	11%	17%	20%	18%	7%	12%	5%	9%	6%
'10	12%	11%	5%	13%	20%	20%	25%	6%	12%	9%	11%	6%
'11	16%	14%	9%	12%	23%	20%	13%	6%	14%	6%	19%	7%
'12	11%	13%	12%	15%	32%	15%	17%	7%	14%	13%	21%	8%
'13	9%	12%	9%	14%	39%	8%	17%	7%	17%	11%	14%	8%
'14	10%	12%	13%	14%	48%	-2%	16%	7%	21%	10%	16%	7%
'15	7%	10%	12%	14%	57%	11%	15%	7%	25%	8%	15%	7%
'16	9%	10%	11%	11%	27%	5%	14%	6%	23%	9%	8%	6%
'17	10%	9%	11%	11%	24%	10%	13%	7%	25%	8%	6%	6%
'18	7%	9%	10%	11%	22%	5%	13%	7%	21%	7%	13%	6%

Source:RI's calculations based on Company Annual Reports (various years)

The industry average ROCE for property sector had always been in the single-digit territory except for a period of three years from 2012 until 2014, of which, the high annual ROCE for UOA Development Berhad, Mah Sing Group Berhad and Matrix Concepts Berhad had pushed the average ROCE to double-digit territory for that three-year period consecutively.

Figure 4(i): Average Return on Capital Employed (ROCE) Across Industries, 2008-2018

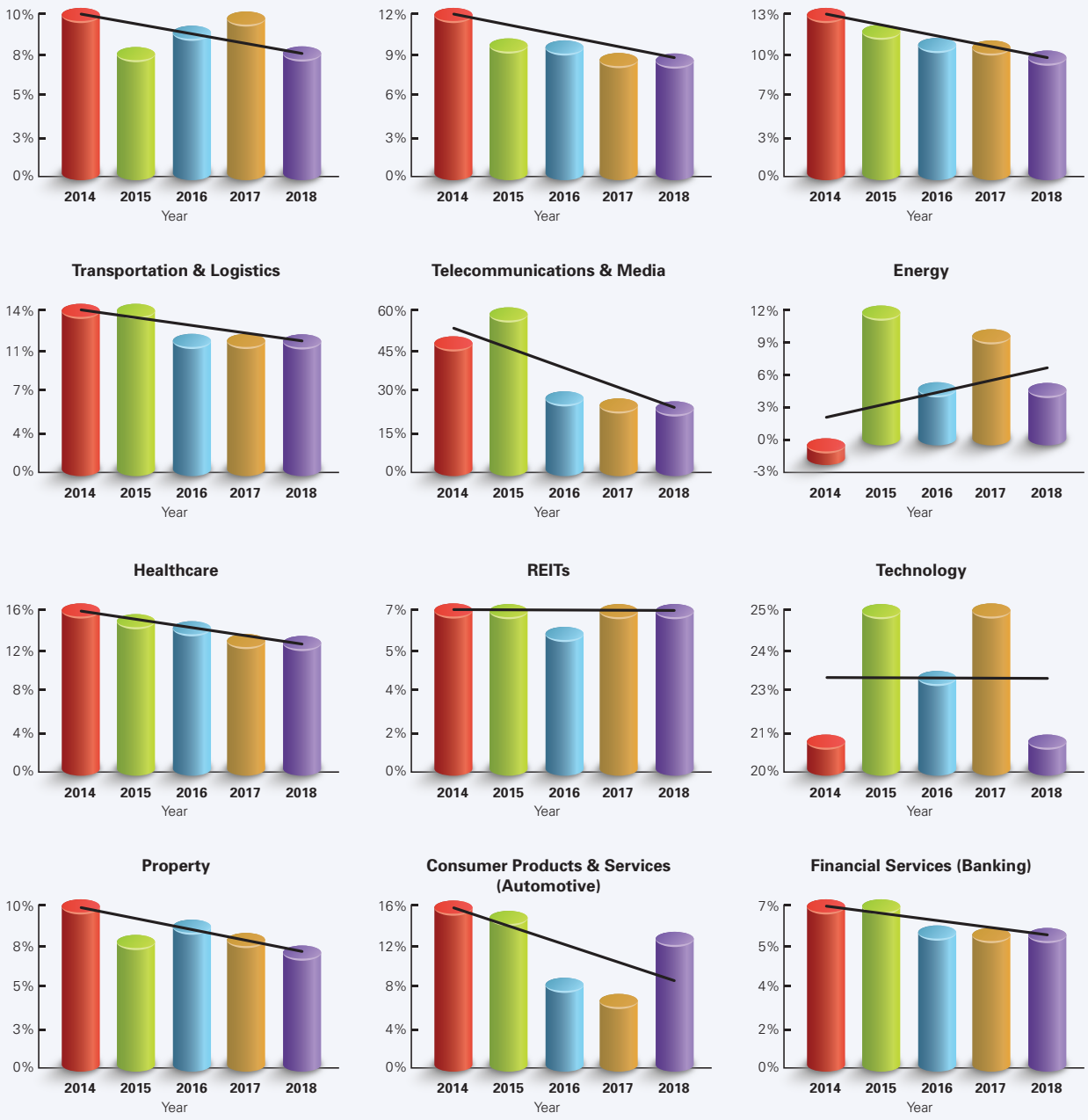


Source: RI's calculations based on Table 4(ii)

Both of the Financial Services (Banking) industry and Real Estate Investment Trust (REITs) industry recorded average ROCE of single-digit numbers annually. Based on Figure 4(i), both of these industries' average ROCE had been mostly below the property industry average ROCE line throughout the timeline. Contrastingly, other industries have been mostly above the property industry average ROCE line, indicating that the average ROCE for them were mostly higher than property industry.

