

Cardiff LDP Viability Testing

Cardiff Council

30 May 2024

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Appendix I Public Consultation Survey

Report title: Cardiff LDP Viability Testing
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For and on behalf of Avison Young (UK) Limited

1. Executive Summary

- 1.1.1. We have carried out a comprehensive review of the Cardiff residential market, including construction costs and open market sales values.
- 1.1.2. 16 indicative sites have been chosen that represent a cross-section of the development market, giving examples of different development sizes, site types and locations.
- 1.1.3. Appraisals have been carried out on each of these sites, including cash flow analysis. Two scenarios have then been appraised, reflecting different tenure mixes of affordable housing, and a sensitivity analysis carried out on each of these scenarios reflecting different levels of affordable housing, from 0% to 50%, in 5% increments. In total, this required 288 development appraisals.
- 1.1.4. We have used market-facing data to reach the assumptions used to produce these appraisals. The results of these appraisals are sensitive to small changes in the inputs. However, clear trends emerge.
- 1.1.5. While some greenfield or large-scale sites in affluent areas have proven to be viable to the 50% threshold, a more realistic level across the range of greenfield sites is 30%. For brownfield sites, this level is 20%.

2. Avison Young Credentials

- 2.1.1. Avison Young is the world's fastest-growing commercial real estate services firm. Headquartered in Toronto, Canada, Avison Young is a collaborative, global firm owned and operated by its Principals. Founded in 1978, with legacies dating back more than 200 years, the company comprises approximately 5,000 real estate professionals in 108 offices in 15 countries. The firm's experts provide value-added, client-centric investment sales, leasing, advisory, management and financing services to clients across the office, retail, industrial, multi-family, residential and hospitality sectors.
- 2.1.2. Avison Young creates real economic, social and environmental value as a global real estate advisor, powered by people. As a private company, our clients collaborate with an empowered partner who is invested in their success. Our integrated talent realises the full potential of real estate by using global intelligence platforms that provide clients with insights and advantages. Together, we can create healthy, productive workplaces for employees, cities that are centres for prosperity, and built spaces and places that create a net benefit to the economy, the environment and the community.
- 2.1.3. The Cardiff office of Avison Young contains a multi-disciplinary team providing a wide range of property services including development advisory, investment agency, occupational agency, leisure agency and cross-sector valuation advisory services. The office also benefits from building surveying, planning and social housing valuation teams that cover the whole of the UK.

3. Introduction

- 3.1.1. Avison Young have been retained to assess the economic viability of the proposals being brought forward under the Replacement Local Development Plan (RLDP).
- 3.1.2. To assess this, we will take into account the viability modelling considerations outlined in Table 24 of the LDP Manual.
- 3.1.3. As is made clear in Table 24, a balance must be struck between ensuring development provides sufficient value towards mitigation, infrastructure, and policy requirements such as affordable housing, whilst maintaining deliverability, particularly focused on an appropriate profit margin that reflects developers' risk.
- 3.1.4. This study aims to inform the preparation of the Replacement LDP in making informed decisions regarding this balance between the policy goals of achieving sustainable development and the practical considerations of economic viability.
- 3.1.5. This report proceeds by establishing an evidence base of the costs and values of different types of residential development throughout Cardiff. This will generate an appropriate figure for the total contributions that a development can provide towards these priorities, whilst still enabling a developer to bring that development forward.
- 3.1.6. By analysing a range of sites and typologies, we seek to generate an evidence base that can be used to assess both the overall viability of the RLDP and specific viability appraisals submitted for candidate sites.
- 3.1.7. This report is prepared within the context of the Council's position and consultation as of Spring 2024 and the information available at this time. If this position changes, it is recommended that this report is revised at an appropriate time in advance of any Examination to update assumptions and provide further testing if necessary.
- 3.1.8. This report and the accompanying appraisals have been prepared in line with RICS valuation guidance. However, it is first and foremost a supporting document to inform the drafting of the developer contributions evidence base and provide an evidence base for the preparation of the Replacement LDP.
- 3.1.9. As per Professional Standards 1 of the RICS Valuation Standards - Global Standards (2022), the advice expressly given in the preparation for, or during the course of, negotiations or possible litigation does not form part of a formal "Red Book" valuation and should not be relied upon as such. No

responsibility whatsoever is accepted to any third party who may seek to rely on the content of the report for such purposes.

4. Method

4.1.1. Welsh Government's 2020 *Development Plans Manual (Edition 3)* defines viability thus:

“Development can be considered viable if, after taking account of all known costs including: Government policy/regulations, all construction and infrastructure costs, the cost of and availability of finance, other costs such as fees and a contingency sum, the value of the development will generate a surplus sufficient to provide both an adequate profit margin for the developer and a land value sufficient to encourage a land owner to sell for the proposed use. Development can also be made viable through the availability of Government grants.”¹

4.1.2. To test the RLDP's viability, therefore, this report will provide a comprehensive overview of values and costs.

4.1.3. This data will be collated from publicly available datasets, such as the Land Registry or BCIS, and supplemented with input from members of the development community, including developers, landowners, RSL's and other interested parties.

