APPENDICES

APPENDIX A:

Stantec Planning White Paper consultation response to MHCLG (September 2020)

LOCAL HOUSING NEED: THE SIMPLE ALTERNATIVE

Introduction

The Government's proposed new standard method for measuring housing need[1] has two major weaknesses, which have given rise to much protest. Firstly, for many of the least affordable areas (typically in the south of England), the housing numbers it produces are far too high to be deliverable. For many authorities, including but not restricted to London boroughs, the new housing need is more than two or three times the annual number of homes built in the last three years.

A second major weakness is that, for many of the more affordable areas (often in the north of England), the numbers are too low. For many such authorities, the new housing need is below the numbers of homes delivered in the last three years. This suggests that local authorities have been building more housing than they needed. This cannot be right: need can be more than actual delivery, but it cannot be less, because builders do not build homes for which there is no demand. Low numbers in the north also discourage growth ambition, which the government should encourage.

Fortunately, these problems are easily fixed. Below, we propose an alternative standard method that removes them. Our proposed formula is very similar to the to the government proposals, and based on the same principles, including the importance of price signals. But the housing numbers it produces are much more realistic for the south and much more positive for the north. Detailed results are in the Appendix below.

Our proposed formula does not adjust for future jobs. Such adjustment would likely put housing in the wrong places. This is partly because many people do not work in the same local authority where they live. Also, a 'future jobs' adjustment would put even fewer homes in the north and even more in the south. That is because, for England as a whole, the total population to be planned for is fixed by the national population projection. The standard method does not aim to increase that number; it only impacts on its distribution within the country.

An Alternative Formula

Households live in homes so it is appropriate to base the housing need formula on an estimate of the number of households that will need homes. There are, however, two problems with the official household projections:

- **They vary significantly from one set to the next**, with dozens of authorities typically seeing the household growth estimates going up or down by 20% or more.
- **They don't tell us how many households ought to be able to set up home** but how many will set up home if past trends continue. That would imply that hundreds of thousands of younger households would continue to be excluded from the housing market because they cannot afford their own home.

The first problem can be dealt with by using the ONS's alternative set of projections which uses a 10-year trend period rather than the 2-year period used for migration flows within the UK in the latest principal projections. These are readily available and should be much less susceptible to changes from one set to the next as only 2 out of 10 trend years change between consecutive sets of projections.

The second problem can be dealt with by using housing affordability indices to uplift the number of households suggested by the official projections. The Government's proposal uses two means of doing this:

- **An absolute measure of affordability** (the amount by which the index exceeds 4). Whilst it may seem reasonable to add more homes where prices are highest this ignores the fact that there are some areas in which prices will always be higher because they are close to city centres and jobs or have attractive countryside or other amenities nearby. No matter how many homes are built in these areas, house prices will remain high. Asking authorities to pack more homes in

[1] MHCLG, *Changes to the current planning system*, *consultation on changes to planning policy and regulations,* August 2020.

these areas is simply tilting at windmills. A better approach is to focus on areas in which the affordability of housing has deteriorated most, which is what the second method does.

- **The change in the affordability index over the last 10 years** for which data is available. The formula uses the difference between the latest index and the index for 10 years earlier. This is much better focussed than absolute level of affordability, but it treats an increase from prices being 4 times earnings to 6 times as the same as an increase from 10 to 12. Whilst both are increases of 2 points, the first is a price increase of 50% relative to earnings whilst the second is an increase of only 20%. The first is therefore a much more significant deterioration. The formula can reflect this if it uses the proportionate increase in the index rather than the difference i.e. if the uplift factor is the latest index divided by the index 10 years earlier.

The Government's formula recognises that for some areas the official projections produce very low household growth figures. It seeks to correct for this by specifying that the baseline figure should be the higher of the projected annual household growth and 0.5% of the number of existing homes in the area. However, the number of homes needed in an area bears little or no relation to the number of homes there at present: in the past household growth has varied between being negative and up to 3% a year of the number of existing homes. A far better minimum baseline would be the number of homes built on average over a recent period (we have data up to 2019). Housebuilders only build where there is demand so the number of homes built over such period can be taken as an indication of minimum demand. The number of homes built (or more strictly, the net additions to the housing stock) is published annually for all local authorities by MHCLG in Live Table 122.

Making these simple changes gives the following formula:

Baseline = higher of average household growth over next 10 years projected in the ONS's 10-year trend household projections or average net additions 2016-19[2]

Housing need = baseline x
(1 + (local affordability ratio$_{t=0}$/local affordability ratio$_{t=-10}$) x 0.3))

This produces virtually the same number of homes a year across England as a whole (337,000) as the MHCLG proposal but:

- There is less of a concentration in London and the south east: London's need is 67,000, compared with 94,000 in the MHCLG proposal.
- Only 24 LAs have a requirement that is more than twice what they delivered in 2016-19, compared with 71 in the MHCLG proposal.
- No LAs have a housing need below their delivery in 2016-19, compared with 71 in the MHCLG proposal. (The MHCLG proposal in effect tells the 3 north most regions that they have been delivering more homes than needed.)

With the formula we propose, the Duty to Cooperate will still be needed, as not all authorities will be able to deliver their housing need and will have to export some to other places. But the scale of the issue should be manageable.

The Appendix table below shows summary results of our proposed formula, starting from the published source tables. This also includes the result of the MHLCG formula for comparison. The table demonstrate that we are using either the same or readily available alternative published sources – and that our formula is both simpler and fairer!

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[2] A five-year period could be used instead, subject to testing.

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LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Adur	South East	203	97	0.39	282	191%	326	236%
Allerdale	North West	39	356	0.33	474	33%	320	-10%
Amber Valley	East Midlands	330	604	0.35	818	35%	663	10%
Arun	South East	703	647	0.46	1024	58%	2063	219%
Ashfield	East Midlands	393	414	0.39	574	39%	813	97%
Ashford	South East	597	722	0.37	991	37%	1211	68%
Aylesbury Vale	South East	950	1498	0.41	2114	41%	2197	47%
Babergh	East of England	274	379	0.44	545	44%	789	108%
Barking and Dagenham	London	1211	638	0.63	1969	209%	1657	160%
Barnet	London	2130	2072	0.53	3265	58%	5744	177%
Barnsley	Yorkshire and The Humber	746	949	0.33	1261	33%	1013	7%
Barrow-in-Furness	North West	-77	94	0.29	122	29%	159	69%

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Basildon	East of England	555	364	0.42	787	116%	820	125%
Basingstoke and Deane	South East	533	861	0.40	1205	40%	684	-21%
Bassetlaw	East Midlands	231	482	0.37	659	37%	564	17%
Bath and North East Somerset	South West	435	1052	0.37	1443	37%	1216	16%
Bedford	East of England	771	1321	0.39	1835	39%	1153	-13%
Bexley	London	927	509	0.49	1379	171%	1797	253%
Birmingham	West Midlands	3026	3033	0.37	4141	37%	3056	1%
Blaby	East Midlands	327	618	0.46	900	46%	1148	86%
Blackburn with Darwen	North West	150	301	0.33	399	33%	346	15%
Blackpool	North West	-31	166	0.26	209	26%	303	82%
Bolsover	East Midlands	200	278	0.37	380	37%	446	60%
Bolton	North West	554	488	0.31	728	49%	708	45%

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Boston	East Midlands	193	391	0.36	533	36%	443	13%
Bracknell Forest	South East	397	536	0.50	806	50%	805	50%
Bradford	Yorkshire and The Humber	1049	1574	0.31	2063	31%	1211	-23%
Braintree	East of England	474	439	0.42	673	53%	776	77%
Breckland	East of England	472	692	0.37	949	37%	1070	55%
Brent	London	1051	1266	0.48	1874	48%	2695	113%
Brentwood	East of England	215	191	0.41	304	59%	393	106%
Brighton and Hove	South East	837	392	0.42	1192	204%	1520	287%
Bristol, City of	South West	1599	1757	0.43	2513	43%	2490	42%
Broadland	East of England	341	673	0.38	927	38%	922	37%
Bromley	London	1371	707	0.45	1989	182%	2487	252%
Bromsgrove	West Midlands	261	337	0.36	459	36%	694	106%

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Broxbourne	East of England	240	337	0.41	477	41%	465	38%
Broxtowe	East Midlands	235	271	0.38	374	38%	490	81%
Burnley	North West	54	262	0.33	348	33%	224	-15%
Bury	North West	368	344	0.40	515	50%	673	96%
Calderdale	Yorkshire and The Humber	474	408	0.34	634	56%	587	44%
Cambridge	East of England	117	1069	0.47	1571	47%	745	-30%
Camden	London	1416	993	0.51	2139	115%	5604	464%
Cannock Chase	West Midlands	197	410	0.36	559	36%	575	40%
Canterbury	South East	561	662	0.43	949	43%	1125	70%
Carlisle	North West	65	546	0.30	708	30%	286	-48%
Castle Point	East of England	180	160	0.38	248	55%	386	141%
Central Bedfordshire	East of England	1364	1993	0.43	2850	43%	2752	38%

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Charnwood	East Midlands	736	1002	0.42	1425	42%	1636	63%
Chelmsford	East of England	552	1089	0.46	1586	46%	1557	43%
Cheltenham	South West	302	524	0.41	740	41%	528	1%
Cherwell	South East	429	1326	0.43	1901	43%	1305	-2%
Cheshire East	North West	785	2332	0.35	3156	35%	1774	-24%
Cheshire West and Chester	North West	644	2240	0.34	3009	34%	1659	-26%
Chesterfield	East Midlands	134	151	0.35	203	35%	323	114%
Chichester	South East	438	630	0.39	874	39%	1120	78%
Chiltern	South East	150	291	0.42	412	42%	619	113%
Chorley	North West	402	584	0.35	788	35%	771	32%
City of London	London	15	67	0.61	107	61%	116	75%
Colchester	East of England	786	1045	0.43	1498	43%	1612	54%

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Copeland	North West	-74	134	0.30	174	30%	154	15%
Corby	East Midlands	404	535	0.40	750	40%	799	49%
Cornwall	South West	1911	3203	0.32	4239	32%	4054	27%
Cotswold	South West	301	824	0.35	1109	35%	1209	47%
County Durham	North East	874	1400	0.28	1787	28%	1140	-19%
Coventry	West Midlands	1765	1241	0.40	2466	99%	2676	116%
Craven	Yorkshire and The Humber	116	237	0.30	307	30%	224	-5%
Crawley	South East	382	492	0.45	716	45%	598	21%
Croydon	London	1472	2167	0.46	3158	46%	2205	2%
Dacorum	East of England	530	627	0.46	918	46%	922	47%
Darlington	North East	95	414	0.28	531	28%	253	-39%
Dartford	South East	545	1069	0.48	1582	48%	1441	35%

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Daventry	East Midlands	309	738	0.38	1016	38%	970	32%
Derby	East Midlands	618	749	0.34	1000	34%	624	-17%
Derbyshire Dales	East Midlands	132	314	0.35	425	35%	343	9%
Doncaster	Yorkshire and The Humber	475	1195	0.31	1564	31%	961	-20%
Dover	South East	408	435	0.44	626	44%	1279	194%
Dudley	West Midlands	430	692	0.32	916	32%	880	27%
Ealing	London	959	1352	0.52	2054	52%	2247	66%
East Cambridgeshire	East of England	350	298	0.43	500	68%	554	86%
East Devon	South West	639	842	0.32	1115	32%	1614	92%
East Hampshire	South East	346	830	0.39	1155	39%	932	12%
East Hertfordshire	East of England	589	666	0.42	946	42%	1122	68%
East Lindsey	East Midlands	331	433	0.33	575	33%	819	89%

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East Northamptonshire	East Midlands	359	462	0.36	629	36%	821	78%
East Riding of Yorkshire	Yorkshire and The Humber	579	1245	0.35	1675	35%	1221	-2%
East Staffordshire	West Midlands	315	660	0.34	885	34%	582	-12%
Eastbourne	South East	375	153	0.38	517	237%	486	217%
Eastleigh	South East	418	857	0.39	1190	39%	885	3%
Eden	North West	65	230	0.27	291	27%	133	-42%
Elmbridge	South East	338	272	0.39	471	73%	774	184%
Enfield	London	1431	595	0.54	2201	270%	2213	272%
Epping Forest	East of England	445	380	0.48	657	73%	868	129%
Epsom and Ewell	South East	255	211	0.57	400	90%	604	187%
Erewash	East Midlands	238	224	0.34	319	42%	344	53%
Exeter	South West	335	653	0.36	887	36%	694	6%

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Fareham	South East	288	310	0.34	416	34%	403	30%
Fenland	East of England	326	418	0.44	603	44%	844	102%
Forest of Dean	South West	256	258	0.38	356	38%	608	136%
Fylde	North West	224	472	0.31	619	31%	488	3%
Gateshead	North East	255	275	0.29	355	29%	494	80%
Gedling	East Midlands	313	240	0.39	435	81%	534	122%
Gloucester	South West	438	486	0.38	673	38%	578	19%
Gosport	South East	182	145	0.39	251	73%	309	113%
Gravesham	South East	316	244	0.41	445	83%	405	66%
Great Yarmouth	East of England	227	248	0.36	337	36%	373	50%
Greenwich	London	1433	1932	0.57	3030	57%	4289	122%
Guildford	South East	286	384	0.44	554	44%	733	91%

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Hackney	London	1526	1328	0.62	2469	86%	5031	279%
Halton	North West	217	555	0.31	729	31%	386	-30%
Hambleton	Yorkshire and The Humber	125	478	0.35	647	35%	349	-27%
Hammersmith and Fulham	London	497	1184	0.52	1797	52%	2289	93%
Harborough	East Midlands	387	592	0.47	874	47%	1238	109%
Haringey	London	1280	836	0.58	2024	142%	2786	233%
Harlow	East of England	225	432	0.53	662	53%	442	2%
Harrogate	Yorkshire and The Humber	252	531	0.34	712	34%	579	9%
Harrow	London	754	862	0.47	1265	47%	1336	55%
Hart	South East	178	596	0.42	845	42%	512	-14%
Hartlepool	North East	105	274	0.31	360	31%	246	-10%

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Hastings	South East	270	193	0.43	385	100%	453	135%
Havant	South East	311	402	0.41	568	41%	963	139%
Havering	London	1089	395	0.48	1611	308%	1975	400%
Herefordshire, County of	West Midlands	574	568	0.32	759	34%	1166	105%
Hertsmere	East of England	351	524	0.50	784	50%	668	28%
High Peak	East Midlands	190	405	0.38	558	38%	420	4%
Hillingdon	London	1205	854	0.49	1789	109%	2026	137%
Hinckley and Bosworth	East Midlands	418	472	0.35	636	35%	889	88%
Horsham	South East	580	1107	0.38	1532	38%	1715	55%
Hounslow	London	1023	857	0.45	1483	73%	1338	56%
Huntingdonshire	East of England	541	823	0.43	1179	43%	1019	24%
Hyndburn	North West	29	132	0.27	169	27%	165	25%

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Ipswich	East of England	361	207	0.44	519	151%	552	167%
Isle of Wight	South East	390	348	0.37	535	54%	1045	200%
Isles of Scilly	South West	-11	0	0.21	0	21%	0	4%
Islington	London	1112	652	0.48	1643	152%	2218	240%
Kensington and Chelsea	London	252	268	0.53	410	53%	3285	1124%
Kettering	East Midlands	404	615	0.39	854	39%	853	39%
King's Lynn and West Norfolk	East of England	334	404	0.33	538	33%	540	34%
Kingston upon Hull, City of	Yorkshire and The Humber	199	883	0.36	1197	36%	724	-18%
Kingston upon Thames	London	769	330	0.47	1135	243%	1526	362%
Kirklees	Yorkshire and The Humber	1009	1288	0.31	1689	31%	1107	-14%
Knowsley	North West	144	647	0.35	872	35%	415	-36%

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Lambeth	London	1109	1299	0.55	2013	55%	2341	80%
Lancaster	North West	173	485	0.33	644	33%	417	-14%
Leeds	Yorkshire and The Humber	1620	2845	0.35	3846	35%	2387	-16%
Leicester	East Midlands	922	1650	0.41	2325	41%	1119	-32%
Lewes	South East	423	290	0.41	594	105%	800	176%
Lewisham	London	1519	1253	0.58	2396	91%	3735	198%
Lichfield	West Midlands	186	538	0.39	748	39%	423	-21%
Lincoln	East Midlands	140	254	0.35	343	35%	294	16%
Liverpool	North West	1095	2817	0.28	3600	28%	1154	-59%
Luton	East of England	616	766	0.43	1092	43%	713	-7%
Maidstone	South East	724	1192	0.42	1693	42%	1569	32%
Maldon	East of England	188	250	0.46	365	46%	623	150%

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Malvern Hills	West Midlands	237	465	0.46	677	46%	929	100%
Manchester	North West	1628	2370	0.39	3289	39%	1645	-31%
Mansfield	East Midlands	227	288	0.39	399	39%	554	93%
Medway	South East	875	660	0.47	1288	95%	1176	78%
Melton	East Midlands	115	169	0.39	234	39%	205	21%
Mendip	South West	383	528	0.41	744	41%	1064	102%
Merton	London	694	452	0.50	1040	130%	1333	195%
Mid Devon	South West	250	429	0.35	581	35%	641	49%
Mid Suffolk	East of England	378	474	0.35	641	35%	754	59%
Mid Sussex	South East	555	760	0.45	1100	45%	1305	72%
Middlesbrough	North East	77	495	0.31	650	31%	354	-28%
Milton Keynes	South East	1201	1498	0.43	2138	43%	1417	-5%

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Mole Valley	South East	223	306	0.49	455	49%	563	84%
New Forest	South East	468	346	0.36	636	84%	782	126%
Newark and Sherwood	East Midlands	349	572	0.40	799	40%	764	34%
Newcastle upon Tyne	North East	506	2282	0.32	3001	32%	774	-66%
Newcastle-under-Lyme	West Midlands	249	303	0.32	400	32%	395	30%
Newham	London	1634	2243	0.56	3498	56%	3644	62%
North Devon	South West	196	599	0.33	794	33%	650	8%
North East Derbyshire	East Midlands	167	289	0.37	397	37%	419	45%
North East Lincolnshire	Yorkshire and The Humber	94	257	0.35	346	35%	470	83%
North Hertfordshire	East of England	466	347	0.42	661	90%	625	80%
North Kesteven	East Midlands	321	587	0.32	775	32%	585	0%

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North Lincolnshire	Yorkshire and The Humber	318	317	0.31	416	31%	415	31%
North Norfolk	East of England	319	505	0.35	681	35%	730	45%
North Somerset	South West	877	815	0.42	1247	53%	1708	110%
North Tyneside	North East	500	930	0.33	1240	33%	884	-5%
North Warwickshire	West Midlands	141	297	0.35	399	35%	439	48%
North West Leicestershire	East Midlands	410	845	0.37	1154	37%	1153	36%
Northampton	East Midlands	778	798	0.41	1128	41%	811	2%
Northumberland	North East	457	1570	0.32	2076	32%	1172	-25%
Norwich	East of England	335	529	0.37	724	37%	502	-5%
Nottingham	East Midlands	654	1274	0.37	1747	37%	897	-30%
Nuneaton and Bedworth	West Midlands	314	515	0.42	731	42%	662	29%
Oadby and Wigston	East Midlands	56	125	0.40	175	40%	216	72%

APPENDIX: THE PROPOSED METHOD

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Oldham	North West	542	389	0.32	715	84%	805	107%
Oxford	South East	121	251	0.41	354	41%	656	161%
Pendle	North West	110	207	0.31	271	31%	213	3%
Peterborough	East of England	715	1004	0.39	1391	39%	1282	28%
Plymouth	South West	262	954	0.35	1286	35%	823	-14%
Portsmouth	South East	522	328	0.40	732	123%	730	123%
Preston	North West	91	776	0.33	1031	33%	385	-50%
Reading	South East	330	776	0.43	1107	43%	700	-10%
Redbridge	London	1526	660	0.60	2442	270%	3084	367%
Redcar and Cleveland	North East	67	486	0.34	651	34%	392	-19%
Redditch	West Midlands	110	319	0.45	462	45%	368	15%
Reigate and Banstead	South East	569	533	0.47	836	57%	1091	105%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Ribble Valley	North West	125	398	0.30	516	30%	298	-25%
Richmond upon Thames	London	826	423	0.50	1238	192%	2247	431%
Richmondshire	Yorkshire and The Humber	-25	246	0.27	313	27%	124	-50%
Rochdale	North West	450	649	0.35	876	35%	990	53%
Rochford	East of England	223	226	0.40	316	40%	586	160%
Rossendale	North West	168	149	0.30	218	46%	271	82%
Rother	South East	436	241	0.40	611	153%	1173	386%
Rotherham	Yorkshire and The Humber	451	500	0.33	664	33%	736	47%
Rugby	West Midlands	379	633	0.42	896	42%	705	12%
Runnymede	South East	224	454	0.40	635	40%	361	-20%
Rushcliffe	East Midlands	388	628	0.40	879	40%	1054	68%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Rushmoor	South East	108	372	0.48	551	48%	401	8%
Rutland	East Midlands	112	240	0.35	324	35%	307	28%
Ryedale	Yorkshire and The Humber	148	291	0.32	384	32%	357	23%
Salford	North West	946	2390	0.35	3216	35%	1326	-45%
Sandwell	West Midlands	952	784	0.36	1293	65%	1141	46%
Scarborough	Yorkshire and The Humber	113	464	0.30	603	30%	339	-27%
Sedgemoor	South West	464	471	0.37	645	37%	824	75%
Sefton	North West	304	533	0.29	687	29%	695	30%
Selby	Yorkshire and The Humber	298	600	0.37	824	37%	589	-2%
Sevenoaks	South East	361	322	0.44	519	61%	820	154%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Sheffield	Yorkshire and The Humber	1445	2176	0.33	2901	33%	1733	-20%
Shepway	South East	453	516	0.38	711	38%	1043	102%
Shropshire	West Midlands	1047	1867	0.30	2421	30%	2129	14%
Slough	South East	480	635	0.48	938	48%	597	-6%
Solihull	West Midlands	500	696	0.40	977	40%	1011	45%
South Bucks	South East	208	399	0.43	571	43%	433	8%
South Cambridgeshire	East of England	551	809	0.44	1165	44%	773	-5%
South Derbyshire	East Midlands	480	986	0.38	1366	38%	1209	23%
South Gloucestershire	South West	1039	1601	0.43	2297	43%	2544	59%
South Hams	South West	220	449	0.36	609	36%	769	71%
South Holland	East Midlands	316	463	0.37	633	37%	580	25%
South Kesteven	East Midlands	497	534	0.40	748	40%	839	57%

APPENDIX: THE PROPOSED METHOD

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
South Lakeland	North West	100	329	0.32	433	32%	410	25%
South Norfolk	East of England	668	1164	0.42	1649	42%	1832	57%
South Northamptonshire	East Midlands	323	766	0.38	1056	38%	864	13%
South Oxfordshire	South East	325	995	0.37	1367	37%	723	-27%
South Ribble	North West	155	329	0.27	417	27%	238	-28%
South Somerset	South West	438	612	0.31	800	31%	612	0%
South Staffordshire	West Midlands	155	253	0.35	340	35%	364	44%
South Tyneside	North East	195	330	0.33	438	33%	435	32%
Southampton	South East	517	1146	0.38	1583	38%	832	-27%
Southend-on-Sea	East of England	607	498	0.43	865	74%	1324	166%
Southwark	London	1454	2146	0.50	3229	50%	3547	65%
Spelthorne	South East	243	295	0.44	424	44%	489	66%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
St Albans	East of England	412	450	0.48	666	48%	997	122%
St. Helens	North West	279	557	0.31	729	31%	456	-18%
Stafford	West Midlands	269	857	0.37	1173	37%	829	-3%
Staffordshire Moorlands	West Midlands	104	146	0.30	190	30%	255	74%
Stevenage	East of England	231	350	0.41	492	41%	322	-8%
Stockport	North West	623	709	0.39	988	39%	1098	55%
Stockton-on-Tees	North East	353	831	0.29	1072	29%	445	-46%
Stoke-on-Trent	West Midlands	376	810	0.34	1089	34%	684	-16%
Stratford-on-Avon	West Midlands	378	1321	0.40	1843	40%	1675	27%
Stroud	South West	414	472	0.37	646	37%	786	66%
Sunderland	North East	189	809	0.31	1059	31%	697	-14%
Surrey Heath	South East	148	271	0.42	385	42%	408	51%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Sutton	London	826	642	0.43	1179	84%	1233	92%
Swale	South East	685	605	0.47	1004	66%	1483	145%
Swindon	South West	758	1175	0.44	1695	44%	1466	25%
Tameside	North West	433	498	0.38	689	38%	763	53%
Tamworth	West Midlands	100	209	0.41	296	41%	305	46%
Tandridge	South East	301	250	0.41	423	69%	533	114%
Teignbridge	South West	497	696	0.38	957	38%	1532	120%
Telford and Wrekin	West Midlands	508	1184	a0.30	1544	30%	941	-20%
Tendring	East of England	597	713	0.35	962	35%	1141	60%
Test Valley	South East	340	834	0.36	1136	36%	813	-2%
Tewkesbury	South West	430	860	0.37	1178	37%	1037	21%
Thanet	South East	627	308	0.39	868	182%	1023	232%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Three Rivers	East of England	305	186	0.54	469	152%	588	216%
Thurrock	East of England	742	623	0.44	1068	71%	1483	138%
Tonbridge and Malling	South East	504	806	0.45	1172	45%	1440	79%
Torbay	South West	357	424	0.29	545	29%	635	50%
Torridge	South West	259	284	0.29	367	29%	417	47%
Tower Hamlets	London	2450	2785	0.50	4179	50%	6121	120%
Trafford	North West	658	584	0.45	956	64%	1239	112%
Tunbridge Wells	South East	358	486	0.45	704	45%	893	84%
Uttlesford	East of England	439	892	0.42	1267	42%	1231	38%
Vale of White Horse	South East	467	1483	0.40	2069	40%	1447	-2%
Wakefield	Yorkshire and The Humber	911	1896	0.34	2544	34%	1982	5%
Walsall	West Midlands	609	663	0.30	861	30%	823	24%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Waltham Forest	London	1173	786	0.57	1848	135%	2574	228%
Wandsworth	London	993	2165	0.53	3306	53%	3059	41%
Warrington	North West	534	451	0.39	740	64%	711	58%
Warwick	West Midlands	339	973	0.40	1358	40%	910	-6%
Watford	East of England	357	309	0.48	530	72%	533	73%
Waverley	South East	281	419	0.46	612	46%	835	99%
Wealden	South East	640	622	0.37	874	40%	1199	93%
Wellingborough	East Midlands	231	287	0.41	404	41%	535	87%
Welwyn Hatfield	East of England	457	347	0.42	651	88%	667	92%
West Berkshire	South East	368	513	0.42	727	42%	692	35%
West Devon	South West	186	170	0.28	239	41%	278	64%
West Lancashire	North West	78	278	0.29	358	29%	277	0%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
West Lindsey	East Midlands	254	324	0.32	427	32%	363	12%
West Oxfordshire	South East	287	625	0.38	861	38%	653	4%
Westminster	London	1134	1096	0.48	1684	54%	5750	425%
Wigan	North West	592	1038	0.35	1404	35%	996	-4%
Wiltshire	South West	1380	2647	0.38	3646	38%	2917	10%
Winchester	South East	371	643	0.46	936	46%	1025	59%
Windsor and Maidenhead	South East	377	584	0.46	854	46%	914	56%
Wirral	North West	382	558	0.31	733	31%	898	61%
Woking	South East	223	325	0.33	432	33%	348	7%
Wokingham	South East	531	1231	0.46	1801	46%	1635	33%
Wolverhampton	West Midlands	513	688	0.33	917	33%	844	23%
Worcester	West Midlands	204	319	0.31	419	31%	290	-9%

LA name	Region	2018 SHNP 10-year migration Annual average hhld growth 2020-30	Average net additions to housing stock 2016-19	Affordability uplift	HOUSING NEED	% above average delivery 2016-19	MCHLG proposal	% above average delivery 2016-19
Worthing	South East	484	374	0.44	694	86%	871	133%
Wychavon	West Midlands	456	1029	0.35	1393	35%	1396	36%
Wycombe	South East	280	718	0.45	1039	45%	889	24%
Wyre	North West	208	409	0.28	523	28%	383	-6%
Wyre Forest	West Midlands	177	193	0.29	249	29%	353	83%
York	Yorkshire and The Humber	443	708	0.38	977	38%	763	8%
Bournemouth, Christchurch and Poole	South West	1190	1240	0.39	1721	39%	1731	40%
Dorset	South West	942	1290	0.32	1707	32%	2075	61%
West Suffolk	East of England	430	737	0.40	1029	40%	743	1%
East Suffolk	East of England	688	855	0.38	1176	38%	1660	94%
Somerset West and Taunton	South West	558	863	0.33	1149	33%	1231	43%

APPENDIX B:

Officer Report for Committee (18/11/2020)

Land Rear of 403 Hunts Pond Road, Locks Heath

P/19/0183/FP

OFFICER REPORT FOR COMMITTEE
DATE: 18/11/2020

P/19/0183/FP **TITCHFIELD COMMON WARD**
IMPERIAL HOMES SOUTHERN LTD **AGENT: SENNITT PLANNING**

RESIDENTIAL DEVELOPMENT OF 16 HOUSES, TOGETHER WITH ACCESS ROAD, LANDSCAPING AND PARKING

LAND REAR OF 403 HUNTS POND ROAD, LOCKS HEATH

Report By
Peter Kneen – direct dial: 01239 824363

1.0 Introduction

1.1 The application has received fifteen third party representations of objection.

1.2 Members will note from the 'Five Year Housing Land Supply Position' report considered at the June 2020 Planning Committee that this Council currently has a housing land supply of 4.03 years. The site is a Housing Allocation (Housing Site H9) within the Adopted Local Plan, and therefore the principle of the residential development of the site has already been established.

1.3 To meet the Council's duty as the Competent Authority under the Conservation of Habitats and Species Regulations 2017 ("the Habitat Regulations"), an Appropriate Assessment is required to consider the effect of the development on the protected sites around the Solent. An Appropriate Assessment has been undertaken as part of the consideration of this application, and concluded that the development proposal will not have an adverse effect on the integrity of the protected sites around the Solent. Further details of this have been set out in the following report.

2.0 Site Description

2.1 The application site is located on the eastern side of Hunts Pond Road, towards its southern end, close to the roundabout with Warsash Road. The site would be accessed via Noble Road, the modern housing development to the north of the site. The site is bounded by residential development to the north, south and west, and forms the final element of an existing, adopted housing allocation from the Adopted Part 2 Local Plan.

2.2 The site is currently used as paddocks for the grazing of horses and includes a manège. To the east of the site lies The Wilderness Site of Importance for Nature Conservation (SINC), with runs north – south along the western side of Warsash Road. The SINC also comprises significant electric pylons.

2.3 The site is located within the Western Wards. The Western Wards comprise a wide range of services and facilities, including schools, employment, retail and leisure facilities. The Western Wards are well connected to public transport with bus services along Warsash Road and Hunts Pond Road, connecting the site to the rest of the Western Wards and to Fareham.

3.0 Description of Proposal

3.1 The development proposes the construction of 16 dwellings, comprising a mix of two, three and four bedroom houses, all of which would be provided as affordable houses. Since the original planning application was submitted, the scheme has been re-designed to address considerable Officer and third-party concerns with the original layout.

3.2 The re-designed layout included the re-siting of the estate road, in order to address concerns of overlooking and the impact of an access road running immediately adjacent to neighbours' gardens. The revised layout includes a centrally located road, ensuring vehicle movements are kept away from neighbouring occupiers. An area to the eastern end of the site, within the exclusion area of the electricity pylons, would be converted to a natural habitat to support the adjacent SINC, whilst also containing a balancing pond to address surface water disposal.

3.3 Each of the properties comprises car parking spaces to accord with the adopted parking standards, together with a provision of visitors' spaces. The application has been supported with detailed ecological reports,a transport assessment, statement of community involvement, flood risk assessment and drainage strategy and an air quality ecological impact assessment, together with a detailed planning statement.

4.0 Policies

4.1 The following policies apply to this application:

Adopted Fareham Borough Core Strategy

CS2: Housing Provision;
CS4: Green Infrastructure, Biodiversity and Geological Conservation;
CS5: Transport Strategy and Infrastructure;
CS6: The Development Strategy;
CS9: Development in the Western Wards and Whiteley;
CS15: Sustainable Development and Climate Change;
CS17: High Quality Design;
CS18: Provision of Affordable Housing;
CS20: Infrastructure and Development Contributions;
CS21: Protection and Provision of Open Space.

Adopted Development Sites and Policies

DSP1: Sustainable Development;
DSP2: Environmental Impact;
DSP3: Impact on Living Conditions;
DSP5: Protecting and Enhancing the Historic Environment;
DSP13: Nature Conservation;
DSP15: Recreational Disturbance on the Solent Special Protection Areas;
Housing Site H9: Land to the rear of 399-417 Hunts Pond Road

Other Documents:

Fareham Borough Design Guidance: Supplementary Planning Document (excluding Welborne) December 2015
Residential Car Parking Standards 2009

5.0 Relevant Planning History

5.1 No recent relevant planning history regarding the site. It is important to highlight however that the site represents the final element of the allocated housing site (Housing Site H9) of the adopted Part 2 Local Plan. The housing allocation identified the site as having a potential capacity of approximately 20 dwellings. Two earlier applications on land to the south of the site have already been built out and comprise 16 dwellings between them (6 dwellings on the southern part of the allocation, and 10 dwellings on the central part of the allocation). The two earlier developments have separate access points directly onto Hunts Pond Road.

6.0 Representations

6.1 Fifteen third party representations of objection have been received to the planning application. Of the 15 received, 12 related to the original planning application submission, and 3 further letters of objection were received to the revised layout. The objections received raise the following concerns:

- Disruption during the construction period;
- Loss of a greenfield site;
- Car parking issues would be exacerbated by the proposals;
- Loss of privacy;
- Removal of hedges within the boundaries to the site;
- Light pollution to existing residential properties;
- Poor layout and design;
- Highway safety concerns;
- Three storey houses would result in excessive overlooking;
- Flood risk and drainage issues;

- Loss of habitat/ecology/biodiversity;
- Overshadowing;
- Noise pollution;
- Pressure on local services and infrastructure;
- No green spaces being provided; and,
- Loss of protected trees in the site.

7.0 Consultations

EXTERNAL

Hampshire County Council – Highway Authority

7.1 No objection, subject to appropriate conditions.

Hampshire Country Council – Lead Local Flood Authority

7.2 No objection, subject to conditions.

Hampshire County Archaeologist

7.3 No objection.

Southern Water

7.4 Proposed foul sewerage drainage is not acceptable as not designed to adoptable standards. If the applicant or developer proposes to offer a new on-site foul sewerage pumping station for adoption as part of the public foul sewerage system, this would have to be designed and constructed to adoptable standards and specification of Southern Water Ltd. Subject to this being provided, no objection. Condition requiring the information to be provided, in consultation with Southern Water would need to be included.

Natural England

7.5 Further information required to assess the impact of the development on the protected sites around the Solent. No objection to recreational disturbance of the Solent, subject to mitigation. Biodiversity enhancement – no objection subject to mitigation. Appropriate buffers to the adjacent Kites Croft LNR and The Wilderness SINC would need to be secured.

Hampshire Fire and Rescue Services

7.6 No objection. Building must be undertaken in full compliance with the latest building regulations.

INTERNAL

Ecology

7.7 No objection, subject to appropriate conditions.

Refuse and Recycling

7.8 No objection, subject to appropriate sweep path plan for refuse vehicles being provided.

Open Spaces Manager

7.9 No objection. FBC would not want to take on responsibility for any open spaces on the site however.

Environmental Health (Contaminated Land)

7.10 No objection. Recommend informative.

Environmental Health (Noise and Pollution)

7.11 No objection.

Tree Officer

7.12 No objection. Detailed landscaping and tree planting scheme required.

Affordable Housing Officer

7.13 No objection to suitably worded condition to ensure the supply of the policy compliant level of affordable housing.

Transport Planner

7.14 No objection, subject to conditions.

8.0 Planning Considerations

8.1 The following matters represent the key material planning considerations which would need to be assessed to determine the suitability of the development proposal. The key issues comprise:

a) Principle of Development;
b) Design and Layout;
c) Impact on Living Conditions of Neighbours;
d) Ecology and the Environment;
e) Highways and Car Parking;
f) Affordable Housing.

a) Principle of Development

8.2 The application site forms part of the adopted Housing Allocation within the Adopted Part 2 Local Plan (Development Sites and Policies) 2015. Therefore, the principle of residential development on the site has been considered and established through the last Local Plan review and was subsequently allocated as Housing Site H9. The site, which formed part of a wider development area to the south has already been largely built out, with two earlier applications having already been constructed, providing 16 new dwellings within the H9 Allocation. The remaining area of land is the largest parcel remaining of the allocation and is proposed to be developed with 16 new dwellings.

8.3 As the site is allocated within the Adopted Local Plan, the land is considered to be located within the designated Urban Area of the Western Wards. The development of the site is therefore considered to accord with Policies CS2, CS6 and CS9 of the Core Strategy.

b) Design and Layout

8.4 Since the original planning application was submitted, the layout of the scheme has been completely redesigned in order to address a number of concerns raised by Officers. The current scheme presented to the Planning Committee represents a scheme that follows detailed discussions with Officers and has sought to address a number of concerns raised by neighbours to the original layout.

8.5 The original layout included the provision of an estate road skirting around the perimeter of the site, which resulted in an access road running the length of the neighbours' garden to the south, and included three storey houses centrally within the site which would have led to significant loss of privacy to occupiers to both the north and south. These elements have been removed from the current design and layout.

8.6 The layout now ensures that private gardens are located adjacent to private gardens, reducing the impact of street lighting and vehicle movements impinging on the enjoyment of private rear garden spaces. The three storey houses have also been removed, with the site limited to two storey and two and a half storey dwellings. This results in a softer transition from the higher density developments along Bedford Drive (to the north) to the lower density dwellings along Willow Brook Close (to the south).

8.7 Each of the proposed dwellings comprises private rear gardens of 11 metres or longer, in compliance with the adopted Design Guidance, and the site has been designed to accommodate private front gardens and areas of definable landscaped areas to soften the appearance of the development in the street

scene. Backland parking courtyards have been avoided as they have been poorly utilised locally, with almost all the properties having direct access to the car parking outside their properties. Where parking courtyards have been provided, they have been designed to incorporate sufficient areas of soft landscaping to ensure the level of hardstanding and blocks of car parking is minimised and softened.

8.8 The design and appearance of the dwellings, all of which are semi-detached, incorporate a variety of design finishes ensuring a high level of overlooking and connectivity to the public domain and interest in the street scene.

8.9 Overall, it is considered that the design and layout of the proposals represent an acceptable design solution to the final element of this Housing Allocation, whilst also making efficient use of the site, a good level of soft landscaping and private amenity space for the individual properties, many of which exceed the minimum standard required by the adopted Design Guidance. The development is considered to represent good quality design, in accordance with the principles of Policy CS17.

c) Impact on Living Conditions of Neighbours

8.10 The Council's Adopted Design Guidance sets out a requirement of a minimum of 11 metres for private rear gardens and a minimum of 22 metres from first floor windows to first floor windows to ensure adequate levels of separation and to protect the living conditions of existing and future occupiers. The proposals incorporate these elements into the scheme.

8.11 The development is located to the south of properties along Bedford Drive, with Plots 1, 7, 14 and 15 lying adjacent to the northern boundary. Plot 1 would be located over 4 metres from the boundary with 4 Noble Road (to the northwest), the siting of plot 1 would not result in an unacceptable adverse loss of sunlight to the adjoining garden.

