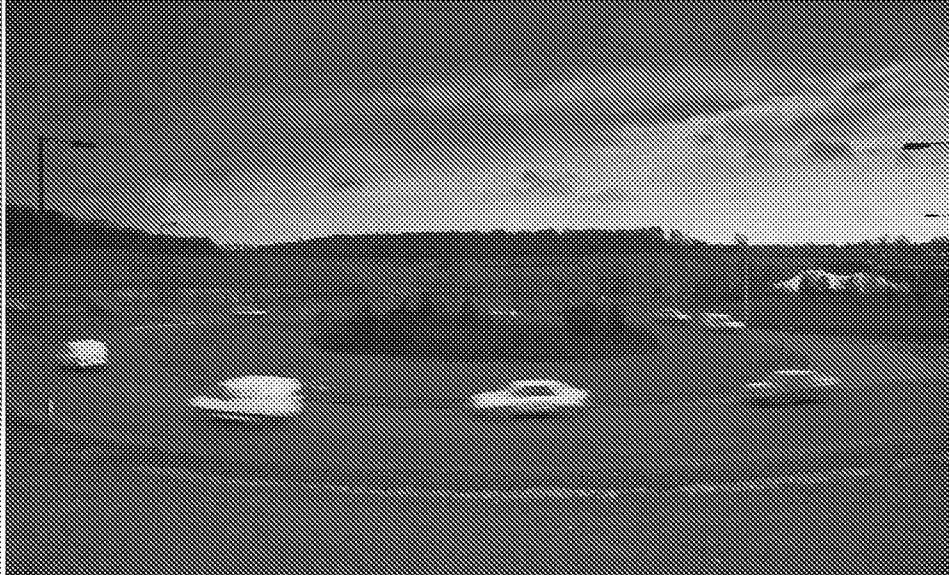




CONSTRUCTION TRAFFIC MANAGEMENT PLAN

LAND AT MANOR FARM, SHRIPNEY LANE,
SHRIPNEY

Client: BNRG Renewables



1-Transport

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SHRIPNEY**

Client: BNRG Renewables

i-Transport LLP
4 Lombard Street
London
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i-Transport Ref: NM/GM/ITL9346-001B R

Date: 20 May 2014

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QUALITY MANAGEMENT

Report No.	Comments	Date	Author	Authorised
ITL9346-001	Draft	23/04/14	Gavin Murray	Neil Marshall
ITL9346-001A	Issue	14/05/14	Gavin Murray	Neil Marshall
ITL9346-001B	Final	20/05/14	Gavin Murray	Neil Marshall

File ref: L:\PROJECTS\9000 SERIES\9346 - Shripney Lane Shripney\Admin\Report and Tech Notes\ITL9346-001B R CTMP.docx

Ref: NM/GM/ITL9346-001B R
Date: 20 May 2014

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SECTION 1 INTRODUCTION

1.1 Overview

1.1.1 i-Transport LLP has been instructed by BNRG Renewables to provide transport planning and highways advice in respect of its planning application for the development of Land at Manor Farm, Shripney Lane. The site is located to the west of the A29, within Arun District Council (ADC) planning authority. A site location plan is included as Figure 1.1.

1.1.2 The application site is currently agricultural land. The development proposal is for a temporary change of use to a solar photovoltaic park. With respect to vehicular access, it is proposed that the existing access to Manor Farm from Shripney Lane is upgraded as required for use during construction.

1.2 Pre-Application Scoping

1.2.1 Pre-application transport scoping discussions have been undertaken with the local highway authority, West Sussex County Council (WSCC) in March 2014 and identified the following:

- That a Construction Traffic Management Plan (CTMP) should accompany the planning application and should include the following;
- Details of the daily and peak period construction traffic movements, including both HGV's and site personnel vehicles;
- Vehicle tracking diagrams to demonstrate that the largest vehicle likely to visit the site during both construction and decommissioning can gain suitable access between the site and the A29 Shripney Road and Shripney Lane;
- Details of the proposed route for construction traffic to/from the site and any associated traffic management proposals;
- Details of the proposed site access and associated visibility splays;
- Details of parking and turning areas for construction vehicles and site personnel vehicles;

- Details of wheel washing facilities to prevent the deposit of material on the highway; and
- Details of any impacts on the Public Right of Way (PROW) adjacent to the site and management of the same during construction.

1.2.2 This CTMP has been prepared in accordance with the agreed scope.

1.3 Structure of Report

1.3.1 The CTMP is structured as follows:

- Section 2 describes the existing highway conditions within the vicinity of the site;
- Section 3 sets out the development proposal, and the arrangements for HGVs and site personnel vehicles;
- Section 4 provides detail on the proposed construction route from the A29, the number of construction staff, on-site car parking, hours of construction, wheel washing facilities and public engagement;
- Section 5 sets out the net traffic impact as a result of the development proposal; and
- Section 6 summarises the CTMP and concludes that:
 - That the proposed measures both on and off site will minimise the traffic impact and any disruption caused during the construction phase; and
 - That the residual cumulative impacts of the development proposal will not be 'severe'.

SECTION 2 EXISTING TRANSPORT CONDITIONS

2.1 Overview

- 2.1.1 This section of the CTMP provides a description of existing transport conditions in the vicinity of the site. This includes the site location; existing access arrangements; the accessibility of the site by walking, cycling and public transport.

2.2 Site Location

- 2.2.1 A site location plan is included as Figure 1.1. The site is located at Manor Farm, to the west of Shripney Lane. The site is bounded by Shripney Lane to the south and open fields to the north, east and west.
- 2.2.2 Access to the site is currently provided via the existing farm access from Shripney Lane.

