

ACCESS & DRAINAGE ASSESSMENT

**FOR A PROPOSED DEVELOPMENT
AT
208 LONDON ROAD WATERLOOVILLE**



**FOR
WOODBERRY DAY NURSERY**

REPORT VERIFICATION

SITE ADDRESS	208 London Road Waterloooville
REPORT TITLE	Access & Drainage Assessment
JOB NUMBER	189-17
PREPARED BY	JRS

ISSUE NO.	DATE	STATUS	REPORT VERSION	ISSUED BY
1	17-11-17	For Planning	01	JRS

INDEX

DESCRIPTION	PAGE
1. Brief	3
2. Site Information	3
3. Access	3
4. Visibility Splays	4
5. Surface Water Drainage	5
6. Foul Water Drainage	5
7. Conclusion	6

APPENDICES

Appendix 1	Site Location Plan
Appendix 2	The Planning Group Ltd Proposed Site Plan drawing No. 208LR-PP-04
Appendix 3	Photographs
Appendix 4	Access Visibility Splays drawing No. 189-17-05
Appendix 5	Sewer Records drawing No. 189-17-15

BRIEF

- 1.1. Sumner Consultancy has been appointed by Woodberry Day Nursery to produce an Access & Drainage Assessment in connection with their proposal to build a Day Nursery on the site of No. 208 London Road Waterloo.

2. SITE INFORMATION

- 2.1. The site is located on the eastern side of the A3 London Road Waterloo. It is approximately 1.0 miles to the southwest of the centre of Waterloo. The Site Location Plan is in Appendix 1.
- 2.2. The site is an abandoned residential dwelling, which will be demolished to enable the construction of the Day Nursery with 12 parking spaces. The Proposed Site Plan drawing No. 208LR-PP-04 is in Appendix 2.
- 2.3. The site has a joint access off the A3 London Road with the adjoining property No. 206 London Road. Photograph 1 in Appendix 3.
- 2.4. Along the rear of the footway and site boundary is a 0.9m high brick wall, with a pedestrian access to the front door of the house.
- 2.5. The existing driveway to the house falls away from the highway.

3. ACCESS

- 3.1. The existing vehicular access to the site is a joint one with the adjoining property, and is 5.1m wide.
- 3.2. The joint access and access width will not change as a result of the proposed development.
- 3.3. London Road is subject to a 30mph speed limit.
- 3.4. Adjacent to the site access London Road is 9.9m wide with a 1.85m wide footway on the eastern side of the road, a 0.7m paved verge and 1.7m footway on the western side.
- 3.5. To the north east of the site there is a cycle lane on the eastern side of the road, which starts widening to a cycle and bus lane adjacent to the site access. Photograph 2 in Appendix 3.
- 3.6. On the western side of the road is a 3.6m wide cycle and bus lane.
- 3.7. Adjoining the site London Road has hazard centerline road markings with a continuous line for the cycle and bus lane on the western side and 1000mm dashed lines on the eastern side for the start of the cycle and bus lane.
- 3.8. London Road has streetlights along both sides.
- 3.9. 63.0m to the south west of the access is a signal controlled pedestrian crossing.
- 3.10. Double yellow lines are on along both sides of London Road with "No Loading at any Time" restriction.

4. VISIBILITY SPLAYS

4.1. Measurement of visibility splays:

- 4.1.1. Measurements for visibility splays are generally taken from a point where the centreline of the minor road meets the channel of the major road, Point A. This is normally at the 'give way' line (or an imaginary 'give way' line if no such markings are provided). The distance back along the minor arm to Point B, from which visibility is measured is known as the X distance. This distance is normally measured along the centreline of the minor arm for simplicity, but in some circumstances (for example where there is a wide splitter island on the minor arm) it will be more appropriate to measure it from the actual position of the driver.
- 4.1.2. The Y distance represents the distance that a driver who is about to exit from the minor arm can see to their left and right along the main alignment. For simplicity it is measured along the nearside kerb line of the main arm to Point C, although vehicles will normally be travelling a distance from the kerb line. Therefore a more accurate assessment of visibility splays is made by measuring to the nearside edge of the vehicle track. The measurement is taken from the point where this line intersects the centreline of the minor arm, Point A, (unless, as above, there is a splitter island in the minor arm).
- 4.2. Currently there are two standards for determining visibility splays, which are defined in Manual for Streets (MfS), and TD 42/95 – Geometric Design of Major/Minor Priority Junctions.
- 4.3. MfS focuses on lightly trafficked residential streets, but many of its key principles may be applicable to other types of street, for example high streets and lightly-trafficked lanes in rural areas. Generally this is limited to locations with traffic speeds less than 40mph. MfS does not apply to the Trunk Road Network.
- 4.4. TD42/95 is generally applicable to trunk roads where traffic speeds are 40mph and above.
- 4.5. The appropriate design document for this site would therefore be Manual for Streets.
- 4.6. For a speed limit of 30mph the Y distance visibility splay is 43.0m.
- 4.7. For the X distance, MfS states that 2.4m should normally be used.
- 4.8. The visibility splays from 2.4m x 43.0m are shown on the Access Visibility Splays drawing No. 189-17-05 in Appendix 4.
- 4.9. On the north eastern side of the access the boundary wall will need to be removed or repositioned along the line of the visibility splay, and on the south western side, the existing gate post should be lowered to the same height as the boundary wall. Photographs 3 & 4 in Appendix 3.
- 4.10. The visibility splay to the northeast has been taken to the nearside edge of the vehicle track, which is taken to be 1.9m from the channel which allows for the 1.2m wide cycle lane.
- 4.11. The visibility splay to the southwest has been taken to the nearside edge of the vehicle track, which is taken to be 1.0m from the solid white line for the cycle and bus lane on the eastern side of the road.