4.1.4. These will then be applied to a range of indicative sites that will provide a cross-section of development scales, typologies, and greenfield/brownfield development.

¹ Welsh Government (March 2020) - *Development Plans Manual (Edition 3)* 2020 – Section 5.86

5. Industry Consultation

5.1.1. Following the guidance of the Development Plans Manual, we have sought consultation with local developers and Registered Social Landlords.

5.1.2. Feedback from previous similar reports and consultations shows that attendance of in-person Stakeholder meetings is often poor, and unstructured conversations can often lead to unclear conclusions. Therefore, Avison Young have created a succinct online questionnaire canvassing the views of knowledgeable individuals at private developers and RSL's in order to boost the feedback from industry.

5.1.3. The list of companies contacted is presented below:

Company	Type	Response Received
Barratts	Housebuilder	
Bellway	Housebuilder	
Edenstone	Housebuilder	
Lewis Homes	Housebuilder	
Persimmon/Charles Church	Housebuilder	
Redrow	Housebuilder	
Taylor Wimpey	Housebuilder	
Cadwyn	RSL	
Cardiff Community	RSL	Y
Cardiff Council Development Team	LA	
Hafod	RSL	Y
LINC	RSL	
Pobl Group	RSL	
Taff Housing	RSL	
United Welsh	RSL	
Wales & West Housing	RSL	Y
Crossmark	Developer	Y
Dandara	Developer	
Rightacres	Developer	Y
Urban Centric	Developer	Y
Watkin Jones	Contractor	

6. Viability Modelling Considerations

6.1 Welsh Government Development Plans Manual

6.1.1. Table 24 of Welsh Government's Development Plans Manual sets out the core modelling considerations which should be taken into account when progressing high level viability testing.

6.1.2. Below, we set out our response and/or assumptions relating to each of these considerations.

6.2 Review of Emerging Policy Requirements

6.2.1. We have analysed the policy requirements set out in Cardiff Council's June 2023 Preferred Strategy for Consultation document, produced as part of the process of producing the Replacement LDP. Below we identify the policies that directly relate to planning obligations.

Policy Code	Plan Policy	Cost Implication?	Type of Development	Nature of Costs
SP5	Securing new Infrastructure	Yes	All Development	On and/or off site costs associated with general infrastructure requirements.
SP6	Securing planning obligations	Yes	All Development	On and/or off site contributions and/or costs associated with the demands of the development.
SP11	Delivering sustainable neighbour hoods, social cohesion and affordable housing	Yes	All Development	Provision of a range of dwelling types, including affordable. Provision of local shopping facilities. Provision of a range of community, health, religious, and educational facilities.
SP16	Delivering sustainable transport and active travel	Yes	All Development	On site incorporation of sustainable infrastructure.
SP17	Securing new transportation infrastructure	No		

6.3 Sites

6.3.1. A range of indicative sites have been selected to represent a comprehensive cross section of development across Cardiff, with a range of development sizes, tenures, sub-markets and land type (greenfield or brownfield) presented. This list is reproduced below:

No	Ward	Dwellings (2021-2036)	Greenfield / Brownfield
1	Pontprennau and Old St Mellons	2	Greenfield
2	Plasnewydd	5	Brownfield
3	Trowbridge	10	Greenfield
4	Splott	46	Brownfield
5	Gabalfa	65	Brownfield
6	Llandaff	90	Brownfield
7	Pontprennau and Old St Mellons	135	Greenfield
8	Rhiwbina	140	Brownfield
9	Whitchurch and Tongwynlais	140	Brownfield
10	Cathays	175	Brownfield
11	Grangetown	200	Brownfield
12	Ely	250	Greenfield
13	Lisvane and Thornhill	250	Greenfield
14	Butetown	315	Brownfield
15	Grangetown	500	Brownfield
16	Radyr and Morganstown	850	Greenfield

6.4 Development Mix / Tenure Mix

6.4.1. As stated within the Development Plans Manual, House type and tenure mix of a site can impact significantly on viability. However, it is essential to ensure that the tenure mix is indicative of what can be delivered in practice.

6.4.2. Our appraisals have been carried out testing two tenure mix scenarios:

1. 80% Social Rented / 20% Low Cost Home Ownership (LCHO)

2. 100% Social Rented

6.4.3. Affordable values have been set at the following levels:

1. Social Rent – Fixed Capital Payments (figures for April 2024) (provided by Cardiff Council)

House Type	2024/2025
1 Bed Flat/Maisonette	£70,422
2 Bed Flat/Maisonette	£91,018
2 Bed House/Bungalow	£105,432
3 Bed House/Bungalow	£129,107
4 Bed House/Bungalow	£168,518
5 + Bed House	£168,518

2. LCHO – 70% of open market value

6.5 Land Values

6.5.1. Guidance calls for a Benchmark Land Value (BLV), that represents the financial level that would realistically entice a landowner to sell for the proposed use in an area or sub-market area.