8.12 Plot 7 would be located a 1 metre from the party boundary with 3 Noble Road; the dwelling at 3 Noble Road is however located 6 metres away from its shared boundary to the site, and therefore it is considered that the level of overshadowing would diminish into the latter part of the day, ensuring no unacceptable adverse impact on the use of their garden area.

8.13 The side elevation of Plot 14 would be located almost 15 metres from the rear of the property at 16 Bedford Drive, with the proposed dwelling itself set around 4 metres from the shared boundary. It is therefore considered that any level of overshadowing would not be unacceptable, and would not impact

the immediate rear elevation of 16 Bedford Drive, which is orientated to the south.

8.14 Finally, Plot 15 would be located around 4 metres from the shared boundary with 24 Bedford Drive. Number 24 Bedford Drive is a flat and the area immediately to the north of the planning application site is a parking courtyard. It is considered that the development would not have an unacceptable impact on the living conditions of occupiers of the neighbouring properties to the north.

8.15 Representations of objection have also been received from the occupiers of properties on Lynn Crescent, to the northwest of the site, the closest of which, 10 Lynn Crescent, would be located approximately 18 metres away. They have raised concerns regarding overlooking and loss of sunlight into their gardens from Plots 1-6 of the development. The properties on Lynn Crescent are oriented to the south, and none of the proposed dwellings would be directly behind these properties. There would not therefore be any unacceptable adverse loss of light to these dwellings. Further, whilst there would be some oblique overlooking due to the proposed development, no window on the proposed development would have a direct line of sight into these gardens, and the proposals therefore accord with the requirements of the Design Guidance. The nearest direct line of sight window would be to the rear elevation of properties fronting Hunts Pond Road, the closest of which would be in excess of 55 metres away to the southwest of the site, far in excess of the minimum 22 metres sought in the Design Guidance.

8.16 In terms of the impact on the living conditions of occupiers to the south, there would be no loss of light due to the orientation of the development. Additionally, there would be no windows serving habitable rooms with a direct line of sight into the private gardens (unlike the original scheme) of the neighbouring properties on Willow Brook Close. It is therefore considered that the proposals would not have an unacceptable adverse impact on the living conditions of neighbouring occupiers, and the scheme represents a significant improvement to the original submission.

8.17 Therefore, the proposed development is not considered to have an unacceptable adverse impact on the living conditions of neighbouring occupiers and accords with policies DSP2 and DSP3 of the Adopted Local Plan.

d) Ecology and the Environment

8.18 The application has been subject to detailed consultations with the Council's Ecologist and has been supported by Ecological Appraisals that address the

initial concerns raised by the Council's Ecologist regarding the effect of the development on protected species on and around the site.

8.19 A number of third party comments received have raised concern that the development of this site will result in the loss of a valuable area of undeveloped land at the southern end of Hunts Pond Road, which has seen considerable levels of development over the past 20 years. Additionally, many residents are concerned that the development of the site will significantly change their living environment from an edge of settlement location to a dense, contained suburban environment. The site has long been established as an allocated housing site in the Adopted Local Plan, and where the Council has a significant shortage of housing, it is important to ensure that all new housing sites make the most efficient use of land, particularly where they are well contained by established residential development, subject to them creating attractive, well landscaped environments.

8.20 It is considered that the proposals not only have the support of the Council's Ecologist, but would also provide a lower density development than the neighbouring development along Bedford Drive, and represent a suitable transition towards the lower density developments to the south.

8.21 The development is likely to have a significant effect on the following designated sites in respect of recreational disturbance, air quality and water quality: Solent and Southampton Waters Special Protection Area and Ramsar Site, Portsmouth Harbour Special Protection Area and Ramsar Site, Solent and Dorset Coast Special Protection Area, Chichester and Langstone Harbours Special Protection Area and Ramsar Site, Solent and Isle of Wight Lagoons Special Area of Conservation and the Solent Maritime Special Area of Conservation – collectively known as the European Protected Sites (EPS). Policy CS4 sets out the strategic approach to biodiversity in respect of sensitive European sites and mitigation impacts on air quality. Policy DSP13 confirms the requirement to ensure that designated sites, sites of nature conservation value, protected and priority species populations and associated habitats are protected and where appropriate enhanced.

8.22 The Solent is internationally important for its wildlife. Each winter, it hosts over 90,000 waders and wildfowl including 10 percent of the global population of Brent Geese. These birds come from as far as Siberia to feed and roost before returning to their summer habitats to breed. There are also plants, habitats and other animals within the Solent which are of both national and international importance.

8.23 In light of their importance, areas within the Solent have been specially designated under UK/European law. Amongst the most significant

designations are Special Protection Areas (SPA) and Special Areas of Conservation (SAC).

8.24 Regulation 63 of the Habitats and Species Regulations 2017 provides that planning permission can only be granted by a 'Competent Authority' if it can be shown that the proposed development will either not have a likely significant effect on designated European sites or, if it will have a likely significant effect, that effect can be mitigated so that it will not result in an adverse effect on the integrity of the designated European sites. This is done following a process known as an Appropriate Assessment. The Competent Authority is responsible for carrying out this process, although they must consult with Natural England and have regard to their representations. The Competent Authority is the Local Planning Authority.

8.25 The Council has completed an Appropriate Assessment to assess the likely significant effects of the development on the EPS. The key considerations for the assessment of the likely significant effects are set out below.

8.26 Firstly, in respect of Recreational Disturbance, the development is within 5.6km of the Solent SPAs and is therefore considered to contribute towards an impact on the integrity of the Solent SPAs as a result of increased recreational disturbance in combination with other development in the Solent area. The applicants have made the appropriate financial contribution towards the Solent Recreational Mitigation Partnership Strategy (SRMP) and therefore, the Appropriate Assessment concludes that the proposals would not have an adverse effect on the integrity of the EPS as a result of recreational disturbance in combination with other plans or projects.

8.27 Secondly, in respect of Air Quality, Natural England has advised that the effects of emissions from increased traffic along roads within 200 metres of EPS has the potential to cause a likely significant effect. The applicant has submitted an Air Quality Ecological Impact Assessment to support the application to address this matter.

8.28 The AQEIA concludes that the proposed development would not have a significant effect, in combination with other plans or projects, on the integrity of the EPS. The Council is therefore content that the development would be acceptable in this respect.

8.29 Finally, in respect of the impact of the development on water quality as a result of surface water and foul water drainage, Natural England has highlighted that there is existing evidence of high levels of nitrogen and phosphorus in parts of The Solent with evidence of eutrophication. Natural England has further highlighted that increased levels of nitrates entering the

Solent (because of increased amounts of wastewater from new dwellings) will have a likely significant effect upon the EPS.

8.30 A nitrogen budget has been calculated in accordance with Natural England's *'Advice on Achieving Nutrient Neutrality for New Development in the Solent Region'* (June 2020) which confirms that the development will generate 11.3556 kg/TN/year. Due to the uncertainty of the effect of the nitrogen from the development on the EPS, adopting a precautionary approach, and having regard to NE advice, the Council will need to be certain that the output will be effectively mitigated to ensure at least nitrogen neutrality before it can grant planning permission.

8.31 The applicant has entered into a contract (conditional on the grant of planning permission) to purchase 11.5kg of nitrate mitigation 'credits' from the Hampshire and Isle of Wight Wildlife Trust (HIWWT). Through the operation of a legal agreement between the HIWWT, Isle of Wight Council and Fareham Borough Council dated 30 September 2020, the purchase of the credits will result in a corresponding parcel of agricultural land at Little Duxmore Farm on the Isle of Wight being removed from intensive agricultural use, and therefore providing a corresponding reduction in nitrogen entering the Solent marine environment. A condition will be imposed to ensure that the development does not commence on site until confirmation of the purchase of the credits from the HIWWT has been received by the Council.

8.32 The Council has carried out an appropriate assessment and concluded that the proposed mitigation and condition will be adequate for the proposed development and ensure no adverse effect on the integrity of the EPS either alone or in combination with other plans or projects. The difference between the credits and the output will result in a small annual net reduction of nitrogen entering the Solent.

8.33 Natural England has been consulted on the Council's Appropriate Assessment and agrees with its findings.

8.34 It is therefore considered that the development accords with the Habitat Regulations and complies with Policies CS4 and DSP13 and DSP15 of the adopted Local Plan.

e) Highways and Car Parking

8.35 The application has been subject to consultation with the Highway Authority (Hampshire County Council), and the Council's Transport Planner. No objection has been raised, subject to appropriate conditions on the operation or safety of the local highway network.

8.36 It is acknowledged that many third party comments raised concerns regarding the lack of car parking provision within the development, the lack of car parking in the existing estate and the subsequent knock-on effects the provision of 16 additional houses would bring. The current proposal meets adopted car parking standards, including the provision of visitors' spaces. It is acknowledged that the neighbouring residential streets do get congested at peak times in the evenings and weekends. However, many of those properties include garage spaces to achieve parking standards and Members are aware that those facilities are rarely used for parking, which has the effect of displacing cars to the public highway.

8.37 The current proposal does not incorporate garages, with only two properties including car ports, for which a proposed condition would restrict alterations to ensure it maintains an open frontage, ensuring its continued use for car parking. Further, many of the parking spaces in the neighbouring development include parking courtyards, which result in an inconvenient use for residents who are required to then walk to their properties, and in many cases results in spaces out of view of their houses. This results in them being poorly used. The current proposal ensures car parking spaces adjacent to their property, ensuring security for future occupiers. It is considered that these factors, together with a parking standard in accordance with adopted requirements and the provision of visitors' parking spaces, mean that it is likely that the proposals would not result in the need to make use of on-street car parking and would not therefore result in an unacceptable impact on the adjoining residential streets.

f) Affordable Housing

8.38 The application proposal has been submitted by Imperial Homes Ltd, although, following early discussions with the applicant, it was identified that the development would ultimately be provided to Vivid Homes Ltd as a wholly affordable housing scheme. The proposals are intended to be funded through grants by Homes England, for which no Section 106 Legal Agreement can be applied. Therefore, in order to ensure that, in the event that the scheme fails to be transferred to Vivid Homes Ltd, the minimum provision of 40% of the units would be provided as affordable housing, an appropriately worded condition has been provided in order to ensure compliance with Policy CS18 of the Local Plan.

8.39 This approach has been considered by the Council's Affordable Housing Strategic Lead who considers that the appropriately worded condition is robust enough in this instance to ensure the delivery of the minimum provision

of affordable housing, to meet the identified need in accordance with the NPPF and the adopted Local Plan Policy CS18.

8.40 In summary, notwithstanding the objections received, Officers consider that the proposals to develop the last part of this allocated housing site are acceptable and in accordance with this Council's relevant adopted planning policies.

9.0 Recommendation

9.1 GRANT PLANNING PERMISSION, subject to the following Conditions:

1. The development hereby permitted shall be commenced within three years of the date of this decision.
   REASON: To allow a reasonable time period for work to start, to comply with Section 91 of the Town and Country Planning Act 1990, and to enable the Council to review the position if a fresh application is made after that time.

2. The development hereby permitted shall be carried out strictly in accordance with the following drawings/documents:
   a) Location Plan (Drawing: 19011-2-PL-2-01);
   b) Site Layout (Drawing: 19011-2-PL-2-02 Rev B);
   c) Site Layout – Bedrooms (Drawing: 19011-2-PL-2-04 Rev B);
   d) Site Layout – Building Heights (Drawing: 19011-2-PL-2-05 Rev B);
   e) Figure Ground Diagram (Drawing: 19011-2-PL-2-07)
   f) Site Layout – Building Materials (Drawing: 19011-2-PL-2-08 Rev B);
   g) Site Layout – Parking/Bins (Drawing: 19011-2-PL-2-09 Rev B);
   h) 2 Bed House – Plans (Drawing: 19011-2-PL-3-01);
   i) 2 Bed House – Plans and Elevations (Drawing: 19011-2-PL-3-01);
   j) 3 Bed House – Type A – Plans (Drawing: 19011-2-PL-3-02);
   k) 3 Bed House – Type A – Elevations (Drawing: 19011-2-PL-3-03);
   l) 3 Bed House – Type B – Plans & Elevations (Drawing: 19011-2-PL-3-04);
   m) 3 Bed House – Type C – Plans & Elevations (Drawing: 19011-2-PL-3-05);
   n) 4 Bed House – Plans & Elevations (Drawing: 19011-2-PL-3-06);
   o) Car Port – Plans & Elevations (Drawing: 19011-2-PL-3-07); and,
   p) Indicative Street Scene Elevations (Drawing: 19011-2-PL-5-01).
   REASON: To avoid any doubt over what has been permitted.

3. No development hereby permitted shall proceed beyond damp proof course level until details (including samples where requested by the Local Planning Authority) of all proposed external facing (and hardsurfacing) materials have been submitted to and approved by the Local Planning Authority in writing. The development shall be carried out in accordance with the approved details.
   REASON: To secure the satisfactory appearance of the development.

4. The first and second floor window(s) proposed to be inserted into the southern elevations of Plots 6, 10 and 11, and the northern elevations of Plots 1, 7, 14 and 15 of the approved development shall be:
   a) Obscure-glazed; and
   b) Of a non-opening design and construction to a height of 1.7 metres above internal finished floor level;
   and shall thereafter be retained in that condition at all times.
   REASON: To prevent overlooking and to protect the privacy of the occupiers of the adjacent property(ies).

5. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015 (or any Order revoking and re-enacting or amending that Order) there shall be no alterations or amendments to the permitted car port, including the provision of garage doors to the front elevation, without the grant of a separate planning permission from the Local Planning Authority.
   REASON: To ensure adequate off-street car parking is retained on site.

6. Prior to development commencing full details of the tenure of all homes/plots at the site, including the type of affordable tenure, shall be submitted and approved in writing by the Local Planning Authority, comprising a minimum of 7no. of the homes shall be provided as Affordable Housing (as per the NPPF definition). Of the affordable homes provided on the site, a minimum of 5no. shall be at Social or Affordable Rent and the Affordable homes provided at Social/Affordable Rent shall include at least 2no. 3-bed and 1no. 4-bed properties.

   All affordable homes provided on the site shall be provided and managed by a housing association, housing company or companies, or a trust registered as a registered social landlord pursuant to the Housing Act 1996, or a non-profit provider pursuant to section 80 of the Housing and Regeneration Act 2008. None of the properties shall be occupied until that party/provider have entered into a Nominations Agreement with Fareham Borough Council. No Affordable homes for rent shall have a rent set in excess of the Local Housing Allowance relevant for the site and property size.

   All affordable homes provided on the site shall thereafter remain affordable unless otherwise agreed in writing by the Local Planning Authority.
   REASON: To ensure the affordable provision reflects the housing needs of the local population, in accordance with the requirements of Policy CS18 of the adopted Local Plan. The details secured by this condition are considered essential to be agreed prior to the commencement of development on the site so that appropriate levels of affordable housing is provided and secured before works commence.

7. No development shall take place until details of the width, alignment, gradient and type of construction proposed for the roads, footways and access(es), including all relevant horizontal cross sections and longitudinal sections showing the existing and proposed levels, together with details of street lighting and the method of disposal of surface water, and details of a programme for the making up of roads and footways have been submitted to and approved in writing by the Local Planning Authority.
   REASON: To ensure that the roads are constructed to a satisfactory standard.

8. No dwelling constructed on the site subject to this planning permission shall be first occupied until there is a direct connection from it, less the final carriageway and footway surfacing, to an existing highway. The final carriageway and footway surfacing shall be commenced within three months and completed within six months from the date upon which construction is commenced of the penultimate building/dwelling for which permission is hereby granted. The roads and footways shall be laid out and made up in accordance with the approved specification, programme and details.
   REASON: To ensure that the roads and footways are constructed in a satisfactory manner.

9. The visitor parking spaces marked on the approved plans shall be kept available for visitors at all times and not be used for private purposed.
   REASON: To ensure adequate off-street parking provision on site is maintained.

10. None of the dwellings hereby permitted shall be first occupied until the car parking area relating to them as shown on the approved plan have been laid out/constructed and made available. These areas shall thereafter be retained and kept available for their respective purposes at all times.
    REASON: In the interests of highway safety.

11. No dwelling shall be occupied until the bin and cycle stores have been made available in accordance with the approved plans. These designated areas shall thereafter be kept available and retained at all times for the purpose of bin and cycle storage.
    REASON: In the interests of visual amenity and in order to facilitate modes of transport alternative to the private car.

12. No development shall commence on site until a Construction Environment Management Plan (CEMP) has been submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the approved CEMP (unless otherwise agreed in writing by

the local planning authority) which shall include (but shall not necessarily be limited to):

a) Details of how provision is to be made on site for the parking and turning of operatives/contractors'/sub-contractors' vehicles and/or construction vehicles;

b) The measures the developer will implement to ensure that operatives'/contractors/sub-contractors' vehicles and/or construction vehicles are parked within the planning application site;

c) Arrangements for the routing of lorries and details for construction traffic access to the site;

d) The arrangements for deliveries associated with all construction works, loading/ unloading of plant & materials and restoration of any damage to the highway;

e) The measures for cleaning the wheels and underside of all vehicles leaving the site;

f) A scheme for the suppression of any dust arising during construction or clearance works;

g) The measures for cleaning Noble Road and Bedford Place to ensure that they are kept clear of any mud or other debris falling from construction vehicles, and

h) A programme and phasing of the demolition and construction work, including roads, footpaths, landscaping and open space;

i) Location of temporary site buildings, compounds, construction material, and plant storage areas used during demolition and construction;

j) Measures to control vibration in accordance with BS5228:2009 which prevent vibration above 0.3mms-1 at the boundary of the SPA;

k) Provision for storage, collection, and disposal of rubbish from the development during construction period;

l) The erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate;

m) Temporary lighting;

n) Protection of pedestrian routes during construction;

o) No burning on-site;

p) Scheme of work detailing the extent and type of piling proposed;

q) A construction-phase drainage system which ensure all surface water passes through three stages of filtration to prevent pollutants from leaving the site;

r) Safeguards for fuel and chemical storage and use, to ensure no pollution of the surface water leaving the site.
REASON: In the interests of highway safety; To ensure that the occupiers of nearby residential properties are not subjected to unacceptable noise and disturbance during the construction period; In the interests of protecting protected species and their habitat; In the interests of protecting nearby sites of ecological importance from potentially adverse impacts of development. The details secured by this condition are considered essential to be agreed prior to the commencement of development on the site so that appropriate measures are in place to avoid the potential impacts described above.

13. The development hereby permitted shall proceed in accordance with the measures set out in the 'Mitigation, Compensation and Enhancement Recommendations' section of the Ecological Appraisal report by Emma Pollard (June 2019). Thereafter, the enhancements to include hedgehog homes, reptile hibernacula, Schwegler 1F bat tubes, dormouse boxes, swift next boxes and swallow eaves shall be permanently maintained and retained in accordance with the approved details.
REASON: To ensure the protection of wildlife and a net gain in biodiversity.

14. Prior to commencement of the development hereby permitted, a ten year management plan for the management of the retained, enhanced and new habitats in the eastern buffer area shall be submitted to and approved in writing by the Local Planning Authority.
REASON: To protect biodiversity and the adjacent non-statutory designated sites. The details secured by this condition are considered essential to be agreed prior to the commencement of the development on the site so that appropriate measures are in place to protect the local biodiversity of the area.

15. No dwelling shall be occupied until the Building Regulations Optional requirement of a maximum water use of 110 litres per day has been complied with.
REASON: In the interests of preserving water quality and resources.

16. Not to commence development unless the council has received the Notice of Purchase in accordance with the legal agreement between FBC, IWC and HIWWT dated 30 September 2020 in respect of the Credits Linked Land identified in the Nitrates Mitigation Proposals Pack.
REASON: To demonstrate that suitable mitigation has been secured in relation to the effect that nitrates from the development has on European protected sites.

17. No work on site relating to the construction of any of the development hereby permitted (Including works of demolition or preparation prior to operations) shall take place before the hours of 0800 or after 1800 Monday to Friday, before the hours of 0800 or after 1300 Saturdays or at all on Sundays or recognised bank and public holidays, unless otherwise first agreed in writing with the Local Planning Authority.
REASON: To protect the occupiers of nearby residential properties against noise and disturbance during the construction period.

18. No development shall proceed beyond damp proof course level until a landscaping scheme identifying all existing trees, shrubs and hedges to be retained, together with the species, planting sizes, planting distances, density, numbers, surfacing materials and provisions for future maintenance of all new planting, including all areas to be grass seeded and turfed and hardsurfaced, has been submitted to and approved by the Local Planning Authority in writing.
REASON: In order to secure the satisfactory appearance of the development; in the interests of the visual amenities of the locality

19. The landscaping scheme, submitted under Condition 18, shall be implemented and completed within the first planting season following the commencement of the development or as otherwise agreed in writing with the Local Planning Authority and shall be maintained in accordance with the agreed schedule. Any trees or plants which, within a period of five years from first planting, are removed, die or, in the opinion of the Local Planning Authority, become seriously damaged or defective, shall be replaced, within the next available planting season, with others of the same species, size and number as originally approved.
REASON: To ensure the provision, establishment and maintenance of a standard of landscaping.

20. None of the development hereby approved shall be occupied until a plan of the position, design, materials and type of boundary treatment to be erected to all boundaries has been submitted to and approved in writing by the Local Planning Authority and the approved boundary treatment has been fully

implemented. It shall thereafter be retained at all times unless otherwise agreed in writing with the Local Planning Authority.

If boundary hedge planting is proposed details shall be provided of planting sizes, planting distances, density, and numbers and provisions for future maintenance. Any plants which, within a period of five years from first planting, are removed, die or, in the opinion of the Local Planning Authority, become seriously damaged or defective, shall be replaced, within the next available planting season, with others of the same species, size and number as originally approved.
REASON: To protect the privacy of the occupiers of the neighbouring property, to prevent overlooking, and to ensure that the development harmonises well with its surroundings.

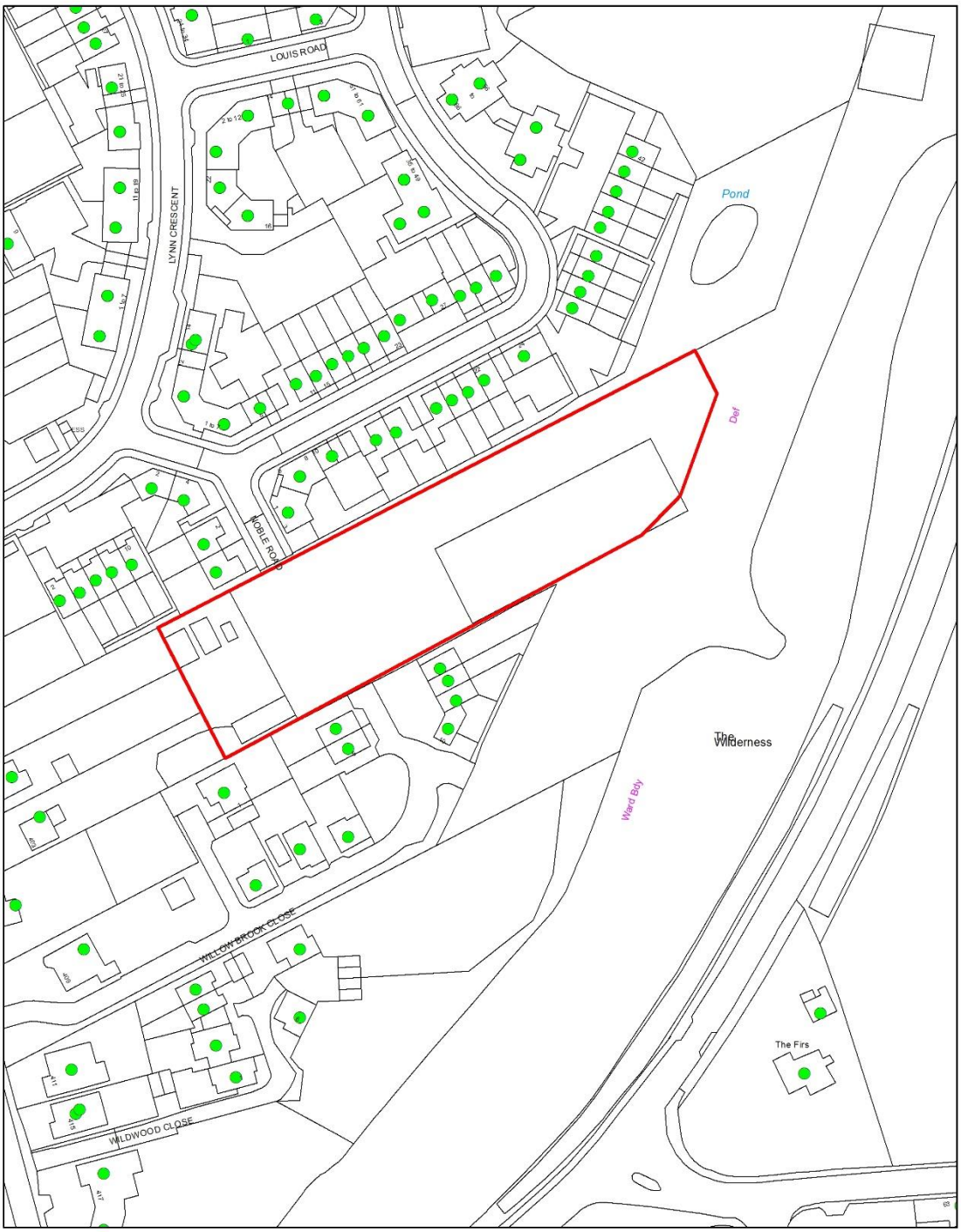
21. The development hereby permitted shall be undertaken in accordance with the Flood Risk Assessment and Drainage Strategy (prepared by Paul Basham Associates 134.5003/FRA/4 19.08.19) and Road Alignment (prepared by Paul Basham Associates 134.5003.001 27.09.19). The development shall be carried out in accordance with the approved details unless otherwise agreed with the Local Planning Authority in writing.
REASON: In order to ensure satisfactory disposal of surface water. The details secured by this condition are considered essential to be agreed prior to the commencement of development on the site so that appropriate measures are in place to avoid adverse impacts of inadequate drainage.

22. No development hereby permitted shall commence until details of the means of foul water drainage from the site have been submitted to and approved by the local planning authority in writing. The development shall be carried out in accordance with the approved details unless otherwise agreed with the local planning authority in writing.
REASON: To ensure satisfactory disposal of foul water. The details secured by this condition are considered essential to be agreed prior to the commencement of development on the site so that appropriate measures are in place to avoid adverse impacts of inadequate drainage.

10.0 Background Papers

[P/19/0183/FP]

FAREHAM
BOROUGH COUNCIL



403 Hunts Pond Road

Scale1:1,250

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APPENDIX C:

Hampshire & Isle of Wight letter (4 November 2020)
Nitrate Mitigation Proposal - 403 Hunts Pond Road, Park Gate
P/19/0183/FP

Includes:

Appendix C1:
HIWWT Little Duxmore Land Allocation
Issue Number - 201007 – 0003b
Land Rear of 403 Hunts Pond Road (P/19/0183/FP)

Appendix C2:
HIWWT Little Duxmore Land Allocation
Issue Number - 201007 – 0003a
Land Rear of 403 Hunts Pond Road (P/19/0183/FP)

Appendix C3:
HIWWT Little Duxmore Farm
Field use and Nitrates mitigation capacity statement

Appendix C4:
HIWWT Nitrate mitigation budget
403 Hunts Pond Road, Park Gate (P/19/0183/FP)

Hampshire & Isle of Wight Wildlife Trust

Date: 4 November 2020

Beechcroft House
Vicarage Lane
Curdridge
Hampshire
SO32 2DP

e feedback@hiwwt.org.uk
t 01489 774400
www.hiwwt.org.uk

Nitrate Mitigation Proposal
P/19/0183/FP
403 Huntspond Road, Park Gate

Dear Peter Kneen

I am writing to confirm that the Hampshire and Isle of Wight Wildlife Trust (HIWWT) has entered into a contract with Imperial Homes South Ltd to provide nitrate mitigation for the above development. Under the terms of the contract, the HIWWT will provide 11.5 number of "nitrates credits" to the developer.

As you will be aware, the section 106/section 33 legal agreement dated 30th September 2020 between the HIWWT, Fareham Borough Council and Isle of Wight Council enables land at Little Duxmore Farm, Isle of Wight to be used for mitigation of the adverse effects of proposed housing development in the Borough of Fareham on the integrity of European Protected Sites as a result of increased nitrates discharged into the Solent. This is achieved by taking land out of agricultural use at Little Duxmore Farm.

In order to mitigate the adverse effects of this particular development, the credits purchased by the applicant would bind 0.496 hectares of land at Little Duxmore Farm. Changing the use of this parcel of land away from agricultural use would provide a reduction in nitrates amounting to 11.5 kg/N/year. Once the credits are purchased and the land is bound by the legal agreement, the use of the land would be restricted as set out in the agreement to ensure no additional nitrates are added which then may find their way into the water environment.

Please find enclosed the following:

- A plan of Little Duxmore Farm with the mitigation land in question identified;
- A further plan of the mitigation land itself shown in more detail;
- A summary of evidence showing how the mitigation land at Little Duxmore Farm is currently used and how it has been used over the past ten years;

- A Nutrient Budget showing how the reduction in nitrates has been calculated (including an explanation of why a mixed average farm type has been used as the basis for the existing land use having regard to advice issued by Natural England).

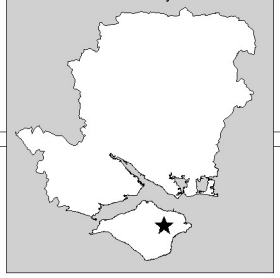
I trust this information is sufficient for you to be able to continue determining the current application and to carry out an Appropriate Assessment under the Conservation of Habitats and Species Regulations 2017. Please contact me should you have any questions.

Yours sincerely,

John Durnell
Director of Estates and Conservation Delivery

Hampshire & Isle of Wight Wildlife Trust, Beechcroft House, Vicarage Lane, Curdridge, Hampshire, SO32 2DP

Location within county:



Little Duxmore Land Allocation

Issue Number - 201007 - 0003b

Imperial Homes South Ltd - Land rear of 403 Huntspond Road (P/19/0183/FP)

Scale 1:2500

Hampshire and Isle of Wight Wildlife Trust
Beechcroft House, Vicarage Lane
Curdridge SO32 2DP
web: www.hiwwt.org.uk

Hampshire & Isle of Wight Wildlife Trust

Allocated Land

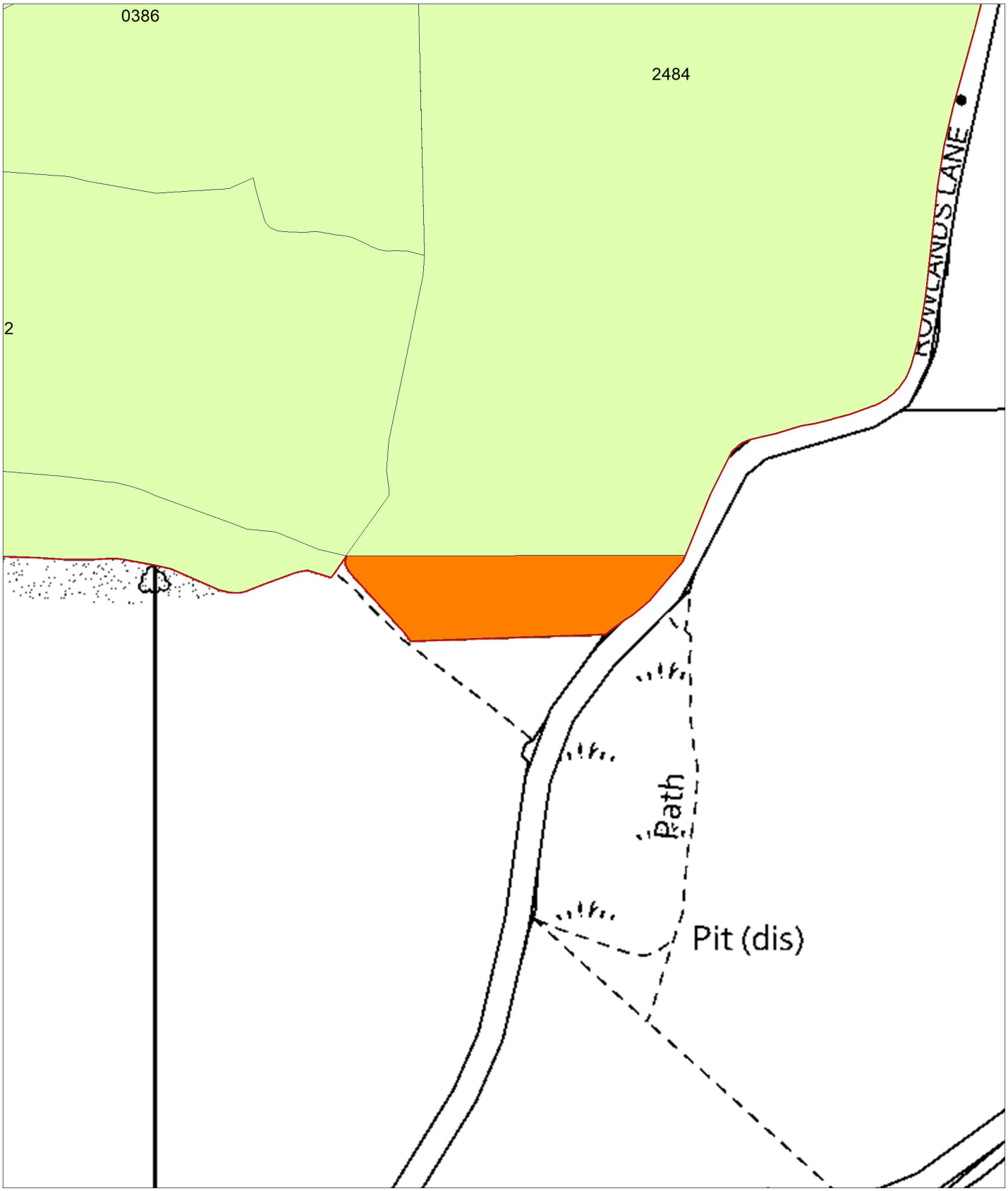
Imperial Homes South - Land rear of 403 Huntspond Road

Availability

Available

Unavailable

Site Boundary



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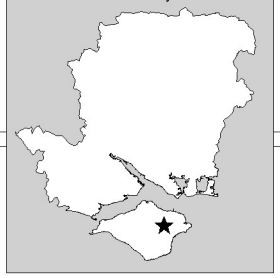
Location within county:



Little Duxmore Land Allocation

Issue Number - 201007 - 0003a

Imperial Homes South Ltd - Land rear of 403 Huntspond Road (P/19/0183/FP)

Scale 1:5000

Hampshire and Isle of Wight Wildlife Trust
Beechcroft House, Vicarage Lane
Curdridge SO32 2DP
web: www.hiwwt.org.uk

Hampshire & Isle of Wight Wildlife Trust

Allocated Land

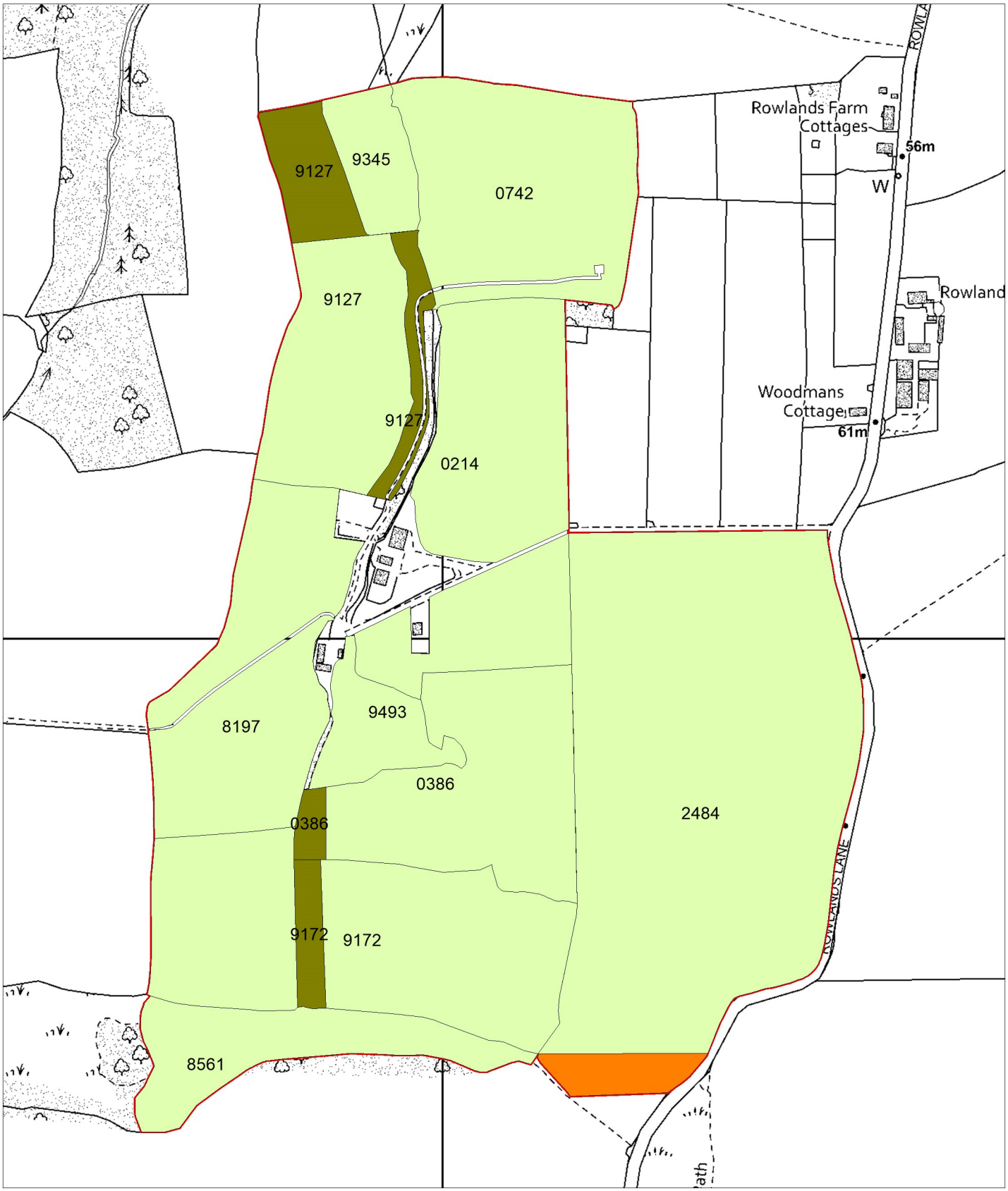
Imperial Homes South - Land rear of 403 Huntspond Road

Availability

Available

Unavailable

Site Boundary



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Hampshire & Isle of Wight Wildlife Trust

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Little Duxmore Farm

Field use and Nitrates mitigation capacity statement.

In considering the suitability and capacity of any site to mitigate for nitrogen inputs into the Solent, Natural England set out a series of criteria (reference: Natural England Document Advice on Achieving Nutrient Neutrality for New Development in the Solent Region Version 5 June 2020) against which a proposal can be met.

Natural England's Advice on Achieving Nutrient Neutrality for New Development in the Solent Region states that "Permanent land use change by converting agricultural land with higher nitrogen loading to alternative uses with lower nitrogen loading, such as for local communities, wildlife, and under schemes for flood management or to deliver the UK Government's Net Zero greenhouse gas emissions target by 2050, is one way of neutralising nutrient burdens from development." The Hampshire & Isle of Wight Wildlife Trust is proposing to take land with high nitrogen loading at Little Duxmore and convert it into a lower nitrogen loading management regime.

