

Wokingham LPU Strategic Masterplanning – High Level Viability Assessment

Development appraisal assumptions for Twyford: Basic development appraisal assumptions

1 Assumed mix of unity types, sizes, values, density and site preparation costs:

Twyford		Unit types	25% of 2 bed need	75% of 2 bed need		75% of 4 bed + need	25% of 4 bed + need	Averages
split	Unit numbers	1 bed	2 bed F	2 bed H	3 bed H	4 bed	5 bed	
Total Nos tested	500, 2250, 3250							
Private 65%split	Mix based on SHMA West Berks	9.90%	6.63%	19.88%	41.60%	16.50%	5.5%	
Affordable 35% split		45.60%	14.70%	14.70%	22.00%	2.25%	0.8%	
Social rented	70%							
Intermediate	30%							
Floorspace	GIA	50	70	79	93	115	125	
	Gross	59	82	83	98	121	132	
£/M2		£ 4,650	£ 4,650	£ 5,205	£ 5,205	£ 5,195	5195	£ 5,143
£/M2 affordable SR	50%	£ 2,325	£ 2,325	£ 2,603	£ 2,603	£ 2,598	£ 2,598	£ 2,469
£/M2 affordable I	65% omv	£ 3,022.50	£ 3,022	£ 3,383	£ 3,383	£ 3,377	£ 3,377	£ 3,209
Price market		£ 232,500	£ 325,500	£ 411,195	£ 484,065	£ 597,425	£ 649,375	
Price affordable SR	70%	£ 116,250	£ 162,750	£ 205,598	£ 242,033	£ 298,713	£ 324,688	
Price affordable Intermediate	30%	£ 151,125	£ 211,575	£ 267,277	£ 314,642	£ 388,326	£ 422,094	
Assumed site area	Density	% open space	Total ha	Site prep	Per dev. ha			
	35dph	40		£500,000	per unit	say £14,300		
ha	14.29			£ 7,145,000	£ 14,290			

Ground rents for all flats assumed at £250 per annum, valued at 5% YP in perpetuity

2 Land acquisition Costs

- 4% stamp duty
- 1% agents fee
- 0.5% legal fee

3 Planning and site survey costs

- Planning £150,000 for 500 units, £600,000 for 2250 units, £750,000 for 3250 units
- Site survey £25,000 for 500 units, £100,000 for 2250 units, £125,000 for 3250 units

4 Construction costs – based on BCIS figures, average cost per M2 for various unit types

- Build costs £1,474 per M2
- Contingency 7.5%
- Developer's contingency 5%
- Highways/infrastructure costs as advised by PBA – see below under phasing assumptions:
- Open space layout:
 - 500 unit scheme: 1 phase £1,000,000
 - 2250 unit scheme: 4 phases £1,000,000 each
 - 3250 unit scheme: 5 phases £1,000,000 each
- NHBC costs £1,000 per unit

5 CIL – Indexed to March 2018

- £450 per M2 for private units

6 Professional fees

- 5% for architect
- 5% for others including CDM etc

7 Marketing

- 2.5% of build costs for private units

8 Sales and Legal fees

- Sales fees 1.25%
- Legal fees 0.25%

9 Finance

- 7% on debt, 0% on credit

10 Developer's return per phase

- 18.5% on GDV (Representing a blend of circa 20% on private and circa 6% on affordable)

Phasing, delivery and infrastructure assumptions – 500 unit option

The 500 unit option is assumed to be delivered as one rolling phase delivered over a total 3 year period.

The specific infrastructure which is **assumed to be a cost to the development** aside from that set out above amounts to some £18,585,600 is as follows:

1. <u>Highways infrastructure (Costed by PBA)</u>	Total	<u>£15,250,000</u>
• New roundabout on A4		£1,000,000
• New roundabout on B3032		£1,000,000
• Modifications to current bridge		£10,000,00
• Link A: A4 to B3032		£1,250,000
• Improvements to New Road and Stanlake Lane link		£1,000,000
• Recreation ground link		£500,000
• New roundabout on Recreation Ground Link/B3018		£500,000
2. <u>Utility costs</u>	Total	<u>£2,271,600</u>
• Electricity		£976,923
• Gas		£347,015
• Water		£287,865
• Foul Water		£659,797
3. <u>Sustainable transport measures (Costed by PBA)</u>	Total	<u>£379,000</u>
• New footways/cycleways		£99,000
• Bus stop infrastructure		£55,000
• My Journey Travel Plan contributions		£225,000
4. <u>Open space allowances</u>	Total	<u>£685,000</u>
• Open space management		£135,000
• Children's play		£450,000
• Playing pitches		£100,000

Areas assumed to be delivered through CIL/alternative forms of funding/third parties (i.e. not included as a cost to the developer in the financial appraisal):

• Cross roads and high street improvements	£1,000,000
• Educational facilities	£37,500
• Construction costs for allotments (Land provided by developer)	£40,000
• Community facilities	£450,000
	<u>Total</u> £1,527,500

See summary cost table overleaf.

Infrastructure Item	Comparables / Notes	Length of Road (m)	Estimated Cost
Strategic Transport			
Railways			
Highway Infrastructure			
New Roundabout on A4	(Multiple Examples)		£1,000,000
New Roundabout on B3032	(Multiple Examples)		£1,000,000
Modify Current Bridge	(Multiple Examples)		£10,000,000
A: A4 to B3032		500	£1,250,000
Improve 'New Road' and 'Stanlake Lane' Link			£1,000,000
Recreational Ground Link		600	£500,000
New Roundabout on Rec Ground Link / B3018			£500,000
Sustainable Transport			
New footways / cycleways (non-adj to carriageway)	£150 per m sq	220	£99,000
Bus stop infrastructure	£10k per stop	5.5	£55,000
My Journey Travel Plan contribution	£450 per house		£450
Electric vehicle infrastructure			
Cross Roads and High Street Improvement	Public realm and air quality improvements		£1,000,000
Strategic Flood Alleviation			
TBC (detailed flood modeling work required to determine interventions)			
Waste			
Waste disposal			
Recycling			
Utilities			
Electricity	PBA Calculations		£976,923
Gas	PBA Calculations		£347,015
Water	PBA Calculations		£287,865
Foul Water	PBA Calculations		£659,797
Electric vehicle infrastructure			
Education			
Not provided			
SANG			
1.73-2.16ha / 1,000 people (416 dwellings @ 2.4 persons per dwelling). Schemes between 5-7km of Thames Heath Basin SPA (i.e. Grazeley) cost circa £1,500 per dwelling to mitigate.). Assuming 15,000 dwellings, up to 78ha SANG required, to be delivered by developer through s106 obligation. Commuted sum for maintenance upto £7.2million	Pro rata from estimate within HIF		£0
Public Open Space			
Allotments			
0.52ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 18.75ha of land for allotments is required, although CIL receipt will cover construction costs. £1.2m in HIF	Pro rata from estimate within HIF		£40,000
Public Parks/Amenity Open Space			
2.08ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 75ha of Public Parks/Amenity Open Space are required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £4.05million (depending on actual area of POS delivered)	Pro rata from estimate within HIF		£135,000
Children's Play			
0.25ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 9ha of Children's Play space is required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £13.5million (depending on actual area and types of play facilities delivered)	Pro rata from estimate within HIF		£450,000
Playing pitches			
1.66ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 60ha of land for playing pitches is required, although CIL receipt will cover construction costs (the overall area can be reduced through the provision of high value ATPs. £3m in HIF	Pro rata from estimate within HIF		£100,000
Community			
Community facilities			
SONC suggests that facilities need to be delivered at 145m2/1000 people. Assuming 3,250 dwellings land for the delivery of a 1,232m2 community building/s to be delivered by developer, although CIL receipt will cover construction costs. £13.5m in HIF	Pro rata from estimate within HIF		£450,000
Health provision			
	Pay for upgrade at local Hub		£0
Indoor Leisure Facilities			
MDD DPD standard is 8.26m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 300m ² pool space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2m in HIF	Pro rata from estimate within HIF		£0
Indoor Leisure Facilities			
MDD DPD standard is 65.43m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 2400m ² Sports hall activity space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2.5m	Pro rata from estimate within HIF		£0

Current exclusions for discussion:

- Electric vehicle infrastructure
- Flood alleviation costs
- Waste/recycling costs
- Any commercial development

Outcome of initial baseline viability assessment:

Scheme generates the following:

1. The required level of developer's profit
2. The required level of CIL
3. The required level and mix of affordable housing
4. A land value above existing use value and would therefore encourage a landowner to sell for development. This indicates that based on these assumptions the development would be considered viable.

Phasing, delivery and infrastructure assumptions – 2250 unit option

The 2250 unit option is assumed to be delivered as a series of 4 strategic phases, providing 300, 600, 750 and 600 units respectively.

