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PROPOSED RESIDENTIAL DEVELOPMENT

DILWORTH LANE

LONGRIDGE

TRANSPORT STATEMENT

JULY 2011

DOCUMENT REF: WB/11033/070211



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**PROPOSED RESIDENTIAL DEVELOPMENT
DILWORTH LANE
LONGRIDGE**

TRANSPORT STATEMENT

**PREPARED FOR:
ROWLAND HOMES**

Project No	Date	Status	Version	Prepared By	Approved By
11033	22.03.11	DRAFT	01	NS	IRW
11033	11.04.11	FINAL	02	NS	IRW
11033	04.07.11	FINAL – updated site layout	03	NS	IRW

PROPOSED RESIDENTIAL DEVELOPMENT, LONGRIDGE
TRANSPORT STATEMENT

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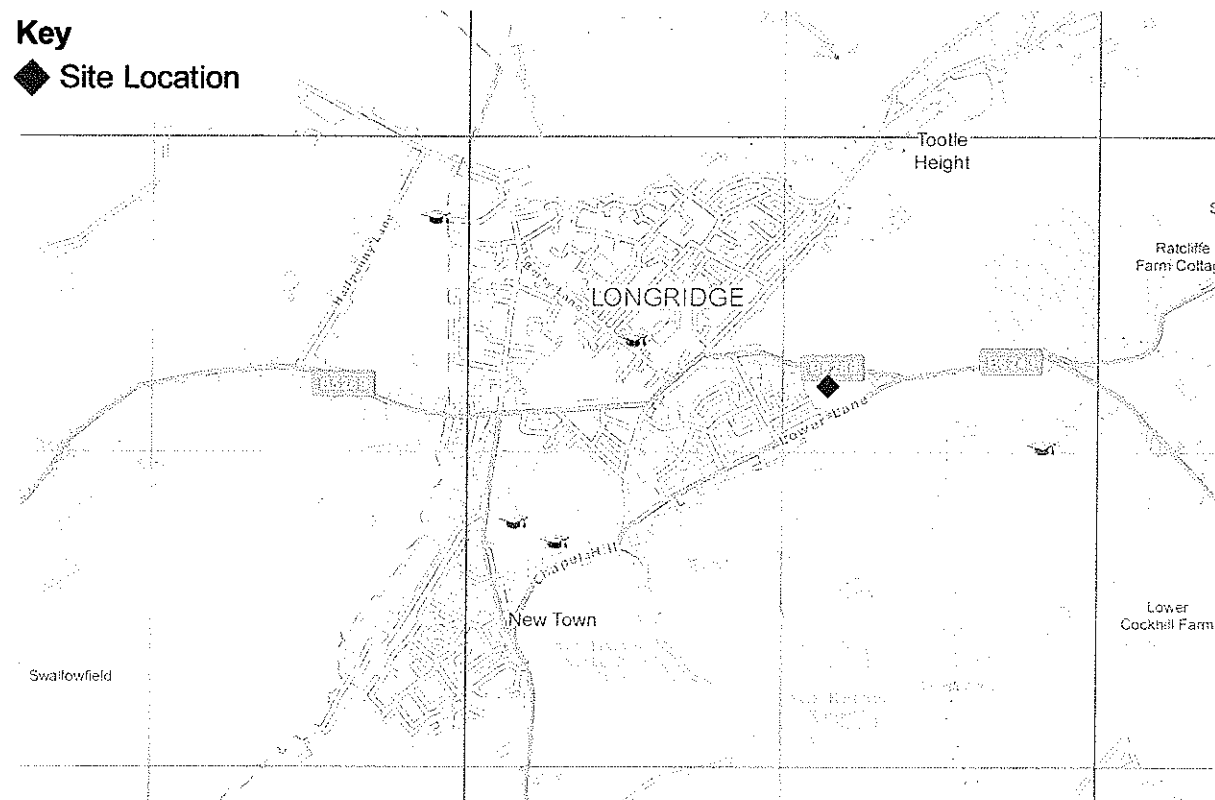
1.0 INTRODUCTION

- 1.1 Singleton Clamp & Partners (SCP) have been instructed to advise on the highway and transportation aspects for proposed residential development in Longridge, near Preston.
- 1.2 The site is located on Dilworth Lane to the east of Longridge town centre, as shown below at SCP1.

SCP1 – Site Location

Key

◆ Site Location



Contains Ordnance Survey data © Crown copyright and database right 2011

- 1.3 The proposals are to provide a total of 49 residential dwellings with associated car parking. The proposed layout of the site is illustrated on the plans at **Appendix 1**.
- 1.4 The remainder of this report is divided into the following sections:
- Section 2 sets out the existing context of the site;
 - Section 3 provides details of the proposed development;
 - Section 4 assesses the trip generation; and
 - Section 5 provides our summary and conclusions.

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2.0 EXISTING SITE CONTEXT

- 2.1 The development site is located on the periphery of Longridge, to the east of the town centre. The site is currently under developed land and is surrounded by residential dwellings to east and west. To the north, the site is bounded by Dilworth Lane and to the south is Lower Lane.

Highway Network

- 2.2 Dilworth Lane borders the northern edge of the development site, which runs in an east – west direction past the site. Dilworth Lane is a B-classified single carriageway road known as the B5269, running from Longridge town centre and connects to Lower Lane at a priority junction, to the east of the site. The speed limit past the site is 30mph but changes to national speed limit approximately 150m to the east of the junction with Lower Lane.
- 2.3 Lower Lane is also a B-classified single carriageway road, known as the B6243, which passes the southern boundary of the development site.
- 2.4 To the west of Longridge, the B5269 connects to Broughton and the A6, while to the south the B6243 connects to Grimsargh and Preston with easy access to J31 of the M6.

Accident Data

- 2.5 Accident data has been obtained from Lancashire Police for the last five years along Dilworth Lane and Lower Lane, including a 200m approach on either side of the junction of Dilworth Lane/Lower Lane. The accident data has been summarised and is included in **Appendix 2.**
- 2.6 There have been a total of 2 accidents along this stretch of road in the last five years. Of these, 1 was slight and 1 was serious. The slight accident occurred due to misjudgement of the speed of the oncoming driver and the serious accident occurred because of ignoring the give way sign at the Dilworth Lane/Lower Lane junction.