To be able to demonstrate that the proposal will provide nitrogen mitigation, Natural England's advice sets down a number of criteria which need to be fulfilled:

The first criteria is that location of the mitigation site will ensure that discharges from that site fall into the same catchment as discharges from the Waste Water Treatment Works serving the development. Little Duxmore Farm sits on a tributary of the Wootten Creek and Natural England's advice states that:

> 5.39 For development that drains to Peel Common WwTW, mitigation is appropriate in the following catchments – River Meon, Portsmouth Harbour, Medina Estuary, Wootton Creek, Newtown Harbour, Langstone Harbour.
>
> 5.40 For development that drains to Budds Farm WwTW, mitigation is appropriate in the following catchments – River Meon, Portsmouth Harbour, Langstone Harbour, Chichester Harbour, Wootton Creek, Medina Estuary (and the estuaries in between).

Little Duxmore Farm is therefore an appropriate location to mitigate for discharges via the Budds Farm and Peel Common waste water treatment works.

Once it has been established that the location of the mitigation site is appropriate the total capacity to provide mitigation for nitrates must be established.

Establishing the total capacity of the mitigation site is a function of three variables:

The total area of mitigation land available

The level of nitrogen discharged associated with the previous land use previous land use.
The level of nitrogen discharged associated with the future land use

The Total area of mitigation land available at Little Duxmore Farm.

Using the mastermap mapping package the Wildlife Trust has mapped the Little Duxmore Farm excluding all areas of woodland, hard standing , tracks and other non eligible features.

The total area of land under intensive cropping or poultry.

This work has concluded that the Total eligible area at Little Duxmore farm is 36.42ha

The level of nitrogen discharged associated with the previous land use previous land use.

Below is the table of field ID numbers, names and areas at Little Duxmore accurately mapped using mastermap. Below the table is the crop rotation information provided by Andrew Kennerley the previous owner.

Table of fields and sizes used for mitigation of nitrates-nitrogen

RLR Field Number	Field Name	Area (ha)
SZ5688 0742	North Ground	4.02
SZ5587 9127	Copse Field	2.71
SZ5677 2484	Debs Field	12.20
SZ5587 8197	Courts Field	3.90
SZ5527 9172	South Ground	5.42
SZ5687 0386	East Ground	3.49
SZ5688 0214	Sheep Wash	4.68

Information Supplied by Andrew Kennerley Previous owner of Little Duxmore farm

Subject: Field use

Below are the last five years crop plans

Field number and Year	SZ5587 8197 Courts Field	SZ5688 0214 Sheep wash	SZ5688 0742 North Ground	SZ5587 9172 South Ground	SZ5687 0386 East Ground	SZ5687 2484 Debs Field	SZ5588 9127 Copse Field
2019	Maize	Maize	Triticale	Rye	Triticale	Triticale	Poultry
2018	Wheat	Maize	wheat	Wheat	Maize	Maize	Poultry
2017	Silage	Silage	Silage	Wheat	Wheat	Wheat	Poultry
2016	Silage	Silage	Silage	Silage	Silage	Silage	Poultry
2015	Silage	Silage	Silage	Silage	Silage	Silage	Poultry

Appendix 1 of Natural England's advice outlines the approach that should be used to calculate the outputs of each land use. It states that "The UK system is based on weighting the contributions of each enterprise in terms of their associated outputs. The weights used (known as 'Standard Outputs' or SOs) are calculated per hectare of crops and per head of livestock and used to calculate the total standard output associated with each part of the Farm Business."

As can been seen from the land uses outlined above Little Duxmore farm has been used for a mix of poultry, arable and maize over the past 5 years with none of these land uses covering more than 2/3 of the

land over the period. Given that the entire farm holding will be removed from agricultural use, a whole farm classification of mixed use is considered appropriate in this case, rather than attributing individual land uses to each field. The farm classification has been determined following a review of the evidence of existing farm type for the last 5 years and professional judgement as to how the farm holding would be managed in the absence of the need for nitrogen mitigation. This approach has been presented to and confirmed as acceptable by Natural England.

The advice classifies mixed cropping as:

Holdings for which none of the above categories (cereals, general cropping, horticulture, pigs, poultry, dairy, lowland grazing) accounts for more than 2/3 of total SO. This category includes mixed pigs and poultry farms as well as farms with a mixture of crops and livestock (where neither accounts for more than 2/3 of SOs).

Section 4.47 of Natural England's advice draws on work by ADAS model and identifies the average nitrate-nitrogen loss for mixed farms in the Solent catchment as 28.3kgs per year.

The level of nitrogen discharged associated with the future land use

The Trust will manage the mitigation land at Duxmore as a nature reserve and has entered into a Legal Agreement (the Legal Agreement) with Fareham Borough Council and Isle of Wight Council within which it is committed, amongst other things, not to add any nitrates, not to plough the land, not to add any organic or inorganic fertilisers, not to provide supplementary food to livestock (apart from mineral licks) and to ensure that average grazing densities do not exceed 0.25 grazing livestock units per ha (or 0.15 sheep per ha) (subject to the further detail contained within the Legal Agreement)."

Despite the prohibitions on certain activities outline above and within the Legal Agreement Natural England's advice (4.62) is that continued nitrogen leaching will continue on formerly intensively managed farmland at a level of 5kg/N per year .

Appendix 3 of the Natural England advice note suggests a precautionary level of 4.66 kg/n per year would be released on publicly accessible SANG land. However Little Duxmore farm will not have public access on it so the impact of Dog waste which accounts for 34% of the overall residual discharge is not relevant.

Despite the absence of pet waste inputs the Trust has taken a precautionary approach and has factored in 5kg/N per year reduction in the mitigation capacity of the land at Little Duxmore Farm.

Summary:

The calculation below provides a summary of the three factors, outlined above and draws together the three variables to provide a calculation of the total mitigation capacity for the Little Duxmore Farm site

Total eligible area: 36.42 ha
Value of mixed copping following NE standard methodology 28.3 kg/ha
Residual discharge rate 5 kg/ha

Net mitigation capacity per hectare 28.3kg- 5kg = 23.3 kg/ha

Total capacity of site = 23.3 x 36.42 = 848.5kgs/ha per year

The Total nitrate-nitrogen mitigation capacity of Little Duxmore Farm is 848.5kg/N per year and this calculation for Little Duxmore Farm has been approved by Natural England

Hampshire & Isle of Wight Wildlife Trust, Beechcroft House, Vicarage Lane, Curdridge, Hampshire, SO32 2DP

Hampshire & Isle of Wight Wildlife Trust

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Vicarage Lane
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Hampshire
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Nitrate mitigation budget

Site: 403 Huntspond Road, Park Gate

Developer: Imperial Homes South Ltd

Planning application number: P/19/0183/FP

Nitrate mitigation required: 11.5 kg/N per year

Mitigation Calculation:

A) Existing land use 0.496 ha of land at 28.3kg/N/yr = 14.04 kg/N/yr

B) Proposed land use of 0.496 ha of land at 5/kg/N/yr = 2.48 kg/N/yr

A - B = C Total nitrate mitigation = 14.04 – 2.48 = 11.56 kg/N/yr

APPENDIX D:

Department for Transport statistics: National Travel Survey
Table NTS0403

Department for Transport statistics: National Travel Survey
Table NTS0303

Department for Transport statistics
National Travel Survey

Table NTS0403

Select table from dropdown list (or scroll down to view static tables):
Average number of trips (trip rates) per person per year by trip purpose: England, from 1995/97 (including short walks)

Average number of trips (trip rates) per person per year by trip purpose: England, from 1995/97 (including short walks)

Purpose	1995/97	1998/00	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Commuting	176	174	164	166	170	162	162	164	158	147	150	148	147	146	148	144	144	144	144	140
Business	38	37	36	34	35	38	35	34	31	30	29	28	30	30	32	31	33	27	30	28
Education	67	70	65	72	70	69	65	65	64	65	62	61	66	66	65	65	64	67	66	68
Escort education	50	52	47	52	51	52	47	47	46	48	52	50	56	51	53	50	54	54	60	58
Shopping	238	228	222	215	214	212	225	191	202	196	197	194	191	184	178	182	183	189	188	181
Other escort	85	84	105	96	93	96	98	87	97	93	92	93	88	87	86	84	84	87	89	83
Personal business	111	106	118	110	109	112	109	100	106	106	101	95	96	91	95	91	89	96	92	88
Visiting friends at private home	145	138	125	122	121	125	121	112	110	111	102	105	103	96	92	89	90	88	84	82
Visiting friends elsewhere	47	50	50	49	46	50	52	50	48	49	48	46	45	45	47	48	50	49	53	48
Entertainment / public activity	40	38	49	47	51	52	51	49	44	44	47	48	52	51	52	52	56	54	60	59
Sport: participate	23	25	19	20	19	17	16	18	20	20	18	17	15	14	13	13	14	14	14	13
Holiday: base	11	11	11	11	11	12	11	11	11	12	12	11	10	10	9	12	9	12	12	13
Day trip	21	18	23	24	24	28	27	28	29	28	28	30	27	28	29	28	29	35	33	32
Other including just walk	43	41	41	41	41	45	47	41	46	47	45	46	46	44	42	47	56	58	62	61
All purposes	1,094	1,073	1,074	1,060	1,054	1,070	1,067	998	1,014	997	982	972	971	943	942	934	954	975	986	953
Unweighted sample size:																				
individuals	19,621	18,739	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	398	371	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

There is an apparent under-recording of short walks in 2002 and 2003; and short trips in 2007 and 2008 compared to other years.
Figures for trips/miles per person per year include short walks unless otherwise stated
Average trip duration is based on total journey time and therefore includes travelling and waiting time.

The figures in this table are National Statistics
The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information.

Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data.
The survey results are subject to sampling error.

national.travelsurvey@dft.gov.uk
Notes & definitions

Source: National Travel Survey
Last updated: 5 August 2020
Next update: Summer 2021

Average number of trips (trip rates) per person per year by trip purpose: England, from 1995/97
Including short walks

Purpose	1995/97	1998/00	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Trips per person per year (including short walks)																			
Commuting	176	174	164	166	170	162	162	164	158	147	150	148	147	146	148	144	144	144	144	140
Business	38	37	36	34	35	38	35	34	31	30	29	28	30	30	32	31	33	27	30	28
Education	67	70	65	72	70	69	65	65	64	65	62	61	66	66	65	65	64	67	66	68
Escort education	50	52	47	52	51	52	47	47	46	48	52	50	56	51	53	50	54	54	60	58
Shopping	238	228	222	215	214	212	225	191	202	196	197	194	191	184	178	182	183	189	188	181
Other escort	85	84	105	96	93	96	98	87	97	93	92	93	88	87	86	84	84	87	89	83
Personal business	111	106	118	110	109	112	109	100	106	106	101	95	96	91	95	91	89	96	92	88
Visiting friends at private home	145	138	125	122	121	125	121	112	110	111	102	105	103	96	92	89	90	88	84	82
Visiting friends elsewhere	47	50	50	49	46	50	52	50	48	49	48	46	45	45	47	48	50	49	53	48
Entertainment / public activity	40	38	49	47	51	52	51	49	44	44	47	48	52	51	52	52	56	54	60	59
Sport: participate	23	25	19	20	19	17	16	18	20	20	18	17	15	14	13	13	14	14	14	13
Holiday: base	11	11	11	11	11	12	11	11	11	12	12	11	10	10	9	12	9	12	12	13
Day trip	21	18	23	24	24	28	27	28	29	28	28	30	27	28	29	28	29	35	33	32
Other including just walk	43	41	41	41	41	45	47	41	46	47	45	46	46	44	42	47	56	58	62	61
All purposes	1,094	1,073	1,074	1,060	1,054	1,070	1,067	998	1,014	997	982	972	971	943	942	934	954	975	986	953
Unweighted sample size:																				
individuals	19,621	18,739	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	398	371	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average number of trips (trip rates) per person per year by trip purpose: England, from 2002
Excluding Short Walks

	Trips per person per year (excluding short walks)																			
Purpose	**1995/97**	**1998/00**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Commuting	-	-	155	157	157	151	150	153	148	138	140	139	136	138	140	134	135	134	133	131
Business	-	-	33	32	33	35	32	33	28	28	27	27	28	28	30	30	31	25	28	26
Education	-	-	46	51	48	45	44	45	47	46	44	44	46	47	45	46	43	45	45	45
Escort education	-	-	33	34	33	33	31	31	31	31	34	33	39	33	37	34	35	34	37	37
Shopping	-	-	176	170	169	167	177	156	164	158	161	154	157	153	145	150	145	147	145	143
Other escort	-	-	96	88	85	88	88	79	89	83	84	84	80	79	78	77	75	77	79	73
Personal business	-	-	90	85	83	90	85	81	85	84	82	76	80	77	78	76	72	76	75	71
Visiting friends at private home	-	-	106	103	101	106	102	96	97	94	88	89	89	84	81	78	79	76	72	71
Visiting friends elsewhere	-	-	39	37	36	39	40	41	40	39	39	37	37	38	39	40	41	40	41	40
Entertainment / public activity	-	-	44	41	45	47	45	44	40	40	41	42	46	45	47	47	49	48	53	51
Sport: participate	-	-	18	19	18	16	16	17	19	18	16	15	14	13	12	12	13	12	13	13
Holiday: base	-	-	9	10	9	10	9	10	10	11	10	11	9	9	8	11	8	11	11	12
Day trip	-	-	23	24	24	28	27	28	29	28	28	30	27	28	29	28	29	35	33	32
Other including just walk	-	-	17	16	18	19	19	18	18	18	17	18	17	19	18	19	20	23	23	24
All purposes	-	-	886	867	859	872	866	831	845	818	813	799	805	790	788	782	774	782	787	768
Unweighted sample size:																				
individuals	-	-	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	-	-	233	263	259	267	260	254	248	260	245	229	245	232	237	220	225	203	203	200

Average distance travelled by trip purpose: England, from 1995/97
Including short walks

	Miles per person per year (including short walks)																			
Purpose	**1995/97**	**1998/00**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Commuting	1,442	1,453	1,400	1,424	1,427	1,398	1,414	1,444	1,348	1,264	1,351	1,322	1,309	1,280	1,290	1,309	1,296	1,309	1,277	1,276
Business	736	724	702	706	720	713	672	724	628	543	574	535	581	621	644	623	632	510	567	555
Education	189	209	207	223	211	209	202	207	214	193	201	206	223	228	213	202	201	224	213	210
Escort education	91	103	107	111	113	96	105	113	106	104	120	111	129	107	118	121	121	122	128	130
Shopping	893	934	906	890	855	863	906	828	855	803	810	824	818	770	728	752	736	738	744	700
Other escort	396	435	505	493	470	483	475	470	502	467	495	501	477	473	433	438	431	447	458	438
Personal business	479	477	515	464	472	512	484	486	489	483	502	484	481	446	496	458	485	493	450	442
Visiting friends at private home	1,169	1,239	1,159	1,148	1,103	1,192	1,138	1,094	1,088	1,115	985	1,022	1,030	1,010	978	964	924	901	893	872
Visiting friends elsewhere	240	280	274	265	264	261	296	305	274	275	276	279	272	286	287	306	308	311	318	293
Entertainment / public activity	316	295	374	375	395	394	377	379	344	370	337	343	390	359	390	407	412	378	431	402
Sport: participate	142	154	126	124	122	101	108	104	121	118	108	117	96	84	84	95	86	86	96	97
Holiday: base	479	471	494	558	506	513	490	538	481	546	487	574	413	512	426	576	438	559	521	591
Day trip	365	336	380	389	356	399	392	395	390	392	407	398	342	368	367	358	381	446	378	435
Other including just walk	50	47	43	41	44	47	48	47	48	46	45	46	45	49	42	48	50	56	57	58
All purposes	6,985	7,157	7,193	7,211	7,060	7,182	7,109	7,133	6,888	6,716	6,698	6,764	6,607	6,592	6,496	6,657	6,499	6,580	6,530	6,500
Unweighted sample size:																				
individuals	19,621	18,739	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	398	371	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average distance travelled by trip purpose: England, from 2002
Excluding Short Walks

	Miles per person per year (excluding short walks)																			
Purpose	**1995/97**	**1998/00**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Commuting	-	-	1,396	1,420	1,422	1,394	1,408	1,439	1,344	1,260	1,346	1,318	1,305	1,276	1,286	1,305	1,292	1,304	1,271	1,272
Business	-	-	701	705	719	712	670	723	627	542	573	535	580	620	643	622	631	509	566	554
Education	-	-	200	214	202	200	194	199	207	185	194	199	215	220	205	194	192	215	203	200
Escort education	-	-	102	104	107	89	99	106	100	97	113	104	123	98	112	115	113	114	119	122
Shopping	-	-	890	873	838	846	888	814	840	788	796	809	805	758	716	739	720	721	727	685
Other escort	-	-	502	490	467	480	471	467	499	463	492	498	474	470	430	435	427	443	454	434
Personal business	-	-	505	455	463	503	476	478	481	475	494	478	475	441	489	452	478	485	443	436
Visiting friends at private home	-	-	1,153	1,142	1,096	1,186	1,131	1,088	1,083	1,108	981	1,017	1,024	1,006	973	960	919	896	888	867
Visiting friends elsewhere	-	-	270	261	260	257	292	302	271	271	273	275	269	284	283	303	304	308	313	290
Entertainment / public activity	-	-	372	373	392	392	375	377	342	368	335	341	388	356	388	405	409	375	427	399
Sport: participate	-	-	126	123	122	101	108	104	120	117	108	117	96	83	84	95	85	85	95	97
Holiday: base	-	-	494	557	505	512	490	537	481	545	486	574	412	511	425	575	437	559	520	591
Day trip	-	-	380	389	356	399	392	395	390	392	407	398	342	368	367	358	381	446	378	435
Other including just walk	-	-	31	30	34	35	35	35	35	32	32	33	32	37	30	35	33	39	39	41
All purposes	-	-	7,121	7,137	6,985	7,105	7,029	7,064	6,820	6,643	6,631	6,695	6,541	6,529	6,432	6,594	6,423	6,499	6,445	6,421
Unweighted sample size:																				
individuals	-	-	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	-	-	233	263	259	267	260	254	248	260	245	229	245	232	237	220	225	203	203	200

Average trip length by trip purpose: England, from 1995/97

	Average trip length (miles)																			
Purpose	**1995/97**	**1998/00**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Commuting	8.2	8.4	8.5	8.6	8.4	8.6	8.7	8.8	8.5	8.6	9.0	8.9	8.9	8.8	8.7	9.1	9.0	9.1	8.8	9.1
Business	19.4	19.6	19.7	20.5	20.6	18.9	19.1	21.0	20.5	17.8	20.0	18.8	19.3	20.7	20.0	20.0	19.3	18.8	19.2	19.8
Education	2.8	3.0	3.2	3.1	3.0	3.0	3.1	3.2	3.3	3.0	3.2	3.4	3.4	3.5	3.3	3.1	3.2	3.3	3.2	3.1
Escort education	1.8	2.0	2.3	2.1	2.2	1.9	2.2	2.4	2.3	2.1	2.3	2.2	2.3	2.1	2.2	2.4	2.2	2.2	2.1	2.3
Shopping	3.8	4.1	4.1	4.1	4.0	4.1	4.0	4.3	4.2	4.1	4.1	4.3	4.3	4.2	4.1	4.1	4.0	3.9	4.0	3.9
Other escort	4.7	5.2	4.8	5.1	5.1	5.0	4.8	5.4	5.2	5.0	5.4	5.4	5.4	5.4	5.0	5.2	5.2	5.1	5.1	5.3
Personal business	4.3	4.5	4.4	4.2	4.3	4.6	4.5	4.8	4.6	4.6	5.0	5.1	5.0	4.9	5.2	5.0	5.4	5.1	4.9	5.0
Visiting friends at private home	8.1	9.0	9.3	9.4	9.1	9.6	9.4	9.8	9.9	10.1	9.6	9.8	10.0	10.5	10.7	10.9	10.2	10.2	10.6	10.7
Visiting friends elsewhere	5.1	5.5	5.5	5.4	5.8	5.3	5.7	6.1	5.7	5.6	5.8	6.0	6.1	6.4	6.1	6.4	6.2	6.3	6.0	6.1
Entertainment / public activity	7.8	7.7	7.7	8.0	7.8	7.6	7.4	7.7	7.8	8.3	7.2	7.2	7.5	7.1	7.5	7.8	7.4	7.0	7.2	6.9
Sport: participate	6.2	6.2	6.7	6.1	6.3	5.9	6.6	5.7	5.9	5.9	6.2	6.9	6.4	5.9	6.3	7.4	6.1	6.3	6.8	7.4
Holiday: base	44.4	42.6	45.8	51.0	48.1	42.9	44.5	47.4	42.6	43.7	41.8	51.6	41.3	48.9	45.5	49.2	48.0	47.5	43.5	45.4
Day trip	17.5	18.5	16.3	15.9	14.8	14.5	14.4	14.1	13.3	14.1	14.5	13.3	12.8	13.2	12.6	12.9	13.2	12.8	11.6	13.8
Other including just walk	1.2	1.1	1.0	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	0.9	1.0	0.9	0.9
All purposes	6.4	6.7	6.7	6.8	6.7	6.7	6.7	7.1	6.8	6.7	6.8	7.0	6.8	7.0	6.9	7.1	6.8	6.8	6.6	6.8
Unweighted sample size:																				
individuals	19,621	18,739	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	398	371	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average trip time by trip purpose: England, from 1995/97

	Average trip duration (minutes)																			
Purpose	**1995/97**	**1998/00**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Commuting	24	25	27	27	27	27	28	28	28	28	29	28	29	29	29	30	30	31	30	31
Business	37	39	38	40	40	38	39	42	41	38	41	39	39	42	42	42	40	40	41	42
Education	18	20	21	21	20	20	21	21	22	21	22	22	21	23	21	21	21	22	21	21
Escort education	11	12	13	13	13	12	13	14	13	13	13	13	13	14	14	14	13	14	13	14
Shopping	17	17	17	17	17	17	17	18	18	18	17	18	17	18	17	18	17	17	17	16
Other escort	15	16	16	16	16	16	16	17	17	17	17	17	17	17	17	18	17	17	17	17
Personal business	16	17	17	17	17	18	18	19	18	18	19	19	19	20	20	20	20	20	19	19
Visiting friends at private home	21	23	24	24	24	25	24	25	25	26	25	25	26	27	27	28	26	26	27	27
Visiting friends elsewhere	17	18	19	19	21	19	21	22	21	21	21	21	21	22	23	23	22	22	22	22
Entertainment / public activity	23	24	23	24	23	23	23	24	24	25	23	23	23	23	24	24	23	23	23	22
Sport: participate	18	18	20	19	19	19	20	18	19	19	19	21	19	19	20	21	20	19	20	21
Holiday: base	79	73	79	87	86	73	75	82	73	77	74	88	71	87	80	86	84	82	77	79
Day trip	42	44	38	38	37	36	35	36	34	37	36	33	34	35	33	34	33	33	32	35
Other including just walk	21	23	24	23	23	23	22	23	22	23	22	23	23	24	23	24	21	22	21	22
All purposes	20	21	22	22	22	22	22	23	23	23	23	23	23	23	23	24	23	23	23	23
Unweighted sample size:																				
individuals	19,621	18,739	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	393	371	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Department for Transport statistics
National Travel Survey

Table NTS0303
Select table from dropdown list (or scroll down to view static tables):
Average number of trips (trip rates) by main mode: England, from 2002

	Trips per person per year																	
Main mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[1]	264	269	273	272	275	240	242	250	234	242	233	223	220	219	243	255	262	250
Walks of over a mile	75	76	79	74	74	73	73	71	65	70	67	70	66	68	63	63	64	65
Bicycle	18	16	17	15	17	15	17	16	15	16	17	14	18	17	15	17	17	16
Car / van driver	438	427	421	434	432	409	410	393	402	392	396	380	384	381	389	390	395	380
Car / van passenger	240	233	228	234	227	219	226	218	212	209	213	210	206	204	202	204	207	200
Motorcycle	4	4	4	4	3	3	4	3	3	4	4	3	3	3	3	3	2	2
Other private transport[2]	8	8	8	8	7	8	9	9	7	6	7	7	6	7	6	6	7	7
Public:																		
Bus in London	17	17	18	19	18	20	21	22	25	21	19	21	19	20	16	17	15	18
Other local bus	46	47	45	43	46	44	44	45	42	42	41	42	40	41	35	37	33	32
Non-local bus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
London Underground	11	9	9	9	10	10	11	10	9	9	9	9	10	9	10	10	11	12
Surface Rail	13	14	17	16	17	18	18	17	19	17	20	20	21	20	21	21	22	21
Taxi / minicab	12	12	11	11	10	10	10	10	9	10	10	10	10	10	11	9	10	11
Other public transport[3]	2	3	2	3	3	2	2	2	2	2	2	3	2	3	3	4	3	3
All modes	1,074	1,060	1,054	1,070	1,067	998	1,014	997	982	972	971	943	942	934	954	975	986	953
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

1 There is an apparent under-recording of short walks in 2002 and 2003 and short trips in 2007 and 2008 compared to other years.
2 Mostly private hire bus (including school buses).
3 Air, ferries and light rail.
Trip times are based on total journey time, therefore includes travelling and waiting time.

The figures in this table are National Statistics
The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information.
Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data.
The survey results are subject to sampling error.

Source: National Travel Survey

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Notes & definitions

Last updated: 5th August 2020
Next update: Summer 2021

Average number of trips (trip rates) by main mode: England, from 2002

	Trips per person per year																	
Main mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk1	264	269	273	272	275	240	242	250	234	242	233	223	220	219	243	255	262	250
of which: walks of over a mile	*75*	*76*	*79*	*74*	*74*	*73*	*73*	*71*	*65*	*70*	*67*	*70*	*66*	*68*	*63*	*63*	*64*	*65*
Bicycle	18	16	17	15	17	15	17	16	15	16	17	14	18	17	15	17	17	16
Car / van driver	438	427	421	434	432	409	410	393	402	392	396	380	384	381	389	390	395	380
Car / van passenger	240	233	228	234	227	219	226	218	212	209	213	210	206	204	202	204	207	200
Motorcycle	4	4	4	4	3	3	4	3	3	4	4	3	3	3	3	3	2	2
Other private transport3	8	8	8	8	7	8	9	9	7	6	7	7	6	7	6	6	7	7
Public:																		
Bus in London	17	17	18	19	18	20	21	22	25	21	19	21	19	20	16	17	15	18
Other local bus	46	47	45	43	46	44	44	45	42	42	41	42	40	41	35	37	33	32
Non-local bus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
London Underground	11	9	9	9	10	10	11	10	9	9	9	9	10	9	10	10	11	12
Surface Rail	13	14	17	16	17	18	18	17	19	17	20	20	21	20	21	21	22	21
Taxi / minicab	12	12	11	11	10	10	10	10	9	10	10	10	10	10	11	9	10	11
Other public transport4	2	3	2	3	3	2	2	2	2	2	2	3	2	3	3	4	3	3
All modes	1,074	1,060	1,054	1,070	1,067	998	1,014	997	982	972	971	943	942	934	954	975	986	953
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average number of stages travelled by mode: England, from 2002

	Stages per person per year																	
Mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[1]	328	334	341	342	350	312	315	327	312	316	310	303	296	300	332	343	347	332
Walks of over a mile	82	85	88	83	83	82	82	80	72	78	75	78	74	76	70	71	70	73
Bicycle	19	17	18	16	18	15	18	17	16	17	18	15	19	18	16	18	18	17
Car / van driver	442	430	425	438	435	413	414	396	405	396	400	384	388	384	393	394	399	384
Car / van passenger	244	236	232	239	231	223	231	223	217	213	217	214	210	208	206	208	212	205
Motorcycle	4	4	4	4	3	3	4	3	3	4	4	3	3	3	3	3	2	2
Other private transport[3]	9	8	9	9	8	8	9	9	7	7	7	7	6	7	7	6	8	7
Public:																		
Bus in London	22	21	22	24	23	25	26	26	31	25	23	27	25	26	21	22	21	24
Other local bus	49	50	48	45	49	47	48	48	45	45	44	44	43	44	38	40	36	34
Non-local bus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
London Underground	14	13	13	13	14	14	15	15	14	13	14	14	15	14	15	15	16	17
Surface Rail	15	16	18	18	18	19	20	18	21	19	21	22	22	21	22	23	24	23
Taxi / minicab	13	13	12	13	12	12	12	11	11	11	12	11	12	11	12	10	12	12
Other public transport[4]	3	5	3	5	5	4	3	3	4	4	4	4	3	4	4	5	5	4
All modes	1,161	1,147	1,145	1,165	1,168	1,095	1,114	1,098	1,087	1,069	1,074	1,049	1,044	1,041	1,069	1,089	1,100	1,063
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
stages ('000s)	300	342	338	351	344	331	322	342	322	299	319	302	308	287	309	287	284	278

Average distance travelled by mode: England, from 2002

	Miles per person per year																	
Mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[1]	206	211	215	209	214	201	201	208	193	197	190	195	190	192	198	206	210	205
Walks of over a mile	117	119	120	112	113	111	112	112	104	109	103	110	103	106	95	97	97	100
Bicycle	39	39	41	38	42	43	44	48	44	49	55	49	58	53	53	60	58	54
Car / van driver	3,694	3,692	3,660	3,646	3,657	3,658	3,487	3,280	3,388	3,386	3,305	3,235	3,276	3,266	3,289	3,276	3,253	3,198
Car / van passenger	2,115	2,092	1,993	2,065	1,990	2,003	1,953	1,984	1,836	1,960	1,833	1,865	1,791	1,893	1,790	1,827	1,783	1,812
Motorcycle	36	45	39	38	37	36	39	38	29	37	39	31	30	30	34	36	26	17
Other private transport[3]	145	152	147	153	110	106	111	141	121	125	93	123	106	98	93	97	108	108
Public:																		
Bus in London	65	69	69	78	73	78	80	82	94	81	77	82	77	86	61	78	62	73
Other local bus	211	207	194	188	215	215	216	210	201	206	217	200	199	202	179	180	173	158
Non-local bus	61	88	71	81	58	61	52	47	63	51	64	48	50	46	51	58	39	39
London Underground	93	79	79	78	86	82	86	90	84	77	83	83	94	90	97	102	102	109
Surface Rail	436	405	455	479	496	521	505	489	535	498	569	567	540	595	538	558	617	625
Taxi / minicab	58	55	50	59	53	54	53	54	52	55	53	54	56	55	58	55	62	59
Other public transport[4]	35	77	47	70	77	76	64	48	58	40	29	58	29	52	56	48	37	43
All modes	7,193	7,211	7,060	7,182	7,109	7,133	6,888	6,716	6,698	6,764	6,607	6,592	6,496	6,657	6,499	6,580	6,530	6,500
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
stages ('000s)	300	342	338	351	344	331	322	342	322	299	319	302	308	287	309	287	284	278

Average trip length by main mode: England, from 2002

	Average trip length (miles)																	
Main mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[1]	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Walks of over a mile	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Bicycle	2.1	2.3	2.4	2.4	2.4	2.9	2.5	2.9	2.8	2.9	3.1	3.3	3.1	3.0	3.5	3.4	3.3	3.3
Car / van driver	8.4	8.6	8.7	8.4	8.5	8.9	8.5	8.3	8.4	8.6	8.3	8.5	8.5	8.6	8.4	8.4	8.2	8.4
Car / van passenger	8.8	9.0	8.7	8.8	8.7	9.1	8.6	9.0	8.6	9.3	8.6	8.9	8.7	9.3	8.8	8.9	8.6	9.0
Motorcycle	9.4	11.0	11.0	9.8	11.4	10.6	9.7	12.1	9.9	10.2	10.9	10.3	9.2	11.1	11.1	11.2	13.4	8.0
Other private transport[3]	17.7	19.9	18.0	18.4	15.2	14.1	13.3	16.7	17.1	19.9	13.5	18.0	18.0	15.0	14.8	16.3	14.8	15.3
Public:																		
Bus in London	3.6	3.8	3.5	3.8	3.7	3.7	3.7	3.6	3.5	3.7	4.0	3.7	3.8	3.9	3.5	4.2	3.7	3.7
Other local bus	4.6	4.4	4.3	4.4	4.7	4.9	4.9	4.7	4.7	4.9	5.3	4.9	5.0	5.0	5.1	4.9	5.3	5.1
Non-local bus	82.2	90.9	95.7	97.0	96.3	67.0	82.0	89.0	107.0	101.8	93.0	99.7	69.3	78.9	91.1	77.6	103.1	86.2
London Underground	8.5	8.3	8.8	8.5	8.7	8.0	7.6	8.2	8.5	8.1	8.3	8.7	8.7	8.8	9.2	9.5	8.9	8.6
Surface Rail	35.8	31.5	29.6	32.7	32.3	32.6	30.4	31.5	30.6	31.5	32.3	30.8	28.5	32.7	28.6	29.3	30.9	32.3
Taxi / minicab	4.4	4.3	4.2	4.8	4.8	4.5	4.5	4.9	4.8	5.1	4.8	5.0	5.0	5.2	5.0	5.6	5.5	5.0
Other public transport[4]	20.6	27.4	21.7	22.9	24.5	37.0	32.6	25.5	25.4	17.3	11.9	21.5	12.9	19.5	23.1	13.5	10.9	16.2
All modes	6.7	6.8	6.7	6.7	6.7	7.1	6.8	6.7	6.8	7.0	6.8	7.0	6.9	7.1	6.8	6.8	6.6	6.8
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average time spent travelling by main mode: England, from 2002

	Total time spent travelling (hours per person per year)																	
Main mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[1]	72	69	72	71	72	66	66	69	63	67	64	64	62	65	66	70	72	70
Walks of over a mile	37	37	38	36	37	36	36	37	34	36	34	37	33	35	32	33	34	34
Bicycle	5	5	5	5	6	5	6	6	6	6	6	6	7	6	6	7	7	6
Car / van driver	149	150	149	151	150	148	143	137	140	136	135	134	137	139	140	140	141	136
Car / van passenger	86	85	83	85	82	82	81	81	77	77	75	77	75	78	75	76	76	75
Motorcycle	1	2	2	2	2	1	2	1	1	2	2	1	1	1	1	2	1	1
Other private transport[3]	6	7	6	7	5	5	6	6	5	5	5	6	5	5	4	5	5	5
Public																		
Bus in London	11	11	11	12	11	13	13	13	15	13	12	13	12	12	10	11	9	11
Other local bus	25	25	24	23	25	24	24	25	24	24	24	24	24	24	21	22	20	19
Non-local bus	2	3	2	3	2	3	2	2	2	2	2	2	2	2	2	2	1	1
London Underground	9	8	7	7	8	8	9	9	8	7	8	8	9	8	8	9	9	10
Surface Rail	19	19	22	22	23	24	25	23	26	24	27	27	26	27	27	28	30	29
Taxi / minicab	3	4	3	4	3	3	3	3	3	3	3	3	3	3	4	3	4	4
Other public transport[4]	1	2	2	2	3	2	2	2	2	2	2	2	2	2	2	3	3	2
All modes	390	389	388	393	392	384	381	379	373	368	365	368	365	372	367	377	377	370
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

Average trip time by main mode: England, from 2002

	Average trip duration (minutes)																	
Main mode	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Private:																		
Walk[2]	16	15	16	16	16	16	16	17	16	17	16	17	17	18	16	17	16	17
Walks of over a mile	30	29	29	29	30	29	30	31	31	31	30	32	30	31	31	32	32	31
Bicycle	18	20	19	20	19	21	20	23	22	22	23	24	23	22	24	23	23	23
Car / van driver	20	21	21	21	21	22	21	21	21	21	21	21	21	22	22	22	21	22
Car / van passenger	21	22	22	22	22	22	22	22	22	22	21	22	22	23	22	22	22	23
Motorcycle	22	25	27	24	28	26	24	27	25	26	28	24	27	27	28	31	31	24
Other private transport[4]	44	52	46	47	43	43	40	45	43	50	40	50	47	44	40	47	42	40
Public																		
Bus in London	38	39	37	37	37	38	37	37	37	38	38	38	38	37	36	39	35	37
Other local bus	32	32	32	32	33	33	33	34	34	34	35	35	35	35	36	35	37	36
Non-local bus	175	184	196	191	204	156	177	200	221	222	207	206	157	172	186	158	201	191
London Underground	50	51	50	52	51	50	49	50	55	49	52	51	51	49	51	54	50	50
Surface Rail	84	80	77	82	81	81	80	81	81	83	82	80	75	81	76	79	81	82
Taxi / minicab	17	18	18	19	19	19	18	19	18	19	18	19	19	20	20	21	20	20
Other public transport[5]	46	47	44	45	47	62	55	55	54	48	43	48	44	49	49	49	46	52
All modes	22	22	22	22	22	23	23	23	23	23	23	23	23	24	23	23	23	23
Unweighted sample size:																		
individuals	14,369	16,685	16,487	16,956	16,648	16,858	16,360	17,299	16,553	15,730	16,670	16,192	16,491	15,525	15,840	14,541	14,150	14,356
trips ('000s)[6]	279	318	314	324	317	303	295	312	292	273	291	274	280	259	276	256	256	250

APPENDIX E:

Department for Transport - Local cycling and walking infrastructure plans

Annex C: Walking Route Audit Tool

Annex C: Walking Route Audit Tool

C.1 The Walking Route Audit Tool (WRAT) was developed as part of the Welsh Active Travel Design Guidance[2] to assist Local Authorities in the auditing of walking routes.

C.2 The WRAT is a spreadsheet based tool that requires the auditor to score the route against five core design outcomes for pedestrian infrastructure.

C.3 The criteria are:

- attractiveness
- comfort
- directness
- safety
- coherence

C.4 The criteria are scored using the following scale:

- 0 for poor provision,
- 1 for provision which is adequate but should be improved if possible
- 2 for good quality provision

C.5 A score of 70% (i.e. a score of 28 out of a potential 40 points) should normally be regarded as a minimum level of provision overall. Routes which score less than this, and factors which are scored as zero should be used to identify where improvements are required.

C.6 As the scoring is sometimes qualitative the tool also allows the auditor to add comments explaining their score allocation. The actions column allows auditors to record solutions to any of the issues identified on the route e.g. removing redundant street clutter to improve its attractiveness.

Acknowledgement

C.1 The WRAT was developed by Local Transport Projects Ltd and was published as part of the Welsh Active Travel Design Guidance.

[2] www.gov.wales

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool
Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.			
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).			
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise			
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards					
ATTRACTIVENESS				**0**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.			
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.			
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.			
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.			
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).			
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces					
COMFORT				**0**		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.			
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.			
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).			
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.			
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.			
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.					
DIRECTNESS				**0**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.			
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.			
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.			
SAFETY				**0**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.			
COHERENCE				**0**		
			Total Score	**0**		

ROUTE SUMMARY

Route Name	
Length	
Name of Assessor(s)	
Date of Assessment	

Criterion	Performance Scores
Attractiveness	0
Comfort	0
Directness	0
Safety	0
Coherence	0
Total	0

Comments	
Actions	

APPENDIX F:

Hampshire County Council Technical Guidance Note

TG13 – Street Lighting

Hampshire County Council

Economy, Transport and Environment Department

Technical Guidance Note
TG13 - Street Lighting

Revision	Date	Amendment Description	Prepared By	Approved/ owned by
0	5/7/18	Initial Publication for Comment	Ian Hurford Paul Spence	Julian Higgins
1	19/5/19	Links updated	Kathie Murray	Julian Higgins

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Director of Economy, Transport and Environment, The Castle, Winchester

CONTENTS

1. Policy / Approach

1.1. Hampshire County Council's (HCC) stock of apparatus is maintained on a PFI contract running from 2010 to 2035. The PFI's Operating Sub-Contractor is SSE Enterprise Lighting Services (SSE).