2.3 Highway Network

- 2.3.1 Manor Farm has a single point of vehicular access, forming a simple driveway with Shripney Lane. Shripney Lane runs eastwards and connects to the A29 Shripney Road. To the south Shripney Lane has been stopped up by the North Bersted Relief Road.
- 2.3.2 At the site access Shripney Lane is 6.6m wide and narrows to 4.6m to the east at the Public Footpath F.P. 149. Shripney Lane remains a relatively constant 4.6m – 4.8m width along its length between the site access and the A29.
- 2.3.3 Shripney Lane is subject to a 40mph speed limit to a point 50m to the east of the site access with Manor Farm where the speed limit changes to the national speed limit of 60mph. No footways are present on Shripney Lane but it does have street lighting.

2.4 Pedestrian Infrastructure

- 2.4.1 There is limited pedestrian infrastructure in the vicinity of the site with no footway provision along Shripney Lane.

2.5 Public Transport

Bus

- 2.5.1 The nearest bus stops to the site are located to the east on the A29 Shripney Road, a distance of approximately 450m from the site access. These stops are served by bus route 66. The service operates eight times in both directions Monday to Friday only.

Rail

- 2.5.2 The nearest mainline rail station is Bognor Regis a distance of 3.5km from the site. It is served by bus route 66.

SECTION 3 DEVELOPMENT PROPOSAL

3.1 Introduction

- 3.1.1 The development proposal is for the temporary use of land at Manor Farm as a solar photovoltaic park. A proposed site layout plan is included at Appendix A.
- 3.1.2 The solar photovoltaic park will comprise of approximately 21MW of installed capacity. The frames on which the solar panels are to be mounted do not require concrete foundations. Security fencing will be erected around the perimeter of the park along with CCTV.

3.2 Phases of development

The Construction Phase

- 3.2.1 The construction phase is expected to take place over a period of 3-4 months, with deliveries of materials and equipment spread out over this period, and tailing off towards the end.
- 3.2.2 During the construction phase, vehicular access to the site will be taken from Shripney Lane via the existing access to the farm. This will be upgraded as required to a standard suitable for HGV movements.

The Operational Phase

- 3.2.3 Once operational, the Solar Farm will be unmanned and will not be a trip attractor, with the exception of monthly visits associated with maintenance. These will normally be undertaken in a 4x4 vehicle or a Ford Transit type van and is similar in volume and type to that which occurs as a result of the existing agricultural use of the land.
- 3.2.4 The trip attraction of the site during the operational phase will be very low and will not affect the operation of the local highway network. This element of traffic has therefore not been considered further within this document.

The Decommissioning Phase

- 3.2.5 The decommissioning of the Solar Farm (anticipated to be 25-30 years post completion) will be expected to generate a similar (or fewer) number of trips as the construction phase. The traffic associated with the decommissioning will be discussed with WSCC prior to it taking place, and appropriate measures will be agreed as necessary at that time.
- 3.2.6 The decommissioning phase is expected to take half of the construction time and will consist of the exact opposite construction sequence: starting with disconnecting the plant from the grid, removing the substations, inverters, opening of trenches to remove DC and / or AC cables, disconnecting all solar modules, and dismantling the modules and supporting structure.

3.3 Access

- 3.3.1 The existing site access from Shripney Lane is shown on the plan at Appendix B.
- 3.3.2 Pedestrian access to the development proposal will be taken from Shripney Lane via the site access.
- 3.3.3 It is noted that two Public Footpaths are located to the east of the site, these are F.P. 149 and F.P. 150, and there will be no impact on these Public Footpaths during any phases of the development.
- 3.3.4 The internal site compound layout will make provision for safe pedestrian routes such that their interaction with manoeuvring vehicles is minimised and vehicles are able to manoeuvre within the compound.

SECTION 4 CONSTRUCTION TRAFFIC

4.1 Introduction

- 4.1.1 This section of the CTMP sets out the proposed construction route from the A29, the number of construction staff, on-site car parking, hours of construction, wheel washing facilities and public engagement.

4.2 Proposed construction route

- 4.2.1 Construction vehicles associated with the development proposal will route from the A29 (which is denoted as a Local Lorry Route on the WSCC Advisory Lorry Route Map) into Shripney Lane then turn right into Manor Farm, when travelling from the north. If travelling from the south/west vehicles will route via the A259 and then the A29 which is denoted as a Strategic Lorry Route. The proposed routes are detailed on Figure 4.1.
- 4.2.2 Construction vehicles travelling from the north will park in the layby on the eastern side of the A29 to the north of Victoria Gardens, to contact the site to ensure they can gain access to the site and also to reduce the likelihood of conflict with an opposing HGV on Shripney Lane. Those travelling from the south/west will park in the layby on the eastern side of the A259 to the west of Colworth, to contact the site before proceeding.
- 4.2.3 It is expected that the majority of site personnel vehicles will undertake the same route(s) to access the site.

4.3 Number of construction staff

- 4.3.1 During the construction period, the site will employ circa 30-40 construction personnel on a daily basis. This number is anticipated to remain constant throughout the construction phase. It is expected that a similar number will be required during decommissioning.

4.4 Parking

Car Parking

- 4.4.1 The proposed scheme will provide suitable on-site car parking spaces for construction staff, to ensure that no overspill parking occurs on the public highway. In addition, construction staff will be encouraged to car share with colleagues.

HGV Parking

- 4.4.2 The level of HGV parking will be based on the operational requirements of the proposal. As such it is expected that two spaces will be provided within the site compound.
- 4.4.3 A swept path analysis of HGV's accessing the site has been undertaken. This demonstrates that there is sufficient space for vehicles to enter and exit the site in forward gear. In addition swept path analysis has been carried out at the junction of the A29 with Shripney Lane, to demonstrate that vehicles entering and exiting Shripney Lane can safely pass the existing traffic island on Shripney Lane. The track plot drawings are attached in Appendix C.