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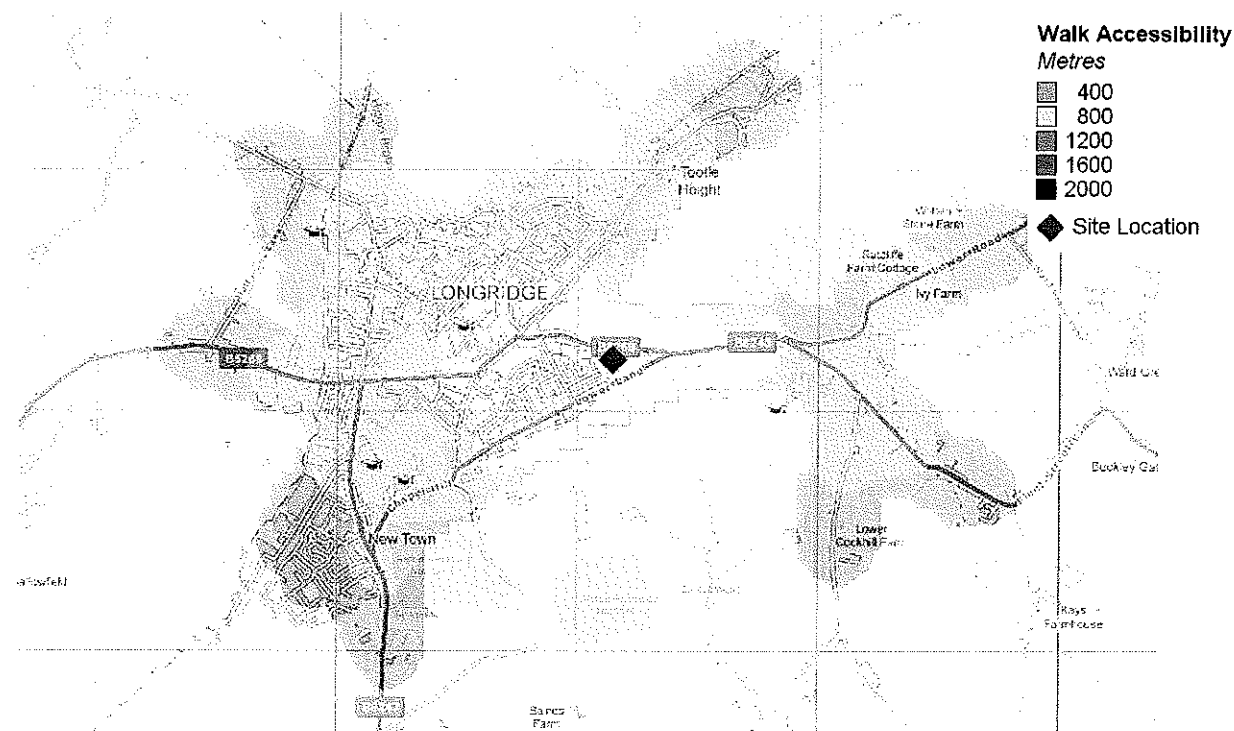
Speed Survey

- 2.7 A survey was undertaken along Dilworth Lane on 16th February 2011, approximately 50m either side of the proposed site access location, to establish the design speed of traffic along the frontage of the site. The results are contained in **Appendix 2** for reference, and demonstrate that the 85th percentile wet weather speed of westbound traffic is 39.4mph and eastbound traffic 36.0mph.

Access by Foot

- 2.8 Dilworth Lane provides a footway along the northern side of the carriageway past the development site, with a southern footway terminating at the north-western corner of the site, next to a residential dwelling. The footways, which are well lit, provide a good quality route into the town centre from the site.
- 2.9 Paragraph 74 of PPG 13 states that *“walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km. Walking also forms an often forgotten part of all longer journeys by public transport and car.”*
- 2.10 Based on this preferred 2km walk distance, the plan below highlights the area accessible within this distance.

SCP2 – Walk Accessibility



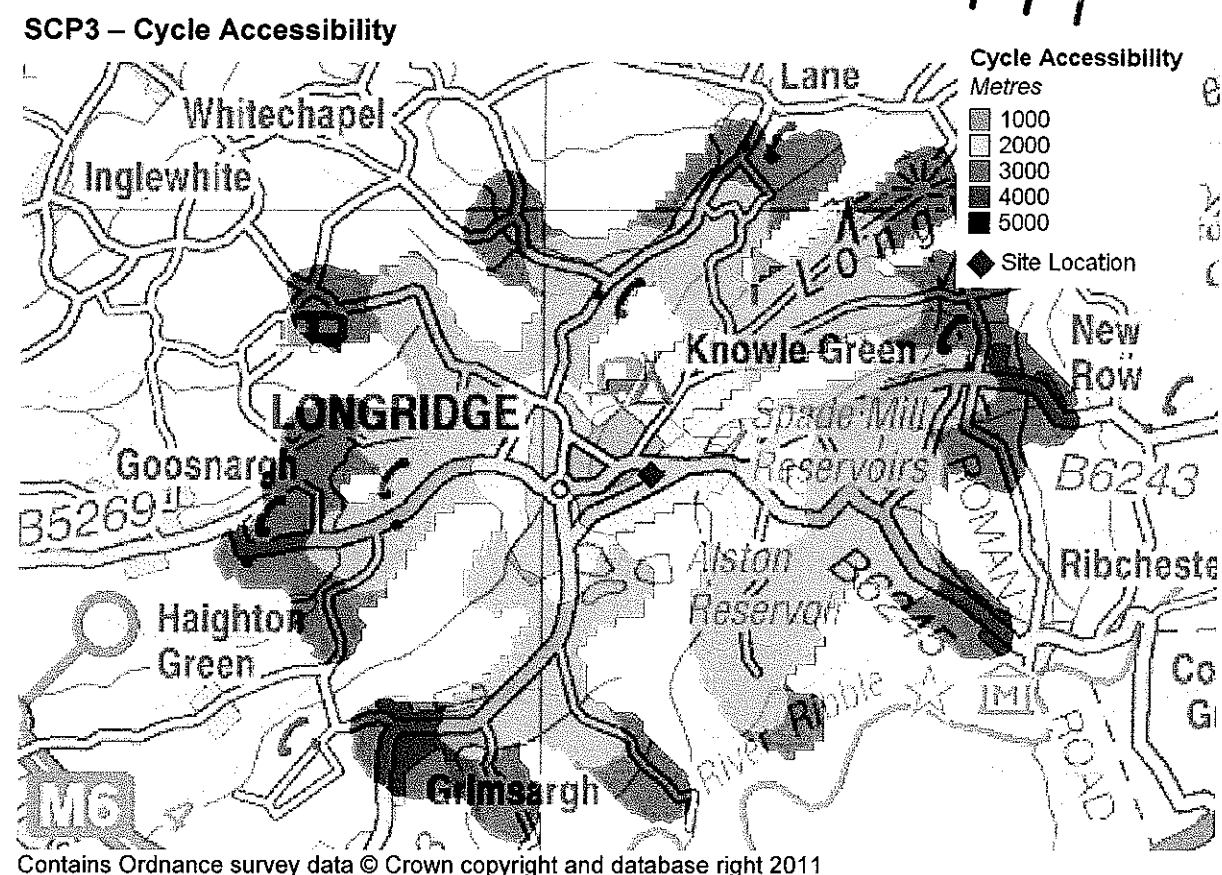
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- 2.11 As the plan shows, the site is within walking distance of the whole of Longridge and New Town. In addition, bus stops can be found within this preferred maximum walk distance, which demonstrates that other towns and cities can be accessed from the development site. Public transport is discussed in more detail below.