6.5.2. As we are appraising a range of site typologies, it would be inappropriate to simply apply a blanket figure per acre or unit across all the proposed schemes. Development density and tenure type, location, and potential enabling works all influence benchmark land value. Land value can be sensitive and needs to carefully balance price per acre, price per unit and overall land value to reach a realistic price. To do so, we have had reference to comparable evidence, our own market experience and feedback from the consultation period from private developers and RSL's.

Benchmark land Value Comparable Evidence

Site	Location	Price Paid	Acres	Hectares	P per Acre	P per Ha	Type
Clos Cae Coch 1	Pontprennau	£21,000,000	25.1	10.17	£835,455	£2,064,453	Greenfield
Clos Permint 1	Pontprennau	£7,589,400	20.3	8.20	£374,711	£925,931	Greenfield
Clos Chwe Erw (Llantrisant Rd)	Radyr	£3,709,450	11.5	4.67	£321,499	£794,439	Greenfield
Heol Gwern Edyddan	St Fagans	£9,307,470	11.1	4.49	£838,586	£2,072,190	Greenfield
The Parish, Llanilltern Village	Creigiau	£1,259,615	4.5	1.84	£276,899	£684,233	Greenfield
Clos Gwenllian	Lisvane	£1,000,000	0.9	0.38	£1,077,586	£2,662,771	Greenfield
Brains Brewery	City Centre	£14,183,700	9.2	3.73	£1,540,033	£3,805,500	Brownfield CC
Anchor Way Industrial Estate	City Centre	£8,000,000	2.3	0.94	£3,448,276	£8,520,868	Brownfield CC
Central Quay - Sytner Garage	City Centre	£5,400,000	1.8	0.74	£2,968,664	£7,335,722	Brownfield CC
BJM (Second Sale)	City Centre	£6,500,000	1.0	0.39	£6,784,969	£16,766,008	Brownfield CC
BJM (First Sale)	City Centre	£3,000,000	1.0	0.39	£3,131,524	£7,738,158	Brownfield CC
Williams House, Trade Street	City Centre	£1,350,000	0.8	0.31	£1,753,247	£4,332,363	Brownfield CC
Riverside House, Penarth Rd	City Centre	£2,500,000	0.6	0.24	£4,152,824	£10,261,842	Brownfield CC
Bradley Court, Park Place	City Centre	£6,050,000	0.5	0.20	£12,100,000	£29,899,725	Brownfield CC
Landore Court, Charles Street	City Centre	£4,750,000	0.4	0.17	£11,202,830	£27,682,772	Brownfield CC
Crawshay Court, Curran Road	City Centre	£1,400,000	0.3	0.13	£4,204,204	£10,388,806	Brownfield CC
Atlantic House, Dumballs Road	City Centre	£1,200,000	0.3	0.12	£4,000,000	£9,884,207	Brownfield CC
Ty Glas Road	Llanishen	£8,000,000	18.6	7.51	£431,058	£1,065,166	Brownfield

Consultation Responses

Company	What value per acre would you apply to -	What plot value per dwelling would you apply to -
	Greenfield land	Brownfield Land
Wales & West Housing Association	depends on density/ but as a rough rule - £1.25m/acre	depends on size - but rough rule £30k 1 bed flat / 2 bed house £40k / 3 bed house £45k
Urban Centric	depends on the area, but typically £750k - £1m per acre	£30k - £40k per unit
Hafod Housing Association	£15-£40k per plot	£10k

6.6 Build Costs

6.6.1. Residential build costs are based upon industry data from the Build Cost Information Service (BCIS) which is published by the Royal Institution of Chartered Surveyors (RICS). The data is published by RICS on a quarterly basis. BCIS offers a range of prices dependent on the final specification.

6.6.2. BCIS figures, rebased for Cardiff, are presented below. For each site appraised, the most appropriate Building Function has been selected, with the median value (Decile 5) used. All figures are £ per SqM.

Sub-Class	Mean	Lower quartile	Decile 5 (median)	Upper quartile
Housing, mixed developments	£1,418	£1,227	£1,370	£1,555
Estate housing				
Generally	£1,408	£1,194	£1,353	£1,541
Single storey	£1,600	£1,350	£1,534	£1,757
2-storey	£1,354	£1,172	£1,316	£1,485
3-storey	£1,486	£1,233	£1,416	£1,689
4-storey or above	£2,947	£2,352	£2,626	£3,950
Estate housing detached	£1,829	£1,379	£1,564	£1,935
Estate housing semi detached				
Generally	£1,421	£1,205	£1,390	£1,557
Single storey	£1,584	£1,351	£1,549	£1,726
2-storey	£1,372	£1,193	£1,332	£1,499
3-storey	£1,389	£1,112	£1,333	£1,666
Estate housing terraced				
Generally	£1,434	£1,172	£1,350	£1,565
Single storey	£1,640	£1,357	£1,622	£1,910
2-storey	£1,366	£1,164	£1,311	£1,489
3-storey	£1,523	£1,236	£1,394	£1,701
Flats (apartments)				
Generally	£1,662	£1,372	£1,561	£1,873
1-2 storey	£1,573	£1,334	£1,487	£1,759
3-5 storey	£1,638	£1,366	£1,556	£1,846
6 storey or above	£1,957	£1,575	£1,855	£2,124
'One-off' detached (3 units or less)				
Generally	£2,629	£1,807	£2,308	£3,104
Single storey	£2,141	£1,581	£2,043	£2,712
2-storey	£2,556	£1,753	£2,233	£2,957
3-storey	£2,956	£2,278	£2,989	£3,299
'One-off' semi-detached (3 units or less)	£1,812	£1,492	£1,683	£2,024
'One-off' terraced (3 units or less)	£1,627	£1,326	£1,443	£1,628

