Appendix 1 - Financial Summary for Surrey Road

		Temporary Accommodation in HRA			Comment
Homes				0	
Prudential Borrowing Period		50	50	50	
		Affordable Rent £000s	**Shared Ownership £000s**	**TOTAL £000s**	
Scheme Costs			£ -		
Works	£3730m2	3,178	0	3,178	
Fees		124	0	124	
Other costs (Contingency at 5%)		163	0	163	
Interest (during Build Phase)		28	0	28	
Land Acquisition costs	Transfer value	25	0	25	
Total Scheme Cost		3,518	0	3,518	
Scheme Funding	Funding rate (per unit)	0	0	0	
DLUHC Grant - Local Authority Housing Fund		-1,200	0	-1,200	
Homes England Grant - Accelerated Construction		0	0	0	
Affordable Housing s106 Contributions		-480	0	-480	
Sales - Shared Ownership		0	0	0	
Housing Revenue Account		0	0	0	
- Capital Funding - 1 for 1 Right to Buy Receipts		0	0	0	
- Capital Funding - Reserve allocation		0	0	0	
Prudential Borrowing - additional borrowing		-1,838	0	-1,838	
OPE funding		0	0	0	
Total Scheme Funding (as Cabinet and Council Approved)		-3,518	0	-3,518	
Net Cost shown as Shortfall if +'ve		0	0	0	
Total scheme value		3,545	0	3,545	

Appendix 2 - Longterm cashflow f Surrey Road

Key Data	Target Cost	Borrowing Term	Loan Interest	Inflation	*Annual Borrowing Costs*	*Annual Operational Costs (Year 1)*	*Annual Income Requirement*	*Expected income (Year 1)*	*Variance*
	£	Years	%	%	£	£	£	£	£
PWLB borrowing element	1,810,000	50	5.10%	2.00%	*(91,100)*	*(6,365)*	*(97,465)*	*64,446*	*(33,019)*

10 year detailed summary		Year -3	Year -2	Year -1	Construction Phase Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20	Year 21-30	Year 31-40	Year 41-50
Construction Phase cost			759,371	1,050,629	1,810,000														
Other income (B+B savings)						0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Residential Rent	2%				0	(64,446)	(111,769)	(114,004)	(116,284)	(118,610)	(120,982)	(123,402)	(125,869)	(128,387)	(130,955)	(1,462,597)	(1,782,897)	(2,173,341)	(2,649,291)
Service charge						0	0	0	0	0	0	0	0	0	0	0	0	0	0
Voids	2% of Gross residential rent				0	1,289	2,235	2,280	2,326	2,372	2,420	2,468	2,517	2,568	2,619	29,253	35,659	43,467	52,988
Gross Rent after allowance for Voids					0	**(63,157)**	**(109,534)**	**(111,724)**	**(113,958)**	**(116,238)**	**(118,562)**	**(120,934)**	**(123,352)**	**(125,819)**	**(128,336)**	**(1,433,344)**	**(1,747,238)**	**(2,667,364)**	**(2,596,303)**
RSL Management	2.0% CPI				0	2,226	3,861	3,938	4,016	4,097	4,179	4,262	4,348	4,435	4,523	50,520	61,581	75,069	91,508
Maintenance	2.0% CPI				0	3,654	6,337	6,464	6,593	6,725	6,859	6,997	7,137	7,279	7,425	82,926	101,089	123,223	150,210
Major Repairs	2.0% CPI				0	0	0	0	0	0	0	0	0	0	0	323,917	410,286	500,137	609,665
Service cost	2.0% CPI					485	842	859	876	893	911	929	948	967	986	11,015	12,906	15,731	19,177
Annual operational spend					0	**6,365**	**11,040**	**11,261**	**11,485**	**11,715**	**11,949**	**12,188**	**12,433**	**12,681**	**12,934**	**468,378**	**585,862**	**714,160**	**870,560**
Net Income before debt repayment					0	(56,792)	(98,494)	(100,463)	(102,473)	(104,523)	(106,613)	(108,746)	(110,919)	(113,138)	(115,402)	(964,966)	(1,161,376)	(1,953,204)	(1,725,743)
Repayment of Borrowing (interest)		0	(410)	6,960	6,550	53,336	91,100	90,654	90,185	89,692	89,175	88,630	88,059	87,458	86,826	825,543	714,112	530,869	229,532
Repayment of Borrowing (principal)		0	0	15,187	15,187	6,523	8,744	9,190	9,659	10,152	10,669	11,214	11,785	12,386	13,018	172,897	284,328	467,571	768,908
(Surplus) / Deficit		**-**	**758,961**	**1,072,776**	**1,831,737**	**3,067**	**1,350**	**(619)**	**(2,629)**	**(4,679)**	**(6,769)**	**(8,902)**	**(11,075)**	**(13,294)**	**(15,558)**	**33,474**	**(162,936)**	**(954,764)**	**(727,303)**
Cumulative (Surplus) / Deficit		**-**	**758,961**	**1,831,737**	**1,831,737**	**3,067**	**4,417**	**3,798**	**1,169**	**(3,510)**	**(10,279)**	**(19,181)**	**(30,256)**	**(43,550)**	**(59,108)**	**(25,634)**	**(188,570)**	**(1,143,334)**	**(1,870,637)**
Asset valuation (inflation method)						3,545,000	3,615,900	3,688,218	3,761,982	3,837,222	3,913,966	3,992,246	4,072,091	4,153,533	4,236,603	5,164,396	5,815,948	6,421,277	7,089,608

Appendix 3 - Appraisal Assumptions for Surrey Road

Accommodation Schedule **Rent Levels per wk**

Unit size m2	Unit type	Number of units	Tenure	LHA rent level		Affordable rent		Social rent	S/O rent	Market rent
100	3b5p	4	AR	£	264.66	£	264.66	£149.61 - £153.71 pw	N/A	£402.74 - £425.75 pw
113	3b5p	4	AR	£	264.66	£	264.66	£149.61 - £153.71 pw	NA	£402.74 - £425.75 pw
TOTAL		8								

Service Charges	Nil
Build costs (rate £m2)	£0
Contingency	5%
Voids and bad debts	2%
Management	£477unit/pa Based on historic variable costs per unit
Maintenance	£783 unit/pa Based on historic variable costs per unit
Major Repairs	0.8% of build cost deferred to Yr10 As agreed with Principal Surveying Manager
Loan interest rate %	5.1% Short term; 5.1% Long term
Loan term and type	50 year annuity

On costs/Fees element	**Amount**	
Planning Application fees	£	3,696.00
Valuation Fee	£	1,500.00
Architect	£	10,725.00
Employers Agent & QS	£	9,600.00
Ecology reports	£	1,239.00
Ground Investigation	£	9,360.00
Topographical Survey	£	-
Arborcultural Survey	£	1,600.00
Principle Designer (Precontract)	£	2,450.00
CIL and s106 payments	£	3,595.00
HLS Staff cost (Dev income)	£	40,000.00
Security fencing	£	6,137.00
Acoustic	£	1,170.00
Heathland Mitigation houses	£	-
Bat surveys	£	3,984.00
Tree removal	£	14,000.00
Drainage strategy	£	2,525.00
Carbon reduction report	£	1,595.00
Structural engineer	£	11,425.00
EV charging	£	-
Total	**£**	**124,601.00**

Note: On costs/fees are split by number of units to each financial appraisal

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

This is an interim report for a DIA that has been requested but yet to be completed.

If there is a RAG (coloured circle) that has not had its dependent field selected yet, it will appear as a white circle.

Impact Summary

Climate Change & Energy	Amber - Minor negative impacts identified / unknown impacts	
Communities & Culture	Green - Only positive impacts identified	
Waste & Resource Use	Amber - Minor negative impacts identified / unknown impacts	
Economy	Amber - Minor negative impacts identified / unknown impacts	
Health & Wellbeing	Green - Only positive impacts identified	
Learning & Skills		
Natural Environment	Yes	
Sustainable Procurement	Amber - Minor negative impacts identified / unknown impacts	
Transport & Accessibility	Amber - Minor negative impacts identified / unknown impacts	

Answers provided indicate that the score for the carbon footprint of the proposal is: **2**

Answers provided indicate that the carbon footprint of the proposal is:	**Low**	

Proposal ID: **263**

Proposal Title: **Surrey Road, Bournemouth, BH2 6AZ**

Type of Proposal: **Project**

Brief description:

Proposal for the development of 8 townhouses.