Access by Cycle

- 2.12 Opportunities for cycling for commuting purposes from Longridge are limited due to its rural location. However, the site is ideally located for recreational cycling, with an on-road cycle route, known as Regional Route 90 and forms part of the National Cycle Network (NCN), travels directly past the site along Dilworth Lane. Route 90 provides connections to Ribchester and Whalley, to the east of the development site and passes through Longridge town centre to the west of the site. The route continues beyond Longridge and connects to Route 6 of the NCN network adjacent to Goosnargh golf course.
- 2.13 Route 6 is also largely an on-road route, utilising the many country roads found within the Lancashire countryside, providing connections from Preston to Lancaster, via Fulwood and Houghton Green.
- 2.14 A number of other local on-road and traffic-free cycle routes can be found surrounding the site, assisting in providing connections to other designated routes within the local vicinity and surrounding areas.
- 2.15 Paragraph 77 of PPG 13 states that *"cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport."* Based on this preferred 5km cycle distance, the plan below highlights the area accessible within this distance.

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- 2.16 Based on a 5km cycling scenario from the site, areas accessible within this distance includes the whole of Longridge, Knowle Green, Goosnargh and Grimsargh.
- 2.17 Overall, cycling is a viable alternative for residents who may work locally in Longridge or the surrounding villages rather than using the private car. Furthermore, the surrounding area is particularly attractive for recreational cycling.

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Access by Public Transport

- 2.18 Dilworth Lane provides bus stops in very close proximity to the site, which is utilised by school buses. A summary of the 3 school bus services that use these stops is shown below.

Table 2.1 – School Bus Route Summary

Route	Description
106	OUTBOUND: Wilpshire (08:02) – Ribchester (08:16) – Longridge High School (08:33) – Longridge St Cecilia's RC Technology College (08:35)
	INBOUND: Longridge St Cecilia's RC Technology College (15:20) – Longridge High School (15:25) – Ribchester (15:41) – Wilpshire (15:51) – Blackburn (16:06)
625	OUTBOUND: Longridge (08:05) – Ribchester (08:13) – Great Mitton (08:28) – Whalley (08:35) – Billington St Augustine's RC High School (08:40)
	INBOUND: Billington St Augustine's RC High School (15:20) – Whalley (15:25) – Great Mitton (15:33) – Ribchester (15:50) – Longridge (16:00)
876	OUTBOUND: Longridge (07:45) – Knowle Green (08:00) – Calderstone (08:20) – Chatburn Road Grammar School (08:40) – Clitheroe (08:50)
	INBOUND: Chatburn Road Grammar School (14:35) – Clitheroe (14:40) – Calderstone (14:50) – Knowle Green (15:02) – Longridge (15:17)

Source: Lancashire County Council

- 2.19 As the table demonstrates, the school bus routes which utilise Dilworth Lane are ideal for residents living at the development site. Access to the two high schools in Longridge can be reached as well as schools in Billington and Clitheroe, demonstrating that pupils have ideal opportunity to use public transport provision rather than rely on the private car.
- 2.20 In addition, bus stops can be found along King Street, approximately 400m from the site or a 5 minute walk along Dilworth Lane. These stops serve bus route 1, which is a high frequency route to Preston, with bus route 4 also utilising these bus stops
- 2.21 Furthermore, bus routes 3/3A and 5 serve Calf Cote Lane and Lower Lane, to the south and west of the development site, which are local hospital circular services. Along these roads, the services are classed as 'hail and ride' routes due to the bus routes being less frequent services and Calf Cote Lane and Lower Lane not providing bus stops. A pedestrian link will be provided onto Lower Lane as part of the development proposals, allowing for easy connection to these roads, both within 400m. A summary of the routes are shown below.

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Table 2.2 – Bus Route Summary

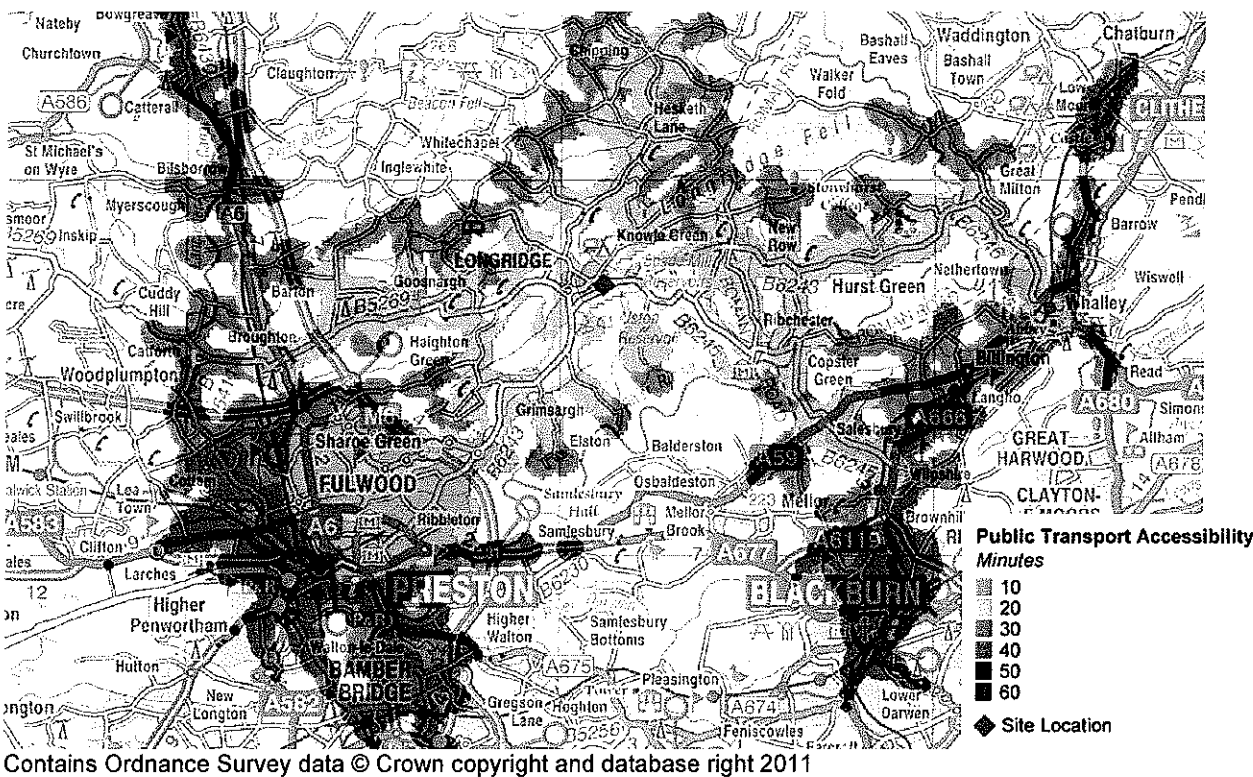
Route	Description	Max. Daytime Frequency
1	Preston – Ribbleton – Grimsargh – Longridge	Every 10 minutes
3 / 3A	Longridge – Ribchester – Wilpshire – Blackburn – Royal Blackburn Hospital	Every 2 hours
4	Chipping – Longridge – Whittingham – Fulwood – Preston	Hourly
5	Longridge – Ribchester – Hurst Green – Whalley – Clitheroe	Every 2 hours

Source: Lancashire County Council

- 2.22 These routes commence from early morning and provide services up until late at night, including Saturdays and Sundays, and offers easy access to Preston city centre when utilising bus service 1.
- 2.23 When accessing Preston, the city centre offers further connections by bus across Lancashire. Also, Preston train station is situated on the West Coast mainline and offers access to Manchester, Blackpool and Liverpool as well as destinations further afield, including London and Edinburgh.
- 2.24 The accessibility of the proposed development site has been used to establish the area covered by a 60 minute public transport journey from the site.

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SCP4 – Public Transport Accessibility



2.25 The plan shows that a large area can be reached by public transport from the site. The areas accessible within 60 minutes include Preston and Blackburn, which are major employment and shopping hubs. The above services demonstrate that buses can be used as a viable alternative to the private car.

Local Facilities

- 2.26 A number of local facilities can be found in Longridge town centre, within a 15 minute walk from the development site. For health facilities, the town centre offers several dentists and GP surgeries, as well as a Lloyd's pharmacy. Combined with Longridge Community Hospital, which is also available nearby, this demonstrates that Longridge is well catered for health facilities.
- 2.27 For shopping, Longridge offers a number of essential everyday facilities, including a Co-operative supermarket, a fruit and vegetable shop and convenience stores. A range of banks are operational with the town centre, while the local post office can be found on Berry Lane and is open 6 days a week.

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- 2.28 In terms of education provision, Longridge primary school can be accessed within a 10 minute walk from the development site, with Barnacre primary and Longridge St Wilfrid's Roman Catholic primary schools being accessible within a 25 minute walk or using bus services 3/3A and 5. In addition, St Cecilia's Roman Catholic Technology College and Longridge High School are both accessible within a 20 minute walk or via school bus route 106 which can be accessed from bus stops on Dilworth Lane.
- 2.29 For employment, Longridge town centre provides local opportunities, while located just south of Grimsargh, along Longridge Road, are several large industrial estates providing significant employment opportunities. These industrial estates, namely Rough Hay and Roman Way, can be accessed when utilising bus service 1 from Longridge town centre.
- 2.30 In addition, Preston city centre, which can also be accessed when using bus route 1, is a major employment hub in Lancashire.

Accessibility Questionnaire

- 2.31 An accessibility questionnaire for residential development has been produced by Lancashire County Council as part of the Supplementary Planning Guidance for "Access and Parking", which is attached at **Appendix 3**.
- 2.32 The development site has achieved a score of 26, which equates to 'medium' accessibility based on the total score.

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3.0 DEVELOPMENT PROPOSALS

- 3.1 The extents of the development site are illustrated on the plan provided at **Appendix 1**. The planning application is for the development of 49 residential dwellings and associated car parking
- 3.2 A new access will be provided into the site from Dilworth Lane. The carriageway will have a radius of 6m and width of 5.5m along the length of the access. This will allow for refuse vehicles and emergency vehicles to safely access the development.
- 3.3 Based on the speed survey which was undertaken along Dilworth Lane on the 16th February 2011, the 85th percentile wet weather speed of eastbound traffic is 36.0mph and westbound traffic 39.4mph although the site is located in a 30mph zone. Based on the speeds recorded, visibility splays of 2.4 x 56m will be required from the site access, which are achievable and are demonstrated at **Appendix 4**.
- 3.4 Furthermore, 'dragon's teeth' markings will be introduced along Dilworth Lane upon entry into the 30mph zone, alongside upgrading of the speed signs.
- 3.5 In addition, as part of the development proposals, a footway which terminates at the north-western edge of the development site will be extended to allow residents living at the site to be able to access the town centre safely to the west, with the footway being continued along the site frontage to allow residents living at the site to safely access the bus stops on Dilworth Lane, which serve school bus services, as highlighted in Section 2. The footways will be continued into the site with a width of 1.8m.
- 3.6 The bus stop serving westbound routes on Dilworth Lane, which is currently located outside a residential dwelling called Gardeners Cottage, will be relocated to the west in conjunction with the new footway being instated along the site frontage. This is to ensure that pupils accessing the school buses from this location can do so safely. The footways are shown at **Appendix 4**.
- 3.7 A pedestrian route will also be provided to the eastern edge of the site, connecting to Lower Lane with public open space, adjacent to Lower Lane at the south-eastern edge of the site, providing a play area for residents at the site and the surrounding local community.

