

24 July 2020
Project Number: 1000792

Michael Beekhuyzen
Redland City Council
Corner of Middle and Bloomfield Streets
Cleveland QLD 4163

Dear Mr Beekhuyzen,

RE: Medium Density Residential Zone Code Review – Development Feasibility Assessment

Thank you for your request to undertake a development feasibility assessment to assist in the review of the Medium Density Residential zone code of the Redland City Plan.

Introduction

CDM Smith have assessed the development feasibility of eight multiple dwelling development scenarios on four sites under a revised draft Medium Density Residential zone code. The scenarios assessed are as follows:

- **Scenario 1a:** 3 storey apartment on 819m² Medium Density Residential zoned lot;
- **Scenario 1b:** 3 storey apartment development on 819m² Medium Density Residential zoned lot, comprising ground floor car parking and two levels of one, two and three bedroom apartments;
- **Scenario 1c:** 3 storey apartment development on 819m² Medium Density Residential zoned lot, comprising ground floor car parking and two levels of one and two bedroom apartments;
- **Scenario 2a:** 3 storey apartment on amalgamated 1,012m² Medium Density Residential zoned lot;
- **Scenario 2b:** 4 storey apartment on amalgamated 1,012m² Medium Density Residential zoned lot;
- **Scenario 3:** Townhouse development on 809m² Medium Density Residential zoned lot;
- **Scenario 4a:** Townhouse on 1,639m² Medium Density Residential zoned lot with community title; and
- **Scenario 4b:** Townhouse on 1,639m² Medium Density Residential zoned lot with freehold title (i.e. same development with different tenure).

The development feasibility assessment has considered the following cost and benefit streams:

- Project costs, which are likely to include land acquisition costs, stamp duty on land acquisition costs, demolition of existing use (if applicable), infrastructure charges, construction costs (including building construction, car parking construction, landscaping and contingency allowance), consultant and design fees, marketing costs and financing costs; and
- Project benefits, i.e. the sale of apartments / townhouses.

Assumptions Used in the Feasibility Assessment

The development feasibility has made assumptions relating to a range of costs and benefits for each scenario, including:

- Land acquisition costs;
- Demolition of existing land use;
- Infrastructure charges;
- Building construction costs;
- Landscaping construction costs;
- Communal open space construction costs;
- Carparking construction costs;
- Consultant and design fees;
- Selling costs;
- Financing costs; and
- Sales of apartments / townhouses.

Land Acquisition Costs

The cost of acquiring appropriate land for the developments outlined in each scenario involves the purchase of the land in addition the transfer duty payable on the value of the purchase.

The sites under assessment for Scenario 1, Scenario 3 and Scenarios 4a and 4b were each occupied by an older run down detached dwelling within the medium density residential zone. Recent property sales transactions were identified for two of these three sites, which were both purchased for \$500 - \$550 per square metre. The assessment has conservatively assumed the sites under assessment for Scenario 1, Scenario 3 and Scenario 4a and 4b were purchased for \$550 per square metre (at the upper end of the range identified), as no significant price differential was identified for medium density residential zoned land between the suburbs in which the sites are contained¹.

In the case of Scenarios 2a and 2b, the purchase of two allotments, each 506sqm in size and occupied by an older run down detached dwelling is required to create the development allotment. The assessment has assumed that a higher purchase price of \$650 per square metre would be required to achieve land assembly for this site.

The transfer duty payable has been calculated based on Queensland transfer duty rates.

Total land acquisition costs have been estimated to range between \$458,948 (Scenario 3) and \$935,040 (Scenario 4a and 4b).

Table 1 details the assumed land acquisition costs under each scenario, including a breakdown of the land purchase price and transfer duty payable.

¹ We have rounded purchase prices of the relevant allotments to protect confidentiality around the selected sites under assessment.

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Table 1 Land Acquisition Costs by Scenario (\$)

	Allotment Size (sqm)	Assumed Acquisition Cost (\$/sqm)	Land purchase price	Transfer duty payable	Total Land Acquisition Costs
Scenario 1a	819	\$550	\$450,450	\$14,191	\$464,641
Scenario 1b	819	\$550	\$450,450	\$14,191	\$464,641
Scenario 1c	819	\$550	\$450,450	\$14,191	\$464,641
Scenario 2a	1,012	\$650	\$657,800	\$22,626	\$680,426
Scenario 2b	1,012	\$650	\$657,800	\$22,626	\$680,426
Scenario 3	809	\$550	\$444,950	\$13,998	\$458,948
Scenario 4a	1,639	\$550	\$901,450	\$33,590	\$935,040
Scenario 4b	1,639	\$550	\$901,450	\$33,590	\$935,040

Source: CDM Smith Analysis (2020) and Queensland Government Transfer Duty Rates (2020)

Demolition of Existing Land Use

The sites identified for development all had an existing run down residential dwelling on site. Therefore, in order to redevelop the land for multi-unit dwellings, the existing use must be demolished. Rawlinsons Australian Construction Handbook (2018 Edition 36) estimates a range of construction costs, including indicative demolition costs per square metre (sqm). The demolition of a single storey residential dwelling is assumed to be approximately \$50 per square metre.