Externals & Abnormals

- 6.6.3. We have made an allowance for externals to cover the elements of the site development such as internal access roads and landscaping that are outside the build costs of the dwellings. We have also made an allowance for abnormal costs. These are elements that will be identified when a site undergoes detailed investigation, but to represent the likely costs, we have applied a market standard 10% of build costs to all sites.

6.7 Developer's Profit

- 6.7.1. In line with the Development Plans Manual (Edition 3) March 2020 (Table 24) we have applied a developers profit of:

- Profit on Open Market Housing – 20%
- Profit on Affordable Housing – 6%

6.8 Contingency

- 6.8.1. We have applied a market standard 5% contingency to construction costs.

6.9 Fees

Site Acquisition Costs

- 6.9.1. We have allowed for the accepted market rates as stated below:

- Land Transaction Tax (Wales) at the prevailing rate
- Agent's fee – 1% of land value
- Legal fee – 0.5% of land value

Disposal Costs

- 6.9.2. We have allowed the following market rates:

- Sales Agent's fee – 1% of GDV
- Legal fee – 0.5% of GDV
- Marketing Costs – 0.5% of GDV

Professional Fees

- 6.9.3. We have applied a market standard 12% of construction costs to cover professional fees for services such as surveys, architects etc.

6.10 Finance

6.10.1. We have followed RICS guidance in applying development finance to 100% of the development costs, including the land purchase.

6.10.2. We have applied an interest rate of **8.00%** on the development finance. This rate will be subject to variations – with larger national housebuilders likely able to command lower rates than SME developers. However, we believe this is the most realistic rate for the “average” developer.

7. Gross Development Value

- 7.1.1. To provide a comprehensive overview of the Cardiff market, we have collated all sales since March 2023 in the target wards. In total, this gives a sample size of 1,534 sales. This data is derived primarily from Land Registry records, resulting in a slight lag from the market. However, we believe the scope and timescale of the review gives a largely accurate representation of the market.
- 7.1.2. Avison Young have then carried out an analysis by property type and ward. We have focused on type (detached, semi-detached, terrace, flat) rather than bedroom numbers. We have made the assumption that the proportion of bedrooms in the market (e.g. 3 and 4-bed semi-detached properties) is broadly reflective of the mix that would be provided within a new development, and therefore an average of the market can also be applied to the proposed sites.
- 7.1.3. We have provided the average and the upper quartile of the data in our analysis. To take into account the fact that the developments will be providing new build properties, with the inherent premium over the wider market, the upper quartiles form the foundation of our opinion of value. We believe in the majority of cases that new build prices will be at or above this upper quartile figure.
- 7.1.4. For some areas small numbers of sales has meant that individual sales of unusual properties could distort the analysis. We have addressed these outliers in two ways. Firstly, we have collected the wards into larger overall regions. For example, the wards of Whitchurch and Tongwynlais, Lisvane and Thornhill, Rhiwbina and Llandaff have been collected under the region of North Cardiff. This provides larger pools of data to smooth out outliers. Secondly, Avison Young have reviewed the figures, alongside current asking prices, and applied our own opinion of value.
- 7.1.5. An overview of the raw data in this market analysis can be found on the following pages. The applied values can be found in the site-by-site overview within the Viability Appraisals section.

PRICES	Detached	Semi-detached	Terrace	Flat	Total Average	Detached	Semi-detached	Terrace	Flat	Total Average
Sector	Avg	Avg	Avg	Avg	Avg	UQ	UQ	UQ	UQ	UQ
Butetown	£412,500	£113,500	£261,000	£181,000	£191,000			£310,000	£204,500	£220,000
Cathays	£458,000	£299,000	£291,000	£187,500	£289,500	£649,500	£298,500	£345,000	£222,500	£346,500
Ely	£325,000	£209,500	£182,000	£103,500	£202,000	£352,500	£238,500	£208,500	£128,000	£235,000
Gabalfa		£259,500	£292,000	£121,000	£245,500		£275,000	£322,500	£140,000	£291,500
Grangetown	£335,000	£288,500	£249,000	£154,000	£228,500		£315,000	£285,000	£174,500	£279,000
Lisvane and Thornhill	£606,000	£299,500	£229,500	£185,000	£354,500	£710,000	£360,000	£242,500	£247,500	£426,500
Llandaff	£611,500	£439,500	£308,000	£189,000	£393,500	£727,500	£419,500	£338,000	£220,000	£420,000
Plasnewydd	£603,000	£607,000	£293,000	£148,500	£283,500		£749,500	£308,500	£190,000	£303,000
Pontprennau and Old St Mellons	£408,500	£264,000	£234,500	£161,500	£279,000	£435,500	£283,500	£276,500	£180,000	£315,000
Radyr and Morganstown	£545,500	£368,500	£290,000	£160,000	£389,000	£646,500	£435,000	£398,500	£175,000	£510,000
Rhiwbina	£558,000	£433,000	£350,500	£178,500	£370,500	£682,500	£480,500	£366,500	£182,500	£454,000
Splott	£358,500	£186,000	£213,500	£138,500	£204,500	£425,000	£219,500	£254,500	£162,000	£245,000
Trowbridge	£337,000	£227,500	£185,000	£111,500	£231,500	£370,000	£258,000	£200,000	£131,500	£285,000
Whitchurch and Tongwynlais	£439,000	£346,000	£292,000	£152,000	£294,500	£520,000	£415,000	£320,000	£178,500	£355,000