1.2. Hampshire County Council has no discretion for relaxation of the Accrual Required Standards of the PFI Output Specification.

1.3. This Technical Guidance Note 13 summarises the Development Standard and ensures compliance with the Accrual Required Standards.

1.4. Commuted Sums will apply to any non-standard apparatus. Specification details of all such apparatus must be agreed in consultation with Hampshire County Council's Street Lighting Section prior to installation.

1.5. For further guidance on policy & practice on street lighting in Hampshire see the Street Lighting Maintenance Management Plan (SLMMP).

2. Definitions and Abbreviations

Accrued	When applied to any item of Apparatus, Apparatus which has become the responsibility of the Hampshire County Council under the terms of it's PFI Street Lighting Maintenance Contract.
Apparatus	Street lighting and off-highway lighting installations and materials which, for the avoidance of doubt and without limitations includes:- lighting points, lighting columns, posts, straight posts (only to the extent used as an additional support for an illuminated traffic sign) together with their respective attachments, luminaires, lanterns, shields, control gear, control devices, switches, relays, meters, illuminated traffic signs, subway lighting, illuminated traffic bollards, Belisha beacons, variable message signs, illuminated pedestrian refuge beacons, school crossing patrol warning lights, flood lighting of monuments and buildings, surface car park lighting systems, wall mounted connection boxes, conduits, surface mounted wiring/cabling, feeder pillars, Authority owned Private Cable Networks and all associated components.
Authority Attachment(s)	Any Authority owned street or traffic signs or sign plate or notices or other equipment and items authorised by the Authority to be attached to Apparatus including (and in the case of illuminated items only) to other structures.
De-Accrued	When applied to any item of Apparatus, Apparatus which is no longer the responsibility of the Hampshire County Council under the terms of it's PFI Street Lighting Maintenance Contract.
DNO	(a) a distribution network operator and/or (b) an independent distribution network operator within the meaning of Part 1 of the Electricity Act 1989 as amended by the Utilities Act 2000.
Excusing Cause	Any event whereby equipment can be temporarily suspended from Hampshire County Council's PFI Street Lighting Maintenance Contract.

3. Technical Requirements – Planning & Design

3.1. Planning of Developments

3.1.1 Developers and their Consultants need to consider street lighting at the earliest opportunity and should consider:

a) Sustainability. Public realm lighting must minimise CO_2 emissions and future maintenance costs. Efficient lighting is not incompatible with a pleasing street scene. Incorporating advice early in the planning of any development will enable the achieving of correct lighting levels whilst minimising the proliferation of structures.

b) Design Codes. Development Design Codes should incorporate a site-specific lighting design brief issued by the Highway Authority. All design briefs will be based on the advice contained in this TG13 document. HCC's Street Lighting Section is responsible for specifying lighting classes for every street, and should be consulted early in the process so that detailed advice can be incorporated in the design.

c) Street Layout. If footpaths & cycle paths are routed separately from the road then they may require separate systems of lighting, with attendant increased energy & CO_2 emissions; such layouts may also diminish 'natural/passive' surveillance which is discouraged by Manual for Streets (MfS).

d) Highway Trees. Integration of street lighting, tree planting & landscaping; these aspects should be developed harmoniously by Developers, their Design Consultants, Local Planning Authorities and the Highway Authority. The height & spread of some trees may conflict with efficient lighting solutions. Combined arboriculture and lighting advice should be obtained at an early stage from the Highway Authority before tree positions are agreed [see Section 3.18].

e) Ecology & Lighting. Advice on the mitigation of lighting and its ecological impacts is included herein and should be incorporated in development planning briefs [see Section 3.19].

f) Non-standard apparatus. Any departure from standard materials will require specific approval by the HCC's Street Lighting Section as part of the design approval process. Non-standard apparatus will always incur commuted sum charges and some may not be permitted within the Highway [see Section 3.20].

3.2. BS5489 & BS EN13201

3.2.1 Lighting designs should be based on the advice given in the current BS 5489-1 *Code of Practice for the Design of Road Lighting (Part 1: Lighting of Roads and Public Amenity Areas)* and the associated current BS EN 13201 Standards.

3.2.2 HCC's Street Lighting Section will specify target lighting classes for each site – to obtain a site-specific design brief (see Section 4.2).

3.3. Institution of Lighting Professionals (ILP) Guidance

3.3.1 Designs are to take guidance from the Institution of Lighting Professionals' (ILP) technical reports, professional lighting guides and guidance notes.

3.4. Environmental Zones and Light Intrusion

3.4.1 Developments should be categorized by Environmental Zones in accordance with ILP *Guidance Note for the Reduction of Obtrusive Light.*

3.4.2 Light intrusion (e.g. into windows) is to be avoided and any apparent issues are to be monitored by the Developer in accordance with ILP *Guidance Note for the Reduction of Obtrusive Light*. Lighting designers should produce vertical illuminance calculations where appropriate.

3.5. Construction, Design & Management Regulations (CDM)

3.5.1 Lighting design must be carried out by appropriately qualified competent persons in accordance with current CDM regulations. See ILP guidance on competencies.

3.5.2 A clear note must be appended to the street lighting layout drawings detailing which of the Highway Electrical Design Procedures was used by the designer – see the *HEA Guidance Note "CDM 2015 Regulations / Applicability to Highway Lighting Design*.

3.5.3 If a site involves changes to the existing highway network a solely desktop indicative lighting design is not acceptable. If the lighting designer uses Design Method Statement 2 then the Principal Designer will need to produce a Hazard Elimination & Management List (HEML) for inclusion with the detailed design submission. Design to Method Statement 2 is not acceptable for S278 or changes to the existing highway.

3.6. Hazard Elimination & Management List (HEML)

3.6.1 As defined within current CDM regulations, all risks at construction, maintenance, decommissioning & replacement must be assessed as an integral part of the design process. Guidance on risk assessment and the use of risk matrices is provided by the Health & Safety Executive. Hazards may include, but not be limited to, highway features and users, underground services, overhead power & telecoms, fuel pipelines, mobile phone masts, waterways, aerodromes, rail infrastructure, etc. An HEML that considers all relevant factors must be submitted with all

A Hazard Elimination & Management List must be submitted with all detailed lighting designs.

detailed lighting designs.

3.7. HSG47

3.7.1 To ensure that designs are viable the Developer should ensure that underground service locations are identified to the Designer and that designs are based on up-to-date information. Designers are to "design-out" risks where practicable and to ensure that any significant residual hazards are documented and noted on layout drawings - ref HSG47 *Avoiding Danger from Underground Services.*

3.8. G39/1

3.8.1 Designers are to ensure compliance with relevant clearances & processes as detailed in G39/1 Model Code of Practice Covering Electrical Safety in Planning, Installation, Commissioning & Maintenance of Public Lighting and Other Street Furniture.

3.9. General Approach to Lighting Design

3.9.1 New designs need to be prepared in sympathy with the local environment.

a) Site-specific design brief – designs should be based on a site-specific design brief issued by HCC's Street Lighting Section - contact hsl@hants.gov.uk .

b) New sites (e.g. S38) - these designs may be derived from solely desk-top activity.

c) Existing roads (e.g. S278) – where a site involves changes to the existing highway network a solely desktop indicative lighting design is not acceptable.

d) Tying-in with existing highway lighting - the lighting design calculations should demonstrate compliance and consistency in the transition area from the old lighting to the new lighting.

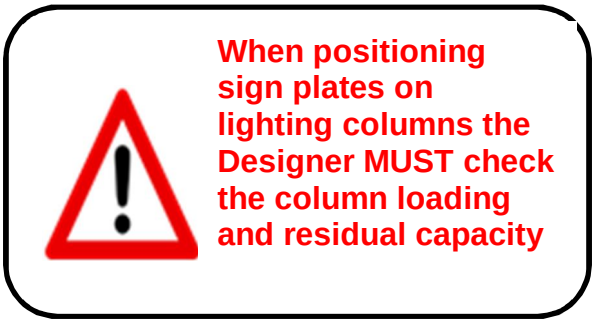
e) Efficacy of design – designers need to show that the optics chosen have the optimal distribution pattern and flux for the predominant road geometry, to light the target area with efficacy in mind, and to minimise unwanted spill light.

f) 'Legacy' lighting - if proposals abut existing road lighting, designers may need to include the contribution of existing 'legacy' lights in their design calculations. Where subsidiary 'P' lighting classes are specified then S:P factors will need to be properly applied. If the CCT of existing light sources differ from the new LED luminaires then existing lanterns whose contribution is included in your calculations may need to be replaced by new LED luminaires (see ILP Guidance Note 6/17 *Retrofitting LED Luminaires on Existing Lighting Columns*).

g) Viability of design – designers should make every effort to ensure that designs are viable for construction. For example, with works on existing roads the availability of DNO LV mains supply cables for

proposed columns should be ascertained along with the identification of hazards and obstructions (utilities, services, trees, etc.). The digging of trial holes in advance of the works, to help inform the design and ensure buildability, may be appropriate.

h) Street clutter – proliferation of street clutter is undesirable. Where possible sign plates may be located on appropriately positioned lighting columns. However, the designer **MUST** check that columns are designed to accommodate the loading from the additional weight & windage of any Authority Attachments **AND** that residual capacity for additional 0.3m^2 signage remains. For sign fixing methods see Section 3.26



3.10. Column Height Constraints

3.10.1 Column heights should be considerate of the scale of the street scene whilst allowing energy-efficient design. Column height and luminaire tilt angles are constrained by the road type and environmental context – this table is a guide; HCC's Street Lighting Section will advise on each site-specific design brief.

Road type	Maximum height by environmental zone (1)	Maximum luminaire tilt (2)
Strategic route "A" class, dual carriageways	10m (zones E1/E2) 12m (zones E3/E4)	0º (zones E1/E2) 5º (zones E3/E4)
Main distributor other "A" class	10m (zones E1/E2)	0º (zones E1/E2) 5º (zones E3/E4)
Secondary distributor "B" & "C" class	8m (zones E1/E2) 10m (zones E3/E4)	0º (zones E1/E2) 5º (zones E3/E4)
Road linking main roads & secondary roads	6m (zones E1/E2) 8m (zones E3/E4)	0º (zones E1/E2) 5º (zones E3/E4)
Subsidiary roads high traffic flow	6m (zones E1/E2) 8m (zones E3/E4)	0º (zones E1/E2) 5º (zones E3/E4)
Subsidiary roads normal or low traffic flow	6m	0º (zones E1/E2) 5º (zones E3/E4)

Road type	Maximum height by environmental zone (1)	Maximum luminaire tilt (2)
Footpaths, Cycle paths	6m	0^o (zones E1/E2) 5^o (zones E3/E4)
City/Town Centre (zone E4)	10m	5^o
Village Centre	8m (zone E3) 6m (zone E1/E2)	5^o (zone E3) 0^o (zone E1/E2)

1. The Environmental Zones are defined in ILP 'Guidance note for the reduction of obtrusive light'
2. Tilt angles are only a guide and optimal tilt to avoid upward light may vary between lanterns – see manufacturers' luminaire polar curves/Cartesian diagrams

Table 1: Column Height & Luminaire Tilt Constraints

3.11. Lighting Layout Drawing

3.11.1 See the Street Lighting Section on the Technical Guidance web page (https://www.hants.gov.uk/transport/developers/technical-guidance) for an example lighting drawing showing typical information to be included.

3.11.2 Design drawings are to be supplied at scale 1:500 & maximum size A1 – and are to include:

a) Statement of the design procedure used (see Section 3.5 above)

b) Summary of target lighting class(es).

c) Boundary showing adoptable area & any easements required.

d) Tree planting layout.

e) Vehicular crossovers & driveways.

f) Significant residual hazards.

g) Clearance from columns to hazards to be highlighted where useful

h) Environmental constraints relevant to lighting.

i) Positions of highway electrical apparatus with lantern aiming.

j) Key/legend – including materials specification with quantities. For each LED lantern these attributes need to be identified: luminaire body, CCT, optic, flux output, system wattage. Non-standard columns will require accompanying detail drawings.

k) Existing & new unit ID numbers.

l) A schedule of illuminated apparatus, summarising clearance from kerbs, supply cable service type.

m) Where 'private' (non-DNO/IDNO) cable systems are to be used all cable & duct routes are to be shown, along with schematic circuit diagrams (supporting calculations will also be required).

n) Private lighting installed on housing developments in areas adjacent to highway lighting is to be indicated along with note of the responsible maintenance management companies

3.11.3 As-built drawings should include a summary schedule of revisions.

3.12. Maintenance Factors (new equipment)

3.12.1 Overall maintenance factors are derived from BS5489 methodology. For an HCC PFI-approved IP65 luminaire, such as Philips Luma, the overall maintenance factor is derived thus:

a) 48 month cleaning cycle = 0.94 (no allowance for <6m in E3/4 zones)

b) LED lumen maintenance at 25 years = 0.90

c) "lamp" survival factor (from failure fraction) = 0.99

d) Overall maintenance factor = 0.85

3.13. Maintenance Factors ('legacy' luminaires)

3.13.1 If the contribution from existing 'legacy' luminaires is to be included within design calculations the following maintenance factors apply (existing optic settings used at specific sites will need to be obtained from HCC):

a) WRTL Libra 24w, 36w & 55w PLL = 0.85
b) WRTL Arc 45w & 60w CPO = 0.82; 90w CPO = 0.79
c) Philips SGS253/254 100w & 150w SONT = 0.88

3.14. Lighting Design Calculations

3.14.1 These should be from Lighting Reality with file names that clearly describe the location and should include:

a) 'User notes/title page notes' – these should describe the target lighting class, include a commentary on the design constraints; explain any deviations from design standards (if necessary a separate 'designer narrative' document may be produced)

b) 'Roadway' calculations – are required to demonstrate compliance, determine optimal spacing & to optimal optic choice for the site's predominant road geometries; the original RTMR files are required.

c) 'Outdoor' calculations – are also required for illuminance of irregular areas; multiple calculation grids should be provided, with grids confined to relevant discrete areas to minimise any distorting effects on average illuminance values. Luminaires should generally be aimed perpendicular to the adjacent kerb or road centre line. To demonstrate the correlation of design calculations & column positions the lighting

layout drawing with relevant topographic information is to be used as the base drawing within Lighting Reality [e.g. when the lighting calculations have been completed the subsequent layout drawing should be re-imported into the RTMA file].

d) PDF & 'read-only' files (if supplied additionally as a record) should exclude greyscale, points and unnecessary isolux contour lines. Masks should not be hidden and the results should be displayed.

3.15. Design dimming / Variable Light Output

3.15.1 Design work should achieve the target lighting classes (as specified in the site-specific design brief) without recourse to arbitrary dimming of any luminaire flux values on the lighting design calculations. Any requirements for non-standard or reduced driver current to achieve optimal flux values should be discussed with HCC's Street Lighting Section.

3.16. Conflict Areas, crossings, traffic calming, cycleways

3.16.1 HCC's Street Lighting Section's approach to the guidance in ILP document PLG02 – *Application of Conflict* Areas is that context is paramount, with each site to be assessed on a case-by-case basis. A conflict area may be limited to the actual conflict and its immediate surroundings:

a) Roundabouts or complex junctions - the design may be deconstructed into multiple calculation grids, with each conflict area limited to include the area of conflict ahead of the driver and the adjacent area where a conflicting body might approach from.

b) Zebra crossings – supplementary lighting should generally be provided to give positive contrast of pedestrians on the crossing as delineated in ILP document TR12 *Lighting of pedestrian crossings*. See also HCC standard detail drawing HCC10/L/155.

c) Signalised crossings are generally not considered to be in need of additional lighting if the existing road lighting is of an appropriate standard. Where crossings are situated within larger conflict areas designers should create an additional calculation grid in order to ensure that average illuminance levels at the crossing 'carpet' are not lower than the approaches.

d) Uncontrolled/Informal crossings – for example new refuge islands – designers should create an additional calculation grid in order to ensure that average illuminance levels at the crossing 'carpet' are not lower than the approaches; it may be desirable to light these with some element of positive contrast through the standard road lighting, with columns placed equidistant from and in advance of the island (as viewed by the driver).

e) Traffic calming – guidance on the lighting of traffic calming features is outlined in ILP document TR25 *Lighting for traffic calming features*. (see also TG11 - Traffic Calming)

f) Cycleways & shared surface paths – guidance on the lighting of shared surface cycleways is outlined in ILP document TR23 *Lighting of cycle tracks*. Designers should assess cycleways as routes and should aim for good uniformity (≥0.25); establishing adjacent visibility zones may not always be practicable. (see also TG10 - Footways, Cycleways, Shared Surfaces)

3.17. Column Positioning & Clearances

3.17.1 Apparatus positioning should be in accordance with good industry practice to avoid restricting pedestrian movement whilst ensuring the lighting unit can be safely maintained.

a) Apparatus is to be sited within the highway – easements will be required where equipment is sited in private land (easement size suggested as minimum 1.0m radius of the column and connected to the highway).

b) Clearance from carriageway – are to be not less than the ***minimum*** defined in Table 2. Greater clearances may be desirable. All clearances are to be itemised on detailed design layout drawings.

Speed Limit (mph)[1]	Minimum horizontal clearance[2]
20	0.8m
30	0.8m
40	1.0m
50	1.0m
60	1.5m
70	1.5m
1 - Table derived from BS5489-1:2013, 4.3.3.3 – Table 2 (please note that this TG13 table refers to "speed limit" not "design speed")	
2 - Clearance is subject to other factors, e.g. passive safety risk assessment	

Table 2: Horizontal Clearances

c) Footways – columns should generally be sited at the rear of the footway.

d) Verges – where verges are provided between carriageway and footway then columns may be sited in the verge, provided that minimum horizontal clearances are maintained (as Table 2)

e) Clearance from crossovers/driveways – minimum lateral clearance of 0.8m to the path of any vehicle crossover should be maintained.

f) Kerbs <100mm - where footways are delineated by kerbs with 25mm upstand then columns should not be planted in such footways unless they are adjacent to permanent solid features behind (eg adjacent wall).

g) Shared surfaces - residential roads with shared surface arrangements will require careful consideration of column positions; there is currently no framework whereby HCC can adopt columns that are not protected by conventional kerb upstand and clearance from carriageway.

h) Clearance from buildings – such clearance as necessary to avoid disturbance to foundations or structures.

i) Hazards – columns are to be positioned to avoid conflict with hazards and to allow safe maintenance; working widths for barriers and road restraint systems should be noted.

j) Door alignment – column doors should be 'downstream' from adjacent traffic flow (such that opening a door requires a person to face the oncoming traffic)

k) Boundaries - ideally columns are to be sited on property boundaries.

l) Trees – clearance to trees must be maintained (see Section 3.18).

m) Sightlines – sightlines from vehicular access/gateways should not be blocked or obscured.

n) Footpaths – raise & lower columns are to be used where access via MEWP cannot be guaranteed and to be positioned so that apparatus can be safely maintained in the future.

o) Cyclepaths – columns should be set back a minimum 0.3m clear of cyclepaths such that they do not obstruct overhanging handlebars.

p) Wall-mounted lanterns may be considered. Minimum vertical clearances above highway must be maintained. On new developments wall-mounted apparatus requires a Deed of Dedication, not a Wayleave Agreement.

3.18. Highway Trees & Lighting

3.18.1 At an early stage of development planning there should be detailed integration of tree planting layouts and lighting designs; the potential for foliage 'blocking' light distribution should be considered when deciding what species to plant.

a) Energy efficacy of lighting requires that optimal design spacings are achieved and the development of planting plans should be coordinated with lighting design.

b) Horizontal clearance - maximum growth of a tree canopy should be >5m from any lantern.

c) Vertical clearance - in some cases (e.g. with mature trees) it may be possible to locate columns beneath the tree canopy provided that ≥1.6m clearance is kept above the lantern.

d) Base compartments and their access doors should not be encroached upon by undergrowth restricting maintenance access.

3.18.2 See standard detail drawing HCC10/L/170 for details of required clearances. All standard detail drawings are available at https://www.hants.gov.uk/transport/developers/standard-details

3.18.3 For further guidance regarding trees, see TG15 – Trees, Landscape and Ecology.

3.19. Ecology & Lighting

3.19.1 Lighting design of any previously unlit area must consider ecological impacts. Lighting proposals should avoid or minimise the potential for impacts on existing or created habitats.

3.19.2 The ILP have resources that assist in ensuring best-practice and HCC's Street Lighting Section can advise. Lighting designers shall summarise their decisions in relation to significant environmental constraints and in response to Environmental Impact Assessments.

3.19.3 Lighting designers should choose apparatus that has the optimal light distribution pattern for the road geometry, thus to illuminate only the target area and minimising unwanted spill light in accordance with the ILP *Guidance Note for the Reduction of Obtrusive Light.*

3.19.4 Detailed design drawings should show environmental constraints relevant to lighting (e.g. hedgerows frequented by bats); where constraints apply the detailed design drawings should show appropriate isolux contour lines (suggested 1.0 lux & 0.2 lux) to demonstrate the extent of spill light.

3.19.5 It may be possible to mitigate lighting impacts, in consultation with HCC's Street Lighting Section, through other measures such as:

a) Lantern tilt may be adjusted (the optimal tilt to minimise spill light depends on the optical control characteristics of particular lanterns);

b) Louvres may be specified;

c) Light sources may be altered to different colour temperature and spectral distribution;

d) Reducing the mounting height of lanterns sited near environmentally sensitive areas;

e) Reducing target light levels in sensitive areas; where a development abuts open country (i.e. where two environmental zones meet) a boundary zone (c.15m) within the development may be considered to belong to the darker environmental zone and therefore within that strip the specification of target light levels, lantern tilt, light source and lighting times may differ from the rest of the site;

f) Excluding lighting from areas separated from the road network, from areas at site periphery or from private communal areas;

g) Positioning lights sensitively – eg by avoiding positions at intersecting hedges, bat flight paths etc

3.20. Non-Standard Apparatus & Commuted Sums

3.20.1 In conservation areas non-standard apparatus may be deemed to be appropriate by local planning authorities. Departure from standard materials will require the specific technical approval by the HCC's Street Lighting Section. Non-standard apparatus may incur commuted sum charges. It should be noted that non-standard "heritage" lighting may be less energy-efficient and may have inferior optics & light control than standard equipment.

3.20.2 Power supplies should be provided via mains DNO or IDNO networks; with few exceptions private cable networks are considered to be non-standard and will incur commuted sum charges (see Section 3.21)

3.21. Power Supply

3.21.1 The Developer is to procure unmetered low voltage electricity supplies for all apparatus (single-phase 230v earthed mains power supply) DNO - by preference the supply should be from the local/host DNO. Scottish & Southern Energy is the Distribution Network Operator within Hampshire. Developers are advised to allow sufficient time for liaison with the DNO in advance of works (email: connections@sse.com).

b) IDNO – some developments are served by an electricity supply cable network that is owned by an IDNO (Independent DNO). In this case HCC must be advised of the identity of the IDNO.

c) Private cable networks – may be specified where mains supply cables cannot be provided – e.g. for apparatus such as illuminated signs sited on traffic islands (see Section 3.31) or for passively safe apparatus (see Section 3.30). Supporting calculations should be provided. Private cable networks proposed in other circumstances will be likely to incur commuted sum charges (see Section 3.20).

3.21.2 In order to commission lighting units developers will first need to sign an Unmetered Connection Agreement (UmCA) with the host DNO (SSE) & sign-up with an electricity supplier – for more information see *https://www.ssen.co.uk/ConnectionsYouHaveaChoice/* and also *https://www.ssen.co.uk/UnmeteredConnectionsFlowchart/*

3.22. Electrical Test Data

3.22.1 The Developer shall carry out electrical testing of apparatus in accordance with the requirements of the current edition of BS 7671 (the IEE Wiring Regulations) which identifies the electrical testing required, suitable Test Certificate format for recording results & standard methods of testing.

3.22.2 Notwithstanding the requirements of BS 7671, the test certificate for each lighting unit **must be no more than 12 months old** at the time of the initial pre-accrual inspection request.

Test certificates must not be more than 12 months old at the time of pre-accrual inspection.

3.22.3 All test results are to be recorded and presented to the Highway Authority before accrual.

a) BS 7671 tests for apparatus shall include:
- Continuity of protective conductors including main and supplementary equipotential bonding.
- Insulation resistance at a test voltage of 500V to be not less than 1.0 MΩ.
- Insulation resistance at a test voltage of 500V to be not less than 6.0 MΩ.
- Insulation of the site-built assemblies.
- Polarity, including the continuity of circuit conductors.
- Earth fault loop impedance at every fuse junction unit.
- Operation of residual current devices where necessary.

b) BS 7671 tests for private cable networks shall additionally include:
- Cable Sheath Insulation Test.
- Earth electrode Resistance.

3.22.4 Electrical test certificates should be referenced against a named As-Built drawing and the column/sign numbers should correlate.

3.23. Passive Safety Risk Assessment

3.23.1 For guidance on passive safety classifications and electrical safety standards Lighting Designers should use ILP TR30 ‘Guidance on the Implementation of Passively Safe Lighting Columns and Signposts’. Apparatus is to be selected in accordance ‘Step 19’ of the ‘Passive Safety Flowchart’ in TR30 and in accordance with the requirements of BS EN 12767:2007 - Table NA1. (See also Section 3.30 of this TG13).

3.23.2 For risk assessment Lighting Designers should **not** always use the “Passive Safety Flowchart” from ILP TR30 (nb: TR30 is not intended to provide the definitive answer to every scenario on local authority roads).

3.23.3 For risk assessment of the need for protection of roadside features (and whether passively safe lighting equipment might be appropriate) HCC uses the UK Roads Liaison Group (UKRLG) document “Provision of Road Restraint Systems on Local Authority Roads” – this uses speed limit and traffic flow criteria to determine which risk assessment method to use.

Traffic Flow (AADT)	Speed Limit (MPH)	Guidance to use	Risk assessment method
>5000	≥50	TD19	RRRAP / TR30 flowchart
>5000	<50	UKRLG	Relevant UKRLG method (A,B,C as appropriate)
<5000	≥50	UKRLG	
<5000	<50	UKRLG	

Table 3: Applicable methods for determining when a RRS is required

(table derived from UKRLG)

See also: TG14 "Road Restraint Systems and Passive Street Furniture" for further guidance.

3.23.4 For ***Highway improvement schemes, S38 & S278 schemes*** – eg where lighting is one of many design disciplines involved - the Principal Designer will undertake appropriate risk assessment for the whole scheme. The Lighting Designer's role is to develop designs iteratively with the guidance of the Principal Designer who will co-ordinate all design disciplines.

3.23.5 For ***street lighting-only*** schemes on existing roads – eg where the Lighting Designer is the Principal Designer – risk assessment should be as follows:

a. Where criteria indicate that TD19 applies - Lighting Designers may use the *TR30 flowchart*

b. Where criteria show the URRLG framework applies - use 'Method A – Accident Assessment' from the UKRLG document. If the KSI return is above the value described in ***Table 3.1*** of the UKRLG document then the designer may consider changes to the existing configuration so that columns/signs are not placed in areas with a high risk of strike.

c. Other evidence for run-off accidents may also be considered – including site survey and examination of maintenance records for data of historic RTC damage to assets.

d. the Lighting Designer's risk assessment should list the appraisal factors considered and assumptions made and should include a narrative of decisions taken.

see *Link to HCC Safety Engineering for accident data request webform.*

3.23.6 In summary, the design approach should be:

a. apparatus is not to be placed in areas with a high risk of strike;

b. apparatus at high risk of strike that cannot be protected by a road restraint system (RRS) - or where it is advantageous - may be

specified as passively safe type (provided this does not create an additional hazard).

3.24. Switching & Mayflower Remote Monitoring System

3.24.1 New lighting will need to be fitted with nodes to enable their correct switching remotely. HCC specification requirements:

a) Before accrual, all lanterns are to be commissioned with Mayflower CMS nodes which allow individual street lights to be monitored and switched and for light output to be dynamically controlled.

b) Individual Mayflower CMS nodes fit into a patented 6-pin socket (S6000) built into each road lighting lantern. For some specialist lanterns (e.g. subway lighting units) internal nodes are fitted inside the lantern. For illuminated sign lights internal nodes are fitted inside the lantern.

c) Each individual lighting scheme incorporates at least one Sub-Master unit to link with the back-office central control system. The Sub-Master Unit (which also fits into the 6-pin S6000 socket) should be fitted to a lantern which is in close proximity to the population of nodes that it controls. Once energised the Sub-Master will control any energised individual node on nearby lanterns.

d) If required Mayflower can advise on the optimum location for the Sub-Master unit.

e) The 6-pin S6000 socket can accommodate a standard NEMA-type photo-cell, which could be fitted temporarily, allowing installation of the Nodes & Sub-Master at a later date (pre-Accrual); any conventional photo-cells fitted temporarily should be set to switch on at 35 lux & to switch off at 18 lux.

f) Each Sub-Master and Node is identified by a unique sixteen digit barcode number. Mayflower provides barcode stickers with the apparatus: one sticker is to be mounted in the base of each column (suggested that the top of the supply cut-out should be wiped clean and the sticker affixed) and one sticker on a plan/column installation sheet which the Developer must present to Hampshire County Council prior to Accrual.

3.24.2 For further details please contact: Mayflower Complete Lighting Control, Solent Park, Walton Road, Portsmouth, Hampshire PO6 1UJ. Email: enquiries@mayflowercontrol.com - tel: 0345 076 7664

3.25. Standard Detail Drawings

3.25.1 Details of all current HCC standard detail drawings can be found at: https://www.hants.gov.uk/transport/developers/standard-details

3.26. Materials – Lighting Columns

3.26.1 HCC specification for lighting columns is as follows (n.b. for passively safe column requirements see Section 3.30):

a) See HCC standard detail drawings HCC10/L/015, 045 etc.

b) Columns are to be manufactured in accordance with BS EN 40 & PD6547, and with a design life of 50 years.

c) Columns shall be tubular steel hot-dip galvanised with planted root (see also 3.26.1.o).

d) Columns will be “post-top” style; outreach brackets may only be specified in agreement with HCC’s Street Lighting Section.

e) Column corrosion protection: root protection internal/external to be two-pack extended cure MIO; finish to be two-pack polysiloxane, (colour as specified).

f) Column painting to be factory-finish. Finish colour to be “Lovat” green - BS4800 12 B 21 - unless otherwise specified. In some areas the use of “black” BS4800 00 E 53 columns may be specified by HCC. Columns and lanterns must colour-match.

g) Standard columns shall be designed to be capable of accepting the loads indicated in this table (if greater loads are required then “heavy-duty” column design will need to be confirmed with detail drawing & manufacturer’s design certificate at the design stage):

Column height/type	Lantern weight	Lantern windage	Sign area	Sign weight	Sign eccentricity	Sign drag coefficient
5/6m post-top	10kg	0.13m^2	0.6m^2	5.0kg	0.4m	1.8
8m post-top	11.5kg	0.145m^2	0.6m^2	5.0kg	0.4m	1.8
10m post-top	21kg	0.22m^2	1.0m^2	5.0kg	0.4m	1.8
12m post-top	21kg	0.27m^2	1.0m^2	5.0kg	0.4m	1.8
5/6m post-top “raise & lower”	9.5kg	0.055m^2	0.3m^2	5.0kg	0.3m	1.8

Table 4: Wind Loading

h) Door lock to be M8 bolt with anti-vandal hexagonal head with integral centre-pin.

i) Column base-boards at least equivalent to the door size and made of treated hardwood of sufficient size to accommodate all control

equipment and service cut-outs; boards shall be positively secured to the column by two flush fitting screws.

j) Earthing terminal to be 8mm diameter brass terminal with brass washers & nuts.

k) Columns to be supplied with manufacturer-applied ground-level / planting depth marker tape affixed to the root/base, and marker tape to be remain attached after installation.

l) Any sign attachments agreed are to be centred up to 2.5m above ground level, maximum eccentricity as shown in Table 3. No attachments shall be fitted to mid-hinged columns.

m) Attachments to columns, where agreed, shall be fixed with circumferential clamps of stainless steel AISI Grade 201 with neoprene strips placed under the clamps to prevent damage to the column or its protective coating.

n) Where access via MEWP is not guaranteed columns should be mid-hinged.

o) Where planted root columns are not viable a flange base with designed foundation may need to be specified.

p) The column foundation details shown on drawings HCC10/L/025 & 026 assume poor soil conditions; column manufacturers detail drawings should be cross-checked to ensure all requirements are met (PD6547).

q) Column data sheets and manufacturer's standard detail drawing to be provided before accrual.

3.27. Materials – Illuminated Signs

3.27.1 Signing requirements as per the current edition of TSRGD and BS EN 12899-1.

3.27.2 See also TG12 – Signs and Bollards

3.27.3 HCC specification for illuminated road signs is as follows:

a) Hot-dip galvanised steel wide base post (in Conservation Areas the finish should match the lighting columns).

b) Door lock to be M8 bolt with anti-vandal hexagonal head with integral centre-pin.

c) Base-boards at least equivalent to the door size and made of treated hardwood of sufficient size to accommodate all control equipment and service cut-outs; boards shall be positively secured to the column by two flush fitting screws.

d) Earthing terminal to be 8mm diameter brass terminal with brass washers & nuts.

e) Illuminated sign plates to class RA2 BS EN 12899.

f) Sign light units to be Simmonsigns integrated LED LUA/LUB with die-cast aluminium body (or similar approved)

g) Sign lighting units to be polyester powder-coated to finish Aircraft Grey (unless otherwise specified).

h) Sign light output determined by size of sign plate, as follows: 600mm Ø sign plates 3x1w integrated LUA; 750mm Ø sign plates 6x1w integrated LUA; >750mm sign plates LUB 10x1w LED.

i) Sign lighting units to be fitted with internal Mayflower node.

j) Sign lighting units require an electronic non-dimmable ballast.

3.28. Materials - Road Lighting Luminaires

3.28.1 All new developments will use LED luminaires. These will generally be of neutral white colour temperature (4,000ºk) though there may be applications where warm-white (3,000ºk) is preferred. This table is a guide to the optimal configuration of lantern body, flux & total LEDs for optimal lifetime energy efficiency which is the principal factor in specification.

Luminaire model	**Flux**	**"lamp"**	**CCT** (5)
Philips Micro Luma – BGP 615	1.4 – 2.4 klm	12 LED	Neutral white (4,000ºk) [see note 5]
	2.6 – 5.0 klm	20 LED	
Philips Mini Luma – BGP 621	5.2 – 7.2 klm	40 LED	
Philips Luma 1 – BGP 623	7.4 – 7.6 klm	60 LED	
	7.8 - 9.0 klm	68 LED	
	9.2 – 18 klm	80 LED	
Philips Luma 2 – BGP 625	19 klm +	120 LED	
Philips Luma 3 – BGP 627	23 klm +	200 LED	
Zebra asymmetric floods (Luma DPL1, DPLR1 optics) (6)	Output determined by light levels achieved by the road lighting		Cooler than adjacent road lighting
Subway – Simmonsigns Safeway EcoSafelight (4)	varies	104 LED	Cool white (5,700ºk)
Underpass - CREE Ledway Multi	varies	20-120 LED	Cool white (5,700ºk)
• Philips Luma – to be "D" series optics configured with "5S" generation LEDs – the superseded "R" optics are not to be used.			

Table 5: Road Lighting Luminaires

Notes:

1. Lantern body & canopy to be powder-coated, paint colour to match columns.
2. Standard colour is mineral/Lovat green [BS 4800 12 B 21] unless otherwise specified. In some areas the use of "black" [BS 4800 00 E 53] may be specified.
3. Ballast to be electronic & fully dimmable via DALI protocol.
4. Switching – all lanterns to be fitted with Mayflower 6-pin S6000 socket & external node (except Subway & Underpass lighting units and some specialist lanterns which are to be fitted with Mayflower internal node).
5. LEDs on roadway lighting are generally to be 4,000ºk neutral white LEDs – unless a different CCT is specified by HCC's Street Lighting Section, or is required for compliance with ecological good practice – see Section 3.19).
6. Where asymmetric luminaires are specified (e.g. at a Zebra crossing) these are to be of CCT a single step cooler than the adjacent roadway lighting (see HCC10/L/155).

3.29. Materials - Internal Wiring of Columns & Signs

3.29.1 See standard detail drawing HCC10/L/080.

3.29.2 DNO supply cables to be terminated in single-phase double pole isolator manufactured from semi-crystalline thermal plastic with improved heat resistance with HRC fuses to BS EN 60269 (e.g. Lucy Titan 2). Terminal shields will be fitted to prevent accidental contact with live conductors.

3.29.3 Internal wiring to lantern to be multi-core PVC flexible (H05VV-F or H07RN-F) – for columns up to 10m height cores to be 1.5mm^2 – for columns over 10m height cores to be 2.5mm^2

3.29.4 Earthing conductor to be 10mm^2 PVC insulated coloured green/yellow; connections to be by bolted crimped terminations.

3.29.5 Internal cabling to be neatly clipped to the base board; all fixing screws to be stainless steel.

3.29.6 Base boards to be securely fixed to column base.

3.30. Materials - Passively Safe Equipment

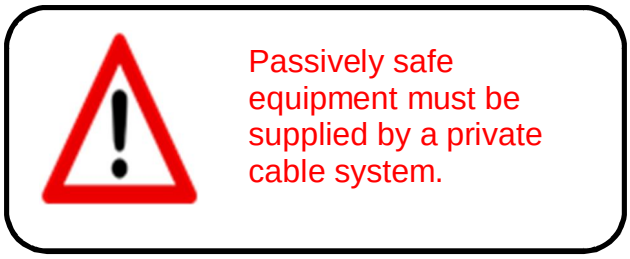
3.30.1 For the risk assessment process to determine the need for passive safety see Section 3.23 above.

3.30.2 Apparatus is to be selected in accordance with the requirements of BS EN 12767:2007 (Table NA1) and as outlined in the ILP's TR30 'Guidance on the Implementation of Passively Safe Lighting Columns and Signposts'.

3.30.3 Columns are to be installed in retention sockets (such as NAL) with foundations in accordance with manufacturer's instructions.

3.30.4 Electrical disconnection system to be NAL SIS system. SIS impact sensor to be installed in each item of passively safe apparatus. SIS monitoring unit to be fitted in an above-ground location (lamp column, wide-base sign post or feeder pillar) located outside the clearance zone.

3.30.5 Mains DNO/IDNO supply may not be provided with passively safe equipment. For private cable systems, see Section 3.31.



3.31. Private Cable, Ducting, Feeder Pillars

3.31.1 See HCC standard detail drawings HCC10/L065, 070, 075, 090.

3.31.2 Pillars, ducts and cables are to be used exclusively for street lighting and illuminated signs.

3.31.3 Private cables to be laid in 100mm diameter orange PVC ducts (DNO cables only in black duct).

3.31.4 Ducting systems to include necessary chambers/draw pits.

3.31.5 Cable ducts below footways to be >450mm below finished level; ducts below carriageways to be >600mm below finished level.

3.31.6 150mm-wide yellow heavy gauge PVC tape marked “street lighting” to be placed over private cables/ducts.

3.31.7 Cable ducts to be installed with draw cords.

3.31.8 Private cables to be XLPE\SWA\PVC.

3.31.9 All cut outs shall have HRC fuse in pull-out carrier and provision for Live, Neutral & Earth cable connections including a PME link.

3.31.10 All outgoing circuits are to be labelled by an encapsulated schematic drawing detailing the outgoing cable route & the population of lighting units on each circuit.

3.31.11 Feeder pillars to be installed with a minimum of 1.0m^2 hard-standing provided at ground-level in front of the pillar door.