Therefore, based on this costing rate and the size of each parcel of land for development, the estimated demolition cost range from \$40,450 (Scenario 3) to \$81,950 (Scenario 4a and 4b). The estimated demolition costs by scenario are detailed in Table 2.

Table 2 Estimated Demolition Cost by Scenario (\$)

	Site Size (sqm)	Cost (\$)
Scenario 1a	819	\$40,950
Scenario 1b	819	\$40,950
Scenario 1c	819	\$40,950
Scenario 2a	1,012	\$50,600
Scenario 2b	1,012	\$50,600
Scenario 3	809	\$40,450
Scenario 4a	1,639	\$81,950
Scenario 4b	1,639	\$81,950

Source: Rawlinsons Australian Construction Handbook (2018)

Assumed Product Mix on Each Site

The revised Medium Density Zone code provides a range of assessment criteria relating to dwelling diversity, site cover, landscaping, parking and communal open space which has informed our assumptions relating to the built form on each site. The dwelling diversity criteria outlines a preferred, as opposed to mandatory, product mix for townhouse and apartment developments within Redland City Council. Redland City Council has advised that the

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dwelling diversity mix is particularly important to test for apartments with a 60% two bedroom and 40% three bedroom mix provided based on approved applications for apartments. The dwelling diversity mix can however be varied for townhouses to only consider three bedroom townhouse development. This approach was suggested on the basis that three bedroom townhouses are the predominate townhouse size in Redland City and would likely continue to be the predominant townhouse size even with a suggested dwelling diversity mix included the Medium Density Zone code. It is understood that all other assessment criteria must be met for the purposes of this feasibility assessment.

Advice from Council has indicated that three storeys are permitted for all scenarios, with the exception of Scenario 2b, where a four storey development is to be assessed.

Table 3 outlines the quantifiable assessment criteria relating to dwelling diversity, site cover, landscaping, parking and communal open space.

Table 3 Quantifiable Assessment Criteria

Criteria	Product Type	Criteria
Dwelling diversity	Townhouse	Development for a townhouse involving 5 or more dwellings ensures that 20% of dwellings have a different number of bedrooms than other dwellings
	Apartment	Development for an apartment involving 5 or more dwellings ensures 40% of dwellings have a different number of bedrooms than other dwellings
Site cover	Townhouse	60% site cover
	Apartment	50% site cover
Landscaping	Townhouse	20% of site area, including 10% deep planting area with a minimum dimension of 4m
	Apartment	
Communal Open Space	Townhouse	20 or more dwellings (a) provides a minimum of 5% of the site area or a minimum area of 50sqm (whichever is greater) as communal open space; and (b) has a minimum dimension of 5m.
	Apartment	10 or more dwellings (a) provides a minimum of 15% of the site area or a minimum area of 100sqm (whichever is greater) as communal open space, with a minimum of 10% or 75sqm (whichever is greater) located on the ground level; and (b) has a minimum dimension of 5m.
Carparking	Townhouse / Apartment	1 visitor space per 10 units; plus 1 space per 1 bedroom unit; or 1.5 spaces per 2+ bedroom unit; or 2 spaces per 3+ bedroom unit.

Source: Data provided by Redland City Council

Property market research was conducted to determine the average size of units and townhouses by number of bedrooms to inform our assessment. This research found that on average a townhouse was larger than apartments,

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regardless of the number of bedrooms, and that apartments increase in square meterage as the number of bedrooms increases. The following average sizes for unit and townhouse development were adopted for the analysis:

- One bedroom units: 70sqm;
- Two bedroom units: 90sqm;
- Three bedroom units: 110sqm; and
- Three bedroom townhouses: 130 sqm.

In the case of units, the assumed floor plates include an allowance for internal communal walkways / stairs. The average size for a townhouse relates to the liveable areas, excluding the garage component to be delivered on the ground floor.

The quantifiable assessment criteria outlined in Table 3, along with the assumed average sizes by product type have been utilised to identify the product mix that can be accommodated on each site whilst maximising site cover, as detailed below:

- Scenario 1a: 12 units, comprising six two bedroom apartments and six three bedroom apartments;
- Scenario 2a: 15 units, comprising nine two bedroom apartments and six three bedroom apartments;
- Scenario 2b: 20 units, comprising 12 two bedroom apartments and eight three bedroom apartments;
- Scenario 3: 7 three storey townhouses (two storeys of living plus ground floor double garage); and
- Scenario 4: 15 three storey townhouses (two storeys of living plus ground floor double garage).

Table 4 outlines the number of apartments or townhouses that have been assumed for each site, including an overview of the site cover of the building footprint for each scenario.