Proposer's Name: **Claire Lynch**

Proposer's Directorate: **Environment & Community**

Proposer's Service Unit: **Environment**

Estimated cost (£): **Between £25K and OJEU threshold**

If known, the cost amount (£): **circa £2.3 million**

Ward(s) Affected (if applicable):

Talbot & Branksome Woods

Sustainable Development Goals (SDGs) supported by the proposal:

1. No Poverty 3. Good Health and Well Being 7. Affordable and Clean Energy 8. Decent Work and Economic Growth 9. Industry, Innovation and Infrastructure 10. Reduced Inequalities 11. Sustainable Cities and Communities 12. Responsible Consumption and Production

Climate Change & Energy

Is the proposal likely to have any impacts (positive or negative) on addressing the causes and effects of climate change? **Yes**

If the answer was No, then the explanation is below (in this case there are no answers to subsequent questions in this section):

1) Has the proposal accounted for the potential impacts of climate change, e.g. flooding, storms or heatwaves? **Yes**

2) Does it assist reducing CO2 and other Green House Gas (GHG) emissions? E.g. reduction in energy or transport use, or waste produced. **Yes**

3) Will it increase energy efficiency (e.g. increased efficiency standards / better design / improved construction technologies / choice of materials) and/or reduce energy consumption? **Yes**

4) Will it increase the amount of energy obtained from renewable and low carbon sources? **Yes**

How was the overall impact of the proposal on its ability to positively address the cause and effects of climate change rated?

Amber - Minor negative impacts identified / unknown impacts

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

The development will provide highly energy efficient homes. It will help address the 2019 BCP Council declared Climate and Ecological Emergency and future proof the new homes against the 2025 Future Homes Standard for Housing. The development will contribute to the Council's commitment to achieving a net zero carbon emission target. Short-term emissions will be generated through the demolition of the existing building, materials supply chain and construction process. The successful contractors will be encoruaged to minimise their environmental impact by use of sustainable procedures and processes.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

We intend to build the scheme to the principles of the Passihaus standard. This standard offers the benefit of very low carbon heating requirements and world leading levels of energy efficiency by not relying on fossil fuel heating systems. Further environmental assessments will be undertaken in later stages of procurement.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Communities & Culture

Is the proposal likely to impact (positively or negatively) on the development of safe, vibrant, inclusive and engaged communities? **Yes**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will it help maintain and expand vibrant voluntary and community organisations? **Yes**

2) Will it promote a safe community environment? **Yes**

3) Will it promote and develop cultural activities? **Don't know even though may be relevant**

How would the overall impact of the proposal on the development of safe, vibrant, inclusive and engaged communities be rated?

Green - Only positive impacts identified

Reasoning for the answer (details of impacts including evidence and knowledge gaps):

The housing scheme will bring many benefits to the residents and the wider community through the consideration of green space and provision of private amenity space for prospective residents to help create an attractive area which improves the local community.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

Input on the scheme will be sought from Neighbourhood Management, Housing Delivery Enabling and Housing Options and Partnership teams, as well as Ward Coucillors.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Waste & Resource Use

Is the proposal likely to have any impacts (positive or negative) on waste resource use or production and consumption? **Yes**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will it prevent waste or promote the reduction, re-use, recycling or recovery of materials? **Yes**

2) Will it use sustainable production methods or reduce the need for resources? **Yes**

3) Will it manage the extraction and use of raw materials in ways that minimise depletion and cause no serious environmental damage? **Don't know even though may be relevant**

4) Will it help to reduce the amount of water abstracted and / or used? **Yes**

How would the overall impact of the proposal on the sustainable production and consumption of natural resources be rated?

Amber - Minor negative impacts identified / unknown impacts 

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

Resources will be used and waste generated in the demolition of the existing buildings and construction of new homes. However, the high sustainability standards of the new housing will reduce resouce use over the lifespan of the building, especially in regards to fossil fuels.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

As above.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Economy

Is the proposal likely to impact (positively or negatively) on the area's ability to support, maintain and grow a sustainable, diverse and thriving economy? **Yes**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will the proposal encourage local business creation and / or growth?
   Don't know even though may be relevant

2) Will the proposal enable local jobs to be created or retained?
   Don't know even though may be relevant

3) Will the proposal promote sustainable business practices?
   Don't know even though may be relevant

=How would the overall impact of the proposal on it's potential to support and maintain a sustainable, diverse and thriving economy be rated?

Amber - Minor negative impacts identified / unknown impacts 

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

Exact local impacts are unknown at this stage. There will be an economic benefit to the suppliers/ contractors involved in this scheme and use of local suppliers will be encouraged. Local retailers will benefit financially from low energy bills as a result of highly efficient building stanrdards. We will work with the Council's Strategic Procurement Team regarding the letting of contracts.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

We will work with the Council's Procurement Team regarding the letting of contracts.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Health & Wellbeing

Is the proposal likely to impact (positively or negatively) on the creation of a inclusive and healthy social and physical environmental for all? **Yes**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will the proposal contribute to improving the health and wellbeing of residents or staff?
   Yes

2) Will the proposal contribute to reducing inequalities?
   Yes

3) Will the proposal contribute to a healthier and more sustainable physical environment for residents or staff?
   Yes

How would the overall impact of the proposal on the creation of a fair and healthy social and physical environmental for all be rated?

Green - Only positive impacts identified 

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

The proposal is for the development of modern high quality and energy efficient homes. The high energy efficiency of the proposed new building will help alleviate the financial and mental stresses of fuel poverty. The proposed scheme gives careful consideration to wider issues such as ecology. It will provide both private and public amenity space for prospective residents to help create an attractice area which would ahve a positive impact on health and wellbeing.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

Potential to undertake resident surveys to evidence improvements in health and wellbeing.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Learning & Skills

Is the proposal likely to impact (positively or negatively) on a culture of ongoing engagement and excellence in learning and skills? **No**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):
No provision at this stage to support community learning and development or skill based learning. Opportunities to include provisions such as apprencticeships through the supply chain can be explored with the Strategic Procurement Team.

1) Will it provide and/or improve opportunities for formal learning?

2) Will it provide and/or improve community learning and development?

3) Will it provide and/or improve opportunities for apprenticeships and other skill based learning?

How would the overall impact of the proposal on the encouragement of learning and skills be rated?

Amber - Minor negative impacts identified / unknown impacts

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

Natural Environment

Is the proposal likely to impact (positively or negatively) on the protection or enhancement of local biodiversity or the access to and quality of natural environments?
Yes

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will it help protect and improve biodiversity i.e. habitats or species (including designated and non-designated)? **Yes**

2) Will it improve access to and connectivity of local green spaces whilst protecting and enhancing them? **Partially**

3) Will it help protect and enhance the landscape quality and character?
Yes

4) Will it help to protect and enhance the quality of the area's air, water and land?
Partially

How would the overall impact of your proposal on the protection and enhancement of natural environments be rated?

Amber - Minor negative impacts identified / unknown impacts

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

As per recommendations in the Environmental Impact Assessment.

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

See Environmental Impact Assessment.

Sustainable Procurement

Does your proposal involve the procurement of goods, services or works? **Yes**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

Has or is it intended that the Strategic Procurement team be consulted?
Yes – already underway

If the Strategic Procurement team was not consulted, then the explanation for this is:

1) Do the Government Buying Standards (GBS) apply to goods and/or services that are planned to be bought?
   Yes

2) Has sustainable resource use (e.g. energy & water consumption, waste streams, minerals use) been considered for whole life-cycle of the product/service/work?
   Yes

3) Has the issue of carbon reduction (e.g. energy sources, transport issues) and adaptation (e.g. resilience against extreme weather events) been considered in the supply chain?
   Yes

4) Is the product/service fairly traded i.e. ensures good working conditions, social benefits e.g. Fairtrade or similar standards?
   Not Relevant

5) Has the lotting strategy been optimised to improve prospects for local suppliers and SMEs?
   Don't know even though may be relevant

6) If aspects of the requirement are unsustainable then is continued improvement factored into your contract with KPIs, and will this be monitored?
   Don't know even though may be relevant

How is the overall impact of your proposal on procurement which supports sustainable resource use, environmental protection and progressive labour standards been rated?

Amber - Minor negative impacts identified / unknown impacts

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

Procurement exercises for the supply of goods and services yet to be undertaken - impacts unknown at this stage.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Details of proposed mitigation/remedial action and monitoring (inc. timescales, responsible officers, related business plans etc):

Ongoing liaison with the Strategic Procurement Team.

Proposal Title: Surrey Road, Bournemouth, BH2 6AZ

Transport & Accessibility

Is the proposal likely to have any impacts (positive or negative) on the provision of sustainable, accessible, affordable and safe transport services - improving links to jobs, schools, health and other services? **Don't Know**

If the answer was No, then the explanation is below (there are no answers to subsequent questions in this section):

1) Will it support and encourage the provision of sustainable and accessible modes of transport (including walking, cycling, bus, trains and low emission vehicles)?
Yes

2) Will it reduce the distances needed to travel to access work, leisure and other services? **Don't know even though may be relevant**

3) Will it encourage affordable and safe transport options?
Yes

How would the overall impact of your proposal on the provision of sustainable, accessible, affordable and safe transport services be rated?

