

Technical Note

Date: 26th February 2020

Project: Proposed Residential Development off Pitt Street, Wombwell (2019/1117)

Title: Speed Survey & Updated Access Arrangements

1. Purpose

- 1.1 SK has been appointed by Enzygo to review the comments received on the application to develop up to 107 dwellings on a site off Pitt Street in Wombwell. The application is outline with all matters reserved except access.
- 1.2 Barnsley MBC has provided comments on the access layout submitted with the Enzygo Transport Assessment and this Note has been prepared to provide a response to these comments and the further information required.

2. Speed Survey

- 2.1 Traffic Sense was appointed to undertake an Automatic Traffic Count (ATC) survey to establish existing vehicle speeds. The ATC was located on Pitt Street to broadly correspond with the centre of the site frontage.
- 2.2 The ATC was originally commissioned to occur between Sunday 9th February and Friday 14th February 2020 to avoid the half-term holiday. The survey was then extended to cover the period until Monday 17th February to provide a broader picture of the differing weather conditions during the survey period. During the survey period the weather was wet.
- 2.3 The survey data is attached as Appendix A with a summary provided in Tables 2.1 and 2.2.

Average	9 th Feb	10 th Feb	11 th Feb	12 th Feb	13 th Feb	14 th Feb	15 th Feb	16 th Feb	17 th Feb	Mean
Westbound	32.0	30.2	29.5	29.6	28.8	30.2	30.6	31.4	30.9	30.4
Eastbound	32.6	29.9	29.6	29.8	28.0	30.5	31.7	32.4	32.0	30.7

Table 2.1: Average Speeds (mph)

85 th %ile	9 th Feb	10 th Feb	11 th Feb	12 th Feb	13 th Feb	14 th Feb	15 th Feb	16 th Feb	17 th Feb	Mean
Westbound	38.0	36.0	35.3	35.6	34.9	36.4	36.5	38.1	37.1	36.4
Eastbound	38.6	36.2	35.9	36.4	34.7	36.5	37.8	39.2	38.0	37.0

Table 2.2: 85th %ile Speeds (mph)