Table 4 Number of Apartments or Townhouses by Scenario

	Maximum Allowable Site Cover (sqm)	Actual Site Cover for Development (sqm)	Number of Storeys (unit developments)	Number of units / townhouses			
				2 Bedroom Apartments	3 Bedroom Apartments	3 Bedroom Townhouses	Total
Scenario 1a	409.5	400	3	6	6	-	12
Scenario 2a	506.0	490	3	9	6	-	15
Scenario 2b	506.0	490	4	12	8	-	20
Scenario 3	485.4	390	-	-	-	7	7
Scenario 4a	983.4	910	-	-	-	15	15
Scenario 4b	983.4	910	-	-	-	15	15

Note: Townhouse scenarios assume 65sqm per floor.

Source: CDM Smith Analysis (2020)

Redland City Council requested that two additional scenarios be investigated for the Scenario 1 site that vary the dwelling mix and only use ground level car parking (no basement), namely:

- **Scenario 1b:** Three storey development, comprising ground floor car parking and two floors of units, with the following development mix on each floor:
 - 1 x 1 bedroom unit;
 - 2 x 2 bedroom unit; and

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- 1 x 3 bedroom unit;
- **Scenario 1c:** Three storey development, comprising ground floor car parking and two floors of units, with the following development mix on each floor:
 - 2 x 1 bedroom unit; and
 - 3 x 2 bedroom unit.

The additional Scenario 1c suggested by Redland City Council slightly exceeds the allowable maximum site coverage of 50% by 0.5m² and as such does not satisfy the quantifiable assessment criteria.

Table 5 outlines the number of apartments to be accommodated under Scenario 1b and 1c, including an overview of the site cover of the building footprint for the additional scenarios requested by Redland City Council.

Table 5 Number of Apartments or Townhouses for the Additional Scenarios

	Maximum Allowable Site Cover (sqm)	Actual Site Cover for Development (sqm)	Number of Storeys (unit developments)	Number of units / townhouses			
				1 Bedroom Apartments	2 Bedroom Apartments	3 Bedroom Apartments	Total
Scenario 1b	409.5	360	2	2	4	2	8
Scenario 1c	409.5	410	2	4	6	-	10

Source: CDM Smith Analysis (2020)

Infrastructure Charges

Indicative infrastructure charges have been calculated based on the potential number of dwellings on each site, existing site use and infrastructure charge rates provided by Redland City Council, which are as follows:

- One or two bedroom townhouse or apartment: \$20,956 per dwelling;
- Three or more bedroom townhouse or apartment: \$29,339 per dwelling; and
- The credit for an existing use: \$29,339 per dwelling.

The use of the sites assessed in Scenario 1a, 1b, 1c, 3, 4a and 4b is an existing dwelling, whereas the existing use in Scenario 2a and 2b is two existing dwellings.

The estimated infrastructure charges for each scenario range between \$155,075 (Scenario 1b) and \$410,746 (Scenario 4a and 4b), as detailed in Table 6.

Table 6 Infrastructure Charges by Scenario (\$)

	Number of one or two bedrooms dwellings	Number of three or more bedroom dwellings	Existing Use Credits	Total Infrastructure Charges (\$)
Scenario 1a	6	6	1	\$272,431
Scenario 1b	6	2	1	\$155,075
Scenario 1c	10	-	1	\$180,221
Scenario 2a	9	6	2	\$247,282
Scenario 2b	12	8	2	\$368,828
Scenario 3	0	7	1	\$176,034

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	Number of one or two bedrooms dwellings	Number of three or more bedroom dwellings	Existing Use Credits	Total Infrastructure Charges (\$)
Scenario 4a	0	15	2	\$410,746
Scenario 4b	0	15	2	\$410,746

Source: Redland City Council (2020) and CDM Smith Analysis (2020)

Building Construction Costs

Rawlinsons Australian Construction Handbook (2018) details the costs associated with developing multi-dwelling properties on a per square metre basis. The assessment has assumed that a medium standard finish product would be delivered under each scenario, with the construction point anticipated to be at the midpoint for a medium standard finished product. Based on the information provided in Rawlinson's, with these figures inflated to 2020 dollars and rounded to the nearest \$50/sqm, the assessment has assumed the following construction costs per square metre:

- Scenario 1a: \$1,900 per square metre;
- Scenario 1b: \$1,900 per square metre;
- Scenario 1c: \$1,900 per square metre;
- Scenario 2a: \$1,900 per square metre;
- Scenario 2b: \$2,400 per square metre;
- Scenario 3: \$1,900 per square metre;
- Scenario 4a: \$1,900 per square metre; and
- Scenario 4b: \$1,900 per square metre.

The additional construction costs with Scenario 2b relate to the provision of lifts in a building with four or more storeys. The indicative construction cost for each scenario ranges between \$1,368,000 (Scenario 1b) and \$4,704,000 (Scenario 2b).

Table 7 Unit and Townhouse Construction Costs by Scenario (\$)

	Sqm of building footprint	Construction Cost (\$/sqm)	Total Construction Cost (\$)
Scenario 1a	1,200	\$1,900	\$2,280,000
Scenario 1b	720	\$1,900	\$1,368,000
Scenario 1c	820	\$1,900	\$1,558,000
Scenario 2a	1,470	\$1,900	\$2,793,000
Scenario 2b	1,960	\$2,400	\$4,704,000
Scenario 3	910	\$1,900	\$1,729,000
Scenario 4a	1,950	\$1,900	\$3,705,000
Scenario 4b	1,950	\$1,900	\$3,705,000

Note: Recall the building footprint of a townhouse (excluding garage) is 130sqm (or 65sqm/floor)

Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Landscaping Construction Costs

The quantifiable assessment criteria have identified that 20% of the total site area for both apartment and townhouse developments should be landscaped.

For the purposes of this assessment, landscaping construction costs have been assumed to be \$50 per square metre, consistent with the guidance provided in the Rawlinsons Australian Construction Handbook.

Table 8 details the total landscaping costs associated with each scenario, based on a 20% site area being landscaped at a rate of \$50 per square metre.

Table 8 Cost of landscaping by scenario (\$)

	Landscaped Area (sqm)	Cost of landscaping
Scenario 1a	163.8	\$8,190
Scenario 1b	163.8	\$8,190
Scenario 1c	163.8	\$8,190
Scenario 2a	202.4	\$10,120
Scenario 2b	202.4	\$10,120
Scenario 3	161.8	\$8,090
Scenario 4a	327.8	\$16,390
Scenario 4b	327.8	\$16,390

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.

Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Communal Open Space Construction Costs

The quantifiable assessment criteria identify a need to provide communal open space for the following development types:

- Apartments: Developments with ten or more apartments; and
- Townhouses: Developments with twenty or more townhouses.

Therefore, this criteria applies only to Scenarios 1a 1c, 2a and 2b (Scenarios 1b, 3, 4a and 4b are of insufficient size to require communal open space²).

The requirement is to provide a minimum of 100sqm or 15% of the site area in communal open space, with at least 75sqm or 10% (whichever is greater) to be provided on the ground floor.

Our assessment has assumed that the communal open space for Scenarios 1a, 1c 2a and 2b is provided on the ground floor and represents another landscaped area, that can be enjoyed by all residents within the complex. The assessment has assumed that the cost of providing communal open space is consistent with the landscaping costs incurred (i.e. \$50 per square metre).

Table 9 summarises the cost of providing communal open space under Scenarios 1a, 1c, 2a and 2b, based on the above assumptions.

² Whilst these scenarios do not offer communal open space, private open space would be provided in these developments as balconies.

Table 9 Cost of communal open space by scenario (\$)

	Communal Open Space Area (sqm)	Cost of communal open space
Scenario 1a	122.9	\$6,143
Scenario 1b	-	-
Scenario 1c	122.9	\$6,143
Scenario 2a	151.8	\$7,590
Scenario 2b	151.8	\$7,590
Scenario 3	-	-
Scenario 4a	-	-
Scenario 4b	-	-

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.

Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Carparking Construction Costs

The final input to calculating the total construction costs under each scenario, is the cost of constructing the onsite carparking facilities.

Based on the quantifiable assessment criteria, the number of car parks required under each scenario are:

- Scenario 1a: 23 car spaces;
- Scenario 1b: 13 car spaces;
- Scenario 1c: 14 car spaces;
- Scenario 2a: 28 car spaces;
- Scenario 2b: 36 car spaces
- Scenario 3: 15 car spaces;
- Scenario 4a: 32 car spaces; and
- Scenario 4b: 32 car spaces.

For Scenario 3 and Scenario 4a and 4b, the resident spaces are anticipated to be included in the townhouse footprint, with the visitor carpark/s to be provided at grade at the front of the complex.

To provide the required car parking under Scenarios 1a, 2a and 2b, provision of underground car parking will be required. The assessment has assumed that the visitor spaces would be provided at grade, with resident spaces to be provided underground. Advice from Council has indicated that up to 90% of the site footprint underground can be utilised for underground parking (total site area less 10% deep planting area). Based on this advice, Scenario 1a and 2a would require a single level basement carpark, with Scenario 2b requiring a double level basement carpark.

As detailed by Redland City Council, Scenario 1b and Scenario 1c have carparking located on level one of the developments, with a visitor carpark at grade at the front of the complex. Therefore, it is anticipated that all carparks required under these development scenarios will be included in the footprint of the building, based on a 30 sqm per carpark assumption.

An average car park provision of 30sqm per car park has been assumed across all scenarios, to provide sufficient space for access and manoeuvring.

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The total anticipated number of carparks required by type are summarised in Table 10.