4.5 Hours of Construction

- 4.5.1 Construction (or decommissioning) will take place on Monday to Friday 8am to 8pm (with silent working after 6pm) and Saturday from 8am to 1pm. There will be no working outside of these hours, including Sundays or Bank Holidays unless otherwise agreed with the Local Planning Authority. This mitigates the potential adverse effects which HGVs can have on residential amenity.

4.6 Wheel Washing

- 4.6.1 A wheel washing facility will be installed on site to ensure that mud, grit and dust will be removed prior to vehicles accessing the public highway. The location will be agreed with WSCC Highways by the appointed contractor.

4.7 Enforcement of Construction Traffic Management Plan

- 4.7.1 The Site Manager will ensure that all contractors / construction personnel adhere to the CTMP, and its measures will be monitored by WSCC as the local highway authority.

4.8 Public Engagement

- 4.8.1 The contractor will undertake a systematic programme of public engagement both before the construction commences, and whilst construction is in progress.

4.9 Summary

- 4.9.1 The development proposal is for the temporary use of land at Manor Farm as a solar photovoltaic park. The scheme will include suitable provision of on-site car parking spaces for construction staff, to ensure that no overspill parking occurs on the public highway.
- 4.9.2 The scheme will provide an appropriate level of HGV parking for the construction phase. It also uses the existing safe and satisfactory access from Shripney Lane to Manor Farm.

SECTION 5 TRAFFIC IMPACT

5.1 Overview

- 5.1.1 The traffic impact of the development proposal has been considered with respect to trip generation/attraction.

5.2 Trip Generation/Attraction

- 5.2.1 The TRICS trip generation database does not include survey data of solar photovoltaic parks.

- 5.2.2 In these circumstances it is therefore appropriate to adopt a robust ‘first principles’ approach to deriving the traffic generation of the proposed solar photovoltaic park.

Construction Workforce

- 5.2.3 In order to reduce the number of private car trips to the site, construction staff will be encouraged to car share with colleagues.

- 5.2.4 Furthermore, on weekdays, the majority of construction staff will arrive between 7:30am and 8am and leave between 6pm and 8pm, thereby avoiding the network peak hours of 8-9am and 5-6pm. This will minimise any impact these vehicles may have on peak hour congestion on the local highway network.

Construction Deliveries

- 5.2.5 In order to reduce the number of deliveries to the site, construction materials will be consolidated. This will ensure that, as far as is practical, delivery vehicles will be loaded to full capacity, and therefore only need to make the minimum number of trips to the site.

- 5.2.6 HGV movements to and from the site will be restricted to avoid highway peak periods as far as is practical. This will minimise any impact these vehicles may have on peak hour congestion on the local highway network. In addition, Shripney Lane is of sufficient width that a car will be able to pass an oncoming HGV; also vehicles will adhere to a strict speed limit of 15mph on Shripney Lane.

- 5.2.7 Construction materials will be sourced from local suppliers where practical in order to reduce the length of vehicle trips to the site.

Traffic Impact

- 5.2.8 Based on experience of similar installations, it is estimated that proposal would generate some 500 deliveries over the construction period. Assuming a five day working week this would equate to an average of six deliveries per day, or 12 two-way HGV movements.
- 5.2.9 There would also be some 30-40 construction staff on site during construction. As set out in paragraph 5.2.4 the majority if not all of the construction staff will arrive on site prior to the morning network peak hour and depart after the evening network peak hour.
- 5.2.10 Shripney Lane is denoted as a Conservation Area, the measures put in place for construction traffic ensure the proposal is in accordance with Policy AREA2 of the ADC, Local Plan. In that the proposals will not require any amendments to the existing roadside banks and verges on Shripney Lane.

5.3 Traffic Distribution

- 5.3.1 All HGVs will route to the site via the agreed construction route from the A29. No changes will be permitted without the agreement of WSCC.
- 5.3.2 All construction staff will be informed to access the site via the agreed construction route(s).

5.4 Summary

- 5.4.1 The development proposal will result in a minor increase in vehicle trips along the construction route, well within the daily variation of traffic flows. On this basis, the development proposal will have no noticeable or material traffic impact. The residual impact of the scheme will certainly not be 'severe' (ref: NPPF paragraph 32).