The development is assumed to be delivered over 110 months (9 years) in total, including lead in periods.

The specific infrastructure which is **assumed to be a cost to the development** aside from that set out above amounts to some £46,370,200 and is as follows:

1. <u>Highways infrastructure (Costed by PBA)</u>	Total	<u>£28,250,000</u>
• New underpass		£15,000,000
• New roundabout on A4		£1,000,000
• New roundabout on B3032		£1,000,000
• Link A: A4 to B3032		£1,250,000
• Link B: B3032 to Western Bridge Link		£2,500,000
• Link C: Western Bridge Link to B3024		£1,500,000
• Link D: B3024 to B3018		£5,000,000
• Recreation ground link		£500,000
• New roundabout on Recreation Ground Link/B3018		£500,000
2. <u>Utility costs</u>	Total	<u>£10,222,200</u>
• Electricity		£4,396,154
• Gas		£1,561,569
• Water		£1,295,391
• Foul Water		£2,969,086
3. <u>Sustainable transport measures (Costed by PBA)</u>	Total	<u>£4,815,500</u>
• New footways/cycleways		£423,000
• Bus stop infrastructure		£230,000
• New/improved bus services		£3,150,000
• My Journey Travel Plan contributions		£1,012,500
4. <u>Open space allowances</u>	Total	<u>£3082,500</u>
• Open space management		£607,500
• Children's play		£2,025,000
• Playing pitches		£450,000

Areas assumed to be delivered through CIL/alternative forms of funding/third parties (i.e. not included as a cost to the developer in the financial appraisal):

• New deck station car park 1000 spaces (assumed to be provided by NWR/TOC as income producing)	£7,500,000
• Cross roads and high street improvements	£1,000,000
• Educational facilities: 1 x 3fe school, Secondary Annexe (Land provided by developer as appropriate)	£20,000,000
• Construction costs for allotments (Land provided by developer)	£180,000
• Community facilities	£2,025,000
	<u>Total £30,705,000</u>

See summary cost table overleaf:

Infrastructure Item	Comparables / Notes	Length of Road (m)	Estimated Cost
Strategic Transport			
Railways			
New Deck Car Park 1000 spaces	(Staines/Amersham/Maidenhead)		£7,500,000
Highway Infrastructure			
New Underpass	(M4 Link Wichelstowe)		£15,000,000
New Roundabout on A4	(Multiple Examples)		£1,000,000
New Roundabout on B3032	(Multiple Examples)		£1,000,000
A: A4 to B3032		500	£1,250,000
B: B3032 to Western Bridge Link		1000	£2,500,000
C: Western Bridge Link to B3024		600	£1,500,000
D: B3024 to B3018		2000	£5,000,000
Recreational Ground Link		600	£500,000
New Roundabout on Rec Ground Link / B3018			£500,000
Sustainable Transport			
New footways / cycleways (non-adj to carriageway)	£150 per m sq	940	£423,000
Bus stop infrastructure	£10k per stop	21	£210,000
New / improved bus services	7 years, or until scheme becomes commercially viable. Will include a Wokingham-Twyford Express service, stopping at the new station and also Coppid Beach Park P&R.		£3,150,000
My Journey Travel Plan contribution	£450 per house		£1,012,500
Electric vehicle infrastructure			
Cross Roads and High Street Improvement	Public realm and air quality improvements		£1,000,000
Strategic Flood Alleviation			
TBC (detailed flood modeling work required to determine interventions)			
Waste			
Waste disposal			
Recycling			
Utilities			
Electricity	PBA Calculations		£4,396,154
Gas	PBA Calculations		£1,561,569
Water	PBA Calculations		£1,295,391
Foul Water	PBA Calculations		£2,969,086
Electric vehicle infrastructure			
Education			
1x 3FE primary school			£10,000,000
Secondary school annex (not a new school in its own right)	2500 units replace Piggott		£10,000,000
CIL			tbid
SANG			
1.73-2.16ha / 1,000 people (416 dwellings @ 2.4 persons per dwelling). Schemes between 5-7km of Thames Heath Basin SPA (i.e. Grazeley) cost circa £1,500 per dwelling to mitigate.).	Pro rata from estimate within HIF		£0
Assuming 15,000 dwellings, up to 78ha SANG required, to be delivered by developer through s106 obligation. Commuted sum for maintenance upto £7.2million			
Public Open Space			
Allotments			
0.52ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 18.75ha of land for allotments is required, although CIL receipt will cover construction costs. £1.2m in HIF	Pro rata from estimate within HIF		£180,000
Public Parks/Amenity Open Space			
2.08ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 75ha of Public Parks/Amenity Open Space are required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £4.05million (depending on actual area of POS delivered)	Pro rata from estimate within HIF		£607,500
Children's Play			
0.25ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 9ha of Children's Play space is required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £13.5million (depending on actual area and types of play facilities delivered)	Pro rata from estimate within HIF		£2,025,000
Playing pitches			
1.66ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 60ha of land for playing pitches is required, although CIL receipt will cover construction costs (the overall area can be reduced through the provision of high value ATPs. £3m in HIF	Pro rata from estimate within HIF		£450,000
Community			
Community facilities			
SONC suggests that facilities need to be delivered at 145m2/1000 people. Assuming 3,250 dwellings land for the delivery of a 1,232m2 community building/s to be delivered by developer, although CIL receipt will cover construction costs. £13.5m in HIF	Pro rata from estimate within HIF		£2,025,000
Health provision			
Indoor Leisure Facilities	Pay for upgrade at local Hub		£0
Indoor Leisure Facilities			
MDD DPD standard is 8.26m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 300m ² pool space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2m in HIF	Pro rata from estimate within HIF		£0
Indoor Leisure Facilities			
MDD DPD standard is 65.43m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 2400m ² Sports hall activity space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2.5m	Pro rata from estimate within HIF		£0