Overall, the average ROCE for all of the industries including property industry had experienced a declining trend for average ROCE over the timeline based on Figure 4(ii), especially from the recent previous years i.e. 2014 until 2018. As ROCE determines the profitability, a lower number may indicate weaker operating profit for instance and resulting in lower industry average ROCE as a whole. However, REITs industry has been showing an increasing trend while technology industry was relatively stable over the recent previous years.

Figure 4(ii): Declining Average Return on Capital Employed (ROCE) Across Industries, 2014, 2018



Source: RI's calculations based on Table 2

In conclusion, the property industry has been among the few industries which historically recorded lower profitability with single-digit average ROCE as shown in Figure 4(i). The higher double-digit average ROCE as other industries had achieved indicates that more profits were generated for each capital employed for these industries.

On another note, it can be generally summarised that all industries including property industry experienced the same declining average ROCE from 2014 onwards as per Figure 4(ii). This declining trend had brought downward the already-low property industry average ROCE over the years. This declining trend indicates that the property sector is experiencing dwindling profits. As such, in order to improve profitability, the property companies can look into areas such as reducing costs, increasing turnover, increasing productivity and increasing efficiency.

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ARTICLE 4: REDUCED COMPLIANCE TOWARDS LOWER CONSTRUCTION COSTS - CASE STUDIES OF DEVELOPMENT COSTS OF AFFORDABLE APARTMENTS

A. PARAMETERS OF DEVELOPMENT SPECIFICATIONS FOR COMPARISON (WHEREVER POSSIBLE):

I. High rise affordable residential - around 800 to 900 sq ft
II. Medium / High density
III. Around 10 acres ie Gross Floor Area of 720,000 sf

Case Study 1

i. State : Selangor (Rumah Selangorku)
ii. Floor area : 850 sq ft
iii. Density : 61 units per acre
iv. Development size : 3.95 acres

	Items	Industry's Costing	Remarks / Assumptions
A	IBS	RM136	Using IBS panel and slab cast insitu
B	Non IBS Items		Includes carpark
	A+B = Building Costs	**RM136**	
C	Other Costs - Earthwork - Substructures (Piling, Pile Cap, Ground Beams) - Other Ancillary buildings (common facilities eg Surau, dewan etc) - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Preliminaries & other costs (application fees etc)	RM98	
	A+B+C = Total Construction Costs	**RM234**	
D	- Land costs - Conversion premium - Development Charges	RM14	
	A+B+C+D = Gross Development Costs	**RM248**	
E	Developer Profit Margin (PBT)	(RM48)	Loss of RM40,800 per unit
	A+B+C+D+E = Selling Price psf	**RM200**	**Government Controlled Price**
	Selling Price per house	**RM170,000**	**Government Controlled Price**

Case Study 2

i. State : Penang (Island - Private CSR Affordable Housing Project)
ii. Floor area : 900 sq ft
iii. No of Units : 1,343 units
iv. Development size : 6.74 acres

	Items	Industry's Costing	Remarks / Assumptions
A	IBS	RM212	Includes Basement carpark
B	Non IBS Items		Apartment with swimming pool, gym, multi purpose hall, rooftop garden
	A+B = Building Costs	**RM212**	**267,311,549**
C	Other Costs - Earthwork - Substructures (Piling, Pile Cap, Ground Beams) - Other Ancillary buildings (common facilities eg Surau, dewan etc) - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Preliminaries & other costs (application fees etc)	RM66	
	A+B+C = Total Construction Costs	**RM278**	
D	- Land costs - Conversion premium - Development Charges	RM24	30,292,767
	A+B+C+D = Gross Development Costs	**RM302**	
E	Developer Profit Margin (PBT)	RM28	8.5% of GDV
	A+B+C+D+E = Selling Price psf (GDV)	**RM330**	
	Selling Price per house	**RM300,000**	

Case Study 3

i. State : Wilayah Persekutuan Kuala Lumpur (RUMAWIP)
ii. Floor area : 810 sq ft
iii. Density : 213 units per acre - High rise high density
iv. Development size : 4.21 acres (725,760 sq ft nett sellable area)

	Items	Industry's Costing	Remarks / Assumptions
A	IBS	RM61	RC frame, Cast in situ with aluminium framework, jack in piles
B	Non IBS Items	RM75	Includes carpark, substructure etc
	A+B = Building Costs	**RM136**	
C	Other Costs - Foundation, carpark 1:1+10% - Common facilities including swimming pool, musolla, multipurpose hall, nursery, shops - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Other costs (Finance charges, marketing, project operations etc.)	RM68 RM5 RM22	Exclude Infrastructure Costs Outside Lot Boundary, approximately RM27 psf
	A+B+C = Total Construction Costs	**RM231**	
D	- Land costs - Conversion premium - Development Charges	RM73	
	A+B+C+D = Gross Development Costs	**RM304**	
E	Developer Profit Margin (PBT)	RM46	15%
	A+B+C+D+E = Selling Price psf	**RM350**	
	Selling Price per house	**RM283,500**	

Case Study 4

i. State : Wilayah Persekutuan Kuala Lumpur (RUMAWIP) includes low cost
ii. Floor area : 800 sq ft (average)
iii. Density : 145 units per acre (average)
iv. Development size : 2.08 acres (104,787 sq ft nett sellable area)