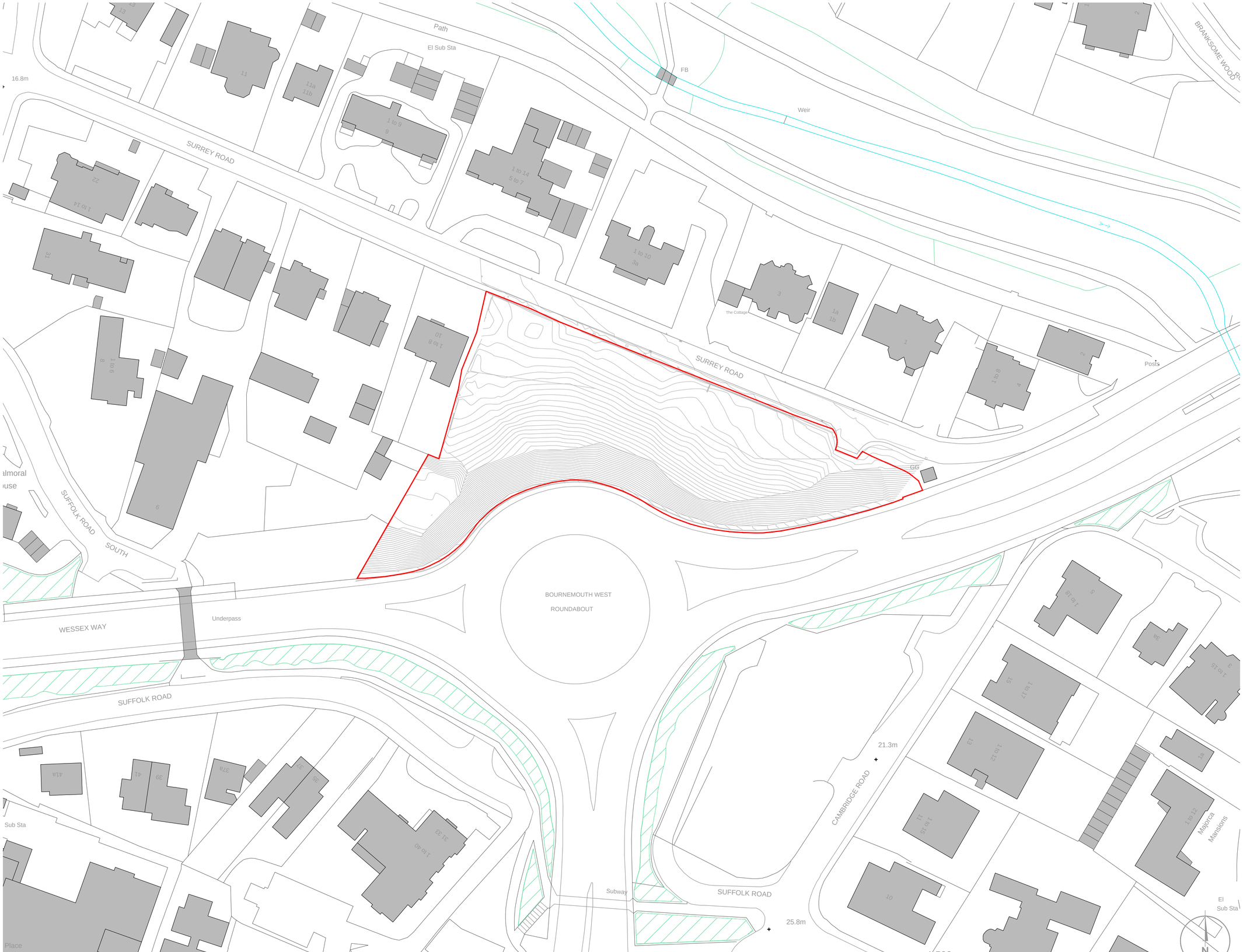
Amber - Minor negative impacts identified / unknown impacts

The reasoning for the answer (details of impacts including evidence and knowledge gaps):

The scheme will include the provision of cycle storage and encourage the use of low emission vehicles by providing charging points for electric vehicles. There are bus stops just outside and close to the development site. Local amenity facilities, education and retail centres are accessible on foot for able bodied people. The location of the scheme may enable residents to rely less on personal transport to access their places of work.

Details of proposed mitigation and monitoring (inc. timescales, responsible officers, related business plans etc):

Impacts dependent on the scale of sustainable travel provisions and circumstances of the residents.



site location plan [1:500@ A1]

notes

all dimensions to be checked on site prior to commencement of construction works and the architect notified of any discrepancy.

figured dimensions are to be used in preference to scaled dimensions.

no deviation from this drawing will be permitted without prior consent of the architect.

all drawings are prepared subject to a full measured and structural survey of the buildings and site.

all structural work is subject to the appointment of a structural engineer to confirm and agree the structural proposals.

os promap licence no. 100020449.

health & safety:
exceptional risks involving specific methods of construction or exceptional maintenance issues can be found within the designers risk assessment.

scale width 50 mm @ a1 - 25 mm @ a3

revision	notes	date	drawn	checked

client

PLANNING

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chartered architects town planning
interior design consultants

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tel 023 9248 1100
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email pdp@pdp-architects.co.uk

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project	Land At Surrey Road Bournemouth BH4 9HW
detail	Site Location Plan

drawn	JF
checked	HM
date	Jan 22
status	Planning
a1 scale	1:500
a3 scale	1:1000
rev	

28127 - PD100

notes

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scale width 50 mm @ a1 - 25 mm @ a3

revision	notes	date	drawn	checked
A	Drawing updated as per comments	10.03.22	JF	HM
B	Boundary Updated PV Panels Added	20.04.22	JF	HM
C	Drawing Updated As Per Comments	30.06.22	JF	HM
D	Amended following client's comments	12.07.22	IR	HM

client

PLANNING

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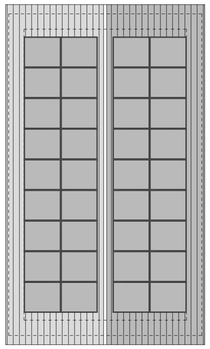
tel 023 9248 1100
fax 023 9247 5050
email pdp@pdp-architects.co.uk

www.pdp-architects.co.uk

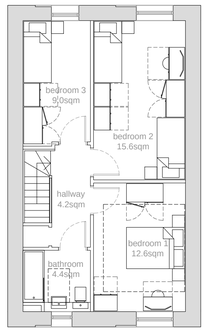
project: Land At Surrey Road
Bournemouth
BH4 9HW

detail: Proposed Site Plan

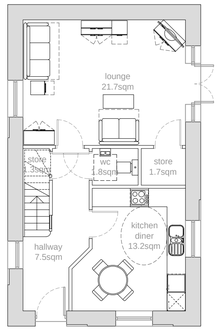
drawn	checked
JF	HM
date	**status**
Jan 22	Planning
a1 scale / a3 scale	rev
1:250 1:500	28127-PD110 D



roof level

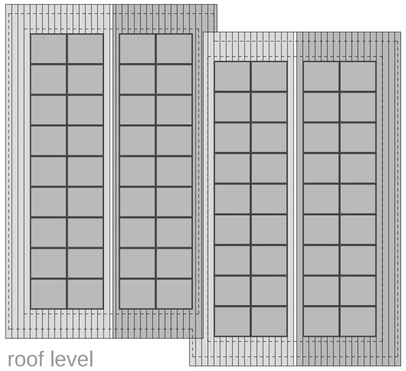


first floor

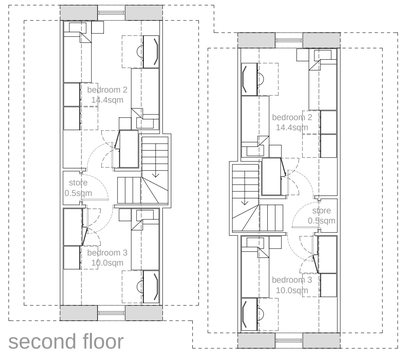


plot 8
ground floor

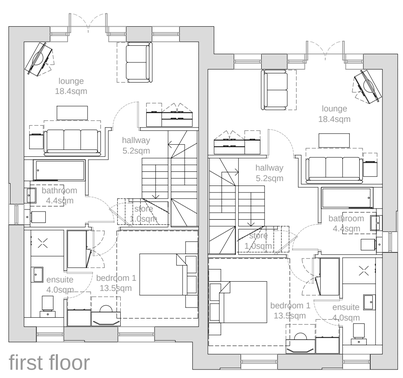
Schedule of Accommodation	
Plot 8 : 3 Bed 5 Person	
Total : 100sqm	
Lounge	21.7sqm
Kitchen Diner	13.2sqm
Bedroom One	12.6sqm
Bedroom Two	15.6sqm
Bedroom Three	9.0sqm
Hallway	11.7sqm
Storage	3.5sqm
Bathroom	4.4sqm
WC	1.8sqm
Parking Spaces	2no.