SECTION 6 SUMMARY AND CONCLUSION

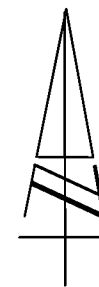
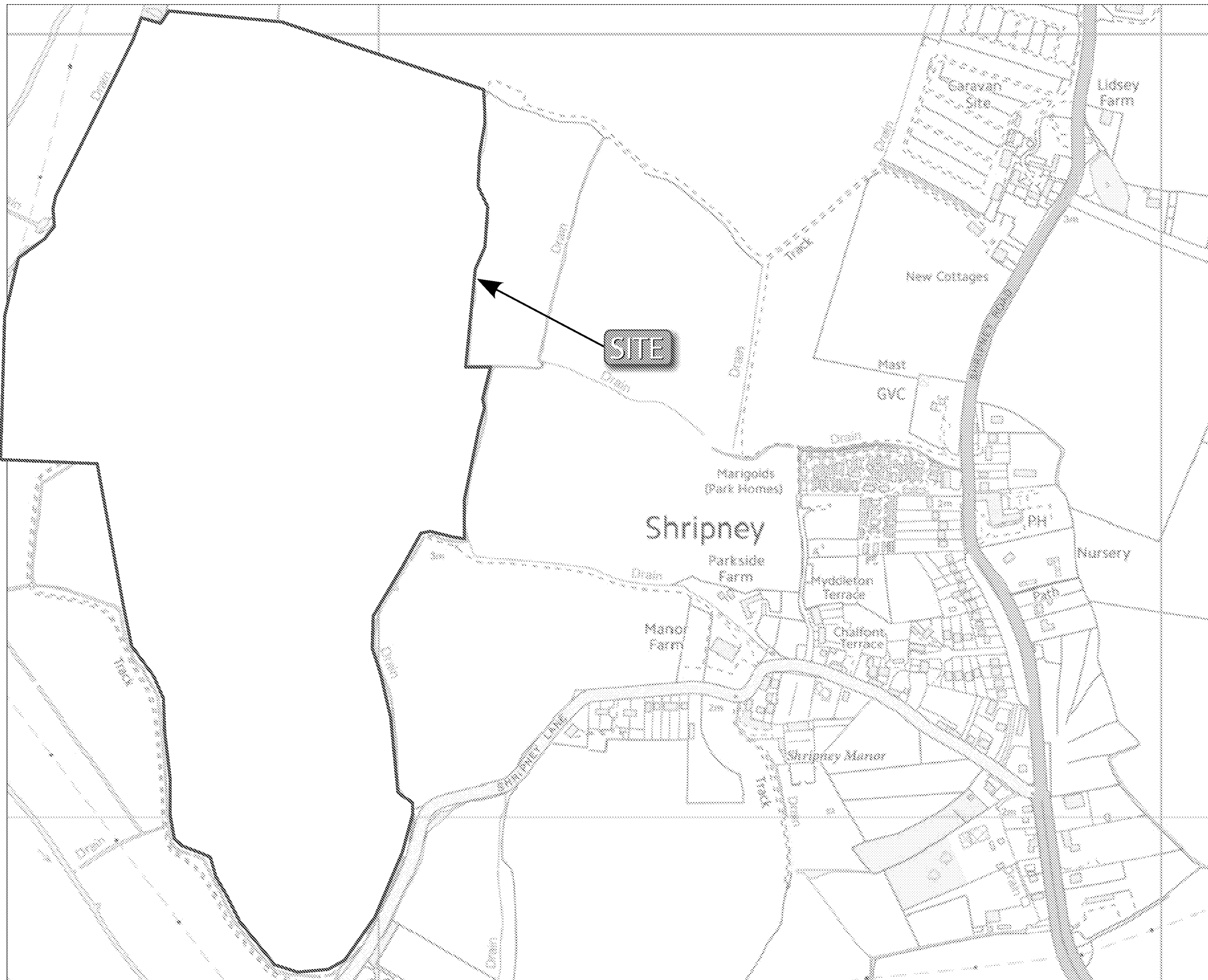
6.1 Summary

- 6.1.1 i-Transport LLP has been instructed by BNRG Renewables to provide transport planning and highways advice in respect of its planning application for the development of Land at Manor Farm, Shripney Lane, Shripney. This Construction Traffic Management Plan has been prepared in support of the development proposal of a solar photovoltaic park.
- 6.1.2 Adequate car parking provision will be provided during the construction phase of the development proposal such that no overspill will occur on Shripney Lane.
- 6.1.3 The measures set out in this document are aimed at reducing the impact of the construction traffic associated with the development proposal.
- 6.1.4 The development proposal for a solar photovoltaic park will not have a severe residual impact (noting that once construction is complete, the level of traffic associated with the operation of the development proposal will be circa one visit per month for maintenance purposes).
- 6.1.5 The implementation, monitoring and review of the CTMP will be the responsibility of the appointed Contractor.

6.2 Conclusion

- 6.2.1 Against this background, the development proposal will result in a negligible increase in vehicle movements over the course of a day during the construction and decommissioning phases only. On this basis, the development proposal is acceptable in transport terms.

FIGURES



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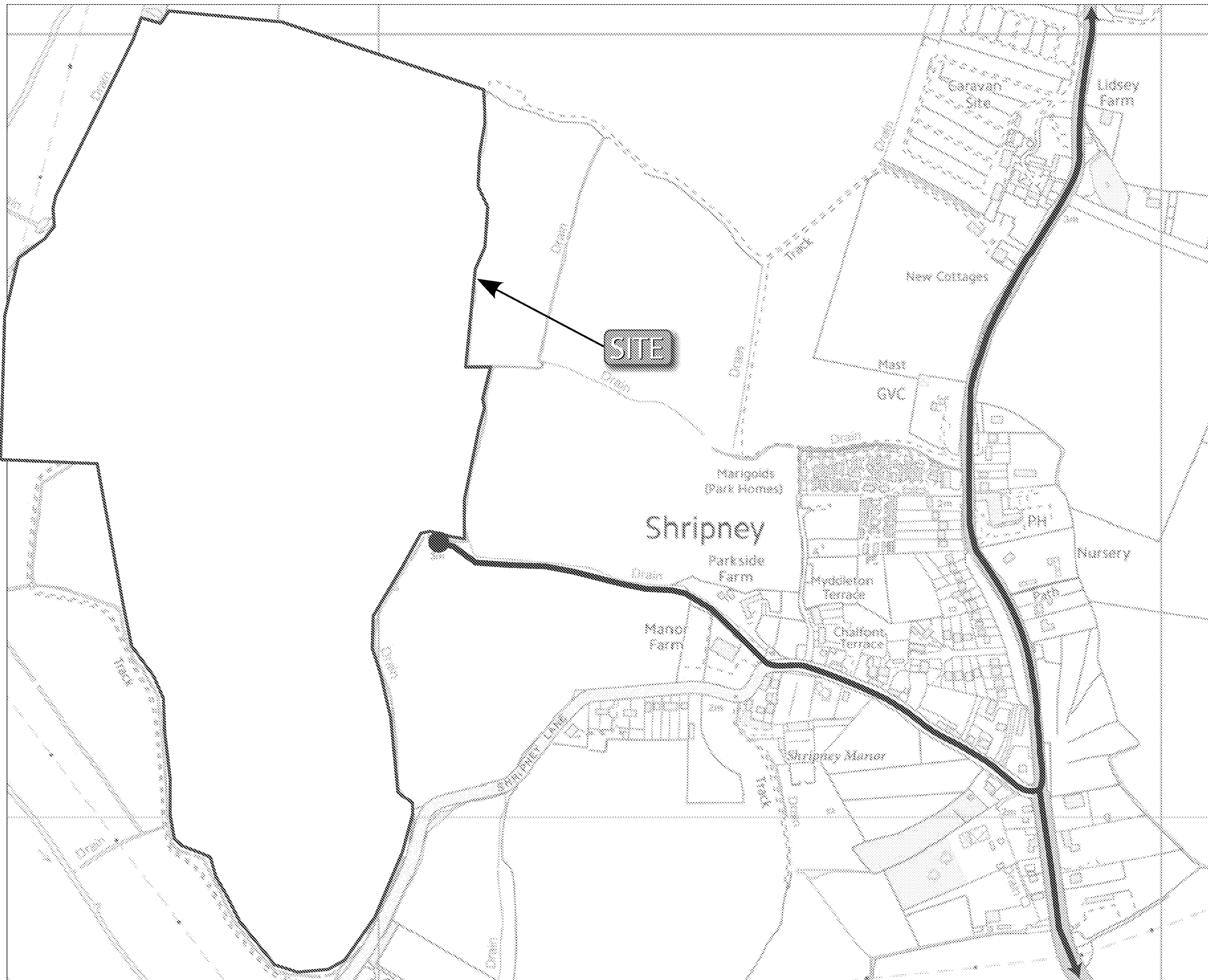
SHRIPNEY LANE
SITE LOCATION

FIGURE No:

FIGURE 1.1

FILE REF:
ITL9346

REV:



Key:

 Site Access Route



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TITLE:

SHRIPNEY LANE
CONSTRUCTION ROUTE

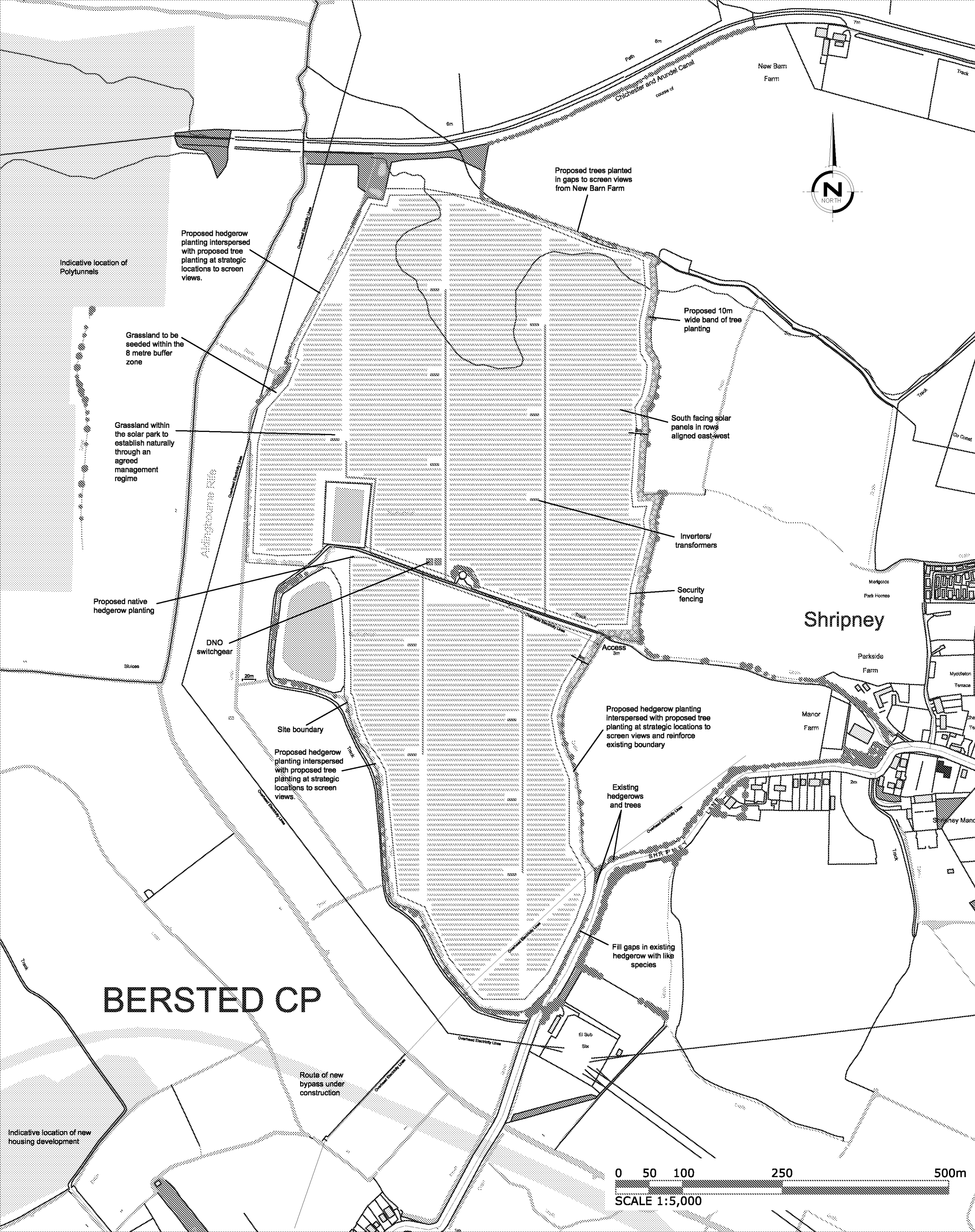
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FIGURE 4.1

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APPENDIX A

Proposed Site Layout



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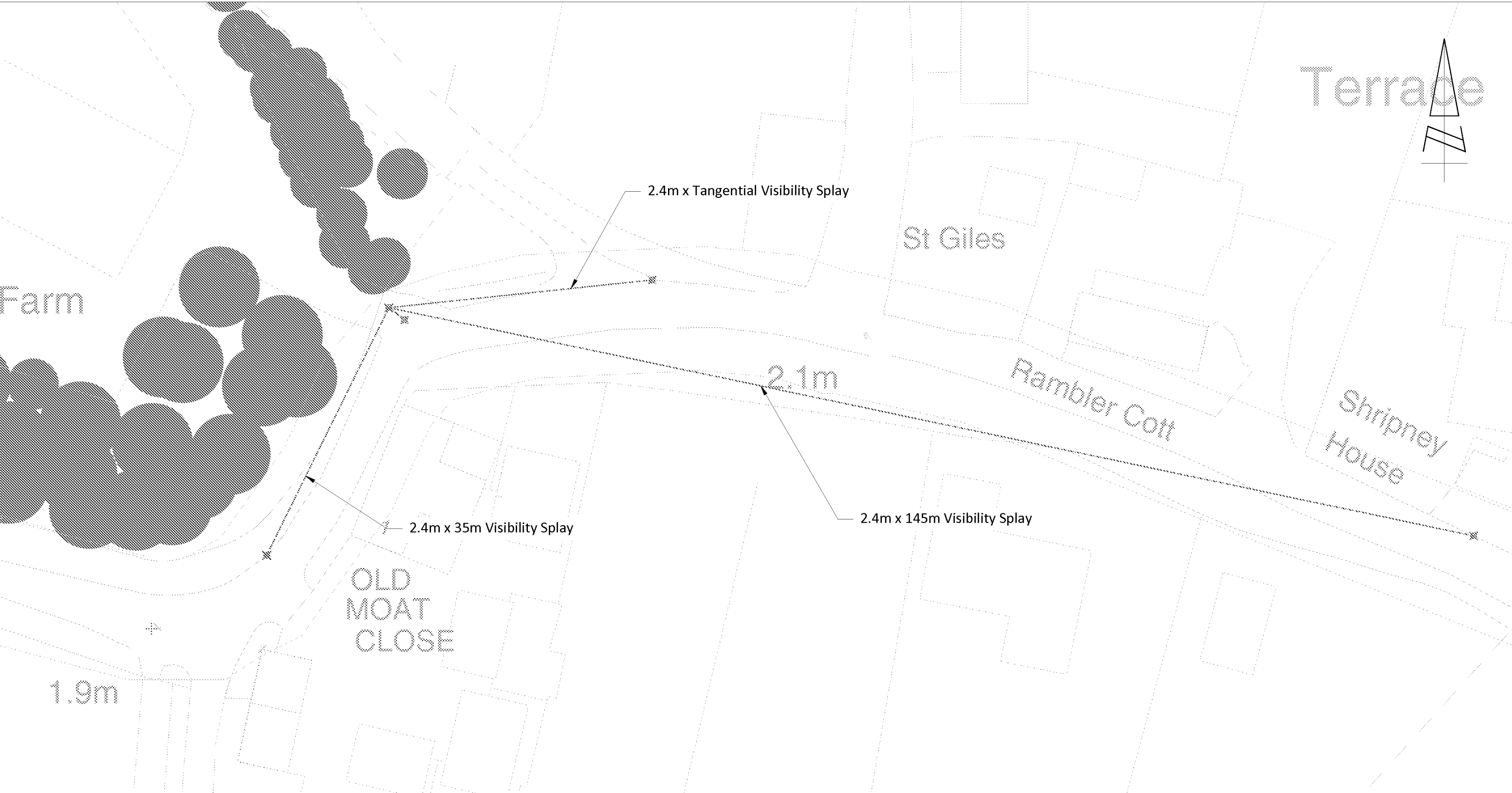
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B	02.05.14	Buffers altered layout updated
C	07.05.14	Minor label amendments
D	07.05.14	Minor revisions

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Spec:	SC	Drawn:	Layout Plan
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Auth:	AH		

THE
Landmark
PRACTICE

APPENDIX B

Existing Site Access



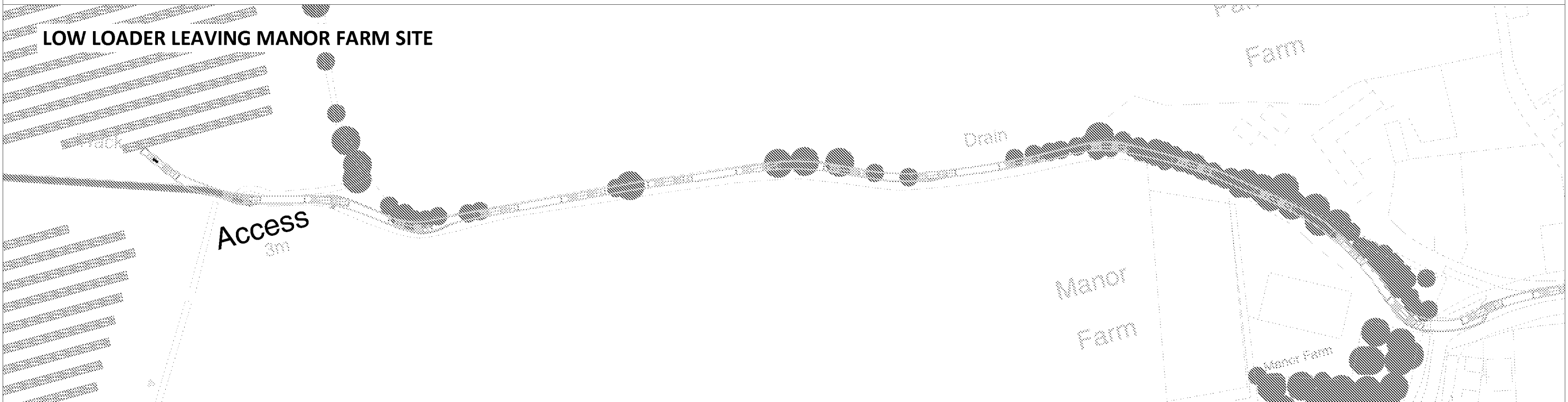
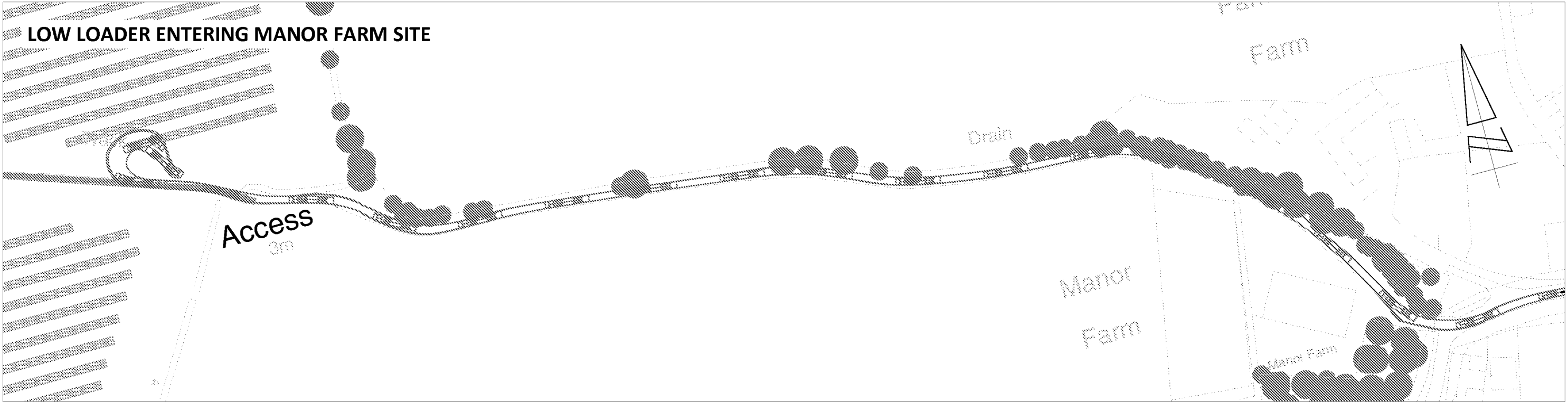
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							PROJECT: SHRIPNEY LANE SHRIPNEY		FILE REF: ITL9346-SK-003	DRAWN: RN	DATE: 14.05.14
		REV	DATE	BY	DESCRIPTION	CHK	APD	CLIENT: BNRG RENEWABLES	DRAWING No: ITL9346-SK-003		
		STATUS: DRAFT							PROJECT No: ITL9346	REV:	

APPENDIX C

Swept Path Analysis

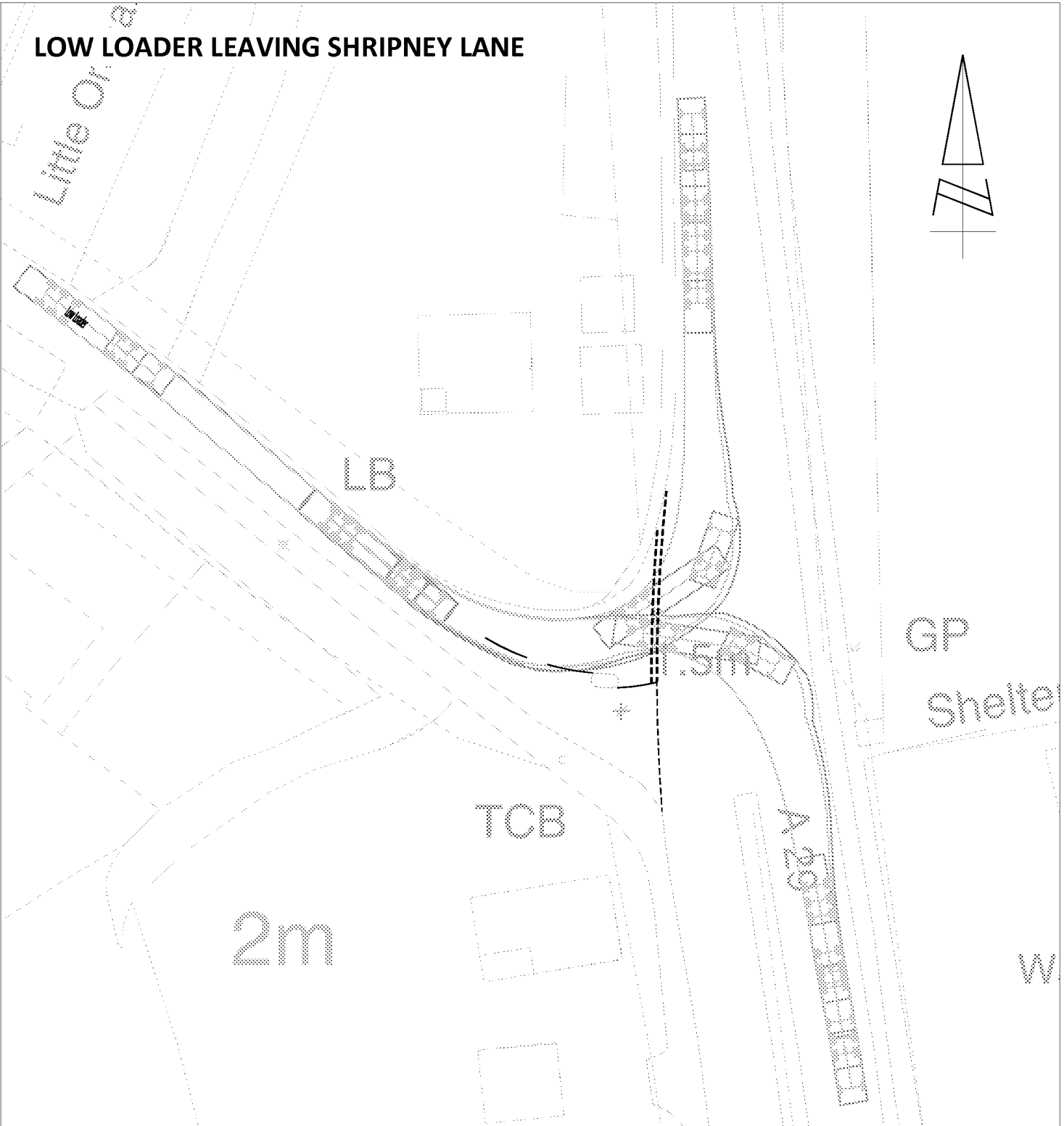
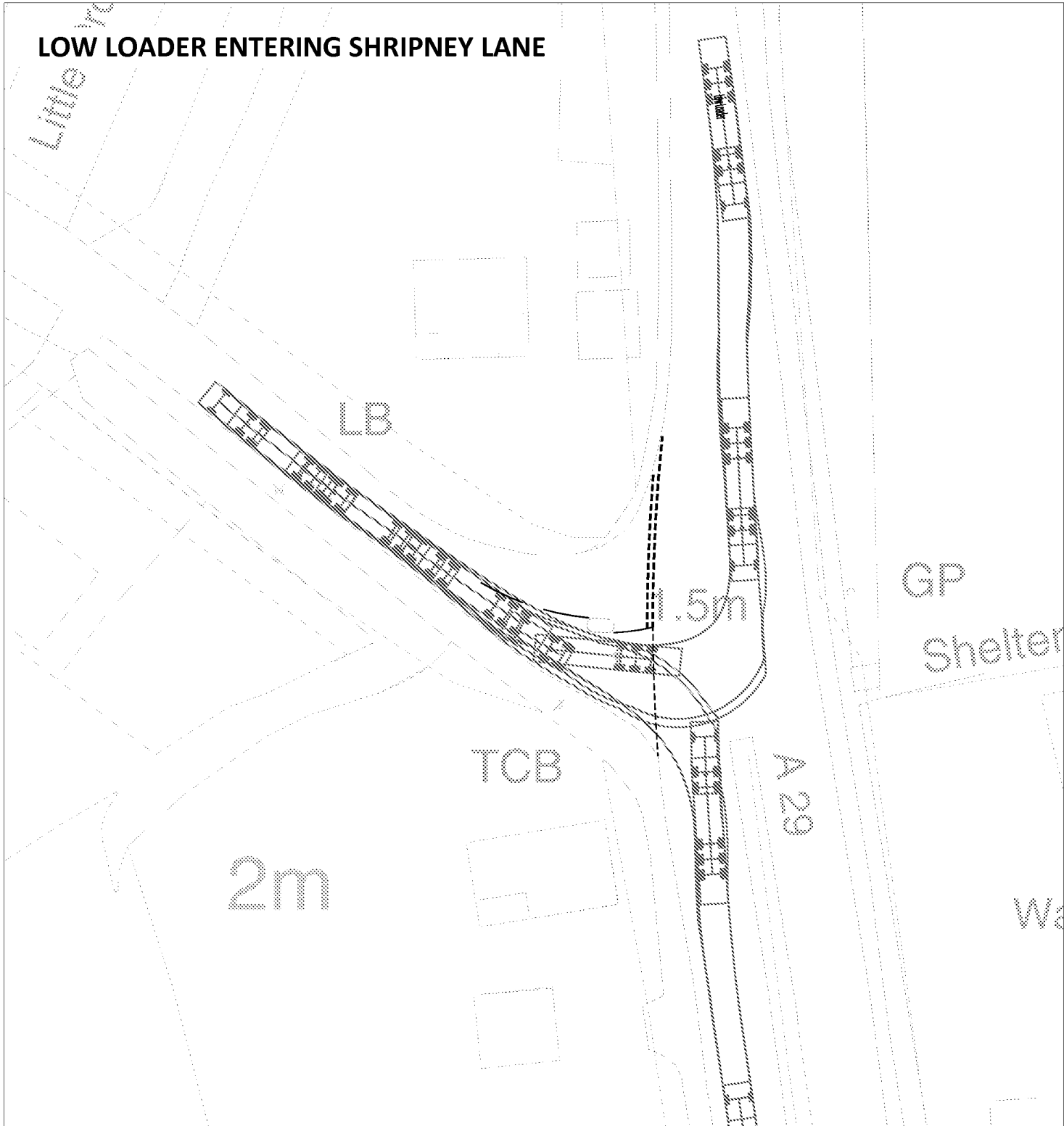


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Low Loader
Overall Length: 16.633m
Overall Width: 2.500m
Overall Body Height: 3.396m
Min Body Ground Clearance: 0.320m
Max Track Width: 2.500m
Lock to Lock Time: 6.00s
Kerb to Kerb Turning Radius: 6.750m

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	STATUS: DRAFT								PROJECT No: ITL9346	REV:		



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Low Loader
Overall Length 16.623m
Overall Width 2.500m
Overall Body Height 3.395m
Min Body Ground Clearance 0.320m
Max Track Width 2.500m
Lock to Lock Time 6.006
Kerb to Kerb Turning Radius 6.790m

 4 Lombard Street, London, EC3V 9HD www.i-transport.co.uk	REV	DATE	BY	DESCRIPTION	CHK	APD	TITLE:	SWEPT PATH ANALYSIS LOW LOADER			SCALE @ A3: 1:500	CHECKED: GM	APPROVED:			
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