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4.0 TRIP ASSESSMENT

- 4.1 Traffic flows were recorded at the Dilworth Lane/Blackburn Road/Lower Lane junction on 16th February 2011 between 07:00 – 09:00 and 16:00 – 18:00 to assess the morning and evening peak hour turning movements. The peak hours are identified as being 07:30 – 08:30 for the morning peak and 16:30 – 17:30 for the evening peak.
- 4.2 A forecast of future development traffic has been undertaken using the TRICS database of previously surveyed sites. For the TRICS assessment, the 'Residential – Houses Privately Owned' category has been selected, within England (but excluding Greater London) with between 5 and 100 dwellings from 01/01/2002 to represent the size of site and to provide sufficient data points for accuracy of trip rates.
- 4.3 Average trip rates have been used for the busiest survey day of each site and the resulting development traffic, as set out in **Table 4.1**. Details of the trip rate assessment are provided at **Appendix 5**.

Table 4.1 - Trip summary for 'privately owned houses'

Peak Hour	Trip Rates (per household)			Development Trips (49 households)		
	In	Out	Total	In	Out	Total
AM Peak	0.173	0.394	0.567	8	19	27
PM Peak	0.409	0.238	0.647	20	12	32

Source: TRICS 2011(a)

- 4.4 Table 4.1 indicates a total of 27 two-way trips in the AM peak and 32 two-way trips in the PM peak, which results in the proposed development generating up to 1 vehicle every two minutes on the highway network in the busiest period.
- 4.5 When the development related traffic for the peak hours is distributed as inbound and outbound movements then to the east and west from the site access, it can be expected that the proposals will have a negligible impact overall.

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5.0 SUMMARY & CONCLUSIONS

- 5.1 Singleton Clamp & Partners (SCP) have been instructed to advise on the highway and traffic aspects of the development of residential dwellings on Dilworth Lane in Longridge
- 5.2 The proposed development will consist of 49 dwellings and associated car parking. A new access will serve the development site, which will be 5.5m wide with 1.8m wide footways and will achieve visibility splays of 24 x 56m.
- 5.3 As part of the proposals, the site will relocate the westbound bus stop on Dilworth Lane to safely accommodate school pupils using the school buses, alongside a new footway fronting the site; 'dragon's teeth' markings will be introduced along Dilworth Lane upon entry into the 30mph zone and upgrading of the speed signs and a new pedestrian link will be provided onto Lower Lane as well as a play area for the local community.
- 5.4 Bus stops can be found near the development site on King Street, with regular routes serving the local area and high frequency buses to Preston. In addition, school buses serve bus stops along Dilworth Lane providing connections to schools in Longridge, Billington and Clitheroe.
- 5.5 Local amenities are available within walking distance of the development site, including a post office, convenience stores and health facilities, as well as primary and secondary schools.
- 5.6 The proposed development is expected to generate up to 1 vehicle every two minutes during weekday peak hours. This impact is considered to have a negligible impact on the highway network.
- 5.7 For the reasons set out above, we believe there are no new highway or traffic related issues caused as a result of this proposed development and that the development should be recommended for approval on this basis.

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APPENDICES

Please see
Site Plan 2

1

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2

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Calculation of 85th%ile Speeds

Location: AM+PM Westbound Speeds 50m on approach to Proposed Access - along B5269 Dilworth Lane Longridge

Date: 16.02.11

Weather Dry

Speed (mph)	Frequency	f*x	Speed (mph)	Frequency	Class Mark	x - mean	e*f
x	f	f*x	Band	f	x	e	e*f
7	0	0	5.5-7.4	0	7	841.87	0.00
8	0	0	7.5-8.4	0	8	784.84	0.00
9	0	0	8.5-9.4	0	9	729.81	0.00
10	0	0	9.5-10.4	0	10	676.78	0.00
11	0	0	10.5-11.4	0	11	625.75	0.00
12	0	0	11.5-12.4	0	12	576.72	0.00
13	0	0	12.5-13.4	0	13	529.69	0.00
14	0	0	13.5-14.4	0	14	484.66	0.00
15	0	0	14.5-15.4	0	15	441.63	0.00
16	0	0	15.5-16.4	0	16	400.60	0.00
17	0	0	16.5-17.4	0	17	361.57	0.00
18	0	0	17.5-18.4	0	18	324.54	0.00
19	0	0	18.5-19.4	0	19	289.51	0.00
20	0	0	19.5-20.4	0	20	256.48	0.00
21	0	0	20.5-21.4	0	21	225.45	0.00
22	0	0	21.5-22.4	0	22	196.42	0.00
23	0	0	22.5-23.4	0	23	169.39	0.00
24	0	0	23.5-24.4	0	24	144.36	0.00
25	0	0	24.5-25.4	0	25	121.33	0.00
26	1	26	25.5-26.4	1	26	100.30	100.30
27	2	54	26.5-27.4	2	27	81.27	162.54
28	6	168	27.5-28.4	6	28	64.24	385.44
29	14	406	28.5-29.4	14	29	49.21	688.94
30	15	450	29.5-30.4	15	30	36.18	542.70
31	14	434	30.5-31.4	14	31	25.15	352.10
32	13	416	31.5-32.4	13	32	16.12	209.56
33	13	429	32.5-33.4	13	33	9.09	118.17
34	20	680	33.5-34.4	20	34	4.06	81.20
35	8	280	34.5-35.4	8	35	1.03	8.24
36	13	468	35.5-36.4	13	36	0.00	0.00
37	5	185	36.5-37.4	5	37	0.97	4.85
38	14	532	37.5-38.4	14	38	3.94	55.16
39	5	195	38.5-39.4	5	39	8.91	44.55
40	13	520	39.5-40.4	13	40	15.88	208.44
41	8	328	40.5-41.4	8	41	24.85	198.80
42	10	420	41.5-42.4	10	42	35.82	358.20
43	8	344	42.5-43.4	8	43	48.79	390.32
44	2	88	43.5-44.4	2	44	63.76	127.52
45	1	45	44.5-45.4	1	45	80.73	80.73
46	4	184	45.5-46.4	4	46	99.70	398.80
47	4	188	46.5-47.4	4	47	120.67	482.68
48	1	48	47.5-48.4	1	48	143.64	143.64
49	1	49	48.5-49.4	1	49	168.61	168.61
50	1	50	49.5-50.4	1	50	195.58	195.58
51	1	51	50.5-51.4	1	51	224.55	224.55
52	2	104	51.5-52.4	2	52	255.52	511.04
53	0	0	52.5-53.4	0	53	288.49	0.00
54	0	0	53.5-54.4	0	54	323.46	0.00
55	0	0	54.5-55.4	0	55	360.43	0.00
56	0	0	55.5-56.4	0	56	399.40	0.00
57	0	0	56.5-57.4	0	57	440.37	0.00
58	0	0	57.5-58.4	0	58	483.34	0.00
59	0	0	58.5-59.4	0	59	528.31	0.00
60	0	0	59.5-60.4	0	60	575.28	0.00
61	1	61	60.5-61.4	1	61	624.25	624.25
62	0	0	61.5-62.4	0	62	675.22	0.00
63	0	0	62.5-63.4	0	63	728.19	0.00
64	0	0	63.5-64.4	0	64	783.16	0.00
65	0	0	64.5-65.4	0	65	840.13	0.00
66	0	0	65.5-66.4	0	66	899.10	0.00
67	0	0	66.5-67.4	0	67	960.07	0.00
68	0	0	67.5-68.4	0	68	1023.04	0.00
69	0	0	68.5-69.4	0	69	1088.01	0.00
70	0	0	69.5-70.4	0	70	1154.98	0.00
71	0	0	70.5-71.4	0	71	1223.95	0.00
72	0	0	71.5-72.4	0	72	1294.92	0.00
Total	200	7203	Total	200			6864.96