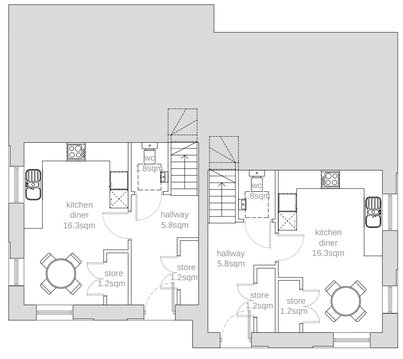
roof level



second floor



first floor



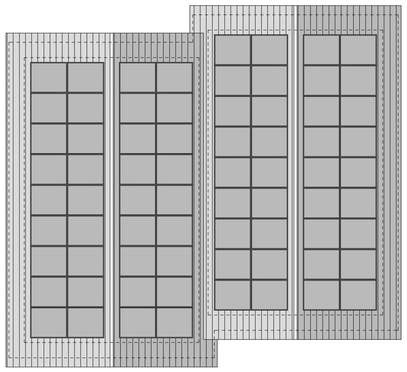
plot 7 plot 6
ground floor

Schedule of Accommodation	
Plot 7 : 3 Bed 5 Person	
Total : 113sqm	
Lounge	18.4sqm
Kitchen Diner	16.3sqm
Bedroom One	13.5sqm
Bedroom Two	14.4sqm
Bedroom Three	10.0sqm
Hallway	11.0sqm
Storage	3.9sqm
Bathroom	4.4sqm
Ensuite	4.0sqm
WC	1.8sqm
Parking Spaces	1no.

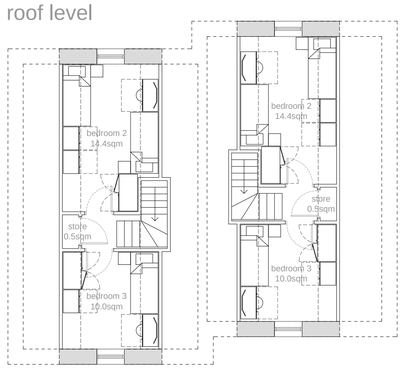
Schedule of Accommodation	
Plot 6 : 3 Bed 5 Person	
Total : 113sqm	
Lounge	18.4sqm
Kitchen Diner	16.3sqm
Bedroom One	13.5sqm
Bedroom Two	14.4sqm
Bedroom Three	10.0sqm
Hallway	11.0sqm
Storage	3.9sqm
Bathroom	4.4sqm
Ensuite	4.0sqm
WC	1.8sqm
Parking Spaces	1no.

Schedule of Accommodation	
Plot 5 : 3 Bed 5 Person	
Total : 113sqm	
Lounge	18.4sqm
Kitchen Diner	16.3sqm
Bedroom One	13.5sqm
Bedroom Two	14.4sqm
Bedroom Three	10.0sqm
Hallway	11.0sqm
Storage	3.9sqm
Bathroom	4.4sqm
Ensuite	4.0sqm
WC	1.8sqm
Parking Spaces	1no.

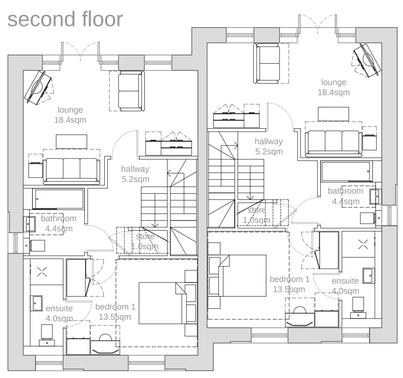
Schedule of Accommodation	
Plot 4 : 3 Bed 5 Person	
Total : 113sqm	
Lounge	18.4sqm
Kitchen Diner	16.3sqm
Bedroom One	13.5sqm
Bedroom Two	14.4sqm
Bedroom Three	10.0sqm
Hallway	11.0sqm
Storage	3.9sqm
Bathroom	4.4sqm
Ensuite	4.0sqm
WC	1.8sqm
Parking Spaces	1no.



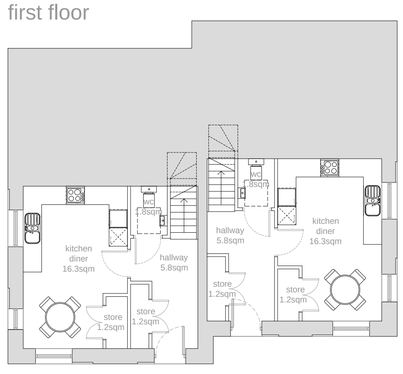
roof level



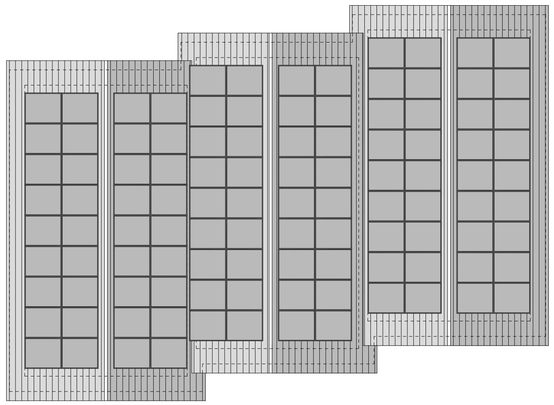
second floor



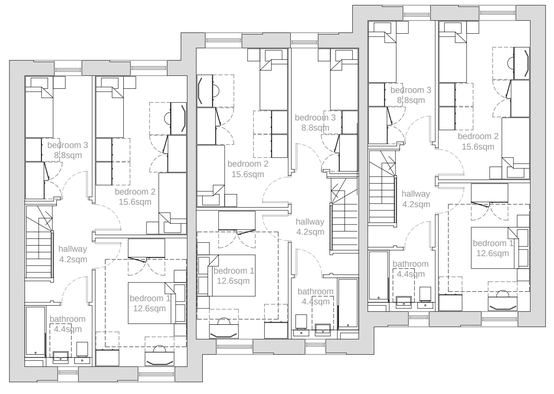
first floor



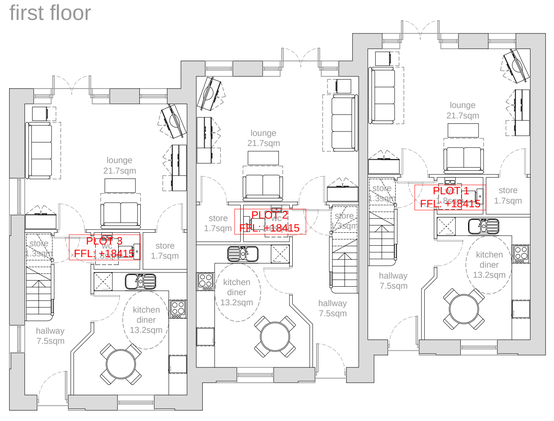
plot 5 plot 4
ground floor



roof level



first floor



plot 3 plot 2 plot 1
ground floor

Schedule of Accommodation	
Plot 3 : 3 Bed 5 Person	
Total : 100sqm	
Lounge	21.7sqm
Kitchen Diner	13.2sqm
Bedroom One	12.6sqm
Bedroom Two	15.6sqm
Bedroom Three	9.0sqm
Hallway	11.7sqm
Storage	3.5sqm
Bathroom	4.4sqm
WC	1.8sqm
Parking Spaces	2no.

Schedule of Accommodation	
Plot 2 : 3 Bed 5 Person	
Total : 100sqm	
Lounge	21.7sqm
Kitchen Diner	13.2sqm
Bedroom One	12.6sqm
Bedroom Two	15.6sqm
Bedroom Three	9.0sqm
Hallway	11.7sqm
Storage	3.5sqm
Bathroom	4.4sqm
WC	1.8sqm
Parking Spaces	2no.