	Items	Industry's Costing	Remarks / Assumptions
A	IBS	RM115	
B	Non IBS Items		
	A+B = Building Costs	**RM115**	
C	Other Costs - Foundation, carpark 1:1+10% - Common facilities including swimming pool, musolla, multipurpose hall, nursery, shops - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Other costs (Finance charges, marketing, project operations etc.)	RM63 RM4	
	A+B+C = Total Construction Costs	**RM182**	
D	- Land costs - Conversion premium - Development Charges	RM55	
	A+B+C+D = Gross Development Costs	**RM237**	
E	Developer Profit Margin (PBT)	RM35	15%
	A+B+C+D+E = Selling Price psf	**RM272**	
	Selling Price per house	**RM217,600**	

Case Study 5

i. State : Selangor (Rumah Selangorku)
ii. Floor area : 939 sq ft
iii. Density : 40 units per acre (average)
iv. Development size :16.88 acres

	Items	Industry's Costing	Remarks / Assumptions
A	IBS	RM113	Building works
B	Non IBS Items	RM8	Lift services Roofing and ceiling works
	A+B = Building Costs	**RM121**	
C	Other Costs - Foundation, carpark 1:1+10% - Common facilities including swimming pool, musolla, multipurpose hall, nursery, shops - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Other costs (Finance charges, marketing, project operations etc.)	RM67	
	A+B+C = Total Construction Costs	**RM188**	
D	- Land costs - Conversion premium - Development Charges	RM26	
	A+B+C+D = Gross Development Costs	**RM214**	
E	Developer Profit Margin (PBT)	RM34	14%
	A+B+C+D+E = Selling Price psf	**RM248**	
	Selling Price per house	**RM244,000**	

Case Study 6

Case Study 6 is also a Rumah Selangorku development with extensive use of IBS, as reflected in reduced Building Costs of A+B at only RM95 psf. Assuming statutory contribution and land costs are reduced to 0 as in the case of CS 1, 2, 3, 4 & 5, totalling RM 35 (RM5 statutory contribution and RM30 land costs reduction), Gross Development Costs (A+B+C+D) will further reduce to RM125 psf. Assuming a profit margin of 10% of GDV, the selling price can be as low as RM139,000. Whilst this is an actual project being developed in Selangor, it is not a typical industry norm and cannot be accounted as typical development costs in typical affordable housing development. The cost structure will have to be further examined in detail to assess its applicability to the industry at large.

However, assuming the construction technology and costs adopted by Case Study 4 can be applied industry wide at no additional financial impact to the industry, and together with potential reduction as a result of savings from use of public / state land and reduced statutory contributions, there is a huge window of opportunities for cost improvement for affordable housing development in the future, provided no added compliance that will drive costs up is further imposed.

i. State : Selangor (Rumah Selangorku)
ii. Floor area : 900 - 1,000 sq ft
iii. Density : 76.6 units per acre
iv. Development size : 7.33 acres

	Items	Industry's Costing	Remarks / Assumptions	Reduced Costing
A	IBS	RM31	Precast concrete slabs, wall panels, prefab bathroom units / toilet pod	
B	Non IBS Items	RM64	Includes carpark, substructure etc	
	A+B = Building Costs	**RM95**		**RM95**
C	Other Costs - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Preliminaries, local infrastructure - Other costs (Financing, Marketing, Project Admin, Application fees etc)	RM35	Not disclosed. Estimated based on other projects' details	RM30
	A+B+C = Total Construction Costs	**RM130**		**RM125**
D	- Land costs - Conversion premium - Development Charges	RM30	Not disclosed. Assumption at 15% of GDV and based on other projects' details	0
	A+B+C+D = Gross Development Costs	**RM160**		**RM125**
E	Developer Profit Margin (PBT)	20%	Not disclosed. Assumptions based available information provided	RM14 (10%)
	A+B+C+D+E = Selling Price psf	**RM200**		**RM139**
	Selling Price per house	**RM200,000**	Government Controlled Price	**RM139,000**

Analysis

Based on the above case studies, the following are observed:-

(i) Subject to location of project which is a determinant factor of land costs, **the minimum cost per unit for the industry to develop a 800-900 sq ft private affordable housing apartment unit is around RM237 to RM304 per sq ft on a break even basis**, namely not inclusive of any profit margin.

(ii) **Building cost for most projects are around RM136 and above per sq ft** except for Case Study 4 which includes low cost units and Case Study 5, which uses IBS extensively.

(iii) In cases where Government controlled prices are lower than development costs, **losses are absorbed by the development through a cross subsidy element, thus making a stand alone all affordable units development not feasible for the private sector**.

(iv) **Land costs per sq ft / per unit can be reduced if affordable housing is undertaken on government land**. For example, in Case Study 1, if land costs equal zero, Gross Development Costs may reduce to RM 234 per sq ft (RM234 + RM0 = RM234), thus lowering losses incurred from the said development to RM28,900 per unit instead of RM40,800 per unit. In Case Study 3, where land cost is higher, savings from land cost is greater at RM73 per sq ft, and in addition there is also saving from interests on land, should the land be purchased via financing facilities.

(v) **Land costs per sq ft / per unit will also reduce should the development be given higher density / plot ratio**. Assuming Case Study 1 is given a density of 120 units per acre instead, the land costs per unit would have reduced significantly by about 50% per sq ft / per unit basis, thus reducing overall development costs.

(vi) **Controlled pricing could lead to a loss as such loss will have to be cross subsidised by other open market segments of the development** (if it is not an affordable units only type of development), thus pushing prices of other units higher.