Table 1

Table 2

Therefore:

Mean Speed = $\sum (f \cdot x) / \sum f$ 36.02 mph

SD = $\sqrt{\sum (e \cdot f) / \sum f}$ 5.873 mph

85th%ile = Mean Speed + Standard Deviation

85th%ile Dry Condition 41.89 mph

or

67.40 kph

85th%ile Wet Condition 39.39 mph

or

63.38 kph

Drawing No.

APPENDIX

Date

FEBRUARY 2011

Drawing Title

DERIVATION OF 85TH PERCENTILE TRAFFIC SPEEDS -
AM+PM WESTBOUND SPEEDS 50M ON APPROACH TO
PROPOSED ACCESS ALONG B5269 DILWORTH LANE
LONGRIDGE

Project Title

DILWORTH LANE, LONGRIDGE

Singleton Clamp
& PARTNERS

Consulting Engineers and Transportation Planners

320110541P

Calculation of 85th%ile Speeds

Location: AM+PM Eastbound Speeds 50m on approach to Proposed Access - along B5269 Dilworth Lane, Longridge

Date: 16.02.11

Weather: Dry

Speed (mph)	Frequency	f*x	Speed (mph)	Frequency	Class Mark	x - mean	e ²
x	f	f*x	Band	f	x	e	e ²
7	0	0	6.5-7.4	0	7	759.28	0.00
8	0	0	7.5-8.4	0	8	705.17	0.00
9	0	0	8.5-9.4	0	9	653.06	0.00
10	0	0	9.5-10.4	0	10	602.95	0.00
11	0	0	10.5-11.4	0	11	554.84	0.00
12	0	0	11.5-12.4	0	12	508.73	0.00
13	0	0	12.5-13.4	0	13	464.62	0.00
14	0	0	13.5-14.4	0	14	422.51	0.00
15	0	0	14.5-15.4	0	15	382.40	0.00
16	0	0	15.5-16.4	0	16	344.29	0.00
17	0	0	16.5-17.4	0	17	308.18	0.00
18	0	0	17.5-18.4	0	18	274.07	0.00
19	0	0	18.5-19.4	0	19	241.96	0.00
20	0	0	19.5-20.4	0	20	211.85	0.00
21	0	0	20.5-21.4	0	21	183.74	0.00
22	0	0	21.5-22.4	0	22	157.63	0.00
23	0	0	22.5-23.4	0	23	133.52	0.00
24	0	0	23.5-24.4	0	24	111.41	0.00
25	2	50	24.5-25.4	2	25	91.30	182.60
26	0	0	25.5-26.4	0	26	73.19	0.00
27	2	54	26.5-27.4	2	27	57.08	114.16
28	1	28	27.5-28.4	1	28	42.97	42.97
29	9	261	28.5-29.4	9	29	30.86	277.72
30	18	540	29.5-30.4	18	30	20.75	373.46
31	16	496	30.5-31.4	16	31	12.64	202.21
32	16	512	31.5-32.4	16	32	6.53	104.45
33	19	627	32.5-33.4	19	33	2.42	45.94
34	27	918	33.5-34.4	27	34	0.31	8.32
35	18	630	34.5-35.4	18	35	0.20	3.56
36	10	360	35.5-36.4	10	36	2.09	20.88
37	15	555	36.5-37.4	15	37	5.98	89.67
38	13	494	37.5-38.4	13	38	11.87	154.28
39	12	468	38.5-39.4	12	39	19.76	237.10
40	11	440	39.5-40.4	11	40	29.65	326.13
41	3	123	40.5-41.4	3	41	41.54	124.61
42	1	42	41.5-42.4	1	42	55.43	55.43
43	2	86	42.5-43.4	2	43	71.32	142.64
44	1	44	43.5-44.4	1	44	89.21	89.21
45	2	90	44.5-45.4	2	45	109.10	218.20
46	1	46	45.5-46.4	1	46	130.99	130.99
47	1	47	46.5-47.4	1	47	154.88	154.88
48	0	0	47.5-48.4	0	48	180.77	0.00
49	0	0	48.5-49.4	0	49	208.66	0.00
50	0	0	49.5-50.4	0	50	238.55	0.00
51	0	0	50.5-51.4	0	51	270.44	0.00
52	0	0	51.5-52.4	0	52	304.33	0.00
53	0	0	52.5-53.4	0	53	340.22	0.00
54	0	0	53.5-54.4	0	54	378.11	0.00
55	0	0	54.5-55.4	0	55	418.00	0.00
56	0	0	55.5-56.4	0	56	459.89	0.00
57	0	0	56.5-57.4	0	57	503.78	0.00
58	0	0	57.5-58.4	0	58	549.67	0.00
59	0	0	58.5-59.4	0	59	597.56	0.00
60	0	0	59.5-60.4	0	60	647.45	0.00
61	0	0	60.5-61.4	0	61	699.34	0.00
62	0	0	61.5-62.4	0	62	753.23	0.00
63	0	0	62.5-63.4	0	63	809.12	0.00
64	0	0	63.5-64.4	0	64	867.01	0.00
65	0	0	64.5-65.4	0	65	926.90	0.00
66	0	0	65.5-66.4	0	66	988.79	0.00
67	0	0	66.5-67.4	0	67	1052.68	0.00
68	0	0	67.5-68.4	0	68	1118.57	0.00
69	0	0	68.5-69.4	0	69	1186.46	0.00
70	0	0	69.5-70.4	0	70	1256.35	0.00
71	0	0	70.5-71.4	0	71	1328.24	0.00
72	0	0	71.5-72.4	0	72	1402.13	0.00
Total	200	6911	Total	200		3099.40	