£ PSF	Detached	Semi-detached	Terrace	Flat	Total Average	Detached	Semi-detached	Terrace	Flat	Total Average
Sector	Avg	Avg	Avg	Avg	Avg	UQ	UQ	UQ	UQ	UQ
Butetown		£130	£250	£240	£240			£345	£260	£260
Cathays	£275	£240	£265	£310	£265	£285	£290	£295	£285	£295
Ely	£250	£195	£215	£150	£205	£290	£220	£255	£180	£240
Gabalfa		£230	£270	£180	£235		£260	£295	£235	£265
Grangetown	£305	£280	£235	£245	£250		£310	£295	£280	£300
Lisvane and Thornhill	£340	£320	£325	£290	£325	£375	£370	£360	£340	£370
Llandaff	£345	£335	£330	£310	£335	£395	£375	£375	£380	£380
Plasnewydd		£240	£250	£250	£250			£265	£305	£270
Pontprennau and Old St Mellons	£315	£310	£295	£250	£300	£345	£360	£340	£275	£345
Radyr and Morganstown	£320	£315	£335	£240	£300	£370	£360	£365	£270	£350
Rhiwbina	£370	£325	£320	£230	£310	£470	£360	£360	£245	£360
Splott	£260	£225	£205	£230	£210	£290	£275	£230	£250	£240
Trowbridge	£265	£245	£225	£175	£245	£320	£275	£275	£195	£285
Whitchurch and Tongwynlais	£325	£300	£285	£240	£290	£395	£360	£330	£265	£330

PRICES	Detached	Semi-detached	Terrace	Flat	Total Average	Detached	Semi-detached	Terrace	Flat	Total Average
Region	Avg	Avg	Avg	Avg	Avg	UQ	UQ	UQ	UQ	UQ
NE Cardiff	£441,500	£292,500	£242,000	£160,500	£266,000	£542,500	£340,000	£276,500	£190,500	£304,500
N City Fringe	£419,500	£333,000	£268,500	£161,500	£273,500	£447,500	£401,500	£296,500	£180,000	£354,500
E City Fringe	£466,000	£250,500	£254,500	£191,500	£265,000	£592,500	£288,000	£279,000	£198,500	£305,000
N Cardiff	£526,000	£320,500	£252,500	£158,500	£288,000	£622,500	£375,000	£300,000	£178,500	£340,500
City Centre	£515,000	£323,500	£258,000	£166,500	£284,000	£652,500	£365,000	£300,000	£182,500	£335,000
W City Fringe	£448,500	£328,000	£258,000	£148,500	£288,000	£556,500	£342,000	£300,500	£187,500	£334,000
Ely	£414,000	£269,000	£279,500	£160,500	£261,500	£532,500	£295,000	£306,000	£185,000	£313,000
Radyr	£531,000	£258,500	£252,500	£164,000	£281,500	£760,000	£314,500	£282,500	£197,000	£334,000

£ PSF	Detached	Semi-detached	Terrace	Flat	Total Average	Detached	Semi-detached	Terrace	Flat	Total Average
Region	Avg	Avg	Avg	Avg	Avg	UQ	UQ	UQ	UQ	UQ
NE Cardiff	£280	£255	£245	£225	£250	£345	£300	£295	£250	£295
N City Fringe	£310	£310	£260	£225	£270	£365	£360	£305	£250	£320
E City Fringe	£285	£250	£280	£255	£265	£305	£300	£300	£280	£295
N Cardiff	£325	£280	£255	£255	£270	£380	£345	£305	£270	£325
City Centre	£330	£285	£255	£245	£275	£385	£340	£310	£290	£320
W City Fringe	£285	£270	£260	£215	£260	£345	£320	£300	£240	£310
Ely	£300	£255	£265	£240	£260	£325	£315	£300	£275	£305
Radyr	£335	£225	£230	£240	£250	£375	£245	£290	£280	£300