E.g. in Case Study 1, the losses of RM40,800 per unit will be funded by other housing segments (non price controlled units), within the the same development, if any, or within other phases / developments or absorbed accordingly by the developer

(vii) As revealed in earlier part of the report, capital contribution to utility service providers account to 1.5% to 2% of GDV. If price per sq ft is RM330 as in the case of Case Study 2, such contribution accounts to RM5-RM7 ps.f. It is noted that in Case Study 3, similar number, namely RM5 psf is recorded as statutory contribution. In addition, other utilities infrastructure imposed on the development also add to costs at additional 1.5% to 2% of GDV. **Any reduction in capital contribution / statutory contribution will help ease cost pressures**.

(viii) Respondents also indicate that whilst use of **BIM will result in faster approval, the impact on GDV may be minimal**. For example, saving of timeline by 3 months over 48 months construction period translates to 6.25%, or 0.3% reduction as a result of savings in administration/operations expenses. Correspondingly, Certificate of Completion and Compliance (CCC) must be speedily issued, otherwise time saving obtained would go to waste as vacant possession cannot be delivered.

B. REDUCTION OF COMPLIANCE AND EFFECT ON COSTS OF AFFORDABLE HOUSING DEVELOPMENT - A SIMULATION

The following Table summarises a simulation of reduced development costs, which as a result, lead to reduced pricing based on Case Studies 1, 2 & 3 on the following assumptions:

1. Affordable housing apartment on Government land at zero cost, or
2. Increased density
3. Reduced car park requirement from 1:2+20% to 1:1+20%. Car park costs at 4%-6% of GDV (basement)
4. Eliminated statutory contribution costs / capital contribution charges at 1.5% to 2% of GDV
5. No government controlled pricing - eliminated cross subsidies by other non controlled units. Housing price is based on cost recovery plus small margin
6. Higher speed to market, no holding costs on getting approvals
7. Profit margin is at 10% of GDV (on the assumption that land is at zero cost and reduced approval timelines eliminating holding costs on approval)
8. Case Study 1 is not price controlled - for ease of comparison
9. Other costs remain static - no increased costs or new compliance imposed throughout development period

		Case Study (CS) 1		Case Study (CS) 2		Case Study (CS) 3		
	Items ** IC - Industry Costing* ** RC - Reduced Costing*	**IC**	**RC**	**IC**	**RC**	**IC**	**RC**	**Remarks / Assumptions**
A	IBS							Reduced carpark requirement by 50% to 1:1+20% (basement car park at 4% - 6% of GDV) i.e. RM13 - RM18 psf CS3 : Carpark 1:1+10% existing
B	Non IBS Items	RM136	RM123	RM212	RM194	RM136	RM136	
	A+B = Building Costs	**RM136**	**RM123**	**RM212**	**RM194**	**RM136**	**RM136**	
C	Other Costs - Earthwork - Substructures (Piling, Pile Cap, Ground Beams) - Other Ancillary buildings (common facilities eg Surau, dewan etc) - Statutory Contribution (IWK, water TNB, ISF etc) - Road, sanitary, plumbing, TNB infrastructure - Preliminaries & other costs (application fees etc)	RM98	RM93	RM66	RM60	RM95	RM90	• Reduced due to elimination of capital contribution (statutory contribution) at RM4 to RM6 psf • 1.5% to 2% of GDV

		Case Study (CS) 1		Case Study (CS) 2		Case Study (CS) 3		
	Items ** IC - Industry Costing* ** RC - Reduced Costing*	**IC**	**RC**	**IC**	**RC**	**IC**	**RC**	**Remarks / Assumptions**
	A+B+C = Total Construction Costs	**RM234**	**RM216**	**RM278**	**RM254**	**RM231**	**RM226**	Reduced by RM18 - RM24 psf
D	- Land costs - Conversion premium - Development Charges	RM14	RM0	RM24	RM0	RM73	RM0	• Reduced due to higher density / plot ratio to 120 units per acre or • Reduced as development is undertaken on Government land (RM0)
	A+B+C+D = Gross Development Costs (GDC)	**RM248**	**RM216**	**RM302**	**RM254**	**RM304**	**RM226**	• Reduction by RM30-RM32psf or 10%-13% of original costs in CS 1 & 2 • 25% for CS3
E	Developer Profit Margin (PBT)	RM27.5	RM24	RM28	RM25	RM46	RM25	• Assuming 10% of GDV • (Case Study 1 : originally loss) • Case Study 2 & 3 : originally 8.5% & 15% respectively)
	A+B+C+D+E = Selling Price psf	**RM275**	**RM240**	**RM330**	**RM282**	**RM350**	**RM251**	
	Selling Price per house (RM)	**234,000**	**204,000**	**300,000**	**254,000**	**283,500**	**203,000**	• Reduced Cost of Compliance • More sustainable pricing (13% - 15% lower) • Prices can be lower in location where land price is very high, approximately by 28% as in the case of CS3 • More feasible for private sector • No losses mean no cross subsidies required • More sustainable prices for other segments with elimination of cross subsidies

Results

- Reduced Cost of Compliance;
- More sustainable pricing (13% - 15% lower);
- Prices can be lower in location where land price is very high, approximately by 28% as in the case of CS3;
- More feasible for private sector as affordable housing is not developed at a loss ;
- No losses mean no cross subsidies required;
- Elimination of cross subsidies results in more sustainable prices for other housing segments; and
- Cost reduction is applicable only if no added compliance / requirements / other costs increases are imposed further throughout the construction period.

5

RECOMMENDATIONS

5.0 RECOMMENDATIONS

It is of critical importance that costs of doing business in property development be reduced to ensure a more sustainable housing market and maintain a reasonable entrepreneur's profit for project feasibility and allow capacity to reinvest. There is little room for costs reduction in land and construction costs without affecting location, size and construction quality of project, thus reduction in compliance costs is the way forward to reduce overall costs and make housing more affordable.