Table 1

Table 2

Therefore:

Mean Speed = $\sum (f \cdot x) / \sum f$ 34.56 mph
SD = $\sqrt{\sum (e^2) / \sum f}$ 3.946 mph

85th%ile = Mean Speed + Standard Deviation

85th%ile Dry Condition 38.50 mph
or
61.95 kph

85th%ile Wet Condition 36.00 mph
or
57.93 kph

Drawing No. APPENDIX	Drawing Title DERIVATION OF 85TH PERCENTILE TRAFFIC SPEEDS - AM+PM EASTBOUND SPEEDS 50m ON APPROACH TO PROPOSED ACCESS ALONG B5269 DILWORTH LANE, LONGRIDGE	 Consulting Engineers and Transportation Planners
Date FEBRUARY 2011	Project Title DILWORTH LANE LONGRIDGE	

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Accessibility questionnaire – residential development				
Application reference: <i>Dilworth Lane, Longridge</i>				
Site description: <i>Residential Development</i>				
Access type	Criteria	Criteria scores		Sub-score
Walking distance from the centre of the site to facilities using a safe, direct route	Distance to nearest bus stop	<200m	5	3
		<400m	3	
		<500m	1	
		>500m	0	
	Distance to nearest railway station	<400m	3	1
		<800m	2	
		>800m	1	
	Distance to nearest primary school	<200m	5	0
		<400m	3	
		<600m	1	
		>600m	0	
	Distance to nearest food shop	<200m	5	0
<400m		3		
<600m		1		
>600m		0		
Cycling distance from the centre of the site	Distance to defined on- or off-road cycle route	<100m	3	3
		<500m	2	
		<1km	1	
	Distance to the nearest secondary school	<400m	3	0
		<600m	2	
		<1km	1	
		>1km	0	
	Distance to the nearest town centre	<1km	3	3
		<3km	2	
		<4km	1	
Distance to the nearest business park or employment concentration	<1km	3	0	
	<3km	2		
	<4km	1		
Public transport	Bus frequency from the nearest bus stop (Monday to Saturday daytime)	Urban/Suburban		5
		15 minutes or less	5	
		30 minutes or less	3	
		>30 minutes	1	
		Rural Areas including Villages		
		Hourly or less	5	
	Train frequency from nearest station (Mon-Sat daytime)	30 minutes or less	3	2
		30 to 59 minutes	2	
		Hourly	1	
Other	Access to other basic services (GP, post office, library, bank and pub)	At least 3 within 400m	5	1
		At least 3 within 800m	3	
		At least 3 within 1.5km	1	
	Access to a play area or park	<200m	5	5
		<400m	3	
		<600m	1	
Total				26

Accessibility level

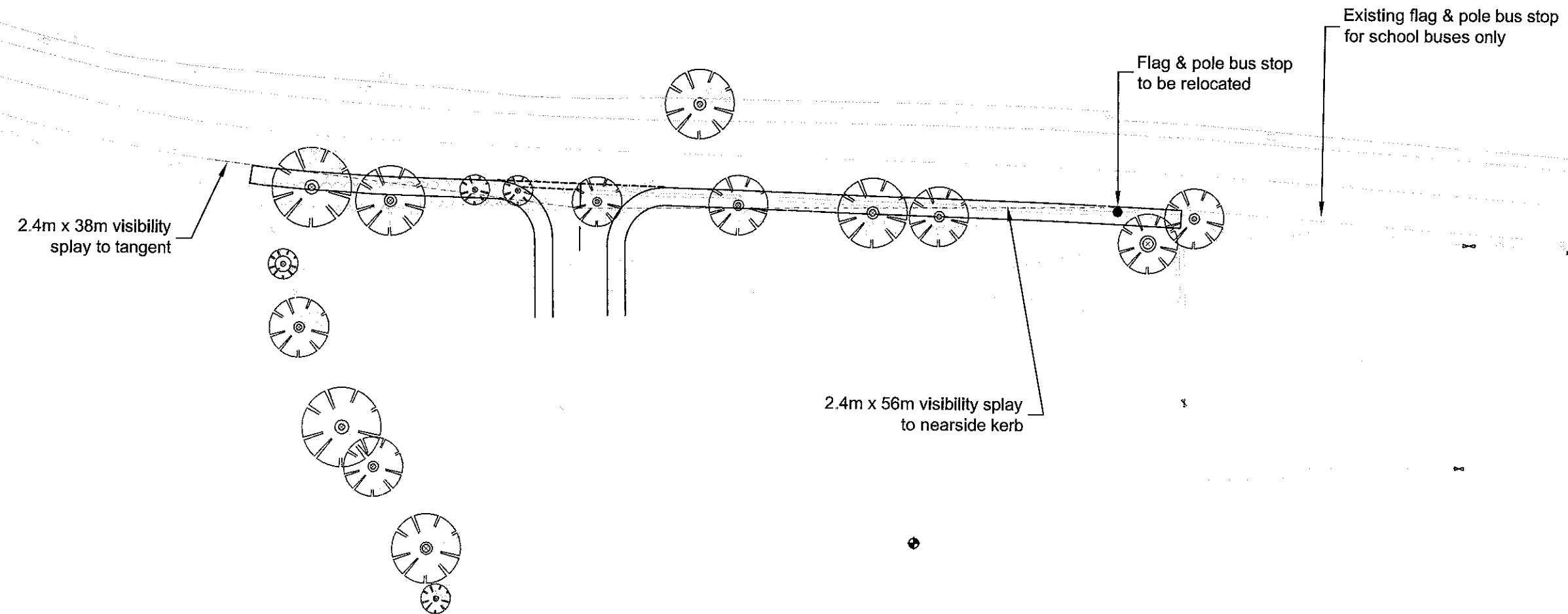
High: 35-48 Medium: 20-35 Low: less than 20