Table 10 Number of Carparks required by Scenario

	Visitor spaces	Resident Spaces 1 bed product	Resident spaces 2 bed product	Resident Spaces 3 bed product	Total Car Spaces	Levels of Basement Parking Required
Scenario 1a	2	-	9	12	23	1
Scenario 1b	1	2	6	4	13	-
Scenario 1c	1	4	9	0	14	-
Scenario 2a	2	-	14	12	28	1
Scenario 2b	2	-	18	16	36	2
Scenario 3	1	-	-	14	15	-
Scenario 4a	2	-	-	30	32	-
Scenario 4b	2	-	-	30	32	-

Source: CDM Smith Analysis (2020)

To calculate the total construction costs of carparking for each scenario, the following assumptions have been made:

- Scenario 1a: All carparks to be provided underground, at an estimated cost of \$1,600 per square metre;
- Scenario 1b: apartment carparks to be provided on level 1 of the development at an estimated cost of \$700 per square metre. Visitor park to be provided at grade, at an estimated cost of \$100 per square metre;
- Scenario 1c: apartment carparks to be provided on level 1 of the development at an estimated cost of \$700 per square metre. Visitor park to be provided at grade, at an estimated cost of \$100 per square metre;
- Scenario 2: All carparks to be provided underground, at an estimated cost of \$1,600 per square metre;
- Scenario 3: Townhouse carparks to be provided under the townhouse as a 65sqm double garage, at an estimated cost of \$600 per square metre. Visitor park to be provided at grade, at an estimated cost of \$100 per square metre; and
- Scenario 4: Townhouse carparks to be provided under the townhouse as a 65sqm garage, at an estimated cost of \$600 per square metre. Visitor park to be provided at grade, at an estimated cost of \$100 per square metre.

The total cost of providing the required car parking under each scenario is summarised in Table 11.

Table 11 Estimated Carparking Construction Costs by Scenario (\$)

	Floor Plate for Underground/ Undercroft Car Parking (sqm)	Floor Plate for Townhouse Garages (sqm)	Floor Plate for Visitor Parking at Grade (sqm)	Estimated Carparking Construction Cost (\$)
Scenario 1a	630	-	60	\$1,014,000
Scenario 1b	360	-	30	\$255,000
Scenario 1c	390	-	30	\$276,000
Scenario 2a	780	-	60	\$1,254,000
Scenario 2b	1,020	-	60	\$1,638,000
Scenario 3	-	455	30	\$276,000
Scenario 4a	-	975	60	\$591,000
Scenario 4b	-	975	60	\$591,000

Note: Rawlinsons estimates have been adjusted to reflect 2020 dollars.

Source: CDM Smith Analysis (2020) and Rawlinsons Australian Construction Handbook (2018)

Contingency

The analysis has assumed a 2.5% contingency on construction costs for each scenario. This assumption yields the following contingency allowance:

- Scenario 1a: \$89,358;
- Scenario 1b: \$40,780;
- Scenario 1c: \$46,208;
- Scenario 2a: \$109,468;
- Scenario 2b: \$171,943;
- Scenario 3: \$50,327;
- Scenario 4a: \$107,810; and
- Scenario 4b: \$107,810.

Consultant and Design Fees

The analysis has assumed that the total consultant and design fees will be approximately 2.5% of the total build cost under each scenario and include allowance for development application costs. This assumption yields the following cost per scenario:

- Scenario 1a: \$89,358;
- Scenario 1b: \$40,780;
- Scenario 1c: \$46,208;
- Scenario 2a: \$109,468;
- Scenario 2b: \$171,943;
- Scenario 3: \$50,327;

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- Scenario 4a: \$107,810; and
- Scenario 4b: \$107,810.

Sales Price of Units and Townhouses

Market research into recent sales of newly developed unit and townhouses across suburbs relevant to the subject sites was conducted in order to obtain an indicative sales price for new unit and townhouse product. For the purposes of this assessment, waterfront properties have been excluded as they do not represent a comparable sales price for the developments assessed under each scenario. The product types and assumed suburbs for each of the scenarios are as follows:

- Scenario 1a – Alexandra Hills: two and three bedroom apartments;
- Scenario 1b – Alexandra Hills: one, two and three bedroom apartments;
- Scenario 1c – Alexandra Hills: one and two bedroom apartments;
- Scenario 2a – Wellington Point: two and three bedroom apartments;
- Scenario 2b – Wellington Point: two and three bedroom apartments;
- Scenario 3 – Victoria Point: three bedroom townhouses;
- Scenario 4a – Cleveland: three bedroom townhouses; and
- Scenario 4b – Cleveland: three bedroom townhouses.

Within Alexandra Hills, there were few comparable sales identified, including no sales of new one bedroom apartments. Attached dwelling sales in Alexandra Hills were typically for townhouse product, as opposed to unit developments. However, new apartment sales were identified within the unit complex at 15-21 Saint Anthony Drive. PriceFinder data indicates that on average, each apartment sold for approximately \$340,000 in 2015 and 2016. The product offered at this site was of a lower standard than the build quality proposed at the subject site, with car parking simply an allocated outdoor car space with a shade structure on top, as opposed to underground parking.

Based on this information, the analysis has assumed that two bedroom units at the subject site would likely attract a price premium given the relative build quality. The assessment has assumed an average sales price of \$330,000 for one bedroom units, \$370,000 for two bedroom units and \$400,000 for three bedroom units at the subject site. A review of modern unit developments within Victoria Point suggested a sales price of \$430,000 for two bedroom units and \$470,000 for three bedroom units was potentially achievable at the site under investigation.