Towards this purpose, the following recommendations are put forth with the intent to reduce unproductive costs, minimise cross subsidies & optimise land efficiency, all of which contribute directly to enhanced affordability.

5.1 REDUCE UNPRODUCTIVE COSTS

Cost of compliance, particularly those that do not add value to the housing unit and its community should be reduced. The industry should move towards self regulation and digitalisation to eliminate element of delays, uncertainties, repetitive processes / steps, appeals and discretionary approvals that could breed corruption and/ or favouritism. Towards this end, the following measures are recommended:-

5.1.1 Transformation in Transparency, Speed of Approval and Streamlining of Processes

Approval process should be transparent, speedy, and with minimal discretionary authority. Housing developments should follow a transparent set of rules and requirements for all steps of approval process that provide certainty in terms of approval upon meeting requirements of the set rules and timing of such approval. An automatic approval process with permission-in-principle approach is also being introduced in country like the United Kingdom (UK) to ensure speedier approval of new homes. This will lead to reduced bureaucracy, better efficiency and better speed of approval.

1. As a short to medium term measure, the industry should move towards **full digital property development system incorporating pre-consultation, submission, approval and payment systems**. This will help reduce bureaucracy and face to face consultation. Proposed developments that vary or deviate from the rules / planning guidelines may submit an online pre-consultation application, for example, proposed development with density or height beyond approved control parameters, or proposed development that does not conform with intended Local Plan land uses. A reasonable timeline for comments and feedback must be given to applicants and adhered to by the authority to avoid unnecessary costly delays. Similarly, timeline of approval at OSC stage must also be adhered to so that applicants are aware of the total approval timeframe required for pre-consultation and approval application processes. In line with the use of a fully digital property development system, the industry and relevant authorities must promote transparency and integration of development information to enable access to supply and demand big data towards a more informed society and industry.

2. **Local plans to be expedited and gazetted to reduce approval timelines**.

3. On the medium to longer term, **the industry should move towards self regulation, namely via OSC 4.0**; where all submissions for planning permission and building plan approvals are submitted with self declaration by the principal submitting persons as having complied to all necessary requirements and be given conditional approval upon submission. The Authorities may conduct the necessary checks within a specified time frame and withhold conditional approval given should there be any compliance not adhered to. Processes should be further rationalised and simplified, especially in cases of smaller to medium sized developments. Proposed developments with planning permission for master layout should not be required to apply for planning approval yet again.

4. As development involves payment of deposits, charges and fees for different purposes at various stages of approval, payable in different methods, all **payments should be made to an online one stop payment centre** - where fees and charges for the whole development process are calculated up front and paid online at the designated times progressively. This will help streamline the different requirements for cheque payments, cash, credit card and online payments to the respective authorities. Such a move will provide better certainty and budgeting as all charges involved are already calculated upfront through the one stop payment centre facility. Such a move will also be part of the industry's transformation towards full digitalisation.

5.1.2 Cost Benefit Analyses for Proposed New Compliances

5. **Cost benefit analyses for all new compliances -** An analysis of impact on housing affordability / SWOT analysis should be a mandatory practice for the authorities prior to imposing new compliances. In line with this, there must be a review of existing legislation / guidelines that add to cost of compliance including those involving levies, charges, land related costs, cross subsidies, planning requirements and etcetera.

5.2 MINIMISE CROSS SUBSIDIES

Cross subsidies have been identified as forming the larger portion of costs of compliance. Such costs include affordable housing quota, Bumiputera housing quota and discounts, and to a certain extent, as discussed in Chapter 3 of this report; the capital contributions paid to the utilities service providers as well as the land and construction costs involved in provision of such utilities to the development.

5.2.1 Affordable Housing Should Be Undertaken by the Government

Land scarcity and price is a major issue in affordable housing development. Private sector affordable housing provision involves between 8% - 10% in cross subsidies as a percentage of GDV for land and construction of affordable quota units, which can be as high as 50% of total units in a development project. This pushes prices of open market units up by 10% to 20% depending on property type. It is a systemic problem inherited, where affordable housing quota is imposed on all developments above certain sizes when in all practicality, such housing cannot be developed in any location but must be fully supported with the right eco system with connectivity and facilities.

6. **Provision of affordable housing for M40 and B40 groups should be centralised and undertaken by the public sector** through targeted rental and ownership public housing programmes. A proper market study must be made a prerequisite for all affordable housing development requirements to ensure demand in specific locations and eliminate the risk of unsold unit as this segment is highly subsidised. Public affordable rental housing should be made a preference especially in highly urbanised areas where land is scarce and expensive. Rental housing will retain the land within the Government ownership and will allow more beneficiaries for each such highly subsidised units as opposed to outright sale to buyers. Public affordable housing schemes can be undertaken on government land, including waqf land. Use of economically sized waqf land in suitable locations must be explored. Such development may be funded through Islamic financing and dealings may involve rental or long lease options.

7. **The private sector may pay a contribution in lieu of 2% to 2.5% of GDV for a limited transition period** instead of physically building the affordable quota units. The contribution in lieu will help cushion the financial impact of such transition from the private to public sector and partly fund the public housing programmes. Such contribution should be be utilised towards rental/ownership affordable housing programmes for the B40 and phased out after 10 years.

8. **Developers voluntarily building housing units within the affordable categories shall be exempted from paying such contribution.** In addition they are to be incentivised with higher density / plot ratio to compensate for the loss of sellable land / gross floor areas for market driven products.

9. **For existing unsold affordable housing, measures should be taken to buy these units from private sector and be pooled as affordable housing stock for the eligible target groups**. The Government, through existing vehicles such as State Housing Board, SEDC can buy these units and hold them for eligible buyers without additional costs to the industry and other house buyers as is the case now.