5. SURFACE WATER DRAINAGE

- 5.1. It is not evident on site where the existing surface water from the site outfalls to.
- 5.2. The first option for a new development is for the surface water to discharge to soakaways. However if the existing surface water is connected to a public sewer, then depending on the Council or Water Authority requirements, all or a proportion of the existing impermeable area could still discharge to the public sewer.
- 5.3. With the remaining addition area impermeable area for the site there would be a number of options:
 - 5.3.1. The remaining additional area outfalls to a soakaway
 - 5.3.2. If soakaways are not suitable, the remaining additional area is attenuated on site with a controlled discharge to the public sewer with a flow control such as a Hydro-Brake.
 - 5.3.3. All of the impermeable area for the site could be attenuated on site with a controlled discharge to match the existing.
- 5.4. Soakaway tests in accordance with BRE Digest 365 should therefore be carried out on the site.
- 5.5. A copy of the Water Authority Sewer Records have been obtained, and the information shown on the Sewer Records drawing No. 189-17-15 in Appendix 5.
- 5.6. There is a 450mm diameter surface water sewer along the southeastern plot boundary, at an approximate depth of 2.2m.
- 5.7. In accordance with the design information in Sewers For Adoption 6, an assumed 3.5m protected strip has been shown on drawing 189-17-15, which will mean that nothing is to be constructed within this area.

6. FOUL DRAINAGE

- 6.1. From a site inspection there appears to be foul drain on the eastern side of the house which outfalls towards London Road.
- 6.2. The existing foul drain is shallow so the possible outfall point at the foul sewer would need to be established to determine if a gravity outfall from the proposed development will still be possible. Alternatively it would need to be pumped to the site boundary adjoining London Road with a gravity connection to the foul sewer.
- 6.3. A copy of the Water Authority Sewer records have been obtained, and the information shown on the Sewer Records drawing No. 189-17-15 in Appendix 5.
- 6.4. The sewer records show a foul manhole in the carriageway on the north eastern side of the access (Ref:8902), with the sewer falling in a northeasterly direction towards this manhole. The records do not show a sewer continuing beyond this manhole, however it is assumed that the sewer would continue in a northeasterly direction.