Current exclusions for discussion:

- Electric vehicle infrastructure
- Flood alleviation costs
- Waste/recycling costs
- Any commercial development

Outcome of initial baseline viability assessment:

Scheme generates the following:

1. The required level of developer's profit
2. The required level of CIL
3. The required level and mix of affordable housing
4. A land value above existing use value and would therefore encourage a landowner to sell for development. This indicates that based on these assumptions the development would be considered viable.

Phasing, delivery and infrastructure assumptions –3250 unit option

The 3250 unit option is assumed to be delivered as a series of 5 strategic phases, providing 450,750,750,750, and 500 units respectively. The development is assumed to be delivered over 170 months (circa 14 years) in total, including lead in periods.

The specific infrastructure which is **assumed to be a cost to the development** aside from that set out above amounts to some £54,528,400 and is as follows:

1. <u>Highways infrastructure (Costed by PBA)</u>	Total	£30,000,000
• New underpass		£15,000,000
• New roundabout on A4		£1,000,000
• New roundabout on B3032		£1,000,000
• Link A: A4 to B3032		£1,250,000
• Link B: B3032 to Western Bridge Link		£2,500,000
• Link C: Western Bridge Link to B3024		£1,500,000
• Link D: B3024 to B3018		£5,000,000
• B3018 to D		£1,250,000
• New roundabout B3018		£500,000
• Recreation ground link		£500,000
• New roundabout on Recreation Ground Link/B3018		£500,000
•		
2. <u>Utility costs</u>	Total	£14,765,400
• Electricity		£6,350,000
• Gas		£2,255,600
• Water		£1,871,120
• Foul Water		£4,288,680
3. <u>Sustainable transport measures (Costed by PBA)</u>	Total	£5,310,500
• New footways/cycleways		£468,000
• Bus stop infrastructure		£230,000
• New/improved bus services		£3,150,000
• My Journey Travel Plan contributions		£1,462,500

4. <u>Open space allowances</u>	<u>Total</u> £4,452,500
• Open space management	£877,500
• Children's play	£2,925,000
• Playing pitches	£650,000

Areas assumed to be delivered through CIL/alternative forms of funding/third parties (i.e. not included as a cost to the developer in the financial appraisal):

• New Forecourt and Ticket Office	£2,000,000
• New Interchange	£2,000,000
• Deck current car park 250 spaces	£3,125,000
• New surface car park 1,000 spaces	£2,500,000
• New deck car park 1,000 spaces	£7,500,000
• Cross roads and high street improvements	£1,000,000
• Educational facilities: 2 x 2fe schools, Secondary annexe (Land provided by developer as appropriate)	£24,000,000
• Construction costs for allotments (Land provided by developer)	£260,000
• Community facilities	£2,925,000
	<u>Total</u> £45,310,000

See summary cost table overleaf:

Infrastructure Item	Comparables / Notes	Length of Road (m)	Estimated Cost
Strategic Transport			
Railways			
New Deck Car Park 1000 spaces	(Staines/Amersham/Maidenhead)		£7,500,000
Highway Infrastructure			
New Underpass	(M4 Link Michelstowe)		£15,000,000
New Roundabout on A4	(Multiple Examples)		£1,000,000
New Roundabout on B3032	(Multiple Examples)		£1,000,000
A: A4 to B3032		500	£1,250,000
B: B3032 to Western Bridge Link		1000	£2,500,000
C: Western Bridge Link to B3024		600	£1,500,000
D: B3024 to B3018		2000	£5,000,000
B3018 to D		500	£1,250,000
New Roundabout B3018			£500,000
Recreational Ground Link		600	£500,000
New Roundabout on Rec Ground Link / B3018			£500,000
Sustainable Transport			
New footways / cycleways (non-adj to carriageway)	£150 per m sq	1040	£468,000
Bus stop infrastructure	£10k per stop	23	£230,000
New / improved bus services	7 years, or until scheme becomes commercially viable. Will include a Wokingham-Twyford Express service, stopping at the new station and also Coppid Beach Park P&R.		£3,150,000
My Journey Travel Plan contribution	£450 per house		£1,462,500
Electric vehicle infrastructure			
Cross Roads and High Street Improvement	Public realm and air quality improvements		£1,000,000
Strategic Flood Alleviation			
TBC (detailed flood modeling work required to determine interventions)			
Waste			
Waste disposal			
Recycling			
Utilities			
Electricity	PBA Calculations		£6,350,000
Gas	PBA Calculations		£2,255,600
Water	PBA Calculations		£1,871,120
Foul Water	PBA Calculations		£4,288,680
Electric vehicle infrastructure			
Education			
2 x 2FE primary school			£14,000,000
Secondary school annex (not a new school in its own right)	2500 units replace Piggott		£10,000,000
CIL			tbd
SANG			
1.73-2.16ha / 1,000 people (416 dwellings @ 2.4 persons per dwelling). Schemes between 5-7km of Thames Heath Basin SPA (i.e. Grazeley) cost circa £1,500 per dwelling to mitigate. Assuming 15,000 dwellings, up to 78ha SANG required, to be delivered by developer through s106 obligation. Commuted sum for maintenance upto £7.2million	Pro rata from estimate within HIF		£0
Public Open Space			
Allotments			
0.52ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 18.75ha of land for allotments is required, although CIL receipt will cover construction costs. £1.2m in HIF	Pro rata from estimate within HIF		£260,000
Public Parks/Amenity Open Space			
2.08ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 75ha of Public Parks/Amenity Open Space are required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £4.05million (depending on actual area of POS delivered)	Pro rata from estimate within HIF		£877,500
Children's Play			
0.25ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 9ha of Children's Play space is required, to be delivered by developer through s106 obligation. Commuted sum for maintenance at least £13.5million (depending on actual area and types of play facilities delivered)	Pro rata from estimate within HIF		£2,925,000
Playing pitches			
1.66ha /1000 people (416 dwellings @ 2.4 persons per dwelling). Assuming 15,000 dwellings, up to 60ha of land for playing pitches is required, although CIL receipt will cover construction costs (the overall area can be reduced through the provision of high value ATPs. £3m in HIF	Pro rata from estimate within HIF		£650,000
Community			
Community facilities			
SONC suggests that facilities need to be delivered at 145m2/1000 people. Assuming 3,250 dwellings land for the delivery of a 1,232m2 community building/s to be delivered by developer, although CIL receipt will cover construction costs. £13.5m in HIF	Pro rata from estimate within HIF		£2,925,000
Health provision			
Pay for upgrade at local Hub			
Indoor Leisure Facilities			
MDD DPD standard is 8.26m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 300m ² pool space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2m in HIF	Pro rata from estimate within HIF		£0
Indoor Leisure Facilities			
MDD DPD standard is 65.43m ² /1000 people. Assuming 15,000 dwellings, land for the delivery of a 2400m ² Sports hall activity space to be delivered by developer, although CIL receipt will cover construction costs. Possibly to be delivered at Arborfield Garrison site. £2.5m	Pro rata from estimate within HIF		£0

Current exclusions for discussion:

- Electric vehicle infrastructure
- Flood alleviation costs
- Waste/recycling costs
- Any commercial development

Outcome of initial baseline viability assessment:

Scheme generates the following:

1. The required level of developer's profit
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4. A land value above existing use value and would therefore encourage a landowner to sell for development. This indicates that based on these assumptions the development would be considered viable.