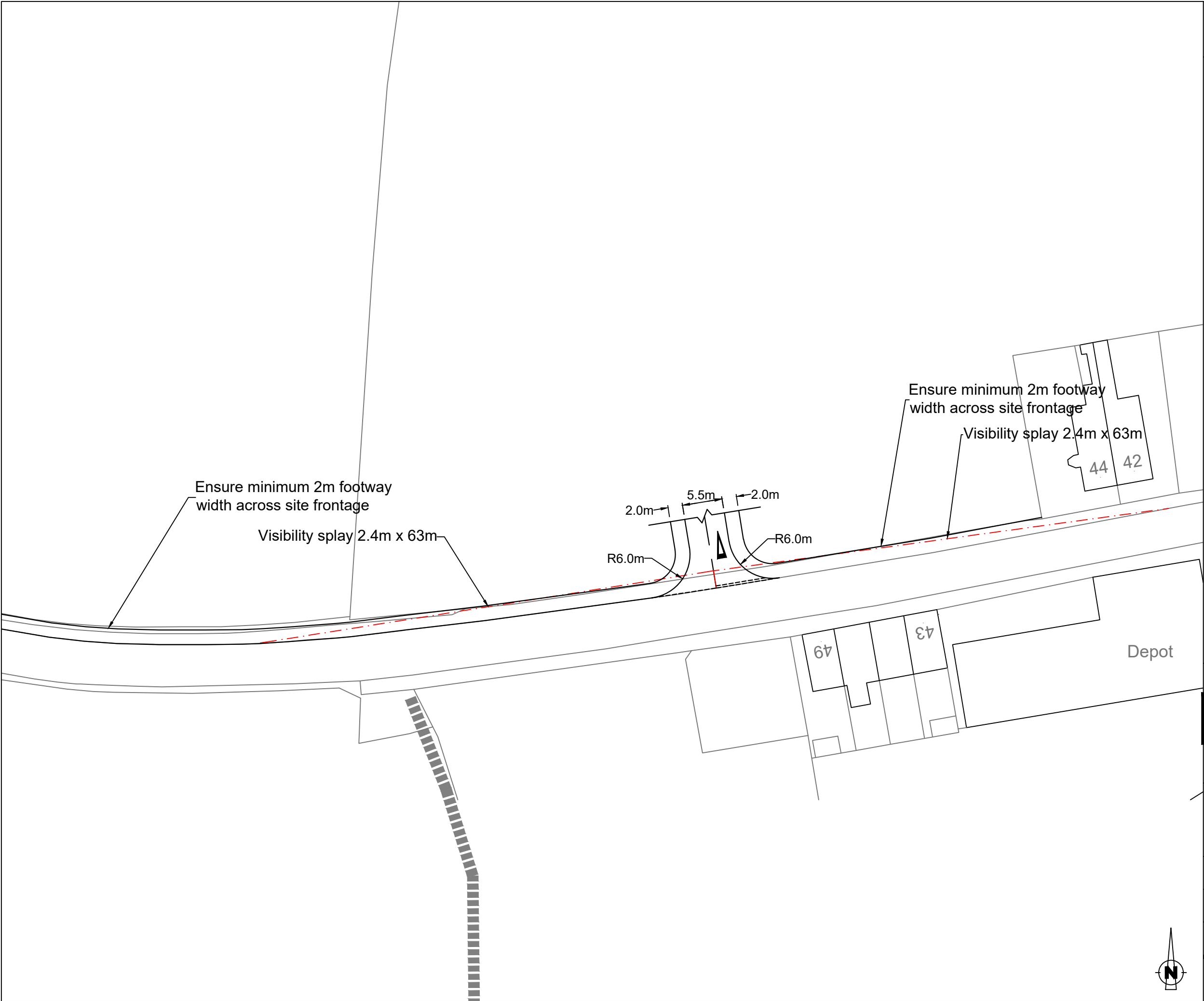
3. Access Location

- 3.1 Barnsley MBC has requested that the access be moved further east to a central position on the site frontage. This request has been made to create more distance between the pedestrian route to the school to the south.
- 3.2 A general arrangement drawing has been prepared and is attached as Appendix B. This shows a revised access location. The access form is retained as previously presented (simple priority layout).
- 3.3 The visibility requirements for the access has been determined using the speed survey calculated using the advice in Manual for Streets (1 and 2). The visibility calculation is attached as Appendix C, with the sight distance calculated using the highest recorded 85%ile speed on any individual survey day. This shows that visibility of 2.4 x 63m is required to the west and 2.4 x 61m to the

east. The layout attached as Appendix B shows that this can be achieved at the revised access position. Given the similarity in the recorded speeds the visibility splay has been shown at 63m in either direction.

- 3.4 Swept paths analysis has been undertaken and is attached as Appendix D. This shows a large vehicle entering and exiting the site. It shows that large vehicles will be required to cross the centre line. This is supported by Manual for Streets (MfS) at paragraph 6.3.12 which states that tighter radii should be included to "...minimise the need for pedestrians to deviate from their desire lines...". The guidance goes on to state that this is because it is easier for pedestrians to establish priority when vehicles are travelling slowly around the smaller radii and also so that pedestrians do not have to look far behind to check for turning vehicles. MfS also states that "...with small corner radii, large vehicles may need to use the full carriageway width to turn...".
- 3.5 We would welcome the opportunity to discuss the revised access position at your earliest convenience.
- 3.6 We note that a request has been made for a Road Safety Audit (RSA1), this is something that would usually be undertaken at the next stage in the design process. If this is definitely required for the planning application stage, then we would like to agree the revised access proposals first before we appoint an independent consultant to undertake it.

Appendix B



THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED

NOTES
Layout subject to detailed design
and confirmation of statutory
undertakers' equipment.

Revision Details		By	Date	Suffix
		Check		
Drawing Number				
SK22001-001				
Pitt Street, Wombwell				
Drawing Title				
Proposed Site Access General Arrangement				
Scale at A3				
1:500				
Drawn		Approved		
JAT		LGS		
Check		Date		
LGS		25.02.19		
SK Transport Planning Ltd Albion Wharf Manchester M1 5LN www.sktransport.co.uk 0161 234 6509				

Appendix C

Spot Speed Survey Record

Location

Date

Conditions

Pitt Street

ATC 9-17 Feb 2020 (inclusive) - Highest individual day used

Direction: Wb

	ATC
Average Speed mph	32.0
Standard Deviation mph	-
85%ile Speed mph	38.1

Average Speed km/h	51.5
85%ile Speed km/h	61.3
Wet Weather 85%ile Speed km/h	61.3

Gradient (50m)	0%
Reaction Time	1.5
Deceleration Rate	0.450
Deceleration Time	4.41
SSD	58
SSD (Adjusted for bonnet length)	61