3.31.12 For electrical testing see Section 3.22.

4. Process – Design, Construction, Inspection & Accrual

4.1. Preliminary Enquiry

4.1.1 Developer to provide drawings showing site location, highway adoptable areas, development phasing, other relevant information including: site-specific planning constraints/conditions; LPA design codes; environmental impact assessments (EIA); presence of amenities such as shops, schools, sports or medical facilities; existing or predicted traffic flow and speed limits, night-time accident data, presence of traffic calming features; confirmation of road surface materials (including reflectance characteristics), etc.

4.2. Site-specific Design Brief

4.2.1 On receipt of relevant information (4.1.1) HCC Street Lighting Section hsl@hants.gov.uk will issue a written site-specific design brief indicating a target lighting class and information relevant to achieving the Accrual Required Standard.

4.2.2 Developers and their designers are encouraged to liaise with HCC Street Lighting Section to ensure designs are progressed in accordance with the site specific design brief and this design guidance.

4.3. Lighting Design

4.3.1 Developer is to arrange for the design to be undertaken using the guidance contained in this document & the site-specific design brief.

4.3.2 The Institution of Lighting Professionals website lists accredited lighting designers.

4.3.3 HCC's Engineering Consultancy can provide a lighting design service if required see http://www.hants.gov.uk/sharedexpertise.htm.

4.3.4 HCC's Street Lighting PFI contractor SSE Enterprise Lighting Services can provide a lighting design service if required Lighting.design@ssecontracting.com.

4.4. Detailed Design Submission

4.4.1 The following information to be supplied to HCC with a document register; documents to be clearly named to identify their contents:

a) Location plan – to show phases of development (can be included on layout drawing).

b) Layout drawing – PDF format required, at scale 1:500 maximum size A1 (see Section 3.11).

c) Hazard elimination & management list (see Section 3.6).

d) Lighting design calculations – full RTMA & RTMR files from Lighting Reality to be supplied complete with design commentary. (See Section 3.14).

e) Site clearance drawing – to show any apparatus (including ID numbers) affected by the works (can be incorporated into the main layout drawing).

f) Network owner – statement confirming identity of LV supply network owner, whether DNO or IDNO.

g) Private cable calculations if applicable, output from *Amtech* software, or similar.

h) Illuminated sign details (if applicable) - details may be shown on the street lighting layout (to include a schedule of sign faces & dimensions, specification of sign light).

i) Special column requirements (if applicable)

j) Initial Inventory Information – See the Street Lighting section of the Technical Guidance web page https://www.hants.gov.uk/transport/developers/technical-guidance

k) Written confirmation that the submission complies with the *Accrual Required Standards* e.g. that the materials meet the Development Standard current at the agreement date. (see Section 4.22)

4.5. Ongoing Liaison

4.5.1 The Developer will need to incorporate HCC's comments from design appraisal into revisions, as required, resubmitting proposals for further scrutiny as necessary. If the proposed highway features are altered then lighting column positions may need to be reconsidered by the designer.

4.6. Certificate of Technical Approval

4.6.1 When the design documents meet the required standards a Certificate of Technical Approval will be issued by the HCC's Street Lighting Section.

4.7. Changes to the Design

4.7.1 Any subsequent changes to the agreed design need to be agreed with HCC's Street Lighting Section. The Developer must supply revised design calculations and drawings.

4.8. Customer Liaison

4.8.1 The Developer shall ensure prospective purchasers are informed that a plan of the street lighting scheme is displayed in the sales office so that purchasers, and existing residents, can be made aware of the impact of lighting units on adjacent properties.

4.9. HEA Contractors

4.9.1 Following HCC's certificated approval of the lighting design the Developer is to:Identify to HCC which accredited (HEA, NICEIC) contractor has been appointed for the street lighting and illuminated sign installation and maintenance works

4.10. Existing Apparatus Within the Works – de-accrual & excusing clause

4.10.1 Any existing apparatus due to be removed or altered will need to be de-accrued from the PFI contract. The Developer must inform HCC's Street Lighting Section no less than 20 business days before the works programmed date by emailing hsl@hants.gov.uk.

The Developer must inform HCC's Street Lighting Section of equipment to be de-accrued or suspended no less than 20 business days before the works start.

4.10.2 Any existing apparatus that is temporarily made inaccessible for maintenance (e.g. barriered-off) will need to be suspended from the PFI contract. The Developer must inform HCC's Street Lighting Section no less than 20 business days before barriers are put in place so that an Excusing Clause can be issued to the PFI Service Provider.

4.10.3 The Developer is responsible for maintenance of all apparatus (de-accrued or suspended) within their works until it is formally inspected and handed over to HCC. Maintenance should be in accordance with industry good-practice (see Section 4.17 below) with full records to be kept of any works.

4.11. Temporary Lighting/Signing

4.11.1 Where alterations to the existing highway are proposed the sequencing of works should ensure that the highway remains appropriately illuminated, ie that existing lights shall be maintained correctly and that any new lights shall be commissioned before the disconnection & removal of existing lights.

4.11.2 In the event that new road alignments are opened to traffic before the commissioning of the new approved lighting then temporary lighting shall be installed.

4.11.3 Temporary lighting shall illuminate the road to the appropriate design class and should not cause adverse impacts to nearby residents or road users.

4.11.4 Temporary signs may be fitted to existing lamp columns if the columns have the structural capacity – contact tpa@sse.com for permission (for fixing specification see Section 3.26)

4.12. Column Verification

4.12.1 To ensure compliance with materials specification the Developer should present HCC with column data sheets and ID batch numbers of the columns installed.

4.13. Labelling of Apparatus

4.13.1 All apparatus should be numbered as agreed with HCC's Street Lighting Section - sequentially by named road. If works affect existing roads then sequential re-numbering of existing apparatus may be required. Numbering is to be by self-adhesive labels - oriented 90^{o} to carriageway - running vertically down the post - numeral size to be 50mm - black numerals on white background for street lights fixed at 2.5m height - white numerals on black background for illuminated signs immediately under the sign plate. [After accrual numbers are re-applied by the PFI service provider]. See standard detail HCC10/L/160.

4.13.2 Where appropriate (e.g. within the "vicinity zone" of overhead power cables) an "overhead warning" label should be applied to column shaft. See standard detail drawing HCC10/L/165

4.13.3 Where a lighting column or illuminated sign holds the isolation point for an outgoing private sub-circuit then the column will be clearly marked externally to identify this, and also internally to identify the apparatus supplied via the private sub-circuit.

4.14. Cable Schematics

4.14.1 Isolation points for any private networks (e.g. - feeder pillars, or columns & signs with additional outgoing sub-circuits) must have enclosed in the base compartment an encapsulated schematic drawing detailing the outgoing cable route & the lighting units on each circuit.

4.15. Electrical Testing

4.15.1 As per the latest edition of BS7671, to include all items of highway apparatus i.e. road lighting, illuminated signs, feeder pillars, private supply cable networks. (See Section 3.22)

4.16. Mayflower Switching

4.16.1 Lanterns for accrual shall be controlled by the "Mayflower" remote monitoring system – the Developer shall liaise with Mayflower. (See Section 3.24).

4.17. Maintenance before Accrual

4.17.1 The Developer's duty of care includes maintenance of lights within the works in accordance with good industry practice and shall include:

a) Periodic maintenance (cleaning, visual inspection, electrical test).

b) Reactive repairs - prompt identification and repair of operational faults, emergency repairs as necessary, and maintaining records of these activities.

General operational repairs	5 working days to repair
Regulatory signs	2 working days to repair
Door off apparatus	2 hours to make safe
RTA/RTC to apparatus	2 hours to make safe

Table 6: Maintenance Repair Times

c) Lamp change - lamps are to be replaced within 6 months of the proposed accrual date (not LEDs).

The Developer is responsible for ensuring all temporary, suspended, de-accrued and new un-adopted lighting units are maintained in accordance with good industry practice until such time as the units are accrued.

d) Electrical testing – to the requirements of BS7671 all apparatus are to be tested every 8 years. Notwithstanding the requirements of BS 7671 the Developer will be asked to re-test if a test certificate is entering its' last year of validity, the test certificate for each lighting unit **must be no more than 12 months old** at the time of the initial pre-accrual inspection request. (See Section 3.22)

4.18. Records Required Before Pre-Accrual/Adoption Inspection

4.18.1 The following information is to be supplied with a document register to HCC **prior to inspection**. Documents to be clearly named to identify their contents:

a) As-built layout drawing – revised to include agreed changes (See Section 3.11).

b) HEML - Hazard Elimination & Management list in accordance with the requirements of CDM (see Section 3.5)

c) Illuminated sign schedule - as appropriate.

d) Electrical test results – tests to be compliant with BS7671 (See Section 3.22)

e) Column data sheet or column batch number – including manufacturer, protective system, detail of any Authority attachments.

f) Evidence of maintenance - including date of last lamp change (not LEDs)

g) Mayflower node schedule – the reference numbers of the Mayflower nodes and sub-master are to be detailed on a schedule of illuminated apparatus, listed by road & maintenance ID no – or this may be included on the layout drawing (See Section 3.24.1)

h) Pre-accrual inventory information – See Street Lighting section of the Technical Guidance web page https://www.hants.gov.uk/transport/developers/technical-guidance

i) Confirmation that the handover complies with the Accrual Required Standards (e.g. that the materials meet the Development Standard current at the agreement date & are in a satisfactory defect-free condition. (See Section 4.22)

4.19. Pre-Accrual Inspection

4.19.1 HCC will arrange a thorough initial inspection of apparatus to be offered for accrual. Repeat inspections will be charged separately. Requests for inspection should be accompanied by the electrical test certificates and as-built drawings (PDF format).

4.19.2 The following table summarises the inspection criteria, referenced against HCC standard detail drawings, the Developer's As-Built drawing and other information provided by the Developer.

	Item	Description of Inspection	Tolerances
1	Planting depth	Remove door and measure from the bottom of aperture to finished ground level	Manufacturers specification +/- 50mm
2	Reinstatement	Check quality final reinstatement	Visual
4	Column alignment	Is the pole upright and plumb?	Spirit level bubble touching line
5	Bracket alignment	Is the bracket Installed as designed?	Visual
6	Bracket outreach	Is the bracket outreach as designed?	None

	Item	Description of Inspection	Tolerances
7	Column protective system	Is colour / finish correct and undamaged?	Minor scratches not through to galvanising
8	Numbering	Is unit numbered correctly and in correct place with Logo?	Height +/- 25mm
9	Location of unit	Check for compliance with design	+/- 500mm longitudinal +/- 50mm across
10	Lighting column door	Check for correct orientation	None
11	Locking device	Check that the lock operates correctly, the door fits securely, and the door lock is greased.	None
12	Column root protection	Check that correct root protection is evident	None
13	Lighting column height	Check that the height complies with the Output Specification	None
14	Lighting columns	Check that where vehicular access is restricted or where maintenance cannot be carried out by a purpose-built vehicle a raising and lowering column has been used.	None
15	Position of unit	Check that the units have been Installed in Authority owned land or that wayleaves/easements have been obtained.	None
17	Statutory (Authority) attachments	Check that statutory signs are where they need to be.	None
18	Sign light attached to lighting column	Check that hole in column has been adequately sealed to prevent ingress of water.	None
19	Sign light wiring	Check correct cables, sleeving, wiring is neat, insulation at terminals and terminals are tight.	None
20	Lighting column type	Suitability for any proposed banners, hanging baskets, festive illuminations etc.	None
24	Redundant apparatus removed	Check redundant units have been removed and that permanent reinstatement has been carried out.	None
25	Illuminated Traffic Signs	Check the sign face type, post location, orientation and door position.	None
26	Illuminated Traffic Bollards	Check the shell type, base to the correct depth and base opens in the correct direction.	None
27	Electrical test certificate	Check that a test certificate is provided and complete	None
29	Luminaire alignment	Is luminaire straight or twisted?	Visual
30	Luminaire bowl clean	Is the Luminaire bowl clean and free from blemishes	Visual

	Item	Description of Inspection	Tolerances
31	Luminaire optic setting	Is the optic setting as per design?	None
32	Correct lamp, Luminaire and Control Gear	Check that the correct lamp, gear and Luminaire are as per the design	None
33	Switching device	Is the correct switching device fitted and set?	None
34	Internal wiring	Check the correct cable has been used, wiring is neat, insulation at terminals is maintained and that all terminations and earth bonds are tight. Check that all electrical apparatus is securely attached to the backboard. Check that the backboard is securely fixed.	None
35	Double pole isolation	Where relevant check if double pole isolation has been Installed	None
36	Protection device	Check that the protection device is correctly Installed and rated.	None
37	Private supply cables	Check that private supply cables are correctly sized, glanded and identified as to what they feed.	None
38	Feeder Pillars / locations	Check for condensation, distribution board, rating of protection devices, wiring is neat, all terminations, glanding, insulation, cables sizes, cables are identified, earthing and schematic cable diagram.	None
43	Lighting design – trees & vegetation	Check that the effect of trees and vegetation has been adequately accommodated in the design and positioning of columns.	None
47	General – Lamp operation	Check that the lamp strikes.	None
48	General - Condition	Check for any signs of damage to any item of Apparatus.	None
52	General - Reporting	Issue Certificates of Compliance and Non-compliance and identify Snagging Items in accordance with the output specification.	None

Table 7: Pre-Accrual Inspection Check List

4.20. Energy

4.20.1 Following Accrual/Adoption the Developer to inform their energy supplier that the development is now within the scope of the HCC energy contract.

4.21. Document Submissions

4.21.1 At each stage of the process Developers are to provide the appropriate information along with a document register (electronic documents should be clearly named to reveal their content), checklist as follows:

a)	**Before HCC issue an outline design brief**	✓
	site location plan	
	draft layout drawings showing the highway adoptable areas, detail of adjoining schemes, site phasing plan	
	other relevant information – e.g.: ecology reports, design codes, planning conditions, predicted daily traffic flow, etc	

b)	**Detailed design submission**	✓
	Location plan	
	Lighting layout drawing & specification (see 3.11)	
	Hazard Elimination & Management List (see 3.6)	
	Lighting design calculations with designer narrative/commentary (see 3.14)	
	Site clearance drawing (if applicable; may be in layout drawing)	
	Confirmation of LV supply network owner - host DNO / IDNO (see 3.20)	
	Private cable calculations (if applicable – see 3.21, 3.31)	
	Illuminated sign details (if applicable – see 3.27)	
	Special ("heavy-duty") column requirements (if applicable – see 3.26)	
	Relevant contract documents, schedules & appendices	
	Initial inventory information (see 4.21)	
	Written confirmation that the design submission complies with the *Accrual Required Standards* (see 4.22.1)	

c)	**Pre-construction**	✓
	Confirmation of the identity of the HEA-approved subcontractor(s) engaged by the Developer to carry out street lighting / illuminated sign installation works (see 4.9)	
	Confirmation of commencement date of street lighting installation works (see 4.10)	

d)	**Pre-accrual inspection**	✓
	"As-built" version of the lighting layout drawing (see 3.11)	
	Hazard Elimination & Management List (see 3.6)	
	Illuminated sign details (if applicable – see 3.27)	
	Electrical test results (see 3.22)	
	Column data sheets/batch numbers (see 3.26)	
	Evidence / records of maintenance (see 4.17)	
	Mayflower node schedule (see 3.24)	
	Pre-accrual inventory information – See the Street Lighting section of the Technical Guidance web page https://www.hants.gov.uk/transport/developers/technical-guidance	
	Written confirmation that the installation complies with the *Accrual Required Standards* (see 4.22.2)	

4.22. Confirmation of Accrual Required Standards

4.22.1 Below is an example of a suitable form of words for inclusion within a letter of confirmation from the Developer that the **design** submission complies with the PFI *Accrual Required Standards* (required when the PFI contractor has not been used as designer for the street lighting or illuminated sign works):

We write in relation to illuminated apparatus proposed for the above project. This letter confirms that the apparatus meets the requirements of the Street Lighting PFI in that:

a) All apparatus has been designed in accordance with the Hampshire County Council standard development specification current when the agreement was signed.

b) All apparatus shall be new at the time of installation and supported by relevant manufacturer's guarantees. Such guarantees will be transferred to Tay Valley Lighting (Hampshire) Limited at the point of Accrual. All apparatus has been sited so as to minimise, in so far as is reasonable and practical, nuisance, danger and obstruction to all residents, businesses and users of the highway.

c) All columns and sign posts shall be manufactured in accordance with BS EN 40 and have residual capacity for additional sign attachments of 0.3m^2 in area.

d) All illuminated apparatus shall be installed and tested in compliance with BS7671 with certificates which are no more than 12 months old at the time of the pre-Accrual inspection request.

e) Lamps shall be no more than 6 months old at the time of Accrual (where not LEDs).

f) All installations shall be installed in such a way that trees or any other foliage on the site does not interfere with the level of lighting.

These statements are based on the information contained within the specific documents listed below and this information only. Any other drawings and documentation will not be considered as approved and will only be considered as supporting information.

Author	Document ref	Document title	Revision

4.22.2 Below is an example of a suitable form of words for inclusion within a letter of confirmation from the Developer that the **installation** complies with the PFI *Accrual Required Standards* (required when the PFI contractor has not been used as contractor for the street lighting or illuminated sign works):

We write in relation to illuminated apparatus installed in the above project. This letter confirms that the apparatus meets the requirements of the Street Lighting PFI in that:

g) All apparatus has been installed in accordance with the documents listed below (including all notes & comments).

h) All apparatus has been installed in accordance with the Hampshire County Council standard development specification current when the agreement was signed.

i) All apparatus was new at the time of installation and supported by relevant manufacturer's guarantees. Such guarantees will be transferred to Tay Valley Lighting (Hampshire) Limited at the point of Accrual. All apparatus has been sited so as to minimise, in so far as is reasonable and practical, nuisance, danger and obstruction to all residents, businesses and users of the highway.

j) All columns and sign posts installed have been manufactured in accordance with BS EN 40 and have residual capacity for additional sign attachments of 0.3m^2 in area.

k) All illuminated apparatus has been installed and tested in compliance with BS7671 with certificates which are no more than 12 months old at the time of the pre-Accrual inspection request.

l) Lamps are no more than 6 months old at the time of Accrual (where not LEDs).

m) All installations have been installed in such a way that trees or any other foliage on the site does not interfere with the level of lighting.

These statements are based on the information contained within the specific documents listed below and this information only. Any other drawings and documentation will not be considered as approved and will only be considered as supporting information.

Author	Document ref	Document title	Revision

5. Further Support

5.1 Should you have a specific query or feedback about any of the content of this Technical Guidance Note, please send an email to technical.guidance@hants.gov.uk with the start of the email title as “TG13 – “ .

5.2 Should you have a query about applying this to your particular project, please contact:

- the Design Audit Engineer dealing with your S278 or S38 application (if you are a Developer or Developer’s Consultant)
- the Technical Guidance Note Specialist(s) (if you are a working within Hampshire County Council)

5.3 Associated Technical Guidance Notes:

- TG12 – Signs and Bollards
- TG14 –Road Restraint Systems & Passive Street Furniture

APPENDIX G:

Review of Landscape and Visual Effects of Proposed Development at Newlands, Fareham (P/15/1279/OA)

LDA Design, October 2017

LDĀDESIGN

NEWLANDS, FAREHAM

REVIEW OF LANDSCAPE AND VISUAL EFFECTS OF PROPOSED DEVELOPMENT AT NEWLANDS, FAREHAM (AMENDED APPLICATION P/15/1279/OA)

OCTOBER 2017

1.0 Introduction

1.1 Following submission of a planning application in February 2016 by Hallam Land Management Ltd (HLM), Fareham Borough Council commissioned LDA Design to assist with consideration of the landscape and visual effects of the proposed residential-led development on land south of Longfield Avenue, Fareham, which lies within a designated Strategic Gap.

1.2 The brief required us to appraise the landscape chapter of the Environmental Statement produced in support of the Application, challenge it where appropriate and then form a view as to whether the development would harm the Fareham/Stubbington Strategic Gap and the extent of the landscape harm. The report of our review was produced in April 2016.

1.3 Since that time, the applicant has submitted supplementary information and amendments in order to address concerns/issues raised by consultees during the course of the application. The submitted amendments are set out in the Supplementary Design Statement, Planning Statement Addendum and ES Addendum but the key changes are summarised as follows (as set out in the Council's notification letter, dated 6/10/17):

- The number of homes has reduced by 73 (from 1,100 to 1,027) and there is an increase in the amount of green space in the development;
- Housing to the west of Peak Lane has been removed and replaced with a new 'country park' with public car park;
- Increase in the density of housing on the south side of Longfield Avenue as a result of housing being removed from the west side of Peak Lane;
- Roundabout entrance moved from the end of Bishopsfield Road west along Longfield Avenue;
- The second vehicular entrance on Longfield Avenue is downgraded to a pedestrian and cycle link only;
- Street scene improvements along Longfield Avenue;
- The Peak Lane junction is moved further south;
- Care home is relocated to sit with the health centre at the new Longfield Avenue site entrance;
- The proposed shops are relocated close to the main roundabout entrance;
- The pub/restaurant is relocated to the south east to front the new "sports hub";
- A noise bund is provided alongside HMS Collingwood to reduce noise pollution.

1.4 In terms of landscape/strategic gap considerations, the most substantial and relevant change is the removal of housing from the west of Peak Lane and its replacement with additional open space in the form of a new 'country park'. Across the majority of the application site, the form, layout and character of the scheme remains essentially unchanged, apart from the relatively minor modifications to access arrangements, housing densities and the re-location of facilities listed above, and some minor changes in the extent and character of open space within and on the edges of the built area (e.g. the re-location of sports pitches to a single 'sports hub').

1.5 We have re-examined our earlier findings and advice in the light of the changes outlined above and the conclusions presented within the supporting material for the amended scheme, specifically the amended Chapter 7A: Landscape and Visual Amenity of the Addendum ES (the alterations to this chapter are summarised in the box on the following page). This document updates our previous report in response to the amended proposals, modifying our findings where appropriate. As with the Addendum documents, we have highlighted the substantive modifications to our original report in **bold, underlined** text for ease of reference. Minor modifications, e.g. document reference numbers etc. are not highlighted.

1.6 As before, our findings and advice are set out under a series of headings that reflect the main topic areas of the amended ES landscape chapter and other relevant considerations. This is followed by a summary of the key points arising from the review, and our overall conclusions regarding effects on the landscape and the gap.

2.0 Approach

2.1 Key tasks in our review were as follows:

- review of the scheme proposals as set out in the planning application and addendum documentation (notably the ES Addendum, the Supplementary Design Statement and Planning Statement Addendum);
- review of the revised Landscape Chapter (Chapter 7A) and other sections of the ES Addendum relevant to landscape issues and the Strategic Gap;
- review of planning policy background and relevant guidance to establish the key issues/criteria for assessing impacts on the strategic gap and landscape and visual resources;
- formulation of views on appropriateness/effects of proposals in relation to current countryside protection and strategic gap policies and findings of the draft Landscape Sensitivity Assessment;
- detailed examination of ES judgements and conclusions in relation to the above, identifying areas of common ground or disparity;
- report on appraisal and conclusions regarding potential harm to the strategic gap and landscape/visual resources.

2.2 Our findings have been informed by best practice guidance and other studies of particular relevance to this work, including:

- best practice guidance on landscape and visual impact assessment[1], landscape character assessment[2][3][4] and landscape sensitivity and capacity studies[5];

[1] Guidelines for landscape and visual impact assessment, Third Edition – LI/IEMA (2013) – NB referred to as GLVIA3 in this report
[2] Landscape character assessment: Guidance for England and Scotland – SNH/Countryside Agency (2002)
[3] An approach to Landscape Character Assessment – Natural England (2014)
[4] Landscape Character Assessment Technical Information Note 08/2015 – Landscape Institute (February 2016)
[5] Topic Paper 6: Techniques and criteria for judging capacity and sensitivity – SNH/Countryside Agency (2004)

Summary of alterations within ES Addendum Chapter 7A: Landscape and Visual Amenity

Paragraph 7.1 states that the chapter updates the ES with respect to the following:

1 Updates to the accompanying Figures to account for changes in the extent of the Application Site boundary;
2 Updates to the accompanying Appendices to account for changes to the Proposed Development;
3 Updates to the assessment of effects to account for changes to the Proposed Development, including phasing, and minor factual alterations related to the baseline conditions of the Application Site and its surroundings; and
4 Clarification of the Proposed Development parameters considered as part of the assessment of effects with respect to landscape and visual matters.

The text of the chapter remains substantially unchanged and most of the alterations are relatively minor and factual in nature, relating to the following:

- Amendments to Figure numbering for amended plans throughout chapter;
- Alterations to the text relating to phasing of the proposed development, including insertion of text in para 7.11, and removal of text (para 7.116) and table 7.2;
- Alterations to text regarding 'additional receptors' (para 7.155) and Appendix 7.7: visual effects table for 'additional receptors';
- Changes reflecting the presence of the solar photovoltaic farm which has since been constructed to the south of the application site (para 7.16, 7.65, 7.101, 7.219, 7.225-228);
- Alterations to the text to emphasise the temporary nature of the visual effects during the construction phase (para 7.124 – 7.153).

More substantive alterations are almost entirely related to the replacement of housing and open space/sports pitches to the west of Peak Lane with an extended 'country park'/SANG.

Many of these alterations are simply factual corrections/additions reflecting this change of use (e.g. para 7.118, 7.124, 7.176). However, some alterations describe changes in judgements regarding landscape and visual effects as a result of the amended proposals in this area (para 7.129, 7.134, 7.151, 7.167, 7.174, 7.175, 7.181, 7.211, 7.212) and assertions regarding the effects on the quality and enjoyment of the local GI network (para 7.163, 7.208, 7.257). Further alterations include a comment on the effects of the proposed Stubbington Relief Road on the perceived settlement edge of Fareham (para 7.165).

- relevant landscape character assessments for Fareham District and Hampshire[6];
- other relevant studies of the area and policy issues/guidance, notably the review of gap policy designations undertaken by David Hares Landscape Architects[7], the PUSH policy framework for gaps[8]; and
- the draft findings of the Borough-wide Landscape Sensitivity Assessment that we have undertaken for the Council as part of the update of the Fareham Landscape Character Assessment.

3.0 Landscape planning policy context

3.1 Appendix 7.2 of the ES (unamended) sets out the landscape planning policy context in detail and includes relevant policies of:

- NPPF (and Planning Practice Guidance)
- South Hampshire Strategy (2012)
- Fareham Borough Local Plan: Part 1 Core Strategy (Adopted August 2011); Part 2 Development Sites and Policies (Adopted June 2015)

The selected policies within ES Appendix 7.2 also include relevant 'Saved Policies from the Fareham Borough Local Plan Review' (June 2000). However, most of these now replaced by adopted Local Plan documents listed above.

3.2 Relevant guidance cited includes the PUSH GI Strategy (2010) and the Fareham Borough Gap Review (2012). It does not include the PUSH Policy Framework for Gaps (2008) which underpins the Local plan policies relating to Strategic Gaps and the Gap Review.

3.3 Apart from the inclusion of the superseded Local Plan Review policies, the policies listed in the ES are comprehensive and include most of those that we would regard as key policies. However, there are a few that are not included that we consider are relevant, and conversely some that are included that we regard as of lesser relevance. We have set out all of the policies and guidance either referred to within the ES or identified ourselves in Table 1 and this forms the basis for testing the compliance of the development proposals in relation to landscape, as described in section 9 of this report.

4.0 Assessment methodology used in the ES

4.1 The assessment methodology is set out in detail in Appendix 7.3 of the ES (unamended). We are satisfied that it follows the key elements of best practice guidance set out in GLVIA3 with respect to the assessment process, the distinction between landscape and visual effects, the basis upon which magnitude and sensitivity are defined for landscape and visual receptors, the assessment criteria and significance thresholds adopted.

[6] Fareham Landscape Assessment – FBC (1996), Hampshire Integrated Character Assessment – HCC (2012)
[7] A review of gap policy designations – David Hares Landscape Architects (2012)
[8] A policy framework for gaps - Partnership for South Hampshire (PUSH) (2008)

4.2 We have some comments to make, however, on how this process has been applied and the judgements on landscape and visual effects that have been made in some cases. These are discussed in the following sections.

4.3 Our main concern regarding methodology, however, is that the assessment framework does not adequately address two key issues relating to the value of the landscape within and around the Application Site and the effects of the proposed development upon it, namely:

- the role of the landscape in defining the settlement character of the area, and in retaining the open nature and/or sense of separation between settlements at risk of coalescence (the purposes of the Strategic Gap designation);
- and the role of the existing landscape as part of the Green Infrastructure resource available to local people, particularly in respect of opportunities for informal recreation and enjoyment of undeveloped countryside.

4.4 The landscape and visual amenity chapter of the ES makes some reference to these aspects but the assessment framework deals purely with 'effects on landscape character/features' and 'effects on visual receptors' without explicit consideration of the potential effects of the proposed development upon these other important landscape functions. These issues are not systematically analysed in any other section of the ES.

4.5 In respect of the former role, the LVIA framework lists the 'Fareham-Stubbington Gap LCA' as a landscape receptor but only assesses the effects of the development upon the intrinsic landscape character and features of this area, not upon its role in shaping the character and identity of the neighbouring settlements and maintaining a sense of physical and visual separation between them. Best practice LVIA guidance does not specifically address the role of landscape in preventing coalescence of settlements *per se* but it does emphasise the importance of understanding the inter-relationship between built areas and their landscape settings and how this contributes to local settlement and landscape character (GLVIA3, p.16 and 74). As such, these are legitimate considerations for assessment, especially given the complex inter-relationship between urban and undeveloped areas that characterises much of Fareham Borough.

4.6 In respect of the GI role, best practice LVIA guidance specifies 'evidence that the landscape is valued for recreational activity where experience of the landscape is important' as one of the factors influencing landscape value (GLVIA3, p.84). It also states that 'LVIA will often need to address the effects of proposed development on green infrastructure as well as the potential the development may offer to enhance it', and that landscape is important because it provides (amongst other things) the setting for day to day lives – for living, working and recreation (GLVIA3, p.18). Furthermore, the European Landscape Convention[9] also acknowledges that the landscape is an 'important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas' (ELC, p.3).

[9] European Landscape Convention, Treaty Series No. 36 Cmd 8413 (2012)

4.7 While the methodology used in the applicant's LVIA does identify the contribution of recreational activity as one of the important factors in assessing landscape value (Appendix 7.3, para 7.3.21), this is not explicitly reflected in the baseline description nor in the assessment of landscape effects. The effects on the visual amenity of recreational users is assessed but this is a different issue from the effects on the landscape as part of a valued local GI resource.

4.8 Given the emphasis placed upon Strategic Gap and Green Infrastructure issues within the policy framework, it is our view that these two specific functions of the landscape should be considered separately and systematically in addition to the assessment of the effects on the landscape resource and visual amenity. This is the approach that we have adopted in the Fareham Landscape Sensitivity Assessment.

4.9 These individual aspects are discussed in turn below comparing the assessment provided within the ES with our own assessment and identifying areas of common ground and disparity between judgements. Relevant extracts from the draft report of the Landscape Sensitivity Assessment is included in Appendix 1 (note that this is a draft document and may be modified).

5.0 Assessment of landscape effects

5.1 This part of the assessment looks at the effects of the proposals on the landscape of the application site and the surrounding area as a resource in its own right. The assessment process should involve three main components:

- a clear description of landscape character and its defining characteristics (physical, aesthetic, perceptual and experiential);
- a systematic appraisal of the factors influencing landscape sensitivity, involving the assessment of landscape value (i.e. the relevant value attached to landscape by society) and susceptibility (i.e. the ability of the landscape to accommodate change); and
- an evaluation of the likely effects of development and their significance, based upon the combination of sensitivity with the magnitude of the effect (i.e. the degree of alteration to the existing landscape receptor and extent of the receptor affected).

5.2 The description of landscape character and assessment of landscape sensitivity is contained within paragraphs 7.33 to 7.80 of Chapter 7A of the ES, and the assessment of likely significant landscape effects is contained within paragraphs 7.111 and 7.166, with residual effects (of the completed development after 25 years) contained within paragraphs 7.203 to 7.208. The findings are summarised within amended Table 7.4 and Appendix 7.5a of the Addendum ES.

Landscape character

5.3 In accordance with best practice, the landscape character baseline within the ES sets out the broad character context provided by national, county and Borough level assessments, picking out key characteristics that define landscape character. The 1996 LCA provides the most detailed existing assessment of landscape character – the site lies wholly within LCA7 Fareham-Stubbington Gap. Key features of surrounding urban and rural LCAs are also described, then a summary of these assessments is given (ES para 7.59). We consider that

the applicant has referred to the appropriate documents and most relevant sections in describing the landscape character context, although we have some concern that the concluding summary paragraph is not wholly representative of the assessment findings and places more emphasis on some aspects than others (e.g. the urbanising influence of neighbouring development).

5.4 This contextual review is then supplemented by a more detailed appraisal of the landscape of the Application Site itself, structured mainly around descriptions of the landscape from a series of viewpoints around the Site (locations shown in ES Figure 7.4a). We have amalgamated together the key characteristics identified within these descriptions as follows.

Land to west of Peak Lane (fields 1, 2 and 3, photographs A, B, J, K, L)

Key characteristics:

- *the open character of the arable farmland*
- *occasional tree, hedgerows and tree lines delineating field boundaries, resulting in a sense of localised enclosure*
- *the gently undulating topography*
- *the prominence of Oxleys Coppice as a landscape feature which restricts views beyond and partially screens views towards the settlement edge of Fareham*
- *vegetation along Peak Lane and adjacent field boundaries limiting views into the eastern part of the Application Site*
- *urbanising features, such as Peak Lane, residential development on the southern edge of Fareham and occasional scattered buildings creating an urban fringe character over the landscape and Application Site.*

Land to the east of Peak Lane and north of Newlands Farm (fields 4, 5, 6 and 7, photographs C - I)

Key characteristics:

- *the open arable farmland which comprises much of the Application Site, with long views afforded across the area*
- *containment of the land to the north by the prominent settlement edge of Fareham (e.g. high-rise flats of Mitre Court) which has a strong influence on the character of the Application Site*
- *band of vegetation which forms the northern boundary of the Site and forms a buffer between residential development at Fareham and the site*
- *dense vegetation along the northern boundary that screens most views from/of Longfield Road apart from limited glimpses through vegetation when not in leaf*
- *hedgerow vegetation and trees along field boundaries and around Peak Lodge in the west of this area*
- *glimpsed views of HMS Collingwood Barracks in the distance across the Site from the east*
- *dense hedgerow vegetation, with some gaps, following the eastern boundary of the area which, together with woodland and buildings within HMS Collingwood, limit views outwards from the Site to the east*

- *backdrop of wooded edge of Stubbington and vegetation associated with the reservoir/fishing ponds in views from the NE, seen across flat, open arable farmland and filtering more distant views to the south*
- *various glimpsed views of buildings and glass houses around Newlands Farm, HMS Collingwood, and built form in Fareham (e.g. Mitre Court) in views from the east*
- *backdrop to views from the south formed by the settlement of Fareham, seen within a green context with vegetation interspersed between the built form and along the northern boundary of the Site, with prominent high-rise buildings on the skyline*
- *prominent built forms evident in landscape to the east and south of Site, at Newlands Farm and HMS Collingwood, all of which contribute to the strong influence that built form has on the character of the Site*

Land to the east and south of Newlands Farm (field 8, photographs M and N)

Key characteristics:

- *the open and flat landform*
- *settlement edge of Fareham prominent feature in the view, limiting views further north and creating an urbanising influence over the character of the Site*
- *further urbanising influences result from glimpses of the NE settlement edge of Stubbington and large-scale buildings to the south of the Site*

5.5 While parts of these descriptions are factually correct (e.g. open, flat landform, arable farmland), we do not consider that they adequately convey the range of physical, aesthetic, perceptual and experiential attributes that contribute to landscape character (and indeed sensitivity) within the Application Site. For example, there is little or no reference to the particularly expansive scale of the field pattern; the exposed qualities of this extremely open, flat coastal plain landscape; the typically sparse pattern of vegetation cover, settlement and access routes within the landscape; the intensive nature of the agricultural/horticultural management of the land and relative lack of features and diversity; the quality and condition of the landscape; and its aesthetic qualities, its visual/topographic unity and sense of place, and so on.

5.6 Instead, the description focuses predominantly on the visibility of built development around the Application Site and its perceived influence on the character of the landscape. In our professional opinion, the degree of influence of such features suggested within the description is considerably exaggerated. While we accept that the area's urban context is perceptible, and that some built form is evident in the (mostly distant) background of views across the Site, we do not consider that it has the dominating influence on landscape character that is suggested, nor that the area as a whole has an urban fringe or degraded character. In our opinion, the area retains an overwhelmingly intact agricultural character and a sense of open countryside, albeit intensively managed and 'captured' by the urban areas that surround it. The strong vegetation cover around the boundaries of the area, together with incidental hedgerows, trees and other vegetation within the Site, plays a significant part in reducing the influence of built form within Fareham, Stubbington and HMS Collingwood and in presenting a predominantly 'green' backdrop to the otherwise open farmed landscape.

5.7 Further details on our assessment of the landscape character of this area are given in the extract from the draft sensitivity assessment for LCA 7: Fareham/Stubbington Gap, contained in Appendix 1 of this report.

Landscape sensitivity

5.8 The landscape chapter of the ES does not set out a detailed analysis of landscape value, susceptibility and sensitivity. However, these issues are touched upon in the Landscape Effects Table (Appendix 7.5a) and within the summary section of the landscape appraisal (paragraphs 7.78 – 7.80), which concludes that:

"The Application Site is generally well-contained and is influenced by the adjoining urban development, with the scope to provide effective mitigation to successfully absorb and contain new development that would be in-keeping with the landscape setting. Overall, the Application Site is considered to have a low to medium sensitivity as the landscape is of medium value and low to medium susceptibility to the type of development proposed".

5.9 In our opinion, this statement and the foregoing analysis does not adequately support or explain the judgements of value, susceptibility and overall sensitivity made in the ES. The following is our own interpretation of these factors, drawn from the findings of our sensitivity assessment work (see Appendix 1 of this report).

Landscape value

5.10 With reference to the criteria for defining landscape value within the ES methodology (Appendix 7.3, paragraph 7.3.19-22), we would concur that the landscape of the Application Site is of medium value, at least. It is not covered by any current national or local landscape designation but it has a number of positive attributes. It has **rarity** value as a relatively unspoilt and typical example of undeveloped coastal plain farmland, a dwindling landscape resource within the Borough and county context and one which is under significant pressure for change (Fareham's coastal plain forms part of one of the most extensive remaining areas of undeveloped coastline in the whole of Hampshire). Although it lacks the sense of remoteness and stronger natural qualities that are found in other parts of the coastal plain to the west, it is nonetheless **representative** of the coastal plain landscape type, and many of its characteristic and distinctive features are **intact**, notably its flat, open character and expansive views, sparse settlement pattern and generally undeveloped character, with scattered woodland blocks, hedgerows and other boundary vegetation providing some containment of long distance views. Although somewhat denuded by intensive farming practices, the landscape is nevertheless generally well-managed and in good **condition**, with limited evidence of 'fringe' uses or influences (e.g. horse paddocks, vacant land, unkempt fencing, fly tipping etc.). Its character and quality is consistent across the area as a whole, giving it a strong **sense of visual unity**.