Schedule of Accommodation	
Plot 1 : 3 Bed 5 Person	
Total : 100sqm	
Lounge	21.7sqm
Kitchen Diner	13.2sqm
Bedroom One	12.6sqm
Bedroom Two	15.6sqm
Bedroom Three	9.0sqm
Hallway	11.7sqm
Storage	3.5sqm
Bathroom	4.4sqm
WC	1.8sqm
Parking Spaces	2no.

proposed floor plans [1:100@ A1]

1:100
2m 0 2m 4m 6m 8m 10m

health & safety:
exceptional risks involving specific methods of construction or exceptional maintenance issues can be found within the designers risk assessment.

scale width 50 mm @ a1 - 25 mm @ a3

revision	notes	date	drawn	checked
A	Drawing updated to comments	16.02.22	JF	HM
B	Drawing updated as per comments	10.03.22	JF	HM
C	PV Panels Added	20.04.22	JF	HM
D	Drawing updated as per comments	30.06.22	JF	HM

client

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fax 023 9247 5050
email pdp@pdp-architects.co.uk
www.pdp-architects.co.uk

project: Land At Surrey Road Bournemouth BH4 9HW

detail: Proposed Floor Plans

drawn	checked
JF	HM
date	status
Jan 22	Planning
a1 scale 1:100 a3 scale 1:200	rev D

28127-PD112

plot no. 1 - 8
proposed street scene
1:200 @ A1

plot no.8

plot no. 6 - 7

plot no. 4 - 5

plot no. 1 - 3

proposed street scene [1:100@ A1]

1:100
2m 0 2m 4m 6m 8m 10m

notes

all dimensions to be checked on site prior to commencement of construction works and the architect notified of any discrepancy.

figured dimensions are to be used in preference to scaled dimensions.

no deviation from this drawing will be permitted without prior consent of the architect.

all drawings are prepared subject to a full measured and structural survey of the buildings and site.

all structural work is subject to the appointment of a structural engineer to confirm and agree the structural proposals.

os promap licence no. 100020449.

health & safety:
exceptional risks involving specific methods of construction or exceptional maintenance issues can be found within the designers risk assessment.

scale width 50 mm @ a1 - 25 mm @ a3

revision	notes	date	drawn	checked
A	Drawing updated to comments	16.02.22	JF	HM
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project: Land At Surrey Road
Bournemouth
BH4 9HW

detail: Proposed Street Scene

drawn	checked
JF	HM
date	**status**
Jan 22	Planning
a1 scale / a3 scale	**rev**
1:100 1:200	28127-PD113 D

Equality Impact Assessment: Report and EIA Action Plan

Purpose

Policy/Service under development/review:	Development of the site at Surrey Road, Bournemouth, BH2 6AZ.
Service Lead and Service Unit:	Jonathan Thornton, Head of Housing Delivery; Housing Delivery Team.
People involved in EIA process:	Jonathan Thornton, Housing Development Manager. Peter Friend, Project Manager.
Date EIA conversation started:	25/06/2021, and updated 08/02/2022

Background

To provide additional sustainable housing in the BCP area. The project includes the development of 8 residential units for affordable rent. The completed project will provide much needed additional family housing within the BCP conurbation.

There is need for additional homes across all tenures, with the demand for family housing being particularly high.

This site previously comprised of a number of residential villa's that were demolished for the development of the Wessex Way in the 1960's/70's. This is a piece of land that was essentially left over, which is green space – it contains trees and vegetation. Part of the site forms part of the retaining structure to support the Wessex Way. The site is in poor condition and is not maintained by the Council due to this cost. It is considered that this site represents an opportunity to create new high-quality purpose-built residential dwellings.

The benefits of the proposal include:

- Providing at least 8 new residential town houses for affordable rent.
- These homes will help towards imminent new Local Plan housing targets and will also contribute significantly to unmet housing need.
- The new homes provided will be designed and built to a better standard than currently.
- All homes will be built to the highest sustainability standards delivered through the excellent fabric first and airtightness approach (designed in this case to accommodate the principles of Passivhaus). All homes will be constructed to Building Control Approved Document Part M category1 (Access to and use of buildings- also to be referred to in future reports as the bronze standard.). This means that the new dwellings designed will meet wheelchair accessible standards.
- Benefiting families which may live in unsuitable or under/ over occupied housing.
- Increasing job opportunities within the construction sector during the construction phase.
- Generating a long-term surplus to the Housing Revenue Account.

The project will benefit families who may live in unsuitable or over occupied housing.

The units, type and mix will be informed from the adopted and emerging Local Plans, the Strategic Housing Market Assessment (SHMA) and the housing register statistics. The final tenure mix will be developed after consideration of numerous factors including the need for the scheme to be financially viable and a providing a positive return, housing demands, site specifics and the need to ensure a sustainable community. The Council's Neighbourhood Management team and the Housing Options and Partnerships team will be closely involved in the development of this scheme to help ensure that it adequately meets housing needs and is designed in such a way to be sustainable and to enable good quality housing management. The completed housing dwellings will be let and managed on the same basis as our existing housing stock and the open market units will be sold on the open market. All the EIA's and other policies which apply to our existing stock to apply to these new units.

The Housing Delivery Team will engage with the Housing Portfolio Holder on the strategic approach to new council owned housing. As part of this engagement process, the team will also speak with the Ward Councillors and Portfolio Holder and relevant Council staff. Local residents will be consulted by letter prior to the planning application and also will have the opportunity during the planning process to comment.

The team will engage BCP's Communication Team to widely publicize this scheme via social mediate such as LinkedIn, BCP's own website, the Bournemouth Daily Echo and other media platforms, as appropriate. Comments about the proposals will be accepted by the Housing Delivery Team throughout the duration of the project. Where relevant, advice or other information will be provided to interested parties.

Findings

How does your decision affect those of:

- **Different Ages:** Properties will be available for all eligible applicants. No issues regarding this characteristic have been identified but this factor will be considered along with any service user identified needs.
- **Disability:** Properties will be constructed to Building Control Approved Document Part M category1 (Access to and use of buildings- also to be referred to in future reports as the bronze standard.). This means that the new dwellings designed will meet wheelchair accessible standards.
- **Sex/ Gender Reassignment/ Pregnancy and Maternity/ Marriage and Civil/ Race/ Religion or Belief/ Sexual Orientation/ Armed Forces Community and any other factors/ groups:** Properties will be available for all eligible applicants. No issues regarding these characteristics have been identified but this factor will be considered along with any service user identified needs.
- **Human Rights**: Will facilitate Article 11 of the International Covenant on Economic, Social and Cultural Rights – the right of everyone to adequate standard of living for themselves and their family, including adequate food, clothing and housing. No human rights have been identified but these factors will be considered/ monitored along with any service users identified needs.

Conclusion

1. This proposal does not introduce new changes to policy or services and the properties will be designed for families.
2. These homes will help towards meeting imminent new Local Plan housing targets and will also contribute significantly to unmet housing need.
3. The new homes provided will be designed and built to a high standard. Please see pt 3 and 4 below.
4. All homes will be built to the highest sustainability standards delivered through the excellent fabric first and airtightness approach (designed in this case to accommodate the principles of Passivhaus).
5. Properties will be constructed to Build Control Approved Document Part M Category 1 (Access to and use of buildings – also to be referred to in future reports as the bronze standard). This means that the new dwellings designed will meet wheelchair accessible standards.
6. Benefiting families which may live in unsuitable or under/ over occupied housing.
7. Increasing job opportunities within the construction sector during the construction phase of the development.
8. Generating a short time and long-term surplus income to the Housing Revenue Account.

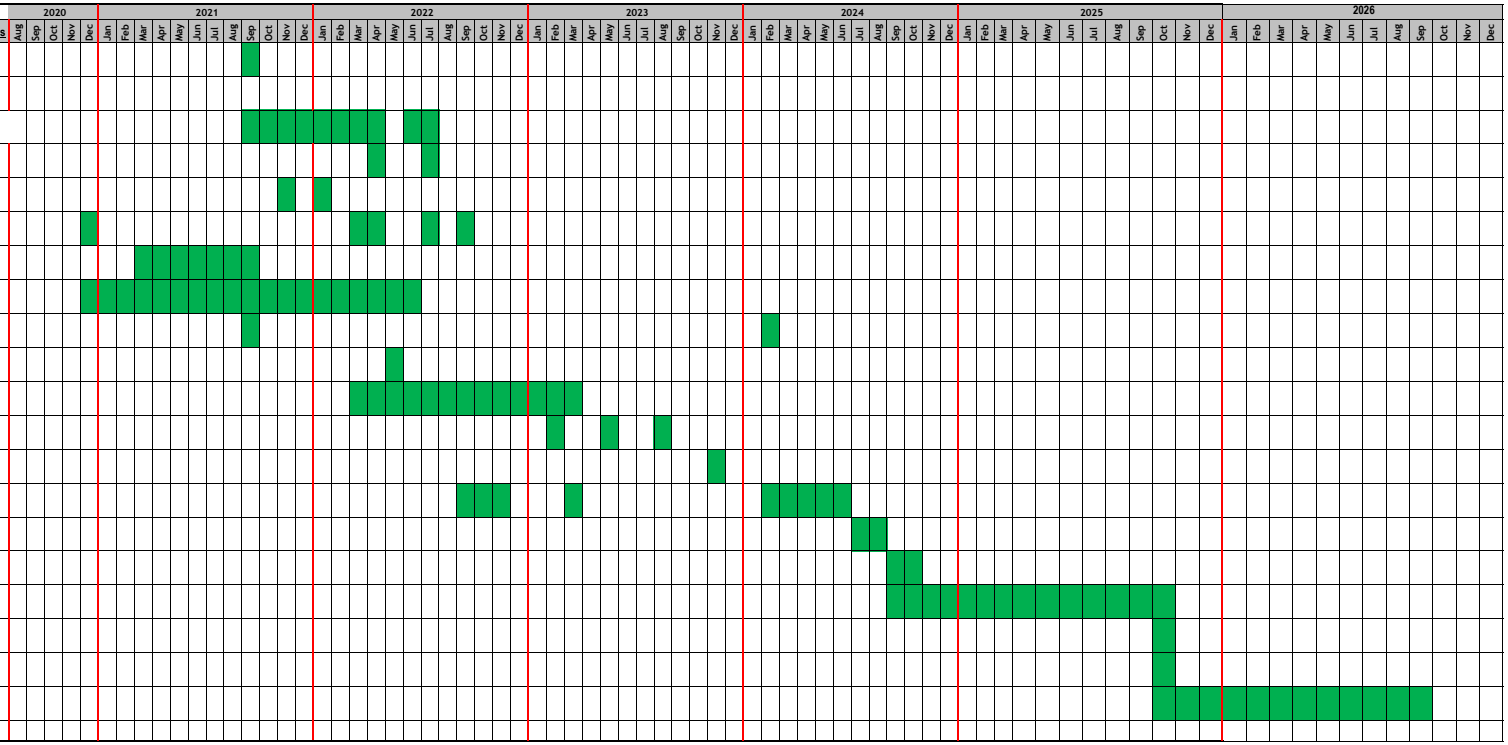
Equality Impact Assessment: Report and EIA Action Plan