Modern townhouse developments within Cleveland appeared to achieve a slight price premium relative to modern townhouse developments in Victoria Point. For the purposes of this assessment, a sales price of \$530,000 per townhouse in Victoria Point and \$550,000 per townhouse in Cleveland has been assumed.

Scenario 4b involves the development of freehold townhouses in Cleveland. An assessment of townhouse developments throughout Brisbane indicates a typical premium on freehold townhouses in the order of 5% of the total sale price, relative to strata titled townhouses. Therefore, under Scenario 4b the indicative sales price is estimated at approximately \$577,500 for a freehold townhouse in Cleveland.

Table 12 outlines the assumed sales price for each product type across the scenarios.

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Table 12 Indicative Sales Price by Product Type under Each Scenario

	One bedroom apartment	Two bedroom apartment	Three bedroom Apartment	Three bedroom Townhouse
Scenario 1a	-	\$370,000	\$400,000	-
Scenario 1b	\$330,000	\$370,000	\$400,000	
Scenario 1c	\$330,000	\$370,000	\$400,000	
Scenario 2a	-	\$430,000	\$470,000	-
Scenario 2b	-	\$430,000	\$470,000	-
Scenario 3	-	-	-	\$530,000
Scenario 4a	-	-	-	\$550,000
Scenario 4b	-	-	-	\$577,500

Source: Pricerfinder (2020)

The assessment has assumed that 60% of each development is pre-sold in the year of construction, with the remaining 40% of product to be sold in the subsequent year (i.e. once the development is completed).

Selling Costs

Selling costs consist of the marketing required to sell the dwellings under each scenario and the commission on these sales. Total selling costs have been assumed to represent 7.5% of the total sales value. Based on this assumption, selling costs over the life of the project have been estimated to be:

- Scenario 1a: \$346,500;
- Scenario 1b: \$220,500;
- Scenario 1c: \$265,500;
- Scenario 2a: \$569,250;
- Scenario 2b: \$669,000;
- Scenario 3: \$119,250;
- Scenario 4a: \$288,750 and
- Scenario 4b: \$303,188.

The assessment has assumed that selling costs are incurred in the year of unit / townhouse sales.

Financing Costs

In determining indicative financing costs for a prospective developer, the analysis has made the following assumptions:

- Loan to value ratio (LVR) of 70%;
- Interest rate of 7.5%³; and

³ Currently, the base lending rate is approximately 4%, with the premium on commercial loans typically in the order of 2.5% to 3.5%. Based on this assumption, the appropriate interest rate is approximately 6.5% to 7.5%. Our assessment has conservatively assumed the appropriate rate for financing is 7.5%.

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- Repayment term of two years, with monthly payment terms.

Based on the above assumptions, total financing costs incurred for each scenario are as follows:

- Scenario 1a: Total financing cost of \$257,472;
- Scenario 1b: Total financing cost of \$145,242;
- Scenario 1c: Total financing cost of \$161,936;
- Scenario 2a: Total financing cost of \$325,628;
- Scenario 2b: Total financing cost of \$472,949;
- Scenario 3: Total financing cost of \$171,755;
- Scenario 4a: Total financing cost of \$368,127; and
- Scenario 4b: Total financing cost of \$369,859.

Table 13 details the indicative financing costs associated with each scenario over the life of the project.

Table 13 Total Financing Cost Associated with each Development Scenario (\$)

Financing Costs	Scenario 1a	Scenario 1b	Scenario 1c	Scenario 2a	Scenario 2b	Scenario 3	Scenario 4a	Scenario 4b
LVR	70%	70%	70%	70%	70%	70%	70%	70%
Amount not borrowed	\$1,379,481	\$778,175	\$867,618	\$1,744,651	\$2,533,965	\$920,228	\$1,972,349	\$1,981,630
Amount borrowed	\$3,218,790	\$1,815,741	\$2,024,443	\$4,070,852	\$5,912,585	\$2,147,199	\$4,602,147	\$4,623,803
Interest Rate	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Term (months)	24	24	24	24	24	24	24	24
Repayment	\$144,844	\$81,708	\$91,099	\$183,187	\$266,064	\$96,623	\$207,095	\$208,069
Total Paid	\$3,476,261	\$1,960,982	\$2,186,378	\$4,396,481	\$6,385,534	\$2,318,954	\$4,970,274	\$4,993,662
Interest to be paid	\$257,472	\$145,242	\$161,936	\$325,628	\$472,949	\$171,755	\$368,127	\$369,859

Source: CDM Smith Analysis (2020)

Cost Benefit Streams

The cost benefit streams for each scenario are outlined in Tables 14 to 21.

