DEVELOPMENT
SERVICES
10 SEP 2008
RECEIVED

APPENDIX 2
SPEED SURVEY DATA

Calculation of 85th%ile Dry and Wet Weather Speeds
Location Fenn Lane Fenny Drayton
Date: 18-Jun-08 **Southwest bound**
Weather Dull & dry

Speed (mph	Frequency	
x	f	f*x
[illegible]	0	0
[illegible]	0	0
[illegible]	0	0
10	0	0
11	0	0
12	0	0
[illegible]	0	0
[illegible]	0	0
[illegible]	0	0
16	0	0
17	0	0
18	0	0
[illegible]	0	0
[illegible]	0	0
[illegible]	0	0
22	0	0
23	0	0
24	0	0
[illegible]	0	0
[illegible]	0	0
[illegible]	0	0
28	0	0
29	0	0
30	0	0
[illegible]	0	0
[illegible]	0	0
[illegible]	1	33
34	0	0
35	1	35
36	0	0
[illegible]	1	37
[illegible]	3	114
[illegible]	0	0
40	2	80
41	2	82
42	4	168
[illegible]	4	172
[illegible]	5	220
[illegible]	7	315
46	9	414
47	7	329
48	4	192
[illegible]	10	490
[illegible]	6	300
[illegible]	6	306
52	2	104
53	3	159
54	3	162

Speed mph	Frequency	Class Mark	x - mean	
	f	x	e	e*f
6.5-9.5	0	8	618.52	0.00
9.5-12.5	0	11	478.30	0.00
12.5-15.5	0	14	356.08	0.00
15.5-18.5	2	17	251.86	503.71
18.5-21.5	0	20	165.64	0.00
21.5-24.5	34	23	97.42	3312.17
24.5-27.5	0	26	47.20	0.00
27.5-30.5	20	29	14.98	299.54
30.5-33.5	1	32	0.76	0.76
33.5-36.5	1	35	4.54	4.54
36.5-39.5	4	38	26.32	105.27
39.5-42.5	8	41	66.10	528.78
42.5-45.5	16	44	123.88	1982.03
45.5-48.5	20	47	199.66	3993.14
48.5-51.5	22	50	293.44	6455.61
51.5-54.5	8	53	405.22	3241.74
54.5-57.5	5	56	535.00	2674.98
57.5-60.5	13	59	682.78	8876.10
60.5-63.5	1	62	848.56	848.56
63.5-66.5	1	65	1032.34	1032.34
66.5-69.5	0	68	1234.12	0.00
69.5-72.5	0	71	1453.90	0.00
72.5-75.5	0	74	1691.68	0.00
75.5-78.5	0	77	1947.46	0.00
Total	156			33859.26

Table 2

55	2	110
56	2	112
57	1	57
58	3	174
59	3	177
60	7	420
61	0	0
62	1	62
63	0	0
64	1	64
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
Total	100	3287

Table 1

Mean Speed = sum (f*x)/x

Therefore: 32.87 mph

SD = SQRT(sum(e*f))/sum(f)

SD = 14.780 mph

85th%ile = Mean Speed + Standard Deviation

85th%ile Dry Weather

47.65 mph
or
76.67 kph

85th%ile Wet Weather - 4 kph or 2.49 mph

45.16 mph
or
72.66 kph

Calculation of 85th%ile Dry and Wet Weather Speeds
Location: High Street Skellingthorpe Speed Survey
Date: 20-Apr-05 NORTH-EASTBOUND
Weather: Dull & Dry

Speed (mph)	Frequency	
x	f	f*x
1	0	0
2	0	0
3	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	3	108
37	2	74
38	1	38
39	5	195
40	4	160
41	3	123
42	5	210
43	5	215
44	8	352
45	4	180
46	7	322
47	3	141
48	8	384
49	6	294
50	4	200
51	7	357
52	3	156
53	3	159
54	2	108