5.2.2 Bumiputera Quota & Discounts Should Be Targeted at Certain Threshold

Bumiputera quota units generally form up to 50% of development content and attract cross subsidies of estimated 1%-2% of GDV for discounted prices and additional holding costs of 1% to 2% of GDV for unreleased unsold units for each year they are held. Whilst the intention to promote social engineering through such quota and discounts structure is noble, there are instances where such quota units remain unsold for extended time, causing invaluable resources to be unproductively locked up. It is timely that such quota and its release mechanism be reviewed in line with current market behaviour.

10. Towards this end, we recommend that whilst **discounts for Bumiputera buyers shall remain, quota for Bumiputera buyers shall be kept at a maximum of 30%**. For new private developments, developers will reserve 30% for of the units for Bumiputera buyers for 6 months upon launching. Any unit not taken up by Bumiputera after 6 months of launch may be sold to the open market automatically. This will facilitate purchase by interested Bumiputera without being punitive to developers and other buyers. A 30:70 ratio will enable the cross subsidies from the discounts (30% of total units) to be spread over more open market units (70% of total units); thus lowering cross subsidies element and prices of open market units. Malaysia has 69.3% Bumiputera population out of total citizen population as at 2019. Out of this, only 33% are in the 25 - 64 years old age group, assumed to be potential house buyers. Based on this percentage, a 30% quota should be the cap for any housing development in order not to create possible unsold stock.

Table 5.1: Bumiputera Population by Age Group 2019, Estimates

AGE GROUP	POPULATION (BUMIPUTERA)	PERCENTAGE
0 - 14	5,699.5	**32%**
15 - 24	3,771.3	
25 - 64	9,696.3	**33%**
65 and above	1,199.9	**4%**
TOTAL	**20,367.0**	**69%**
TOTAL POPULATION (CITIZENS ONLY)	**29,377.0**	

Source : DOSM

11. **Bumiputera discounts,** however, **should be capped at specific ceiling price** and not applicable for higher end properties or any price threshold targeted at the Top 20 income group based on locality (for eg Malaysia : Top 20 Median Income of RM13,000, Mean Income of RM16,000 per month, eligible to purchase houses costing RM800,000 and above).

12. **For existing unsold Bumiputera quota units**, measures should be taken by **Government to buy these units from private sector and be pooled as Bumiputera housing stock** for the eligible target groups. Towards this purpose, existing vehicles such as Permodalan Hartanah Berhad can extend its coverage to include residential property; buy these unsold Bumiputera units as a CSR on the part of the organisation and sell it to Bumiputera buyers.

5.2.3 Utility Service Providers should bear costs and not subsidised by buyers

13. Privatised utility service providers must be made to pay for their own upstream capital expenditure. The practice of housing project being imposed with capital contribution charges should be stopped as these service providers are no longer government agencies but profit making privatised companies. Costs of infrastructure provision should be recovered from tariffs as these utilities are considered essential services. Any payments towards provision of services should not be based on GDV / Selling price but should instead be based on actual cost or population equivalent in accordance to latest household sizes to reflect a fairer and just formula.

14. **Provision of infrastructure such as roads to be undertaken by the Government** at its own costs. This shall include road construction, upgrades, highway access and etcetera. New developments tapping into such infrastructure will pay per use accordingly in progress payments as construction stage advances.

5.3 OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY

Compliance costs limit and reduce net sellable land / net sellable floor areas. As a result, land costs per unit increase, hence increasing house prices. Low land efficiency is made worse with requirement for affordable housing where a portion is lost to provide for quota units and in most cases the cost of such land is cross subsidised due to low pricing of quota units. As land is getting more expensive and urban land getting more scarce, it is recommended that land use be optimised to help enhance affordability and project feasibility. This will also ensure a steady stream of supply of more affordable market driven units as costs of land per unit is brought down to a more manageable level.

5.3.1 Allow more housing units

15. **Land surrender for public facilities, open space, infrastructure and utilities** as well as storm water management **should be limited to a specified maximum percentage of total site area**. Towards this purpose, the planning requirements should be reviewed thoroughly for better land efficiency, in order to allow more housing units to be built on the project site.

16. Land surrender shall be required only on need basis instead of imposed across the board based on applicable matrix, for e.g. schools. In line with this review, it is also **timely to reassess the matrix for public facilities / infrastructure / detention pond** required where use of the latest technology can result in lesser land requirements for e.g. land for sewerage treatment plants or detention pond and etcetera.

17. **In cases where surrendered land is not developed with the original intended facility, such land shall be realienated to the original owner** and not to third parties.

18. Surrendered land results in loss of land, both financial value and in terms of allowable units to be built on such land. These can be significant in township developments. **Value of such loss of land land should be offset with payments** such as conversion premium, development charges and/ or compensated with additional density/ plot ratio. Projects imposed with land surrender and / or quota units **must also be incentivised with higher density / higher plot ratio** to compensate for the loss of opportunity to build market driven units. For example, for each acre of loss of use of sellable areas, additional density equivalent to the loss of land being surrendered shall be given to the project.

19. **To apply the use of plot ratio instead of density**. The use of plot ratio may result in similar gross floor area but will allow better flexibility in terms of sizes; offering buyers more choices at more affordable prices (Table 5.2a). A higher plot ratio will give higher gross floor area and higher GDV of the development thus lowering increased cost per unit. (Table 5.2b). The probable challenge of inadequate infrastructure due to additional population resulting from the use of plot ratio must be addressed separately as urbanisation is the way forward for housing. Transformation of urban infrastructure must be undertaken to allow more people to live in urban areas at lower housing costs.