Direction: Eb

ATC
32.6
-
39.2

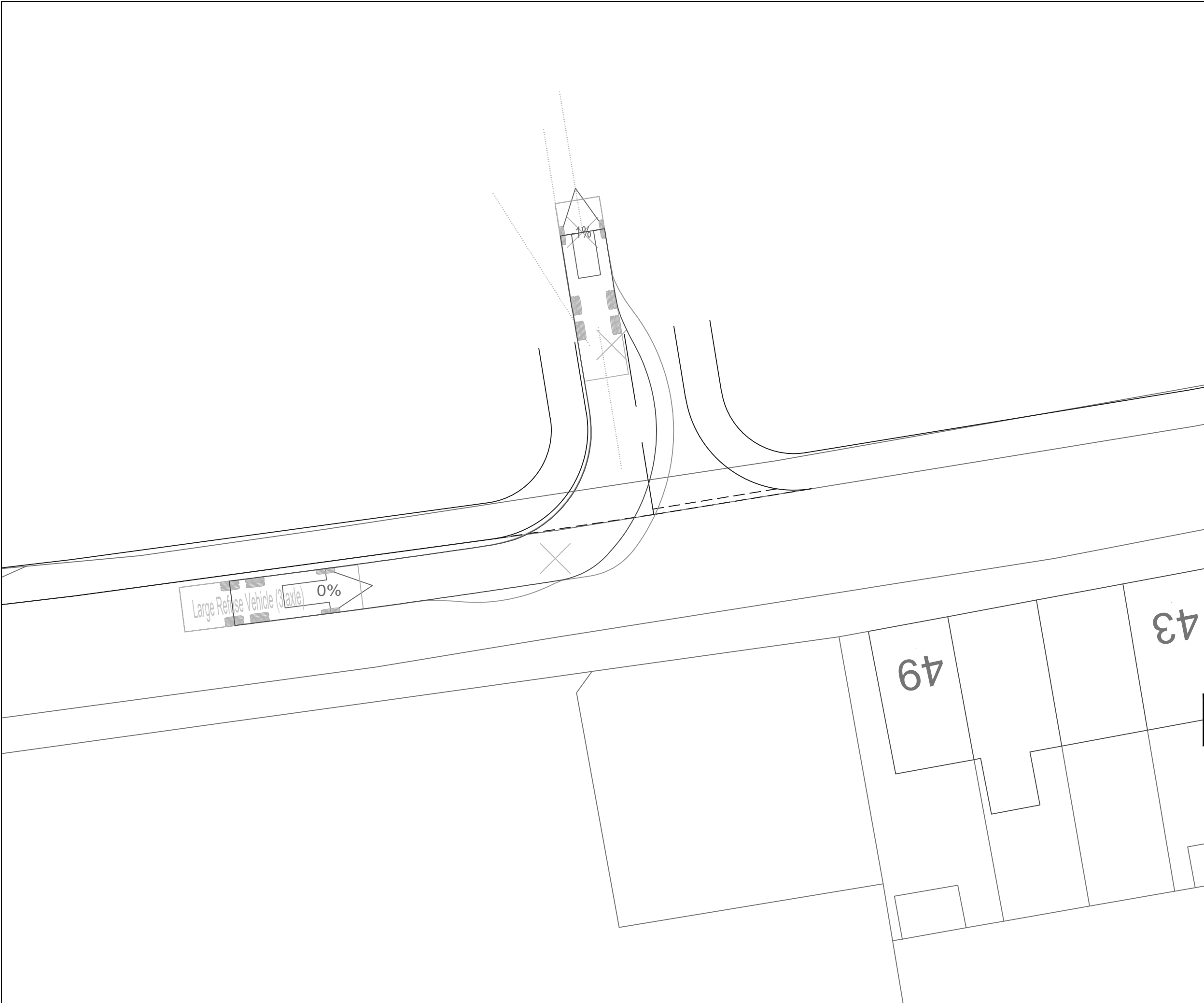
52.5
63.1
63.1

0%
1.5
0.450
4.41
61
63

SD =

$$\sqrt{\frac{\sum(x-x)^2}{n-1}}$$

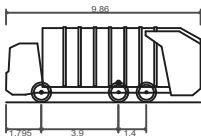
Appendix D



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NOTES

Vehicle Profile



Large Refuse Vehicle (3 axle)	9.860m
Overall Length	2.450m
Overall Width	3.814m
Overall Body Height	0.366m
Min Body Ground Clearance	2.450m
Track Width	4.00 sec
Lock to Lock Time	9.500m
Kerb to Kerb Turning Radius	