Equality Impact Assessment Action Plan			
Issue identified	**Action required to reduce impact**	**Timescale**	**Responsible officer**
The properties are designed for families	As a consequence of no flats on this site, impact of smaller dwellings sizes can be offset by delivery of flats (smaller dwelling sizes) elsewhere within the BCP area. 3 bed dwellings can be more suitable for those with larger family sizes. However, some families may be currently occupying smaller 1 and 2 bed flats, which could be released for smaller sized households once this development is complete. Subsequent upsizing will free up flats or other smaller sized dwellings. The identification of housing need for specific client groups within the neighbourhood will be monitored as part of the ongoing Housing Strategy process.	Ongoing	Affordable Housing and Resettlement Manager.

Surrey Road

RAG rating	G

Task	Lead Officer	No Months
Architect Appointment	Peter Friend/Claire Lynch	1
Scheme transfer to HRA lead scheme. (PRS/OM so stays within GF).	Peter Friend/Claire Lynch	0
Design period	Peter Friend/Claire Lynch	10
Valuations - land and property OMR and OMVs	Claire Lynch	2
Ground Investigation tender, works and report	Claire Lynch	2
Ecological/tree Surveys tender, works and report	Claire Lynch	5
Pre planning application.	Peter Friend/Claire Lynch	7
Legal report request and searches ROT etc	Claire Lynch	19
Ward Councillor notification	Peter Friend/Claire Lynch	1
Employers Agent appointment	Peter Friend/Claire Lynch	1
Planning application period	Peter Friend/Claire Lynch	7
Site vegetation clearance	Peter Friend	3 weeks
Tree felling	Target Tree Surgery	1
Seek BCP approvals (CMB, Cabinet, Council) for appropriation of land and spend	Peter Friend	3
Main Contractor Procurement Tender exercise. CWT.	Peter Friend	2
Mobilisation	Main Contractor	2
Construction Phase	Main Contractor	12
Snagging	Main Contractor	1
Handover & letting of completed units	Housing Team	1
Rectification Period	Main Contractor	12



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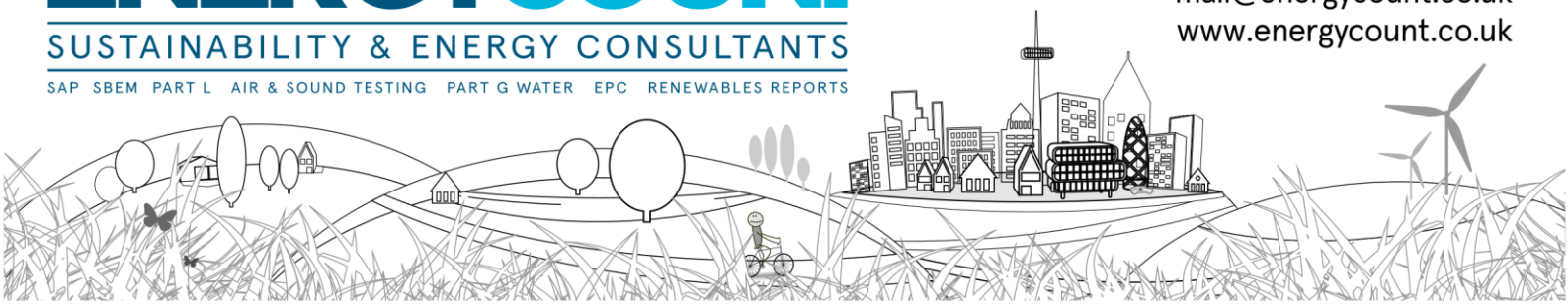


CARBON REDUCTION STATEMENT

PROJECT: Land at Surrey Road, Bournemouth BH4 9HW

CLIENT: BCP Council

PROJECT REF: 0292-0222-01

DATE: 15 March 2022

CONTENTS

1.0 – INTRODUCTION

The development at Surrey Road consists of the construction of 8 energy efficient houses.

As part of its commitment to reduce CO_2 emissions in the conurbation BCP Council declared a Climate & Ecological Emergency in July 2019. On the back of this the new BCP local plan is being developed to help achieve a reduction in CO_2 emissions in new developments across the conurbation. The existing local plan was adopted in October 2012 and is out-of-date[1] in planning terms.

The current Policy CS2 of the Core Strategy requires that all developments must have at least 10% of their energy demand come from decentralised and renewable or low carbon sources, unless this is demonstrated to be unfeasible or unviable.

The proposed development at Surrey Road will be built to Passivhaus standards using a fabric-first approach that will exceed Building Regulations by a large margin.

The purpose of this report is to show how the fabric-first Passivhaus approach will provide a significant CO_2 emissions reduction across the development compared to the same buildings if it were built to current Building Regulations requirements.

[1] Refer to Appendix A

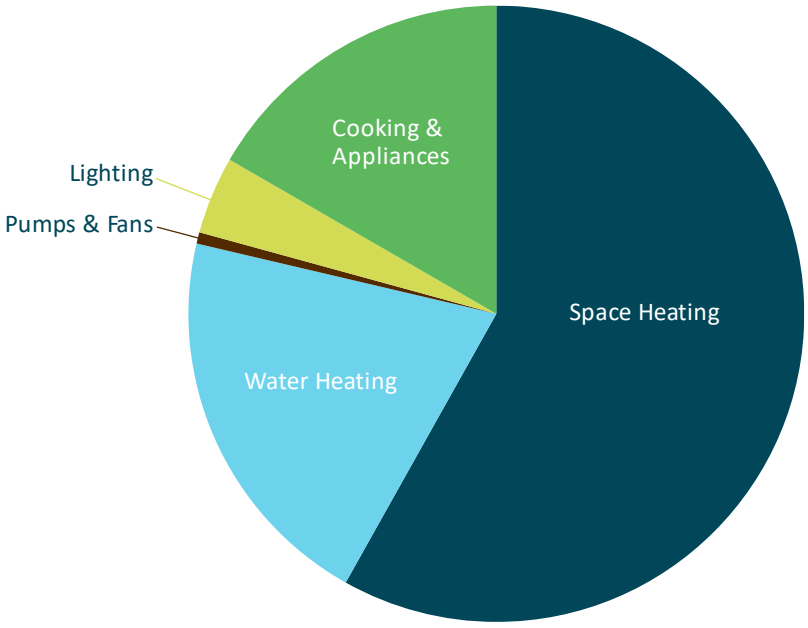
2.0 - ENERGY REQUIREMENTS

Energy efficiency first

The largest proportion of energy demand of a typical dwelling built to current regulations is from space and water heating.

Figure 2.1 below shows the energy split of a typical dwelling built to comply with Building Regulations.

Figure 2.1



It is good practice therefore to reduce the overall energy demand of a dwelling by utilising a low energy design approach.

Using a fabric-first approach, the space heating demand of a dwelling is brought closer to zero due to the high levels of thermal insulation and air tightness.

Low energy design involves the consideration and implementation of measures to reduce the energy requirement of a dwelling. This can be achieved by:

- Improving levels of insulation to reduce heat loss through the fabric of the building.
- Use of low-energy technologies, e.g. low-energy lighting, energy efficient heating systems & appliances.
- Use of passive solar design.

3.0 - ENERGY HIERARCHY

Be Lean, Be Clean, Be Green.

When designing a building it is advisable to follow an Energy Hierarchy. The primary aim is to make the building as energy efficient as possible in order to reduce the demand for energy, and thus CO_2 emissions.

Building Regulations 2013 Part L aims to reduce CO_2 emissions from new buildings by 6% compared to those built to 2010 regulations. This can be achieved by making improvements to the fabric of the building by increasing levels of insulation, increasing air tightness and the use of efficient heating & appliances. CO_2 emissions can be further reduced by using renewable or low-carbon energy sources.