5.11 Scenic quality is unexceptional and is affected by some localised intrusion of urban features around its periphery. However the area does retain a predominantly rural, agricultural character and a strong **sense of place**, and the sheer scale of the landscape pattern, and the sense of 'airiness' and dominance of the sky, is striking. Its **aesthetic appeal** is particularly strong when vegetation is in full leaf and there is a pleasing

combination of extensive rolling fields of arable crops set against a distant backdrop of substantial blocks of woodland or belts of trees, and interspersed by plump hedgerows and grassy verges along roadsides and field margins. The area also provides valuable opportunities for **quiet recreation** in a countryside setting on the doorstep of the surrounding urban population, otherwise cut off from the wider countryside of the Borough to the north. On these grounds, landscape value is judged (in our view) as **medium to high** within the context of the Borough as a whole.

Susceptibility

5.12 The ES judges that the Application Site is of **medium to low susceptibility**, meaning that the landscape is likely to have scope to accommodate the type of change proposed without 'undue' effects, or with little or no effect, upon its overall integrity (Appendix 7.3, paragraph 7.3.25). The main justification for this appears to be contained in paragraph 7.79, which states:

"The landscape appraisal identifies that the Application Site is well contained due to the low-lying profile of the land in combination with the extent of vegetation along the northern, eastern and western boundaries and presence of built-forms providing enclosure. There are few distinctive components within the Application Site. The Application Site has a somewhat urbanised character due to the presence of built-forms within the immediate setting. This suggests that with effective mitigation in character with the adjoining landscape, the Application Site has the capacity to successfully absorb and contain new development."

5.13 The implication is that the changes brought about by the proposed development would not substantially alter (or have 'undue negative effects' upon) the overall character and integrity of the Application Site because it is already affected by the influence of urban features within its immediate setting. Further built development is apparently, therefore, regarded as 'in-keeping' with existing landscape character. The justification also implies that the landscape has a greater capacity to accommodate change (i.e. lower susceptibility) because of its visual containment by surrounding vegetation and built form. We fundamentally disagree with these assertions and our analysis of susceptibility for LCA7 within the sensitivity assessment reaches a quite different conclusion.

5.14 In such an open, expansive and (in our view) essentially rural landscape, susceptibility to change brought about by the introduction of new built development of this scale must be **high**. The distinctive character of the area relies on its openness, its agricultural character and the relative absence of built development, and the potential to contain development within the existing relatively sparse vegetation structure across the site itself is extremely limited. Our conclusion is, therefore, that the landscape is likely to have little scope to accommodate the type and scale of change proposed without undue negative effects upon its overall character and integrity (i.e. the definition of 'high susceptibility' given in the ES methodology).

Overall landscape sensitivity

5.15 Overall landscape sensitivity is judged as **low to medium** within the ES, reflecting the judgements that the landscape is of medium value and of low to medium susceptibility. Our judgement of high susceptibility combined with medium to high value would suggest a rating of **'high'** overall sensitivity. This level of sensitivity is defined in the ES methodology as follows (Appendix 7.3, para 7.3.26):

"A landscape receptor of potentially international or national importance. The landscape features and character are the basis for designation and are likely to be largely intact and in a good condition with little scope to accommodate the type of change proposed without undue effects upon its overall integrity."

5.16 The landscape of the Application Site is clearly not of international or national importance (there are no such landscapes within the Borough) but it is of at least Borough importance and potentially of county importance, due to the rarity value of the coastal plain landscape, and so might fit more comfortably within the definition for medium sensitivity. However, the high susceptibility rating (i.e. little scope for change) only occurs within the definition of high sensitivity. We, therefore, consider that the overall sensitivity of this area must lie somewhere between **medium** and **high**.

Assessment of landscape effects

5.17 The assessment of landscape effects, and their significance, involves consideration of the magnitude of the changes that will affect the landscape combined with the sensitivity of the landscape resource.

5.18 The ES sets out the effects on a wide range of landscape receptors (features and landscape character areas) during construction (paragraphs 7.120 – 7.123) and for the completed development at Year 1 (paragraphs 7.158 – 7.166), in the absence of mitigation. It then describes the mitigation measures that have been incorporated within the design of the scheme and the resultant 'residual effects' (i.e. those that remain after mitigation) during the construction phase (paragraphs 7.203) and at Year 25 (paragraph 7.207 – 7.208). This leads to a quite complex picture of levels of magnitude of change and significance of effects. The Landscape Effects Table in Appendix 7.5a provides a very helpful summary and simplification of these findings. **The judgements on the significance of landscape effects in the Addendum ES remain unchanged as a result of the amended scheme, although the creation of the SANG in the western part of the site is referred to within the 'effects on landscape character' (para 7.162, Appendix 7.5a), and attributed with providing 'enhanced opportunities to experience and enjoy the outdoors'.**

5.19 In terms of the various landscape receptors listed, we accept that the development is likely to have limited, if any, affect upon any landscape character areas (urban or rural) other than LCA7: Fareham/Stubbington Gap, because of the restricted intervisibility between the Application Site and these wider areas. We also regard the potential effects on the national and county level landscape character areas to be less pertinent because of their larger scale. The focus of our attention is, therefore, primarily on the potential effects on landscape

character within the Application Site itself and the adjoining landscape within the rest of LCA7: Fareham/Stubbington Gap.

Magnitude of change

5.20 The ES judges that there will be a **large** magnitude of effect during the construction phase (paragraph 7.123) but that at Year 1 *"...the change in character from open farmland, enclosed by built residential development to the north and east, to urban as a result of the Proposed Development will result in a **Medium** magnitude of effect."* (paragraph 7.166). This judgement appears to be based upon the premise that the character of the area is already influenced by its proximity to the existing settlement edges of Fareham and Stubbington, and that various landscape features within the area (e.g. hedgerows, woodland and ponds) will remain intact and will be enhanced by the development. The same medium magnitude of effect is registered for year 25 when the built development and associated landscape infrastructure is completed.

5.21 The relevant definitions of magnitude of effect in the ES assessment methodology are as follows:

- Large – total alteration to the existing landscape receptor that may affect an extensive area;
- Medium – partial alteration to the existing landscape receptor that may affect a wide area.

5.22 It is clear to us that the character of the landscape within and immediately adjacent to the Application Site within LCA7 will be totally and fundamentally altered as a result of the change from open countryside dominated by arable farmland to built development, with its associated infrastructure and amenity areas. All of the high quality farmland within the Application Site will be lost and, although the few landscape features that occur within the site (e.g. hedgerows, trees and ponds) are largely retained within the development layout, they will no longer form part of a farmed landscape but will be incorporated into housing areas and a network of playing fields, informal open spaces and green corridors with a suburban and distinctive amenity character.

5.23 Critically, one of the most important defining characteristics of the coastal plain landscape – its large-scale, open and expansive character - will ultimately be lost as the land is progressively enclosed by built form and proposed planting. There will be nowhere within the development from which that sense of openness and extensive views out across the landscape can be experienced, and the sense of being 'in the countryside' will also be fundamentally altered for those using the area for informal recreation.

5.24 The strategic landscape objectives that have informed the design of the development include the following (ES paragraph 7.195):

- *complement the existing landscape character, notably in terms of the contribution of vegetation to the local landscape and its related pattern or grain across the Application Site;*
- *retain the quality and character of the local landscape, with reference to published landscape character assessments and with particular regard to the character of the Application Site and surrounding area.*

5.25 However, there is scant evidence that these objectives have been followed and the development layout does not appear to respond in any obvious way to the scale, pattern or other defining characteristics of the existing local landscape, other than to incorporate a few remnant hedgerows and other isolated features. The simple, large-scale structure of the coastal plain landscape is completely over-ridden by the imposition of a new, intricate pattern of irregularly shaped open spaces, woodlands and lakes that do not reflect, let alone strengthen, local landscape character. **This is similarly the case with the design of the proposed 'country park/SANG' (as shown on the 'Indicative Country Park Layout' plan), which appears to make no reference to the characteristic features of the local coastal plain landscape. Instead, the existing flat, open farmland in this area is replaced by an artificial and alien pattern of mounds, hollows, isolated waterbodies and new planting that does not apparently follow any existing or former landscape features (e.g. drainage features, former hedgelines or field structure, typical patterns of woodland/copses etc.). The removal of built development and creation of additional habitats and access opportunities within this area is a positive improvement on the previous scheme in landscape character terms, but the indicated design is totally out of character within the local landscape and looks more akin to an amenity park or golf course than part of the typical countryside of the coastal plain. A more responsive design would incorporate these benefits within a landscape structure that is properly related to 'place' and reinforces local landscape characteristics.**

5.26 Even with the removal of development from the western part of the site, an extensive area of land remains affected by the development proposals. The permanent change from wide, open countryside to enclosed urban development and uncharacteristic amenity landscape, with the consequent alteration of most of its characteristic and valued attributes must, in our view, constitute a **large** magnitude of change throughout the completion of the development and on into perpetuity.

Significance of effects

5.27 Before mitigation measures are taken into account, the ES judges that there will be **Major Adverse** significance of effects during construction which reduces to **Moderate Adverse** significance during Year 1 and Year 25. This decrease in significance is based upon the assumption that the magnitude of effect will reduce from large to medium during these periods. Once mitigation is taken into account, the residual effects are judged to remain as **Major Adverse** significance during construction and **Moderate Adverse** at Year 1, on the

basis that mitigation planting will not have taken effect. The significance of residual effects after 25 years, however, is reduced to **Minor Adverse** on the grounds that *"the proposed development will have become established within an enhanced network of connected green space, contributing to improvements in the quality of the landscape and associated improvements in green infrastructure. Furthermore, the maturing of the structural planting along the southern part of the Application Site will in particular soften and assimilate built-forms into the landscape and create a strong landscape structure along an established settlement edge".*

5.28 The different levels of significance of landscape effects are defined as follows in the ES methodology:

- Minor Adverse - alterations that result in a slight deterioration of the existing landscape resource. Characteristic features would be partially lost. Landscape receptors may be of low sensitivity.
- Moderate Adverse - alterations that result in a partial deterioration of the existing landscape resource. Valued characteristic features would be largely lost. Landscape receptors may be of medium sensitivity.
- Major Adverse - alterations that result in a considerable / total and distinct deterioration of the existing landscape resource. Valued characteristic features would be wholly lost. Landscape receptors may be of high sensitivity.

5.29 The ES judgement of Minor Adverse as a long-term residual effect, in our view, substantially under-estimates the significance of the landscape changes that will result from the development proposals. As argued above, in our view there will be a large magnitude of change to a landscape of medium to high sensitivity. This will result in residual effects of at least **Moderate Adverse** significance and, arguably, of **Major Adverse** significance. In either case, the level of effect upon the landscape resource of the Application Site and LCA7: Fareham/Stubbington Gap is considered **significant** in EIA terms according to the thresholds set out in the ES methodology (see Appendix 7.3, paragraph 7.3.41).

6.0 Assessment of visual effects

6.1 This part of the assessment looks at the effects of the proposals on the views available to people and their visual amenity. In a similar way to the assessment of landscape effects, the assessment process involves three main components:

- an appraisal of the visibility of the Site from surrounding areas and the identification and description of key views and visual receptors;
- an appraisal of visual sensitivity, involving assessment of the value of key views and the susceptibility of receptors to changes in those views that may arise from the proposed development; and
- an evaluation of the likely effects of development on key views and receptors and their significance, based upon the combination of sensitivity with the magnitude of the visual effect.

6.2 We are satisfied that the applicant has undertaken the visual assessment broadly in line with best practice guidance in LVIA, although there are some elements of 'common' practice that are missing, such as the production of a computer-generated ZTV in order to map the extent of theoretical visibility from surrounding areas, and the preparation of photomontages or other material to illustrate the potential effects of the proposals on key views. However, the assessment appears thorough in terms of identifying and analysing a wide range of views and receptor locations, both public and private, and we are satisfied that the key views and receptors have been identified. We also consider that the visual assessment process has been followed correctly in terms of the three components listed above, and also broadly agree with the criteria used and the judgments made regarding the overall assessment of the significance of visual effects (**but see comments under 6.6 below, relating to changes in judgements for the amended scheme).**

6.3 The findings of the visual assessment are generally in line with our own appraisal of the visual environment of LCA7: Fareham/Stubbington Gap undertaken for the Fareham Sensitivity Assessment, in terms of general visibility from the surrounding area and the key receptors likely to be most affected by changes within the area (see Appendix 1 of this report). We concur that views into the area from the wider and immediate surrounding areas are generally restricted or filtered by established vegetation and built form around the edges of the Application Site. We also concur with the findings of the ES that key receptors will therefore be local residents within properties that adjoin or lie within the area (including occupants of HMS Collingwood and other non-residential premises) and users of the road and PRoW network within the Site and immediate local area.

6.4 The ES visual assessment examines a wide range of receptors and viewpoints, as shown on Figure 7.5 Visual Appraisal Plan, and the findings are set out in the Visual Effects Table in Appendix 7.6. We have not had the opportunity to check every viewpoint on the ground but we have examined the ES findings against our knowledge of the visual characteristics of the area and, while we may quibble over some of the reasoning given in the ES and have the same concerns over the exaggeration of 'urbanising influences', we have not identified any areas of major disparity or concern regarding the overall conclusions.

6.5 The assessment identifies a range of visual receptors that will experience residual effects of Moderate or Major Adverse significance during the construction phase, with a smaller number experiencing similar effects after 25 years. The key receptors experiencing the most significant long-term (i.e. 25 years+) residual effects are identified as:

- Residential receptors within private properties along Longfield Avenue (R5), and within various three-storey high rise flats on Bishopsfield Road (R8, R9) and at the north-east corner of the Site (R11);
- People using the public rights of way network within and around the Application Site, notably the footpath and lane that runs along the eastern boundary of the Site (P1, P2), the track that links Tanners Lane and Peak Lane that runs across the southern edge of the development area (P2), the footpath crossing the LCA from the corner of HMS Collingwood to Stroud Green Lane further to the south (P4), the path linking Peak Lane with Ranvilles lane (P7) in the western part of the area, and the path extending northwards from Stroud Green Lane (P15).

6.6 These receptors are particularly sensitive to changes in their environment and will experience a high magnitude of alteration to the existing views. These levels of effect are considered **significant** in EIA terms according to the thresholds set out in the ES methodology (see Appendix 7.3, paragraph 7.3.41). **The amendments to the scheme do not alter these significant adverse effects, with the exception of the effects from the footpath to the west of Peak Lane which have been changed to Moderate Beneficial effects as a result of removal of built development and creation of the new country park landscape through which it passes. A number of other previously assessed Minor or Negligible adverse visual effects have also been 'upgraded' in the Addendum ES to Negligible, Minor or Moderate Beneficial effects as a result of the changes to the west of Peak Lane (Para 7.167, 7.175, 7.181, 7.212). We acknowledge that the removal of built development will lessen the adverse impact on local views to the west of Peak Lane, but question whether the change from the existing agricultural landscape to the proposed country park will have a particularly beneficial effect on views.**

7.0 Assessment of effects on the Strategic Gap and setting/character of settlements

7.1 In addition to the potential effects on the Borough's landscape resource and the visual amenity of the local population, we have also considered how the proposed development might affect the role of this area of landscape in shaping settlement character within the Borough and maintaining the separate identities of Fareham and Stubbington, as part of the designated Strategic Gap

7.2 The ES does not contain any separate detailed assessment of such potential effects but a number of brief references are made to the issue of maintaining the separation between the settlements within the landscape effects section of Chapter 7A, and the Strategic Gap policy is also referred to within the original and supplementary Design and Access Statements and the Planning Statements which support the application.

7.3 The main thrust of the Applicant's argument is that a physical gap will be maintained between the southern edge of the proposed development and the northern edge of Stubbington (albeit narrower than the existing gap) and that visual separation will be maintained through extensive new planting along this southern edge and the corridor of the proposed Stubbington Bypass. The key paragraph in the amended ES (7.165) states:

*"In addition, substantial proposed woodland planting will reinforce the separation between the existing settlement at Stubbington and new development within **parts of** the Application Site, and maintain the separate distinct characters of the surrounding settlement areas of Stubbington and Fareham. The retention and reinforcement of the existing pattern of vegetation including new areas of woodland and open space through the south and west, enhanced tree belts, scattered trees and hedgerows throughout and along the boundaries of the Application Site, will further ensure the existing landscape structure will be enhanced and be well integrated with its surroundings.*

The Proposed Development will maintain a broad swathe of open farmland between Fareham and Stubbington, and reinforce the separate and distinct characters of each settlement, albeit the settlement edge will be slightly further south."

7.4 This paragraph has been amended to continue:

"In any event, irrespective of the introduction of the Proposed Development, should the proposed Stubbington relief road be brought forward without the Proposed Development this will perceptibly bring the settlement edge of Fareham slightly further south."

7.5 The original Design and Access Statement also states:

"Furthermore the Meon Gap will continue to perform its key function of physically separating Fareham and Stubbington. Through the sensitive introduction of structural woodland planting and areas of open space through the south of the Application Site, placed in trust and maintained as such in perpetuity by HLM, the visual and physical separation between Fareham and Stubbington can be maintained. By creating a permanent attractive settlement edge to Fareham the separate identities and character of Fareham and Stubbington will be enhanced and a robust definitive boundary will be formed that minimises the risk of future coalescence between the two settlements."

7.6 With the removal of development to the west of Peak Lane, the Supplementary Design Statement (para 3.1, point 4) asserts that:

"Well planned green space will strengthen the physical and visual separation of Fareham and Stubbington, and in doing so help to preserve their respective identities in perpetuity...The overall quantum of Green Infrastructure has been increased with minor modifications to the layout east of Peak Lane and the inclusion of a new Country Park to the west of Peak Lane. In both cases additional open space seeks to reinforce the physical and visual separation of Fareham with Stubbington."

7.7 Strategic Gaps are established planning tools designed, primarily, to define and maintain the separate identity of settlements. Guidance produced by the PUSH authorities (Policy Framework for Gaps 2008) sets out the following criteria for designation of gaps which are now enshrined in Local Plan policy (Policy CS22):

- *The open nature/sense of separation between settlements cannot be retained by other policy designations;*
- *The land to be included within the gap performs an important role in defining the settlement character of the area and separating settlements at risk of coalescence.*
- *In defining the extent of a gap, no more land than is necessary to prevent the coalescence of settlements should be included having regard to maintaining their physical and visual separation.*

7.8 In addition to these criteria, Policy CS22 also states that:

"Land within a Strategic Gap will be treated as countryside. Development proposals will not be permitted either individually or cumulatively where it significantly affects the integrity of the gap and the physical and visual separation of settlements."

7.9 A review of Fareham's gap policy designation was undertaken by David Hares Landscape Architecture in 2012 and this confirmed that the part of the Fareham/Stubbington Gap that corresponds with LCA7 (and within which the Application Site is located) met the PUSH criteria for designation and should be retained as a Strategic Gap within the Local Plan.

7.10 The purpose of our comments is not to question the validity of the gap in planning terms, as a whole or individual parts of it, but to offer our view on how this area's role in defining settlement character and separate identity might be affected by the proposed development at Newlands. Our views are informed by the appraisal work recently undertaken as part of the Fareham Sensitivity Assessment (see extract in Appendix 1 of this report).

Existing contribution to sense of separation

7.11 It is important to understand what 'gaps' are for and what makes a gap effective in its intended purpose. The gap designation is not a countryside protection or landscape designation, its primary purpose is to maintain the 'separate identity' of settlements and to prevent their individual character and sense of place from being subsumed beneath continuous and anonymous urban sprawl. Importantly, this is not just about preventing physical coalescence, i.e. development within one settlement running continuously into the next with no physical space or barrier to separate them. It is also not just about maintaining a visual gap between settlements - although this can often be a key factor in achieving separation, it is perfectly possible for two settlements to be in sight of one another (e.g. on either side of a valley) and still maintain their separate identities because of the nature of what lies between them. For a gap to be effective, it is the perceived 'sense of separation' that is critical, the ability for anyone to 'feel' and to understand where one place ends and another different place begins, and to experience a clear sense of moving out of one and into the other.

7.12 In our view, there can be no hard and fast rules about how big a gap needs to be to achieve that perception of separation. This will be dependent entirely on the particular character of the settlements and the land that lies between them. What is critical, however, is that there is a clear and distinctive experience of leaving one settlement behind, passing through another quite different area (the 'gap') before entering another separate settlement. This experience of travelling from out of one place into another can be both physical and visual. Importantly, the 'bit in between' needs to have integrity and distinct character as an entity or place in its own right, rather than simply be a physical space or feature, such as a field or a block of woodland etc., in order for the two settlements to feel distinct and separated.

7.13 In all respects, the gap between Fareham and Stubbington is currently highly effective in maintaining the separate identity between the two settlements. It clearly maintains their physical separation by some distance (approximately 1km north- south along Peak Lane and 400m at its narrowest point between the corner of HMS Collingwood and the eastern edge of Stubbington). This distance, combined with the screening effects of vegetation along the edges of the urban areas, also provides effective visual separation, despite the essentially open, expansive character of the landscape. Even at the narrowest part of the

gap where parts of the settlement edge are visible from one side to the other across a completely open landscape (i.e. between the SW corner of HMS Collingwood and the eastern edge of Stubbington), the distance is sufficient to maintain visual separation between the two.

7.14 Most critically, however, the landscape within the gap performs a highly effective role in terms of providing the 'sense' of separation and the experience of moving between one settlement and the other. The landscape within the gap forms a continuous tract of undeveloped countryside, with strong visual and topographic unity and a distinctive coastal plain character and sense of place. This is a functioning, agricultural landscape, the integrity and condition of which is intact. It lacks the characteristics of a degraded urban fringe landscape, e.g. straggling ribbon development, horsiculture, fly-tipping etc., that often typify the gaps between settlements, or transitional areas around their edges. Instead, there is a very sharp and clear distinction between 'town and country'. The edges of the urban areas of Fareham and Stubbington are clearly defined by strong boundary vegetation and, travelling along Peak Lane, there is a very strong sense of leaving one urban area behind, moving into and through a significant tract of open countryside, before re-entering another urban environment of a different and separate character. This experience is typical of all of the routes that cross the gap, including Ranvilles Lane, Titchfield Road and the PRoW that cross the gap from east to west.

7.15 The scale of the gap reinforces this experience. It takes some time to cross it, even by car, but especially when walking, and this allows time to fully appreciate the openness and expansive character of the landscape and the sense of being out in open countryside. The fact that you can see so far across the gap, and identify its edges, also strengthens the sense of separation by emphasising the distance that exists between the settlements.

Effects of proposed development on sense of separation

7.16 There can be no question that this area of landscape has a crucial role in maintaining the separation of Fareham from Stubbington and that the gap is currently highly effective in providing a strong sense of separation and a distinctive countryside setting for both settlements, thus reinforcing their separate identity. The key issue is whether the effectiveness and integrity of the gap in fulfilling these functions would be maintained or changed as a result of the proposed development at Newlands.

7.17 We consider that the effectiveness and integrity of the gap in providing a sense of separation can only be maintained where:

- there is no actual physical coalescence between the two settlements;
- there is no perceived visual coalescence (this does not necessarily mean that there needs to be a visual barrier between them but that the appearance of one settlement coalescing with another is avoided);
- measures designed to block views between built areas do not in themselves undermine the sense of visual separation that is reinforced by long-distance views between settlements;
- there is a strong and well-defined boundary between the settlement and the gap, so that it is clear where the edge of the settlement lies and the gap begins;

- there is a clear and distinct experience of leaving one settlement behind, passing through another quite different and distinct area (the 'gap') before entering another separate settlement;
- the gap has sufficient scale and coherence of character to be experienced as a place, or entity in its own right (in this case, an intact area of open farmed countryside) rather than simply a transitional space between urban areas.

7.18 In terms of **physical separation**, the development proposals (built development and landscape) encroach substantially into the gap, occupying the majority of the land within the NE part of the gap area, but there is no actual physical coalescence of built form. The distances between the edges of the urban area are, nonetheless, significantly reduced, especially at the north-east corner of Stubbington (at the northern end of Stroud Green Lane) where the gap between the built edges is narrowed from c. 1km to c. 450m and to only 200m between the defined settlement boundaries. The distance between the settlements edges along Peak Lane is reduced by a lesser degree (from c. 1km to c.800m). **This distance remains unchanged despite the removal of development to the west of Peak Lane because of the retention of development to the east of the road and the repositioning of the roundabout and entrance into the site further to the south than previously**. There is no effect on distances between urban edges to the east of Stubbington as there are no proposals for built development (other than the bypass) within this area.

7.19 In terms of **visual separation**, the applicant places great reliance on the screening effects of the substantial areas of new woodland planting that are to be established within the network of public parks and formal amenity areas along the southern edge of the development. This part of the gap is currently exceptionally open and, internally, is virtually devoid of any existing hedgerows or other mature vegetation cover that could form a natural edge or visual containment of the areas of new built development. The successful establishment of the new landscape infrastructure will therefore be critical to the achievement of effective visual separation.

7.20 Assuming that a reasonably effective visual barrier between built areas may eventually be achieved once this screen planting has matured, it seems unlikely that the proximity of the two built areas will be completely masked and go unnoticed, particularly by users of the PRoW network (Tanners Lane/Stroud Green Lane) and the new bypass route itself. Furthermore, perhaps perversely, this planting in itself will have the effect of narrowing the gap by truncating views across the wider area which currently reinforce the distance between the settlements. In our view, the narrowness of the physical gap and the visual containment created in this area will have a significant effect upon the perceived sense of separation between the two urban areas.

7.21 In terms of a **strong, well-defined boundary** between the settlement and the gap, the applicant claims that the development proposals will create a 'permanent, attractive edge to Fareham' and provide a 'robust and definitive settlement boundary'. Unlike the existing settlement boundary of Fareham, there is no obvious boundary feature which contains the edge of the development blocks within the Application Site, rather these 'feather' out into

the open space network. It must be assumed, therefore, that the 'attractive edge' will be formed by the landscape infrastructure itself, which extends up to and across the alignment of the bypass. To all intents and purposes, and as confirmed by the Applicant, the bypass would become the new settlement boundary of Fareham, approximately 800m further to the south of the existing edge and only 200m from the settlement boundary of Stubbington. **We challenge the assertion in paragraph 7.165 of the Addendum ES that this would be the case if the bypass was built in isolation (i.e. irrespective of the Newlands development) for the reasons given under paragraph 7.38 below.**

7.22 Perhaps most critically in terms of the 'sense of separation', the **experience** of travelling from one settlement to the other across this part of the gap will be significantly altered. This will especially affect pedestrians and cyclists using access links between Longfield Avenue in Fareham and Stubbington. At present, the experience involves moving from the built up area of Fareham through the very strongly defined, tree-lined settlement boundary along Longfield Road into the open countryside of the gap in its NE corner, then following the access network through the open agricultural landscape, with expansive views to the west and south, for approximately 1 kilometre before reaching the edge of Stubbington at Stroud Green Lane. The experience of walking through the gap between urban areas may take around 12 minutes at a good walking pace, allowing ample opportunity to appreciate the sense of separation between the settlements and the character and quality of their countryside settings.

7.23 The experience of crossing this area through the proposed development would be totally different. After leaving the existing built area of Fareham and moving through the tree-lined boundary on Longfield Road, the experience would be to enter another area of built development and to travel through an enclosed urban environment of residential development set within a framework of public parks, sports pitches, woodland and lakes with no outward views, for approximately 800m, before reaching the new bypass. As there apparently is no clearly defined 'edge' between the built area and the landscape framework within the Newlands development, it is only at this point that there would be a sense of the 'edge' of Fareham being reached.

7.24 From the bypass to the existing settlement boundary of Stubbington is a distance of around 200m, following the existing route of Stroud Green Lane around the buildings of Newlands Farm. The character of the farm buildings and yard, plus their proximity to the edge of Stubbington, gives this area a semi-urbanised character. Views outwards from Stroud Lane would be almost entirely blocked by the farm buildings, a new block of woodland on the southern side of the bypass, a belt of mature trees in front of the nearby glasshouses, and proposed off-site woodland planting to the south of the farm. The entire route would be enclosed by built form or vegetation, with practically no opportunity to experience the character of the coastal plain landscape or to enjoy the characteristic expansive views across open countryside to the west and south.

7.25 In essence, instead of a c.12 minute walk through open undeveloped countryside between two distinct settlement boundaries, the experience would comprise an entirely enclosed, short (c.5 minute) walk from the edge of the new housing through a heavily used park, across a busy road, around farm buildings and directly into Stubbington. The **scale and**

the character of the area between the two settlement boundaries does not, in our view, constitute a proper 'gap' and is, rather, a transitional space between settlements. There would be no real sense of leaving one settlement behind, passing through and experiencing another quite different and distinct area (the 'gap') before entering another separate settlement, as is currently the case.

7.26 Furthermore, by effectively bringing the edges of the settlements so close together and using the bypass as the definitive settlement boundary for Fareham, the development proposals in our view increase rather than minimise (as claimed) the **risk of future coalescence**. The bypass may present a physical barrier to coalescence but it may also establish a precedent for future development to the west of Peak Lane and on the Stubbington side, possibly around Newlands Farm or on the site of the existing glasshouses, which could ultimately lead to the effective connection of the settlements on either side of the road.

7.27 **The removal of development from land to the west of Peak Lane will retain the current physical extent of the gap in this particular location and, in this sense, is less damaging than the original proposals. However, it will not affect perceptions of the reduced distance between the settlements edges of Fareham and Stubbington along Peak Lane (for the reasons given in paragraph 7.18 above) nor do anything to reduce the narrowing of the gap in the most critical location around Newlands Farm to the east. We would therefore strongly challenge the assertion in the Supplementary Design Statement that this change will reinforce the physical and visual separation of the two settlements.**

7.28 **For all the reasons given above, we also challenge the numerous statements contained within the Planning Statement Addendum (e.g. paras 3.12, 3.39, 3.83, 4.58) which assert that the proposals will 'positively redefine the existing settlement edge to Fareham', 'retain a clear gap', help to 'maintain the separational 'arc' of countryside between Fareham and Stubbington and its function as a Strategic Gap' and 'strengthen the separate identity' of these settlements.**

Effects of proposed development on settlement character and setting

7.29 In addition to the sense of separation, the landscape of this area performs a role in defining the character and settings of the settlements that it separates. It is a surviving remnant of a much more extensive swathe of open, undeveloped coastal plain landscape which is underlain by clays and clayey sands of the Bracklesham Beds and overlain by well-drained soils of high agricultural quality that have given rise to extensive arable cultivation, vegetable production, glass house and cereal crops. As already stated, this area remains, fundamentally, a functioning, productive agricultural landscape and provides an intact countryside setting for both Fareham and Stubbington.

7.30 Fareham grew slowly from its origins as a small port until the mid C20 when it underwent rapid expansion, particularly during the 1960s, coalescing with many other smaller settlements (e.g. Heathfield, West End, Catisfield and Wallington) which diluted its overall identity. The outward sprawl has meant that it has now virtually merged with Portchester

and Gosport in the east and south-east, with the boundaries between settlements increasingly hard to define. In contrast, the existing southern edge of Fareham bordered by Longfield Avenue/Rowan Way is very well-defined by the broad road corridor with substantial verges, hedgerows and belts of trees and woodland at Oxleys Coppice. Beyond this lies the open countryside of the gap and, as stated earlier, there is a very clear distinction between town and country on either side of this boundary.

7.31 It is notable that this settlement edge coincides with the geological boundary between a band of heavy London Clay to the north (which underlies most of the built area of modern day Fareham) and the tertiary sands and clays of the intensively farmed coastal plain, forming the 'natural edge' of the latter. When crossing this boundary, there is a real sense of coming out into the wide open landscape of the coastal plain, which provides 'breathing space' after the enclosure of the continuous built-up area. Although geologically slightly different, a similar settlement pattern is evident further to the west where the northern edge of the coastal plain broadly defines the limits of settlements (e.g. around Titchfield Common and the Western Wards). The main anomalies to this pattern are the military bases (HMS Collingwood and Daedalus) which were developed on the coastal plain to take advantage of flat land suitable for airstrips, and Stubbington, which developed into an apparently nucleated, single settlement from the coalescence of a number of small scattered villages and hamlets.

7.32 Stubbington engulfed the fishing village of Hill Head and Crofton in the C19 with further, more significant expansion during the C20. Despite this growth, its edges are mostly well-defined and it retains the sense of being contained by the sea and open countryside on all sides. It has a sense of place as a 'coastal plain' settlement and does not currently feel part of a continuous urban sprawl, although there is the risk of coalescence with Lee on Solent on its south-eastern corner which may be exacerbated by the redevelopment of the Daedalus airfield.

7.33 The development proposals will significantly alter the local settlement pattern, particularly with respect to Fareham. It will bring development out onto the open coastal plain, beyond the existing well-defined settlement edge, thereby blurring the distinction between town and country, and the form of the urban extension does not relate to any existing 'natural' landscape boundaries or typical settlement form within the coastal plain landscape.

7.34 The coherent countryside character of the landscape across the gap and its intact function as a working, agricultural landscape are vital characteristics of the settings of both settlements. The proposals will fundamentally alter the character and integrity of these settings by introducing a new landscape infrastructure of public parks, playing fields, woodlands and waterbodies of a character which is alien to the coastal plain landscape and the primary function of the gap as a productive farmed landscape. **This will be the case even with the amended proposals for land to the west of Peak Lane, where intact agricultural land will be replaced by a new 'country park', the character of which is incongruous within the typical countryside of the coastal plain.**

7.35 In particular, the 'flow' of agricultural land through the gap would be completely severed in the central area, leaving an isolated belt of farmland on the eastern side of Stubbington detached from the rest of the farmed countryside of the gap. An intervention of this scale compromises the overall coherence and integrity of the gap as a swathe of open countryside and may ultimately reach the point where the gap becomes a corridor of greenspace between urban areas, or an 'urban park', rather than a functioning area of agricultural landscape with a distinct character and identity.

7.36 For the above reasons, it is our view is that the development proposals, as they stand, would weaken rather than strengthen the integrity and effectiveness of the existing gap in maintaining the sense of separation between Fareham and Stubbington, and have a significant adverse effect upon the character of their settings and local settlement patterns.

Consideration of the effects of the Stubbington Bypass

7.37 It should be noted that consideration has been given to the changes that will result from the construction of the Stubbington Bypass in making judgements about the potential effects of the Newlands development proposals. The original Planning Statement (paragraph 5.77) remarks that "*...the consented bypass affects how the strategic gap can be considered given that it effectively severs the gap and introduces a new physical boundary*". **The Planning Statement Addendum re-emphasises the need to consider the proposals in the context of the consented bypass and puts forward the case that the new road, in itself, will have an urbanising influence (para 4.57).**

7.38 However, we consider that the bypass on its own would not significantly compromise the integrity of the gap or fundamentally alter its overall, agricultural character, although it would cause localised effects in the open landscape. It is development in conjunction with the road, particularly where the road is regarded as a legitimate boundary up to which new development might extend **(i.e. precisely what the applicant is proposing),** which is the greater threat, as concluded within our recent sensitivity assessment findings as follows (see Appendix 1):

"The proposed bypass already threatens to erode the integrity of the existing gap, particularly if it is regarded as forming a potential new edge for development. If the rural, undeveloped and expansive character of this area is to be maintained, it will be crucial to keep the urban boundaries as tightly drawn as possible and avoid infilling the land between the existing urban edges and the new road."

and

"It is acknowledged that the existing character of the area is likely to change with the construction of the recently consented Stubbington Bypass, the alignment of which will cut through the entire length of area 7a from Titchfield Road in the north west to Gosport Road in the south. The degree of impact that this major road scheme will have on the rural character of the area is uncertain but it will inevitably introduce further activity, noise and urbanising features into the agricultural landscape, as well as resulting in physical disturbance to land and vegetation cover. However, the carriageway will not be lit and mitigation proposals include new hedgerow and tree planting along

the route to reduce its visibility and impact on the landscape. Once such mitigation has become effective, the road by itself, may not have an overwhelming urbanising effect. However, significant further development in addition to the road scheme would almost certainly tip the balance towards this outcome."

7.39 **For these reasons, we challenge the assertion in paragraph 7.165 of the Addendum ES that the construction of the bypass would in itself, and irrespective of any housing development, 'perceptibly bring the settlement edge of Fareham slightly further south'. We also challenge the assertions in the Planning Statement Addendum that 'clear separation between Fareham and Stubbington, and their distinct and separate identities' will be maintained with the bypass and the proposed development constructed (para 4.57), for the reasons we set out in paragraphs 7.21 onwards.**

7.40 **A further assertion is that the proposed new landscape framework associated with the development at Newlands will actually help to assimilate the bypass into the landscape of the gap more effectively than what can be achieved from building the bypass alone (Planning Statement Addendum para 4.59). We strongly challenge this: in our opinion, the 'filling in' of the gap with built development virtually right up to the edge of the new bypass can only serve to exacerbate, rather than lessen, the impact of the road.**

8.0 Assessment of effects on Green Infrastructure

8.1 The application documentation makes considerable play of the improvements to Green Infrastructure (and landscape character and quality) that will be provided within the proposed development to "*restore the landscape's former grain and quality*" (DAS p.45). We would concur with the view that the area is intensively farmed and does not support a wide range of GI assets in terms of biodiversity or landscape features, as set out in our recent sensitivity assessment (see Appendix 1). We would also agree that the area would benefit from improvements and extension of the local GI network through investment in the reinstatement or creation of hedgerows, woods and other habitats that have been lost or damaged by agricultural intensification, and through the creation of additional public open space or access areas. In this respect, we acknowledge that the development proposals offer positive benefits.

8.2 However, despite the relative lack of diversity and extent of such assets, the area as a whole does make a significant contribution to the local GI network as an extensive area of undeveloped greenspace within easy reach of a highly urbanised area. The area acts as a link between the Meon Valley to the west and the Alver Valley to the east and its network of public footpaths and lanes provide access links between the urban areas as well as an important resource allowing opportunities for local people to enjoy informal recreation within a rural and largely unspoilt rural setting. The value of the area for quiet enjoyment of the countryside has been demonstrated by the many representations along these lines received in response to the Newlands planning application.

8.3 The draft Fareham Sensitivity Assessment concludes that:

"The area's GI value lies in its largely undeveloped nature and the significant public access afforded by PRoWs connecting the surrounding urban areas. It is therefore highly sensitive to change. Any development that compromised the PRoW network, through restricting access, damaging path quality or compromising the sense of openness and being 'in the countryside' would have an adverse effect on the GI network."

8.4 Our primary concern is that this sense of openness and of being in the countryside would be significantly compromised by the proposed development across a large proportion of the area. **Despite the omission of development on land to the west of Peak Lane, a significant area of open farmland will be built upon and the proposed new landscape infrastructure (including the proposed country park/SANG) will create an amenity landscape of an entirely different character to the characteristic farmed landscape of the coastal plain. While many of the proposed features (woodland, grassland, wetlands etc.) may help to diversify the wildlife potential of the area, they do not reflect the typical and historic patterns of vegetation/habitats, drainage, fields, woodland etc. that characterise the coastal plain, and introduce incongruous and artificial elements such as lakes and mounding. They do not, therefore necessarily constitute 'improvements to the landscape fabric' and it is unclear how the creation of the SANG will 'further integrate the introduction of built development within the landscape' (as stated in paragraph 7.257 of the Addendum ES and repeated in the Supplementary Planning Statement, para 3.40).**

8.5 The retention, enhancement and extension of the existing access network is commendable but it should be noted that the recreational experience of using this network will be significantly altered by the proposed development, and these effects on the existing GI value of the area require proper recognition within the balancing of positive and negative environmental effects.

9.0 Summary and conclusions

9.1 An abbreviated summary of the key points arising from our review is set out below, followed by our overall conclusions on the effects of the proposals and compliance with relevant planning policy.