Revision Details	By	Date	Suffix
	Check		

Drawing Number
SK22001-002

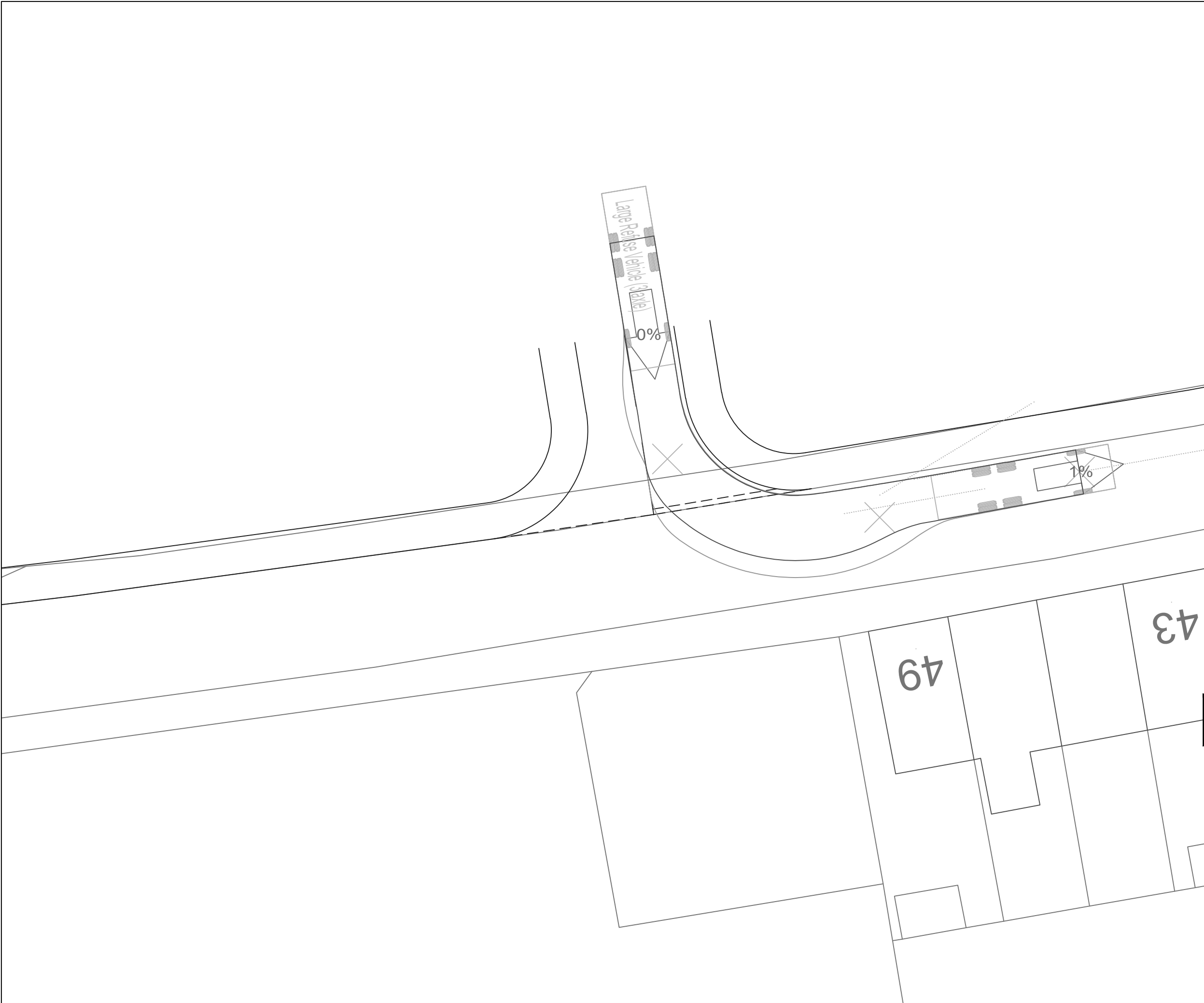
Pitt Street, Wombwell

Drawing Title
Swept Path Analysis Large Refuse Collection Vehicle Left Turn In

Scale at A3
1:200

Drawn	Approved
JAT	LGS

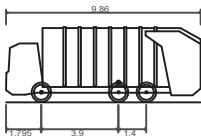
Check	Date
LGS	25.02.19



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Revision Details	By	Date	Suffix
	Check		

Drawing Number
SK22001-003

Pitt Street, Wombwell

Drawing Title
Swept Path Analysis Large Refuse Collection Vehicle Left Turn Out

Scale at A3
1:200

Drawn	Approved
JAT	LGS

Check	Date
LGS	25.02.19