Speed mph	Frequency	Class Mark	x - mean	
	f	x	e	e*f
6.5-9.5	0	8	651.78	0.00
9.5-12.5	0	11	507.60	0.00
12.5-15.5	0	14	381.42	0.00
15.5-18.5	2	17	273.24	546.48
18.5-21.5	0	20	183.06	0.00
21.5-24.5	34	23	110.88	3769.95
24.5-27.5	0	26	56.70	0.00
27.5-30.5	20	29	20.52	410.42
30.5-33.5	0	32	2.34	0.00
33.5-36.5	3	35	2.16	6.48
36.5-39.5	8	38	19.98	159.85
39.5-42.5	12	41	55.80	669.61
42.5-45.5	17	44	109.62	1863.56
45.5-48.5	18	47	181.44	3265.94
48.5-51.5	17	50	271.26	4611.44
51.5-54.5	8	53	379.08	3032.65
54.5-57.5	9	56	504.90	4544.11
57.5-60.5	4	59	648.72	2594.88
60.5-63.5	3	62	810.54	2431.62
63.5-66.5	1	65	990.36	990.36
66.5-69.5	0	68	1188.18	0.00
69.5-72.5	0	71	1404.00	0.00
72.5-75.5	0	74	1637.82	0.00
75.5-78.5	0	77	1889.64	0.00
Total	156			28897.34

Table 2

northeastbound

55	4	220
56	4	224
57	1	57
58	0	0
59	1	59
60	3	180
61	0	0
62	2	124
63	1	63
64	0	0
65	0	0
66	1	66
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
Total	100	3353

Table 1

Mean Speed = sum (f*x)/x

Therefore: 33.53 mph

SD = SQRT(sum(e*f))/sum(f)

SD = 13.654 mph

85th%ile = Mean Speed + Standard Deviation

85th%ile Dry Weather

47.18 mph
or
75.92 kph

85th%ile Wet Weather - 4 kph or 2.49 mph

44.69 mph
or
71.91 kph

data	Westbounc
33	36
35	36
37	36
38	37
38	37
38	38
40	39
40	39
41	39
41	39
42	39
42	40
42	40
42	40
43	40
43	41
43	41
43	41
44	42
44	42
44	42
44	42
44	42
45	43
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60	56
60	57
60	59
60	60
60	60
60	60
60	62
62	62
64	63
79	66

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HIGHWAY STATEMENT
FENNY DRAYTON
COMPOSTING FACILITY
FENN LANE
FENNY DRAYTON
NUNEATON

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Prepared by: - B Armstrong Date: - JULY 2008 Report No: - BA/SE/Fenny Drayton

1.0 INTRODUCTION

1.1 We have been commissioned by Silkstone Environmental Ltd to produce a highway statement to support a planning application for a composting facility at Fenn Lane, Fenny Drayton, Nuneaton.

1.2 This report will consider the highway implications of the proposals including traffic generation, access details including visibility. The report will also consider whether any improvements to the access to Fenn Lane and the access road to the site are required.

2.0 EXISTING SITUATION

2.1 The site is located off Fenn Lane, approximately 1km from the village of Fenny Drayton and the A444.

2.2 Fenn Lane is a classified highway (C6113) and is subject to a 60 mph national speed limit. It is a single carriageway and is unlit.

2.3 The site itself is located approximately 1km from Fenn Lane and is accessed via a surfaced access road which serves the site, which was a former RAF site involving electrical supply and generation. The access also serves an existing farm.

2.4 Fenn Lane joins the A444 at a staggered crossroads at Fenny Drayton village.

2.5 Accident statistics were purchased from Leicestershire County Council for the last five years, for Fenn Lane between the site access and including the junction with the A444. During this five year period there has been 10 accidents, nine of which were categorised as slight and 1 serious. The accident data is included in Appendix 1 and this report will consider the accidents in more detail later.

2.6 Whilst the speed limit on Fenn Lane is 60 mph, site observations suggested that the actual speed would be less. Consequently a speed survey was undertaken at the site access point to establish the 85th percentile wet weather speed of traffic using Fenn Lane in each direction. The survey was carried out in accordance with guidance given in TA22/81. The survey data is given in Appendix 2 and can be summarised as follows: the southwest bound 85th percentile wet weather speed is 45.16 mph and the northeast bound 44.69 mph, both of which are significantly below the 60 mph national speed limit.

2.7 Visibility from the access is currently restricted to the left by a high hedge and to the right by an overgrown grass verge and overhanging

low tree branches. It is considered that visibility can be significantly improved by cutting the verges and cutting back the lower overhanging branches. The site access plan in Appendix 3 indicates sightlines of 2.4m x tangential to the left, which will require lowering the field boundary hedge by agreement with the farmer and 2.4m x 160m to the right which can be achieved by cutting the verge and cutting back some of the branches which overhang the highway verge. In order to maintain the visibility, the applicant would be willing to have a licence to maintain the highway verge and visibility.

2.8 No formal traffic counts have been carried out, however the speed survey which measured the speed of 100 vehicles in each direction took just over 2 hours to complete and the traffic flows were fairly evenly split in both directions. This would suggest an hourly traffic flow of 50 vehicles in each direction. The survey was carried out between 8am and 10am which includes the morning peak hour and therefore this is likely to be a higher than average hourly flow.

3.0 PROPOSED DEVELOPMENT

3.1 The proposal involves the preparation and composting of non hazardous organic material to produce agricultural soil improvers and synthetic soils. The material will be imported from waste recycling centres around Leicestershire.

3.2 The development of the site will require the construction of concrete pads for the discharge/mixing area and windrowing area. In addition to this a portable building will be sited to house the new weighbridge/administrative and welfare facilities along with further surfacing of access roads and a car parking area for staff cars.

3.3 The proposals involve the production of various types of synthetic earth, each specifically designed for the end user. The products are basic agricultural products that require less processing and are used basically as a soil conditioner.

3.4 Material is imported from the various sources which will then be used in the composting process; these materials include organic green waste, such as garden trimmings and prunings as well as wood.

3.5 The site will be able receive process and recycle some 75000 tonnes per year when working at maximum capacity and with a full compliment of staff.

3.6 The proposed operational hours are between 7am and 7pm Monday to Friday and 7am to 5pm on Saturdays with no working on Sundays or bank holidays. Assuming a 300 day year this gives a maximum of 250 tonnes per day and with loads between 10 and 15 tonnes the number of loads will be around 16 – 25 per day or 32 – 50 trips per day (two way).

In addition to the HGV traffic there will be the arrival and departure of staff vehicle with up to 5 staff being on site at any one time.

3.7 This equates to between 2 and 4 trips per hour. It is considered therefore that the low vehicle flow is unlikely to create any capacity issues at the access to Fenn Lane or indeed the junction with the A444.

3.8 The type and size of vehicles will vary from private cars to tipper trucks and a long articulated tanker vehicle.

4.0 SITE ACCESS

4.1 The site access currently can accommodate heavy goods vehicles due to the generous geometry. Whilst it is not anticipated, due to the low trip generation that two HGV's would need to pass, the access road is wide enough in a few places for a passing place. The access plan in Appendix 3 shows such a passing place close to the junction with Fenn Lane, where a vehicle can wait whilst another vehicle enters the site. This will avoid the need for any vehicles to reverse out of the access into Fenn Lane.

4.2 The access plan also shows the visibility which is achievable subject to cutting the verges, pruning back the low branches and lowering the field boundary hedge. This is a significant improvement over the existing access.

4.3 All HGV traffic will turn left out of the access as all imported materials will be brought from various places accessed via the A444. All incoming vehicles will therefore be turning right into the site.

5.0 ACCIDENTS

5.1 The accident statistics in Appendix 1 relate to all recorded accidents between the site access and the junction of Fenn Lane with the A444 during the last 5 years.

5.2 Of the 10 accidents 9 were categorised as slight and one serious. 8 of the accidents occurred at the staggered crossroads in Fenny Drayton and 2 were recorded on Fenn Lane near to the site access. One of these accidents was serious and involved the elderly driver losing control of the vehicle and colliding with a tree. The other involved a driver losing concentration.

5.3 It is not considered that the marginal increase in vehicle movements would have any material impact on the accident potential on the local highway network.