    Restrictive planning controls will not ease costs of supplying housing units in the longer term, especially in city centres where demand is most crucial. Pressure on land costs per unit will only drive prices up unnecessarily as this can be mitigated by allowing more units through use of higher plot ratio.

Table 5.2a: Illustration of Density vs Plot Ratio - Flexibility in Size

	Density	Plot Ratio
Land Size	3 acres or 130,680 sq ft	
Controls	100 units per acre	Say 1:2.8
Total Units/Total Gross Floor Area	300 units or 360,000 sq ft	366,000 sq ft
Average Unit size	1200 sq ft	1000 sq ft (500 sq ft - 1,500 sq ft)
Total Units allowable	300 units	Average of 366 units (lesser if unit sizes increase, more if unit sizes decrease)
Unit sizes	Developers tend to stick to optimum unit size as total number of units is restricted to 300 units only	Number of units is flexible, subject to the maximum floor area. Developers have the flexibility of building mixture of smaller, average and bigger sized units
Gross Development Value (GDV)	RM183 mil	RM183 mil (or higher depending on % of each unit type)
Prices	Say @ RM500 psf = RM600,000	Average RM500,000 per unit RM275,000 to RM750,000 per unit Say @ RM500 psf, prices can range between RM275,000 (say 550 sq ft)* to RM750,000 (say 1,500 sq ft) to cater to different space requirements and budget
** Smaller sized residential units should be allowed to cater for small sized households (young families, singles, retirees etc)*		

Source : RI Calculations

Table 5.2b: Illustration of Density vs Plot Ratio - Higher Plot Ratio = Higher GDV

	Density	Plot Ratio
Land Size	3 acres or 130,680 sq ft	
Controls	100 units per acre	Say 1:4
Total Units/Total Gross Floor Area	300 units or 360,000 sq ft	522,720 sq ft
Average Unit size	1200 sq ft	1000 sq ft (500 sq ft - 1,500 sq ft)
Total Units allowable	300 units	Average of 522 units (lesser if unit sizes increase, more if unit sizes decrease)
Unit sizes	Developers tend to stick to optimum unit size as total number of units is restricted to 300 units only	Number of units is flexible, subject to the maximum floor area. Developers have the flexibility of building mixture of smaller, average and bigger sized units
Gross Development Value	RM183 mil	RM261 mil
Prices	Say @ RM500 psf = RM600,000	Average RM500,000 per unit RM275,000 to RM750,000 per unit Say @ RM500 psf, prices can range between RM275,000 (say 550 sq ft)* to RM750,000 (say 1,500 sq ft) to cater to different space requirements and budget
** Smaller sized residential units should be allowed to cater for small sized households (young families, singles, retirees etc)*		

Source : RI Calculations

20. **Higher plot ratio for Transit Oriented Developments (TOD)** to allow more residents to benefit from the existing transit infrastructure and maintain TOD units at more affordable price levels. TODs must also be given maximum exemptions in terms of parking requirement and open space requirement due to high accessibility via public transportation. Whilst some local authorities grant parking exemptions up to 50%, such exemption should be further enhanced to help keep costs of TOD housing units as low as possible by reducing car park requirement to as high as 100% exemption instead.

21. **Specifications of housing units i.e. minimum size must be made more flexible** to cater for various housing needs and to make such units more affordable - smaller units for first time buyers, young couples, small families, retirees as their needs for space may differ from bigger households. Such flexibility will allow for innovative designs and concepts which can help make smaller units liveable - creative space planning and interior, adjoining units for extended families.

5.4 IMPACT OF RECOMMENDATIONS

THRUST 1: REDUCE UNPRODUCTIVE COSTS

1. A more efficient property development approval system with transparent set of rules and timeline, utilising digital platform to minimise face to face consultations, a centralised payment system with online payment methods.
2. Transformation towards self regulation in planning permission and building plan approvals.
3. A more sustainable costs increase, resulting in slower rate of price escalation.
4. A halt to increased imposition of new compliance. Such compliance, if any at all, must have gone through proper impact analysis.

THRUST 2: MINIMISE CROSS SUBSIDIES

5. A shift in affordable housing provision from private to public sector.
6. A more mutually beneficial Bumiputera housing policy where Bumiputera buyers are given ample opportunity to secure a unit, and in the absence of such demand, developers are not held up with holding costs from unsold units.
7. A more targeted Bumiputera discount.
8. A revised business model for utilities service providers in terms of funding for their upstream costs without affecting house buyers.

THRUST 3: OPTIMISE LAND / GROSS FLOOR AREA EFFICIENCY

9. A thoroughly reviewed planning requirements in terms of land surrender and matrix for public facilities on need basis.
10. Transformation of planning controls from density to plot ratio without compromising basic infrastructure.
11. Higher density / higher gross floor areas for developments with land surrender and/or quota imposition to facilitate such requirements without punishing developers and other buyers.
12. Higher density and lesser parking requirements within TOD areas.
13. Flexibility of smaller sized units without compromising space quality and functionality.
14. A more financially feasible project, thus enabling developers to reinvest in future projects and continue to bring in more housing supply to the market.

5.5 CONCLUSION

Regulatory framework should be facilitative towards housing development and not prescriptive in nature. The mind set in lumping compliance costs on a housing development is no longer applicable and cannot be practised in today's context as the more costs added on, the more expensive houses will be for buyers in the longer run, hence eroding affordability further. This is specially so in urban areas where land are scarce and prices are high.