In order to reduce the regulated CO_2 emissions of the proposed development the principle is to follow the energy hierarchy:

1. Use less energy – energy efficient measures, air tightness, passive solar, low energy design
2. Use renewable & low-carbon energy sources and/or other technologies

Use less energy

Areas of consideration in order to improve the efficiency of the fabric of a dwelling:

- Increased insulation to main thermal elements (roof, walls, floor, glazing)
- Reduce thermal bridging to near-zero
- Improved air tightness

Other areas for improvement:

- Efficient heating & hot water systems
- Improved heating & lighting controls
- Controlled ventilation
- Energy efficient lighting
- Energy efficient appliances (cooker, washing machine, fridges, etc.)

1. Use less energy

The proposed minimum Building Fabric specification for the development will be as follows:

Element	Proposed u-value (Passivhaus spec) (W/m^2K)	Maximum allowed by Building Regulations Part L1A (W/m^2K)
Walls	0.12	0.30
Floor	0.12	0.25
Roof	0.11-0.12	0.20
Glazing	0.8	2.0
Air tightness	1.0[2]	10.0

2. Use renewable & low carbon energy sources and/or other technologies

It is proposed that MVHR whole-house ventilation systems are used in each dwelling. MVHR extracts heat from expelled air and uses it to pre-warm incoming fresh air.

[2] Air tightness (or air permeability) is measured differently in Building Regulations and Passivhaus. Passivhaus uses the n50 methodology, which requires an air change/hour (ACH) rate of 0.6. An n50 result of 0.6 ACH is roughly equivalent to a 1.0 using the q50 methodology used by Building Regulations.

4.0 - METHODOLOGY

Project Appraisal

BCP Council impose a condition on all new dwellings that requires a 10% reduction in Energy Demand from renewable or low carbon sources. The 10% energy demand reduction requirement in the out-of-date Bournemouth Local Plan is a noble intention, but too simplistic a tool in practice.

Under the out-of-date local plan there is no requirement for a dwelling to exceed Building Regulations, just that the energy demand is reduced by 10% using renewable or low-carbon sources. This makes it possible to build an inefficient building that fails to meet Building Regulations Part L , which only passes with the addition of renewables.

Using a fabric-first approach can achieve a decent Building Regulations pass without the need for renewables.

The proposed development will be built to Passivhaus standard using a fabric-first approach that will greatly exceed Building Regulations.

The latest Design SAP software has been used to determine CO_2 emissions for the development.

5.0 – FINDINGS (Energy Demand)

Table 5.1 Benchmark Calculations (Base spec) & Base spec + PV

Plot	Space Heating (kWh/year)	Water Heating (kWh/year)	Pumps & Fans (kWh/year)	Lighting (kWh/year)	Base Spec Total (kWh/year)	Qty of Solar PV to pass (kW)	PV Contribution (kWh/year)	TOTAL with PV (kWh/year)
1	3909.7	1990.5	246.5	436.9	6583.6	3.0	1927.7	4655.9
2	3077.3	1990.5	246.5	436.9	5751.1	2.0	1285.1	4466.0
3	3897.6	1990.5	246.5	428.9	6563.3	3.0	1927.7	4635.7
4	4819.8	2023.2	283.2	462.4	7588.6	3.6	2313.2	5275.4
5	4686.1	2023.2	283.2	462.4	7455.0	3.5	2249.0	5206.0
6	4819.8	2023.2	283.2	462.4	7588.6	3.6	2313.2	5275.4
7	4686.1	2023.2	283.2	462.4	7455.0	3.5	2249.0	5206.0
8	4645.4	1990.5	246.5	406.9	7289.2	3.5	2249.0	5040.2
					56,274.4			**39,760.7**

Table 5.1 shows that the dwellings, if built to the base specification (Building Regulations pass) have a total energy demand of 56,274.4 kWh/year.

With solar PV the total energy demand of the development reduces to 39,760.7 kWh/year, which represents a 29.3% reduction.

Table 5.2 Proposed Specification (Passivhaus)

Plot	Space Heating (kWh/year)	Water Heating (kWh/year)	Pumps & Fans (kWh/year)	Lighting (kWh/year)	TOTAL (kWh/year)
1	726.3	1990.5	246.5	436.9	3400.1
2	484.9	1990.5	251.3	436.9	3163.6
3	715.8	1990.5	246.5	428.9	3381.6
4	1046.4	2023.2	283.2	462.4	3815.3
5	954.2	2023.2	283.2	462.4	3723.0
6	1046.4	2023.2	283.2	462.4	3815.3
7	954.2	2023.2	283.2	462.4	3723.0
8	939.5	1990.5	246.5	406.9	3583.3
					28,605.2

Table 5.2 shows that the dwellings, if built to the proposed Fabric-First Passivhaus specification have an energy demand of 28,605.2 kWh/year.

This represents the following energy demand reductions:

- a 49.2% energy demand reduction over the base specification [1-(56,274.4/28,605.2)]x100
- a 28.1% energy demand reduction over the base specification + PV [1-(39,760.7/28,605.2)]x100

5.0 – FINDINGS (CO_2 Emissions)

Table 5.3 Benchmark Calculations (Base spec)

Block Compliance Report - DER

Block Reference: 0292-0222-01		Block Name: Surrey Road			
Property-Assessment Reference	**Multiplier**	**Floor Area (m^2)**	**DER ($kgCO_2/m^2$)**	**TER ($kgCO_2/m^2$)**	**% DER/TER**
0292-0222-01_01-BASE	1	100.6	33.96	24.84	-36.73 %
0292-0222-01_03-BASE	1	100.6	33.86	24.71	-37.01 %
0292-0222-01_02-BASE	1	100.6	29.67	23.08	-28.54 %
0292-0222-01_08-BASE	1	100.6	37.61	26.03	-44.48 %
0292-0222-01_04-BASE	1	113.2	34.79	24.41	-42.52 %
0292-0222-01_06-BASE	1	113.2	34.79	24.41	-42.52 %
0292-0222-01_05-BASE	1	113.2	34.18	23.96	-42.64 %
0292-0222-01_07-BASE	1	113.2	34.18	23.96	-42.64 %
Totals:	8	855.2	273.04	195.41	
Average DER = 34.15 $kgCO_2/m^2$		**% DER/TER**	FAIL		
Average TER = 24.41 $kgCO_2/m^2$		-39.90 %			

Table 5.3 shows CO_2 emissions of the dwellings if built to a typical specification with electric heating. The average DER is 34.15 $kgCO_2/m^2$, which for Building Regulations purposes represents a –39.90% fail.

The base spec used for the benchmark calculations is as follows:

Walls = 0.20 W/m^2K	(Building Regulations Part L limit = 0.30 W/m^2K)
Floor = 0.15 W/m^2K	(Building Regulations Part L limit = 0.25 W/m^2K)
Roof = 0.11 W/m^2K	(Building Regulations Part L limit = 0.20 W/m^2K)
Glazing = 1.5 W/m^2K	(Building Regulations Part L limit = 1.6 W/m^2K)
Air tightness (q50) = 5.0 $m^3/hr/m^2$	(Building Regulations Part L limit = 10.0 $m^3/hr/m^2$)

Table 5.4 Benchmark Calculations with renewables (Base spec + PV)

Block Compliance Report - DER

Block Reference: 0292-0222-01		Block Name: Surrey Road			
Property-Assessment Reference	**Multiplier**	**Floor Area (m^2)**	**DER ($kgCO_2/m^2$)**	**TER ($kgCO_2/m^2$)**	**% DER/TER**
0292-0222-01_01-BASE+PV	1	100.6	24.54	24.84	1.20 %
0292-0222-01_02-BASE+PV	1	100.6	23.04	23.08	0.18 %
0292-0222-01_03-BASE+PV	1	100.6	23.92	24.71	3.21 %
0292-0222-01_04-BASE+PV	1	113.2	24.19	24.41	0.91 %
0292-0222-01_05-BASE+PV	1	113.2	23.87	23.96	0.38 %
0292-0222-01_06-BASE+PV	1	113.2	24.19	24.41	0.91 %
0292-0222-01_07-BASE+PV	1	113.2	23.87	23.96	0.38 %
0292-0222-01_08-BASE+PV	1	100.6	26.00	26.03	0.12 %
Totals:	8	855.2	193.62	195.41	
Average DER = 24.19 $kgCO_2/m^2$		**% DER/TER**	PASS		
Average TER = 24.41 $kgCO_2/m^2$		0.90 %			

Table 5.4 shows CO_2 emissions of the dwellings if built to the same typical specification with electric heating, plus 3-3.6kW of Solar PV per dwelling to achieve a pass. The average DER is 24.19 $kgCO_2/m^2$, which for Building Regulations purposes represents a 0.90% pass.

Tables 5.3 & 5.4 represent dwellings built to a specification that is typical in the industry today. The specification exceeds the limits set in Building Regulations Part L, yet still requires some renewables to pass the CO_2 emissions requirement of Part L.