Summary of key points

9.2 Landscape planning policy context

- the list of policies is considered mostly relevant apart from inclusion of superseded Local Plan Review policies
- no specific conclusion on compliance with planning policy in the ES although covered in Planning Statement
- our own comments regarding compliance are set out in Table1

9.3 Assessment methodology

- satisfied that assessment methodology generally in line with best practice guidance in terms of assessment process
- some concerns about how the process has been applied and judgements made
- main concerns are that assessment framework does not adequately address the effects of the proposals on the Strategic Gap designation and Green Infrastructure resource

9.4 Assessment of landscape effects

- landscape character is not fully analysed and described, the ES does not adequately describe the full range of physical, aesthetic, perceptual and experiential attributes that contribute to landscape character
- ES description focuses on the visibility of built development around the Application Site and perceived influence on landscape character, the degree of which we consider to be considerably over-exaggerated
- ES judgements concerning landscape sensitivity, value and susceptibility are not properly explained or supported and we disagree with the judgement of overall sensitivity and of the magnitude of change, both of which we consider are under estimated
- overall, we consider that the importance of the landscape as a resource is undervalued and the significance of effects is under-estimated within the ES
- we consider that this is a valuable landscape resource in the Borough context that will be altered completely as a result of the proposals and that there will be Moderate or Major Adverse landscape effects (i.e. significant in EIA terms)
- **these judgements have not changed as a result of the amended proposals, as only a relatively small proportion of the proposed built development has been removed from the scheme and the proposed country park/SANG which replaces it is also out of keeping with local landscape character.**

9.5 Assessment of visual effects

- we are satisfied that the visual assessment has been undertaken broadly in line with best practice guidance and is thorough in identifying key views and receptors
- we generally agree with the criteria used and the judgements made regarding the overall assessment of the significance of effects
- we concur with the conclusion that there will be certain specified residential receptors and users of the public rights of way network who will experience long term moderate or major adverse residual effects, i.e. significant effects in EIA terms
- **these judgements have not changed as a result of the amended proposals**

9.6 Assessment of effects on the Strategic Gap and setting/character of settlements

- no systematic assessment of these effects is provided in the ES but various assertions regarding how the proposals reinforce visual and physical separation of settlements are made within the ES and other planning documentation

- main thrust of Applicants argument is that substantial planting will provide a visual barrier between Fareham and Stubbington and thereby reinforce the gap, and that the bypass will provide permanent settlement boundary for Fareham and reduce risk of coalescence with Stubbington
- purpose of gaps is to maintain the separate identity of settlements and prevent their coalescence, involving consideration of physical, visual and, importantly, the perceived 'sense' of separation (i.e. the ability for anyone to 'feel' and to understand where one place ends and another different place begins)
- the existing gap between Fareham and Stubbington currently highly effective in all aspects of separation – scale of the gap reinforces physical and visual separation but also highly effective in providing the sense of separation and the experience of moving between one settlement and the other through a distinct and continuous tract of undeveloped countryside
- the development proposals encroach substantially into the gap and reduce the physical separation between settlement boundaries from 1 km to 200m at its narrowest point (between Stroud Green Lane and bypass alignment)
- visual separation will be reliant on the establishment of substantial blocks of new woodland and other planting and even when mature it is likely that users of roads and footpaths will have some awareness of the proximity of the settlement boundaries
- narrowness of the gap, and truncation of long-distance views, will have significant effect on perceived sense of separation
- the experience of travelling from one settlement to the other will be significantly altered from a 1 km walk through open countryside between two well-defined settlement edges with extensive views, to an enclosed 200m walk across a busy road, past farm buildings and into Stubbington, with no clear sense of moving from one clearly defined settlement edge across a coherent gap to another
- landscape within the gap also important to settlement character and setting – underlying geology/soils and high agricultural value have influenced local settlement pattern within and around the coastal plain, with development typically extending up to but not beyond the northern, 'natural' edge of the coastal plain
- southern edge of Fareham particularly well-defined, running along the boundary between heavy London Clay and high quality land of the plain
- the gap remains a functioning, productive agricultural landscape that provides an intact countryside setting for both Fareham and Stubbington
- development proposals will fundamentally alter the character and integrity of these settings by introducing a new landscape infrastructure which is alien to the coastal plain landscape and the primary function of the gap as a productive farmed landscape.
- we conclude that the development proposals, as they stand, would weaken rather than strengthen the integrity and effectiveness of the existing gap in maintaining the sense of separation between Fareham and Stubbington, and also have an adverse effect upon the character of their settings and local settlement pattern.
- **the removal of development and creation of the country park/SANG to the west of Peak Lane does not result in any substantive change to these effects nor our conclusions**

9.7 Assessment of effects on Green Infrastructure

- agree with Applicant that the area does not support a wide range of GI assets and that the area would benefit from improvements and investment in GI network
- however, area has significant GI value as an extensive area of undeveloped countryside with easy access from surrounding urban areas for the purposes of quiet, informal recreation
- this resource is highly sensitive and any development that affects its sense of openness and countryside character would be damaging
- consider that the proposed development will compromise these qualities and that the new landscape infrastructure to be provided in network of public parks and spaces, **including the proposed country park/SANG**, is not in keeping with local landscape character
- the ES does not include a systematic appraisal of the effects of the proposals on the GI network and a proper balancing of positive and negative effects is required.

Overall conclusions regarding landscape effects and compliance with relevant planning policy

9.8 It is indisputable that the proposed development at Newlands encroaches well beyond the existing Defined Urban Settlement Boundary of Fareham into an area of open countryside that is designated as a Strategic Gap. It would occupy a total area of 110ha of land, currently in agricultural use, of which approximately 38.5 ha was originally identified for built development. **The extent of built development has been reduced by the removal of housing to the west of Peak Lane (precise area not specified)** but nevertheless, the application site as a whole still represents roughly one third of the currently undeveloped area of land within the strategic gap that lies between Titchfield Road in the west and Gosport Road in the south (excluding land now occupied by the Newlands Solar Farm and the waste water treatment plant).

9.9 On this basis, it fails to comply with a range of planning policies and guidance at a national, sub-regional and local level (as set out in Table 1), that seek to direct development to the most sustainable locations, i.e. within existing settlement boundaries (e.g. CS6 and DSP6).

9.10 The applicant acknowledges this non-compliance within the accompanying Planning Statement, but makes the assertion that there is a shortfall in the 5-year supply of housing that renders these policies 'out of date' and therefore superseded by the overarching presumption in favour of sustainable development, as defined in the NPPF. The applicant also considers that the criteria set out in DSP40 (the Local Plan policy that allows for housing development outside of settlement boundaries in the event of a shortfall in housing supply) are fully met and that the development would have no unacceptable environmental implications 'as detailed in the ES' (although this does not entirely accord with the Statement of Significance). Irrespective of the housing supply issue, the applicant also states that the proposals are compliant with principles of sustainable development and policies for high quality design, the protection of strategic gaps and provision of Green Infrastructure.

9.11 In our professional opinion the proposals would result in significant (in EIA terms) and permanent, adverse effects on landscape resources and visual amenity within the area. We also conclude that they would substantially undermine the function and integrity of the strategic gap in maintaining a sense of separation between Fareham and Stubbington, and the role of the area in defining the character of the settlements and their landscape settings, as well as significantly altering the nature of the local green infrastructure resource and reducing opportunities to access open countryside for quiet informal recreation. **Our conclusions remain unchanged as a result of the amendments to the scheme which have relatively little bearing upon the most critical effects on landscape and visual resources and the integrity of the strategic gap**. The level of 'harm' involved in each of these considerations is discussed below.

9.12 The landscape within the Fareham/Stubbington Gap represents a significant part of the Borough's ever dwindling resource of undeveloped countryside, which has been progressively and rapidly eroded by the pressures of urban development (including, most recently, the proposed development at Welborne). Furthermore, despite its isolation from the sea, it forms part of one of the largest remaining areas of undeveloped coastal plain landscape in Hampshire, and displays many of the characteristic features of this landscape type. It is an intact, functioning and highly productive agricultural landscape that is generally well managed and in good condition despite its somewhat denuded character, and it has a strong and distinctive sense of place and visual cohesion associated with its coastal plain context. Its intrinsic value as a landscape resource within the overall context of the Borough is therefore greater than might be expected for a landscape that is typically open and relatively featureless. The exceptionally open character of this area also means it is very difficult to integrate development of any scale without having significant effects on the key things that characterise it and make it distinctive.

9.13 The development proposals will fundamentally and permanently change the character of the application site from open farmland to enclosed urban development and amenity landscape, and will also have a major adverse effect on the integrity and character of the remaining farmland that surrounds it. In our view, the large degree of change and extent of land affected, combined with the relatively high value and sensitivity of the landscape resource, constitutes a significant level of harm in EIA terms.

9.14 In terms of harm to visual amenity, both the applicant's assessment and our own have identified groups of people whose existing visual amenity will be affected to a significant extent by the proposals. These include residents in high-rise or three-storey accommodation to the north and north-east of the Application Site and, in particular, users of the network of public rights of way that criss-cross the open farmland. Their views will be permanently changed from expansive views out across open countryside to contained views of built development or wooded amenity land and farmland. The level of harm is slightly lower than for the landscape resource (i.e. moderate as opposed to major residual adverse) and views from private properties may be judged as less significant under the criteria used for residential amenity assessments. Nevertheless, the judgements set out in the ES meet the threshold for 'significant effects' in EIA terms and **are essentially unaffected by the amendments to the scheme**.

9.15 The effects on the strategic gap have not been systematically assessed through the EIA process but, in our opinion, the proposals will also cause significant harm to the function and integrity of the gap. **Despite the removal of a parcel of development to the west of Peak Lane,** the remaining extensive area of built development encroaches substantially into the gap and reduces the physical separation between settlement boundaries from around 1km to a mere 200m at the narrowest point. The narrowness of the gap, the truncation of long-distance views and the radically altered experience of moving from one clearly defined settlement to another through open countryside, will all significantly diminish the perceived sense of separation and the coherence of the gap. Furthermore, by using the alignment of the proposed bypass as a 'robust definitive boundary' for Fareham (Planning Statement para 6.32), the proposals not only bring the two settlements almost to within touching distance, but also set a potentially dangerous precedent for future expansion of Fareham up to the bypass on land to the west of Peak Lane, furthering threatening the integrity of the gap.

9.16 The gap not only maintains the separate identity of Fareham and Stubbington but it also forms a distinctive countryside setting, defines their 'edges' and reinforces the characteristic structure and form of urban development within the Borough as a whole and the way this has developed in response to underlying natural influences. Like the chalk ridge of Portsdown Hill and the valleys of the rivers Hamble, Hook, Meon and Alver, the undeveloped coastal plain is a key structural and defining component of the Borough landscape which has had a major role to play in shaping patterns of settlement and land use. The encroachment of development beyond the strongly defined existing edge of Fareham into the coastal plain farmland will disrupt these distinctions and contribute to the insidious process of attrition whereby the character of individual settlements and the 'natural' boundaries between urban and rural areas are lost beneath amorphous urban sprawl. The level of harm is difficult to define but the effect will certainly be detrimental to the maintenance of settlement character and identity, and local distinctiveness.

9.17 Finally, the level of harm to GI resources is not as clear cut as some other effects, as the proposals do include some positive GI benefits in the form of habitat creation and diversification of recreational experience, **which have been extended by the inclusion of the proposed country park/SANG in place of built development to the west of Peak Lane**. However, these benefits must be properly balanced against the negative effects of the loss of an extensive area of open countryside to built development, that currently offers opportunities for quiet informal recreation in a place that can be easily accessed by the surrounding urban population. This harm may not be significant on its own, but it is another factor to be taken into consideration in the weighing up of negative effects against positive benefits of the development proposals.

9.18 On this basis of our assessment, the proposals will result in a significant level of harm and are therefore not consistent with the Vision for Fareham, the strategic objectives or policies within the Local Plan relating to the protection and enhancement of the countryside and local landscape and settlement character, or those relating to the function of the strategic gap (in particular SO10, SO11, CS14, CS22, DSP1, DSP6 and DSP8). The proposals are also partially inconsistent with Local Plan objectives and policies relating to Green

Infrastructure (e.g. SO11, CS4, CS21, DSP8) in that they will reduce opportunities for access to the countryside which these policies aim to protect and enhance.

9.19 Moreover, in our view, the proposed development does not reflect Local Plan aspirations regarding high quality design, particularly in ensuring that development respects its context. In our opinion, there is little evidence in the **Illustrative Masterplan, Indicative Country Park Layout, DAS or Supplementary Design Statement** of the development proposals 'responding positively to, and being respectful of, the key characteristics of the area', including landscape, scale, form and spaciousness. The few existing landscape features that are present within the site have mostly been incorporated within the scheme but there is no evidence of a response to local landscape character within the development layout, character of the built areas and public realm (**including the country park/SANG**) as there is, for example, within the Welborne masterplan. There is no apparent 'sense of identity' or 'local distinctiveness' that relates to its coastal plain location, and we consider the scale and form of the development and many of its landscape features to be quite incongruous within this setting. In this sense, the proposals are not consistent with the Vision for Fareham or policy CS17.

9.20 Overall, it our firm view that this proposal would be very damaging to valued landscape and visual resources and the integrity and function of the strategic gap. Our sensitivity assessment confirms this view and demonstrates that there are other parts of the Borough's undeveloped landscape (albeit possibly no single area of equivalent scale) that are of lower sensitivity which may offer greater potential to accommodate development and could potentially be considered as alternatives to this area if deliverable. If a 5 year supply of housing can be demonstrated, we believe that the level of harm and non-compliance with Local Plan landscape and gap policies should add considerable weight to the argument for refusal of the application in its present form.

9.21 In the absence of a 5 year housing supply and where the relevant landscape and gap policies are deemed 'out of date', the proposals must be considered in the context of the criteria set out in Policy DSP40 and the overarching presumption in favour of sustainable development enshrined in the NPPF.

9.22 In our view, the proposals do not meet all of the criteria set out in policy DSP40 for development that may be permitted outside of the DUSB should there be a shortfall in the 5 year housing supply. Specifically, the proposals are not consistent with the requirements that 'the proposal is sensitively designed to...minimise any adverse impact on the Countryside, and if relevant, Strategic Gaps' and 'the proposal would not have any unacceptable environmental...implications'. The proposals will have significant (in EIA terms) adverse impacts on the landscape, visual amenity and on the function and integrity of the strategic gap in maintaining the separate identity and character of Fareham and Stubbington and their countryside settings. In the explanatory text for this policy (para 5.166), it is stated that 'protecting the character and beauty of the countryside is an important objective' and that 'proposals that minimise the impacts on the countryside and strategic gaps will be preferred'. The significant effects of this development are considered to cause unacceptable harm to irreplaceable landscape resources and the proposals do not, in our view, meet the criteria for permissible development outside of the urban area.

9.23 In terms of the overarching presumption in favour of sustainable development, this means that permission should be granted unless either 'any consequent adverse impact would significantly and demonstrably outweigh the benefits (assessed against the advice in the Framework as a whole) or specific policies in the Framework indicate that development should be restricted. No specific policies in the Framework have been identified that would indicate that the scheme should be restricted.

9.24 The Framework indicates there are three dimensions to the concept of 'sustainable development': economic, social and environmental. It describes the environmental dimension as 'contributing to protecting and enhancing our natural, built and historic environment'. We have already rehearsed the significant damage to landscape resources (i.e. natural environment) and settlement form, character and identity (i.e. built environment) that we believe will arise from these proposals and it is our view that such harmful consequences must render the proposals unsustainable.

9.25 It is not for us to decide whether these adverse impacts would 'significantly and demonstrably outweigh the benefits' of granting planning permission and we appreciate that there are a wide range of considerations that need to be involved in the planning balance. Our view is, put crudely, that undeveloped countryside is a particularly scarce and precious resource within the context of Fareham and should not be squandered lightly. Once it is gone it cannot be replaced. As indicated in our sensitivity assessment, we do not suggest that development is completely precluded from this area and there may some opportunity for some smaller-scale 'rounding off' around the edges of Stubbington which would not significantly affect the overall character of the gap or its role in maintaining separation of settlements. **The removal of built development from land to the west of Peak Lane, together with the creation of additional areas of wildlife habitat and accessible greenspace within the proposed country park/SANG, go some way to reducing the adverse effects of the previous scheme. Nonetheless, development of such an extensive scale and in the location proposed within the amended scheme remains, in our view, highly damaging and undesirable.**

9.26 In the event that housing supply considerations are deemed to take precedence, we would strongly urge the Council to demand a much less damaging and higher quality scheme that responds properly to the sensitivity and character of its landscape context and genuinely maintains the integrity and function of the strategic gap. Any sacrifice of open countryside warrants replacement with an environment that is very special, with a strong identity and sense of place that reflects its coastal plain setting, and makes a real contribution to local distinctiveness in terms of built form and its landscape framework. In our view, the present proposals demonstrate little or no response to local landscape context and fall woefully short of the quality that should be expected within this sensitive environment.

Table 1: Compliance with relevant policies and guidance

Policy/Guidance	Comments regarding compliance
NPPF	
Para 17 (principles 5 and 7)	In our view, the proposals do not properly recognise or reflect the intrinsic character and value of the landscape within the site and surrounding area (see Planning Statement p.36) or protect its existing roles in separating settlements and as a local resource for informal countryside recreation. Areas of 'lesser environmental value' from a landscape perspective should be allocated in preference to this area.
Para 58	We consider that the proposals do not properly 'respond to local character and history, and reflect the identity of the local surroundings' in landscape terms.
Para 61	We do not consider that the proposed development is well-integrated into the 'natural environment' in terms of the significant effects upon its value and integrity as a landscape resource.
Para 69-78	Included in Appendix 7.2 of ES but not relevant to landscape issues.
Para 109-125	The proposals do not 'contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes'. They will cause significant harm to a landscape resource of at least Borough-wide value. The proposals will not 'minimise adverse effects on the local and natural environment' nor affect land 'with the least environmental or amenity value'.
Planning Practice Guidance: Natural Environment	
Para 001	The applicant makes reference to the existing landscape character context and notes the findings of these assessments with respect to the character and local distinctiveness of the landscape. However, in our view, these characteristics are not properly reflected in the design of the development proposals.
Para 007 and 17	Biodiversity guidance.
Para 015	This definition confirms that GI includes multi-functional green space within rural, as well as urban, areas and is capable of delivering a wide range of environmental and quality of life benefits for local communities. We do not consider that the role of the existing open countryside as a valued part of the local GI network, and the effects of the development upon this resource, has been recognised and adequately taken into account within the ES.

Para 30	Not included in Appendix 7.2 of ES but relevant to landscape aspects of GI. The guidance states that 'components of green infrastructure exist within the wider landscape context and should enhance local landscape character and contribute to place-making'. It also states that 'green infrastructure helps create a sense of place by responding to and enhancing local landscape character'. Although the proposals include new green infrastructure components **(including the new country park/SANG**), we do not consider that they either respond to, or enhance, the distinctive characteristics of the existing local landscape.
South Hampshire Strategy (PUSH, 2012)	
Page 6: Spatial Planning Principles	Not referred to in Appendix 7.2 of ES but these principles underpin policies of the strategy and are relevant to landscape issues. Spatial planning principles within the Strategy include: 'Conserve the unique natural features and man-made heritage of South Hampshire's countryside, coast and built environment, as part of the area's attractiveness to residents and entrepreneurs; Maintain local distinctiveness and sense of place by requiring development to be appropriately located, and to be of a high quality and design so that it creates quality places; Encourage and enable South Hampshire to become more sustainable and resilient to climate change, by balancing economic growth with social and environmental considerations, by more prudent use of natural resources, and by reducing human impact on the environment.' We do not consider that the proposed development is wholly compliant with these principles, particularly in respect of conserving the features of South Hampshire's countryside, maintaining local distinctiveness and sense of place, appropriateness of location and reducing human impact on the environment.
Policy 2	This policy concerns urban regeneration in the existing cities, towns and urban areas of South Hampshire, rather than development within open countryside on greenfield sites and is therefore not relevant to consideration of landscape issues.
Policy 5	This policy concerns the design of quality places within new development. It is not relevant to consideration of the effects on the existing landscape of the application site.
Policy 14	We do not consider that the existing GI value of the application site and surrounding area has been fully taken into account within the ES. Although the proposals include new green infrastructure components, we do not consider that they protect the value of the existing GI resource in terms of its open countryside character.
Policy 15	We consider that the development proposals will have an adverse effect upon the function and integrity of the Fareham/Stubbington Strategic Gap and in defining the character of local settlements and their settings, as explained in section 7 above.

Green Infrastructure Strategy (PUSH, 2010)	
Theme III	This theme focuses on the contribution that the varied and distinct landscapes of the Borough make to the GI network, stating that 'the combination of low-lying coastal plains and shorelines, high chalk downland, and wooded and farmed clay lowlands provides the opportunity for a varied and exciting network of green infrastructure'. It stresses the benefits of landscape in providing cultural identity and enticing people to visit and stay in the countryside. It states that GI 'should promote the enhancement of those GI assets which have a strong landscape character association, and help support landscape sensitivity and provide tolerance to change'. We consider that the development proposals will not 'protect the unique quality, diversity and distinctiveness of the sub-region's landscape' (objective 6) or maintain the identity and character of settlements, in urban and rural locations' (objective 7).
Theme IV	This theme concerns 'access to the countryside and green spaces, providing recreational opportunities and experiences'. The development proposals will maintain (and extend) the existing network of public access routes across this area and will create a more diverse range of experiences. In doing so, however, it will fundamentally change the experience of quiet enjoyment of accessible open countryside to a more formalised recreational experience within an urban park environment. The loss of access to open countryside is not balanced against the benefits of new provision within the ES.
Theme V	Not relevant to landscape issues.
Theme VI	Not relevant to landscape issues.
Theme VII	This theme is not referred to in the ES but is relevant to landscape issues. The Strategy states that productive management of land (through agriculture and forestry) can provide 'multifunctional and cost effective delivery of Green Infrastructure Themes and Objectives' and will be a 'priority for PUSH partners to support'. Productive landscapes can provide 'important resources for communities such as food, energy, heat, timber, safe recreation destinations, and attractive landscapes'. The development proposals will take a substantial area of land out of productive use and provides limited compensation in the form of a 1 ha area of allotments. This loss of productive landscape is not balanced against the benefits of new GI provision within the ES.
Theme VIII	This policy emphasises the health and well-being benefits of easily accessible and attractive green infrastructure and the need to 'provide safe breathing spaces for residents and workers alike, to enjoy visually stimulating and mentally refreshing experiences'. It specifically mentions the popularity and benefits of dog-walking to the health and quality of life of people. The existing landscape already caters for these needs and the development proposals will affect the character of the countryside experience enjoyed by dog-walkers and others using the existing network of access routes. The overall extent of open land that can be enjoyed for informal countryside recreation will be reduced although it is acknowledged that the range of recreational activity will be increased with the introduction of formal sports pitches, **the country park** etc.

Fareham Borough Core Strategy (Local Plan Part 1, adopted 2011)	
Para 3.6: Vision for Fareham	In our view, the development proposals do not comply with the overall Vision for Fareham which states that 'the distinctive character and quality of the environment, including its coastal location which helps to create the character an identity of the Borough and its settlements, will continue to be protected and enhanced. The countryside around the settlements will be protected thus avoiding further coalescence and ensuring that development respects its context'.
SO1	This is included in Appendix 7.2 of the ES but is not a landscape-related issue as such. In a strict sense, the application site does not fall within those areas identified for 'sustainable delivery' of the South Hampshire Strategy as it lies beyond the defined urban area boundary of Fareham in open countryside.
SO10	The development proposals will not 'manage, maintain and improve the built and natural environment…taking into account the character and setting of existing settlements…' In our view, the encroachment into open countryside and the character of the proposed development and open spaces will have a significant adverse effect on the distinctive character of the landscape resource and the settings and character of Fareham and Stubbington.
SO11	The development proposals will protect the existing access to green infrastructure and enhance the range of opportunities for formal recreation but they will reduce the opportunity to access 'open countryside' for the local people of Fareham and Stubbington and they will compromise the separate identity of these settlements through significant encroachment into and narrowing of the strategic gap, which will be virtually closed in the central area.
CS4	The development proposals are compliant with this policy in that they provide investment in new green infrastructure resources, including parks, woodland and trees, and wildlife habitats. However, the proposals compromise the integrity of the existing green infrastructure resources by significantly reducing the opportunities for the local community to gain easy access to open countryside.
CS6	This policy is not landscape-specific and relates to the council's spatial strategy for housing which gives priority to the reuse of previously developed land within the defined urban settlement boundaries. The proposals clearly do not comply with the strategy but the applicant asserts that this policy is 'out of date' because of a lack of demonstrable 5 year housing supply and is therefore superseded by the overarching presumption in favour of sustainable development (see Planning Statement, para 6.51). We are not in a position to comment on the assertion regarding housing supply but we would question the sustainability of development proposals that in our view do not comply with the NPPF principles and guidance with regard to the protection and enhancement of the natural environment. The significant (in EIA terms) adverse impacts on landscape resources, visual amenity and the individual character and setting of settlements must be carefully weighed against the benefits of meeting housing needs.
CS7	This policy refers to development within the Fareham settlement boundary and is therefore considered not relevant to landscape issues outside the boundary.

CS14	In our opinion, the development proposals would significantly adversely affect the landscape character, appearance and function of the application site and surrounding land within the Fareham/Stubbington gap. The development proposals, therefore, do not comply with this policy. As for CS6, the applicant argues that this policy is 'out of date' because of the inadequate housing supply (Planning Statement para 6.51). Our comments relating to lack of compliance with the definition and principles of 'sustainable development' for CS6 equally apply to CS14.
CS17	In our opinion, there is little evidence in the illustrative masterplan and DAS of the development proposals 'responding positively to, and being respectful of, the key characteristics of the area', including landscape, scale, form and spaciousness. The few existing landscape features have mostly been incorporated but there is no evidence of a response to local landscape character within the development layout, character of the built areas and public realm (as there is, for example, within the Welborne masterplan). There is no apparent 'sense of identity' or 'local distinctiveness' that relates to its coastal plain location, and we consider the scale and form of the development and its landscape features to be quite incongruous within this setting. In this sense, the proposals do not comply with policy CS17.
CS21	The proposals are compliant with the requirement to provide open space of the required types and standards for the additional population. However, this needs to be balanced against the loss of existing accessible open countryside that will result from the conversion of farmland to urban development and amenity open spaces with an urbanised character.
CS22	We consider that the development proposals will have an adverse effect upon the function and integrity of the Fareham/Stubbington Strategic Gap and in defining the character of local settlements and their settings, as explained in section 7 above. The proposals are therefore not compliant with this policy.
Fareham Borough Development Sites and Policies (Local Plan Part 2, adopted 2015)	
DSP1	As set out for policy CS6 above, we believe that the significant (in EIA terms) adverse impacts of the proposals on landscape resources, visual amenity and the individual character and setting of settlements mean that they do not comply with Local Plan policies (as indicated in this table) or the NPPF principles and guidance with regard to sustainable development, in particular the protection and enhancement of the natural environment. These significant effects must be carefully weighed against the benefits of meeting housing needs.
DSP4	Included in Appendix 7.2 of ES but not relevant to landscape issues.
DSP5	Included in Appendix 7.2 of ES but relates to heritage assets and no specific comments regarding landscape issues.

DSP6	This policy states that there will be a presumption against new residential development outside of the Defined Urban Settlement Boundaries subject to certain exceptions. It reflects the requirements of policy CS14 and CS6 and our comments on these policies (see above) apply equally to policy DSP6. The development lies outside of the DUSB and does not comply with these policies nor, in our view, the principles laid down in the NPPF for sustainable development with regard to unacceptable environmental effects.
DSP8	This policy requires that any leisure and recreation development should have particular regard to the requirements of CS14 and CS6 and should avoid the loss of significant trees, should not have an unacceptable impact on the amenity of residents, and should not result in unacceptable environmental or ecological impacts or detrimental impact on the character or landscape of the surrounding area. The proposals for a new pub/restaurant and sports facilities form an integral part of the comprehensive development of a new community on a site which lies outside of the DUSB. We consider that the proposals will result in unacceptable detrimental impacts on the character or landscape of the surrounding area and therefore do not comply with this policy (see comments on policies CS6, 14 and DSP6 above).
DSP9	Not relevant to this application.
DSP12	Not relevant to this application
DSP 13	Nature conservation policy, not relevant to landscape issues.
DSP40	In our view, the proposals do not meet all of the criteria set out in policy DSP40 for development that may be permitted outside of the DUSB should there be a shortfall in the 5 year housing supply. The proposals will have significant (in EIA terms) adverse impacts on the landscape, visual amenity and on the function and integrity of the strategic gap in maintaining the separate identity and character of Fareham and Stubbington and their countryside settings. In the explanatory text for this policy (para 5.166), it is stated that 'protecting the character and beauty of the countryside is an important objective' and that 'proposals that minimise the impacts on the countryside and strategic gaps will be preferred'. The significant effects of this development are considered to cause unacceptable harm to irreplaceable landscape resources and the proposals do not, therefore, comply with this policy or the principles of sustainable development.

LDĀDESIGN

Appendix 1:

Extract from the Draft Fareham Landscape Sensitivity Assessment - LCA7: Fareham/Stubbington Gap

2.7 LCA 7: FAREHAM – STUBBINGTON GAP

LOCAL LANDSCAPE CHARACTER AREAS

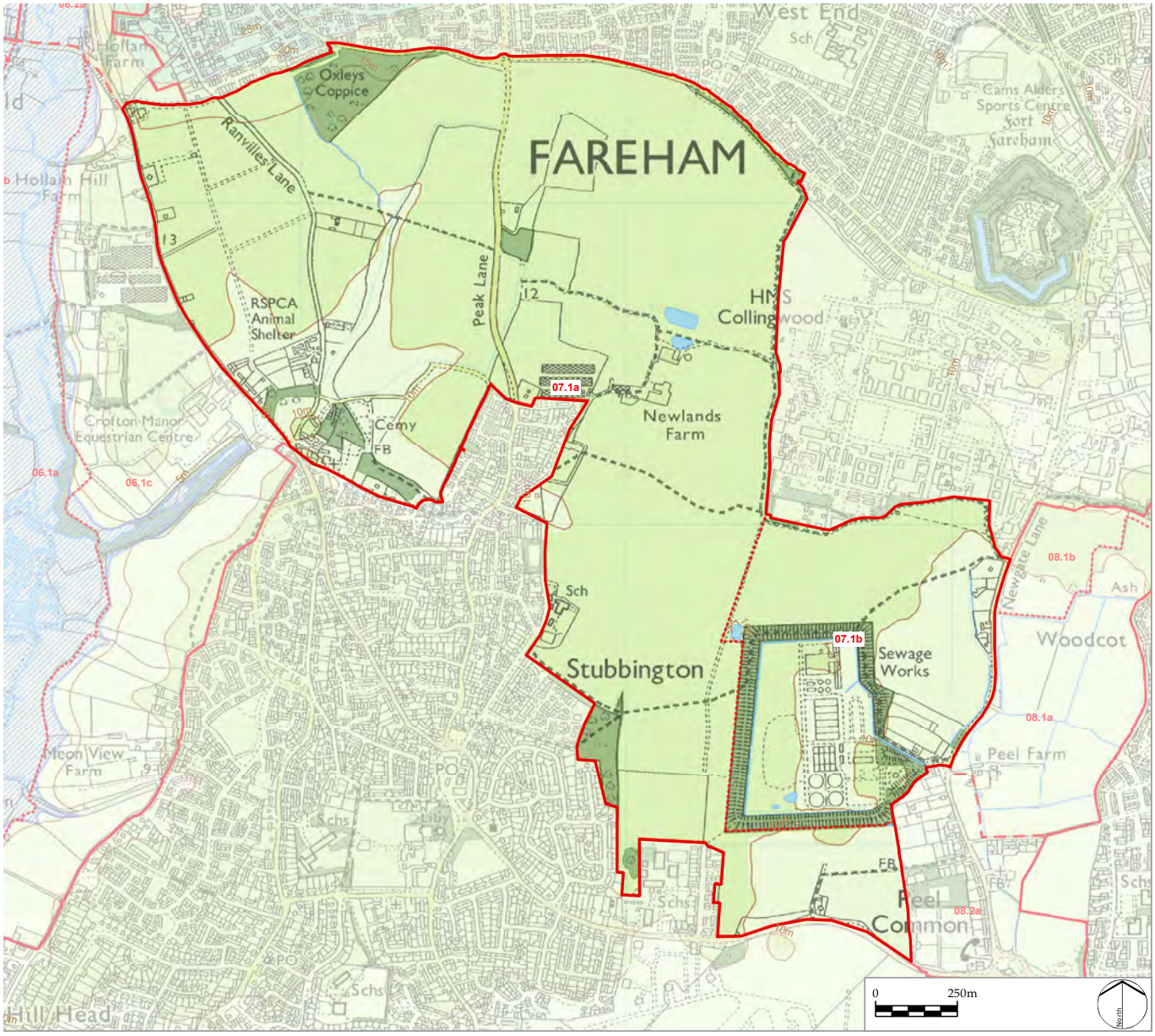
LEGEND

- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision

Location Diagram

LCA 7 - FAREHAM - STUBBINGTON GAP

PHYSICAL AND VISUAL CHARACTERISTICS



LEGEND

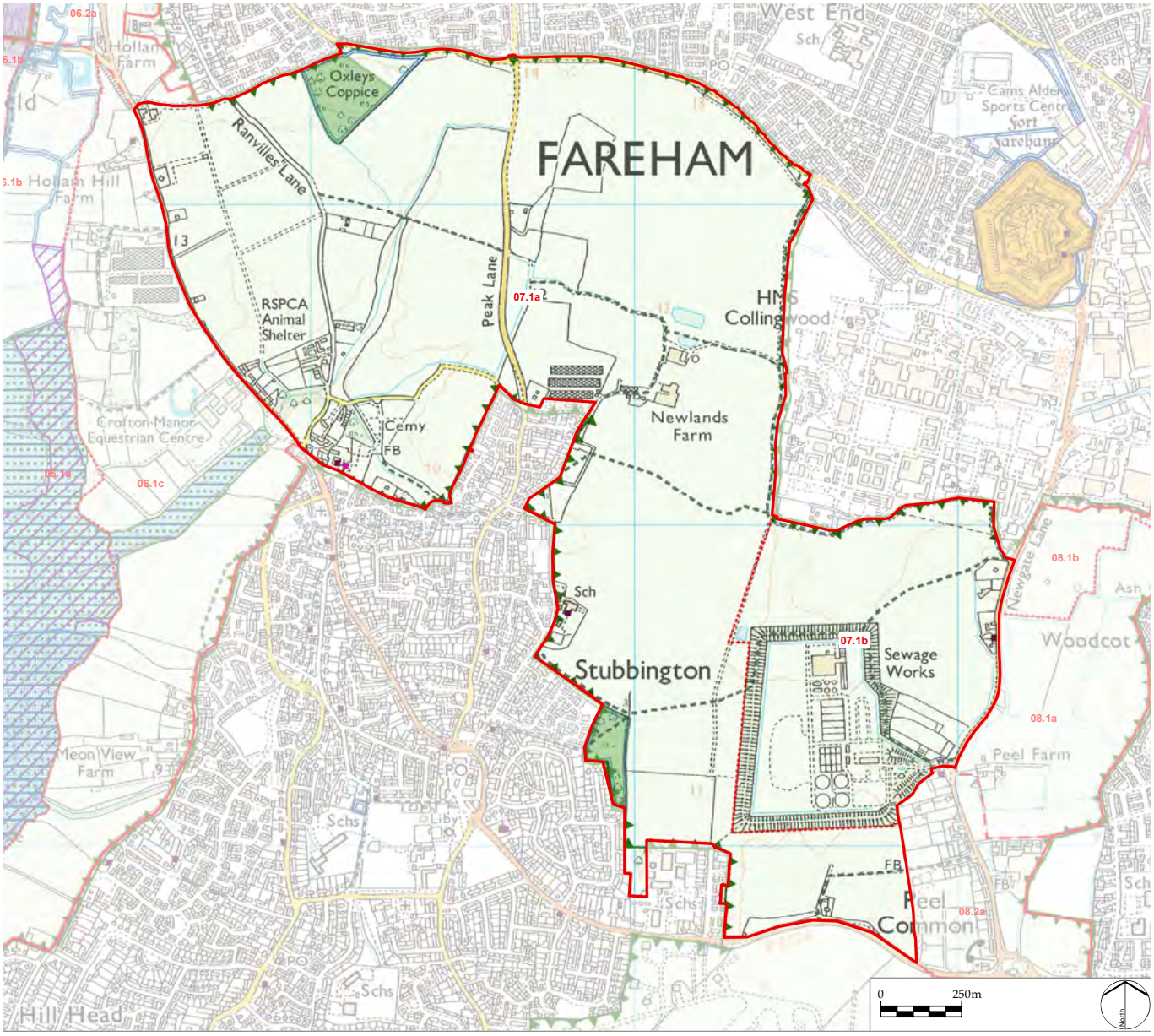
- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision
- Water
- Flood Alert Areas
- Woodland
- 5m Contours

Elevation (m AOD)

- 0m
- 50m

LCA 7 - FAREHAM - STUBBINGTON GAP

PLANNING CONTEXT



LEGEND

- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision
- Ancient Woodland
- The Meon Gap
- Sites of Importance for Nature Conservation