7. CONCLUSION

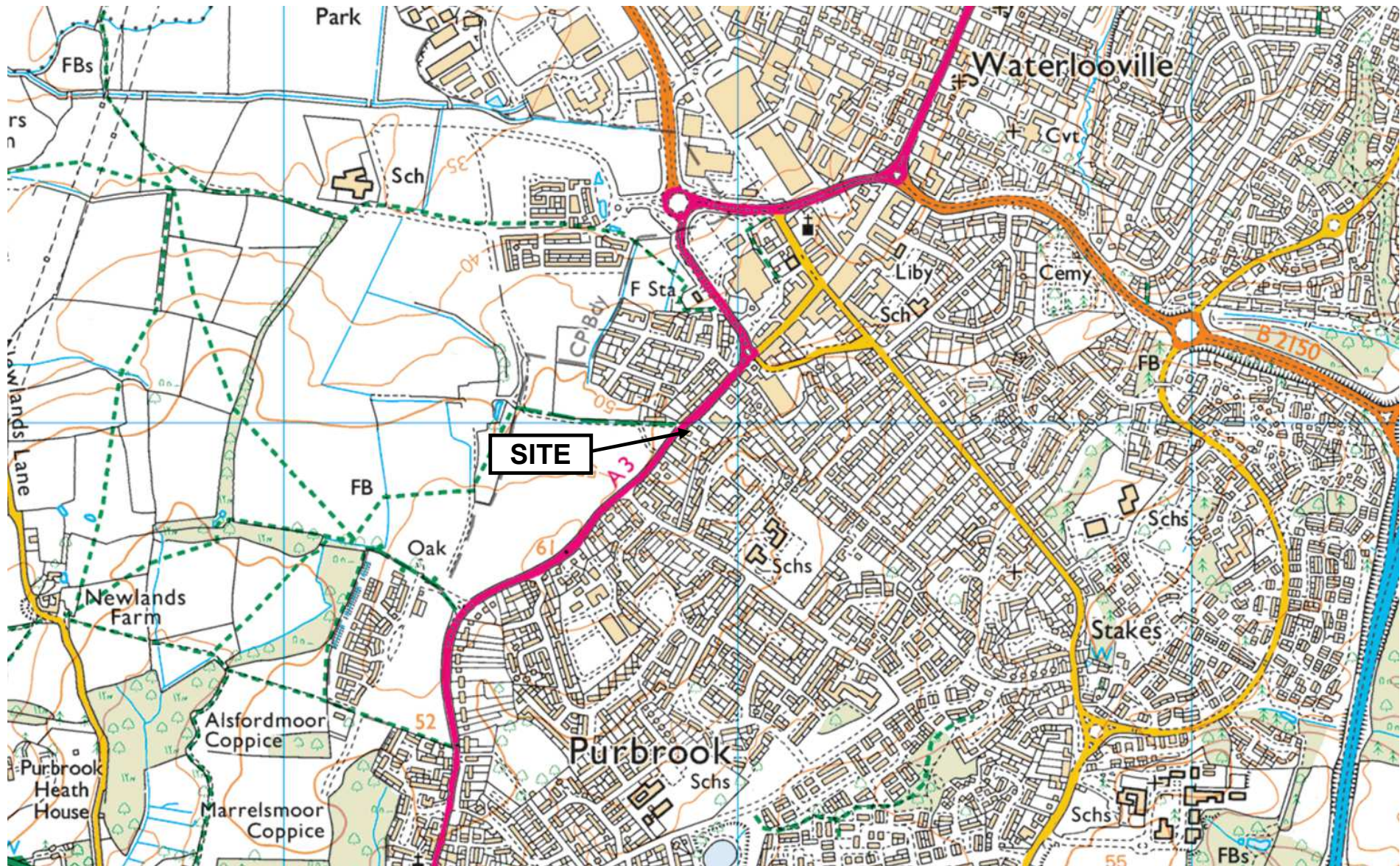
- 7.1. Visibility splays of 2.4 x 43.0m can be achieved from the existing access with the visibility improvement to the northeast which are commensurate with the 30mph speed limit along London Road
- 7.2. It is considered that the access will therefore be suitable for the proposed parking spaces and intended traffic movements for the development.
- 7.3. Further investigation would be needed to establish where the existing surface water is draining to.
- 7.4. The first option for a new development is for the surface water to discharge to soakaways, therefore soakaway tests in accordance with BRE Digest 365 should be carried out on the site.
- 7.5. However if the existing surface water is connected to a public sewer, then depending on the Council or Water Authority requirements, all or a proportion of the existing impermeable area could still discharge to the public sewer.
- 7.6. There is a 450mm diameter surface water sewer along the southeastern plot boundary, at an approximate depth of 2.2m. In accordance with the design information in Sewers For Adoption 6, an assumed 3.5m protected strip should be provided for the sewer, where nothing is to be constructed within this area.
- 7.7. The existing foul drain is shallow so the possible outfall point at the foul sewer would need to be established to determine if a gravity outfall from the proposed development will still be possible. Alternatively it would need to be pumped to the site boundary adjoining London Road.