The fabric-first Passivhaus specification

The proposed dwellings will be built to Passivhaus standards, with the following specification:

Walls = 0.12 W/m^{2}K	(Building Regulations Part L limit = 0.30 W/m^{2}K)
Floor = 0.12 W/m^{2}K	(Building Regulations Part L limit = 0.25 W/m^{2}K)
Roof = 0.11/0.12 W/m^{2}K	(Building Regulations Part L limit = 0.20 W/m^{2}K)
Glazing = 0.8 W/m^{2}K	(Building Regulations Part L limit = 1.6 W/m^{2}K)
Air tightness (q50) = 1.0 m³/hr/m²	(Building Regulations Part L limit = 10.0 m³/hr/m²)

Part of the Passivhaus specification requires that thermal bridges are largely designed out, making for an extremely well insulated and airtight thermal envelope.

Table 5.5 Calculations (Passivhaus spec)

Block Compliance Report - DER

Block Reference: 0292-0222-01		Block Name: Surrey Road			
Property-Assessment Reference	**Multiplier**	**Floor Area (m²)**	**DER ($kgCO_2/m^2$)**	**TER ($kgCO_2/m^2$)**	**% DER/TER**
0292-0222-01_01-Passivhaus	1	100.6	17.54	24.84	29.38 %
0292-0222-01_03-Passivhaus	1	100.6	17.45	24.71	29.39 %
0292-0222-01_02-Passivhaus	1	100.6	16.32	23.29	29.94 %
0292-0222-01_08-Passivhaus	1	100.6	18.49	26.03	28.97 %
0292-0222-01_04-Passivhaus	1	113.2	17.49	24.41	28.35 %
0292-0222-01_06-Passivhaus	1	113.2	17.49	24.41	28.35 %
0292-0222-01_05-Passivhaus	1	113.2	17.07	23.96	28.76 %
0292-0222-01_07-Passivhaus	1	113.2	17.07	23.96	28.76 %
Totals:	8	855.2	138.92	195.62	
Average DER = 17.36 $kgCO_2/m^2$		**% DER/TER**	PASS		
Average TER = 24.44 $kgCO_2/m^2$		28.97 %			

Table 5.5 shows CO_2 emissions of the dwellings if built to the Fabric-First Passivhaus specification with electric heating. The average DER is 17.36 $kgCO_2/m^2$, which for Building Regulations purposes represents a 28.97% pass.

CO_2 EMISSIONS (TONNES/YEAR)

The following table shows CO_2 emissions reductions achieved:

Total Floor Area = 855.2m²

CO_2 emissions = Average DER x Total Floor Area (then divided by 1,000 to convert kg to tonnes)

Table 5.6 Calculated CO_2 emissions (tonnes/year)

Base Spec + PV	Proposed (Passivhaus) spec	Difference (Base spec vs Passivhaus Spec)
20.69	14.85	**5.84**

Table 5.6 shows that by building to the Fabric-First Passivhaus spec would reduce CO_2 emissions by 5.84 tonnes/year.

BUILD COSTS vs CO_2 EMISSIONS.

Estimated Build Costs

Table 5.7 Estimated build cost (building costs excluding external works)

Proposed Passivhaus Build spec (£)	'Normal' spec (10% less, assumed) (£)	Difference (£)
1,608,558	1,447,702	160,856

CO_2 emissions over 75 years

Table 5.8 CO_2 emissions over 75 years for the development

Specification	CO_2 emissions (tonnes)	CO_2 emissions over 75 years (tonnes)	Different in CO_2 emissions over base spec over 75 years (tonnes)	CO_2 emissions reduction (%)
Base spec	20.7	1,551.5		
Proposed (Passivhaus) spec	14.8	1,113.5	438.1	**28.2**

Calculation of Cost vs CO_2 Emissions saving

Table 5.9 Cost per tonne of CO_2

	Extra cost to build to proposed specification (£)	Different in CO_2 emissions over base spec + PV over 75 years (tonnes)	Cost per extra tonne of CO_2 saved over 75 years (£)
8x new dwellings	160,856	438.1	367.17

Table 5.9 shows the monetary cost per tonne of CO_2 emissions saved by using the proposed specification over the base 'Building Regulations' specification as follows:

438.1 tonnes of CO_2 emissions are saved by the development when built to the Passivhaus specification. This equates to a monetary cost of £367.17 per tonne of CO_2 saved.

6.0 - CONCLUSIONS

Although it is possible to achieve a Building Regulations Part L pass with a significant quantity of renewables (i.e. 2+ kW of solar PV per dwelling), the CO_2 emissions of the development would exceed that of the same building if it were built to Passivhaus standard.

The metric of energy demand reduction from renewables in the out-of-date Bournemouth Local Plan, whilst worthy, does not provide as significant a CO_2 emissions reduction as if the same building were built to the Fabric-First Passivhaus standard.

If built to Passivhaus standard the development at Surrey Road would produce around 28% less CO_2 emissions and have a 28% lower energy demand than the same development if it were built to comply with Building Regulations Part L1a.

Findings show that building to the Fabric-First Passivhaus specification reduces CO_2 emissions of the development by 438.1 tonnes/year over the Building Regulations-compliant Base Spec with solar PV.

ADDENDUM - Trees

Over 75 years the Fabric-First Passivhaus specification would reduce CO_2 emissions over a Building Regulations compliant specification by 438.1 tonnes.

By comparison, a typical tree will absorb up to 1 tonne of CO_2 over 100 years, which equates to around 0.75 tonnes over 75 years.

A simple calculation shows that the CO_2 emissions reduction provided by the proposed specification is equivalent to planting **584 trees** (i.e. 438.1/0.75).

APPENDIX A

Paragraph 11 of the National Planning Policy Framework (2019) [NPPF] states that:
"Plans and decisions should apply a presumption in favour of sustainable development". For decision-taking this means (..) where there are no relevant development plan policies, or the policies which are most important for determining the planning application are out-of-date, granting permission unless:

(i) The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed, **or**

(ii) Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this framework taken as a whole.

'Out-of-date means "that when a local authority cannot demonstrate a five year supply of deliverable sites (with the appropriate buffer); **or** where the Housing Delivery Test indicates that the delivery of housing was substantially below (less than 75%) of the housing requirement over the three years". In terms of the term 'particular importance' this includes "heritage assets which includes a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest".

The Housing Delivery Test (HDT) was introduced into national policy through the NPPF. The purpose of the HDT is to monitor local authority housing delivery against local requirements and to ensure that measures are taken to improve delivery where required. Where housing delivery falls below 95% of the local requirement (over the proceeding 3
financial years), an action plan must be prepared to identify measures to improve delivery and a buffer of 20% must be added to the 5-year housing land supply.

The first HDT measurement was published in February 2019 and was measured against the housing requirements set out in the adopted Local Plan for each former local authority area. *Table 1: HDT of the Housing Delivery Action Plan* shows that all former local authority areas failed to meet the housing delivery levels of 95%. For the Bournemouth area, the housing target was for 2,353 dwellings to be development from 2015/16 to 2017/18, with only 1,970 dwellings actually delivered thus equating to 84%. This means that outside of publishing an action plan, a 20% buffer was applied to the 5-year housing land supply.

Of particular interest, from 2019/20 onwards the housing requirement in Bournemouth steps up hugely from 730 to 1,422 dwellings per annum with the transition to the government's standard methodology. This step change in housing requirement presents a significant challenge in relation to housing delivery and housing land supply. The results for HDT for 2019 was recently published by the Government (February 2020) and Bournemouth HDT measurement is 66% (total number of homes required is 3,064 dwellings a year, and the number of homes delivered is 2,010 dwellings) . Although the 2020 results will be published in February 2021, it is likely that the HDT will be significantly below 75% due to COVID. Thus, it could be argued that the average HDT for Bournemouth is substantially less than 75% for the proceeding three years, thus the policies which are most important for determining the planning application are out-of-date.

Five Year Housing Land Supply:
The Bournemouth Area Strategic Land Availability Assessment (2019) [SHLAA] provides information on the land available in the local authority area. The SHLAA is part of the Local Plan's evidence base and is required by the NPPF. The SHLAA should plan for a supply of specific, deliverable sites for years one to five of the plan period and specific,
deliverable sites or broad locations for growth for years six to ten and where possible years 11-15 of the plan. *Table 1: Sites Identified by types for year 1-5 (April 2019 to March 2024)* of the SHLAA shows that Bournemouth can only demonstrate a land supply of 2.9 years.

As stated in paragraph 9.8 of the SHLAA, due to the government's change in approach to calculating housing need and supply, BCP Council for the Bournemouth area cannot demonstrate a 5-year supply against the local housing need figure derived from the 2014 Household Projections plus the 20% buffer required by the results of the 2018 Housing Delivery Test. "As a consequence, the presumption in favour of sustainable development as laid out in paragraph 11 of the NPPF now applies in the area of BCP Council covered by the Bournemouth Local Plan – Core Strategy".