8. Viability Appraisals

8.1.1. An appraisal of each of the 16 scenarios has been carried out, including a cash flow analysis.

8.1.2. The assumptions made for each site are set out across the following pages.

Site Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ward	Pontprennau and Old St Mellons	Plasnewydd	Trowbridge	Sploitt	Gabalfa	Llandaff	Pontprennau and Old St Mellons	Rhiwbina	Whitchurch and Tongwynlais	Cathays	Grangetown	Ely	Lisvane and Thornhill	Butetown	Grangetown	Radyr and Morganstown
Region	NE Cardiff	N City Fringe	NE Cardiff	E City Fringe	N City Fringe	N Cardiff	NE Cardiff	N Cardiff	N Cardiff	City Centre	W City Fringe	Ely	N Cardiff	City Centre	W City Fringe	Radyr
Dwellings (2021-2036)	2	5	10	46	65	90	135	140	140	175	200	250	250	315	500	850
Greenfield / Brownfield	Greenfield	Brownfield	Greenfield	Brownfield	Brownfield	Brownfield	Greenfield	Brownfield	Brownfield	Brownfield	Brownfield	Greenfield	Greenfield	Brownfield	Brownfield	Greenfield
Site Area (Ha)	0.1	0.1	0.55	0.44	1.83	3.4	8.28	3.8	3.98	0.009	4.8	4.7	14.16	3.36	10.24	57
Benchmark Land Value																
BLV (pHa)	£1,850,000	£1,500,000	£750,000	£2,200,000	£750,000	£1,250,000	£1,250,000	£2,450,000	£2,450,000	£777,777,778	£1,750,000	£1,250,000	£1,250,000	£3,700,000	£1,750,000	£850,000
BLV per Acre	£750,000	£600,000	£300,000	£900,000	£300,000	£500,000	£500,000	£1,000,000	£1,000,000	£314,760,000	£700,000	£500,000	£500,000	£1,500,000	£700,000	£350,000
Site Value	£185,000	£150,000	£412,500	£968,000	£1,372,500	£4,250,000	£10,350,000	£9,310,000	£9,751,000	£7,000,000	£8,400,000	£5,875,000	£17,700,000	£12,432,000	£17,920,000	£48,450,000
p Dwelling	£92,500	£30,000	£41,250	£21,043	£21,115	£47,222	£76,667	£66,500	£69,650	£40,000	£42,000	£23,500	£70,800	£39,467	£35,840	£57,000
Unit Density p Ha	20	50	18	105	36	26	16	37	35	19444	42	53	18	94	49	15
Unit Mix																
Greenfield / Brownfield	Greenfield	Brownfield	Greenfield	Brownfield	Brownfield	Brownfield	Greenfield	Brownfield	Brownfield	Brownfield	Brownfield	Greenfield	Greenfield	Brownfield	Brownfield	Greenfield
Houses	2	0	10	10	0	90	135	140	140	0	200	250	250	0	500	850
Flats	0	5	0	36	65	0	0	0	0	175	0	0	0	315	0	0
Market Detached	100%	-	-	-	-	-	50%	20%	-	-	-	40%	40%	-	-	40%
Market Semi-detached	-	-	100%	22%	-	35%	30%	30%	30%	-	-	40%	40%	-	30%	40%
Market Terrace	-	-	-	-	-	35%	20%	50%	50%	-	70%	20%	20%	-	50%	20%
Market Flat	-	100%	-	78%	100%	30%	-	-	20%	100%	30%	-	-	100%	20%	-
GDV	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ward	Pontprennau and Old St Mellons	Plasnewydd	Trowbridge	Sploitt	Gabalfa	Llandaff	Pontprennau and Old St Mellons	Rhiwbina	Whitchurch and Tongwynlais	Cathays	Grangetown	Ely	Lisvane and Thornhill	Butetown	Grangetown	Radyr and Morganstown
Region	NE Cardiff	N City Fringe	NE Cardiff	E City Fringe	N City Fringe	N Cardiff	NE Cardiff	N Cardiff	N Cardiff	City Centre	W City Fringe	Ely	N Cardiff	City Centre	W City Fringe	Radyr
Detached Cap Value	£575,000	£425,000	£400,000	£425,000	£425,000	£550,000	£415,000	£550,000	£550,000	£652,500	£400,000	£350,000	£550,000	£652,500	£400,000	£550,000
Semi-detached Cap Value	£340,000	£375,000	£325,000	£350,000	£375,000	£475,000	£325,000	£475,000	£475,000	£365,000	£350,000	£275,000	£475,000	£365,000	£350,000	£475,000
Terrace Cap Value	£276,500	£315,000	£275,000	£275,000	£325,000	£400,000	£275,000	£400,000	£400,000	£300,000	£300,000	£225,000	£350,000	£300,000	£300,000	£350,000
Flat Cap Value	£190,500	£185,000	£185,000	£185,000	£185,000	£265,000	£190,500	£265,000	£265,000	£275,000	£200,000	£185,000	£200,000	£275,000	£200,000	£200,000
Detached EPSM	£5,227	£3,864	£3,636	£3,864	£3,864	£5,000	£3,773	£5,000	£5,000	£5,932	£3,636	£3,182	£5,000	£5,932	£3,636	£5,000
Semi-detached EPSM	£3,579	£3,947	£3,421	£3,684	£3,947	£5,000	£3,421	£5,000	£5,000	£3,842	£3,684	£2,895	£5,000	£3,842	£3,684	£5,000
Terrace EPSM	£3,456	£3,938	£3,438	£3,438	£4,063	£5,000	£3,438	£5,000	£5,000	£3,750	£3,750	£2,813	£4,375	£3,750	£3,750	£4,375
Flat EPSM	£2,977	£2,891	£2,891	£2,891	£2,891	£4,141	£2,977	£4,141	£4,141	£4,297	£3,125	£2,891	£3,125	£4,297	£3,125	£3,125