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Singleton Clamp
& PARTNERS

Consulting Engineers and Transportation Planners
2 Mount Street, Albert Square, Manchester M2 5WQ
Tel 0161 832 4400, Fax 0161 832 5111, Email consult@singletonclamp.co.uk

Drawing Title

PROPOSED SITE ACCESS

Drawing No.

11033/001

Date

APRIL 2010

Job Title

PROPOSED RESIDENTIAL DEVELOPMENT, DILWORTH LANE, LONGRIDGE

Drawn By

NS

Scale

1:500 @ A3

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TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

- 03 SOUTH WEST
WL WILTSHIRE 1 days
- 05 EAST MIDLANDS
DS DERBYSHIRE 1 days
LE LEICESTERSHIRE 1 days
- 06 WEST MIDLANDS
SH SHROPSHIRE 1 days
WM WEST MIDLANDS 1 days
WO WORCESTERSHIRE 1 days
- 07 YORKSHIRE & NORTH LINCOLNSHIRE
NY NORTH YORKSHIRE 1 days
- 08 NORTH WEST
CH CHESHIRE 1 days
LC LANCASHIRE 1 days
- 09 NORTH
CB CUMBRIA 3 days
TW TYNE & WEAR 1 days

Filtering Stage 2 selection:

Parameter: Number of dwellings
Range: 10 to 99 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/02 to 05/09/10

Selected survey days:

- Monday 4 days
- Tuesday 4 days
- Wednesday 1 days
- Thursday 2 days
- Friday 2 days

Selected survey types:

- Manual count 13 days
- Directional ATC Count 0 days

Selected Locations:

- Edge of Town 12
- Neighbourhood Centre (PPS6 Local Centre) 1

Selected Location Sub Categories:

- Residential Zone 9
- No Sub Category 4

LIST OF SITES relevant to selection parameters

1	CB-03-A-02	SEMI DETACHED, WORKINGTON	CUMBRIA
	HAWKSHEAD AVENUE		
	WORKINGTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 40		
2	CB-03-A-03	SEMI DETACHED, WORKINGTON	CUMBRIA
	HAWKSHEAD AVENUE		
	WORKINGTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 40		
3	CB-03-A-04	SEMI DETACHED, WORKINGTON	CUMBRIA
	MOORCLOSE ROAD		
	SALTERBACK		
	WORKINGTON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 82		
4	CH-03-A-05	DETACHED, CREWE	CHESHIRE
	SYDNEY ROAD		
	SYDNEY		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 17		
5	DS-03-A-01	SEMI D./TERRACED, DRONFIELD	DERBYSHIRE
	THE AVENUE		
	HOLMESDALE		
	DRONFIELD		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Number of dwellings: 20		
6	LC-03-A-22	BUNGALOWS, BLACKPOOL	LANCASHIRE
	CLIFTON DRIVE NORTH		
	BLACKPOOL		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 98		
7	LE-03-A-01	DETACHED, MELTON MOWBRAY	LEICESTERSHIRE
	REDWOOD AVENUE		
	MELTON MOWBRAY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 11		
8	NY-03-A-05	HOUSES AND FLATS, RIPON	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD		
	RIPON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 71		
9	SH-03-A-03	DETACHED, SHREWSBURY	SHROPSHIRE
	SOMERBY DRIVE		
	BICTON HEATH		
	SHREWSBURY		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 10		

LIST OF SITES relevant to selection parameters (Cont.)

10	TW-03-A-01	SEMI DETACHED, SUNDERLAND	TYNE & WEAR
	LEECHMERE ROAD		
	HILLVIEW		
	SUNDERLAND		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	81	
11	WL-03-A-01	SEMI D./TERRACED W. BASSETT	WILTSHIRE
	MAPLE DRIVE		
	WOOTTON BASSETT		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	99	
12	WM-03-A-03	MIXED HOUSING, COVENTRY	WEST MIDLANDS
	BASELEY WAY		
	ROWLEYS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	84	
13	WO-03-A-02	SEMI DETACHED, REDDITCH	WORCESTERSHIRE
	MEADOWHILL ROAD		
	REDDITCH		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	48	

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	13	54	0.078	13	54	0.251	13	54	0.329
08:00 - 09:00	13	54	0.173	13	54	0.394	13	54	0.567
09:00 - 10:00	13	54	0.210	13	54	0.237	13	54	0.447
10:00 - 11:00	13	54	0.171	13	54	0.193	13	54	0.364
11:00 - 12:00	13	54	0.218	13	54	0.205	13	54	0.423
12:00 - 13:00	13	54	0.241	13	54	0.187	13	54	0.428
13:00 - 14:00	13	54	0.205	13	54	0.223	13	54	0.428
14:00 - 15:00	13	54	0.228	13	54	0.208	13	54	0.436
15:00 - 16:00	13	54	0.295	13	54	0.257	13	54	0.552
16:00 - 17:00	13	54	0.374	13	54	0.237	13	54	0.611
17:00 - 18:00	13	54	0.409	13	54	0.238	13	54	0.647
18:00 - 19:00	13	54	0.291	13	54	0.214	13	54	0.505
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			2.893			2.844			5.737

Parameter summary

Trip rate parameter range selected: 10 - 99 (units:)
Survey date date range: 01/01/02 - 05/09/10
Number of weekdays (Monday-Friday): 13
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0