Private housing development is a business venture by an entrepreneur and cannot continually be used as the funder for Government's social housing policies, utilities service and public facilities provision, or as the source of income for state and local governments through imposition of various compliances. Compliance costs should be restricted to services rendered (fees and charges) and value added factors to the housing development with a caveat that both shall be on need basis and not excessively imposed. Increased compliance results in higher compliance costs as a percentage of Gross Development Value over time, thus the balance between the inequitable higher house prices and diminishing developer's profit margins over the years.

Reduction of overall costs of doing business in property development will help lower housing costs and sustain prices at a more affordable level. Conscious efforts must be made towards a structural reform to effectively lower costs to ensure more sustainable house prices in the future and such efforts shall include:-

(i) Minimising approval timelines through self regulation via consultants
Automatic approvals in principle based on preset requirements / compliance of guidelines will improve speed to market, minimise delays and holding costs as well as eliminate elements of corruption. This should apply at all levels of approvals, including planning and release of unsold Bumiputera quota units to the market.

(ii) Removal of cross subsidies
Cross subsidies create market distortion and are not sustainable for the industry. Notwithstanding the intent / motivation of such cross subsidies, they will result in added costs and higher house prices for the masses and onerous on the industry as supply and demand dictate market prices. Removal of cross subsidies will ease the pressure on costs and prices and results in fairer prices for the buyers of market driven housing segments.

(iii) Government must be responsible for social public housing
The role of social public housing provision must be reverted to the Government. This will allow the private sector to focus on market driven products, including market driven affordable housing for the general *rakyat*. As land is an expensive and limited resource, particularly in urban areas where social public housing is in greater demand, provision of social public housing on Government land is the most efficient way forward.

(iv) Setting off value of surrendered land with other payable charges
In the context of township development, a large percentage of development land, estimated at around 60%, is surrendered to the government for public facilities, open spaces and infrastructure provision. This involves huge amount of money in terms of land value. Such land surrender results in lower supply as net sellable area is reduced to 40%, thus increasing land cost per housing unit. In order to mitigate such loss of land and increased costs, value of such surrendered land is to be set off against other charges payable to the state / local government including conversion premium, development charges, improvement service fund, capital contributions, fees and etcetera.

(v) Application of plot ratio in planning controls
Plot ratio should be the way to go moving forward to ensure a more efficient land use of urban land and at the same time provides the flexibility in terms of sizes and designs to suit market demand.

(vi) Any new introduction of compliance shall be studied and analysed in detail to ensure minimal impact on costs and this shall be undertaken in consultation with industry players.

The above measures must also be complemented with data transparency which are current and timely, well coordinated and most importantly accessible to the industry to facilitate a more informed decision making and market assessment by the industry.

The myth that developers continue making huge profits from housing development has been proven to be delusive, as profit margins remain at similar to, if not lower, than that of other industries'. Profit margins of property development business have been diminishing over time, reducing the capacity of developers to reinvest in new land bank. High initial investments, market and construction risks, speed to market, uncertainties in approvals have all added to the risks factors in housing development, requiring a certain minimum level of return on investment to be feasible. Greater cost efficiency will mitigate risk factors and enhance feasibility of housing development projects, allowing developers to continue to reinvest in land banking and more housing supply for the nation.

In the medium to longer term, the beneficiaries of reduced costs and efficient housing delivery system will be the future house buyers and the country in general. Sustainable house prices is the way forward and towards this direction, the recommended structural reform on cost of doing business and compliance costs must begin immediately.

GLOSSARY

Affordable Housing	Housing which is adequate in quality and location, and is not so costly that it prevents its occupants from meeting other basic living needs
Bumiputera Quota	A certain percentage of total housing units built reserved for Bumiputera buyers
Contribution in Lieu	A payment made to the Government for a limited transition period instead of physically building the affordable quota units
Capital Contribution Charges	The payments made to utility service provide for the provision of electricity, water, sewerage and telecommunication services to the projects
Compliance Cost	The expenditure of money and time in conforming with government policies, legislation and regulation
Cross Subsidy	Subsidies funded by the open market units, which are priced to bridge the gaps between ceiling prices and actual costs of developing the affordable units, in order to ensure that the whole project is financially feasible
Conversion Premium	The amount to be paid to the Authority for conversion of land
Density	Populations number of units allowed in a given land area (project area, subdivision, parcel)
Development Charges	Levies for changes in land use, density or floor area in a development
Disposable Income	Total household gross income after deducting current transfers paid such as direct taxes, contributions to other households, zakat and other current transfers paid
Gross Development Value	Estimated value that new complete development would fetch on the open market if it were to be sold in the current economic climate
Gross Floor Area	The total floor area that is measured in square feet or meters of all floors in the building
Holding Cost	Outgoings and expenses incurred by the developers pending sale of the property to the buyers
Household Income	Total incomes received (accrued) by members of households, both in cash or in kinds which occur repeatedly within the reference period (within a year, or more frequently)
Median Income	Middle value when income is arranged ascendingly from the lowest value to the highest value
Operating Surplus	Measures the surplus or deficit accruing from processes of production before deducting any explicit or implicit interest charges, rent or other property income payable on the financial assets, land or other natural resources required to carry on the production. By definition, operating surplus can only be earned by industries
Overhang	Completed property units with Certificate of Completion and Compliance / Temporary Certificate of Fitness for Occupation which remain unsold for more than nine months after being in the market
Plot Ratio	A ratio representing the density of building in a specified area of land
Profit Margin	The percentage of the financial benefit that is realized as the amount of revenue exceeds the expenses of the development costs, other expenses, depreciation, interest, and taxes
Return on Capital Employed	A measures of company's profitability and the efficiency with which its capital is used
Utility Cost	Payment made by developers in the form of upfront fees and charges imposed by utility providers for the provision of water, sewerage, electricity and telecommunication services

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