Constructio n Costs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BCIS Category (Houses)	'One-off' housing detached (3 units or less) - Generally	Flats (apartments) - 1-2 storey	Estate housing - Generally	Housing, mixed development s -	Flats (apartments) - Generally	Housing, mixed development s -	Estate housing - Generally	Estate housing - Generally	Estate housing - Generally	Flats (apartments) - 6 storey or above	Housing, mixed development s -	Housing, mixed development s -	Housing, mixed development s -	Flats (apartments) - 6 storey or above	Housing, mixed development s -	Estate housing - Generally
Market Detached Costs	£2,308	£1,487	£1,353	£1,370	£1,561	£1,370	£1,353	£1,353	£1,353	£1,855	£1,370	£1,370	£1,370	£1,855	£1,370	£1,353
BCIS Category (Flats)	Flats (apartments) - 1-2 storey	'One-off' housing terraced (3 units or less) -	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 6 storey or above	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey	Flats (apartments) - 6 storey or above	Flats (apartments) - 1-2 storey	Flats (apartments) - 1-2 storey
Market Flat Costs	£1,487	£1,443	£1,487	£1,487	£1,487	£1,487	£1,487	£1,487	£1,487	£1,855	£1,487	£1,487	£1,487	£1,855	£1,487	£1,487
Constructio n Timings (Months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Construction Costs START MONTH	3	3	3	3	3	3	6	6	6	6	6	6	6	6	6	6
Construction Costs PERIOD	12	12	12	12	18	18	18	18	18	24	30	36	36	30	42	48
Construction Costs END	15	15	15	15	21	21	24	24	24	30	36	42	42	36	48	54
Private GDV START MONTH	11	11	11	8	11	11	12	12	12	15	18	21	21	18	24	27
Private GDV PERIOD	0	1	1	5	7	9	14	14	14	18	20	25	25	32	50	85
Private GDV END	11	12	12	13	18	20	26	26	26	33	38	46	46	50	74	112
Affordable GDV START MONTH	15	15	15	15	21	21	24	24	24	30	36	42	42	36	48	54
Affordable GDV PERIOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable GDV END	15	15	15	15	21	21	24	24	24	30	36	42	42	36	48	54
FULL PERIOD	15	15	15	15	21	21	26	26	26	33	38	46	46	50	74	112

8.2 Scenario Analysis

- 8.2.1. Each of the appraisals have then been subject to scenario analyses around different proportions of affordable housing and tenure mix.
- 8.2.2. Under each of these scenarios, the appraisals then produce a figure per square metre of development. This figure, when multiplied by the total floor area of the development, provides the overall sum available for infrastructure contributions beyond the affordable housing provision.
- 8.2.3. If the figure is negative, that scenario is unviable, as there is no further surplus for infrastructure payments. However, it should be noted that the appraisals are sensitive to small changes in our assumptions. Therefore scenarios that are shown to be unviable in the following sensitivity table could reach viability in different circumstances.
- 8.2.4. The affordable housing scenarios tested for each site are as follows:

Affordable Housing Proportion

Affordable Housing Share	Market Housing Share
0%	100%
5%	95%
10%	90%
15%	85%
20%	80%
25%	75%
30%	70%
35%	65%
40%	60%
45%	55%
50%	50%

Tenure Mix

SCENARIO	Social Rent	Intermediate	LCHO	Total
A	80%	0%	20%	100%
B	100%	0%	0%	100%

- 8.2.5. The results of this analysis are presented on the next page.