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Table 14 Cost Benefit Schedule – Scenario 1a

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$450,450	
Transfer duty payable	\$14,191	
Demolition of Existing Land Use	\$40,950	
Infrastructure Charges	\$272,431	
Construction Costs		
Building construction	\$2,280,000	
Car parking construction	\$1,014,000	
Landscaping	\$8,190	
Communal Open Space	\$6,143	
Contingency	\$82,708	
Consultant and Design fees	\$82,708	
Selling Costs	\$207,900	\$138,600
Financing Costs	\$154,483	\$102,989
Subtotal	\$4,614,154	\$241,589
Benefits (\$m)		
Property Sales	\$2,772,000	\$1,848,000
Subtotal	\$2,772,000	\$1,848,000
Net Benefit Stream	-\$1,842,154	\$1,606,411

Source: CDM Smith Analysis (2020)

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Table 15 Cost Benefit Schedule – Scenario 1b

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$450,450	
Transfer duty payable	\$14,191	
Demolition of Existing Land Use	\$40,950	
Infrastructure Charges	\$155,075	
Construction Costs		
Building construction	\$1,368,000	
Car parking construction	\$255,000	
Landscaping	\$8,190	
Communal Open Space	\$0	
Contingency	\$40,780	
Consultant and Design fees	\$40,780	
Selling Costs	\$132,300	\$88,200
Financing Costs	\$87,145	\$58,097
Subtotal	\$2,592,860	\$146,297
Benefits (\$m)		
Property Sales	\$1,764,000	\$1,176,000
Subtotal	\$1,764,000	\$1,176,000
Net Benefit Stream	-\$828,860	\$1,029,703

Source: CDM Smith Analysis (2020)

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Table 16 Cost Benefit Schedule – Scenario 1c

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$450,450	
Transfer duty payable	\$14,191	
Demolition of Existing Land Use	\$40,950	
Infrastructure Charges	\$180,221	
Construction Costs		
Building construction	\$1,558,000	
Car parking construction	\$276,000	
Landscaping	\$8,190	
Communal Open Space	\$6,143	
Contingency	\$46,208	
Consultant and Design fees	\$46,208	
Selling Costs	\$159,300	\$106,200
Financing Costs	\$97,161	\$64,774
Subtotal	\$2,883,022	\$170,974
Benefits (\$m)		
Property Sales	\$2,124,000	\$1,416,000
Subtotal	\$2,124,000	\$1,416,000
Net Benefit Stream	-\$759,022	\$1,245,026

Source: CDM Smith Analysis (2020)

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Table 17 Cost Benefit Schedule – Scenario 2a

Costs (\$m)	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$657,800	
Transfer duty payable	\$22,626	
Demolition of Existing Land Use	\$50,600	
Infrastructure Charges	\$247,282	
Construction Costs		
Building construction	\$2,793,000	
Car parking construction	\$1,254,000	
Landscaping	\$10,120	
Communal Open Space	\$7,590	
Contingency	\$101,618	
Consultant and Design fees	\$101,618	
Selling Costs	\$341,550	\$227,700
Financing Costs	\$195,377	\$130,251
Subtotal	\$5,783,181	\$357,951
Benefits (\$m)		
Property Sales	\$4,554,000	\$3,036,000
Subtotal	\$4,554,000	\$3,036,000
Net Benefit Stream	-\$1,229,181	\$2,678,049

Source: CDM Smith Analysis (2020)

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Table 18 Cost Benefit Schedule – Scenario 2b

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$657,800	
Transfer duty payable	\$22,626	
Demolition of Existing Land Use	\$50,600	
Infrastructure Charges	\$368,828	
Construction Costs		
Building construction	\$4,704,000	
Car parking construction	\$1,638,000	
Landscaping	\$10,120	
Communal Open Space	\$7,590	
Contingency	\$158,993	
Consultant and Design fees	\$158,993	
Selling Costs	\$401,400	\$267,600
Financing Costs	\$283,769	\$189,180
Subtotal	\$8,462,719	\$456,780
Benefits (\$m)		
Property Sales	\$5,352,000	\$3,568,000
Subtotal	\$5,352,000	\$3,568,000
Net Benefit Stream	-\$3,110,719	\$3,111,220

Source: CDM Smith Analysis (2020)

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Table 19 Cost Benefit Schedule – Scenario 3

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$444,950	
Transfer duty payable	\$13,998	
Demolition of Existing Land Use	\$40,450	
Infrastructure Charges	\$176,034	
Construction Costs		
Building construction	\$1,729,000	
Car parking construction	\$276,000	
Landscaping	\$8,090	
Communal Open Space	\$0	
Contingency	\$50,327	
Consultant and Design fees	\$50,327	
Selling Costs	\$166,950	\$111,300
Financing Costs	\$103,053	\$68,702
Subtotal	\$3,059,180	\$180,002
Benefits (\$m)		
Property Sales	\$2,226,000	\$1,484,000
Subtotal	\$2,226,000	\$1,484,000
Net Benefit Stream	-\$833,180	\$1,303,998

Source: CDM Smith Analysis (2020)

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Table 20 Cost Benefit Schedule – Scenario 4a

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$901,450	
Transfer duty payable	\$33,590	
Demolition of Existing Land Use	\$81,950	
Infrastructure Charges	\$410,746	
Construction Costs		
Building construction	\$3,705,000	
Car parking construction	\$591,000	
Landscaping	\$16,390	
Communal Open Space	\$0	
Contingency	\$107,810	
Consultant and Design fees	\$107,810	
Selling Costs	\$371,250	\$247,500
Financing Costs	\$220,876	\$147,251
Subtotal	\$6,547,872	\$394,751
Benefits (\$m)		
Property Sales	\$4,950,000	\$3,300,000
Subtotal	\$4,950,000	\$3,300,000
Net Benefit Stream	-\$1,597,872	\$2,905,249