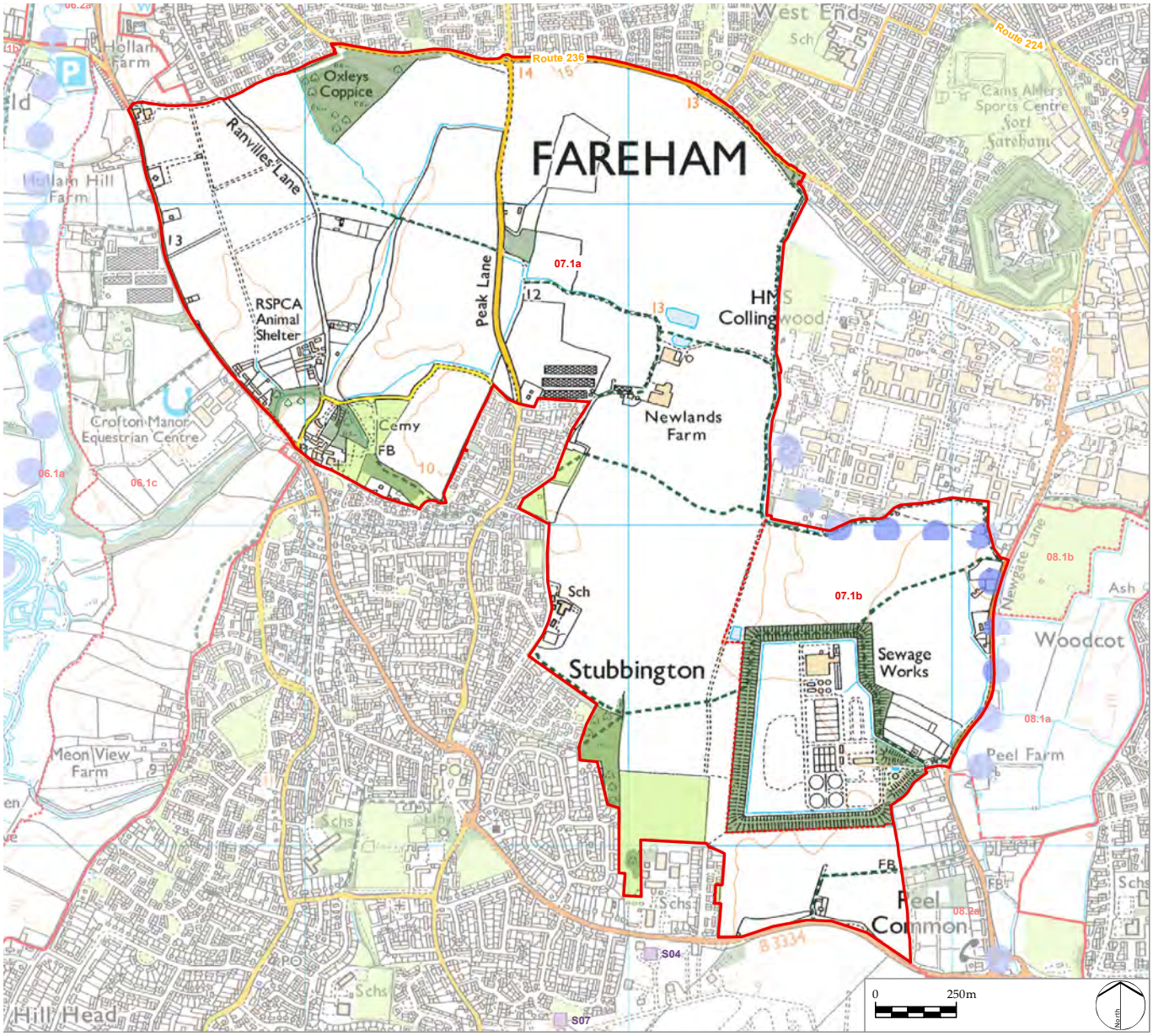
Designations

Listed Building Grade

I II II*

LCA 7 - FAREHAM - STUBBINGTON GAP

GREEN INFRASTRUCTURE

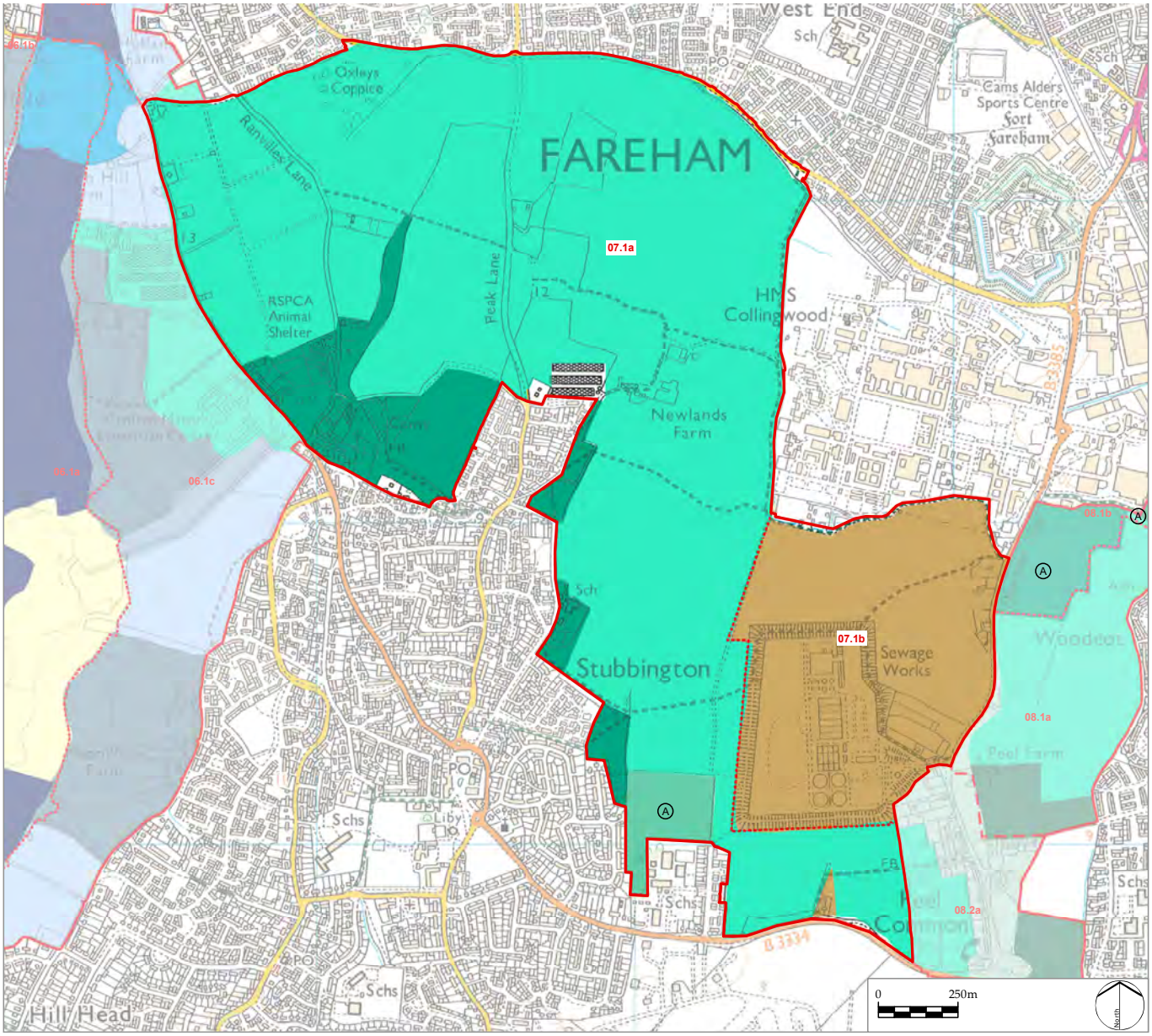


LEGEND

- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision
- Green Infrastructure Projects
- National Cycle Network
- Woodland
- Existing Open Space
- Green Infrastructure Sub-Regional Blue Corridor

LCA 7 - FAREHAM - STUBBINGTON GAP

LANDSCAPE CHARACTER TYPES



LEGEND

- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision

Landscape Types

- Airfields & Large Utility Sites
- Open Coastal Plain: Weak Structure
- Enclosed Coastal Plain
- Ⓐ Open Coastal Amenity Land

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

LANDSCAPE RESOURCE - SENSITIVITY ASSESSMENT

LANDSCAPE CHARACTER, QUALITY AND VALUE

The Fareham/Stubbington Gap comprises the major part of a strategic wedge of open landscape which separates the urban areas of Fareham to the north, Stubbington to the south and Gosport to the east. It excludes the built area of HMS Collingwood and also the corridor of the Alver Valley to the east which has a different character (see LCA 8). The area for assessment also excludes the Daedalus Airfield Strategic Development Allocation at the southern end of the area, which will effectively lie within the urban settlement boundary following proposed future redevelopment. The landscape of the area is relatively homogenous and therefore is assessed as a single LLCA, but two sub-areas have been identified to distinguish the predominantly agricultural landscape (7.1a) from a part of the area where specific land uses (a sewage treatment works and solar farm) dominate and have created a distinct variation in character to the south of HMS Collingwood (7.1b).

The area as a whole is characterised by low-lying, level or gently undulating landform which physically forms part of the coastal plain but which has become isolated from the coast by development at Stubbington. The land is underlain by deep, silty and well-drained soils which have given rise to extensive arable cultivation, market gardening and horticultural production across the area. Across **area 7.1a**, the landscape has a relatively homogenous character and is dominated by medium to very large sized fields (resulting from amalgamation), which are bounded by fences or open banks and ditches with a very sparse network of hedgerows, much of which is defunct or in poor condition. As a result, the landscape has a very expansive, open character allowing long-distance views over the level farmland. However, this large scale landscape is punctuated by scattered blocks of trees or woodland, notably Oxleys Coppice on the northern boundary, and other occasional belts of trees or mature vegetation along field boundaries, roadsides, tracks and stream courses. These form important structural features that provide some visual containment and help to break up the expansiveness of the agricultural landscape. They are also effective in limiting the influence of neighbouring urban development, with strong belts of woodland, trees or other vegetation concentrated around the edges of most of the adjoining settlements within the area (e.g. along the northern edge of the area on the boundary with Longfield Avenue and Rowan Way).

Within the area, settlement is very sparse and comprises a few scattered farmsteads and horticultural holdings, with associated large-scale farm buildings or glass houses, and a few individual dwellings or premises along Titchfield Road and Ranvilles Lane. The road network is also relatively sparse, comprising two main roads (Titchfield Road and Peak Lane) providing north-south access across the 'gap' between Fareham and Stubbington. Ranvilles Lane also links Titchfield and Stubbington, running roughly parallel with Titchfield Road, but there is no through-access for vehicles. The only other road access is the minor Oakcroft Lane and the unfenced single-lane tracks, Tanner Lane and Stroud Green Lane, which provide a low-key, route between Newlands Farm and Newgate Lane to the east.

Despite its urbanised context, **area 7.1a** currently retains a predominantly rural, agricultural character with limited influence from surrounding urban areas. Some larger structures associated with HMS Collingwood, or tall buildings within more distant areas, are visible across the flat, open landscape, but they do not intrude significantly on its intrinsic character or quality. Mature vegetation cover along most of the northern boundary of the area and around the edges of Stubbington has a substantial effect in reducing and softening the visibility of surrounding built form, although the urban edge is visible between the tree cover in a few places (e.g. Harcourt Road, Stroud Green Lane and Marks Road). Some strong hedgerows and tree cover along the road network also limit the impact of these features. A few large-scale agricultural sheds and glasshouses are prominent features within the area (e.g. around Newlands Farm) but, while perhaps unsightly, these do not detract from the agricultural character of the area or substantially degrade its quality.

In the southern part of area 7.1a, the recently constructed solar farm (within area 7.1b), and the pylons and poles supporting overhead transmission lines, do have some impact on the immediate surrounding landscape. However, these effects are relatively localised, and the effects of distance, foreshortening, intervening hedgerows and strong vegetation cover around the sewage works and the periphery of HMS Collingwood and on the eastern boundary all help to soften and limit the impact on the wider landscape within area 7.1a.

LANDSCAPE RESOURCE - SENSITIVITY ASSESSMENT

The character of **Area 7.1b** is dominated by the Peel Common Waste Water Treatment Works, which is contained within large, heavily vegetated earth bunds, and the recently built Newgate Lane solar farm which occupies the entire area of farmland sandwiched between HMS Collingwood, Newgate Lane and the treatment works. Electricity transmission lines supported by pylons and substantial poles are also a feature of this area. These utilities have introduced artificial features into the farmed landscape and completely altered the character of the immediate area. The wooded bunds that surround the water treatment works are a positive, if somewhat incongruous, feature in the landscape, creating some visual enclosure and shelter. The adjacent solar farm comprises rows of solar arrays, supported on steel frames, underlain by grassland and enclosed behind security fencing. The arrays are relatively low in height and planting along the western edge of the development will, in time, reduce its visibility and influence on landscape character within wider parts of area 7.1a. Within area 7.1b itself, the effects will remain for 25 years (the lifespan of the development) after which the land is to be restored to agriculture unless an extension of this use or another use is subsequently consented.

In terms of its **intrinsic quality and value** as part of the Borough's landscape resource, the landscape in **area 7.1a** is not covered by any current national or local landscape designation but it has a number of positive attributes. It is representative of the coastal plain landscape type (an increasingly rare resource within the Borough) and many of its characteristic and distinctive features are intact, notably its flat, open character and expansive views, sparse settlement pattern and generally undeveloped character, woodland blocks and hedgerows and other boundary vegetation, which provide some shelter and containment of long distance views.

Scenic quality is unexceptional and is affected by some localised intrusion of urban features around its periphery. However the area does retain a predominantly rural, agricultural character and a strong sense of place, and the sheer scale of the landscape pattern is striking. Its aesthetic appeal is particularly strong during the summer, when vegetation is in full leaf and there is a pleasing combination of extensive rolling fields of crops set against a distant backdrop of substantial blocks of woodland or belts of trees, and interspersed by plump hedgerows and grassy verges along roadsides and field margins. At this time, the influence of the area's urban context is much reduced and it has the sense of open countryside. These qualities may be less evident in winter, when the fields are bare and boundary vegetation is less effective at screening or filtering views of surrounding urban areas and land uses.

The landscape is generally well-managed as agricultural land and in good condition, with limited evidence of 'fringe' uses or influences (e.g. horse paddocks, vacant land, unkempt fencing, fly tipping etc.). However, the highly intensive horticultural and arable farming practices have led to widespread field amalgamation and loss of landscape features, and some of the remnant internal hedgerows are heavily trimmed or gappy. The rather denuded landscape does not contain many features of recognised conservation interest other than the remnant ancient woodlands and copses (notably Oxleys Wood, Tips Copse which are SINCs). The area also lacks the sense of remoteness and natural qualities that are found in other parts of the coastal plain. It has the sense of a 'landlocked' piece of countryside and the area's urban context is perceptible even if not dominating. Overall, landscape value in area 7.1a is judged as moderate to high while in area 7.1b it is low, although the wooded bunds and boundary trees are valuable landscape features.

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

LANDSCAPE RESOURCE - SENSITIVITY ASSESSMENT

SENSITIVITY AND DEVELOPMENT POTENTIAL

In such an open, expansive landscape, susceptibility to change is high. The distinctive character of the area relies on its openness, its rural agricultural character and the absence of prominent urban features, and it would be difficult to accommodate significant new development without affecting these characteristics or altering the delicate balance between a predominantly rural or predominantly urban landscape. The potential to contain development within the existing structure of woodland, hedgerows and trees is very limited and substantial new planting would be required to mitigate against the effects on landscape character, which would take many years to mature and become effective.

The existing balance is likely to change with the construction of the recently consented Stubbington Bypass, the alignment of which will cut through the entire length of **area 7.1a** from Titchfield Road in the north west to Gosport Road in the south. The degree of impact that this major road scheme will have on the rural character of the area is uncertain but it will inevitably introduce further activity, noise and urbanising features into the agricultural landscape, as well as resulting in physical disturbance to land and vegetation cover.

However, the carriageway will not be lit and mitigation proposals include new hedgerow and tree planting along the route to reduce its visibility and impact on the landscape. Once such mitigation has become effective, the road by itself, may not have an overwhelming urbanising effect. However, significant further development in addition to the road scheme would almost certainly tip the balance towards this outcome.

So, overall, the sensitivity of the landscape resource within **area 7.1a** is judged to be high (moderate to high value and high susceptibility to change), with very limited capacity to accommodate development without a significant impact on the integrity of the area's rural, agricultural character.

There may be some limited scope for development in areas where there is an existing structure of vegetation to help integrate it into the landscape and where it is closely associated with existing built development around the fringes of the settlements (i.e. not out in open countryside) or character is already affected by urban influences, e.g. enclosed land on the northern edge of Stubbington or to the south of the treatment works between Marks Lane and Peel Common. However, any such development would need very sensitive siting, design and mitigation to avoid piecemeal attrition of the area's overall rural character.

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

VISUAL ENVIRONMENT – SENSITIVITY ASSESSMENT

VIEWS, VISUAL FEATURES AND VIEWERS

Long distance visibility towards the area is low due to the typically low-lying and flat topography of the Borough (including the area itself), and the screening effects of boundary vegetation and surrounding built form. The area may be visible from some local elevated viewpoints (e.g. tall buildings in Fareham) and from higher ground at Portsdown, but from this distant location it forms an insignificant part of a wide panorama of the urban and coastal plain landscape.

Views into the area from the immediate surrounding settlements are largely filtered through established vegetation (e.g. along the boundary with Longfield Avenue/Rowan Way to the north). However, there will be views from some properties on the periphery of the area where vegetation cover is weaker or non-existent (e.g. properties long the northern boundary at Harcourt Road and along the eastern edge of Stubbington at Stroud Green lane, Marks Road etc.) and there are open views into the southern part of the area from sections of the B334 Gosport Road where there is no intervening roadside vegetation.

The most significant views are from roads, PRoW and individual properties within the area itself. Although roadside vegetation helps to restrict views from some sections of Titchfield Road and Peak Lane, there are other substantial sections with open and extensive views across the surrounding landscape within the northern part of the area. Views from Oakcroft Lane are largely screened but there are uninterrupted and very extensive views from Tanners Lane and the network of unbounded lanes and PRoW that cross the farmland. Intervisibility between areas is also very high within much of this very open, expansive landscape.

Key receptors within area 7 will therefore be local residents within properties that adjoin or lie within the area (including occupants of HMS Collingwood) and users of the road and PRoW network within the area. In future, the construction of the Stubbington Bypass will increase the extent of the views available to road users, opening up the entire area to potential views from the road. Roadside planting will mitigate some of these effects but will take time to become effective.

SENSITIVITY AND DEVELOPMENT POTENTIAL

Overall, visual sensitivity in area 7 is high. Views from the roads and PRoW network within the area, and some short distance views from peripheral areas, are extensive and there is limited opportunity to mitigate these in such an open landscape and over a wide area. The potential visibility of the area will be exacerbated, at least over the short term, by the introduction of the Stubbington Bypass. While road users are only moderately susceptible to change, because of their focus on the road and fleeting nature of views, local residents and recreational users of the PRoW network are likely to be more focussed on the landscape and their surroundings and will be highly susceptible to change. The introduction of development into the agricultural landscape is likely to have a significant impact on the character and quality of existing predominantly rural views, unless it can be successfully integrated within a substantial framework of existing or new vegetation.

There may be some limited scope for development in areas where such an existing structure of vegetation exists and where views are already affected by urban influences. However, any such development would need very sensitive siting, design and mitigation to avoid significant adverse effects on views and visual amenity.

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

SETTING OF URBAN AREA – SENSITIVITY ASSESSMENT

CONTRIBUTION TO SETTING AND SETTLEMENT CHARACTER

The area lies within the lower-lying parts of the Borough, forming part of the coastal plain that slopes gently up to the foot of Portsdown Hill in the north of the Borough. While the area does not play a significant role in the topographic setting of the urban area, it is notable for a general lack of development and for providing both physical and visual separation between the settlements of Stubbington to the south and Fareham to the north, and between Stubbington and Gosport to the east. The significant role of the area in separating and preventing coalescence of these settlements is enshrined in policy, with the area designated a Strategic Gap in the Fareham Borough Local Plan.

The visual separation is apparent in all short distance views into the site from the edge of Fareham to the north and east and Stubbington the south, and from the main roads and that cross the 'gap' between these settlements. Where longer distance views are available from the north, the area's role in separating the two settlements is less evident, though it is still perceived as a 'green' break in a predominantly urban landscape. The edges to the urban areas at Fareham and Stubbington are clearly defined by strong boundary vegetation and there is a clear sense of coming out of one settlement and entering another, with a distinct rural character to the landscape of this area in between. This helps to reinforce the separate identity of each settlement and also provides the urban areas with an attractive, essentially rural setting.

The role of the southern part of the gap in providing separation between Stubbington and the urban area of Woodcot (a northern suburb of Gosport), to the east of the Newgate Lane corridor, is less easily perceived because of intervening development and other features that interrupt views, and occupy land, between the two areas. These include the Newlands Solar Farm, the waste water treatment plant and development along the Newgate Lane corridor at Peel Common. These features in themselves reinforce the separation of the main urban areas by providing a physical constraint to permanent built development (for at least the foreseeable future) but they also reduce the importance of area 7.1a in providing visual separation between Stubbington and the edges of the Gosport urban area.

The parcel of land to the south of the treatment works still performs a role in providing physical separation and a clearly-defined eastern edge to Stubbington but this may be compromised in future by the proposed redevelopment of land at Solent Enterprise Zone at HMS Daedalus, potentially extending built development across the existing gap to the south.

Overall, area 7 plays an important role in defining the edges and separate identity of Fareham and Stubbington and a critical role in preventing their coalescence. It also makes a contribution to the swathe of landscape that currently separates Stubbington from Gosport (which includes the adjacent Woodcot-Alver Valley LCA) but this role is less critical than areas to the north and may be further weakened by redevelopment of the Solent Enterprise Zone at HMS Daedalus site in future years.

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

SETTING OF URBAN AREA – SENSITIVITY ASSESSMENT

SENSITIVITY AND DEVELOPMENT POTENTIAL

Given its designation as a Strategic Gap and the critical role that the area plays in preventing coalescence between the settlements of Fareham and Stubbington, the area is highly sensitive to change. The landscape lacks any strong landform feature (e.g. ridges or valleys) or a mature framework of woodland that could potentially contain and provide a strong landscape edge to any major extension of built form into this area. Intrusive development within the area would inevitably erode the visual and physical separation that currently exists and potentially alter the character of the landscape settings of the two settlements from predominantly agricultural to predominantly urban. Ultimately, the function and integrity of the area as farmland could be significantly eroded to the point where the gap becomes a corridor of greenspace between urban areas, or an 'urban park', rather than a functioning area of agricultural landscape with a distinct character and identity.

The proposed bypass already threatens to erode the integrity of the existing gap, particularly if it is regarded as forming a potential new edge for development. If the rural, undeveloped and expansive character of this area is to be maintained, it will be crucial to keep the urban boundaries as tightly drawn as possible and avoid infilling the land between the existing urban edges and the new road.

In the area to the south, the weaving of the new road alignment through the tight gap between the water treatment works and the playing fields at Crofton School effectively severs the farmland to the south from the rest of the area, and will have an effect on both its function and character. There may be some potential for development to infill areas of fragmented farmland up to the road in this area, and possibly in other small-scale parcels of land where there is an existing structure of vegetation to help integrate it into the landscape and where it is closely associated with existing built development around the immediate fringes of the settlements. Overall, however, there is very limited capacity to accommodate development without a significant impact on the integrity of the area's rural, agricultural character and the role it performs in maintaining the separate identity and character of the settlements and their landscape settings.

LLCA 7.1 - FAREHAM - STUBBINGTON GAP

GREEN INFRASTRUCTURE – SENSITIVITY ASSESSMENT

CONTRIBUTION TO GREEN INFRASTRUCTURE NETWORK

This intensively farmed area does not support a wide range of GI assets in terms of biodiversity or landscape features. The only designated features are two areas of remnant ancient woodland at Oxleys Coppice and Tips Copse (SINC) but other features of local landscape and wildlife value include fragments of woodland, scrub, trees, grasslands and wetland habitats that occur along field margins, roadsides and stream courses within the area. Despite the relative lack of diversity and extent of such assets, the area as a whole does make a significant contribution to the local GI network as an extensive area of undeveloped greenspace within the heart of a highly urbanised area. The area acts as a link between the Meon Valley to the west and the Alver Valley to the east and its network of public footpaths and lanes provide access links between the urban areas as well as an important resource allowing opportunities for local people to enjoy informal recreation within a rural and largely unspoilt landscape setting.

The value of the footpaths is enhanced by the ease of access from the surrounding urban areas. However, they are generally in a poor condition, with their use affected by a combination of poor/ absent signage, broken stiles, over planting of paths with agricultural crops and surface water flooding following periods of heavy rain. The area does not contain any designated public access or common land, though a publically accessible fishing pond is located to the south west of Newgate Lane solar farm. There are no specific areas of public open space within the heart of this area but there are few spaces around the fringes of Stubbington, including school playing fields, allotments, a recreation ground, cemetery and woodland at Tips Copse.

The PUSH GI strategy identifies a sub-regional scale blue corridor following the drainage network that runs around the eastern side of area 7.1a and through area 7.1b to join the corridor of open land on the eastern side of Newgate Lane and southwards to join the River Alver (within Gosport District). The strategy includes a project to strengthen wildlife corridors connected to the River Alver but this is focused on the Alver Valley outside of the Borough. The Fareham GI strategy does not identify any specific projects within the area.

SENSITIVITY AND DEVELOPMENT POTENTIAL

The area's GI value lies in its largely undeveloped nature and the significant public access afforded by PRoWs connecting the surrounding urban areas. It is therefore highly sensitive to change. Any development that compromised the PRoW network, through restricting access, damaging path quality or compromising the sense of openness and being 'in the countryside' would have an adverse effect on the GI network.

This area would benefit from improvements and extension of the local GI network, through major investment in the reinstatement or creation of hedgerows, woods and other habitats that have been lost or damaged by agricultural intensification, and through the creation of additional public open space or access areas.

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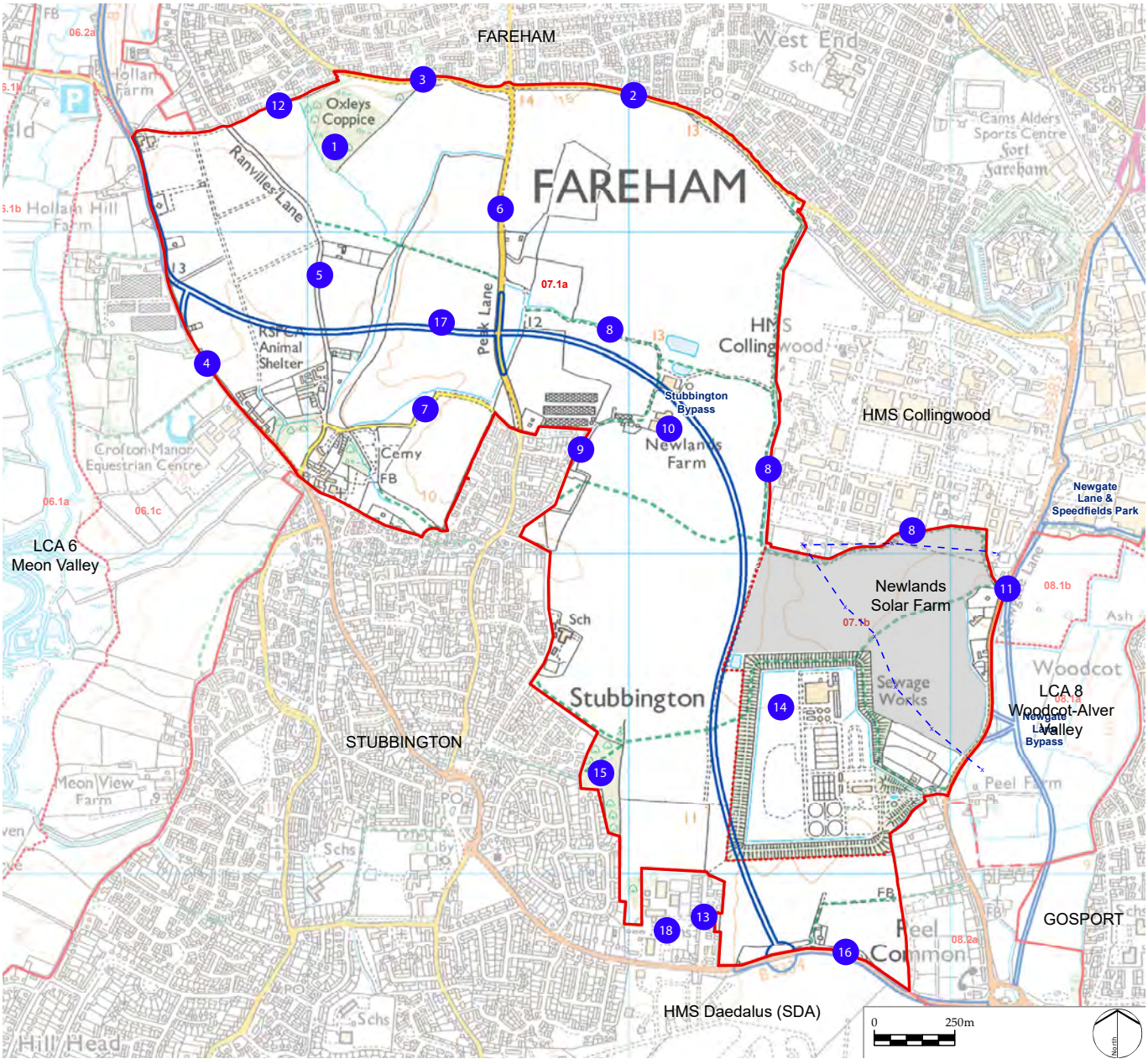
LOCATION PLAN FOR ROADS AND OTHER FEATURES



LEGEND

- Landscape Character Area
- Local Landscape Character Area
- Local Landscape Character Area Subdivision
- Transmission Line and Pylons/Poles
- Route of Stubbington Bypass

1. Oxley's Coppice
2. Langfield Avenue
3. Rowan Way
4. Titchfield Road
5. Ranville's Lane
6. Peak Lane
7. Oakcroft Lane
8. Tanner's Lane
9. Stroud Green Lane
10. Newlands Farm
11. Newgate Lane
12. Harcourt Road
13. Marks Court
14. Peel Common Waste Water Treatment Works
15. Tips Copse
16. Gosport Road
17. Stubbington Bypass (Proposed)
18. Crofton School

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DEVELOPMENT CRITERIA AND ENHANCEMENT OPPORTUNITIES

Overall, this area is considered to be of high sensitivity but this judgement has involved balancing a number of quite complex factors. On the one hand, the landscape of this area is not of exceptional scenic quality, it lacks some of the distinctive qualities that characterise other parts of the coastal plain further to the south (e.g. naturalness, remoteness, extensive conservation interests etc.) and its urban context does have some influence on its character. Intensive farming practice has resulted in a somewhat denuded landscape that lacks diversity or many features of significant landscape, ecological or heritage value.

On the other hand, it does have a value as a relatively unspoilt and representative example of undeveloped coastal plain, a dwindling landscape resource within the Borough and county context and one which is under significant pressure for change. Despite its urban context, it retains a predominantly rural character and a sense of open countryside, albeit 'captured' within the urban area. Its condition is generally good and its character and quality is intact and consistent across the area as a whole, giving it a strong sense of unity. It provides opportunities for quiet recreation within a farmed landscape within easy reach of the urban areas, and provides an attractive visual amenity for local residents and setting for settlements in the area. Its most critical role, however, is in preventing the coalescence of settlements and maintaining the separate identity and character of Fareham and Stubbington and, to a lesser degree, Stubbington and Gosport.

The very open, expansive nature of the landscape means that it is difficult to integrate development without it being highly visible and potentially affecting the rural undeveloped character across a wide area, as well as eroding the physical, visual and perceived gap between settlements. The situation is further complicated by the proposed bypass which will inevitably have some effect on the integrity and character of the landscape resource and undeveloped gap. Even a small amount of encroachment of development within the area will exacerbate these effects to the point at which the character of the whole area may be fundamentally altered.

There is therefore very limited potential for development within the area if it is to maintain its integrity as a valuable part of the Borough's landscape and GI resource, and as a gap between settlements. There may be some modest potential for infill development to the west of the new road at its far southern end and in small, enclosed pockets of landscape around the immediate edges of Stubbington, where it can be successfully integrated within the existing landscape structure.

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DEVELOPMENT CRITERIA AND ENHANCEMENT OPPORTUNITIES

In order to protect and enhance the character and quality of landscape resources, views and visual amenity, urban setting and green infrastructure, development proposals will need to:

- Protect the overall area's open, predominantly rural and undeveloped character and other distinctive characteristics of the coastal plain landscape;
- Avoid any major incursion of the urban area into the countryside beyond existing boundaries, or create significant new pockets of urban or urbanising development within open countryside;
- Protect the area's role in maintaining the separation of settlements and a clear distinction between urban and rural areas. In particular, avoid ribbon development strung out along road corridors and any development beyond the existing urban edge that cannot be successfully integrated within the existing landscape structure;
- Be located 'tightly' around the edges of the existing urban areas (particularly Stubbington), within pockets of landscape where development can be integrated within a strong framework of vegetation to minimise its influence on surrounding landscape character and visual amenity (e.g. around the northern fringes of Stubbington);
- Maintain significant distance and separation from the corridor of the new bypass to minimise the road's urbanising effects upon the rural character of the area (apart from a small section at the far southern end where it runs very close to the urban edge and isolates a small area of farmland adjacent to Mark's Road);
- Avoid the introduction of tall buildings or structures that would be particularly visually prominent within the open, flat landscape;
- Protect and manage important areas of woodland, particularly remnants of ancient semi-natural woodland at Oxleys Coppice and Tip Copse, as features of landscape and ecological significance;
- Protect and enhance other landscape and ecological features of the area, including the remnant hedgerow structure, trees, woodland and other habitats of ecological value within the farmed landscape, to maximise its landscape and wildlife value and to minimise impacts on the rural character of the landscape;
- Protect and enhance enjoyment of the landscape by maintaining and enhancing the existing PRoW network and making further provision for accessible greenspace within the area;
- Provide substantial new investment in the landscape through extensive tree, hedgerow and woodland planting using native broadleaved species appropriate to the locality and soil conditions and habitat creation to diversify the intensively farmed landscape;
- Demonstrate design that has minimal impact on the surrounding landscape and is in keeping with the character of the local landscape context.

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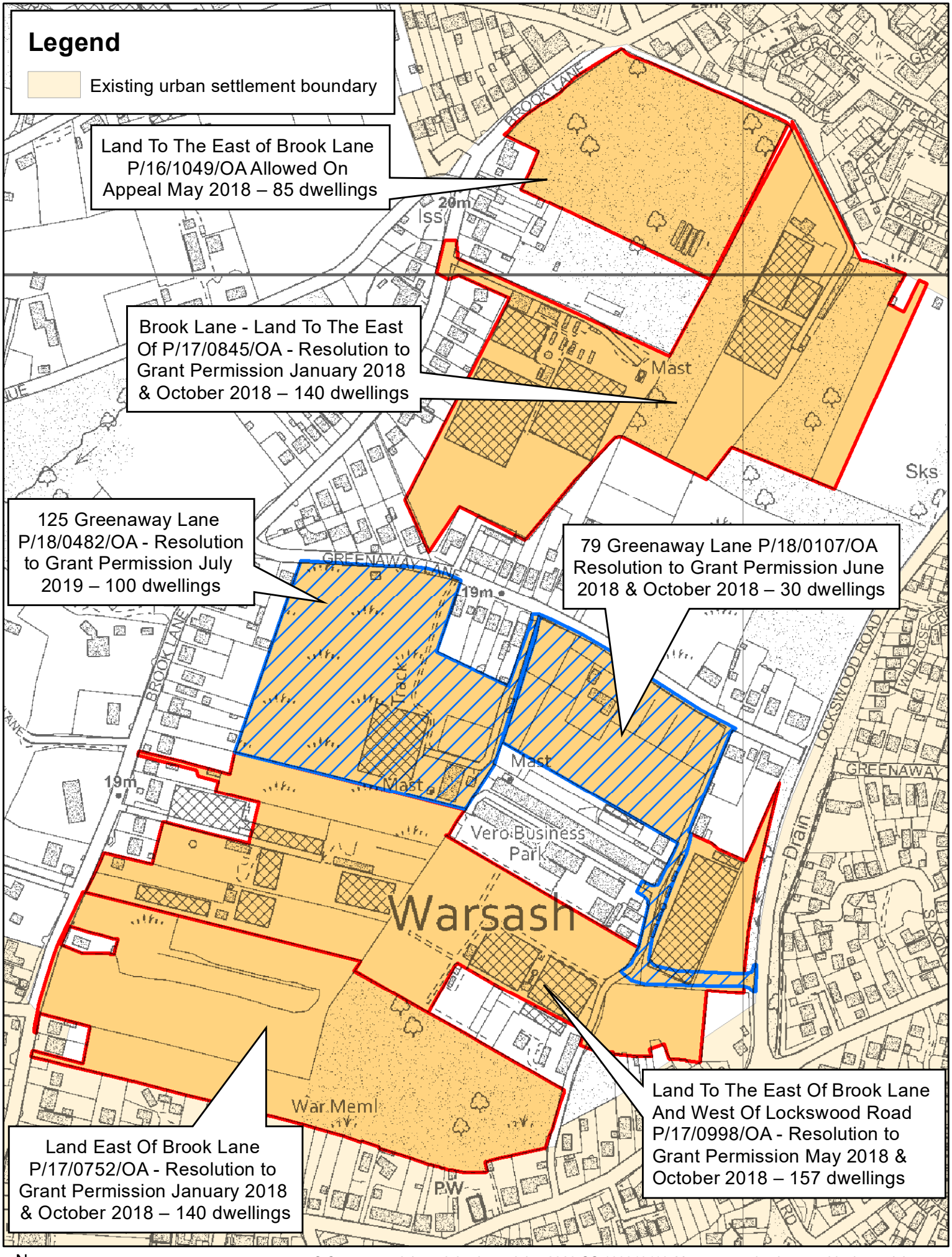
APPENDIX H:

Includes:

Appendix H1: Plan of Land at 125 and 79 Greenaway Lane, Warsash

Appendix H2: Plan of Land north of Funtley



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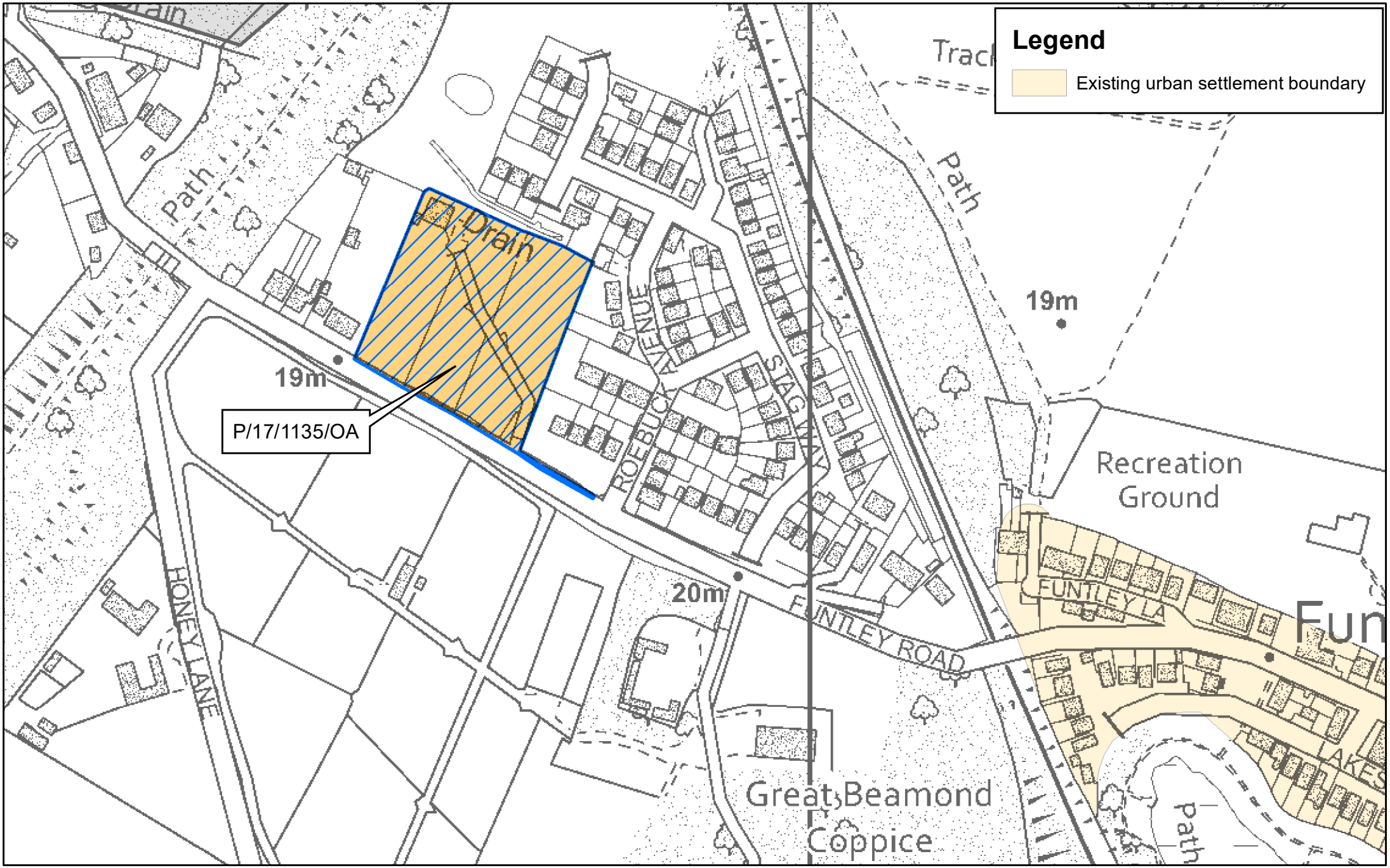

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