Site Number	Ward	Dwellings	Greenfield / Brownfield	Site Area (Ha)	SCENARIO	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
1	Pontprennau and Old St Mellons	2	Greenfield	0.1	A	£191	£191	£191	£191	£191	£191	£191	£191	£191	£191	£191
					B	£191	£191	£191	£191	£191	£191	£191	£191	£191	£191	£191
2	Plasnewydd	5	Brownfield	0.1	A	-£375	-£375	-£505	-£505	-£505	-£505	-£650	-£650	-£650	-£650	-£743
					B	-£375	-£375	-£505	-£505	-£505	-£505	-£650	-£650	-£650	-£650	-£803
3	Trowbridge	10	Greenfield	0.55	A	£443	£285	£285	£130	£130	£85	£85	-£69	-£69	-£226	-£226
					B	£443	£285	£285	£130	£130	-£24	-£24	-£178	-£178	-£333	-£333
4	Splott	46	Brownfield	0.44	A	£13	-£11	-£76	-£101	-£155	-£194	-£222	-£285	-£307	-£385	-£408
					B	£13	-£11	-£82	-£148	-£166	-£248	-£268	-£288	-£359	-£438	-£467
5	Gabalfa	65	Brownfield	1.83	A	-£319	-£344	-£385	-£413	-£442	-£476	-£517	-£548	-£583	-£615	-£659
					B	-£319	-£348	-£389	-£421	-£455	-£489	-£535	-£570	-£606	-£642	-£691
6	Llandaff	90	Brownfield	3.4	A	£1,129	£1,031	£937	£795	£709	£602	£464	£363	£274	£123	£33
					B	£1,129	£971	£884	£733	£638	£487	£398	£240	£95	-£4	-£151
7	Pontprennau and Old St Mellons	207	Greenfield	8.28	A	£458	£386	£305	£229	£159	£85	£14	-£56	-£130	-£201	-£285
					B	£458	£375	£283	£205	£122	£29	-£52	-£135	-£234	-£312	-£391
8	Rhiwbina	140	Brownfield	3.8	A	£1,309	£1,180	£1,066	£938	£824	£695	£565	£437	£309	£204	£83
					B	£1,309	£1,165	£1,027	£876	£729	£564	£445	£284	£164	-£4	-£129
9	Whitchurch and Tongwynlais	140	Brownfield	3.98	A	£950	£827	£722	£601	£493	£384	£261	£141	£18	-£76	-£197
					B	£950	£811	£686	£546	£422	£263	£135	-£1	-£127	-£266	-£394
10	Cathays	175	Brownfield	0.009	A	-£226	-£298	-£371	-£442	-£517	-£594	-£673	-£749	-£830	-£913	-£996
					B	-£226	-£309	-£393	-£470	-£557	-£646	-£737	-£819	-£913	-£1,008	-£1,104
11	Grangetown	200	Brownfield	4.8	A	£177	£102	£31	-£46	-£118	-£195	-£272	-£344	-£422	-£494	-£572
					B	£177	£92	£7	-£79	-£166	-£252	-£338	-£425	-£513	-£600	-£687
12	Ely	250	Greenfield	4.7	A	£228	£169	£112	£52	-£6	-£65	-£122	-£181	-£239	-£298	-£356
					B	£228	£161	£97	£29	-£35	-£103	-£166	-£234	-£298	-£366	-£430
13	Lisvane and Thornhill	250	Greenfield	14.16	A	£1,108	£987	£868	£746	£626	£503	£380	£254	£132	£8	-£113
					B	£1,108	£964	£828	£683	£546	£400	£260	£112	-£26	-£173	-£311
14	Butetown	315	Brownfield	3.36	A	-£368	-£444	-£521	-£595	-£672	-£754	-£838	-£916	-£1,002	-£1,089	-£1,173
					B	-£368	-£454	-£541	-£625	-£717	-£810	-£904	-£993	-£1,090	-£1,189	-£1,288
15	Grangetown	500	Brownfield	10.24	A	£200	£118	£37	-£45	-£127	-£210	-£292	-£377	-£462	-£549	-£635
					B	£200	£102	£10	-£88	-£181	-£281	-£376	-£479	-£576	-£680	-£777
16	Radyr and Morganstown	1425	Greenfield	57	A	£1,061	£940	£816	£695	£571	£445	£320	£192	£65	-£71	-£211
					B	£1,061	£912	£756	£596	£442	£284	£115	-£56	-£232	-£420	-£632

9. Conclusion

- 9.1.1. We would caveat that the appraisals above rely on a multitude of high-level assumptions, particularly around unit mix, sales value, construction costs and benchmark land values. This makes the results sensitive to fluctuations, and so determining the exact level at which affordable housing should be set is difficult. Nonetheless, definite trends can be identified.
- 9.1.2. The evidence shows that, across the range of greenfield sites, the schemes can viably support an affordable threshold of 30%. For brownfield sites, the level is 20%.
- 9.1.3. The appraisals continue to assume a 5 unit threshold in line with current policy, under which affordable housing does not need to be provided.

9.2 Recommendations

- 9.2.1. The Council maintain a policy that differentiates between greenfield and brownfield development sites. We would suggest a level of 30% on greenfield, and 20% on brownfield may be an appropriate figure that would enable the release of sufficient value to cover infrastructure delivery, whilst maintaining a contingency to protect against cost and price variability.
- 9.2.2. We would argue that maintaining this figure will deliver a higher level of affordable housing, by ensuring more developments are viable. We would recommend that this line be vigorously maintained with reduced capacity for negotiation.

Appendix I

Public Consultation Survey

Name		
↓		
Company		
↓		
On a generic scheme, what construction rate (please clarify whether sqm or sqft) would you apply to -		
Houses	Flats (Less than 6 storeys)	Flats (6 storeys+)
↓		
What value per acre would you apply to -		
Greenfield Land	Brownfield Land	
↓		
What would your estimated construction rate per month be?		
↓		
What is your estimated sales rate per month?		
↓		
What development finance rate would you currently apply to a development?		
↓		
Are you a Registered Social Landlord (RSL)?		
Yes	No	
↓		
What is your ideal proportion mix of Social Rent / Intermediate Rented / Shared Equity/Shared Ownership?		
↓		
What percentage of Open Market Value would you apply to a Shared Equity/Shared Ownership property in an appraisal?		

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