Source: CDM Smith Analysis (2020)

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Table 21 Cost Benefit Schedule – Scenario 4b

	Year 0	Year 1
Costs (\$m)		
Land Acquisition Costs		
Purchase of existing land use	\$901,450	
Transfer duty payable	\$33,590	
Demolition of Existing Land Use	\$81,950	
Infrastructure Charges	\$410,746	
Construction Costs		
Building construction	\$3,705,000	
Car parking construction	\$591,000	
Landscaping	\$16,390	
Communal Open Space	\$0	
Contingency	\$107,810	
Consultant and Design fees	\$107,810	
Selling Costs	\$389,813	\$259,875
Financing Costs	\$221,915	\$147,944
Subtotal	\$6,567,474	\$407,819
Benefits (\$m)		
Property Sales	\$5,197,500	\$3,465,000
Subtotal	\$5,197,500	\$3,465,000
Net Benefit Stream	-\$1,369,974	\$3,057,181

Source: CDM Smith Analysis (2020)

Results

To assess the indicative feasibility of the base case scenario based on the above assumptions, three measures were calculated, these being:

- Internal Rate of Return: The internal rate of return is often described as the average annual return on investment;
- Simple Development Margin: The simple development margin represents the ratio between total undiscounted project benefits and total project costs less total project costs, expressed as a percentage. A positive simple development margin indicates that the total project benefits exceed the total project costs; and
- Simple Development Profit: The simple development profit is calculated by subtracting the estimated total costs of the project from the estimated total benefits of the project. A positive simple development profit indicates that the proposed development results in a net financial gain for the developer.

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Table 22 provides a summary of the internal rate of return, simple development margin and simple development profit for each scenario. This table also highlights that Scenarios 1b and 1c, Scenarios 2a and 2b, Scenario 3 and Scenarios 4a and 4b provide a positive return to a developer.

Table 22 Summary of Cost Benefit Analysis Results by Scenario

	Internal Rate of Return	Simple Development Margin	Simple Development Profit
Scenario 1a	-12.8%	-4.9%	-\$235,743
Scenario 1b	24.2%	7.3%	\$200,843
Scenario 1c	64.0%	15.9%	\$486,004
Scenario 2a	117.9%	23.6%	\$1,448,868
Scenario 2b	0.0%	0.0%	\$502
Scenario 3	56.5%	14.5%	\$470,818
Scenario 4a	81.8%	18.8%	\$1,307,377
Scenario 4b	123.2%	24.2%	\$1,687,208

Source: CDM Smith Analysis (2020)

Conclusions

The analysis contained in this memorandum has considered a potential mix of residential product that can be accommodated on each site whilst meeting the quantifiable assessment criteria in addition to the two scenarios (Scenario 1b and Scenario 1c) as suggested by Redland City Council. The assessment identified that a residential developer would consider Scenario 2a and Scenario 4b, as these examples provide a simple development margin of at least 20%. Developers typically need to achieve a simple development margin of at least 20% to obtain development finance from a financier.

A 16 -20% margin is considered the “sweet spot” between providing a safety net in case of abrupt changes in the market and providing a decent profit to a developer. The developer can gain a higher profit margin if the property market rises during the development period. Conversely, if the market retracts, this margin provides a good safety buffer.

In the current market, banks require a minimum 18%- 20% minimum return on costs, with an 18% margin often the minimum return a bank would expect when offering commercial finance to a developer. Therefore, use of the 20% simple development margin in the feasibility analysis has been applied as it represents the margin at which developers would successfully obtain commercial finance.

Under Scenario 1a, the analysis indicates that the cost to deliver unit product on this site would exceed the revenue obtained from the sale of residential product. However, the variation of this development presented in Scenario 1b and Scenario 1c demonstrates that a smaller scale development, with parking on the ground level and two floors of apartments, could yield a positive benefit on a lot of less than 1,000 square metres. It also shows the difference dwelling mix can make on the feasibility of apartment developments with the simple development margin for 1b at 7.3% and 1c at 16% with the difference between the two scenarios only being the dwelling mix.

Scenario 1a, Scenario 1b, Scenario 1c, Scenario 2b, Scenario 3 and Scenario 4a, provide a simple development profit to the developer but the margin is insufficient to be able to obtain development finance (as the simple development margin is below 20%).

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This would suggest that redevelopment within the medium density residential zone for three storey apartments could be challenging to deliver in suburbs like Alexandra Hills where the sale price of apartments is lower than other suburbs under the quantifiable assessment criteria identified in Table 3 of this document.

If you have any queries relating to the advice in this memorandum, please do not hesitate to contact Shelley McCormack on 0421 559 179.

Sincerely



Marcus Brown
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