John Sumner IEng MICE
Director
Sumner Consultancy Ltd
November 2017

APPENDIX 1

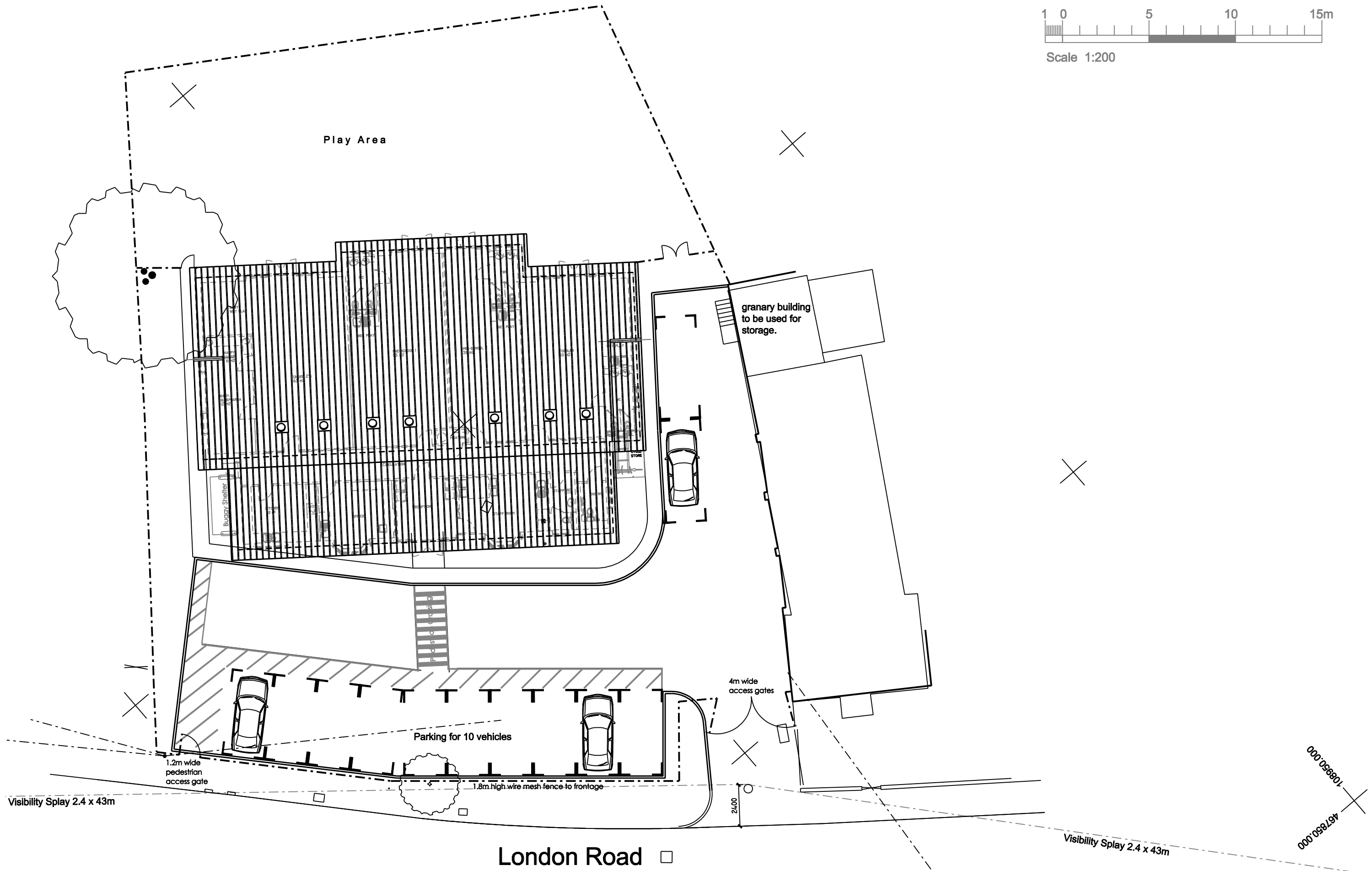
SITE LOCATION PLAN

SITE LOCATION PLAN
Nearest Post Code PO7 7AN
Grid Reference E467877 N108982



APPENDIX 2

**THE PLANNING GROUP LTD
PROPOSED SITE PLAN
DRAWING NO. 208LR-PP-04**



APPENDIX 3

PHOTOGRAPHS



PHOTOGRAPH 1
Existing access



PHOTOGRAPH 2
Carriageway & road markings adjoining the access



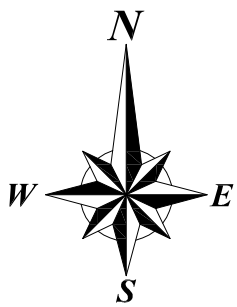
PHOTOGRAPH 3
Visibility from the access at 2.4m in a north easterly direction



PHOTOGRAPH 4
Visibility from the access at 2.4m in a south westerly direction

APPENDIX 4

ACCESS VISIBILITY SPLAYS
DRAWING NO. 189-17-05

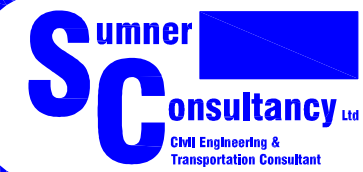


Notes

1. Do not scale from this drawing.
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Revisions

Rev	Date	Description
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Client: WOODBERRY DAY NURSERIES

Project: 208 LONDON ROAD
WATERLOOVILLE

Drawing Title: ACCESS VISIBILITY SPLAYS

Scale: 1:200 Drawn by: JRS Date: November 2017

Drawing Number: 189-17-05 Revision:

APPENDIX 5

SEWER RECORDS
DRAWING NO. 189-17-15



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Revisions		
Rev	Date	Description

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Project: 208 LONDON ROAD
WATERLOOVILLE

Drawing Title: X

Scale: 1:200 Drawn by: JRS Date: June 2017

Drawing Number: 189-17-00 Revision: