Peartree Hill Solar Farm

Environmental Statement

Volume 4

Appendix 14.1: Transport Assessment

Revision 2

Planning Act 2008

Infrastructure Planning

(Applications: Prescribed Forms

and Procedure) Regulations 2009 –

Regulation 5(2)(a)

Application Document Ref: EN010157/APP/6.4

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1 INTRODUCTION

Context

1.1 SCP, an RSK Group company, has been appointed by RWE Renewables UK Solar and Storage Limited (hereafter, 'the Applicant') to prepare a Transport Assessment (TA) in support of the proposed Peartree Hill Solar Farm (hereafter, 'Proposed Development').

1.2 The Proposed Development comprises the construction, operation (including maintenance) and decommissioning of a solar photovoltaic (PV) electricity generating and storage facility with an export capacity of up to 320 megawatts (MW) and associated infrastructure, as described within **Environmental Statement (ES) Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]** and Schedule 1 of the **Draft Development Consent Order (DCO) [EN010157/APP/3.1]**.

1.3 The Proposed Development is located within the administrative boundary of East Riding of Yorkshire Council on land between the villages of Leven, Tickton, Riston, Wawne, Weel and Woodmansey, to the north of the city of Hull, comprising approximately 891 ha (hereafter, 'the Site'). The boundary of the Site is hereafter referred to as the 'Order Limits', as shown in **Appendix B**.

1.4 The Order Limits include parcels of land, which are split across five Land Areas labelled B to F for solar PV modules and ancillary equipment such as on-site substations. The Proposed Development will connect to the National Grid Creyke Beck Substation via underground cables (the 'grid connection cable route') and there are interconnecting cable routes that run between the Land Areas. A series of plans showing the Land Areas and proposed underground cable routes, as well the indicative layout of the Proposed Development are included at **Appendix B**.

Document Purpose

1.5 The purpose of this TA is to demonstrate that the Proposed Development will be acceptable in transport and highways terms, and it follows transport assessment scoping discussions held with East Riding of Yorkshire Council Officers for the local highway authority.

1.6 The TA has been prepared in accordance with the agreed parameters set out in the Transport Assessment Scoping Report which was produced by SCP in July 2024 and agreed with Highways Officers at East Riding of Yorkshire Council on 16 September 2024 (see **Appendix A** of this document).

1.7 **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]** which makes reference to the findings of this TA.

Consultation

1.8 In addition to the statutory and non-statutory consultations, the Proposed Development has been supported by an ongoing consultation process to agree the approach for the TA, to allow mitigation measures to be incorporated into the design of the Proposed Development and to minimise adverse effects.

1.9 The following provides a summary of the consultation which has taken place with respect to transport and access.

East Riding of Yorkshire Highways

1.10 The Site is to be accessed via the major roads nearby, the A165, A1035 and A1079, which are maintained by the local highway authority, East Riding of Yorkshire Council, and do not form part of National Highway's Strategic Road Network (SRN).

1.11 Discussions were undertaken via a meeting on 19 February 2024 with Highways Officers at East Riding of Yorkshire Council in which it was agreed that the impact of the Proposed Development on the local road network is not likely to be severe and it was recommended that further discussions took place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and access locations). The further discussions with Area Engineers took place on 6 June 2024 in which the following items were agreed:

- The proposed locations of passing places, carriageway widening, and accesses were acceptable;
- Passing places should be 20m in length with 10m tapers at either end;
- East Riding of Yorkshire Council would be willing to adopt passing places and widening on the local road network where the works are constructed to an adoptable standard; and
- Temporary speed reductions could be implemented during the construction phase to overcome visibility issues without the need to remove trees, hedgerows and vegetation.

Following the meeting with East Riding of Yorkshire Council Area Engineers, revised passing places and access plans for the local road network were submitted for further review on 2 August 2024. A further minor amendment to take account of the Local Wildlife Site on Meaux Lane and passing place on Arnold Lane West was issued on 9 October 2024 in order to agree which passing places and areas of widening East Riding of Yorkshire Council would be willing to adopt. East Riding of Yorkshire Council confirmed on 12 September and 10 October 2024 that the highway mitigation proposals were acceptable and that the majority of carriageway widening, and new passing places constructed to East Riding of Yorkshire Council standards will likely be retained for adoption by the Highway Authority following completion of the construction stage of the Proposed Development.

National Highways

1.12 The nearest strategic roads on the SRN are the A63 and M62, which will not be adversely impacted by traffic generated by the Proposed Development, as has been agreed with National Highways (JSJV PEIR Review Document, TM001, Becky Garrett, 12.06.24).

1.13 As set out in **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**, discussions took place with National Highways via a meeting on 25 March 2024. National Highways and their consultants did not identify any specific concerns about the Proposed Development on the SRN and requested to be kept informed as the design and potential trip generation and distribution was refined.

1.14 As set out in **Schedule 2** of the **Draft DCO [EN010157/APP/3.1]**, the Applicant must consult with National Highways on any Construction Traffic Management Plan.

Hull City Council Highways

1.15 Hull City Council's Highways Officers were consulted via email on 16 September 2024. They were made aware that whilst some of the trips generated by the Proposed Development will use the highway network in the Hull City Council area (such as materials delivery into Hull Docks or using the A165), the vast majority of trips will occur outside of the highway network peak hours and that no amendments are proposed to the highway network in the Hull City Council area. A further meeting was held with Hull City Council Highways Officers on 23 September 2024 when it was agreed that whilst there was not likely to be any adverse impact on the Hull City Council highway network, the Applicant would keep Hull City Council informed of the likely HGV flows and timing so that the Council can liaise with the Port Authorities (this is because there are a number of large infrastructure schemes in the area that may generate trips through the Port during a similar period).

1.16 Hull City Council will be kept informed of the Proposed Development as construction traffic will use their highway networks (this will also allow Hull City Council to keep the Port of Hull informed of likely trips where Hull Docks are used to import materials for the Proposed Development).

1.17 As set out in **Schedule 2** of the **Draft DCO [EN010157/APP/3.1]**, the Applicant must consult with Hull City Council on any Construction Traffic Management Plan.

Preliminary Environmental Information Report

1.18 The Preliminary Environmental Information Report (PEIR) was prepared in May 2024 to support the statutory consultation on the Proposed Development.

1.19 The transport and access section of the PEIR concluded that the highways impact of the Proposed Development was negligible on the majority of transport links; in the few instances where an impact was anticipated this was mostly due to the fact that existing traffic flows on these links was extremely low which resulted in a disproportionately high percentage impact. On these low trafficked roads, it is proposed to provide mitigation in the form of passing places and widening which is considered to be sufficient to mitigate against any potential highway impacts.

Transport Assessment Scoping Report

1.20 The Transport Assessment Scoping Report was submitted to East Riding of Yorkshire Council Highways by email on 28 August 2024. The Transport Assessment Scoping Report set out the parameters on which this TA is based, including access arrangements, traffic routing, vehicle trip generation, extent of assessment for safety and capacity.

1.21 A review response was provided by AECOM on behalf of East Riding of Yorkshire Council on 9 September 2024. Further to additional correspondence from SCP, East Riding of Yorkshire Council confirmed their agreement with the suggested scope.

1.22 The Transport Assessment Scoping Report and East Riding of Yorkshire Council responses are included in **Appendix A**.

Additional Reports

1.23 The following reports are to be read alongside the TA:

- **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**;
- **Outline Construction Traffic Management Plan (CTMP) [EN010157/APP/7.7]**;
- **Outline Travel Plan** (Appendix A to the **Outline CTMP [EN010157/APP/7.7]**); and
- **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.

Report structure

1.24 The remainder of this TA is structured as follows:

- **Section 2** provides an overview of relevant national and local policies;
- **Section 3** sets out details relating to the Order Limits location and surrounding areas;
- **Section 4** provides details of the Order Limits accessibility by various travel modes including by vehicle, public transport, on foot and by bicycle;
- **Section 5** provides details of the Proposed Development;

- **Section 6** sets out the forecast vehicular trip attracting and distribution for the Proposed Development during construction, operation (including maintenance), and decommissioning;
- **Section 7** reviews the future baseline conditions including other committed developments in the area, highway improvements and other schemes;
- **Section 8** provides the highway impact assessment for the Proposed Development; and
- **Section 9** sets out the summary to the report.

2 PLANNING POLICY AND GUIDANCE CONTEXT

National Planning Policy

Overarching National Policy Statement for Energy (EN-1)

2.1 The Overarching National Policy Statement for Energy (EN-1) was first published in 2011 and provided the basis for decisions regarding nationally significant energy infrastructure. The latest version was published November 2023 (designated in January 2024). Section 5.14 outlines the planning policy for traffic and transport, including guidance on undertaking relevant parts of the Environmental Impact Assessment (EIA) .

2.2 Paragraph 5.14.5 states that 'If a project is likely to have significant transport implications the applicant's ES should include a transport appraisal'. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.

2.3 Paragraph 5.14.7 states that where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. This should include details of proposed measures to improve access by public and shared transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.

2.4 Paragraph 5.14.10 states that if additional transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits.

2.5 Section 2.10 in the National Policy Statement for Renewable Energy (EN-3)[1] considers solar development including the assessment of traffic and transport impacts during construction, inclusive of traffic and transport, noise and vibration and Large Loads. Paragraphs 2.10.120 to 2.10.126 refer to routing to sites and cumulative impact assessment requirements. Paragraphs 2.10.139 to 2.10.144 refer to mitigation measures and consultation requirements. Likewise, paragraphs 2.10.161 to 2.10.162 note operational traffic is generally limited, and that the Secretary of State will place limited weight on traffic and transport noise and vibration operational impacts.

National Planning Policy Framework (NPPF) (December 2024)

2.6 The National Planning Policy Framework (NPPF) was published in March 2012 and most recently updated in December 2024.

2.7 In paragraph 115 the NPPF states that when considering planning applications, it should be ensured that:

[1] https://assets.publishing.service.gov.uk/media/64252f5f2fa848000cec0f52/NPS_EN-3.pdf

- Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
- Safe and suitable access to the site can be achieved for all users; and
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach..

2.8 NPPF paragraph 116 states that "Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios".

2.9 In relation to paragraph 116, developments should be in accordance with paragraph 117, which states:

- Give priority first to pedestrians and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use.
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport.
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards.
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.10 Paragraph 118 of the NPPF states that all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

Local Planning Policy

East Riding of Yorkshire Local Transport Plan (LTP) (2021 – 2039)

2.11 The Local Transport Plan (LTP) for East Riding of Yorkshire was adopted in 2021 and sets out the County's objectives for improving travel within the county and improving the lives of all residents. The LTP is written to comply with the specific Department of Transport (DfT) requirements.

2.12 Appendix A – Network Management Plan of the LTP, sets out how East Riding of Yorkshire Council will ensure HGVs are directed to the most suitable routes. A freight map for the area has been developed. Large Loads are also considered in paragraph 3.8.5 of the Plan.

East Riding of Yorkshire Carbon and Energy Management Strategy (CEMS) (2021-2025)

2.13 The CEMS analyses the current context for carbon and energy management, sets targets for carbon reduction and provides recommendations for how to meet the targets.

2.14 It categorises greenhouse gas emissions to be considered in the analysis into three "scopes":

Scope 1: Direct emissions from owned or controlled sources

Scope 2: Indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company

Scope 3: All other indirect emissions that occur in a company's value chain.

2.15 One of the 12 key findings of the analysis was:

"The Council's energy consumption has reduced by 25.1% since 2012-13, partially through the Council's prudent investment of £4,062,000 on energy efficiency and renewables. There has been a significant carbon reduction of 1,725 tonnes over the same period and there has been an increase in budget pressures associated with energy."

The Institute of Environmental Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (July 2023)

2.16 The IEMA guidelines "provide the basis for systematic, consistent and comprehensive coverage for the assessment of traffic and movement impacts for a wide range of development projects." They are intended to "compliment professional judgement and the experience of trained and competent assessors".

2.17 In paragraph 1.22, the guidelines outline the importance of what is to be considered as part of a transport assessment and traffic and movement assessments for an EIA or non-statutory environmental assessments:

- *"Transport Assessments report the overall transport strategy for development sites to maximise accessibility for non-car modes of transport, but also assess the traffic impact of the proposals based on an assessment of conditions on the highway network in peak periods.*
- *Traffic and movement assessments for EIA and non-statutory environmental assessments present the impact of traffic and movement on people and the environment – which are initially*

undertaken with reference to daily traffic flows prior to assessing the time period with the highest potential impact (i.e. degree of change from baseline conditions), which may not be the same as the time period with the highest baseline traffic flows."

2.18 There are guidelines on screening/scoping (chapter 2) and the assessment methodology (chapter 3).

2.19 Screening/scoping guidelines are categorised as:

- The impacts of traffic and movement
- Determination of traffic and movement levels
- Spatial scope (Geographic extent)
- Year(s) of assessment
- Relationship between the future baseline and the cumulative scenario

2.20 Assessment methodology guidelines are categorised as:

- Severance
- Driver delay
- Pedestrian (all non-motorised users incorporated) delay
- Non-motorised user amenity
- Fear and intimidation
- Road Safety
- Road Safety Audits
- Hazardous/large loads

2.21 The guidelines have been used to inform and structure the scoping and assessment stages of the Proposed Development.

3 SITE AND SURROUNDINGS

Site Location

3.1 The Site encompasses an area of approximately 891 hectares (ha) and is located to the east of Beverley and to the north of Hull in the East Riding of Yorkshire, as shown in **Appendix B**.

Surrounding Areas

3.2 The areas in the vicinity of the Order Limits comprise a number of villages including Leven, 1km north of the Order Limits as well as Beverley, 250m to the west and Cottingham, approximately 700m to the south. Bransholme is also approximately 750m south of the Order Limits and Hull is approximately 3.5km to the south.

Study Area

3.3 The extent of the study area to be included within the TA was agreed with East Riding of Yorkshire Council Highways as part of the Transport Assessment Scoping Report (see **Section 1.19** above). The study area includes the main routes to be used to and from the Site; the A1035, the A165 White Cross Road, Meaux Lane/Meaux Road, Arnold Lane West, Carr Lane (Long Riston) and Carr Lane (Arnold). Additionally, access will be taken via A1174 Hull Road, Long Lane and Park Lane temporarily during the construction phase for the grid connection cable route works, these accesses will not be required during operation (including maintenance) and decommissioning. A plan showing the study area is included in **Appendix C**.

Existing Highway Network

3.4 The major roads which connect the Site to the wider road network are the A1035 and the A165.

3.5 The A1035 is a principal road which runs from the Killingwoldgraves Roundabout (A1079 / A1174 / A1035 / Killingwoldgraves Lane) west of Beverley to the junction with Market Place in Hornsea. It is predominantly a single carriageway road; however it is a dual carriageway for the section between the White Cross Roundabout and the Leven Roundabout. To the west of the White Cross Roundabout the road is subject to a 50mph speed limit which is increased to the national speed limit to the east of the roundabout.

3.6 The A165 is a principal road which runs from the signal-controlled junction with the A64 in Scarborough to the signal-controlled junction with the A1079 in Kingston upon Hull. It is a single carriageway road to the south of the White Cross Roundabout and becomes a dual carriageway for a 4km section north eastbound as it merges with the A1035. It is subject to the national speed limit, except for when it passes through residential areas such as Skirlaugh and Hull where it is reduced to 30mph and Coniston and Bridlington where it is reduced to 40mph.

3.7 In addition to the major roads, there are minor roads which will be used to provide construction access to the Site. The minor roads which will connect the Site to the major roads are Meaux Lane, Carr Lane (Long Riston), Carr Lane (Arnold) and Black Tup Lane/Arnold Lane West.

3.8 Meaux Lane (Meaux Road south of Holderness Drain) runs from a right-turn ghost island priority junction at the A1035, adjacent to Routh approximately 2.5km west of the White Cross Roundabout. It is restricted to vehicles under 7.5tn (Except for Access). It is subject to a 40mph speed limit and is not street lit. It is a single carriageway publicly maintained road with an approximate width of 5.0m (although this varies). The road has several bends along its route with limited visibility in places and has informal passing places / areas of minor widening in places.

3.9 Beverley Road forms the northern arm of the White Cross Roundabout and connects the A1035 to Leven. It continues as South Street to the north of the junction with Carr Lane. It is a single carriageway publicly maintained road with a carriageway width of between 6.0m and 7.0m. It has a 30mph speed limit in Leven village which is increased to the national speed limit to the White Cross Roundabout.

3.10 Black Tup Lane/ Arnold Lane West is a single track publicly maintained road which has a width of between approximately 4.5m and 5.5m. It runs in a southern alignment from its right-turn ghost island priority junction with the A165 White Cross Road to the junction with Woodhouse Lane where it continues as Ings Lane. It is subject to a 30mph speed limit and there are no restrictions in place. It is a generally straight road with some bends and there are some passing places along the route, however there is evidence of vehicle wheels tracking over the verge where the width of the road has not been sufficient for two vehicles to pass.

3.11 Carr Lane in Long Riston is a single track publicly maintained road which runs in a western alignment from its ghost island right turn priority T-junction with the A165 White Cross Road (immediately north of Long Riston and opposite Dancing Lane). Carr Lane (Long Riston) is a no-through road and provides access to Carr House Farm 1.5km to the west. It is approximately 3.0m wide with grassed highway verge on either side. There are no footways or street lighting. Carr Lane (Long Riston) is subject to the national speed limit, although recorded average speeds on the road are approximately 24mph.

3.12 Carr Lane in Arnold is a single-track road which runs in a western alignment from its junction with the Black Tup Lane and provides access to farmlands and does not provide through-traffic access to the west. It is approximately 3.0m wide with grassed highway verge on either side. There is no footway or street lighting.

3.13 Park Lane is a single-carriageway road which runs in a northern alignment from its junction with Northgate to the access to Creyke Beck substation, it becomes a single-track road to the north of the westernmost residential dwelling on Park Lane as it continues to the substation. It also forms a section of the National Cycle Network Route 1. The single track section is approximately 4.5m wide and has grass verge on either side. There is no footway on this section, although it is designated as a public footpath (Skidby Footpath No. 17, see **Table 3.1** below for details).

3.14 Long Lane is a single-track road which runs from its junction with A1174 Hull Road in a north-western alignment to its junction with Keldgate. It forms an underpass of the A164, where the road narrows with priority given to southbound traffic. In the vicinity of the Site accesses, it is approximately 4.7m wide and there is no footway with grass verge on either side.

3.15 A1174 Hull Road is a single-carriageway road which runs from the roundabout junction with the A164 to the A1079 Dunswell Roundabout to the north-west of Hull. In the vicinity of the Site accesses, it is approximately 8.3m wide and there is a shared footway/cycleway which runs along the west side of the road and grass verge on the east side.

3.16 The nearest SRN roads are the M62 and A63. It is likely that construction vehicle trips will be routed to the Site via the A63 (particularly for deliveries from Hull Port) and via the M62 for deliveries from other locations to the west. The A63 and M62 are included in the study area and through discussions with National Highways it has been discussed and agreed that the Proposed Development will not result in any significant effects on the Strategic Road Network. This is outlined in further detail in the **ES Volume, 2 Chapter 14: Transport and Access [EN010157/APP/6.2]**. Based on the discussions with National Highways and Hull City Council Highways, it was not considered necessary to establish baseline conditions by undertaking a traffic survey on the A63 or M62.

Public Rights of Way (PRoW)

3.17 Whilst most of the roads serving the Site are minor rural roads and do not have footways provided, there is a network of public footpaths and bridleways in the vicinity of the Site. Whilst these could be used to access the Site by workers it is appreciated that this is only likely to be of limited use given the isolated nature of some of these routes. They are largely used by ramblers, cyclists and equestrians.

3.18 In addition, the National Cycle Network Route 1 runs along Park Lane which is to be used for access temporarily during the construction phase. There is also a section of the long distance path, Wilberforce Way, which runs east of the A1174 and around the northern and eastern boundary of the Tokenspire Industrial Estate and connects with Woodmansey Footpath No. 28. The Wilberforce Way is a long distance path between Hull and York.

3.19 A plan showing each of the PRoW in relation to the Order Limits is included at **Appendix D. Table 3.1** provides a summary of the PRoW within and adjacent to the Site. The management of these routes within the Order Limits is set out in the **Outline CTMP [EN010157/APP/7.7]** and **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.

Table 3.1: PRoW Within or Adjacent to the Order Limits

Reference	Type	Description	Location in relation to Site	Section of the Site where route intersects
BEVEF23 – Beverley Footpath No.23	Public Footpath	Commences at the eastern end of Waterside Road and follows the River Hull to the southeast for approx. 2km.	Partially within Order Limits	Grid connection cable route
LEVEF05 – Leven Footpath No.5	Public Footpath	Commences from the A1035 at Monk Bridge and leads south along the eastern bank of Monk Dike for approx. 300m.	Within Order Limits	Land Area B
RISTF01 – Riston Footpath No. 1	Public Footpath	Commences at the western end of Woodhouse Lane and leads west across Monk Dike before continuing south for approx. 1km.	Partially within Order Limits	Land Area C
RISTF02 – Riston Footpath No. 2	Public Footpath	Commences at the southern end of Leven Footpath No. 05 and continues south until the Meaux and Benningholme Road Bridge on Kid Hill Lane.	Partially within Order Limits	Land Areas B and C

Reference	Type	Description	Location in relation to Site	Section of the Site where route intersects
SKIDB07 – Skidby Bridleway No. 7	Public Bridleway	Commences at Wanlass Farm and leads in a generally north westerly direction for approx. 600m.	Partially within Order Limits	Grid connection cable route
SKIDF10 – Skidby Footpath No. 10	Public Footpath	Commences at Skidby Footpath No. 11 at the eastern access to Creyke Beck electricity sub-station and continues south for approx. 1km.	Partially within Order Limits	Grid connection cable route
SKIDF11 – Skidby Footpath No. 11	Public Footpath	Commences at Wanlass Farm and leads in an easterly direction to the railway line.	Within Order Limits	Grid connection cable route
SKIDF12 – Skidby Footpath No. 12	Public Footpath	Commences at Skidby Footpath No. 11 in the vicinity of Wanlass Farm and leads in a north easterly direction to the railway line.	Partially within Order Limits	Grid connection cable route
SKIDF17 – Skidby Footpath No. 17	Public Footpath	Commences at the northern end of Park Lane, Cottingham and leads in a north-westerly direction to Burn Park Farm.	Partially within Order Limits	Grid connection cable route
SWINF07 – Swine Footpath No. 7	Public Footpath	Commences at Swine Road and leads south along the eastern bank	Adjacent to the Order Limits	Land Area C

Reference	Type	Description	Location in relation to Site	Section of the Site where route intersects
		of Monk Dike for approx. 1.8km.		
TICKB05 – Tickton Bridleway No.5	Public Bridleway	Commences at the southern end of Carr Lane (Tickton) and leads generally south for approx. 2.7km.	Partially within Order Limits	Land Area E
TICKF06 – Tickton Footpath No.6	Public Footpath	Commences at Foster's Bridge on T*ickton* B*ridleway No.* 05 and leads in an easterly direction to the northeast corner of Long Plantation.	Adjacent to the Order Limits	Land Area E
TICKF09 – Tickton Footpath No.9	Public Footpath	Commences at *Tickton Footpath No.* 12 and leads in a generally south easterly direction for approximately 800m.	Partially within Order Limits	Grid connection cable route
TICKF12 – Tickton Footpath No.12	Public Footpath	Commences at the east of the Weel and leads in a south easterly direction along the eastern bank of the River Hull for approx. 1.3km.	Partially within Order Limits	Grid connection cable route
WAWNF01 – Wawne Footpath No. 1	Public Footpath	Commences on Meaux Road approx. 150m west of Foxholme and leads in a north easterly	Partially within Order Limits	Land Area F

Reference	Type	Description	Location in relation to Site	Section of the Site where route intersects
		direction to Meaux Road at East Field.		
WOODB39 – Woodmansey Bridleway No. 39	Public Bridleway	Commences southeast of Hull Road Roundabout and leads south easterly for approx. 80m to rejoin Hull Road.	Adjacent to the Order Limits	Grid connection cable route
WOODF04 – Woodmansey Footpath No. 4	Public Footpath	Commences at a point on Shepherd Lane east of Old Hall and leads in a generally south direction for approx. 1.6km.	Partially within Order Limits	Grid connection cable route
WOODF09 – Woodmansey Footpath No. 9	Public Footpath	Commences at the Blacksmith's Corner in Woodmansey and leads in a south westerly direction for approx. 500m.	Partially within Order Limits	Grid connection cable route
WOODF12 – Woodmansey Footpath No. 12	Public Footpath	Commences at a point on Woodmansey Footpath No. 09 southwest of Paradise Farm and leads north westerly to the railway line.	Partially within Order Limits	Grid connection cable route
WOODF18 – Woodmansey Footpath No. 18	Public Footpath	Commences on the western side of Hull Road opposite Tokenspire	Partially within Order Limits	Grid connection cable route

Reference	Type	Description	Location in relation to Site	Section of the Site where route intersects
		Business Park and leads in a generally north westerly direction to Minster Way.		
Wilberforce Way	Long Distance Path	Commences at The Deep in Hull and runs to The Minster in York for approx. 96km.	Partially within Order Limits	Grid connection cable route
NCN Route 1	National Cycle Route	Commences at the White Cliffs of Dover and runs to Tain for approx. 1,200km	Partially within Order Limits	Grid connection cable route

3.20 There are no proposals to permanently stop up or divert any existing PRoWs as part of the Proposed Development. Users of the affected PRoWs will be protected in the first instance during construction via temporary fencing or distancing tactics (via banksperson), which will be supported by inspections. Where works may affect the safety of PRoW users and such risks cannot be controlled using local management measures, localised closures will be utilised. Such closures will be temporary and short-term to facilitate periods of construction works that are discrete in nature and can typically be completed within a maximum of five days. Public rights of way will remain open with safety measures in place as much as is reasonably practicable whilst maintaining the safety of those using them. This is detailed in secured by the **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.

3.21 Once appointed, the Principal Contractor will acquire the relevant licences and permissions with agreement with East Riding of Yorkshire Council as local highway authority to undertake the temporary closures. A plan showing the locations and extent of the affected PRoW is included at **Appendix D**.

3.22 Further details about the proposed management of the PRoW network is set out in the **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.

3.23 **Table 3.3** below shows the PRoW that may potentially be subject to management and/or temporary closure, together with the approximate length of section that is anticipated to be temporarily affected.

Table 3.3: PRoW that may potentially be subject to management and/or temporary closure, together with the approximate length of section that is anticipated to be temporarily affected

<table>
<tr><th>PRoW Reference</th><th>Type</th><th>Approximate Length Affected</th><th>Control Measures</th></tr>
<tr><td>LEVEF05 – Leven Footpath No.5</td><td>Public Footpath</td><td>322m</td><td>PRoW to be physically separated from proposed construction routes and works areas using mesh, Heras, other similar types of fencing where necessary.</td></tr>
<tr><td>RISTF01 – Riston Footpath No.1</td><td>Public Footpath</td><td>1,503m</td><td rowspan="7">The public footpaths run through the solar PV development and cross internal access tracks.

Crossing points will be marshalled by a Bankperson and possibly gated.

A default priority will be in place for construction drivers to give way to PRoW users.

Advanced warning signage will be provided to warn PRoW users and construction drivers of crossings.

Visibility will be maximised at crossings.

No temporary diversions will be required.</td></tr>
<tr><td>RISTF02 – Riston Footpath No.2</td><td>Public Footpath</td><td>4,157m</td></tr>
<tr><td>WAWNF01 – Wawne Footpath No. 1</td><td>Public Footpath</td><td>164m</td></tr>
<tr><td>BEVEF23 – Beverley Footpath No. 23</td><td>Public Footpath</td><td>416m</td></tr>
<tr><td>SKIDB07 – Skidby Bridleway No.7</td><td>Public Bridleway</td><td>7m</td></tr>
<tr><td>SKIDF10 – Skidby Footpath No.10</td><td>Public Footpath</td><td>110m</td></tr>
</table>

PRoW Reference	Type	Approximate Length Affected	Control Measures
SKIDF11 – Skidby Footpath No. 11	Public Footpath	411m	
SKIDF12 – Skidby Footpath No. 12	Public Footpath	350m	
SKIDF17 – Skidby Footpath No. 17	Public Footpath	400m	
TICKB05 – Tickton Bridleway No.5	Public Bridleway	21m	
TICKF09 – Tickton Footpath No.9	Public Footpath	423m	
TICKF12 – Tickton Footpath No.12	Public Footpath	395m	
WOODF04 – Woodmansey Footpath No. 4	Public Footpath	680m	
WOODF09 – Woodmansey Footpath No. 9	Public Footpath	162m	
WOODF12 – Woodmansey Footpath No. 12	Public Footpath	157m	
WOODF18 – Woodmansey Footpath No. 18	Public Footpath	191m	

PRoW Reference	Type	Approximate Length Affected	Control Measures
Wilberforce Way Long Distance Path	Long Distance Path	300m	
National Cycle Network Route 1	National Cycle Route	1,250m	

Baseline Traffic Flows

3.24 Information on the baseline network and traffic and access conditions has been gathered through on-site traffic counts of the links and junctions included within the study area, site visits across the study area and data provided by East Riding of Yorkshire Council as local highway authority. The surveys were undertaken in neutral conditions, i.e. they reflect typical traffic flow conditions outside of school holiday periods and with typical weather conditions.

3.25 The baseline data sources are listed below.

3.26 East Riding of Yorkshire Council automatic traffic counters of the following links (month of survey in brackets):

- A165 Main Street, Skirlaugh (September 2023).

3.27 Department for Transport automatic traffic counters of the following links (month of survey in brackets):

- A1174 Hull Road, Beverley – count point 92096 (April 2022).

3.28 Manually classified junction turning-movement count surveys undertaken at the following links (date of survey in brackets):

- Brandesburton Roundabout (October 2023).
- Leven Roundabout (October 2023).
- White Cross Roundabout (October 2023).
- A1035/Meaux Lane Priority Right-Turn Ghost Island Junction (October 2023).
- North Street/East Street/South Street/West Street Crossroads (October 2023).
- A165/Arnold Lane West Priority Right-Turn Ghost Island Junction (October 2023); and
- Wawne Road/Cumbrian Way/Kesteven Way Roundabout (October 2023).

3.29 Automatic Traffic Counter (ATC) surveys (recording total two-way movements on a link) by vehicle type on the following links (month of survey in brackets):

- Carr Lane (Opposite Dancing Lane) (October 2023).
- A1035 (East of Swinemoor Lane Roundabout) (February 2024).
- Meaux Road (south of Holderness Drain) (February 2024).
- Black Tup Lane (South of Carr Lane) (February 2024).
- West Street, Leven (East of Heigholme Lane) (February 2024).
- Heigholme Lane (February 2024).
- Park Lane, Cottingham (October 2024); and
- Long Lane, Woodmansey (October 2024).

3.30 The surveyed traffic flows at the junctions within the study area are shown at **Traffic Figure 1** in **Appendix E.**

Extant Permissions

3.31 The Transport Assessment Scoping Report reviewed local committed developments which are considered to be likely to have an impact on the highway network within the study area and are therefore considered within this TA. These have been agreed during scoping with East Riding of Yorkshire Council and are as follows:

- **Field House Solar Farm (22/00824/STPLF)** – Construction of solar photovoltaic development including solar panels, installation of sub-station, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound.

3.32 **Hornsea Project Four Offshore Wind Farm (NSIP)** – Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate.

3.33 It is anticipated that the construction phase of Hornsea Project Four will overlap with the Proposed Development construction phase; i.e. when both developments will generate their peak daily vehicle movements.

3.34 Field House Solar Farm has unclear timescales with regards to the commencement of the construction phase, it is possible that this is completed prior to the commencement of the Proposed Development construction phase. However, due to its location and use of the same vehicular routes as the Proposed Development it has been included as an assessed committed development within this TA.

3.35 There are no extant highway schemes in the immediate vicinity of the Site with the exception of the construction of the Beverley bypass scheme some four miles to the west of the Site.

3.36 The Beverley bypass scheme, specifically focusing on the A164 and Jock's Lodge Junction improvement, is a major highway project for East Riding of Yorkshire Council ; construction has started and is expected to be complete in 2026. The plan aims to alleviate significant congestion along two of the East Riding's busiest roads: the A164 (Hull to Beverley) and A1079 (Hull to York). The improvements will include replacing the existing Jock's Lodge junction with a new roundabout on the A1079 and connecting it with the Lincoln Way/Minster Way roundabout in Beverley. Additionally, the A164 will be widened into a dual carriageway between Coppleflat Lane and Harland Way.

3.37 These changes are expected to ease traffic flow, reduce bottlenecks, and enhance safety for all road users, including cyclists and pedestrians, by incorporating dedicated routes. Further information can be found at https://www.a164jockslodge.co.uk/. Once constructed the scheme will have a materially beneficial effect on the local highway network.

Personal Injury Collisions Review

3.38 In order to establish whether there are any existing highway safety issues which could be impacted by the Proposed Development, the Personal Injury Collision (PIC) STATS-19 data, which details collisions that have occurred over the most recent five years which includes three years without COVID-19 pandemic restrictions, (January 2018 to December 2019 and Jan to December 2022). For completeness accidents for the full period Jan 2018 to Dec 2022 are shown below (including periods with and without pandemic restrictions).

3.39 Since the DCO submission, the STATS-19 dataset for 2023 has been fully validated. As a result, the data is now available for assessment, enabling a more robust analysis and improving the accuracy of findings. The following section has subsequently presented an overview of the 2023 results and, therefore, reflects the most up-to-date available evidence. The 2023 collision data is found at **Figure 3.6**.

3.40 The extents of the Site and routes to the Site have been included in the collision review study area Due to the fact that this covers a large area, it has been considered in sections, as outlined below.

The A165 between Skirlaugh, Arnold and Long Riston

3.41 This section covers the stretch of the A165 between Skirlaugh, Arnold and Long Riston villages. It also includes the minor and rural roads which are designated as vehicle routes to the Site, e.g. Black Tup Lane. The area does not include roads to the east of the A165 in each village which will not accommodate construction traffic or other traffic associated with the Proposed Development.

3.42 The collisions which were recorded in this section are shown in **Figure 3.2**. **Table 3.4** provides a summary of the collisions which occurred.

Figure 3.2: Collisions on the A165 between Skirlaugh, Arnold and Long Riston

3.43

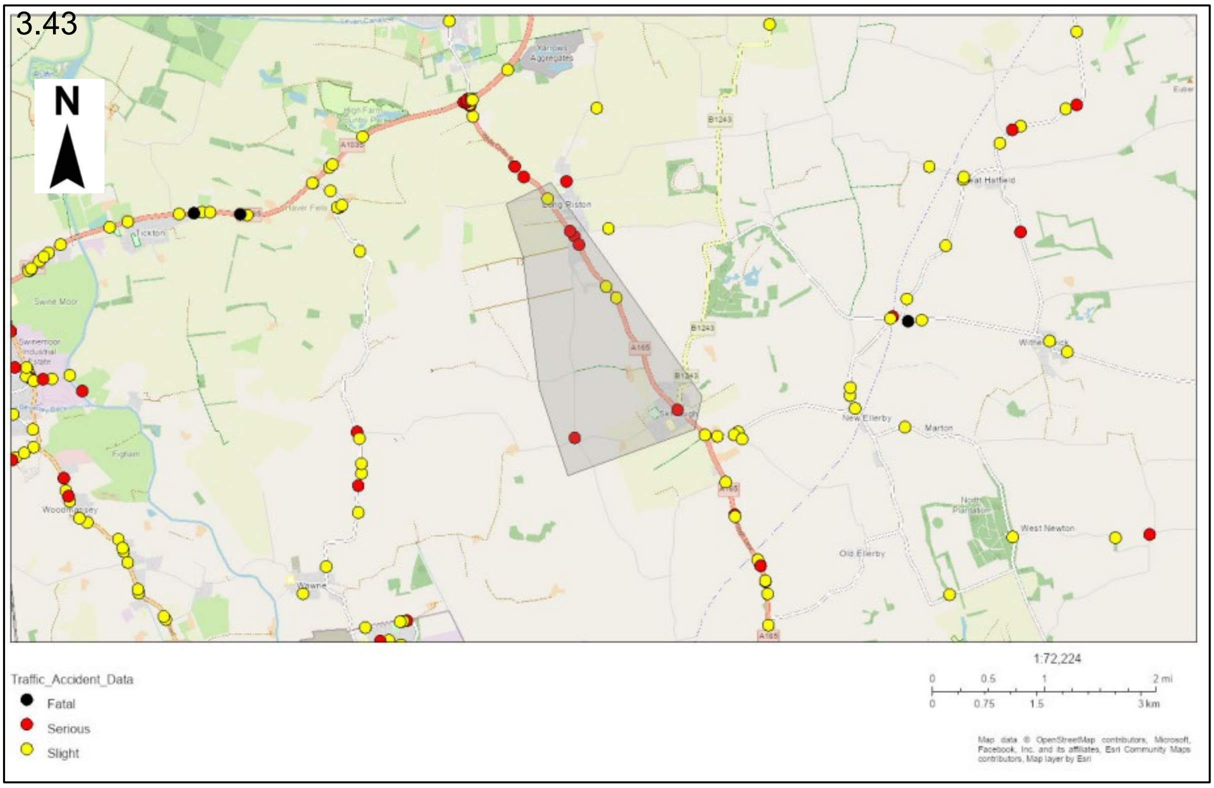


Table 3.4: Summary of Collisions on the A165 between Skirlaugh, Arnold and Long Riston

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160255975	2018	A165 between Balk Lane/ A165 and Main Road/ Vicarage Lane	1	1	Car driver	Slight
160257268	2018	At Junction Benningholme Lane/ Hull Road	3	3	Car Driver, Two Car Passengers	Serious
160265853	2018	At Junction Balk Lane/ Whitecross Road	3	2	Two Car Drivers	Slight
160827528	2018	At Junction Kidhill Lane/ Swine Road	1	1	Motorcyclist	Serious

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160917446	2020	A165 between Arnold Lane/A165 and Main St/ A165	2	2	Goods Vehicle Driver, Car Driver	Serious
160997815	2020	At Junction A165/ Dancing Lane	2	2	Two Car Drivers	Slight
161063331	2021	At Junction A165/ Main St	2	1	Car Driver, Motorcyclist	Serious
161168616	2022	At Junction A165/ Arnold Lane	2	2	Two Motorcyclists	Serious

3.44 In total there were eight collisions recorded in the study area, of which three were slight, five were serious and none were fatal. None of the collisions resulted in a pedestrian or cyclist as a casualty.

3.45 There were no specific junctions or links in the study area which have been identified as having a high frequency of collisions. The link where the most collisions occurred was between A165/Arnold Lane and A165/Main Street where three collisions occurred, an average of less than one per year. No collision patterns have been identified which require further consideration as part of the assessment.

3.46 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

A1035 A165 White Cross & Meaux Lane

3.47 This section covers the stretch of the A1035 and A165 and includes the village of Routh and A165/A1035 roundabout. It also includes the minor and rural roads which are designated as vehicle routes to the Site, e.g. a section of Meaux Lane.

3.48 The collisions which were recorded in this section are shown in **Figure 3.3**. **Table 3.5** provides a summary of the collisions which occurred.

Figure 3.3 – Collisions on the A1035, A165 White Cross Road & Meaux Lane

Table 3.5: Summary of Collisions on the A1035, A165 White Cross Road & Meaux Lane

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160263321	2018	Junction at A1035 / Meaux Lane	2	2	Two Car Drivers	Slight
160298772	2018	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	1	3	Three Car Passengers	Serious
160316277	2018	Junction at A1035/ Park View	2	1	Motorcyclist	Slight
160806622	2018	A165/ A1035 Roundabout	1	1	Motorcyclist	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160807171	2018	A165/ A1035 Roundabout	2	2	Car Driver and car Passenger	Serious
160809715	2019	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	2	1	Car Driver	Slight
160842474	2019	Junction at A1035 / Meaux Lane	2	3	Two Car Drivers, Car Passenger	Slight
160846947	2019	A165/ A1035 Roundabout	2	2	Van Driver, Car Passenger	Slight
160862027	2019	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	1	Motorcyclist	Serious
160882876	2019	A165/ A1035 Roundabout	2	1	Motorcyclist	Slight
160915561	2020	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	3	Two Car Drivers, Car Passenger	Slight
160986763	2020	Meaux Lane between junction at A1035 / Meaux Lane	2	1	Car Driver	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
		and Meaux Lane/ Skirlaugh Road				
161019841	2021	A165/ A1035 Roundabout	2	1	Motorcyclist	Serious
161023301	2021	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	2	Car driver, Car Passenger	Slight
161042784	2021	A165/ A1035 Roundabout	3	1	Car Driver	Serious
161042872	2021	A165/ A1035 Roundabout	2	1	Motorcyclists	Slight
161047030	2021	A165/ A1035 Roundabout	1	1	Motorcyclist	Serious
161071522	2021	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	1	1	Car Driver	Serious
161071648	2021	A1035 between A165/A1035 Roundabout and Leven Roundabout	3	1	Van or Car Driver	Slight
161079092	2021	A1035 between A1035/Park View and Heron Lakes	2	1	Bus Driver and passenger	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161124740	2021	A165/ A1035 Roundabout	1	1	Motorcyclist	Serious
161126474	2021	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	1	2	Car Driver, Car Passenger	Slight
161179799	2022	A165/ A1035 Roundabout	2	1	Motorcyclist	Slight
161197033	2022	A1035 between A1035/Park View and Heron Lakes	2	2	Two Motorcyclists	Slight
161204521	2022	A165/ A1035 Roundabout	2	1	Cyclist	Slight
161268927	2022	A165/ A1035 Roundabout	2	1	Car Driver	Slight

3.49 There were 12 collisions at the A165/A1035 Roundabout which equates to between two and three collisions per year on average. This is not above what is usually expected on a major roundabout on a major road with high daily volumes of traffic. Out of the 12 accidents, 42% were recorded as serious in severity.

3.50 Along Meaux Lane, between Manor Farm and Church Farm, five collisions occurred which equates to an average of one accident per year which is a very low average, and the majority were recorded as slight (80%).

3.51 No collision patterns have been identified which would require further consideration.

3.52 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

A1035 between A1174 and Field House Farm

3.53 This section covers the stretch of the A1035 between A1174 and Field House Farm.

3.54 The PICs which were recorded in this section are shown in **Figure 3.4**. **Table 3.6** provides a summary of the PICs which occurred.

Figure 3.4: Collisions on the A1035 between A1774 and Field House Farm

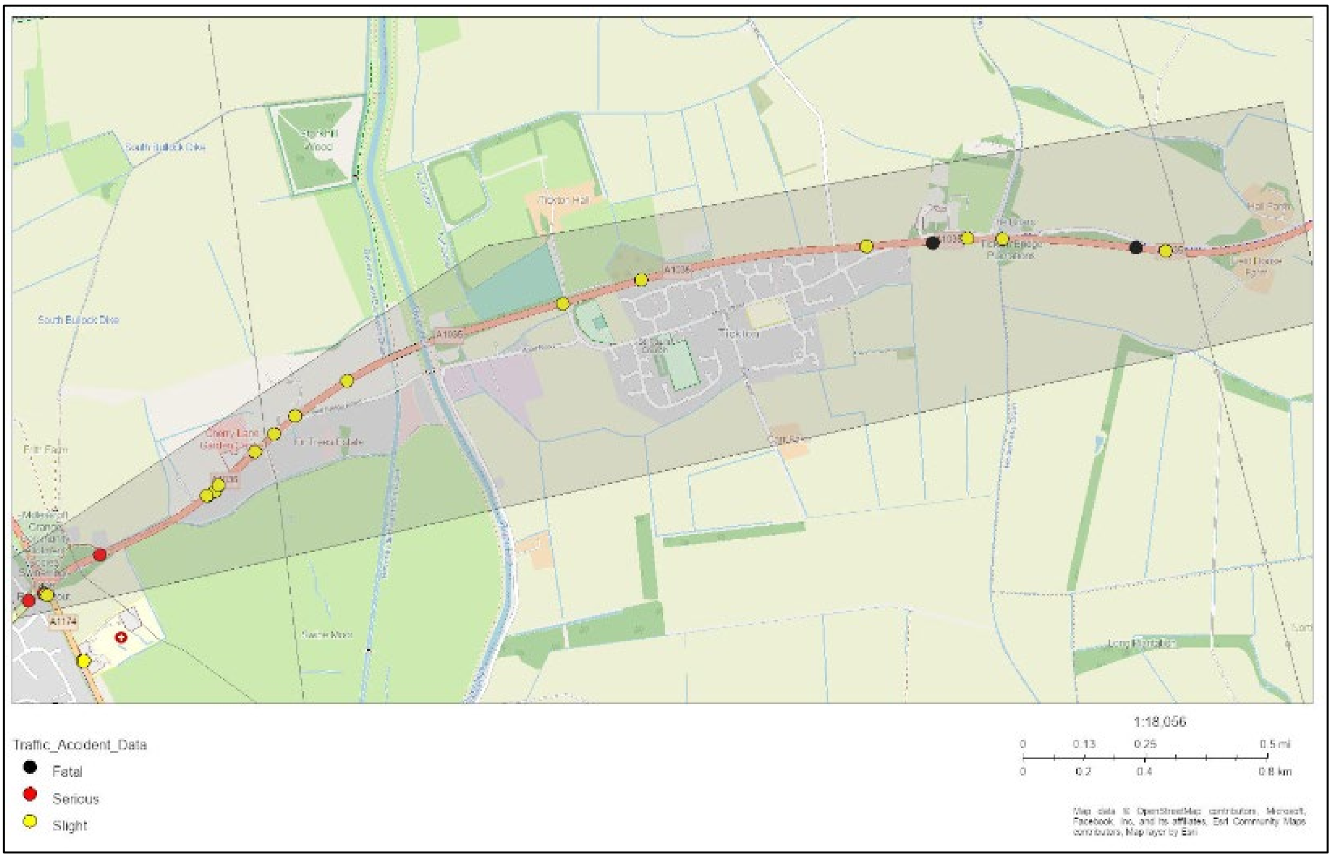


Table 3.6 – Summary of Collisions on the A1035 between A1774 and Field House Farm

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160288176	2018	Between A1035/Main St and A1035/Main St	2	2	Car Driver, Car Passenger	Slight
160303906	2018	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160337566	2018	Between Swinemoor Lane Roundabout and A1035/Main St	1	1	Car driver	Slight
160831586	2019	Swinemoor Lane Roundabout	1	1	Motorcyclist	Serious
160836973	2019	Between A1035/Main St and A1035/Park View	1	1	Cyclist	Fatal
160850344	2019	Between Swinemoor Lane Roundabout and A1035/Main St	2	4	Van Driver, Car Driver, Two Passengers	Slight
160881736	2019	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Slight
160891110	2019	Swinemoor Lane Roundabout	2	1	Cyclist	Slight
160957604	2020	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Cyclist	Slight
160965935	2020	Between Swinemoor Lane Roundabout and A1035/Main St	3	2	Car Driver and Cyclist	Slight
160967080	2020	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Fatal
160968118	2020	Between A1035/Main St and A1035/Park View	2	1	Car Passenger	Slight
160979638	2020	Swinemoor Lane Roundabout	2	1	Car Passenger	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160982172	2020	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Car Driver	Slight
160993685	2020	Swinemoor Lane Roundabout	2	3	Two Car Drivers and car passenger	Serious
161039619	2021	Between Swinemoor Lane Roundabout and A1035/Main St	2	2	Two Car Drivers	Serious
161131351	2022	Between Swinemoor Lane Roundabout and A1035/Main St	3	1	Car Driver	Slight
161202454	2022	Junction at A1035/Main St	2	2	Car Driver and Passenger	Slight
161231977	2022	Between Swinemoor Lane Roundabout and A1035/Main St	3	4	Car Driver, Three Passengers	Slight
161244282	2022	Junction at A1035/Main St	2	2	Car and Goods Vehicle drivers	Slight
161279605	2022	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Car Passenger	Slight

3.55 There were nine collisions between Swinemoor Lane Roundabout and A1035/Main Street. Two of these were outside Cherry Lane Garden Centre. This is an average of less than two collisions per year, along a main road with high volumes of traffic. This is therefore not a significant number of collisions.

3.56 There were four collisions at Swinemoor Lane Roundabout, which is an average less than one per year. Therefore this is not seen as a significant number of collisions.

3.57 There were two fatal accidents and they both occurred between A1035/Main St and A1035/Park View.

3.58 Overall, there was an average of three collisions per year across the section of the A1035 between Swinemoor Lane Roundabout and the priority junction with Field House Farm. This is a relatively low frequency of collisions and there are no clusters or collision patterns which have been identified which would suggest there are any existing safety issues which would require further consideration.

3.59 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

Wawne and Meaux Road

3.60 This section covers the stretch of Meaux Lane/Meaux Road which also covers part of the village of Wawne.

3.61 The collisions which were recorded in this section are shown in **Figure 3.5**. **Table 3.7** provides a summary of the collisions which occurred.

Figure 3.5: Collisions in Wawne and on Meaux Road/Meaux Lane

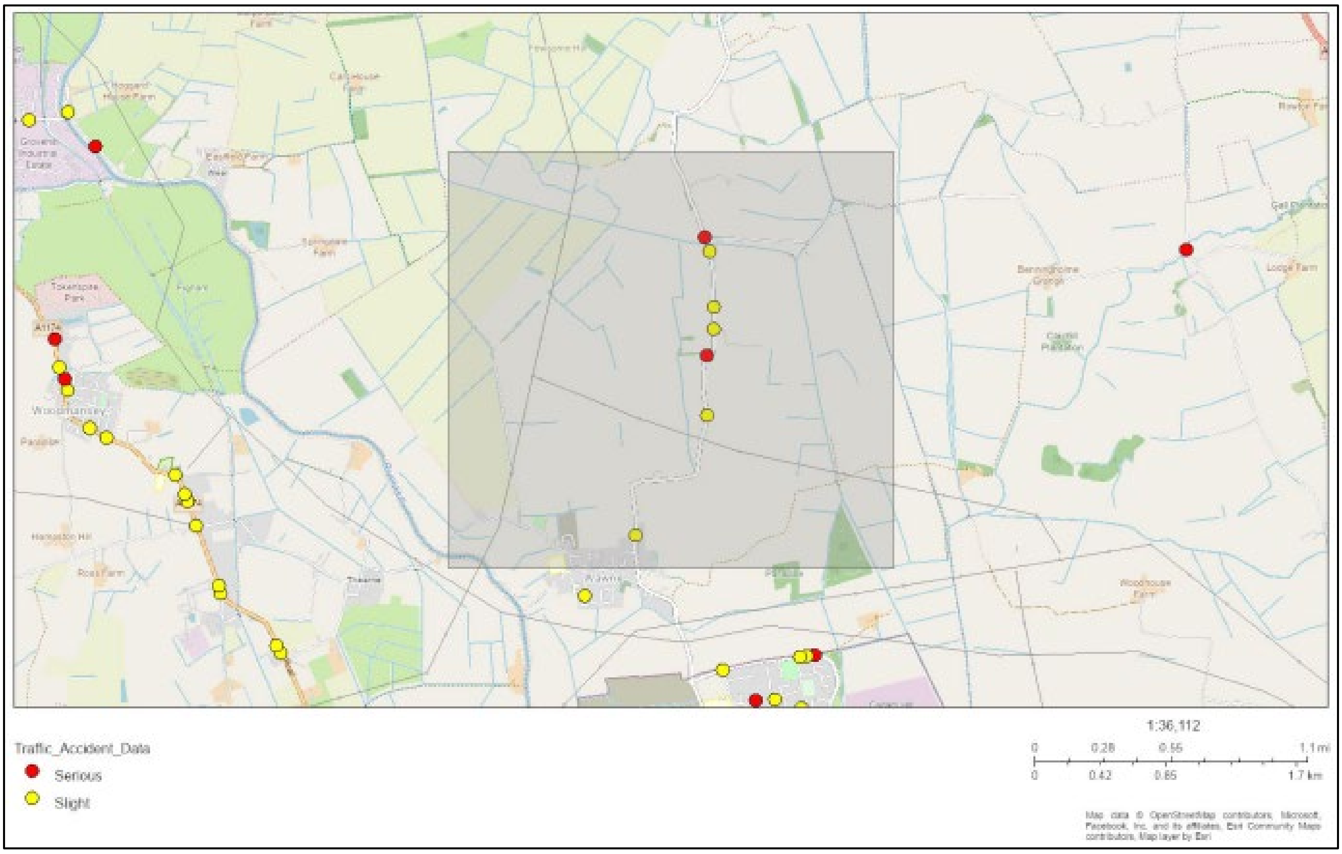


Table 3.7- Summary of Collisions in Wawne and on Meaux Road/Meaux Lane

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160299856	2018	Junction Meaux Lane/ Skirlaugh Road	2	2	Two Car Drivers	Serious
160937709	2020	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	3	1	Car Driver	Slight
161008016	2020	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	1	2	Car Driver and Passenger	Slight
161036532	2021	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	1	1	Car Driver	Slight
161103958	2021	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	1	Car Passenger	Serious
161224706	2022	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	2	Two Car Drivers	Slight
161250089	2022	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	1	Car Passenger	Slight

3.62 There are no patterns of collisions along the stretch of Meaux Lane. There is an average of 1.4 accidents per year along the stretch of road.

3.63 71% of incidents were recorded as slight severity and all accidents involved cars and no other types of vehicles.

3.64 No collision patterns have been identified which would require further consideration.

Updated 2023 Study Area

3.65 **Figure 3.6** provides a review of all four areas previously discussed, for the period of January – December 2023 only. **Table 3.8** provides a summary of the collisions which occurred.

Figure 3.6: Collisions Recorded in the Jan – Dec 2023 Period

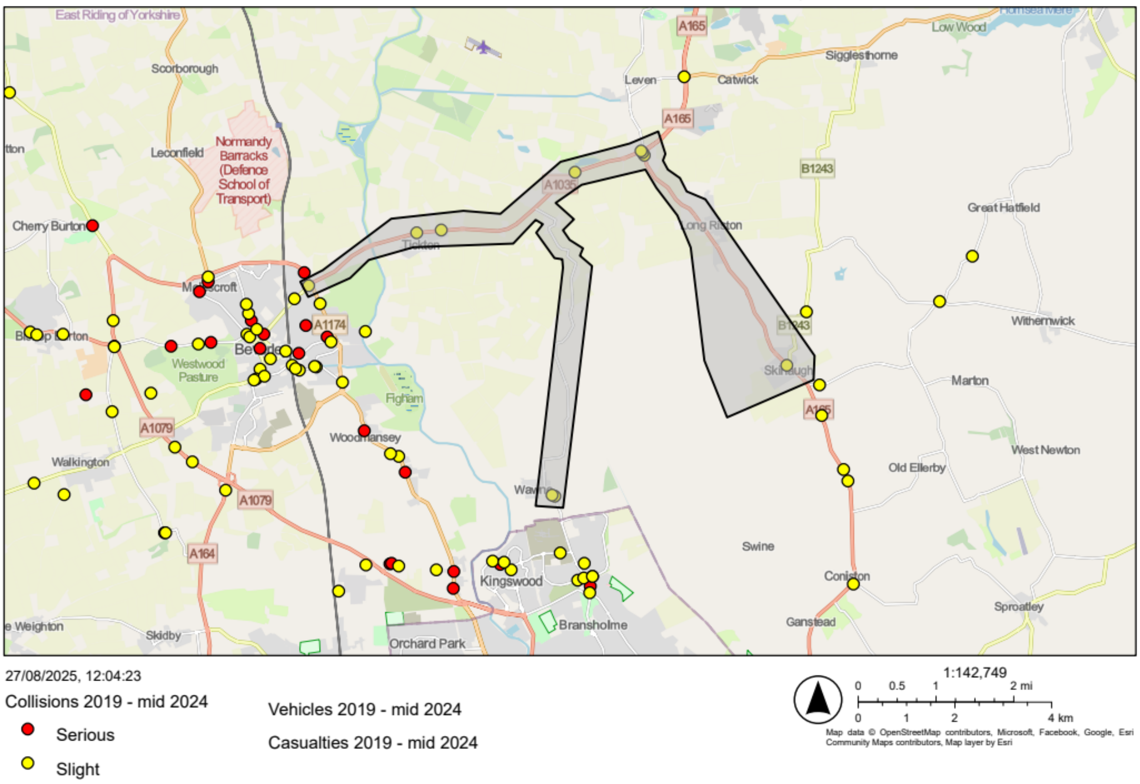


Table 3.7- Summary of Collisions in Jan – Dec 2023 Period

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161289740	2023	Junction of Langdale Villas / A165 Main Road	2	2	Car Driver and Pedestrian	Slight
161271865	2023	White Cross Road approach of Roundabout	2	1	Car Driver	Slight

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161364459	2023	White Cross Roundabout	1	1	Car Driver	Slight
161372656	2023	A1035 (W) approach of roundabout	2	1	Car Passenger	Slight
161348604	2023	Junction of High Farm Country Park / A1035	2	1	Cyclist	Slight
161376457	2023	Junction of Main Street / A1035	2	1	Car Passenger	Slight
161322746	2023	A1035 between Weel Road & Main Street	2	1	Motorcyclist	Slight
161316129	2023	B1230 approach of Swinemoor Lane Roundabout	3	1	Car Driver	Slight
161364187	2023	Sutton Road	2	1	Cyclist	Slight
161345226	2023	Sutton Road	1	2	Car Driver and Car Passenger	Slight

3.66 During the period of January 2023 to December 2023, a total of 10 collisions were recorded in the whole of the study area. All reported collisions were classified as slight in severity, with no serious or fatal collisions recorded. This indicates a relatively low level of accident severity within the study corridor for the year under review.

3.67 A breakdown of these incidents is as follows:

- 4 collisions along the A165 / A1035 corridor, including the village of Routh and the A165 / A1035 roundabout.
- 3 collisions on the A1035 corridor, between A1174 and Field House Farm.
- 2 collisions on Sutton Road, which also covers part of the village of Wawne and the extent of Meaux Road / Meaux Lane.
- 1 collision along the A165 at Skirlaugh, covering the adjacent villages of Long Riston and Arnold.

3.68 Based on these findings, the frequency and severity of collisions recorded are not considered sufficient to indicate any significant safety concerns along the study routes.

4 ACCESSIBILITY APPRAISAL

Access by Walking

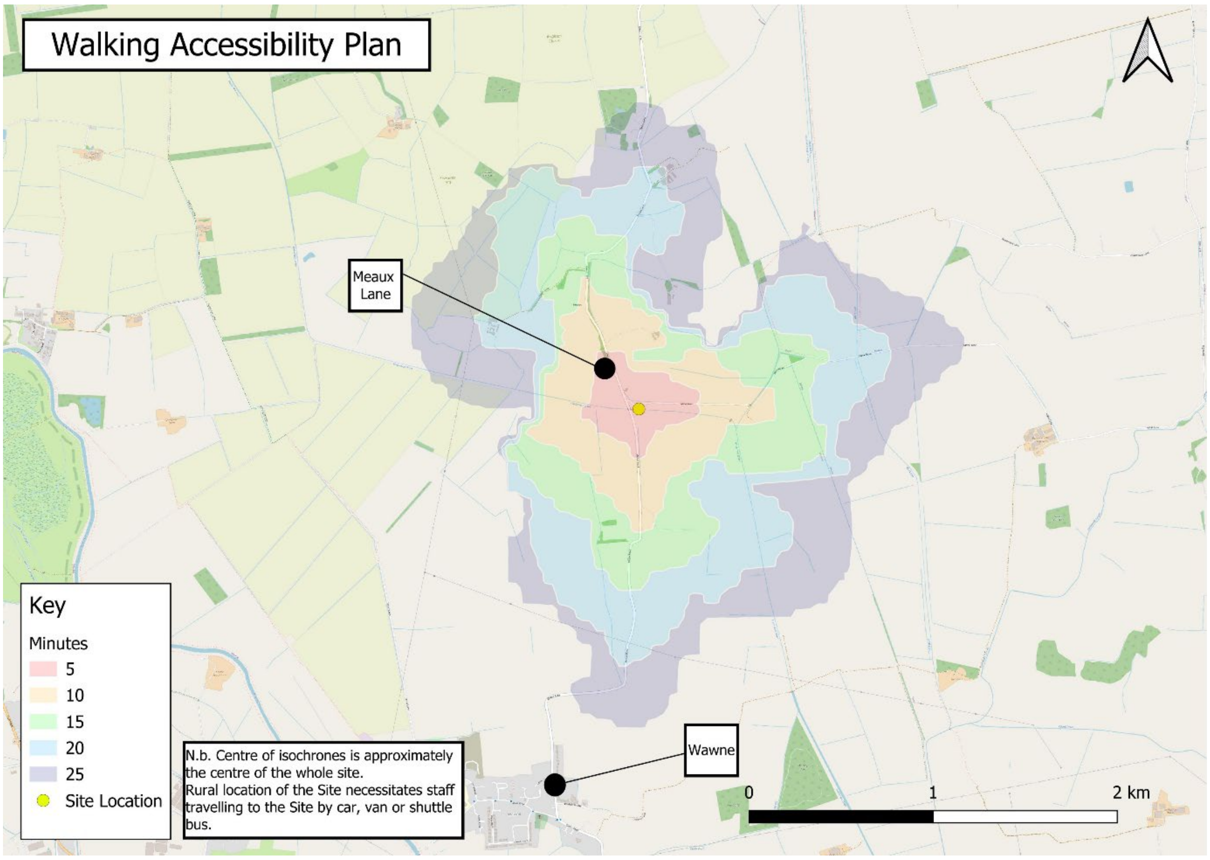
4.1 Walking is recognised as the most important mode of travel at a local level, and it offers the greatest potential to replace short car trips, particularly under two kilometres. As such, consideration has been given to the existing pedestrian facilities in the vicinity of the Proposed Development.

4.2 As is outlined in **Section 3** above, there are a number of public footpaths and bridleways which connect to, run through and adjacent to the Site and connect it to the wider area and nearby settlements. These have been considered as part of the analysis; however it is acknowledged that due to the rural location of the Site, it is unlikely that it will attract pedestrian trips associated with construction, operation (including maintenance) or decommissioning of the Site.

4.3 Additionally, given that the Site is across approximately 891 hectares and there are several locations on Site where people will travel to and from, the centre of the Site has been selected as one of the main construction compounds accessed off Meaux Lane (in Land Area F) which approximately represents the centre of the Site. Although clearly the precise walking catchment would vary depending on the area of the Site being accessed.

4.4 GIS software has been used to model a 5km walking catchment from the Site compound at Land Area F (hence it does not appear as a consistent shape around the Order Limits) and is shown in **Figure 4.1** and **Appendix F**.

Figure 4.1: Walking Accessibility Plan



4.5 As is shown in Figure 4.1, the Site is situated in a rural setting and is evidently not likely to generate pedestrian trips other than in a small number of cases where staff may live in local villages, such as Wawne for staff working in Land Area F.

Access by Cycling

4.6 Cycling is a relatively inexpensive, efficient, and healthy way to travel. Transport policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.

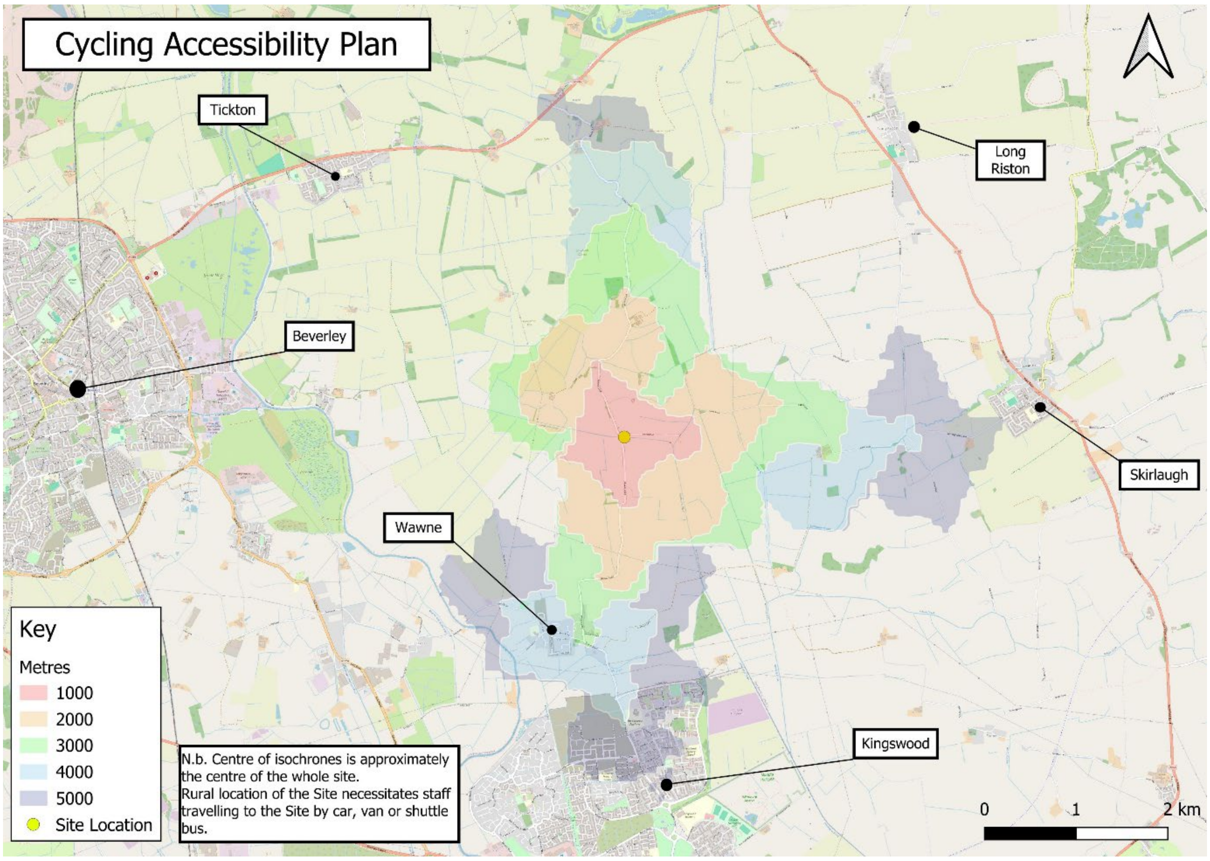
4.7 Cycle access has been considered to explore the possibility of construction and operational staff cycling to the Site.

4.8 As is outlined in **Section 3** above, there are a number of public bridleways which connect to, run through and are adjacent the Site and connect it to the wider area and nearby settlements. These have been considered as part of the analysis; however it is acknowledged that due to the rural location of the Site, it is unlikely that they will attract cycle trips.

4.9 In addition to public bridleways, the National Cycle Network (NCN) Route 65 (Trans-Pennine Trail) connects the Site to Hull and Hornsea, locally, and runs between Swine and Coniston villages where it intersects the A165. Further afield the route continues past Hull to Selby, York and terminates at Middlesbrough. NCN Route 1 connects to the Site in Cottingham and runs adjacent the site in Beverley.

4.10 GIS software has been used to model a 5km cycle catchment from the Site and is shown in **Figure 4.2** and **Appendix F.**

Figure 4.2: Cycling Accessibility Plan



4.11 As is shown in Figure 4.2, staff living in Wawne, Kingswood and part of Skirlaugh would be able to access Land Area F within a 5km cycle. This demonstrates that the Site has reasonable accessibility by cycling and in particular nearby villages, Hull and Beverley are accessible within a reasonable cycle distance from different parts of the Site. Nonetheless, due to the rural setting of the Site, it is unlikely to attract many cycle trips by staff.

Access by Public Transport

Bus

4.12 There are several villages and main roads which have bus services running in the vicinity of the Site. There are bus stops near to the Site in Brandesburton, Leven, Routh, Tickton, Long Riston, Arnold, Skirlaugh and Wawne.

4.13 **Table 4.1** below provides a summary of the bus services. As is shown, there are several locations adjacent to the Site which are served by frequent bus services that connect to several useful destinations in the region including Hull, Beverley, Hornsea and Bridlington.

Table 4.1: Bus Services Summary

Service No.	Bus Operator	Route Description (stops near Site in bold)	Frequency*			
			Mon-Fri Daytime	Mon-Fri Evening	Saturday	Sunday
10	Stagecoach East Midlands	Hull Interchange to **Wawne** via Stoneferry, Sutton Fields, Bransholme and North Bransholme.	Every 20 mins (Hourly to Wawne)	1 x service	Every 30 mins (Hourly to Wawne)	Every 30 mins (Hourly to Wawne)
24	Go Ahead East Yorkshire	Hull to Hornsea via Holderness Road, Coniston, **Skirlaugh, Arnold, Long Riston,** Leven, Brandesburton, Catwick, Sigglesthorne and Seaton.	Every 1.5 hours	Every 2.5 hours (Fridays only)	Every 1.5 hours	Every 2 hours
25	Go Ahead East Yorkshire	Hornsea to Hessle Square via Seaton, Sigglesthorne, Catwick, Brandesburton, Leven, **Routh, Tickton,** Hull Bridge, Beverley, Cottingham Green, Castle Hill, Willerby, Anlaby and First Lane.	Hourly	Every 2 hours (Fridays only)	Hourly	Every 2 hours
99 (Park & Ride)	Stagecoach East Midlands	Bridlington P&R to Hull Interchange via Beeford, **Skirlaugh,**	Hull to Bridlington: 0810, 0830, 0930 & 1110 Bridlington to Hull: 1600, 1730, 1830, 2030			

Service No.	Bus Operator	Route Description (stops near Site in bold)	Frequency*			
			Mon-Fri Daytime	Mon-Fri Evening	Saturday	Sunday
		Arnold, and Sutton Ings.				
242	Go Ahead East Yorkshire	Hedon to Beverley via Preston, Sproatley, Bilton, Ganstead, Coniston, **Skirlaugh, Arnold, Long Riston** and **Routh**	Hedon to Beverley: 0930 Beverley to Hedon: 1330			No service
243	North Holderness Community Transport	Withernsea to Beverley via Roos, Burton, Sproatley, **Skirlaugh, Arnold** and **Routh**	With to Bev: 0930 Bev to With: 1330	No service		

**Timetables correct as of October 2024*

Rail

4.14 There are three railway stations that are accessible from the Site: Cottingham, Hull and Beverley. The assessment of bus and rail services has demonstrated that there are a number of services operating within close proximity to the Site.

4.15 However, due to the existing land uses (predominantly agricultural land and farms) there is limited existing infrastructure connecting the bus stops and rail stations to the Site. It is not anticipated that any staff will travel to and from the Site by public transport. If there are some staff that choose to travel by bus or rail, the shuttle bus service operated by the Principal Contractor during the construction phase will pick them up and drop them off at a suitable off-site location to be agreed to avoid the need to walk or cycle between the stop/station and the Site.

Beverley Station

4.16 Beverly station is approximately 4km west from the Site as the crow flies. There are trains towards Bridlington, Sheffield, Scarborough, and York, and 4 trains call at the station each hour. There are two platforms, and the station is managed by Northern Rail. The station has 60 car parking spaces and 54 spaces for cycle storage. The station is unstaffed and there are toilets, however they are not accessible. There is a seating area and waiting room.

Cottingham Station

4.17 Cottingham Station is approximately 6km south of the Site as the crow flies There are trains towards Hull, Bridlington, Scarborough, Sheffield, and York, and four trains call at the station each hour. There are two platforms, and the station is managed by Northern Rail. The station has 45 car parking spaces and six spaces for bicycle storage. The station is unstaffed and there are no toilets available. There is an area for seating, however the waiting room is closed until further notice.

Hull Station

4.18 Hull station is approximately 8km south of the Site as the crow flies. From this station there are services towards Sheffield, Scarborough, Liverpool Lime Street, Manchester Piccadilly, Manchester Victoria, Bridlington, York, Halifax, Doncaster, London Kings Cross and Leeds, and seven trains call at the station each hour. There are seven platforms, and the station is managed by TransPennine Express. The station has 280 car parking spaces and 251 spaces for bicycle storage. There are staff on Site and there are both toilet and seating facilities available.

Summary

4.19 The nature of the Proposed Development necessitates a rural location in order to provide sufficient space to provide the proposed solar PV development and associated equipment. The rural location of the Site results in limited access to the Site by walking, cycling and public transport.

4.20 Nonetheless, there are some villages within walking or cycling distance of the Site, as is demonstrated by the accessibility appraisal. As a result of the rural setting, there is limited infrastructure which directly connects villages to the Site.

4.21 The Proposed Development will include the provision of some cycle parking for staff at the construction compounds however it is anticipated that most, if not all, staff will travel to and from the Site by car/van share or shuttle bus which will be arranged by the Principal Contractor as part of the **Construction Traffic Management Plan** , this is secured as a Requirement to the DCO through the **Outline CTMP [EN010157/APP/7.7]**.

5 PROPOSED DEVELOPMENT

Proposed Development

5.1 This section of the TA provides details of the Proposed Development including the proposed programme, the construction, operation (including maintenance) and decommissioning phases, the proposed solar PV development Site layout, access arrangements, vehicle types, traffic routing, parking arrangements and pedestrian/cycle access.

5.2 A summary of the Proposed Development components is provided in Section 1 of the TA and is described in detail in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**.

Programme

5.3 As outlined in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**, the earliest that construction is expected to start is Quarter 3 in 2026, subject to obtaining development consent. Construction is anticipated to be 24 months and would be phased, with Land Areas B-F constructed in stages. The assumption is that no more than two Land Areas would be constructed concurrently. Construction of the grid connection cable route would occur at the same time as the Land Areas. The duration of construction of each land Area is anticipated to be up to eight months. For the grid connection cable route works it is anticipated to be up to ten months.

5.4 The earliest that the Proposed Development could be connected to the national electricity network and be operational is Quarter 3 2028. The operational life of the Proposed Development is expected to be 40 years.

5.5 Decommissioning is expected to take between 18 and 24 months, and to be undertaken in phases.

5.6 Based on the above, for the purposes of this assessment, the programme is assumed to be:

- Construction phase – (Q3 2026 to Q3 2028).
- Operational phase – (2028 to 2068); and
- Decommissioning phase – (not earlier than 2068).

Construction

5.7 The nature of the Proposed Development is such that the greatest impact in terms of transport and access is likely to occur during construction and decommissioning phases. Subject to obtaining development consent, the earliest construction start is expected to be Q3 2026. Construction is anticipated to be 24 months, with the peak period of construction activity anticipated to be during 2027.

5.8 As outlined in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**, phasing is indicative at this stage. Details of phasing will be developed following procurement of the Principal Contractor. In order to undertake a robust assessment, indicative phasing has been set out which provides a worst-case scenario for the study area. The following phasing is assumed for assessment purposes:

5.9 The estimated phasing during construction is as follows:

- Phase 1: Land Area B (months 1 to 4)
- Phase 2: Land Areas B & C (months 5 to 8)
- Phase 3: Land Areas C & D and commence grid connection cable route works (months 9 to 12)
- Phase 4: Land Areas D & E and continue grid connection cable route works (months 13 to 16)
- Phase 5: Land Areas E & F and continue grid connection cable route works (months 17 to 20)
- Phase 6: Land Area F and complete grid connection cable route works (months 21 to 24).

5.10 The assessment in this TA and the **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]** is based on the above programme, however it is unlikely that a short delay in construction would result in a change to the conclusions of the TA.

Operation

5.11 Q3 2028 is the earliest date that the Proposed Development could be completed in readiness for connection to the national electricity network.

5.12 During the operation (including maintenance) phase of the Proposed Development, on-site activities would include routine servicing, maintenance, monitoring, and replacement of solar PV development or Battery Energy Storage System (BESS) equipment as and when required, as well as solar panel cleaning and vegetation management.

5.13 As detailed within the **Outline Operational Environmental Management Plan (Outline OEMP) [EN010157/APP/7.3]**, During the operation (including maintenance) phase of the Proposed Development, on-site activities would be limited to maintenance activities and grazing. Maintenance activities, as described in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**, would include:

- Regular visual inspection of all infrastructure;
- Regular scheduled inspections and testing of equipment;
- Replacement of consumable items (e.g., inverter filters);
- Cleaning of solar PV modules, if required;

- Repair or replacement of solar modules or other components, if damaged;
- Delivery of spare parts, replacement equipment items and consumables;
- Water management (e.g., clearing of drainage ditches); and
- Vegetation management (e.g., cut back of grass, hedges, trees).

5.14 Access to the Site from the local highway network would be required during the operational phase to allow for ongoing maintenance activities. Access will be required from time to time for routine maintenance, and less frequently for major maintenance & upgrades. It is anticipated that the number of workers typically on-site at any one time during the operational (including maintenance) phase can be broken down as follows:

- Two workers for security during daytime; and
- Two workers for security at night.

5.15 Permanent security staff are expected to be based at the office within the on-site substation compounds. Other operational workers undertaking maintenance would be based within the region and would attend the Proposed Development periodically, making use of the staff welfare and office facilities within the substation compounds.

5.16 As well as routine maintenance, there may also be a requirement to repair and replace components on Site as part of maintaining the Proposed Development during the operation (including maintenance) phase. This could require the use of HGVs. Certainty of the number of HGVs required for these works is not known at this stage, given the extent of any repair and replacement works is unknown.

5.17 The operational life of the Proposed Development is expected to be 40 years.

Decommissioning

5.18 As previously outlined, the operational life of the Proposed Development is 40 years from the start of operation (including maintenance). After which, the Proposed Development will require decommissioning.

5.19 Decommissioning is expected to take between 18 and 24 months, to be undertaken in phases.

5.20 The process of decommissioning would involve the removal of all solar infrastructure, including the solar PV modules and on-site supporting equipment, to be recycled or disposed of in accordance with industry best practices at that time. It is anticipated at this stage that underground cabling would be left in-situ to avoid unnecessary ground disturbance. Any proposals to leave certain infrastructure, for example internal access tracks, would be discussed and agreed with landowners as part of the decommissioning process. Any requests from the Distribution Network Operator to retain the on-site substations beyond the operational period of the Proposed Development, will be discussed and agreed with the Distribution Network Operator.

5.21 Passing places and carriageway widening that are likely to be adopted will be retained permanently (during the operational phase and after decommissioning).

5.22 The decommissioning phase is expected to be similar in duration and nature to the construction phase, associated impacts are expected to be equal to or less than those occurring during construction in respect to traffic movements.

5.23 For the purpose of the EIA, the decommissioning assessment year is assumed to be no earlier than 2068, which is considered to be too far into the future to be able to accurately predict baseline traffic flows or road/junction layouts at that time. It is therefore considered reasonable to assume that the impacts during the decommissioning phase will be the same as, or less than, the construction phase..

5.24 A **Decommissioning Traffic Management Plan** will be developed by the Principal Decommissioning Contractor prior to decommissioning in consultation with East Riding of Yorkshire Council, , as detailed in and secured by the **Outline Decommissioning Environmental Management Plan (Outline DEMP) [EN010157/APP/7.4]**.

5.25 Therefore, this TA will assess the peak construction phase as the scenario used to determine the traffic impact of the Proposed Development.

Vehicular Access Arrangements

5.26 Each Land Area has been assessed for its specific access arrangements individually based on assessment of potential routes from the nearest major road. Where possible, the existing road network has been utilised and internal access roads with the overall aim of minimising the impact of the Proposed Development on the local highway network in terms of safety and capacity.

5.27 The Proposed Development includes the provision of six new access junctions in addition to existing accesses from the local highway network into the Site. All of the accesses have been designed to be 7.3m wide with 15m junction radii to ensure that HGVs can safely access and egress with sufficient width for two HGVs to pass if required. In some cases, the access junctions adjoin single track roads.

5.28 Staff will access the Site via the junctions closest to the main construction compounds to access the relevant area where they are required. Main construction compounds will incorporate some car parking, and the Principal Contractor will also operate a shuttle bus service to bring staff to the Site and minimise traffic impact of single occupancy vehicle trips.

5.29 The proposed construction accesses and off-site junction mitigation, including passing places and carriageway widening on the routes connecting the accesses to the nearest major road are shown at SCP drawing numbers SCP/230483/SK13, SCP/230483/SK14, SCP/230483/SK15 and

SCP/230483/SK16 in **Appendix G**. Additional mitigation is proposed on Meaux Lane and Meaux Road to provide a temporary speed reduction from 40mph to 30mph between the junction with A1035 and a point approximately 40m north of Tippet Lane as well as a second section on Meaux Road in the vicinity of the two proposed accesses to Land Area F. The temporary speed reduction is set out in the **Traffic Measures Plans [EN010157/APP/2.9]** and detailed in Schedule 6 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Regulation Measures).

5.30 All of the construction accesses to the Site will be retained for operation (including maintenance) and decommissioning phases. New access junctions will be reinstated to their existing condition following completion of decommissioning.

Internal Access Tracks

5.31 A series of internal access tracks will be provided to enable connection between the Land Areas for movement of plant and materials, shuttling staff around the Site during construction, operation (including maintenance) and decommissioning. The use of these internal access tracks minimises impact on the local highway network and is an approach that the Applicant and other solar farm developments have adopted.

5.32 The internal access tracks would typically be constructed of permeable materials such as gravel or crushed concrete to allow water to filtrate through and maintain greenfield runoff rates and would be of approximately 4m width, with the exception of internal access tracks leading to the on-site substations which would have a width of 4.5m.

Parking

Car parking

5.33 During the construction phase, there will be a total provision of approximately 140 parking spaces across the Site at the main compounds serving the Site which will include parking spaces as below.

- Two compounds serving Land Area B – 20 car spaces plus two mini-bus drop-off bays for each compound;
- Compound serving Land Area C – 20 car spaces plus two mini-bus drop-off bays;
- Compound serving Land Area D – 20 car spaces plus two mini-bus drop-off bays;
- Compound serving Land Area E – 20 car spaces plus two mini-bus drop-off bays;
- Compound serving western portion of Area B and northern portion of Area D - 20 car spaces plus 2 mini-bus drop-off bays; and

- Compound serving Land Area F – 20 car spaces plus two mini-bus drop-off bays.

Cycle parking

5.34 The main compounds will include the provision of a small number of cycle parking stands to accommodate staff who may choose to cycle to the Site, for example if they are residing locally. The final number of stands will be detailed in the **Construction Traffic Management Plan** and associated **Travel Plan**.

Grid connection cable route

5.35 The Proposed Development would connect to the National Grid Creyke Beck Substation, located approximately 5.6km south-west of the southern extent of the Land Areas by underground cabling. The grid connection cable route is set out in **ES Volume 3, Figure 1.2: Land Areas and Cable Routes Plan with Field Numbering System [EN010157/APP/6.3]**.

5.36 The underground cabling would comprise 132kV cables. The maximum dimensions of the trench required to install the cabling would be approximately 1.6m deep by 1.5m wide.

5.37 Cable ploughing will be utilised where ground conditions and other Site factors allow; however, for the purposes of the EIA, it has been assumed that open cut trenching will take place as a worst-case scenario. The underground cabling would be located in existing gaps in hedgerows wherever practicable. In instances where open cut or cable plough cannot be used, for example when crossing a public road or large drainage ditch, alternative methods, such as Horizontal Directional Drilling (HDD), would be used. The areas requiring HDD are identified on **ES Volume 3, Figure 3.3: Indicative HDD Crossing Points [EN010157/APP/6.3]**.

5.38 The construction area for the grid connection cable route works will be accessed via internal access tracks and existing accesses directly off the local highway network at A1174 Hull Road, Long Lane and Park Lane, Cottingham.

5.39 The grid connection cable route works will require temporary traffic management when the works intersect/cross local roads. It is anticipated that approximately 100m length of trenching works can be achieved per day which would enable temporary traffic management to be scheduled on an ongoing basis as and when required, as is secured pursuant to Schedule 7 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Measures). It is envisaged that traffic management will be dealt with through lane closures rather than whole road closures but where roads are single track it may be necessary to close the full width for limited periods, as is secured pursuant to Schedule 5 of the **Draft DCO [EN010157/APP/3.1]** (Temporary Closures or Restrictions on Streets and Public Rights of Way) and Schedule 7 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Measures). The exact methodology for implementing the temporary traffic management will be determined by the

Principal Contractor once appointed and designed to minimise any potential effects as far as possible.

5.40 Further details will be provided within the **Construction Traffic Management Plan** once further details are known in due course. The **Construction Traffic Management Plan** will be prepared in line with the **Outline CTMP [EN010157/APP/7.7]**.

Vehicle Types and Large Loads

Construction

5.41 At this stage, it is anticipated that the majority of HGV deliveries during the construction phase will use standard length (16.5m long) articulated HGV.

5.42 However, two Large Loads are anticipated to be required to transport the two transformers to the on-site substations in Land Areas C and E. The Large Loads will consist of a total of four vehicle movements during the construction phase, one arrival and one departure to both substations. The two on-site substations are to be left in-situ subject to agreement with Distribution Network Operator, so no further Large Loads are anticipated to be required to remove or replace the transformers during the decommissioning phase.

5.43 The substation at Land Area C will be accessed via the A165 White Cross Road, Carr Lane (Long Riston) and along internal access tracks. The junction of A165 White Cross Road and Carr Lane (Long Riston) is to be widened to accommodate a standard length articulated HGV. The proposed access arrangement has been assessed for the anticipated Large Load vehicle and the swept path assessment demonstrates that the proposed arrangement is sufficient for safe and efficient access and egress. The swept path assessment is included in **Appendix G**.

5.44 The substation at Land Area E will be accessed via the A1035, Meaux Lane and along internal access tracks. Meaux Lane is proposed to be widened and passing places are provided at several locations in order to accommodate a standard length articulated HGV. A new access junction is proposed to facilitate HGV access to Land Area E via Land Area D on the west side of Meaux Lane. The route along Meaux Lane with the proposed highway mitigation has been assessed for the anticipated Large Load vehicle and the swept path assessment demonstrates that the proposed arrangement of Meaux Lane is sufficient for safe and efficient access and egress although a road closure will be required due to the narrow width of Meaux Lane which would not enable another vehicle to pass the Large Load. East Riding of Yorkshire Council Highways has confirmed that a road closure of Meaux Lane would be acceptable during the night time (response shown at **Appendix A**). The swept path assessment is included in **Appendix G**.

5.45 There is the possibility of heavy and high loads being transported to Site that would not be classified as Large Loads but would require specific routes.

National Highways “Advice for Hauliers” sets out the available heavy and high load routes which connect to the Strategic Road Network.

5.46 High Route 41 connects the A63 to the A1035 at Beverley via the A1079 and the A165 and would therefore be a suitable route to provide high loads to the Site which is accessed off the A165.

5.47 Heavy Route 107 connects the A63 to Cottingham adjacent to National Grid Creyke Beck Substation and would therefore provide a suitable heavy load route to the Site.

5.48 Although based on the anticipated construction activities at this stage, vehicle trips associated with construction of the Proposed Development are not anticipated to include any loads of a dangerous nature based on the classification on loads from the Department for Transport. Should this change and it be necessary for the Proposed Development to include a number of dangerous load movements, this will be first discussed with the relevant local highway authority (Hull City Council, East Riding of Yorkshire Council and National Highways as necessary) and the required approvals will be obtained.

5.49 The anticipated volume of LGVs and HGVs during the construction phase is set out in **Section 6** below.

5.50 Further details will be provided within the **Construction Traffic Management Plan** once further information is known in due course. **The Construction Traffic Management Plan** will be prepared in line with the **Outline CTMP [EN010157/APP/7.7]**.

Operation

5.51 The majority of vehicle trips during the operation (including maintenance) phase will be for maintenance which will require LGVs in the majority of instances. Should any major repair, replacement or maintenance works be required then there is the possibility of requiring access for a worst-case of a standard length (16.5m) articulated HGV.

5.52 It is not anticipated that any Large Loads will be required during the operation (including maintenance) phase.

Decommissioning

5.53 It is anticipated that the decommissioning stage will be similar in nature to the construction phase. The worst-case vehicle is anticipated to be a standard length (16.5m) articulated HGV and it is not anticipated that any AILs will be required.

5.54 Further details will be provided within the **Decommissioning Environmental Management Plan** once further details are known in due course.

6 TRIP ANALYSIS

6.1 This section outlines the approximate trip generation and distribution for each phase of the Proposed Development, i.e. during construction, operation (including maintenance) and decommissioning.

Trip Generation

6.2 The PEIR assessment predicted the trip generating potential of construction activities associated with each Land Area using trip rates extracted from comparable sites on the National Planning Inspectorate portal and also site experience from the Applicant's sites elsewhere.

6.3 Since the statutory consultation stage, for which the PEIR was produced, the construction phase traffic data has been refined to include anticipated daily trip numbers associated with the construction of each Land Area, the grid connection cable route works and other associated works, as well as anticipated operational and decommissioning daily trip numbers. These numbers were set out in the Transport Assessment Scoping Report and have been agreed with East Riding of Yorkshire Council.

Construction Phase

6.4 The two elements of the works during the construction phase which will determine the vehicle trip generation are staff and delivery/construction vehicles associated with works taking place in each Land Area and the grid connection cable route works.

6.5 Both staff and construction vehicles will be controlled through the implementation of an **Outline CTMP [EN010157/APP/7.7]** and **Outline Travel Plan** (**Appendix A** to the **Outline CTMP [EN010157/APP/7.7]**), which will set out the protocols for vehicle routes, staff parking, on-site shuttle bus plans.

Construction Vehicle Trips – Construction Phase

6.6 For the majority of the construction period, construction HGVs will be controlled to operate between the typical AM and PM network peak hours (between 09:00 and 16:00). It is anticipated that the vast majority of HGV arrivals and departures will be spread across the hours between the peaks, and this will be managed through the implementation of the **Outline CTMP [EN010157/APP/7.7]**.

6.7 The number of daily construction vehicles predicted to be generated during the peak of the construction phase trips for each Land Area and the grid connection cable route works for light and heavy vehicles is summarised in **Table 6.1**.

6.8 Notwithstanding the above, there will be a short period during the construction on each Land Area of approximately two weeks in duration when it will be necessary for approximately ten HGV trips (20 HGV movements) to travel to and from the Site which may occur during the AM peak period (0715-0815).

6.9 The occurrence of these trips during the AM peak period will have no significant impact on the local highway network operation and these trips are included in the anticipated construction phase trip generation assessed in **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**.

Table 6.1: Proposed Development Daily HGV and LGV Trips

Land Area	Vehicle Movements	HGVs	LGVs (Other Deliveries)
B	Arrivals	15	13
	Departures	15	13
	Total Daily	**30**	**26**
C	Arrivals	20	16
	Departures	20	16
	Total Daily	**40**	**32**
D	Arrivals	31	31
	Departures	31	31
	Total Daily	**62**	**62**
E	Arrivals	15	13
	Departures	15	13
	Total Daily	**30**	**26**
F	Arrivals	12	12
	Departures	12	12
	Total Daily	**24**	**24**
Grid connection cable route works	Arrivals	5	5
	Departures	5	5
	Total Daily	**10**	**10**

Staff Vehicle Trips – Construction Phase

6.10 It is understood that staff will arrive in the hour before the working day begins (06:00 – 07:00) and depart in the hour after (19:00 – 20:00). This will be managed through the implementation of the **Outline CTMP [EN010157/APP/7.7]**.

6.11 For the purposes of undertaking a robust assessment, it has been assumed that staff trips will occur during the network AM and PM peak hours. Although in reality, trips associated with staff movements would occur outside of the peak hours.

6.12 Staff travel to work will be managed through the implementation of the **Outline Travel Plan** (**Appendix A** to the **Outline CTMP [EN010157/APP/7.7]**) and the **Outline CTMP [EN010157/APP/7.7]** itself, and subsequent **Construction Traffic Management Plan** and **Travel Plan**. The Applicant will provide a shuttle bus service to accommodate 50% of staff, with each shuttle bus able to accommodate up to 14 staff members. The remaining 50% of staff are expected to all travel by either car or van due to the rural location of the Site; this will be managed so that staff travel with an average three members of staff per vehicle (driver plus two passengers) in order to ensure that the number of vehicles accessing the Site does not exceed the number of parking spaces available. Staff will be asked to car share and made aware of the cost benefits of doing so.

6.13 The number of daily staff numbers and vehicles predicted to be generated during the peak of the construction phase trips for each Land Area and the grid connection cable route works is summarised in **Table 6.2**.

Table 6.2: Proposed Development Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses (50% of staff – 1 shuttle bus per 14 staff)	Cars/Vans (1:3 ratio for remaining 50% of staff)	Total Veh Arrivals	Total Veh Departures
B	125	4	21	25	25
C	128	5	21	26	26
D	248	9	41	50	50
E	125	4	21	25	25
F	96	3	16	19	19

Land Area	Number of Staff	Shuttle Buses (50% of staff – 1 shuttle bus per 14 staff)	Cars/Vans (1:3 ratio for remaining 50% of staff)	Total Veh Arrivals	Total Veh Departures
Grid connection cable route	20	1	4	5	5

Note: some rounding of numbers will occur

Construction Phase Daily and Peak Hour Trip Generation

6.14 It is anticipated that the construction phase will occur over two years, with each Land Area taking approximately eight months to be constructed completely and the grid connection cable route works to take place over approximately ten months. On this basis, the indicative phasing consists of two Land Areas being constructed simultaneously. From an assessment perspective, the worst-case scenario is for Land Areas C & D and D & E to be constructed in two phases although in reality they may be separated into individual phases which will dilute the traffic generation during these periods.

6.15 For the purposes of this assessment, the indicative phases are as set out in **Section 5.6**:

6.16 Based on the above assumptions, **Table 6.3** provides a summary of the anticipated daily, AM peak hour and PM peak hour vehicle trips during the majority of each construction phase (assuming the worst case as described above).

Table 6.3: Proposed Development Vehicle Trips by Construction Phase

Time Period	Arr/Dep	Light Vehicles (Cars, Vans and LGVs)	Heavy Vehicles (HGVs)	Total Vehicles
Phase 1: Land Area B (Months 1 to 4)				
AM Peak Hour	Arrivals	25	0	25
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	25	0	25
Daily	Arrivals	38	15	53
	Departures	38	15	53
Phase 2: Land Areas B & C (Months 5 to 8)				
AM Peak Hour	Arrivals	51	0	51
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	51	0	51
Daily	Arrivals	80	35	115
	Departures	80	35	115
Phase 3: Land Areas C & D and commence grid connection works (Months 9 to 12)				
AM Peak Hour	Arrivals	81	0	81
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	81	0	81
Daily	Arrivals	133	56	189
	Departures	133	56	189

Table 6.3: Proposed Development Daily Staff Trips (cont.)

Phase 4: Land Areas D & E and continue grid connection works (Months 13 to 16)				
AM Peak Hour	Arrivals	80	0	80
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	80	0	80
Daily	Arrivals	129	51	180
	Departures	129	51	180
Phase 5: Land Areas E & F and continue grid connection works (Months 17 to 20)				
AM Peak Hour	Arrivals	49	0	49
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	49	0	49
Daily	Arrivals	79	32	111
	Departures	79	32	111
Phase 6: Land Area F and complete grid connection works (Months 21 to 24)				
AM Peak Hour	Arrivals	24	0	24
	Departures	0	0	0
PM Peak Hour	Arrivals	0	0	0
	Departures	24	0	24
Daily	Arrivals	41	17	58
	Departures	41	17	58

Operation

6.17 The Proposed Development is currently anticipated to be operational from approximately Quarter 3 in 2028.

6.18 As described in Section 5, a minimal level of activity is expected across the Site during the operation (including maintenance) phase. It will be restricted to maintenance tasks, such as vegetation management, equipment maintenance and servicing, replacing and renewing of components, testing, inspection and monitoring.

6.19 Overall, the predicted trip generation of the Proposed Development during the operation (including maintenance) phase is low in comparison to the construction and decommissioning phases.

Decommissioning

6.20 The decommissioning phase is anticipated to broadly represent a reversal of the process of construction of the Proposed Development. Albeit it is likely to generate fewer vehicle movements as a result of less work being required as described below.

6.21 Underground cables will be left in situ. On this basis, the grid connection cable route works accesses on A1174 Hull Road, Long Lane and Park Lane will not be required for access during the decommissioning phase. As a result, there will be no impact on these links or the National Cycle Network Route 1 on Park Lane during the decommissioning phase.

6.22 It is anticipated that the internal access tracks (subject to discussions with relevant landowners), access junctions, passing places for users of the public highway, carriageway widening, two on-site substations (subject to agreement with the Distribution Network Operator prior to decommissioning) and environmental mitigation (subject to discussions with landowners) will be retained permanently after the operation (including maintenance) phase.

6.23 It is anticipated that the decommissioning phase will involve the removal of all above ground solar infrastructure comprising solar PV modules, inverters, BESS, DC-DC converters, switchgears, cabins and storage containers.

6.24 Overall, the predicted trip generation of the Proposed Development during the decommissioning phase is anticipated to be less than or equal to the construction phase. On this basis, the assessment of the construction phase is considered sufficient to identify any potential highways issues that may occur during the decommissioning phase.

7 FUTURE BASELINE CONDITIONS

7.1 This section sets out the future baseline traffic conditions on the local highway network in relation to traffic growth.

7.2 This includes the extant permissions for committed developments in the area local to the Site which are included within the future year baseline assessment (2026) and background traffic growth.

Background Traffic Growth

7.3 Background traffic from surveys undertaken in 2023 has been forecasted to the future assessment year of 2026 as the assessed construction year using the DfT's traffic forecasting program TEMPro (v.8) which is considered to be a robust model.

7.4 The traffic surveys undertaken in 2024 were link counts which are not used in the assessments for this TA, which assesses junctions, and are therefore not included in the future year scenario.

7.5 The traffic growth has been calculated based on the specific area in which the Site is located, Middle Super Output Area (MSOA) East Riding of Yorkshire 014. Factors have been derived to apply to surveyed traffic flows to forecast the construction year of 2026.

7.6 As a result of the committed developments taken into consideration (outlined below), amendments to the assumptions that underpin the growth factors have been made to avoid double-counting. The *'future jobs prediction'* has been reduced to base (from 2,499 to 2,476). The road type was defined as 'All' and the area type was defined as 'Rural'. **Table 7.1** shows the resulting growth factors for the AM peak hour, PM peak hour and Average Annual Daily Traffic (AADT) which were agreed with East Riding of Yorkshire Council in the Transport Assessment Scoping Report. The TEMPro calculations are included at **Appendix H**.

Table 7.1: TEMPro Growth Factors

Year	AM Peak Growth Factor	PM Peak Growth Factor	AADT Growth Factor
2023 - 2026	1.0259	1.0252	1.0263
2016 - 2026	1.0493	1.0375	1.0486

7.7 The 2023 traffic survey flows have been factored to 2026 using the growth factors in **Table 7.1** to derive the 2026 base traffic scenario, this is shown at **Traffic Figure 2** in **Appendix E.**

Committed Developments

7.8 The committed developments which are set out in **Section 3** have been considered as part of the future year baseline traffic flows. For clarity, these are:

- Field House Solar Farm
- Hornsea Project Four Offshore Wind Farm

7.9 The traffic flows for the committed developments are shown on **Traffic Figures 3** and **4** and the total committed development is shown on **Traffic Figure 5**, in **Appendix E**. To derive the peak hour Hornsea Project 4 flows, the AADT flows were reviewed and 20% of HGVs have been assumed to be in the peak hours and 100% of staff trips in peak hours. To derive the peak hour flows for the Field House Solar farm (Tickton) the following assumptions were made to derive the flows from AADT.

7.10 Traffic flows extracted from Construction Traffic Management Plan (Neo Environmental 01/03/2022).

- HGV movements are assumed to be outside of peak hours.
- Assumed worst case of 30 staff vehicle trips.
- Assumed 50/50 distribution of staff trips to the Site from Beverley and Hull.

7.11 The total committed development flows are added to the 2026 base traffic flows to derive the 2026 base plus committed development scenario which is shown at **Traffic Figure 6**, in **Appendix E**.

8 TRAFFIC IMPACT ASSESSMENT

Assessment Scenarios

8.1 The following scenarios have been examined in detail as part of the traffic impact assessment:

- Existing Baseline (2023).
- Future Baseline (2026)
- Peak Construction Phase (2026).

8.2 The following scenarios have been examined qualitatively:

- Operational Phase (2028-2068); and
- Decommissioning Period (not earlier than 2068).

8.3 The scope of assessment was set out in the Transport Assessment Scoping Report and this has been agreed with East Riding of Yorkshire Council, as is shown in **Appendix A**.

8.4 However, subsequent to the agreement of the scope an assessment of the Swinemoor Lane Roundabout has been included for the purposes of providing supporting information to the **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**. The 2016 Traffic Survey flows extracted from the planning application 20/03720/STPLF Swinemoor Lane Proposed Mixed-Use TA (Dynamic Transport Planning - September 2020) have been used to provide baseline traffic data.

8.5 The junctions which have been assessed are:

- A1035 / Meaux Lane priority junction.
- A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout).
- A165 White Cross Road / Site Access to Land Area B.
- A165 White Cross Road / Carr Lane.
- A165 White Cross Road / Arnold Lane West; and
- A1035 / A1174 Swinemoor Lane / A164 Grange Way / B1230 Hull Bridge Road (Swinemoor Lane Roundabout).

8.6 The junction models undertaken for the network peak hours include staff trips to take a robust approach (even though staff movements are likely to take place between 06:00 and 07:00 and between 19:00 and 20:00, either side of the 12-hour shift). The models, however, exclude LGV and HGV trips as for the majority of the construction phase these will occur between 09:00 and 16:00 in order to avoid the network peak periods.

8.7 Each of the junctions has been assessed using the Junctions 10 software, produced by the company TRL which comprises the ARCADY and PICADY software. The results generated by Junctions 10 models provide a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions within the junction's practical capacity. Values between 0.85 and 1.0 represent variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of 1.0 represent overloaded conditions (i.e. congestion). The model output files are included within **Appendix I**.

A1035/Meaux Lane Priority Junction

Peak Construction Phase

8.8 The peak impact in terms of vehicle trips generated by the Proposed Development at the A1035/Meaux Lane priority junction is during construction Phase 4 (Land Areas D and E and the grid connection cable route works).

8.9 **Table 8.1** provides a summary of the PICADY 10 results.

Table 8.1: A1035/Meaux Lane Priority Junction

Arm	AM		PM	
	RFC	Queue (PCU*)	RFC	Queue (PCU)
2023 Base Year				
Meaux Lane	0.35	0.6	0.22	0.3
A1035	0.04	0.0	0.10	0.1
2026 Base + Committed				
Meaux Lane	0.51	1.0	0.43	0.7
A1035	0.04	0.0	0.14	0.2
2026 Base + Committed + Development (Phase 4)				
Meaux Lane	0.55	1.2	0.79	3.1
A1035	0.10	0.1	0.14	0.2

*Passenger Car Units

8.10 **Table 8.1** shows that the A1035/Meaux Lane priority junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

A1035/A165/A165 White Cross Road/Beverley Road (White Cross Roundabout)

Peak Construction Phase

8.11 The peak impact in terms of vehicle trips generated by the Proposed Development at the White Cross Roundabout is during construction Phase 3 (Land Areas C and D and the grid connection cable route works).

8.12 **Table 8.2** provides a summary of the ARCADY 10 results.

Table 8.2: A1035/A165/A165 White Cross Road/Beverley Road (White Cross Roundabout)

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2023 Base Year				
A165 (E)	0.29	0.4	0.34	0.5
A165 White Cross Road	0.48	1.0	0.33	0.5
A1035	0.53	1.2	0.70	2.3
Beverley Road	0.23	0.3	0.14	0.2
2026 Base + Committed				
A165 (E)	0.30	0.5	0.70	2.4
A165 White Cross Road	0.76	3.3	0.44	0.8
A1035	1.08	66.4	0.73	2.7
Beverley Road	0.38	0.6	0.14	0.2
2026 Base + Committed + Development (Phase 4)				
A165 (E)	0.30	0.5	0.70	2.4
A165 White Cross Road	0.77	3.6	0.46	0.9
A1035	1.09	72.8	0.75	3.0
Beverley Road	0.39	0.7	0.14	0.2

8.13 **Table 8.2** shows that there is a significant increase in queues in 2026 as a result of the addition of the committed development (Hornsea Project Four Offshore Wind Farm). With the addition of development traffic, there is only a minor increase in queues of 6 PCUs. Due to the temporary development of the construction compound of the Proposed Development, this minor increase is anticipated to have a negligible impact on the White Cross Roundabout during the peak of the construction phase with and without the addition of development traffic.

8.14 Clearly the traffic associated with Hornsea Project Four Offshore Wind Farm will be temporary in nature as it is associated with construction of that scheme.

A165 White Cross Road/Site Access to Land Area B Priority Junction

Peak Construction Phase

8.15 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Site Access to Land Area B Priority Junction is during construction Phase 2 (Land Areas B and C).

8.16 **Table 8.3** provides a summary of the PICADY 10 results which only include an assessment with development as the Site access does not currently exist.

Table 8.3: A165 White Cross Road/Site Access to Land Area B Priority Junction

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2026 Base + Committed + Development (Phase 4)				
Land Area B	0.00	0.0	0.03	0.0
A165	0.01	0.0	0.00	0.0

8.17 **Table 8.3** shows that the A165 White Cross Road/Site Access to Land Area B Priority Junction will operate well within capacity during the peak of the construction phase with the development traffic.

A165 White Cross Road/Carr Lane Priority Junction

Peak Construction Phase

8.18 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Carr Lane Priority Junction is during construction Phase 2 (Land Areas B and C).

8.19 **Table 8.4** provides a summary of the PICADY 10 results.

Table 8.4: A165 White Cross Road/Carr Lane Priority Junction

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2026 Base Year				
Carr Lane	0.00	0.0	0.00	0.0
A165	0.00	0.0	0.01	0.0
2026 Base + Committed				
Carr Lane	0.00	0.0	0.00	0.0
A165	0.00	0.0	0.01	0.0
2026 Base + Committed + Development (Phase 4)				
Carr Lane	0.00	0.0	0.03	0.0
A165	0.02	0.0	0.01	0.0

8.20 **Table 8.4** shows that the A165 White Cross Road/Carr Lane Priority Junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

A165 White Cross Road/Arnold Lane West Priority Junction

Peak Construction Phase

8.21 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Arnold Lane West Priority Junction is during construction Phase 3 (Land Areas C and D and the grid connection cable route works).

8.22 **Table 8.5** provides a summary of the PICADY 10 results.

Table 8.5: A165 White Cross Road/Arnold Lane West Priority Junction

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2023 Base Year				
Arnold Lane West	0.11	0.2	0.08	0.1
A165	0.01	0.0	0.02	0.0
2026 Base + Committed				
Arnold Lane West	0.15	0.2	0.09	0.1
A165	0.01	0.0	0.02	0.0
2026 Base + Committed + Development (Phase 4)				

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Arnold Lane West	0.15	0.3	0.14	0.2
A165	0.05	0.1	0.02	0.0

8.23 **Table 8.5** shows that the A165 White Cross Road/Arnold Lane West Priority Junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

A1035/A1174 Swinemoor Lane/A164 Grange Way/B1230 Hull Bridge Road (Swinemoor Lane Roundabout)

Peak Construction Phase

8.24 The assessment of Swinemoor Lane was undertaken because it was necessary to assess the driver delay on the link of the A1035 east of Swinemoor lane, which is in the study area. Hence the junction assessment was undertaken.

8.25 The peak impact in terms of vehicle trips generated by the Proposed Development at the Swinemoor Lane Roundabout is likely to be during construction Phase 4 (Land Areas D and E and the grid connection cable route works). As is outlined above, base year traffic was extracted from planning application 20/03720/STPLF Swinemoor Lane Proposed Mixed-Use TA (Dynamic Transport Planning - September 2020) which used 2016 traffic survey data which has been used to derive the base model.

8.26 **Table 8.6** provides a summary of the ARCADY 10 results.

Table 8.6: A1035/A1174 Swinemoor Lane/A164 Grange Way/B1230 Hull Bridge Road (Swinemoor Lane Roundabout)

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2016 Base Year				
A1035 (E)	0.12	0.2	0.06	0.1
Swinemoor Lane	0.11	0.1	0.16	0.2
A1174 Hull Bridge Road	0.11	0.2	0.12	0.2
A1035 Grange Way	0.13	0.2	0.09	0.1
2026 Base + Committed				
A1035 (E)	0.13	0.2	0.28	0.5

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Swinemoor Lane	0.30	0.5	0.19	0.2
A1174 Hull Bridge Road	0.13	0.2	0.15	0.2
A1035 Grange Way	0.34	0.7	0.10	0.1
2026 Base + Committed + Development (Phase 4)				
A1035 (E)	0.13	0.2	0.29	0.5
Swinemoor Lane	0.32	0.5	0.19	0.2
A1174 Hull Bridge Road	0.13	0.2	0.15	0.2
A1035 Grange Way	0.34	0.7	0.10	0.1

8.27 **Table 8.6** shows that the Swinemoor Lane Roundabout operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

Operation Phase (2028 – 2068)

8.28 As is outlined above, it is anticipated that a small number of vehicles will access the Site during the operation (including maintenance) phase of the Proposed Development. Access will be required from time to time for routine maintenance, and less frequently for major maintenance and upgrades.

8.29 As well as routine maintenance, there may also be a requirement to repair and replace components on Site as part of maintaining the Proposed Development during the operation (including maintenance) phase. This could require the use of HGVs. The number of HGVs required for these works is not known, given the extent of any repair and replacement works is unknown.

8.30 On this basis, the predicted daily trip generation of the Proposed Development during the operation (including maintenance) phase will be significantly less than the construction phase and is therefore considered to have a negligible impact.

Decommissioning Phase (Not earlier than 2068)

8.31 Decommissioning will involve the dismantling of equipment and reinstating some of the infrastructure which will require slightly less time, and fewer staff and vehicles to undertake than the construction phase. The routes and accesses (during operation and decommissioning) will be as per the construction phase.

8.32 As with the construction phase, the movement of workers, materials and plant are likely to generate trips on the local highway network. Any permanent mitigation delivered for the construction phase or highway enhancements implemented for the Proposed Development will be in place at the start of the decommissioning phase, including accesses from the local road network and junction improvements/widening. Therefore, it is not anticipated that further highway works will be required to facilitate the decommissioning of the Proposed Development.

8.33 The decommissioning phase is anticipated to take place 40 years from the start of the operation (including maintenance) phase of the Proposed Development, which is considered to be too far into the future to be able to accurately predict baseline traffic flows or road/junction layouts at that time. It is therefore considered reasonable to assume that the impacts during the decommissioning phase will be the same as, or less than, the construction phase.

8.34 The management of movement of decommissioning traffic will be detailed in the **Decommissioning Traffic Management Plan** and secured by the **Outline DEMP [EN010157/APP/7.4]**. Transport and access associated impacts are expected to be equal to or less than those occurring during construction in respect to traffic movements.

Summary

8.35 Quantitative assessments have been undertaken of the junctions in the vicinity of the Site using Junctions 10 software. The assessments have been based on a very robust scenario that assumes that all staff trips occur during the AM and PM peak hours. However, in reality it is unlikely that any staff vehicle movements generated by the Proposed Development will occur during the weekday network peak hours as a result of the working hours on Site (07:00 to 19:00 Monday to Friday; 07:00 to 12:00 on Saturday)

8.36 The assessments have demonstrated that all of the junctions are predicted to operate well within capacity with the addition of Proposed Development traffic during the construction phase, committed development traffic and local traffic growth with the exception of the White Cross Roundabout.

8.37 The White Cross Roundabout is predicted to operate over capacity with the addition of committed development traffic. However, the addition of traffic generated by the Proposed Development only results in a minor additional increase in RFC and delay at the junction. It is therefore concluded that the impact of the Proposed Development is negligible.

8.38 The operation (including maintenance) and decommissioning phases have been assessed qualitatively due to the fact that they will generate fewer trips than the construction phase. In both instances, it is considered that the traffic generation will have a negligible impact on the local road network.

8.39 Overall, the assessment of the impact of the Proposed Development during the construction, operation (including maintenance) and decommissioning phases has been demonstrated to be negligible.

9 SUMMARY AND CONCLUSIONS

9.1 This Transport Assessment has demonstrated that the Site has a reasonable level of accessibility considering the rural location of the Site. It is not anticipated that the Proposed Development will generate a significant number of trips to the Site by sustainable modes. Nonetheless, the proposals include the provision of cycle parking and staff can be picked up and dropped off at agreed off-site locations such as town centre car parks or public transport terminals, if required, to be managed through the delivery of the **Construction Traffic Management Plan** once produced in accordance with the **Outline CTMP [EN010157/APP/7.7]**.

9.2 A review of Stats-19 personal injury collision data has demonstrated that there are no major clusters of collisions on the road network in the vicinity of the Proposed Development, including the roads to be used for staff, LGV and HGV routing to and from the Site. There have been no highway safety issues or collision patterns identified which require further consideration.

9.3 Quantitative assessments have been undertaken of the junctions in the vicinity of the Site using Junctions 10 software. The assessments were based on a very robust scenario that assumed that all staff trips would occur during the AM and PM peak hours; however, in reality it is unlikely that any staff vehicle movements generated by the Proposed Development will occur during the peak hours as a result of the working hours on Site.

9.4 The assessments have demonstrated that all of the junctions are predicted to operate well within capacity with the addition of Proposed Development traffic during the construction phase, committed development traffic and local traffic growth with the exception of the White Cross Roundabout.

9.5 The White Cross Roundabout is predicted to operate over capacity with the addition of committed development traffic. However, the addition of traffic generated by the Proposed Development only results in a minor additional increase in RFC and delay at the junction. It is therefore concluded that the impact of the Proposed Development is negligible.

9.6 The operation (including maintenance) and decommissioning phases have been assessed qualitatively due to the fact that they will generate fewer trips than the construction phase. In both instances, it is considered that the traffic generation will have a negligible impact on the local road network.

9.7 Overall, the assessment of the impact of the Proposed Development during the construction, operation (including maintenance) and decommissioning phases has been demonstrated to be negligible.

9.8 This TA has demonstrated that the Proposed Development will not have a severe impact on the operation and safety of the surrounding highway network. Consequently, there is no highway or transport related reason why planning consent should not be granted.

APPENDIX A

Transport Assessment Scoping Report and East Riding of Yorkshire Council Correspondence

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Peartree Hill Solar Farm

Transport Assessment Scoping Report

Our reference: CGQ/230483/TASR – v.04

Author: Calum Gill-Quirke Reviewed: Jon Phillip Date: 28 August 2024

Introduction

1. SCP has been appointed by RWE Renewables UK Solar and Storage Ltd (hereafter, RWE) to prepare a Transport Assessment Scoping Report (TASR) in order to agree the assessment parameters which will underpin the Transport Assessment to be prepared in support of the proposed Peartree Hill Solar Farm Environmental Statement.

2. Peartree Hill Solar Farm is a proposed solar photovoltaic (PV) electricity generating and storage facility with an export capacity of approximately 320 megawatts (MW) and associated infrastructure (hereafter, the Proposed Development).

3. The site is approximately 865ha in size and is located approximately 5km north of Kingston upon Hull and east of Beverley. It is within the administrative area of East Riding of Yorkshire Council (ERYC). The site mostly comprises agricultural land and is divided by a number of drains and dikes to drain the land.

4. The Proposed Development consists of:

- Solar PV modules and associated mounting structures;
- On-site supporting infrastructure including inverters, transformers, and switchgear;
- A Battery Energy Storage System (BESS);
- Two on-site substations to connect the solar PV modules to the existing electricity distribution and transmission network;
- Low voltage and 33 kilovolts (kV) interconnecting cabling within the Land Areas to connect the solar PV modules together and to connect the solar PV modules to the two on-site substations;
- 132 kV underground cabling connecting the Land Areas to the National Grid Creyke Beck Substation;
- Associated infrastructure including internal vehicle access tracks, vehicle parking, security measures, gates and fencing, lighting, drainage infrastructure and storage containers and site compounds;

- Works at National Grid Creyke Beck Substation to facilitate the connection of the 132 kV underground cabling in to the Substation;
- Highways works to facilitate access for construction vehicles;
- Environmental mitigation and enhancement measures; and
- Temporary development during the construction phase of the Proposed Development including construction compounds, parking and temporary access roadways.

5. The major roads nearby, which will provide routes for access to the site at various points, are the A165, A1035 and A1079. These roads are maintained by the local highway authority, ERYC, and do not form part of National Highway's Strategic Road Network (SRN).

6. The nearest road on the SRN is the A63 which is not anticipated to be materially impacted by the proposed development. Discussions were undertaken with National Highways via a Teams meeting on 25th March 2024. National Highways did not express any particular concerns about the likely impact of the Proposed Development and requested to be kept informed as the design and potential development-trip generation and distribution was refined.

7. Discussions were undertaken via a Teams meeting on 19th February 2024 with Highways Officers at ERYC in which it was agreed that the impact of the Proposed Development on the local road network is not likely to be severe and it was recommended that further discussions took place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and vehicle access locations). The further discussions with Area Engineers took place on 6th June 2024 in which the following items were agreed:

   - The proposed locations of passing places, carriageway widening and accesses would be provided to the relevant Area Engineers for formal comment.
   - Passing places should be 20m in length with 10m tapers;
   - ERYC would be willing to adopt some passing places and widening on the local road network where they are constructed to adoptable standard in order to provide an enduring improvement to benefit highway users and the local community; and
   - Temporary speed reductions could be considered during the construction phase to overcome visibility issues and reduce the impact trees, hedging and vegetation.

8. Following the meeting with Area Engineers, revised passing places and access plans for the local road network have been submitted for further review and to agree which passing places and areas of widening ERYC would be willing to adopt. As of the time of writing this report (August 2024), no response has yet been provided.

9. This TASR sets out the parameters of the Transport Assessment (TA) to be produced in support of the proposals. It seeks to agree with ERYC the suggested methodology to be used for the production of the TA. The TA will be included as an appendix to the Environmental Statement (ES).

10. The Preliminary Environmental Impact Report (PEIR) for the Proposed Development was commenced in April and provided opportunity for the public and other stakeholders to engage. The transport and access section of the PEIR found that the impact of the Proposed Development was negligible on the majority of links, in the few instances where an impact was anticipated this was mostly due to the fact that existing traffic flows on these links was very low which resulted in a high percentage impact. In these lower trafficked roads, it is proposed to provide mitigation in the form of passing places and widening which is considered to be sufficient to mitigate against any potential highways impacts. A response to the PEIR was provided on 20th August 2024 and the comments have been taken into consideration as part of this TASR.

11. Design freeze for the Proposed Development was on 31st July 2024 and details of the vehicle trip generation for staff and construction vehicles has been refined.

Assessment Scenarios

12. This section sets out the proposed assessment scenarios; i.e. the phase of development which will be assessed and the baseline and future years of assessment, for the Transport Assessment.

Phase of Development

13. The Proposed Development is anticipated to begin the construction phase in 2026 and it is expected to take 24 months to complete. The operational phase will begin post-construction, i.e. circa 2028. It is anticipated that the lifespan of the Proposed Development will be approximately 40 years after which the decommissioning phase would commence in circa 2068. The above dates are subject to DCO consent, programming and subject to design life of the equipment.

14. The vast majority of vehicle trips associated with the site will be undertaken during the construction phase, comprising construction of internal roads and other infrastructure, delivery of solar panels and other equipment/machinery and employee trips to and from the construction site.

15. The operational phase is not anticipated to generate a significant number of trips. Any operational trips to/from the site will be for maintenance, testing and other tasks which will be negligible when compared to the construction phase. RWE anticipates 1 weekly visit to the site during operation plus approximately 26 maintenance visits per year. The traffic associated with this would be negligible compared to existing traffic levels and is therefore considered unnecessary to assess the highway impact of the operational phases.

16. The decommissioning phase will generate a relatively similar number of trips to the construction phase, albeit slightly fewer as less work will be required. Additionally, given that decommissioning will occur in circa 2068, it is difficult to accurately predict base traffic and changes to the road network which would result in assessment being inaccurate. It is considered to be covered by the assessment of the construction phase given that trip generation is anticipated to be similar, or possibly lower.

17. The vehicles used during the construction phase will include HGVs which require greater consideration in terms of routing and access compared to LGVs which would be used during the operational phase.

18. On the above basis, the peak construction phase will be assessed as the worst-case scenario of the Proposed Development for the purposes of the TA and ES.

Base and Future Year Scenarios

19. Baseline traffic data was collected from several sources, as follows:

- East Riding of Yorkshire Council automatic traffic counters of the following links (date of survey in brackets):
    - A165 Main Street, Skirlaugh (September 2023); and
    - Meaux Road, Wawne (January 2020).
- Manually classified junction turning-movement count surveys undertaken at the following junctions (date of survey in brackets):
    - *A165 Brandesburton Roundabout (October 2023);*
    - *A165 Leven Roundabout (October 2023);*
    - A165 / A1035 White Cross Roundabout (October 2023);
    - A1035 / Meaux Lane Priority Right-Turn Ghost Island Junction (October 2023);
    - *North Street / East Street / South Street / West Street Crossroads, Leven (October 2023);*
    - A165 / Arnold Lane West Priority Right-Turn Ghost Island Junction, Long Riston (October 2023); and
    - *Wawne Road / Cumbrian Way / Kesteven Way Roundabout (October 2023).*
- Automatic Traffic Counter (ATC) surveys (recording total two-way link movements) by vehicle type on the following links (date of survey in brackets):
    - Carr Lane (Long Riston) (October 2023);
    - A1035 (East of Swinemoor Lane Roundabout) (February 2024);
    - Meaux Road (south of Holderness Drain) (February 2024);
    - Black Tup Lane (South of Carr Lane) (February 2024);
    - *West Street, Leven (East of Heigholme Lane) (February 2024); and*
    - *Heigholme Lane (February 2024).*

20. Since baseline traffic data was collected in 2023 and early 2024, the study area has been refined. Notably this included the removal of Land Area A (which was included in the PEIR) and refining of routes to/from each land area, therefore a number of the above junctions and links have been

removed from the study area. The surveys shown italics are no longer within the study area and are not used in the assessment.

21. The 2023 Traffic Survey Flows are shown at **Traffic Figure 1** in **Appendix 1**.

22. In terms of a year of assessment, the worst-case scenario is the construction phase. Therefore the baseline traffic data has been forecasted to construction start of 2026 in line with the programme for the construction phase.

23. The ES chapter is based on percentage impact of the Proposed Development compared to the baseline traffic. Therefore, lower baseline traffic would increase the possibility of a greater impact and 2026 is therefore considered to be an appropriate year of assessment for the ES chapter.

24. For consistency, 2026 is also proposed as the future assessment year for assessment in the TA. Typically, a TA would assess 5 years post-planning application however in this instance the construction phase would be completed and the impact of the development would be significantly reduced by this year as the programme enters the operational phase and therefore it is more robust to assess 2026.

25. Traffic growth factors have been calculated based on changes within a specific zone (Middle Super Output Area (MSOA) East Riding of Yorkshire 014) and are derived using the Department for Transport's TEMPro national program v.8 (Trip End Model Presentation Program). Such factors have been derived to factor traffic flows from the survey year of the relevant surveys (only those undertaken in 2023) to a construction year of 2026.

26. A list of committed developments was identified in the PEIR report and these have been reviewed to see which would have a direct impact on the transport study area. In addition to baseline traffic growth from TEMPro, local committed developments have been considered. A shortlist of committed developments were reviewed using data from their respective Transport Assessments, ES chapters or Construction Traffic Management Plans to identify whether they would generate significant traffic on the highway network within the study area. A number were removed. The short list and reason for exclusion or inclusion is included in **Appendix 2**.

27. The committed developments which are proposed to take into account are:

- 22/00824/STPLF - Construction of solar photovoltaic development including solar panels, installation of sub-station, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound
- NSIP - Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate.

28. The TEMPro has been amended to account for the above committed developments. The *'future jobs prediction'* has been reduced to base (from 2,499 to 2,476) to avoid double-counting of the jobs created by the committed developments. The road type was defined as "All" and the area type was defined as "Rural". **Table 1** shows the resulting growth factors.

Table 1: TEMPro Growth Factors

Year	AM Peak Growth Factor	PM Peak Growth Factor	AADT Peak Growth Factor
2023 – 2026	1.0259	1.0252	1.0263

29. **Traffic Figure 2** in **Appendix 1** shows the 2026 Base Traffic Flows, this is the 2023 surveyed flows factored to 2026 with the TEMPro growth factors.

30. **Traffic Figures 3, 4 and 5** in **Appendix 1** show the committed developments traffic flows during the peak hours and the total committed development traffic flows.

31. **Traffic Figure 6** in **Appendix 1** shows the 2026 Base plus committed development traffic flows.

Vehicular Access

32. The Proposed Development consists of five land areas referred to as Land Area B to Land Area F. Cable crossing the site will connect the development in each of the Land Areas to Creyke Beck substation. Land Area A has been removed from the site since the submission of the PEIR. A plan showing the location of each Land Area is attached at **Appendix 3**.

33. A process of reviewing the access route options from the nearest major road to each Land Area has been undertaken with detailed analysis through vehicle tracking, visibility assessments and discussions with stakeholders. the resulting proposed vehicle access arrangements and passing places are being reviewed by ERYC Highways Area Engineers and comments will be considered before final submission.

34. The proposed routes and accesses are as follows:

<u>Land Area B (see plan number: SCP/230483/SK13 Rev B)</u>

- Access to land area to the east of A165 via new priority T-junction access arrangement;
- Access to land area to the west of A165 via Carr Lane (opposite Dancing Lane); and
- Access to land area to the east of Land Area D via new priority T-junction access arrangement with Meaux Lane.
- All accesses to be used by staff trips and HGVs.

<u>Land Area C (see plan number: SCP/230483/SK14 Rev B)</u>

- Access via A165 / Arnold Lane West priority junction, enter and exit site via Carr Lane (Arnold).
- Access to be used by staff trips and HGVs.

<u>Land Areas D (see plan number: SCP/230483/SK15 Rev C)</u>

- Access from the A1035 via Meaux Lane and access land areas via four new priority T-junctions on Meaux Lane.
- The northernmost junction on the west side of Meaux Lane will be used by HGVs only. Staff will not use this access (other than by shuttle bus).
- The northernmost junction on the east side of Meaux Lane will provide access for staff to the compound located near this access, staff will be transported around other parts of Land Area D by shuttle bus. This access will also be used by HGVs.
- The next access to the south, on the east side of Meaux Lane, will be used by HGVs only.
- The southernmost access to Land Area D, on the west side of Meaux Lane, will be used by staff for access to the compound near the access junction, from which staff will be transported around Land Area D by shuttle bus. This access will also be used by HGVs.

Land Area E (see plan number: SCP/230483/SK15 Rev C)

- Land Area E accessed via the southernmost access to Land Area D, on the west of Meaux Lane, through internal tracks in Land Area D. This access will be used by staff and HGVs.
- The northernmost access to Land Area D will be used by HGVs to access Land Area via internal tracks through Land Area D.

Land Area F (see plan number: SCP/230483/SK16 Rev C)

- Access via two new priority T-junctions approximately on Meaux Road, one to the east and one to the west. These are the two southernmost accesses on Meaux Road/Meaux Lane, i.e. to the south of the accesses to Land Areas D and E.
- The access to the west of Meaux Road will only be accessed by HGVs.
- The access to the east of Meaux Road will be accessed by HGVs and staff trips, the staff compound is located near to this access and staff will be transported around Land Area F from here by shuttle bus.

35. The plan at **Appendix 3** indicates the locations of each of the accesses outlined above. Plans showing the proposed access arrangements and mitigation works on the routes to the site are included in **Appendix 4**. The mitigation works include the proposed passing places and carriageway widening which will facilitate access by articulated HGVs.

Access to land for cable works

36. In addition to the accesses to each Land Area, existing accesses from the public highway will be used for access to undertake the works associated with the cable connection to Creyke Beck. There are six existing vehicular accesses which will be used for short periods of time, each will be used for a few weeks whilst work is undertaken. The accesses will only be used by a small

number of daily LGVs and HGVs (delivering tools, machinery and equipment for cable works). Staff will be shuttled by mini-bus to the site from nearby site compounds in the solar Land Areas, it is anticipated that approximately 20 staff will be required which can be shuttled by two buses in total. Considering the small number of vehicles accessing for cable works and the short period of time each access will be in operation, there are no highway mitigations required. Each access will be managed and controlled by banksmen and the regulations for access (including no staff vehicle access other than by shuttle bus) will be set out in more detail in the CTMP.

37. The existing accesses which will be used to access land for cable works are located on the north and south sides of A1174 Hull Road (approximately 150m and 175m south east of the A164 roundabout), on the south side of Long Lane (approximately 1.03km west of the A1174 Hull Road) and via either Park Lane or Dunswell Road to Creyke Beck substation.

38. The staff trips generated by the development are included in the assessment. The HGV and LGV daily volumes are negligible, the trips will be spread throughout the day and across different routes to those associated with the main solar Land Areas and are therefore not considered to be necessary to include.

Traffic Routing

39. The traffic routing to the different land areas of the site has been considered separately for staff and LGVs/HGVs.

Staff Routing

40. For the assessment in the PEIR, it was assumed that all staff trips were from Beverley. However, the proposed development and details of staff trips have been subsequently refined.

41. Staff will arrive to site either by car or van, by shuttle bus (picking up and dropping off staff from the local area) or by car/van share (picking up and dropping off by other staff). Staff will travel to the compound in the Land Area which they are working in and be transported around the Land Area from there by shuttle bus along the internal site tracks.

42. Each Land Area will include cycle parking and facilities such as showers and changing rooms to provide opportunities for people to cycle to work. This may be possible for staff who live in nearby villages. However, to be robust it is assumed that all staff arrive by car, van or shuttle bus.

43. The NOMIS database of journey to work data (based on 2011 Census) has been used to identify the place of residence of people working in the middle super output area (MSOA) within which the site lies (East Riding of Yorkshire 014). This has been used to create a gravity distribution model to inform the distribution of staff trips to and from each land area. The gravity model is included in **Appendix 5**.

44. In summary, 36% of staff will travel to and from Beverley/A1035, 13% from Wawne/North Hull/Meaux Lane, 21% from East Hull/A165, 20% from A1035 to the north-east (Hornsea) and 10% from Leven/Brandesburton.

HGV Traffic Routing

45. It is envisaged that HGV trips will originate at Hull docks on the Humber, particularly for those delivering solar panels. Additionally, delivery of other machinery and equipment will be most likely to arrive from Hull or Beverley. Therefore the main routes to the site by HGVs will be via the A1035 and A165.

46. Deliveries and HGV trips will be controlled so that they do not conflict with the network peak hours. As a result, the distribution and assignment of HGV and delivery trips has not been included in the peak hour assessment.

47. The routes have been assessed using swept path analysis to assess whether they are sufficient to accommodate articulated HGVs (16.5m length). This is the worst case vehicle anticipated to access the site, there are no abnormal loads expected.

48. Several passing places are proposed to be provided on Meaux Lane, Carr Lane (Long Riston), Black Tup Lane and Arnold Lane West and Carr Lane (Arnold). Additionally, several bends in the road on Meaux Lane have been widened to enable two HGVs to pass. Subject to agreement with highways, the passing places are to be adopted and retained as permanent highway.

49. Meaux Lane is proposed to have a temporary speed reduction to 30mph during the construction phase. This is to reduce the stopping sight distance requirements in order to reduce the need for the removal of hedging and vegetation.

Trip Generation

50. The PEIR assessment predicted the trip generating potential of each Land Area using trip rates extracted from equivalent sites on the National Planning Inspectorate portal.

51. Since the PEIR, the construction phase traffic data has been refined by RWE and they have provided details of daily trip numbers.

Delivery and HGV Trip Generation

52. **Table 2** provides a summary of the delivery vehicle and HGV trips anticipated for each Land Area based on data provided by RWE.

53. The figures shown are the daily HGV and LGV volumes during the peak of the construction of each Land Area and the cable works. It is anticipated that there will be off-peak periods where there are fewer daily vehicles than shown in Table 2. In the case of each of the Land Areas, the construction phase will last approximately 8 months and construction will take place 6 days a week (Monday to Saturday) with HGVs and deliveries to be outside of the network peak hours.

Table 2: Anticipated Daily HGV and Delivery Trips

Land Area		HGVs	LGVs (Other Deliveries)
B	Arrivals	15	13
	Departures	15	13
	Total Daily	**30**	**26**
C	Arrivals	20	16
	Departures	20	16
	Total Daily	**40**	**32**
D	Arrivals	31	31
	Departures	31	31
	Total Daily	**62**	**62**
E	Arrivals	15	13
	Departures	15	13
	Total Daily	**30**	**26**
F	Arrivals	12	12
	Departures	12	12
	Total Daily	**24**	**24**
Creyke Beck Cable Works	Arrivals	5	5
	Departures	5	5
	Total Daily	**10**	**10**

54. The vehicle volumes shown in Table 2 represent the peak of each Land Area. For the majority of the construction of each Land Area, the number of daily vehicles is likely to be lower. As outlined above, HGV and delivery trips will be controlled to be outside of the peak hours. This will be included within a Construction Traffic Management Plan.

Staff Trip Generation

55. **Table 3** outlines the number of staff per Land Area and the proportion expected to travel by car, van or shuttle bus. 50% of staff are anticipated to be taken to and from site by shuttle bus and each shuttle bus accommodates 14 staff. The remaining 50% are anticipated to car/van share, with a 3:1 ratio of staff to vehicle.

Table 3: Anticipated Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses	Cars/Vans	Total Arrivals	Total Departures
B	125	4	21	25	25
C	128	5	21	26	26
D	248	9	41	50	50
E	125	4	21	25	25
F	96	3	16	19	19
Grid connection cable route	20	1	4	5	5

56. Staff will arrive to the site during the morning peak hour (around 9am) and depart during the evening peak hour (around 5pm).

57. The traffic distribution for the cable works and each Land Area and assignment of staff trips during the AM and PM peak hours is shown on **Traffic Figures 7** to **18** in **Appendix 1**.

Phasing

58. Each Land Area is anticipated to be constructed over an 8 month period. The Creyke beck cable works are anticipated to occur over approximately 10 months.

59. Phasing of the construction phase is based on two Land Areas being constructed simultaneously across several 4 or 5 month periods in order to assess the worst case scenarios. The exception being than the first 4 months of Land Area B (Phase 1) and the final 4 months of Land Area F (Phase 6) at which point they are the sole Land Area being constructed. The phasing is indicative at this stage. The indicative phasing plan is included in **Appendix 6**.

60. The indicative construction phases are as follows:

Phase 1: Land Area B

Phase 2: Land Areas B & C

Phase 3: Land Areas C & D and Grid connection cable route

Phase 4: Land Areas D & E and Grid connection cable route

Phase 5: Land Areas E & F and Grid connection cable route

Phase 6: Land Area F

61. The trip generation for each combined Land Area and Grid connection cable route works, i.e. Phases 2 to 5, are shown on **Traffic Figures 19** to **22**, in **Appendix 1**. These figures show the

peak construction trip generation at any one time during each Phase. However it is noted that throughout periods of the construction of each Land Area, the vehicle numbers will be lower as fewer staff will be required at certain stages.

Traffic Impact

62. The trip generation at local junctions during the peak construction phases, as shown on Traffic Figures 19 to 22, has been reviewed to assess whether any capacity modelling will be required.

63. A general rule of thumb has been applied, i.e. a trigger point of 30 total vehicle movements at a junction will trigger the need for modelling. However, there are exceptions on Meaux Lane junctions as the existing traffic volumes are low and the additional vehicles generated by the Proposed Development will only result in approximately 1 additional vehicle every minute or two which is likely to be imperceptible compared to baseline traffic.

64. It is proposed to undertake capacity assessments at the following junctions on the ERYC Local Highway Network in order to assess the worst case impact at each stage of the construction process:

- A1035 / Meaux Lane priority junction (worst case of 69 vehicle movements in both AM and PM peak hours during Phase 4 – Land Areas D & E);
- A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout) (worst case of 48 vehicle movements in both AM and PM peak hours during Phase 3 – Land Areas C & D);
- A165 White Cross Road / Site Access to Land Area B (worst case of 35 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C);
- A165 White Cross Road / Carr Lane (worst case of 32 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C); and
- A165 White Cross Road / Arnold Lane West (worst case of 38 vehicle movements in AM and PM peak hours during Phase 3 – Land Areas C & D).

65. The capacity assessments will be undertaken using the ARCADY10 software in the base year and future year with and without the addition of development traffic.

Highway Safety

66. Additionally, the impact of the proposed development in terms of road safety will be considered in detail. The most recent 3-year period (including 2018 and 2019 to provide 3 years without the COVID-19 restrictions, i.e. a total of 5 years) of road traffic collision history will be reviewed for the wider highway network in the vicinity of the site to identify collision patterns, estimate the impact of the proposed development traffic in conjunction with capacity modelling and propose mitigation where appropriate. It is not anticipated that the proposed development will have a detrimental impact on road safety in the local area given that the peak traffic generating phase is temporary and that HGVs will mostly travel outside of the network peak hours.

Construction Traffic Management Plan

67. A Construction Traffic Management Plan will be prepared. This will include details of the routes to be taken to site by staff and HGVs. It will also include details of the location of staff compounds and proposals for wheel washing.

Summary

68. This Transport Assessment Scoping Report sets out the assessment year, traffic growth, committed developments, vehicle trip generation and distribution and proposed junctions to assess for agreement by East Riding of Yorkshire Council.

69. The Transport Assessment will be submitted as an appendix to the Environmental Statement Transport and Access chapter which will be submitted as part of the DCO submission.

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APPENDIX 1

TRAFFIC FIGURES

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APPENDIX 2

COMMITTED DEVELOPMENTS

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APPENDIX 3

LAND AREAS AND ACCESS LOCATION PLAN

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APPENDIX 4

PROPOSED HIGHWAY WORKS PLANS

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APPENDIX 5

GRAVITY MODEL

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APPENDIX 6

INDICATIVE PHASING PLAN

Peartree Hill Solar Farm

Transport Assessment Scoping Report - Review

East Riding of Yorkshire Council

6 September 2024

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
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Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	06.09.24	Draft	MR	Mark Romanowski	Associate Director

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Tables

1. Introduction

AECOM have been commissioned by East Riding of Yorkshire Council (ERYC) to provide a review of a Transport Assessment Scoping Report (TASR), prepared by SCP for RWE ('the applicant'), in support of the development of a proposed solar photovoltaic (PV) electricity-generating and storage facility with an export capacity of 320 megawatts (MW) and associated infrastructure located in East Riding of Yorkshire.

The Proposed Development, namely Peartree Hill Solar Farm, comprises several areas of land ('Land Areas B to F') and for the purposes of this report, the application will be referred to as 'Proposed Development'. Note, since the Preliminary Environmental Impact Report (PEIR) was produced (also reviewed by AECOM in August 2024), Land Area A has been removed after refining the routes to/from each land area.

For ease of reference, this TASR review will follow the same structure as set out in the document produced by the applicant, with comments made where necessary.

Key comments for review by the applicant are highlighted by the **<u>bold / underlined text</u>** and summarised at the end.

2. Proposed Development

No further comment.

3. Consultation

Consultation has taken place with the following bodies and organisations:

- ERYC Highways Department; and
- National Highways and Jacobs (one of National Highways' highways consultants used to review submissions).

A meeting was held with National Highways on the 25th March 2024. The nearest Strategic Road Network (SRN) is the A63 and National Highways requested to be kept informed as the design was refined and when the data on trip generation and likely distribution to/from the Strategic Road Network was known.

A meeting was held with ERYC Highways on the 19th February 2024. It was recommended that further discussions take place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and vehicle access location). On the 6th June 2024, it was agreed with Area Engineers that:

- The proposed locations of passing places, carriageway widening, and accesses would be provided to the relevant Area Engineers for formal comment;
- Passing places should be 20m in length with 10m tapers;
- ERYC would be willing to adopt some passing places and widen the local road network where they are constructed to adoptable standards to provide an enduring improvement to benefit highway users and the local community; and
- Temporary speed reductions could be considered during the construction phase to overcome visibility issues and reduce the impact of trees, hedging and vegetation.

The proposed passing location and access plans have been submitted for review and at the time of writing the TASR, the applicant had not yet received a response. **<u>Any responses or comments from the Area Engineers should be adhered to and integrated into the Transport Assessment (TA) for review.</u>**

The applicant states that comments provided by AECOM on the PEIR on the 20th August 2024 have been taken into consideration for the TASR, which is welcomed.

4. Assessment Scenarios

4.1 Phase of Development

The construction phase is anticipated to begin in 2026 and is expected to take 24 months to complete. This phase will be assessed as the worst-case scenario of the Proposed Development for the purposes of the TA and Environmental Statement.

The operational phase is anticipated to begin thereafter, with the applicant expecting one weekly site visit plus 26 maintenance visits per year. This is deemed negligible by the applicant and has not been assessed due to not being the worst-case scenario for the Proposed Development, which is acceptable.

The applicant states that during the decommissioning phase, circa 2068, the number of trips generated will be similar to, or slightly fewer than generated for the construction phase. **<u>All relevant organisations and bodies should be contacted prior to the decommissioning taking place.</u>**

4.2 Base and Future Year Scenarios

Several forms of traffic count data have been collated, as summarised below in **Table 1**.

Table 1. Traffic Count Sources, Location, and Date

Source	Location	Date
East Riding of Yorkshire Council automatic traffic counters	A165 Main Street, Skirlaugh	September 2023
	Meaux Road, Wawne	January 2020
Manually classified junction turning-movement count surveys	White Cross Roundabout	October 2023
	A1035/Meaux Lane Priority Right-Turn Ghost Island Junction	October 2023
	A165/Arnold Lane West Priority Right-Turn Ghost Island Junction	October 2023
Automatic Traffic Counter (ATC) surveys (recording total two-way movements on a link) by vehicle type	Carr Lane (Opposite Dancing Lane)	October 2023
	A1035 (East of Swinemoor Lane Roundabout)	February 2024
	Meaux Road (south of Holderness Drain)	February 2024
	Black Tup Lane (South of Carr Lane)	February 2024

<u>It should be ensured that all survey dates are neutral. According to the DfT, transport data should be included that reflects the typical (neutral) flow conditions on the network (for example, non-school holiday periods, typical weather conditions etc) in the area of the Plan and should be valid for the intended purposes. This should be confirmed within the Environmental Statement and Transport Assessment.</u>

The base traffic flows from 2023 have been growthed to the construction year of 2026 via the DfT's TEMPro national program v.8 (Trip End Model Presentation Program), based on the Middle Super Output Area (MSOA) East Riding of Yorkshire 014 zone. However, the 2024 base traffic flows have not been growthed. **<u>It should be explained why these have not been growthed.</u>**

A list of committed developments has also been considered, with some removed based on whether they would generate significant traffic on the highway network within the study area. The committed developments which are proposed to take into account are:

- 22/00824/STPLF - Construction of solar photovoltaic development including solar panels, installation of sub-station, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound

- NSIP - Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate.

Appendix 2 provides the reasoning behind the inclusion or exclusion of the committed developments. **The committed developments that are proposed to be taken into account should be agreed upon with ERYC and National Highways.**

The TEMPro was amended to account for the above-committed developments. The 'future jobs prediction' was reduced to base (from 2,499 to 2,476) to avoid double-counting of the jobs created by the committed developments. **However, it is recommended any reduction in TEMPro should be agreed upon with ERYC and National Highways. All traffic assessments should represent a worst-case scenario and reducing the TEMPro could make the data unrepresentative.**

The growth factors presented within the TASR are shown below in Table 2.

Table 2. TEMPro Growth Factors

Year	AM Peak Growth Factor	PM Peak Growth Factor	AADT Peak Growth Factor
2023 – 2026	1.0259	1.0252	1.0263

Appendix 1 shows the traffic flows in Passenger Car Units (PCUs) for the following base scenarios:

- Baseline Traffic Flows
- 2026 Base Flows
- Committed Development - Field House Solar Farm, Tickton (22/00824/STPLF)
- Committed Development - Hornsea Project Four Offshore Wind Farm
- Total Committed Development
- 2026 Base + Committed Development

These have been reviewed and appear logical.

5. Vehicular Access

The Proposed Development consists of five land areas referred to as Land Area B to Land Area F. EYRC Highways Area Engineers are currently reviewing the proposed vehicle access arrangements and passing places, in relation to each Land Area. **All comments received from ERYC should be included in the TA to justify the design decisions.**

The plan in Appendix 3 indicates the locations of each of the accesses and the plans in Appendix 4 show the proposed access arrangements and mitigation works on the routes to the site. The mitigation works include the proposed passing places and carriageway widening which will facilitate access by articulated HGVs. **It is recommended that vehicle auto-tracking is undertaken and provided for review by ERYC Highways to show that the proposed works are suitable for all vehicle types that will be accessing the site.**

5.1 Access to Land for Cable Works

For cable connection to Creyke Beck, the applicant anticipates that there will be a small number of daily LGVs and HGVs. **The trips have not been included in the assessment, however, the TA should confirm the number of LGVs and HGVs that will be used for the cable connection.**

Staff will be shuttled by minibus to the site from nearby site compounds in the solar Land Areas, it is anticipated that approximately 20 staff will be required which can be shuttled by two buses in total. These trips have been included in the assessment.

6. Traffic Routing

The applicant anticipates that the traffic routing to the different land areas of the site varies for staff and LGVs/HGVs.

6.1 Staff Routing

A gravity model has been developed, based on 2011 Census data, to identify the routes that staff will take to travel to and from the Proposed Development. Appendix 5 shows this data, with 36% of staff travelling to and from Beverley/A1035, 13% from Wawne/North Hull/Meaux Lane, 21% from East Hull/A165, 20% from A1035 to the north-east (Hornsea) and 10% from Leven/Brandesburton.

The applicant states that the staff will travel by single-occupancy cars/vans, shuttle buses, and car/van shares. Once staff arrive at the Proposed Development, they will then be transported internally by shuttle buses. This approach appears to be suitable.

6.2 HGV Traffic Routing

The main routes to the site by HGVs will be via the A1035 and A165, based on the applicant's assumption that HGVs, particularly those delivering solar panels, will originate from Hull docks on the Humber, and all other trips will likely arrive from Hull or Beverley. The HGV trips will be outside of the network peak hours and have therefore not been included in the network peak assessment, which is acceptable.

The routes have been assessed using swept path analysis to assess whether they are sufficient to accommodate articulated HGVs (16.5m length). **It is recommended that these swept paths be presented within the TA.**

The proposed mitigation measures to facilitate the routing, such as the addition of permanent passing places and a temporary speed reduction along Maeux Lane, are subject to agreement with ERYC Highways. **The applicant should ensure that all comments are adhered to upon receipt, with any design changes made in accordance where necessary. Specific locations of passing places and temporary speed reduction areas should also be provided to ERYC Highways when available.**

7. Trip Generation

7.1 Delivery and HGV Trip Generation

Table 3 shows the anticipated daily HGV and delivery trips which have been provided by the applicant. These will occur outside of the network's peak hours. **Please can the hours of arrival / departure for staff and HGVs be included with the TA document. A profile across the construction period indicating the daily traffic levels on a monthly basis should also be included.**

Table 3. Anticipated Daily HGV and Delivery Trips

Land Area	Direction	HGVs	LGVs (Other Deliveries)
B	Arrivals	15	13
	Departures	15	13
	Total Daily	**30**	**26**
C	Arrivals	20	16
	Departures	20	16
	Total Daily	**40**	**32**
D	Arrivals	31	31
	Departures	31	31
	Total Daily	**62**	**62**
E	Arrivals	15	13

Land Area	Direction	HGVs	LGVs (Other Deliveries)
	Departures	15	13
	Total Daily	**30**	**26**
F	Arrivals	12	12
	Departures	12	12
	Total Daily	**24**	**24**
Creyke Beck Cable Works	Arrivals	5	5
	Departures	5	5
	Total Daily	**10**	**10**

A Construction Traffic Management Plan (CTMP) will be produced to show the controls that will be put in place to manage the traffic. **It is recommended that these controls consider external environmental factors along the routes that will be used. For example, there are several schools close to the routes and it should be ensured that HGV movements do not coincide with school start and finish times.**

7.2 Staff Trip Generation

The applicant anticipates that 50% of staff will be taken to and from the site by shuttle bus and each shuttle bus accommodates 14 staff. The remaining 50% are anticipated to car/van share, with a 3:1 ratio of staff to vehicle. **The applicant should provide details in the CTMP on how these ratios will be ensured. Robust measures will need to be put in place to encourage 50% of staff to travel to and from the site by shuttle bus.**

The anticipated staff daily trips are shown below in Table 4.

Table 4. Anticipated Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses	Cars/Vans	Total Arrivals	Total Departures
B	125	4	21	25	25
C	128	5	21	26	26
D	248	9	41	50	50
E	125	4	21	25	25
F	96	3	16	19	19
Grid Connection Cable Route	20	1	4	5	5

According to the applicant, staff will arrive during the morning peak hour (around 9 am) and depart during the evening peak hour (around 5 pm). **The TASR does not state the actual timings of the AM and PM hourly network peaks. For clarification, these timings should be stated in the TA.**

Appendix 1 shows the traffic distribution for the cable works and each Land Area and the assignment of staff trips during the AM and PM peak hours.

8. Phasing

The applicant anticipates six construction phases, including:

- Phase 1: Land Area B
- Phase 2: Land Areas B & C

- Phase 3: Land Areas C & D and Grid connection cable route
- Phase 4: Land Areas D & E and Grid connection cable route
- Phase 5: Land Areas E & F and Grid connection cable route
- Phase 6: Land Area F

Appendix 1 shows the trip generation flow diagrams for these phases.

9. Traffic Impact

It is proposed to undertake capacity assessments at the following junctions on the ERYC Local Highway Network to assess the worst-case impact at each stage of the construction process:

- A1035 / Meaux Lane priority junction (worst case of 69 vehicle movements in both AM and PM peak hours during Phase 4 – Land Areas D & E);
- A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout) (worst case of 48 vehicle movements in both AM and PM peak hours during Phase 3 – Land Areas C & D);
- A165 White Cross Road / Site Access to Land Area B (worst case of 35 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C);
- A165 White Cross Road / Carr Lane (worst case of 32 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C); and
- A165 White Cross Road / Arnold Lane West (worst case of 38 vehicle movements in AM and PM peak hours during Phase 3 – Land Areas C & D).

The applicant states that the capacity assessments will be undertaken using the ARCADY10 software in the base year and future years with and without the addition of development traffic, which is welcomed. **It is noted there are also priority junctions within the list above, which should be assessed using the PICADY package within Junctions 10.**

It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout.

10. Highway Safety

The most recent 3-year period (including 2018 and 2019 to provide 3 years without the COVID-19 restrictions, i.e. a total of 5 years) of road traffic collision history will be reviewed for the wider highway network in the vicinity of the site to identify collision patterns, estimate the impact of the proposed development traffic in conjunction with capacity modelling and propose mitigation where appropriate.

If it is found that there are any links or junctions with hotspots of accidents within that period, these should be assessed further, to ensure that the Proposed Development traffic will not cause further detriment to highway safety.

11. Construction Traffic Management Plan

The applicant will prepare a Construction CTMP. This will include details of the routes to be taken to the site by staff and HGVs. It will also include details of the location of staff compounds and proposals for wheel washing. **All measures stated to minimise the impact on construction traffic should be robust and site-specific.**

12. Appendices

12.1 Appendix 1: Traffic Figures

The applicant has provided traffic flow diagrams for several scenarios. This includes base flows, growthed base flows, committed development flows, and Proposed Development flows. **For clarity, the network AM and PM hours should be stated.**

12.2 Appendix 2: Committed Developments

The applicant has provided the reasoning behind the inclusion or exclusion of the committed developments. **Whilst the reasonings stated are reasonable, the committed developments that are proposed to be included should be agreed upon with ERYC and National Highways.**

12.3 Appendix 3: Land Areas and Access Location Plan

The applicant has provided a plan of the different Land Areas, in relation to key towns and roads in the area. There are no further comments.

12.4 Appendix 4: Proposed Highway Works Plan

The applicant has provided drawings of the proposed highway mitigation works to enable the movement of vehicles accessing the Proposed Development. These works have been submitted to ERYC Highways Area Engineers for review.

The applicant should provide vehicle tracking on these designs to show that the proposed works are suitable for each vehicle type that will be travelling to and from the Proposed Development.

12.5 Appendix 5: Gravity Model

The applicant has used a gravity model to distribute staff trips along the highway network in accordance with 2011 Census data. There are no further comments.

12.6 Appendix 6: Indicative Phasing Plan

The applicant has provided details of the indicative phasing plan. There are no further comments.

13. Summary

AECOM have been commissioned by East Riding of Yorkshire Council (ERYC) to provide a review of a TASR, prepared by SCP for RWE ('the applicant'), in support of the development of a proposed solar photovoltaic (PV) electricity-generating and storage facility with an export capacity of 320 megawatts (MW) and associated infrastructure located in East Riding of Yorkshire.

The following comments are provided:

- Continue liaising with ERYC and National Highways, particularly with:
  - ERYC Highway Area Engineers who may have comments on the proposed highway works;
  - Both organisations who may have comments on the proposed inclusion or exclusion of committed developments;
  - Both organisations who may have comments on the reduced TEMPro future job prediction;
- Confirm that traffic survey dates all represent neutral conditions;
- Present the vehicle auto-tracking of the proposed routes (and works) to show that all vehicle types can access the Proposed Development;
- State the number of LGVs and HGVs that will be used for the cable connection to avoid ambiguities of the word 'small';

- Ensure that the CTMP provides robust and site-specific measures to minimise the impact on the traffic on the road network;
- Provide clarification in the TA on how it will be ensured that 50% of staff will travel to and from the site by shuttle bus;
- State the hours of the AM and PM network peaks to provide context; and
- Identify any accident hotspots and show that the Proposed Development traffic will cause no detriment to highway safety.
- It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout.

[redacted]

From: [redacted]
Sent: 16 September 2024 08:17
To: [redacted]
Cc: [redacted]
Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

CAUTION: This email originated from outside the Organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jon,

Thank you for you email and clarification on the points raised below. I can confirm the TA scope is now acceptable.

Kind Regards,

[redacted]
Principal Highway Development Management Officer
[redacted]
www.eastriding.gov.uk

EAST RIDING
OF YORKSHIRE COUNCIL

From: [redacted]
Sent: Tuesday, September 10, 2024 14:19
To: [redacted]
Cc: [redacted]
Subject: FW: 24/01813/NSIP - Peartree Hill Plantation

[CAUTION]This email was sent from **outside of your organisation**. Do not click any links, preview or open attachments, or provide any log-in details unless you recognise the sender and know the content is safe.

Scott
Thanks for your email below. I have commented on each point below in red.

As requested we submitted the TA Scope and require approval from ERYC so that we can progress the Transport Assessment using parameters (traffic growth, assessment periods etc) **on an agreed basis**.

Many of the comments from AECOM (such as those relating to committed development and traffic growth for example simply say that agreement is required from ERYC) whereas I had understood the purpose of the AECOM review exercise was to comment on the acceptability of our approach (or otherwise).

All Traffic surveys undertaken for the Transport Assessment were carried out during neutral months. The scope also listed surveys undertaken **for the ES** which are not relevant to the TA Scope.

HGV Vehicle swept paths have been provided to ERYC Area officers for comment (for all the proposed mitigation comprising accesses and passing places); these will be appended to the TA.

At this stage we need agreement from ERYC to the individual junctions we have proposed to assess; obviously once the relevant junction assessments are undertaken, the geometric parameters and modelling inputs and results will be provided once the TA is submitted.

I trust the responses above and below now enable you or colleagues at ERYC to provide agreement to our proposed Transport Assessment scope so that we can progress with the work.
If you have any queries or you think there are any issues outstanding don't hesitate to give me a call.

Thanks and regards
Jon

Jon Phillip
Associate Director

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

10 South Parade • Leeds • LS1 5QS
[redacted]

www.scptransport.co.uk

From: [redacted]
Sent: 09 September 2024 09:49
To: [redacted]
Cc: [redacted]

[redacted]

Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

Hi Laura/Georgia,

I have had the comments back from our consultants (AECOM) who has the below high-level comments witch details comments throughout the attached report.

- Continue liaising with ERYC and National Highways, particularly with:
    - ERYC Highway Area Engineers who may have comments on the proposed highway works; Awaiting response from ERYC
    - Both organisations who may have comments on the proposed inclusion or exclusion of committed developments; See above email.
    - Both organisations who may have comments on the reduced TEMPro future job prediction; See above email.
- Confirm that traffic survey dates all represent neutral conditions; See above email.
- Present the vehicle auto-tracking of the proposed routes (and works) to show that all vehicle types can access the Proposed Development; Will be included in TA (subject to agreement on proposed accesses from ERYC).
- State the number of LGVs and HGVs that will be used for the cable connection to avoid ambiguities of the word ‘small’; RWE have clarified the cable connection HGV and LGV volumes, these will be included in the TA.
- Ensure that the CTMP provides robust and site-specific measures to minimise the impact on the traffic on the road network; Noted
- Provide clarification in the TA on how it will be ensured that 50% of staff will travel to and from the site by shuttle bus; agreed – to be included in TA and oCTMP
- State the hours of the AM and PM network peaks to provide context; agreed – to be included in TA and oCTMP
- Identify any accident hotspots and show that the Proposed Development traffic will cause no detriment to highway safety. These will be included in the TA
- It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout. See above email.

If you need anything else please let me know.

Kind Regards,

[redacted]

Principal Highway Development Management Officer

[redacted]

www.eastriding.gov.uk

From: [redacted]
Sent: Friday, September 6, 2024 13:54
To: [redacted]
Cc: [redacted]
Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

[CAUTION]This email was sent from **outside of your organisation**. Do not click any links, preview or open attachments, or provide any log-in details unless you recognise the sender and know the content is safe.

Thanks Scott.

When you provide your response on Monday are you able to include my colleague Georgie in your response (CC'd).

Cheers,
Laura Tinker

From: [redacted]
Sent: 29 August 2024 16:45
To: [redacted]
Cc: [redacted]
Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

Hi Laura,

Thank you for passing this across.

I should be able to provide a response by 9th September as I am on annual leave on the 6th, I hope this is acceptable.

Kind Regards,

[redacted]
Principal Highway Development Management Officer
[redacted]
www.eastriding.gov.uk

From: [redacted]
Sent: Wednesday, August 28, 2024 11:43
To: [redacted]
Cc: [redacted]
Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

Good morning all,

As discussed, please find attached the Transport Assessment Scoping Report for your review. It would be appreciated if you could please confirm whether you are comfortable with the approach that we are proposing for the Transport Assessment.

Please feel free to get in touch with Calum or Jon (CC'd) directly if you have any questions.

Is the 6th September still possible for a response ?

Cheers,

[redacted]
Associate

[redacted]
dwd-ltd.co.uk

Chartered Surveyors & Town Planners
69 Carter Lane, London, EC4V 5EQ

DWD

From: [redacted]
Sent: 22 August 2024 17:04
To: [redacted]

Cc: [redacted]
Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

Hey Scott,

Thanks so much for sending the below through. My team are making their way through the comments at the moment and will be in touch if they have any queries.

We are still hoping to get the TA methodology to you tomorrow, however we are looking to include some additional points following your comments on the PEIR so its possible that this may slip to Monday. I will keep you up to date.

Cheers,

[redacted]
Associate

[redacted]
dwd-ltd.co.uk

Chartered Surveyors & Town Planners
69 Carter Lane, London, EC4V 5EQ

From: [redacted]
Sent: 21 August 2024 11:20
To: [redacted]
Cc: [redacted]
Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

Hi Laura,

I hope this email finds you well.

I am pleased to send across ERYC higwhay comments through the AECOM report atatched. The full comments are bold and underlined throughout the document.

The highlight comments of the PEIR review are as follows:

• Continue engaging with ERYC highways department and National Highways at the earliest opportunity for each stage of the design and its associated transport-related factors, such as routing and trip generation;

• Refer to IEMA 2023 guidance for any design changes that impact transport, such as the inclusion or exclusion of certain road links within the assessment;
• Ensure that all traffic survey dates are outside of events such as school holidays when the level of traffic may be lower than normal;
• Confirm that each element of the desktop studies has been verified on a site visit and that the conditions are representative;
• Confirm whether sustainable transport options, are viable for all Land Areas;
• Any junctions or roads that are identified to have clusters of accidents should receive appropriate mitigation measures to ensure that the Proposed Development does not exacerbate this;
• Any years impacted by COVID-19 should be excluded from the highway safety review;
• Any reduction in TEMPro is to be agreed with ERYC and National Highways;
• All changes to the highway, such as the implementation of passing places as a form of mitigation, are drawn and mapped, to ensure compliance with guidance;
• The identification of the AM and PM network peak within the Transport Assessment, and the subsequent assessment of the impact of the construction traffic generation during these peaks;
• The provision of a site masterplan and a detailed construction timeline of the phases on site with a breakdown of generated traffic from each phase, to be provided within the submitted Transport Assessment;
• A robust method to calculate the distribution of trips, such as a gravity model, if the exact origin of each worker is unknown; and
• All relevant organisations and bodies should be contacted prior to the decommissioning taking place.

Following this, could you provide an updated timeframe in regards to receiving the TA?

Kind Regards,

[redacted]
Principal Highway Development Management Officer
[redacted]
www.eastriding.gov.uk

EAST RIDING
OF YORKSHIRE COUNCIL

From: [redacted]
Sent: Wednesday, August 14, 2024 13:46
To: [redacted]
Cc: [redacted]
Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

Afternoon Scott,

Many thanks for the below. I have spoken to my client who has confirmed that they are happy for you to instruct the consultant so that the work can be turned around in a shorter period.

As an update, we are also hoping to issue the TA methodology to you next week and would like your review / comments on this. We are happy to cover the consultants time for this also, would a response on this be possible for the 6th September?

Cheers,

[redacted]
Associate

[redacted]
dwd-ltd.co.uk

Chartered Surveyors & Town Planners
69 Carter Lane, London, EC4V 5EQ

DWD

From: [redacted]
Sent: 12 August 2024 11:03
To: [redacted]
Cc: [redacted]
Subject: 24/01813/NSIP - Peartree Hill Plantation

Good Morning Laura,

I hope this email finds you well.

Highway Management have been consulted on the above NSIP for a PEIR review and due to very recent staffing issues within the team we will not be able to start looking at this until 2nd September, however given the situation we face I have asked our transport consultants for a quote and time frame, which is why I am contacting you today.

1. If HDM team are to look at this internally this will begin w/c2nd September and will take approx. 10-12 hours to review with a response provided by COP 6th September.
2. However, our consultants have come back with a five day turn around period following commission at a cost of £1,604.64 and we could get this to you by COP 20th following your response to this email.

As we have a PPA set up for this submission please could you respond which of the above options you would like me to proceed with.

Kind Regards,

[redacted]
Principal Highway Development Management Officer
[redacted]
www.eastriding.gov.uk

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APPENDIX B

Site Plans and Order Limits

Key

- Order Limits
- Local Planning Authority Administrative Boundary

Notes:

Rev	Date	By	Chkd	Appd	Authd
P01	29/01/2025	RSK	AF	KC	FA

Client: RWE

Designer: RSK

Project Name: Peartree Hill Solar Farm

Drawing Title: Environmental Statement, Figure 1.1: Order Limits and Administrative Boundaries

SHEET 1 OF 1

Scale at A1: 1:20000

Coordinate System: British National Grid

Status: DCO Application

PINS Number: EN010157/APP/6.3

Rev: P01

Key

- Order Limits
- Solar PV Development
- B1 Field Number
- Grid Connection Cable Route

Interconnecting Cable Routes

- B-B
- C-D
- E-E
- E-F

Land Areas

- B
- C
- D
- E
- F

Notes:

Rev	Date	By	Chkd	Appd	Authd
P01	06/02/2025	CJ	MM	BT	BT

Client: RWE

Designer: RSK

Project Name: Peartree Hill Solar Farm

Drawing Title: Environmental Statement, Figure 1.2: Land Areas and Cable Routes Plan with Field Numbering System

SHEET 1 OF 1

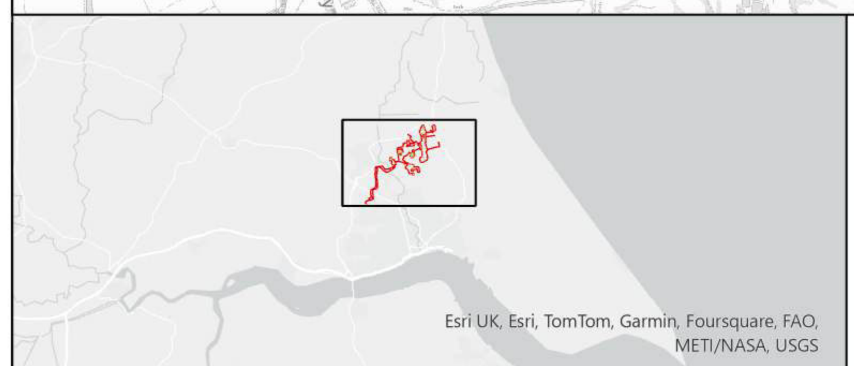
Scale at A1: 1:20,000

Coordinate System: British National Grid

Status: DCO Application

PINS Number: EN010157/APP/6.3

Rev: P01



Key

- Order Limits
- Powerlines and Pylons
- Internal Access Tracks
- Main Compound
- Satellite Compound
- Cable Route Corridor
- Interconnecting Cabling Corridors between Land Areas:
- Cable C-D
- Cable B-B
- Cable E-E
- Cable E-F
- Access Points
- Cable Route Access Points

Notes:

1. This drawing is for illustrative purposes only

P02	31/01/2025	NAM	EH	AD	MG
Rev	Date	By	Chkd	Appd	Authd

Client

RWE

Project Name

Peartree Hill Solar Farm

Drawing Title

Environmental Statement Volume 3, Figure 3.5: Indicative Construction Layout Plan

Scale at A1: 1:20,000

Coordinate System: British National Grid

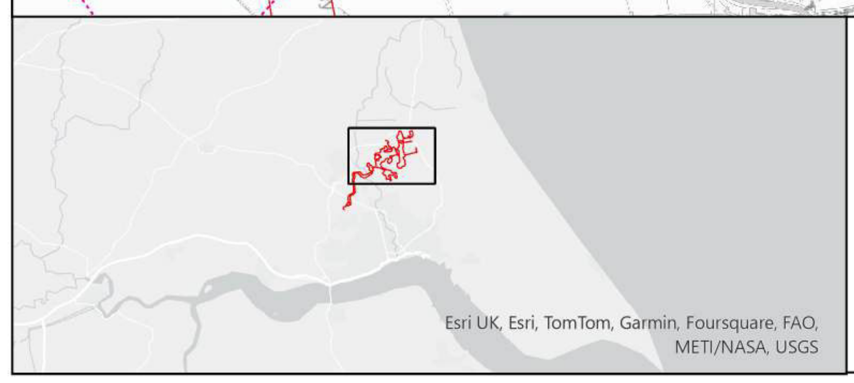
Status

DCO Application

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: 5(2)(a)

PINS Number: EN/010157/APP/6/3

Rev: P02



Key

- Order Limits
- Existing Features
  - Public Rights of Way
  - Powerlines and Pylons
  - Hedgerows
  - Woodlands/Trees
- Waterbodies and Watercourses
- Proposed Development
  - Operational Access Points
  - On-Site Substation East
  - On-Site Substation West
  - Hybrid Packs (Inverters, Converters and BESS Units)
- Internal Access Tracks
- Permissive Paths
- Fencing
- Indicative Areas for Mitigation, Enhancement and/or Retained Agricultural Land
- A1 Field Reference
- Solar PV Modules
- Interconnecting Cabling Corridors between Land Areas:
  - Cable C-D
  - Cable B-B
  - Cable E-E
  - Cable E-F

Notes:

1. This drawing is for illustrative purposes only
2. The location of features shown are indicative only to show the key features of Peartree Hill Solar Farm for which development consent is sought
3. The Indicative layout demonstrates one way that the Proposed Development could be undertaken within the parameters of the DCO [EN010157/APP/5.8], consent is not sought specifically for this layout.
4. Underground features (such as cables), jointing bays, and boundary treatments (such as perimeter fencing and CCTV) are not shown.

Rev	Date	By	Chkd	Appd	Authd
P02	30/01/2025	NAM	EH	AD	MG

Client

RWE

Project Name

Peartree Hill Solar Farm

Drawing Title

Environmental Statement Volume 3, Figure 3.1: Indicative Operational Layout Plan

Scale at A1: 1:13,000

Coordinate System: British National Grid

Status: DCO Application

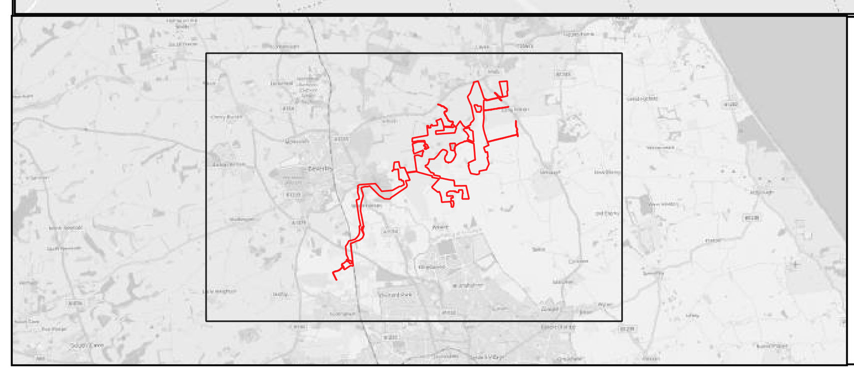
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: 5(2)(a)

PINS Number: EN/010157/APP/6/3

Rev: P02

APPENDIX C

Transport and Access Study Area



Key

- Order Limits
- Study Area

Notes:

P01	18/12/2024	CC	JP	BT	MG
App	Date	By	Chkd	Appd	Authd

Client: RWE

Designer: RSK

Project Name: Peartree Hill Solar Farm

Drawing Title: Appendix C in ES Volume 4, Appendix 14.1: Transport Assessment, Transport and Access Study Area

Scale at A1: 1:25000

Coordinate System: British National Grid

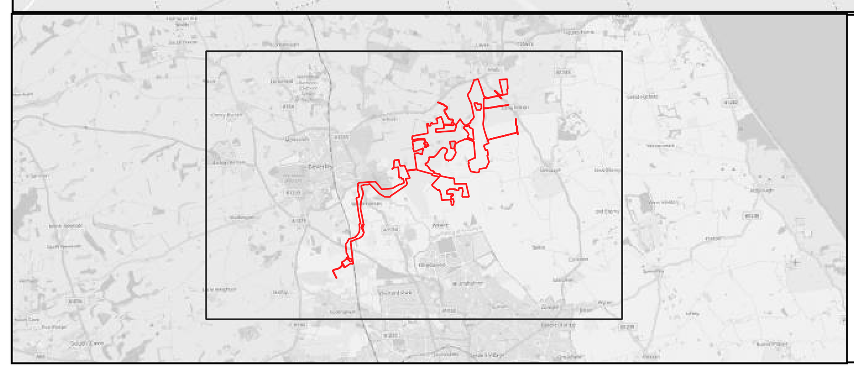
Status: DCO Application

PINS Number: EN010157/APP/6.4

Rev: P01

APPENDIX D

Public Rights of Way and Permissive Paths



Key

- Order Limits
- Public Right of Way (Bridleway)
- Public Right of Way (Footpath)
- Wilverforce Way (Long Distance Path)
- Affected Public Right of Way

Notes:

App	Date	By	Chkd	Appd	Authd
P01	10/12/2024	CC	JP	BT	MG

Client: RWE

Designer: RSK

Project Name: Peartree Hill Solar Farm

Drawing Title: Environmental Statement Volume 4, Appendix 14.1: Transport Assessment; Appendix D: Public Rights of Way

Scale at A1: 1:25000

Coordinate System: EPSG:27700

Status: DCO Application

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: 5(2)(a)

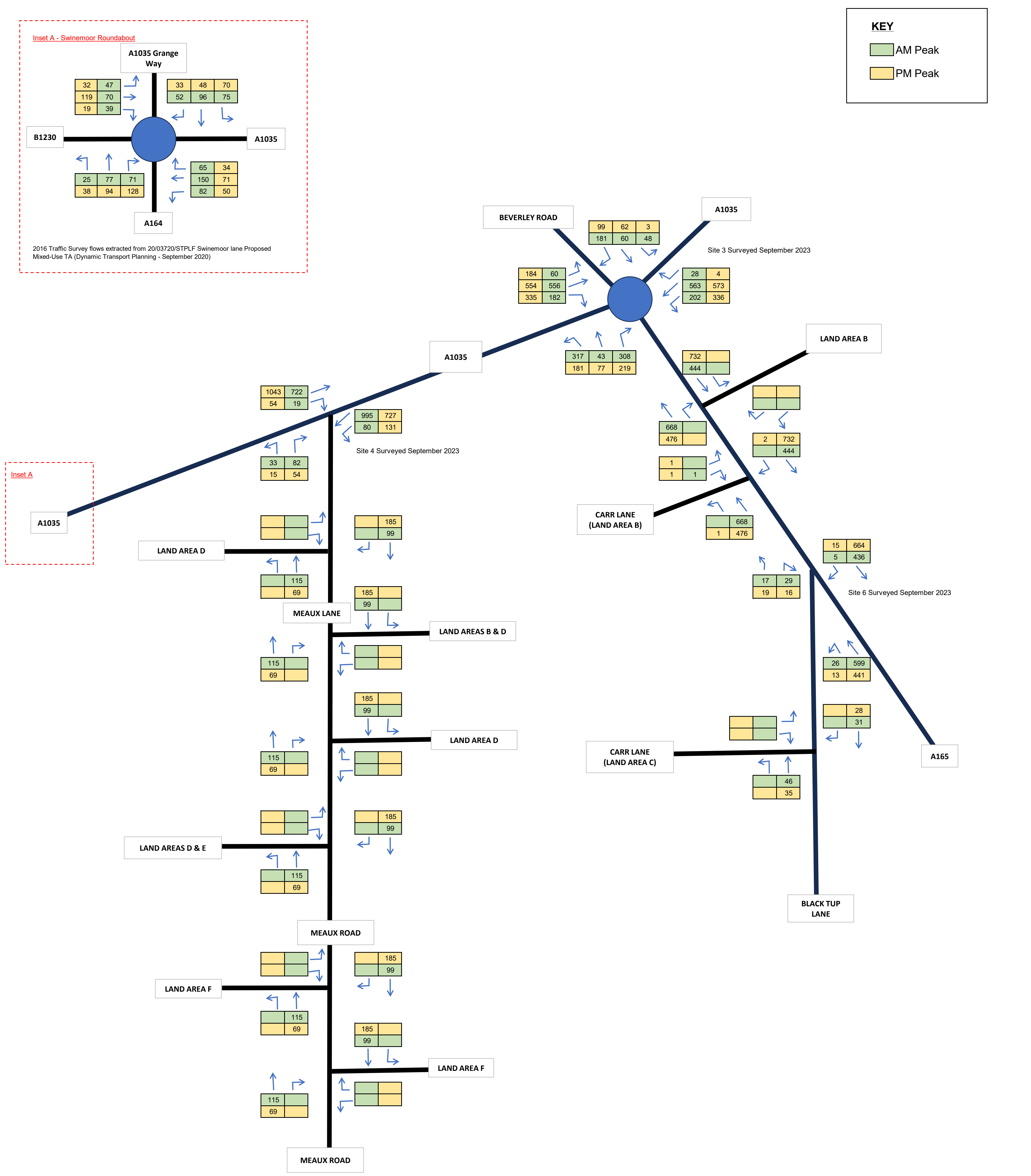
PINS Number: EN010157/APP/6.4

Rev: P01

Drawing Title: Appendix 14.1: Transport Assessment; Appendix D: Public Rights of Way

APPENDIX E

Traffic Figures



Baseline Traffic Flows (PCUs)

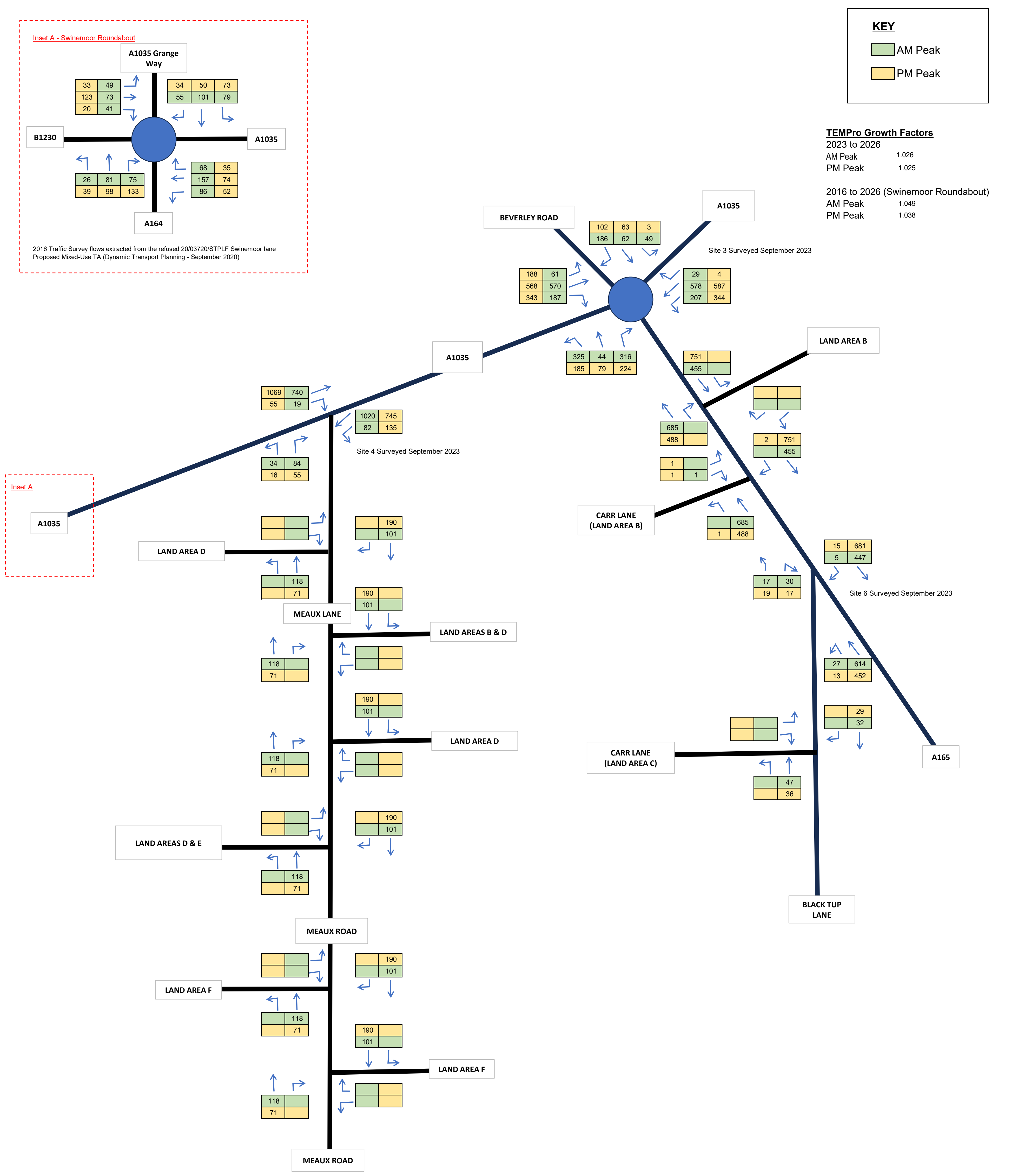
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 1



2026 Base Flows

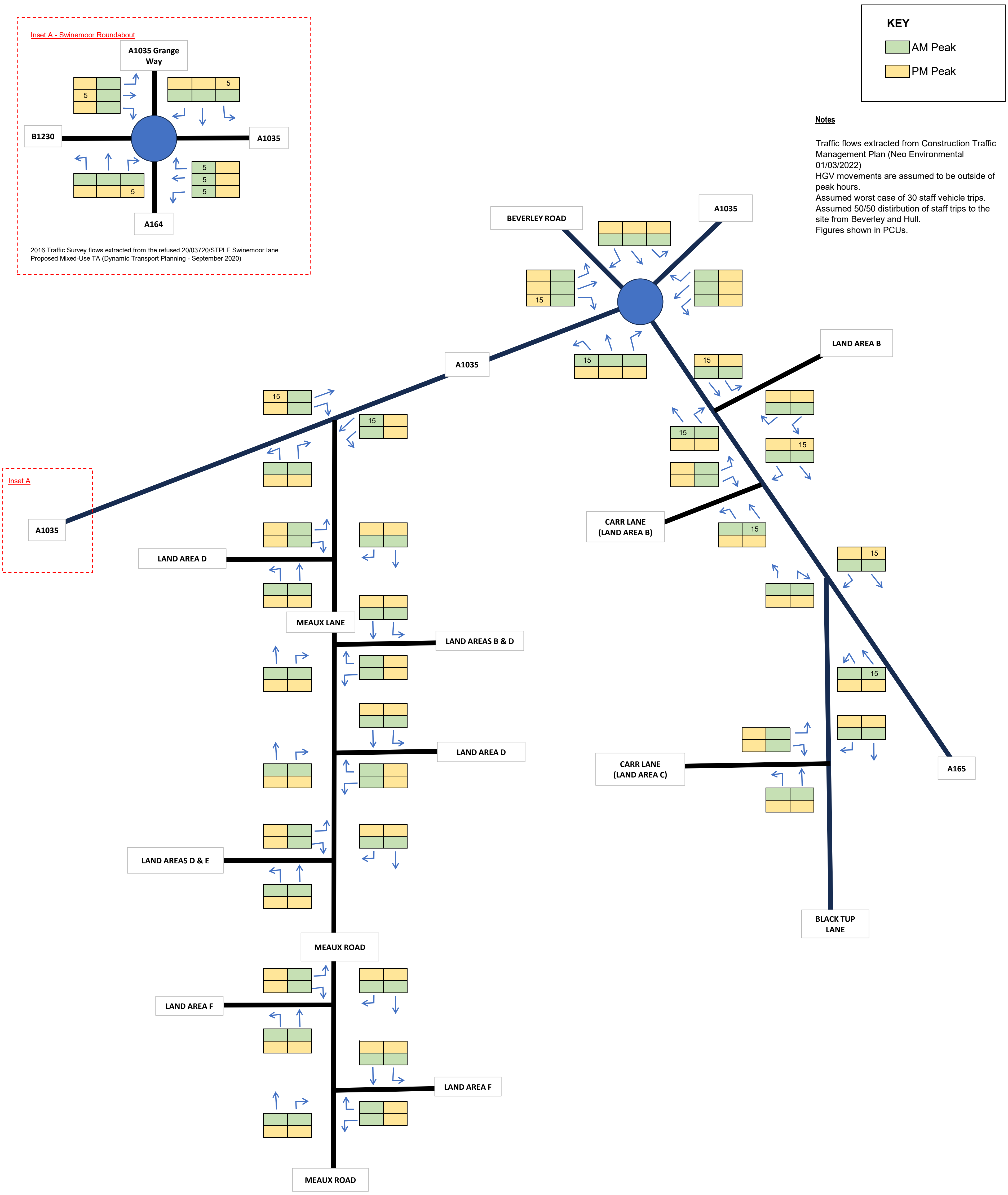
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 2



Notes

Traffic flows extracted from Construction Traffic Management Plan (Neo Environmental 01/03/2022)
HGV movements are assumed to be outside of peak hours.
Assumed worst case of 30 staff vehicle trips.
Assumed 50/50 distirbution of staff trips to the site from Beverley and Hull.
Figures shown in PCUs.

Committed Development - Field House Solar Farm, Tickton (22/00824/STPLF)

Peartree Hill Solar Farm

SCP
TRANSPORT PLANNING
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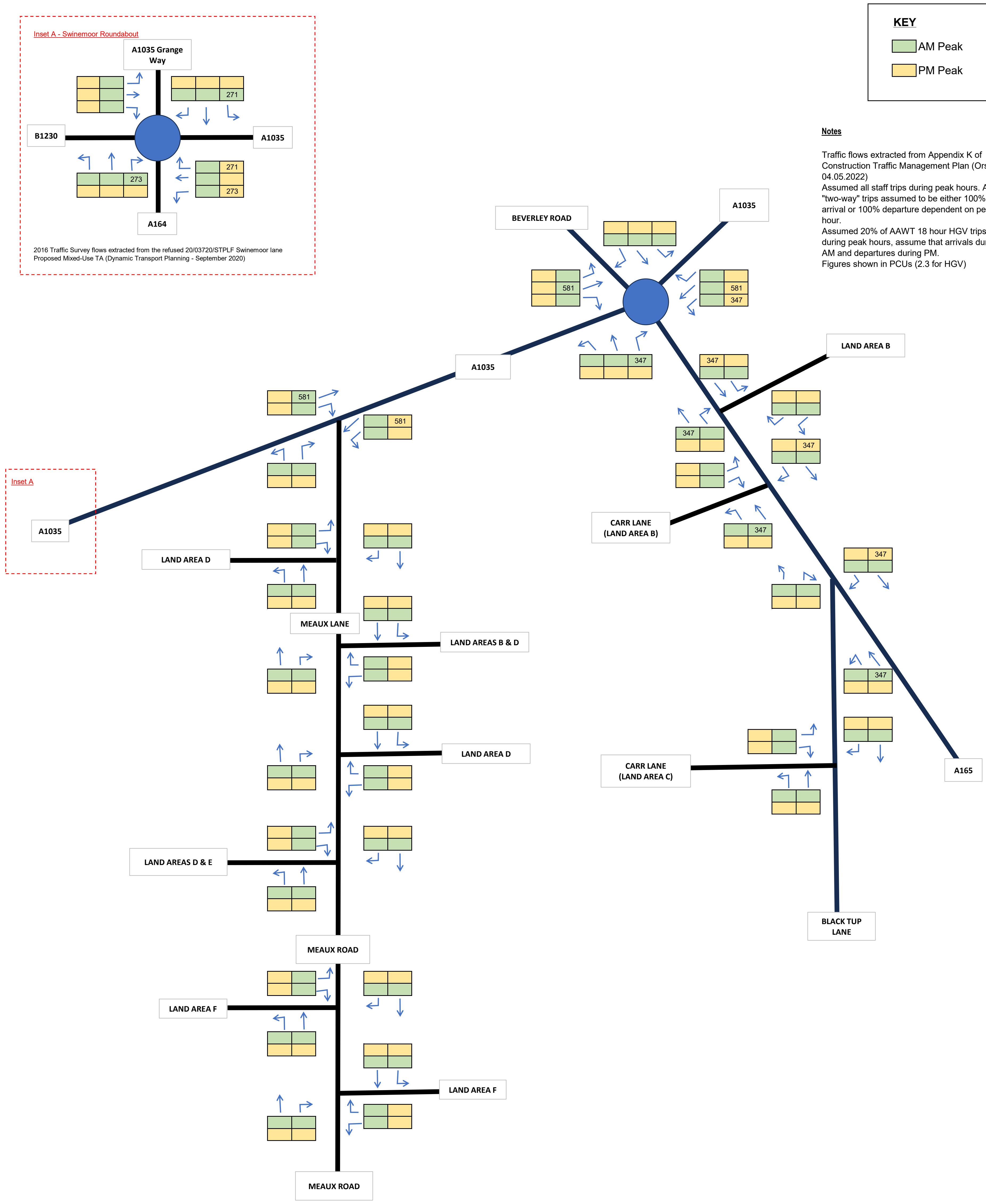
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 3



KEY

AM Peak

PM Peak

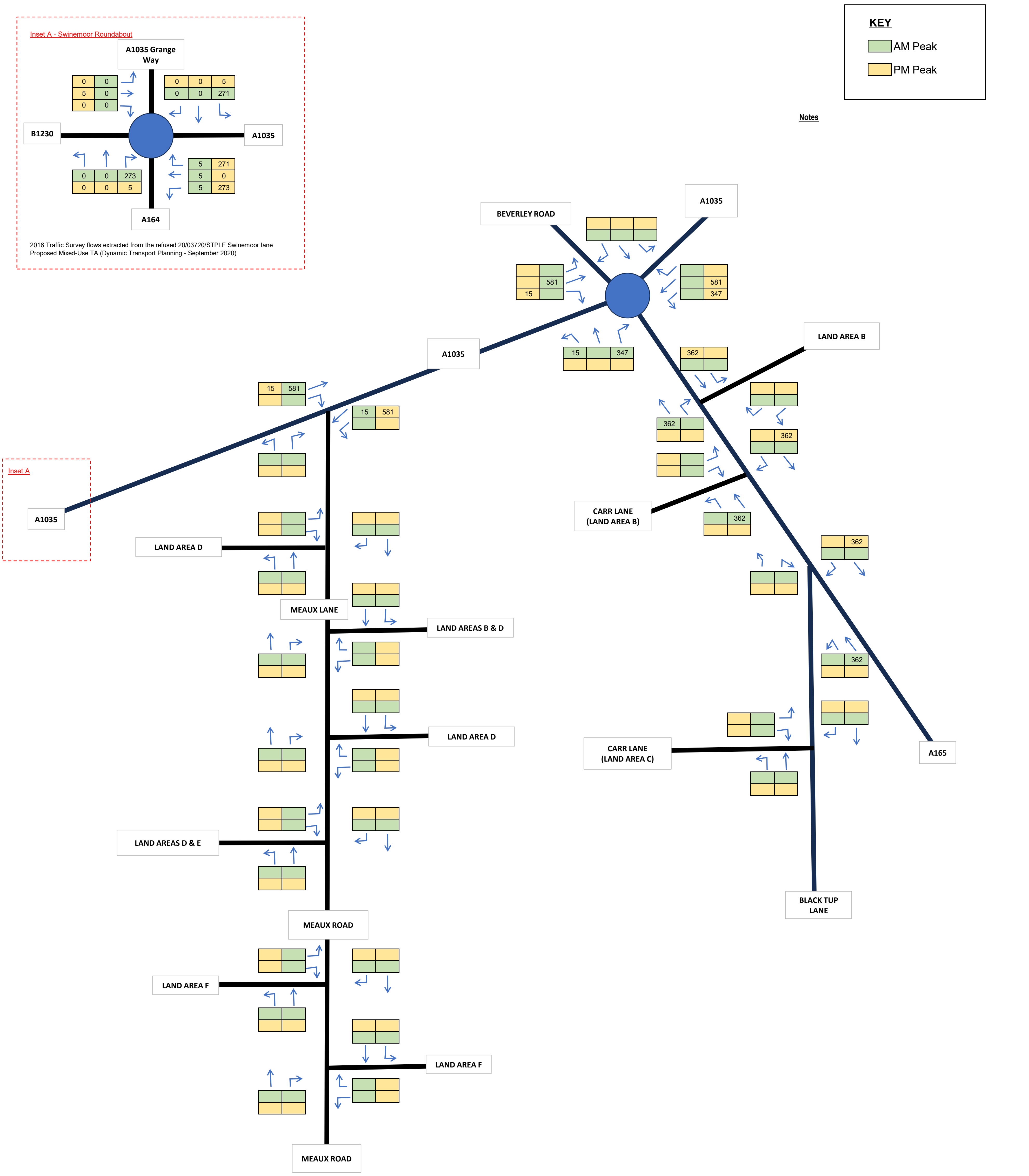
Notes

Traffic flows extracted from Appendix K of Construction Traffic Management Plan (Orsted 04.05.2022)
Assumed all staff trips during peak hours. All "two-way" trips assumed to be either 100% arrival or 100% departure dependent on peak hour.
Assumed 20% of AAWT 18 hour HGV trips during peak hours, assume that arrivals during AM and departures during PM.
Figures shown in PCUs (2.3 for HGV)

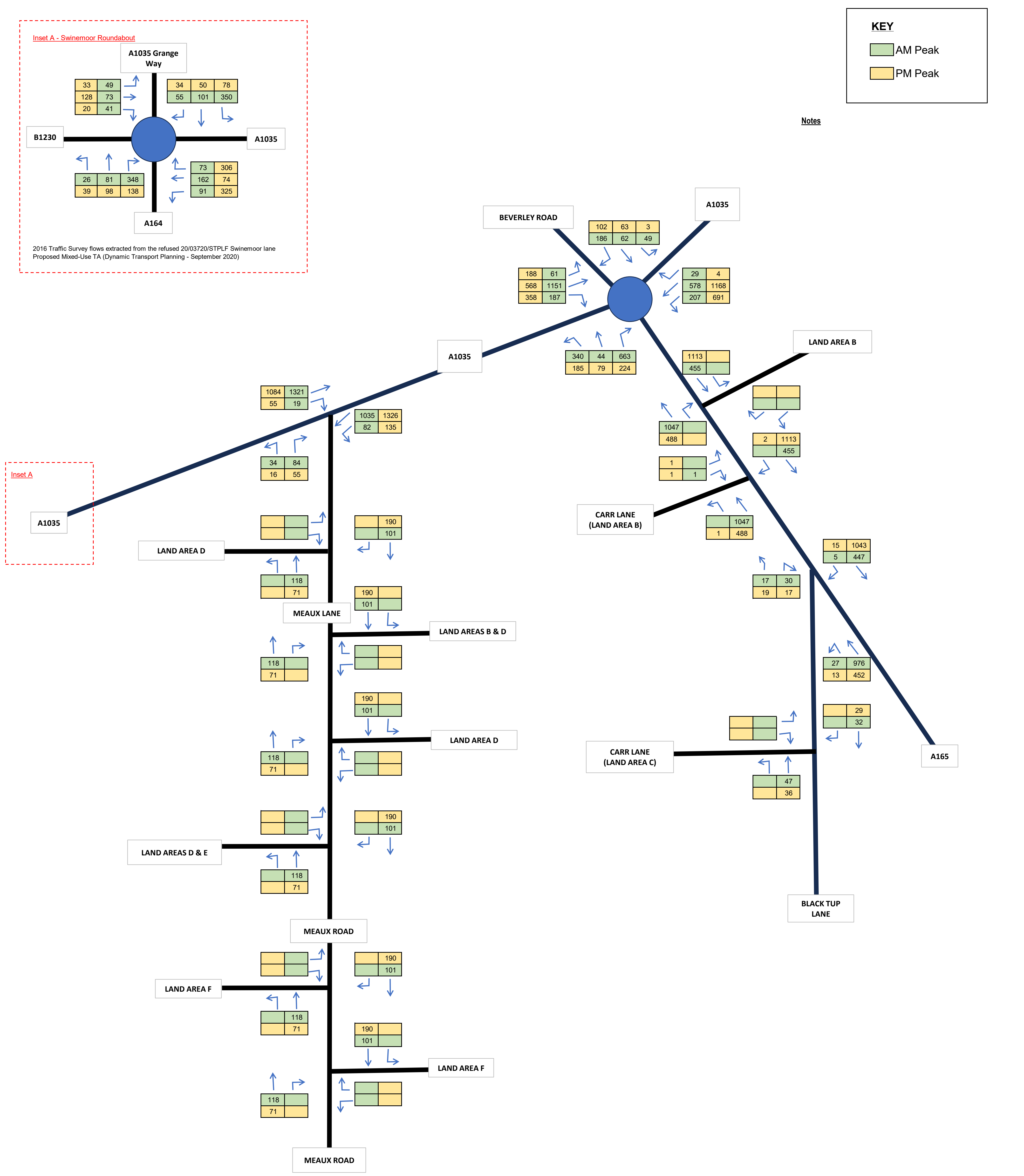
Committed Development - Hornsea Project Four Offshore Wind Farm

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	**22 October 2024**	**TRAFFIC FIGURE 4**
	Job Number - SCP/230483	



Total Committed Development		
Peartree Hill Solar Farm		
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 5
	Job Number - SCP/230483	



2026 Base + Committed Development (PCUs)

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 6

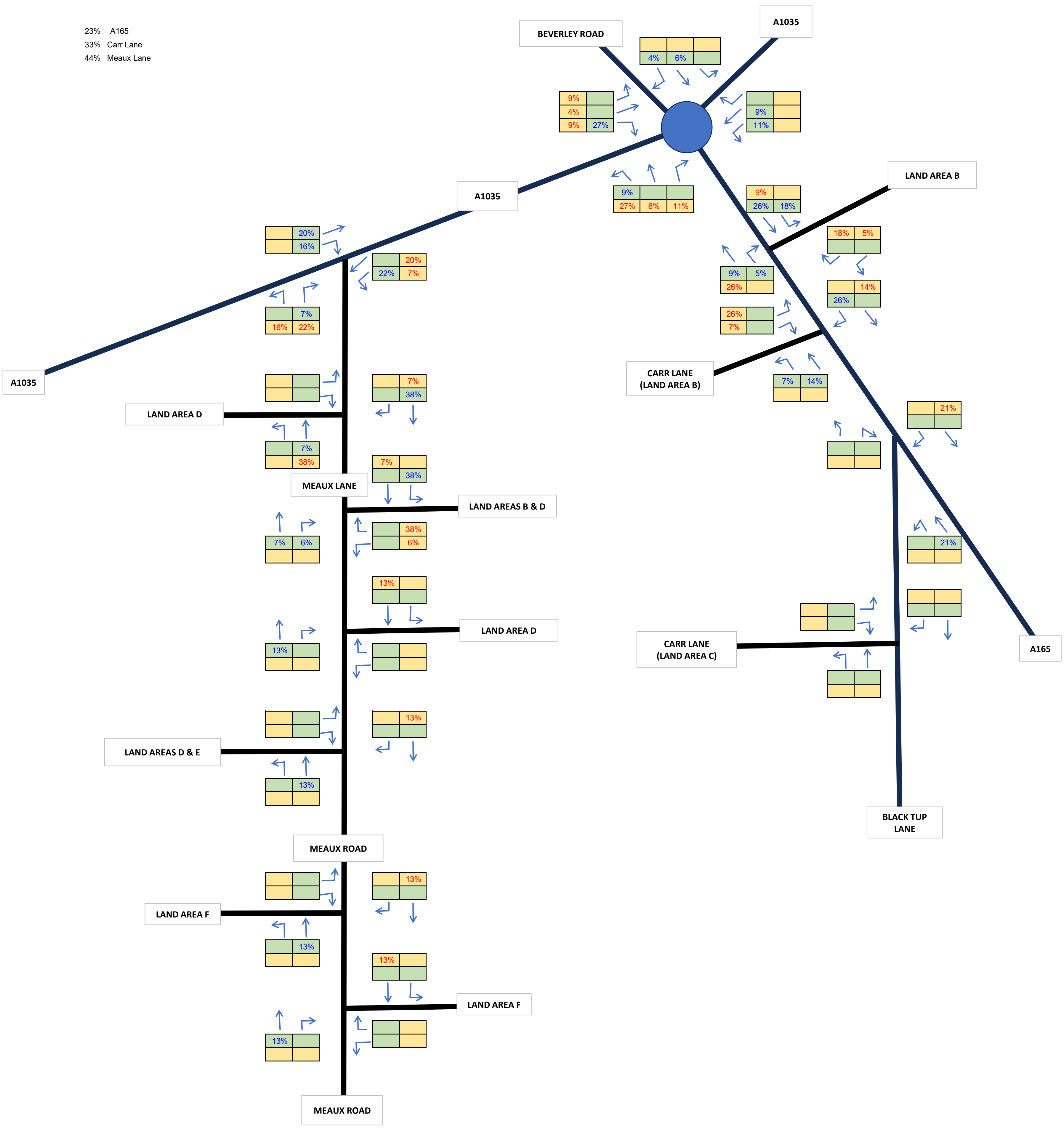
KEY

- AM Peak
- PM Peak
- # Arrivals
- # Departures

Notes

Land Area B is accessed via east fo A165 White Cross Road, Carr Lane (west of A165 White Cross Road) and through Land Area D from Meaux Lane.
23% via A165 White Cross Road
33% via Carr Lane
44% via Meaux Lane
This was based on the location of compounds for staff parking, the size of the areas accessed and internal staff shuttle bus routing information provided by RWE.

23%	A165
33%	Carr Lane
44%	Meaux Lane



Land Area B - Traffic Distribution

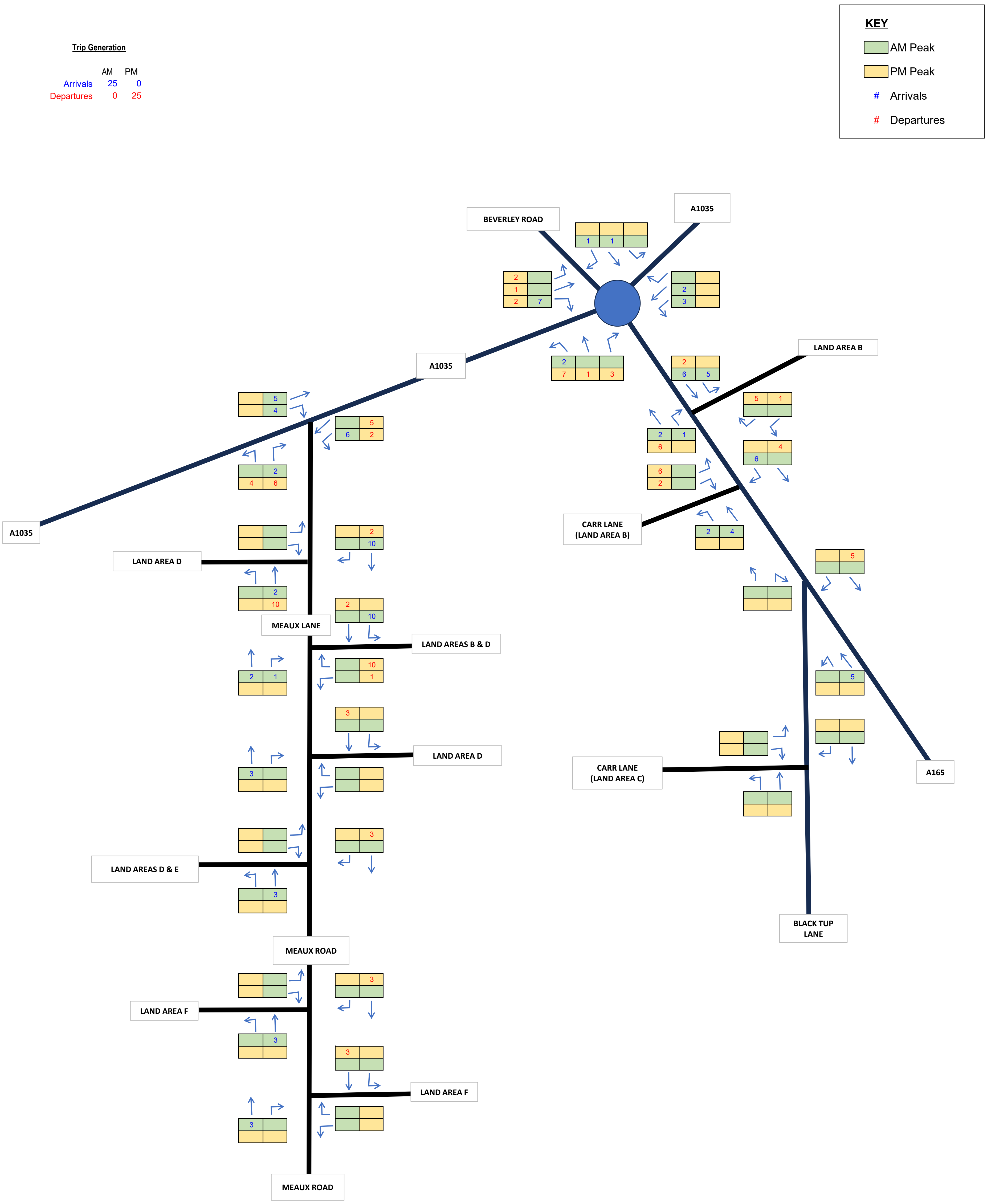
Peartree Hill Solar Farm

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 7



Land Area B - Traffic Assignment

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 8

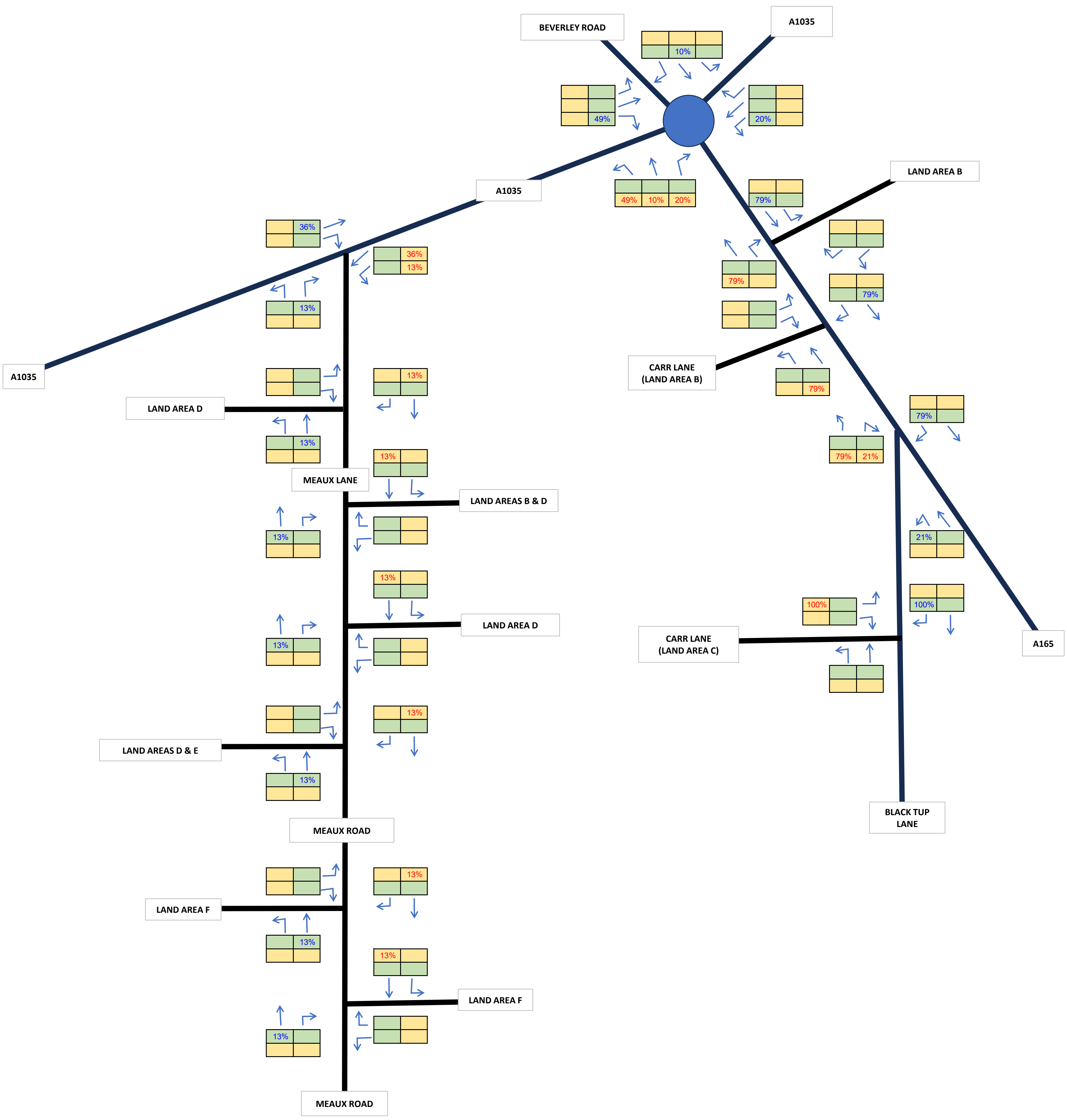
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

Notes

All of Land Area C is accessed via Carr Lane at Arnold.

KEY

(green)	AM Peak
(yellow)	PM Peak
#	Arrivals
#	Departures



Land Area C - Traffic Distribution

Peartree Hill Solar Farm

SCP
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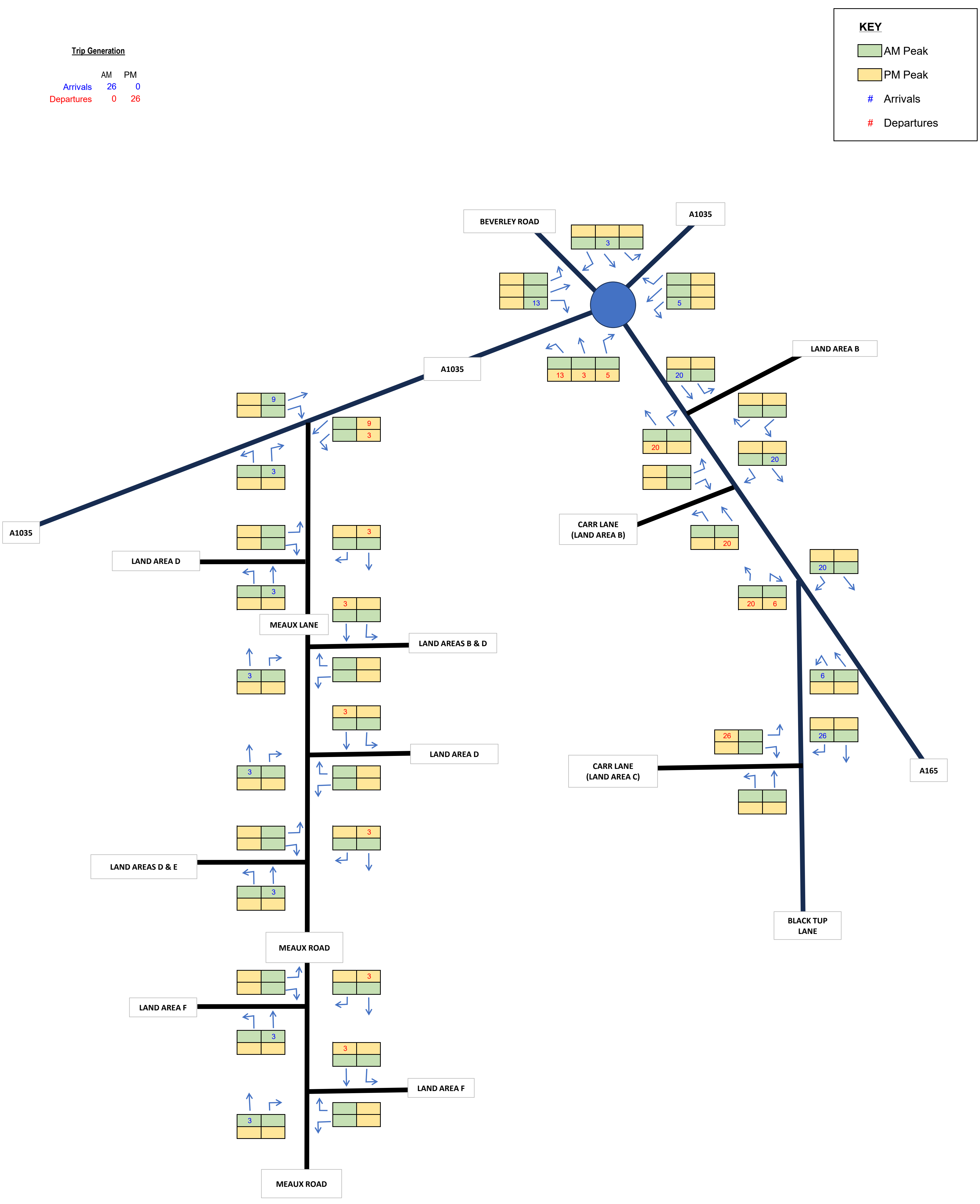
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 9



Land Area C - Traffic Assignment

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 10

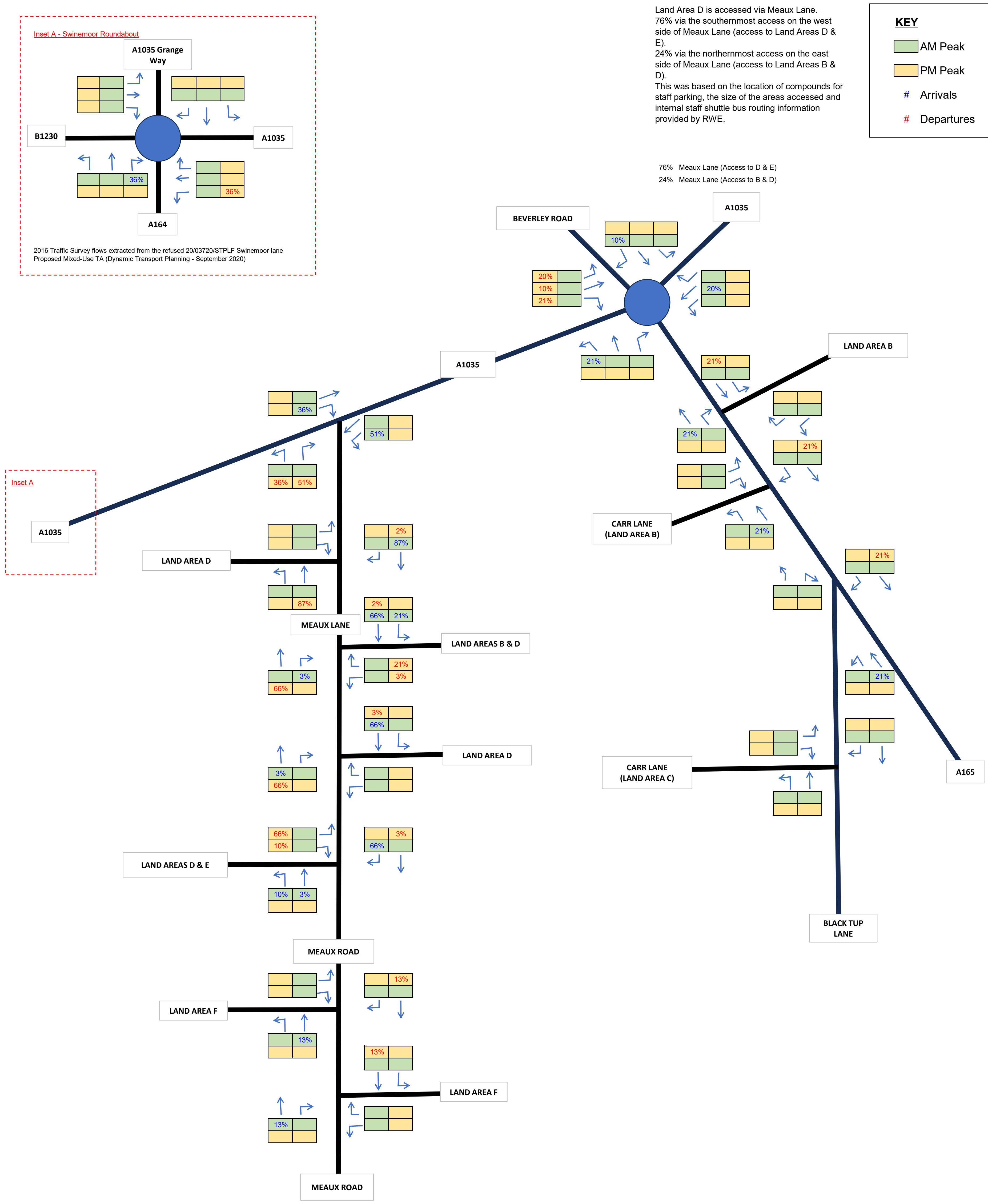
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

Notes

Land Area D is accessed via Meaux Lane.
76% via the southernmost access on the west side of Meaux Lane (access to Land Areas D & E).
24% via the northernmost access on the east side of Meaux Lane (access to Land Areas B & D).
This was based on the location of compounds for staff parking, the size of the areas accessed and internal staff shuttle bus routing information provided by RWE.

KEY

- AM Peak (green)
- PM Peak (yellow)
- # Arrivals (blue)
- # Departures (red)



Land Area D - Traffic Distribution

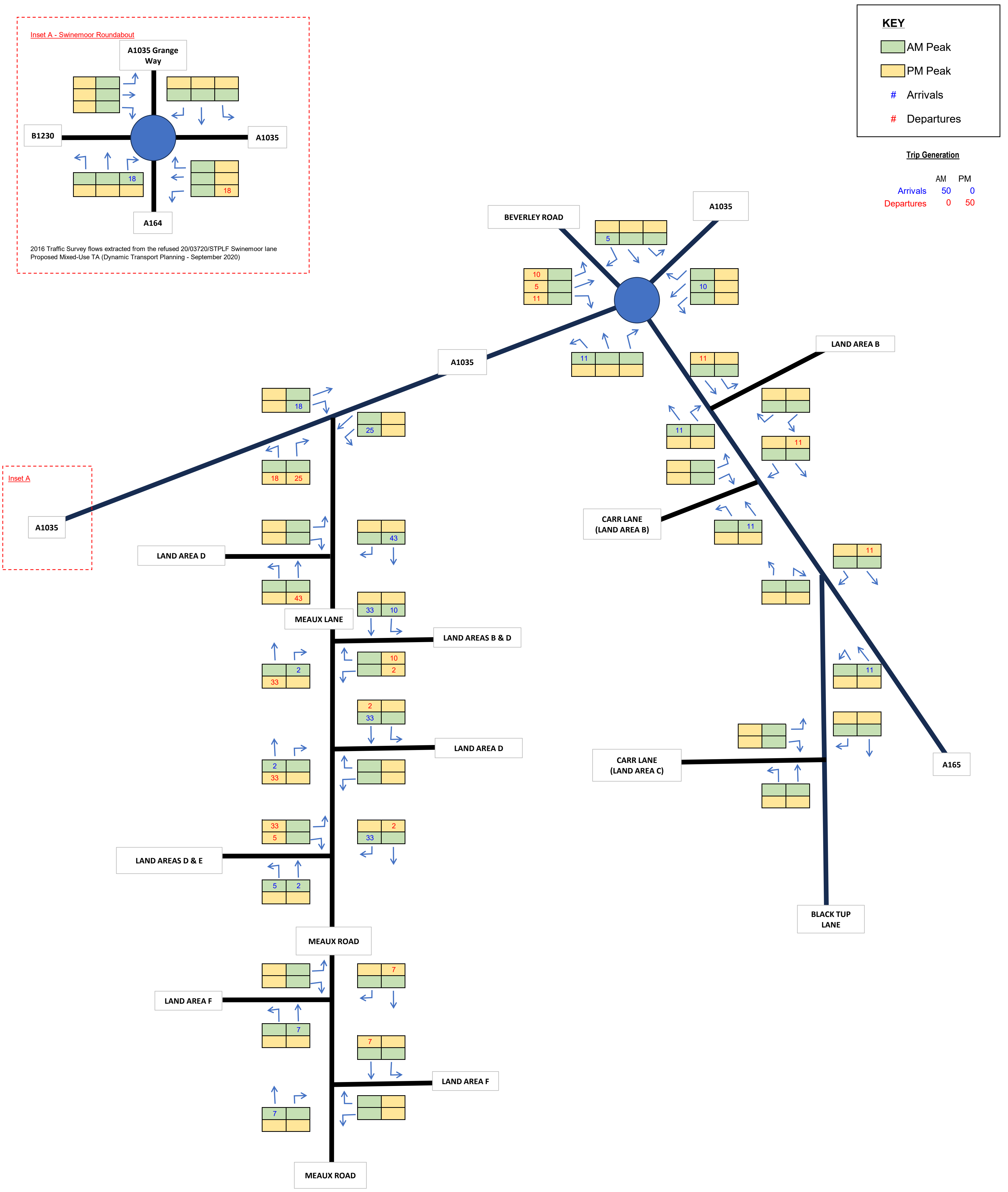
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

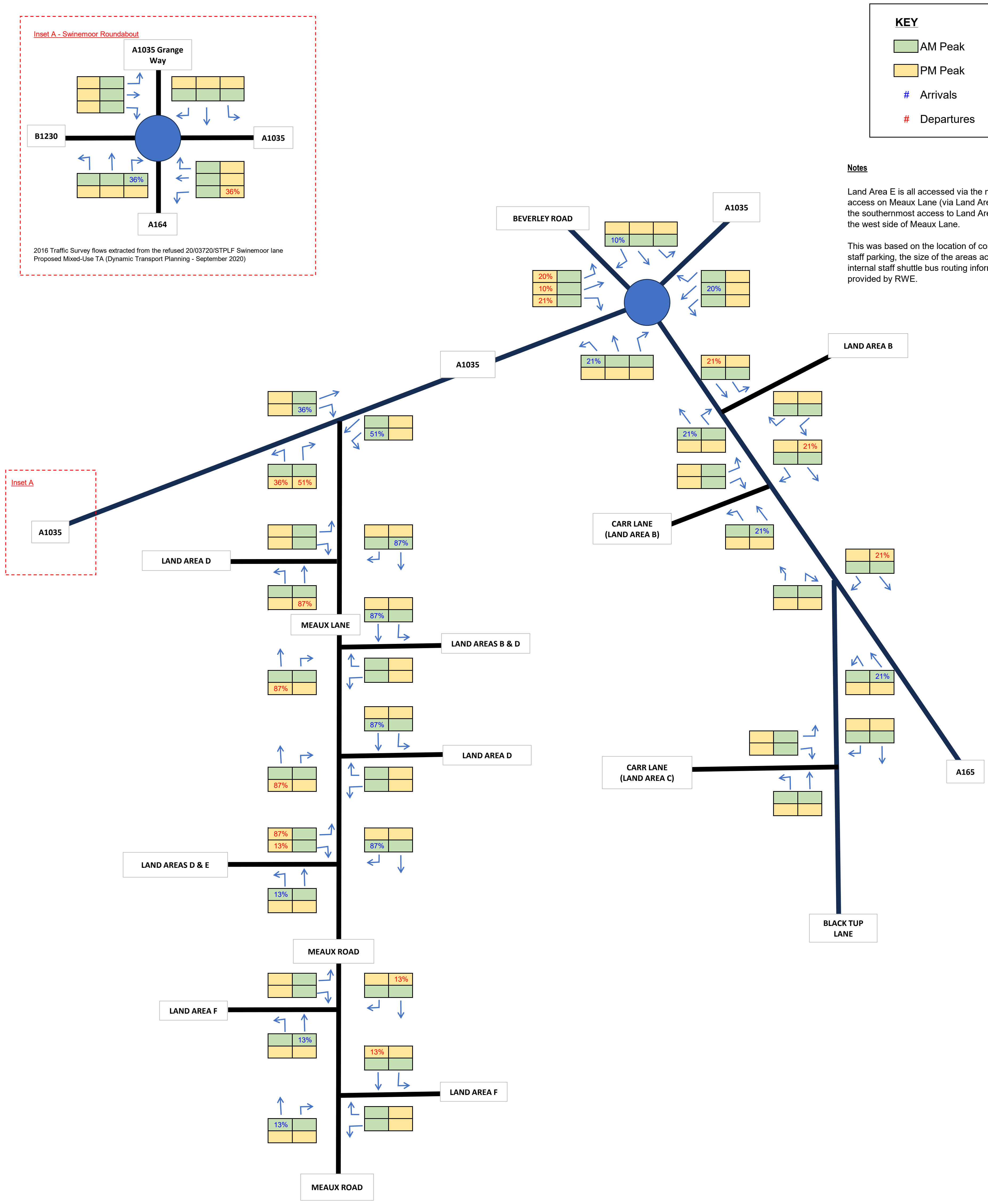
22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 11



Land Area D - Traffic Assignment		
Peartree Hill Solar Farm		
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 12
	Job Number - SCP/230483	



KEY

AM Peak

PM Peak

\# Arrivals

\# Departures

Notes

Land Area E is all accessed via the nearest access on Meaux Lane (via Land Area D), this is the southernmost access to Land Area D & E on the west side of Meaux Lane.

This was based on the location of compounds for staff parking, the size of the areas accessed and internal staff shuttle bus routing information provided by RWE.

Land Area E - Traffic Distribution

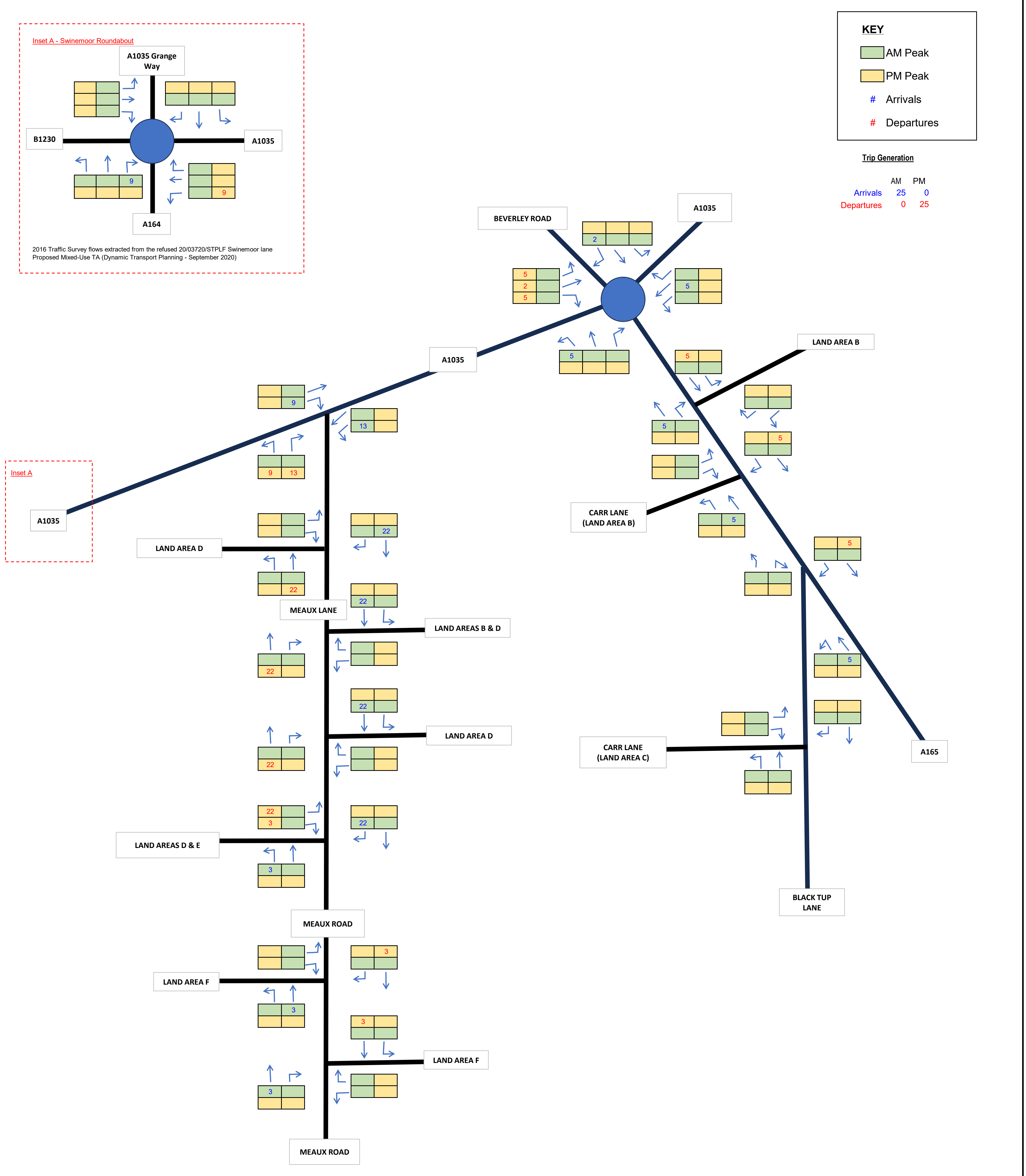
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 13



Land Area E - Traffic Assignment

Peartree Hill Solar Farm

TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

14 August 2024

Job Number - SCP/230483

TRAFFIC FIGURE 14

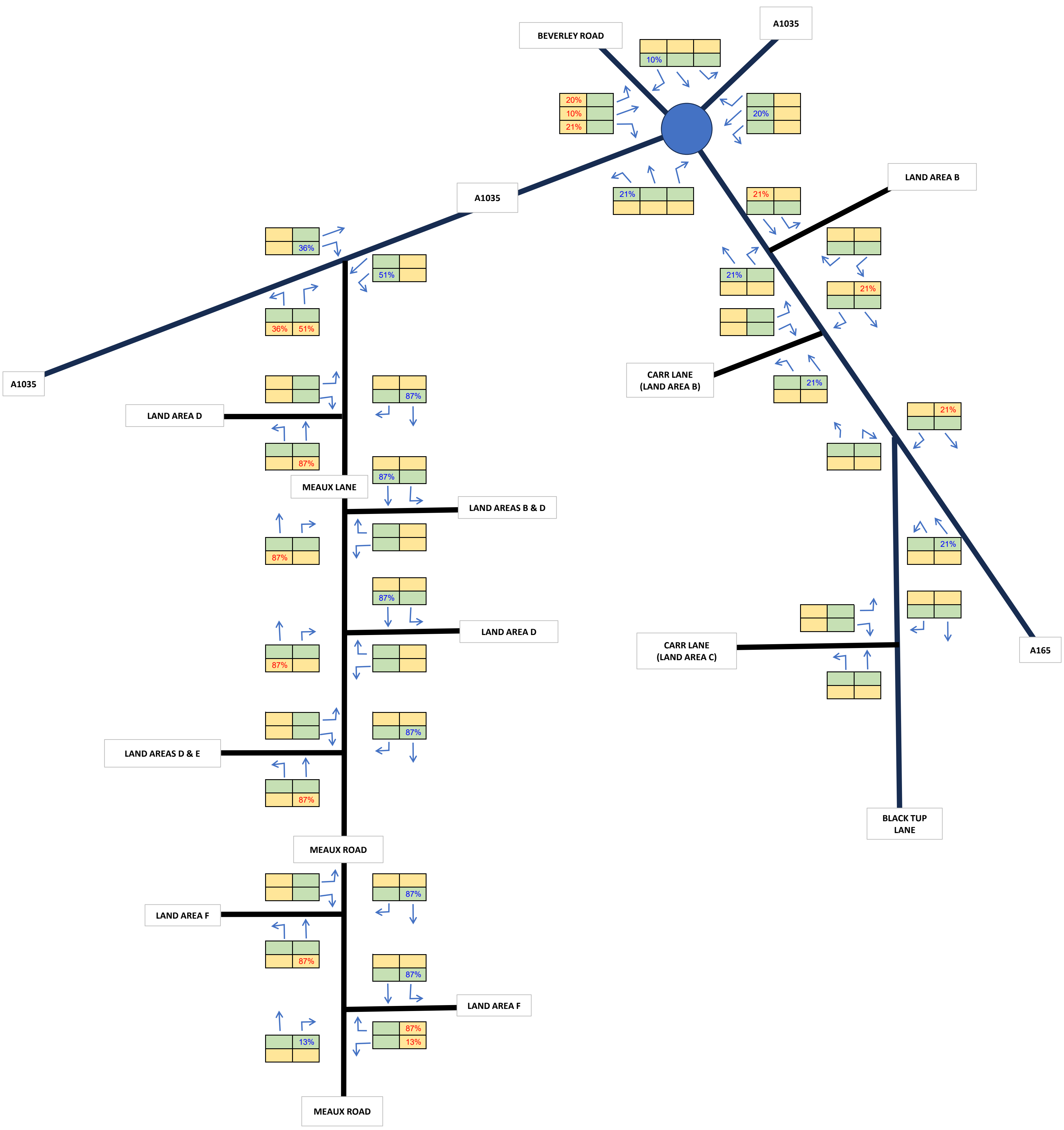
Notes

Land Area F is all accessed via the nearest access on Meaux Lane to the compound, this is the access to Land Area F on the east side of Meaux Lane.

This was based on the location of compounds for staff parking, the size of the areas accessed and internal staff shuttle bus routing information provided by RWE.

KEY

- AM Peak
- PM Peak
- # Arrivals
- # Departures



Land Area F - Traffic Distribution

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 15

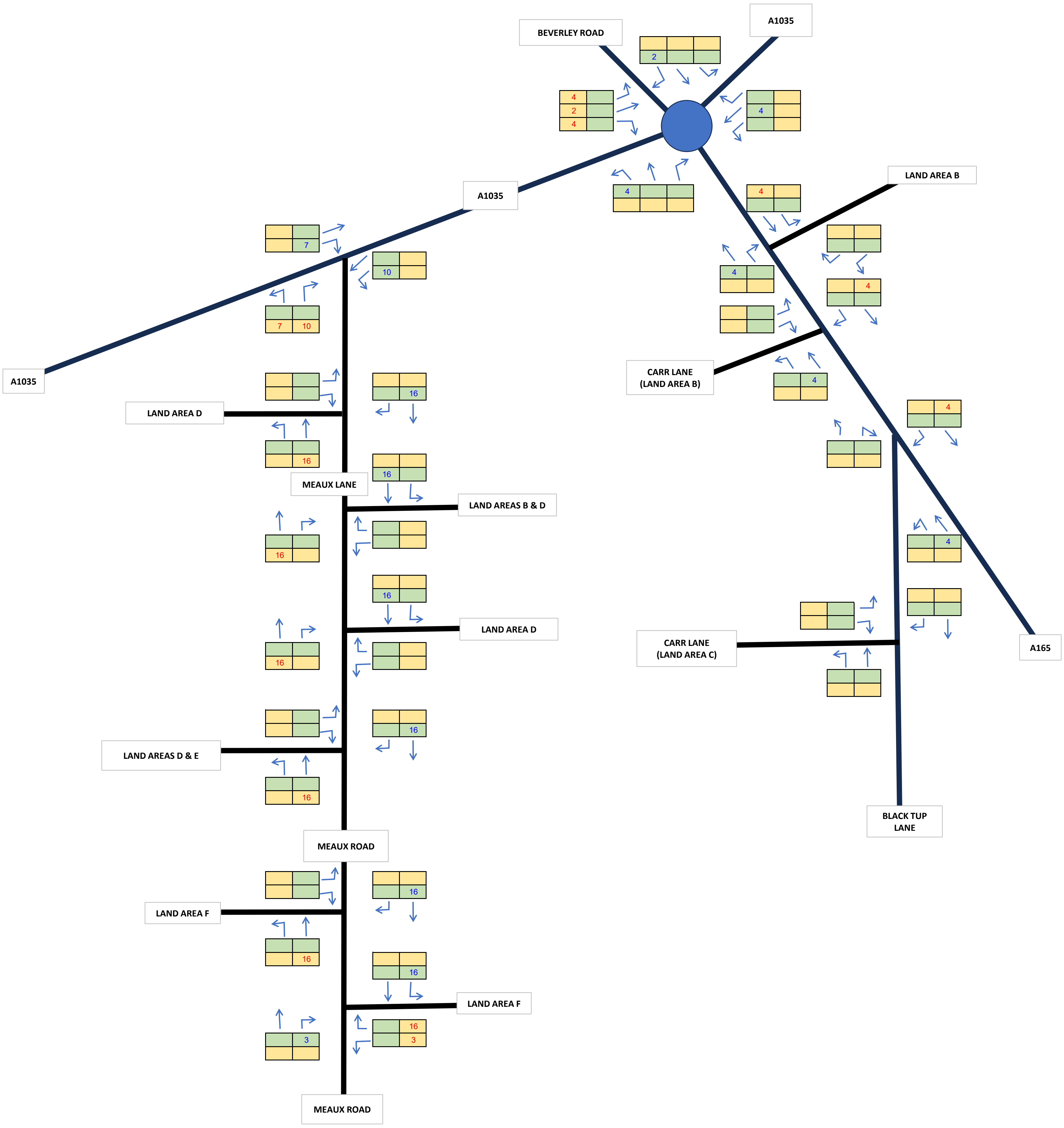
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

Trip Generation

	AM	PM
Arrivals	19	0
Departures	0	19

KEY

- AM Peak
- PM Peak
- # Arrivals
- # Departures



Land Area F - Traffic Assignment

Peartree Hill Solar Farm

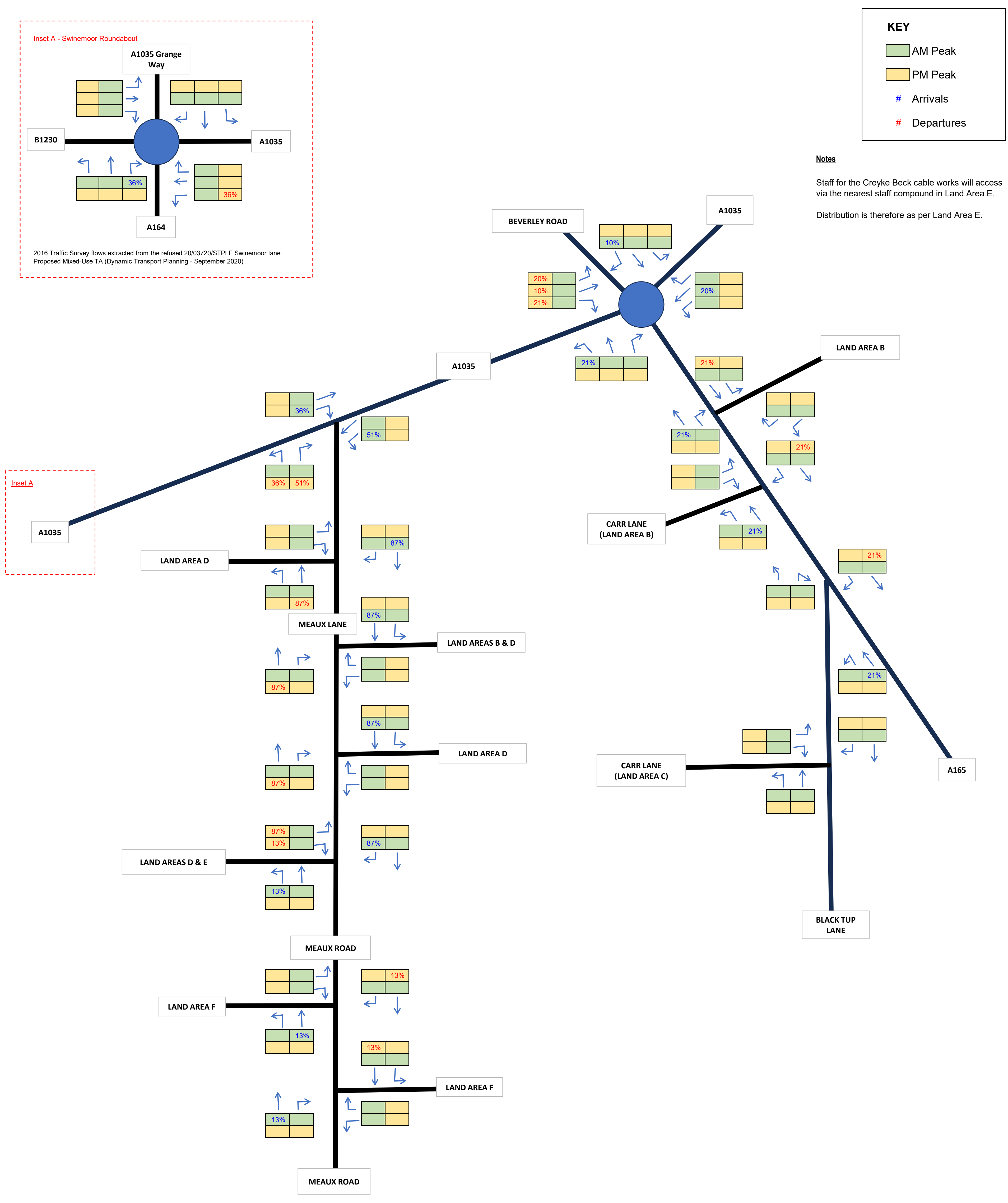
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 16

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

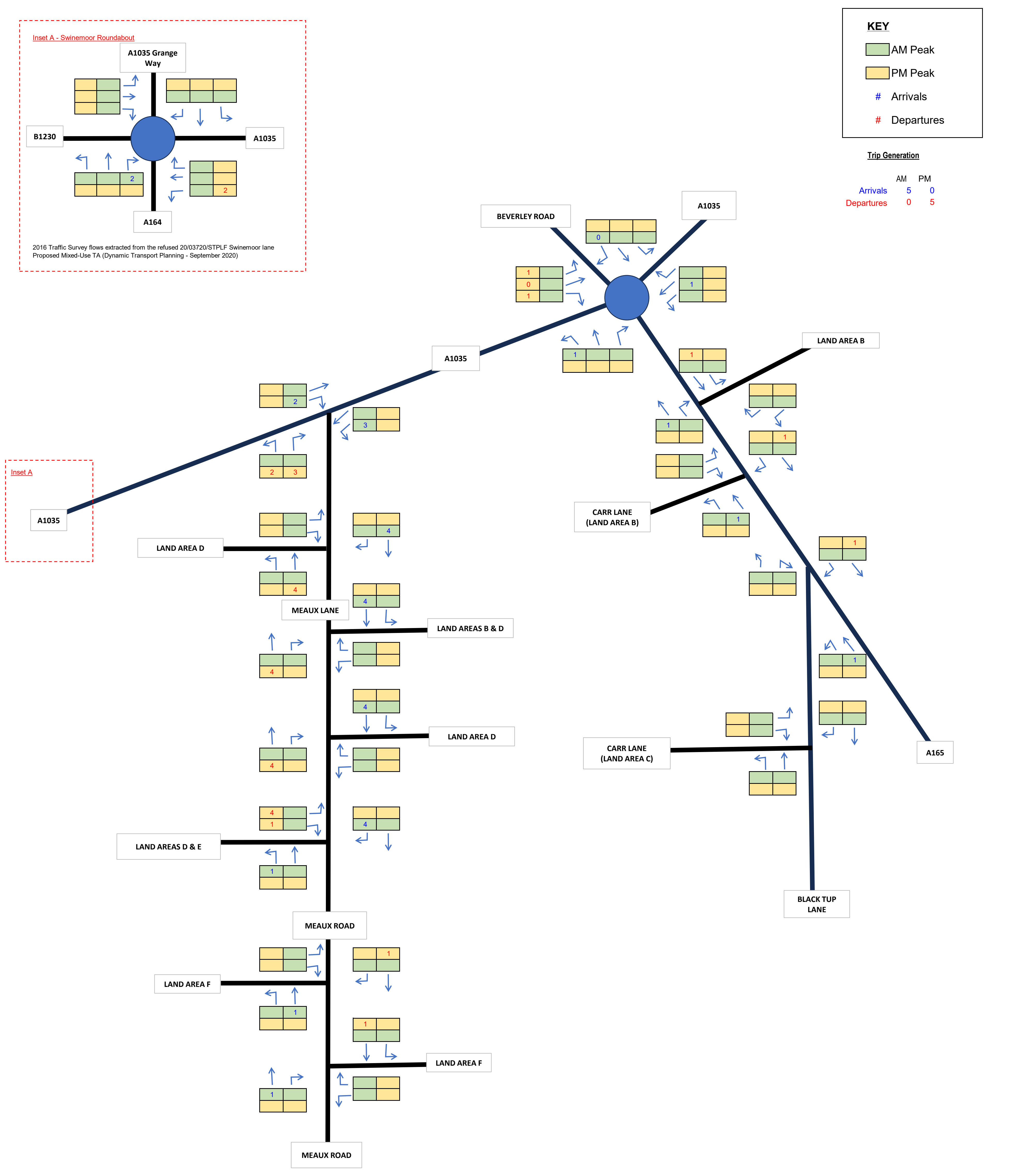


Notes

Staff for the Creyke Beck cable works will access via the nearest staff compound in Land Area E.

Distribution is therefore as per Land Area E.

Grid Connection Cable Route Works - Traffic Distribution		
Peartree Hill Solar Farm		
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 17
	Job Number - SCP/230483	



Grid Connection Cable Route Works - Traffic Assignment		
Peartree Hill Solar Farm		
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 18
	Job Number - SCP/230483	

Notes

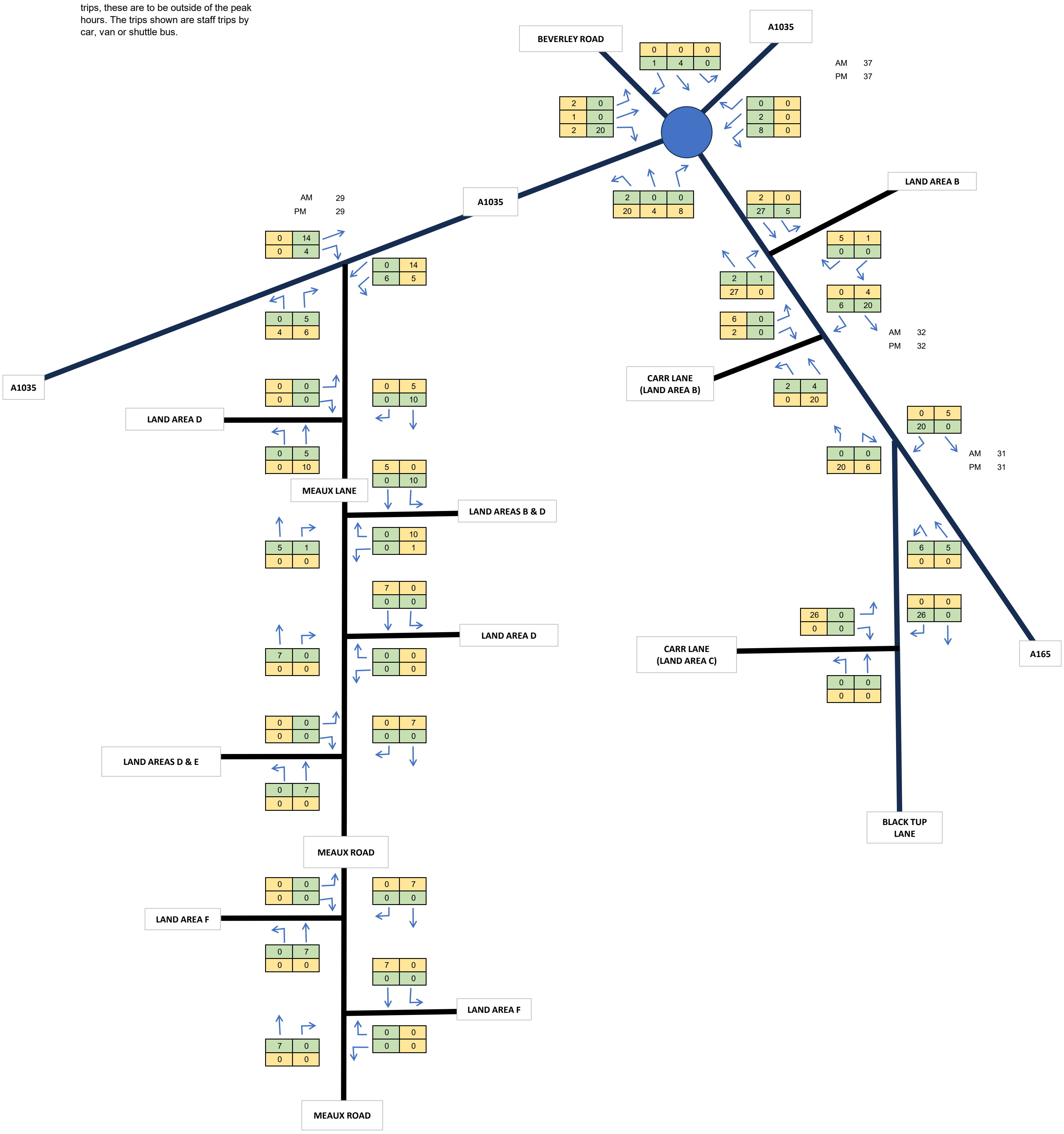
Phase 2 includes Land Areas B & C

The total trip generation shown represents the peak of both phases, however in reality it is more likely that one would be at their peak whilst the other was generating a below peak level of traffic.

This does not include deliveries or HGV trips, these are to be outside of the peak hours. The trips shown are staff trips by car, van or shuttle bus.

KEY

- AM Peak
- PM Peak



Phase 2 (Land Areas B & C) - Total Peak Hour Trip Generation

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 19
	Job Number - SCP/230483	

Notes

Phase 3 includes Land Areas C & and Creyke Beck

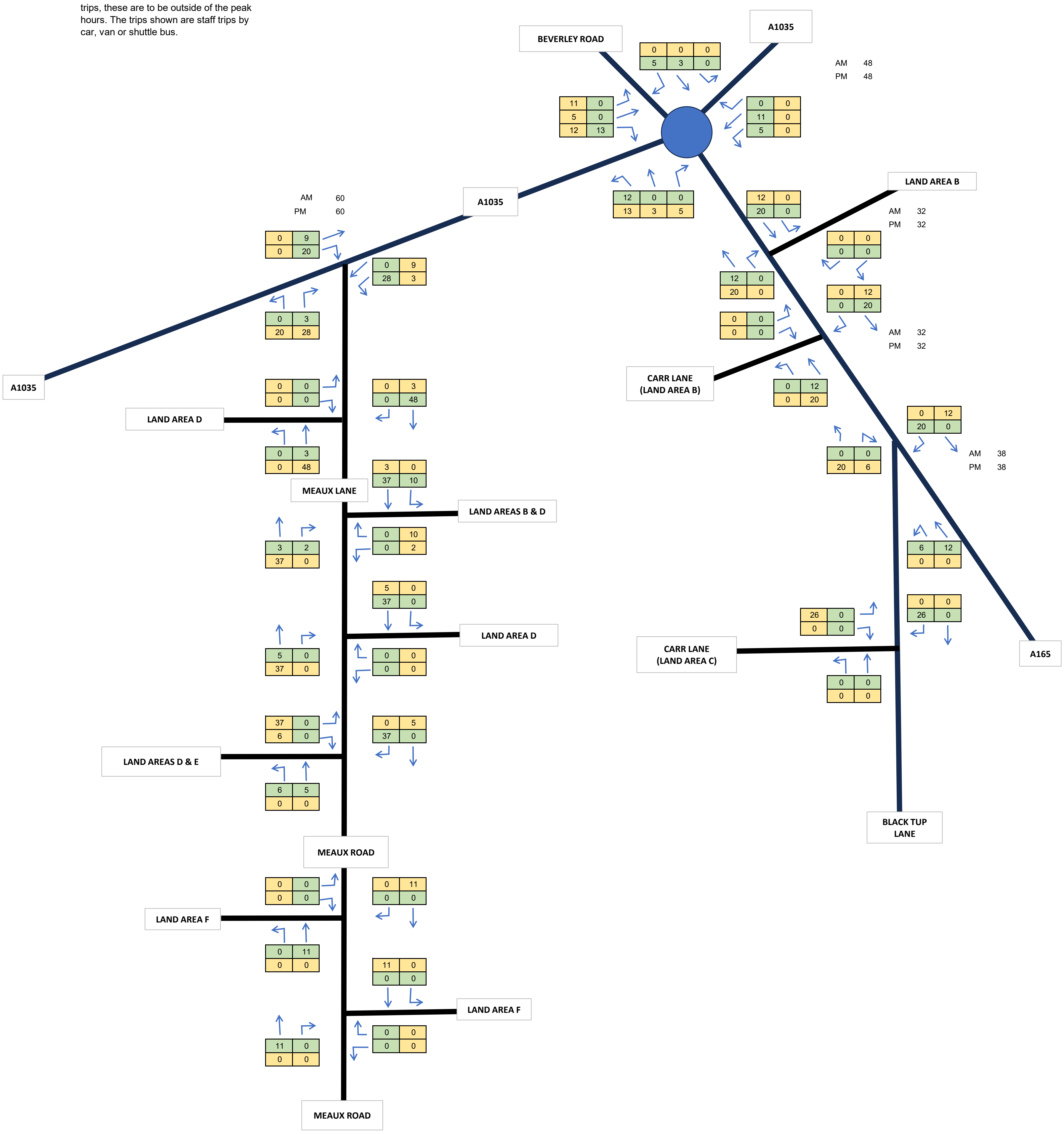
The total trip generation shown represents the peak of both phases, however in reality it is more likely that one would be at their peak whilst the other was generating a below peak level of traffic.

This does not include deliveries or HGV trips, these are to be outside of the peak hours. The trips shown are staff trips by car, van or shuttle bus.

KEY

AM Peak

PM Peak



Phase 3 (Grid Connection and Land Areas C & D) - Total Peak Hour Trip Generation

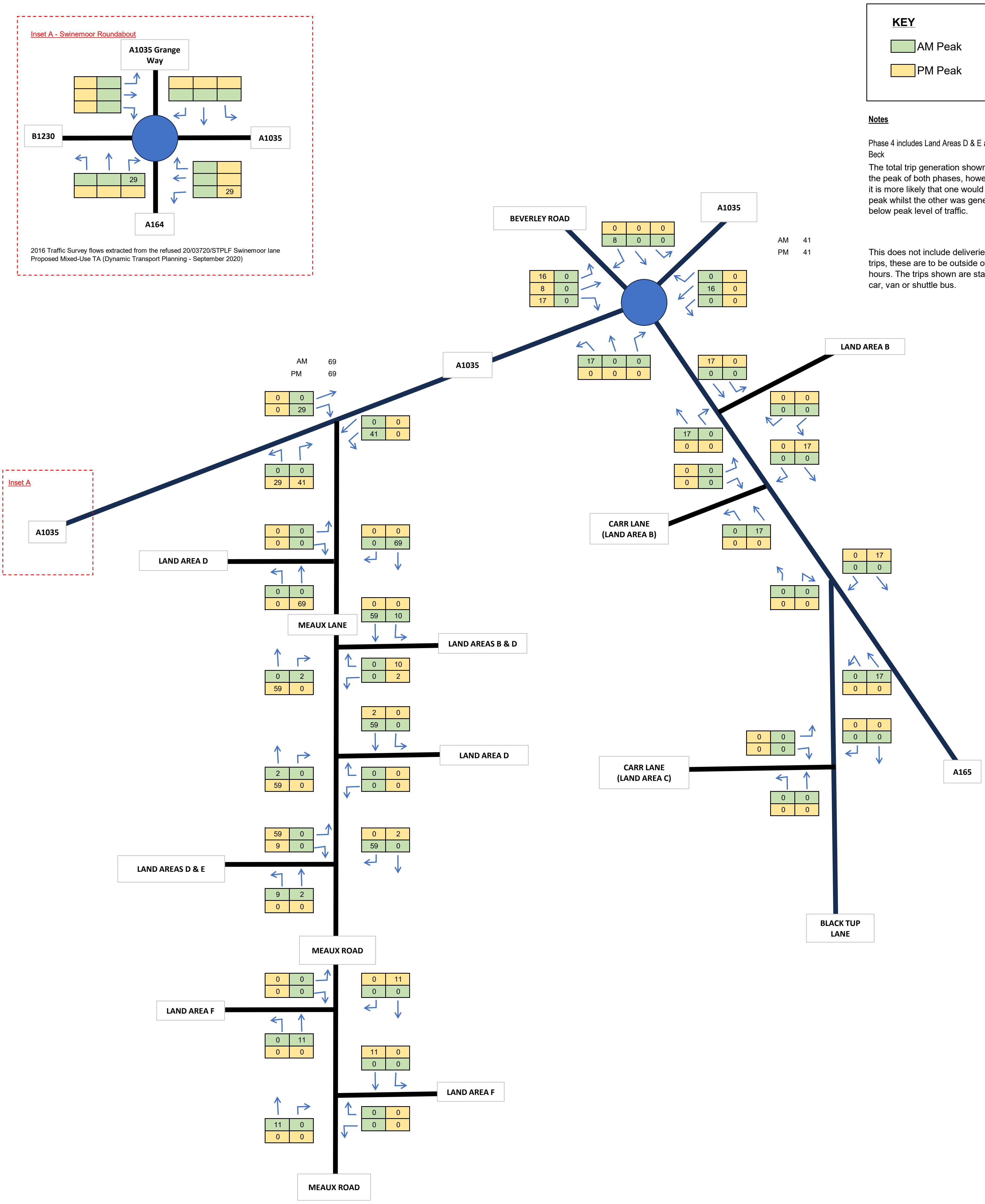
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 20



KEY

AM Peak

PM Peak

Notes

Phase 4 includes Land Areas D & E and Creyke Beck

The total trip generation shown represents the peak of both phases, however in reality it is more likely that one would be at their peak whilst the other was generating a below peak level of traffic.

This does not include deliveries or HGV trips, these are to be outside of the peak hours. The trips shown are staff trips by car, van or shuttle bus.

Phase 4 (Grid Connection and Land Areas D & E) - Total Peak Hour Trip Generation

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 21

Notes

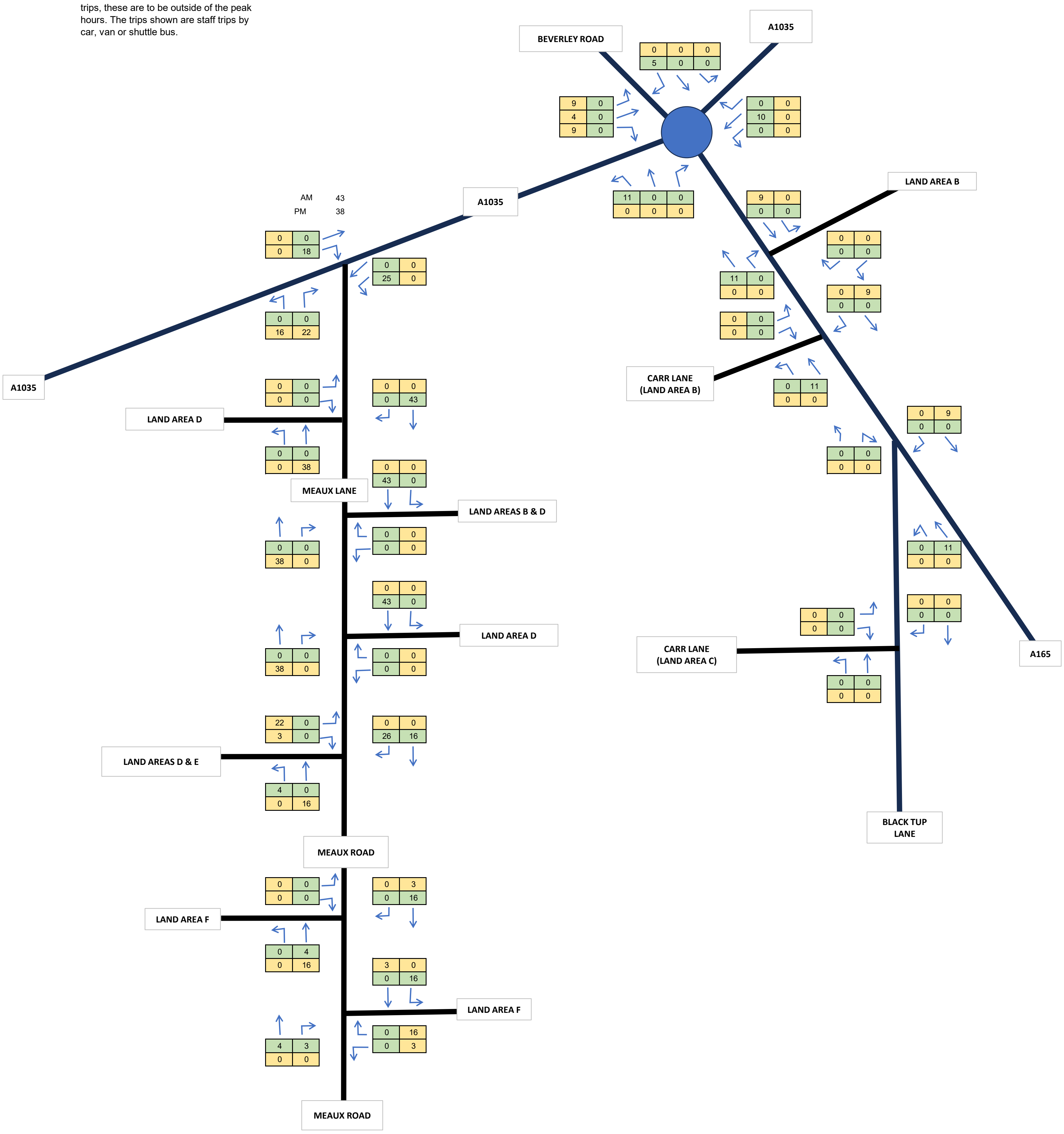
Phase 5 includes Land Areas E & F and Creyke Beck

The total trip generation shown represents the peak of both phases, however in reality it is more likely that one would be at their peak whilst the other was generating a below peak level of traffic.

This does not include deliveries or HGV trips, these are to be outside of the peak hours. The trips shown are staff trips by car, van or shuttle bus.

KEY

- AM Peak
- PM Peak



Phase 5 (Grid Connection and Land Areas E & F) - Total Peak Hour Trip Generation

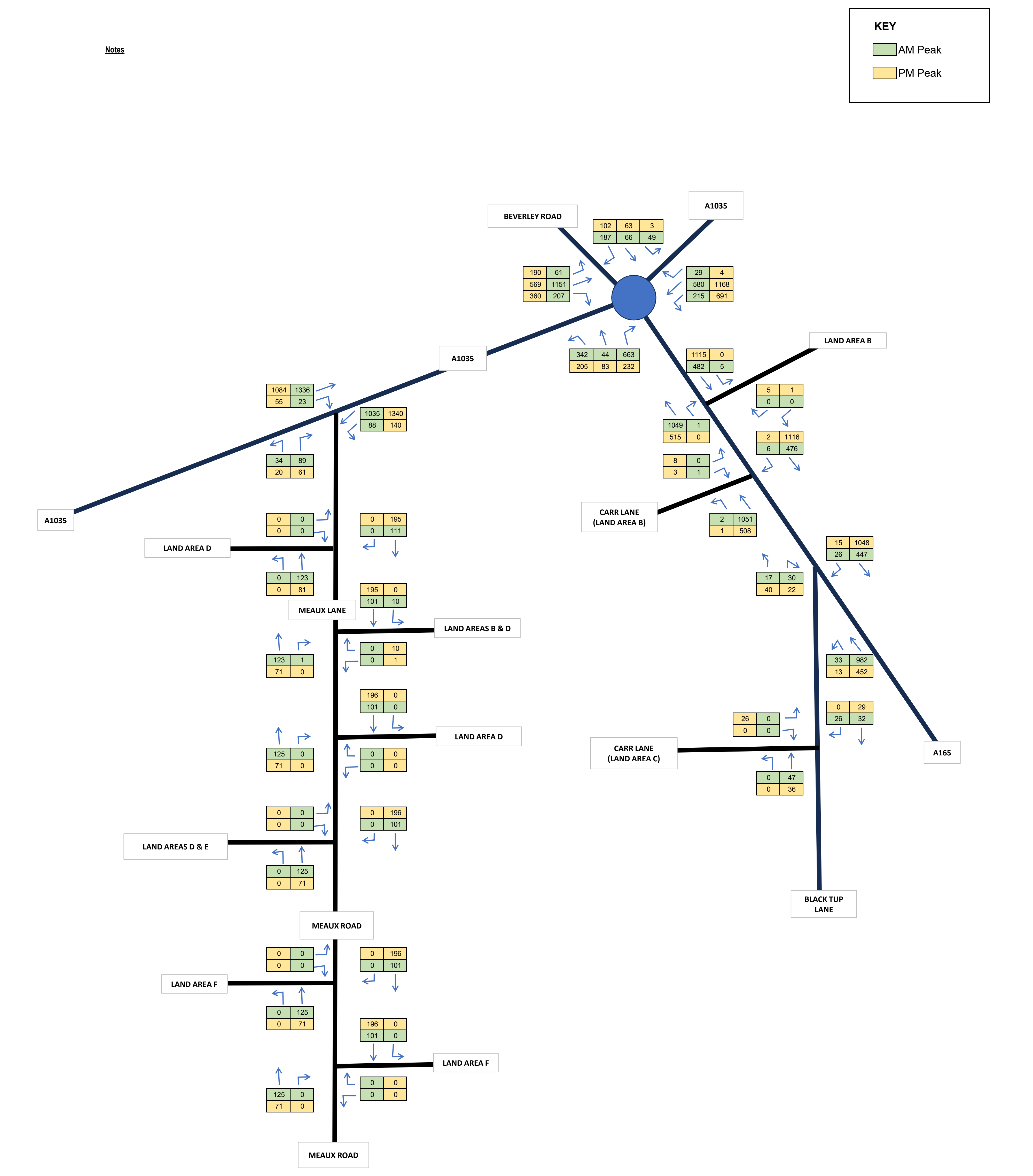
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 22



Phase 2 - 2026 Base + Committed + Proposed Development

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

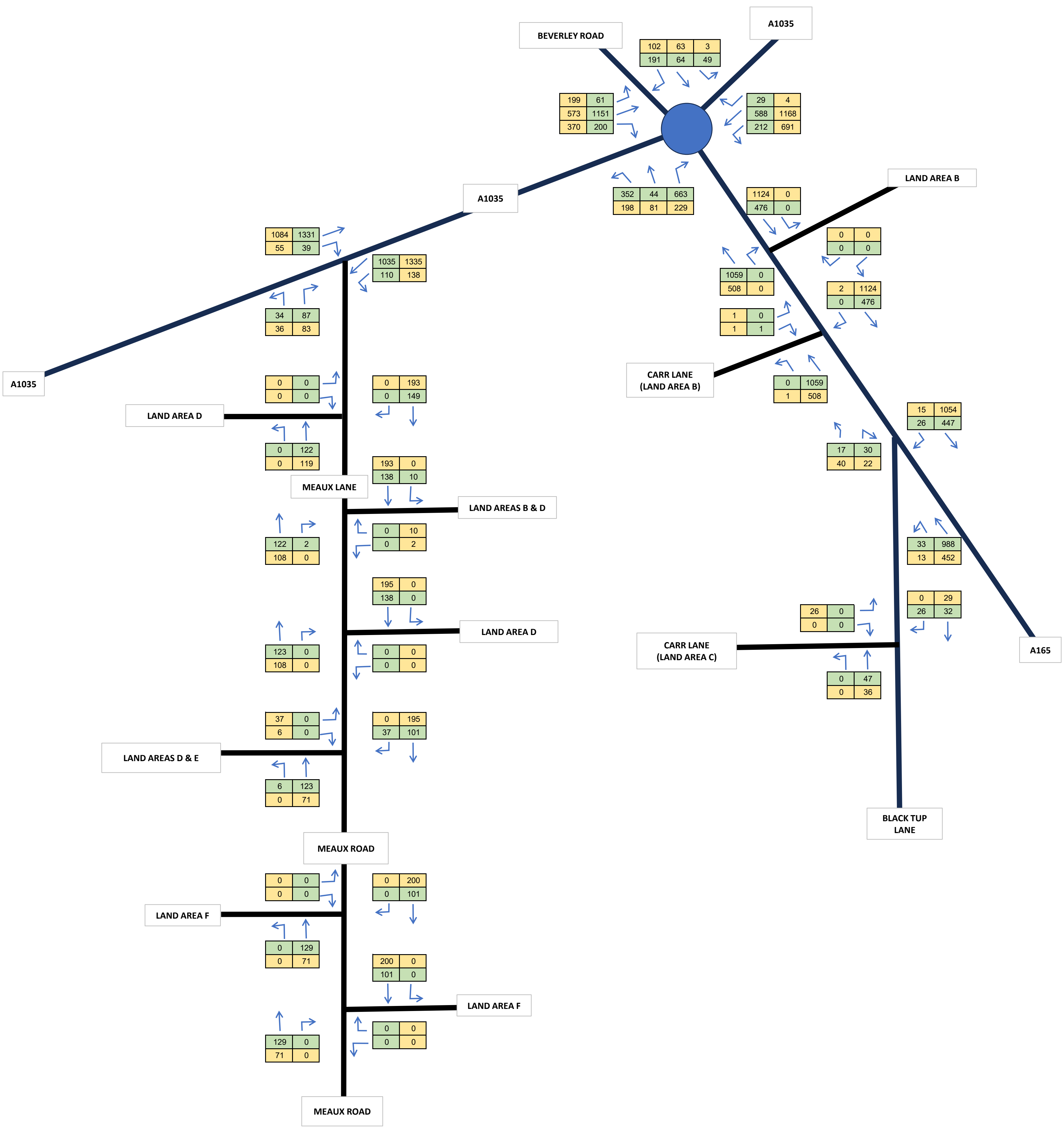
TRAFFIC FIGURE 22

Notes

KEY

AM Peak

PM Peak



Phase 3 - 2026 Base + Committed + Proposed Development

Peartree Hill Solar Farm

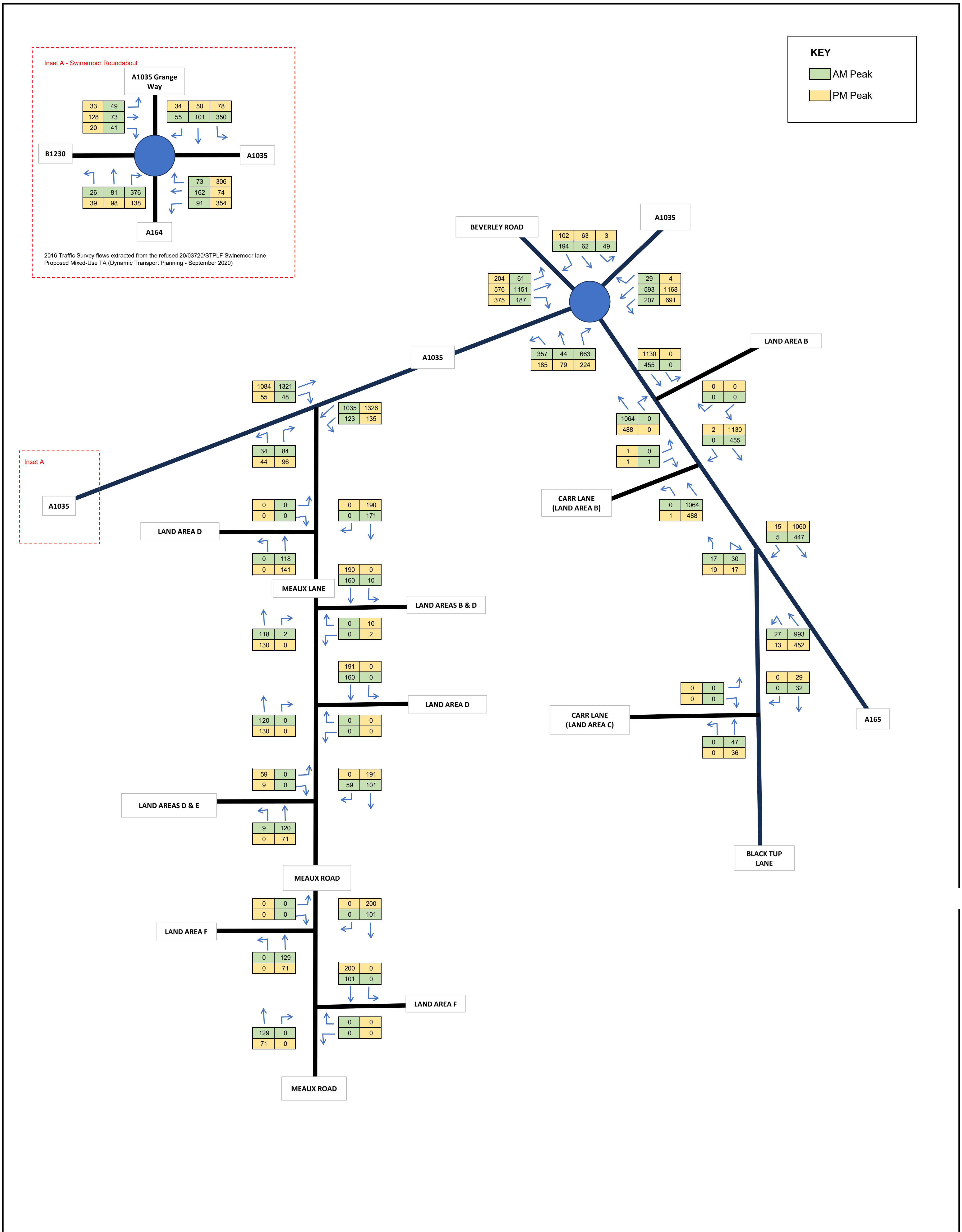
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 23

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2



Phase 4 - 2026 Base + Committed + Proposed Development

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

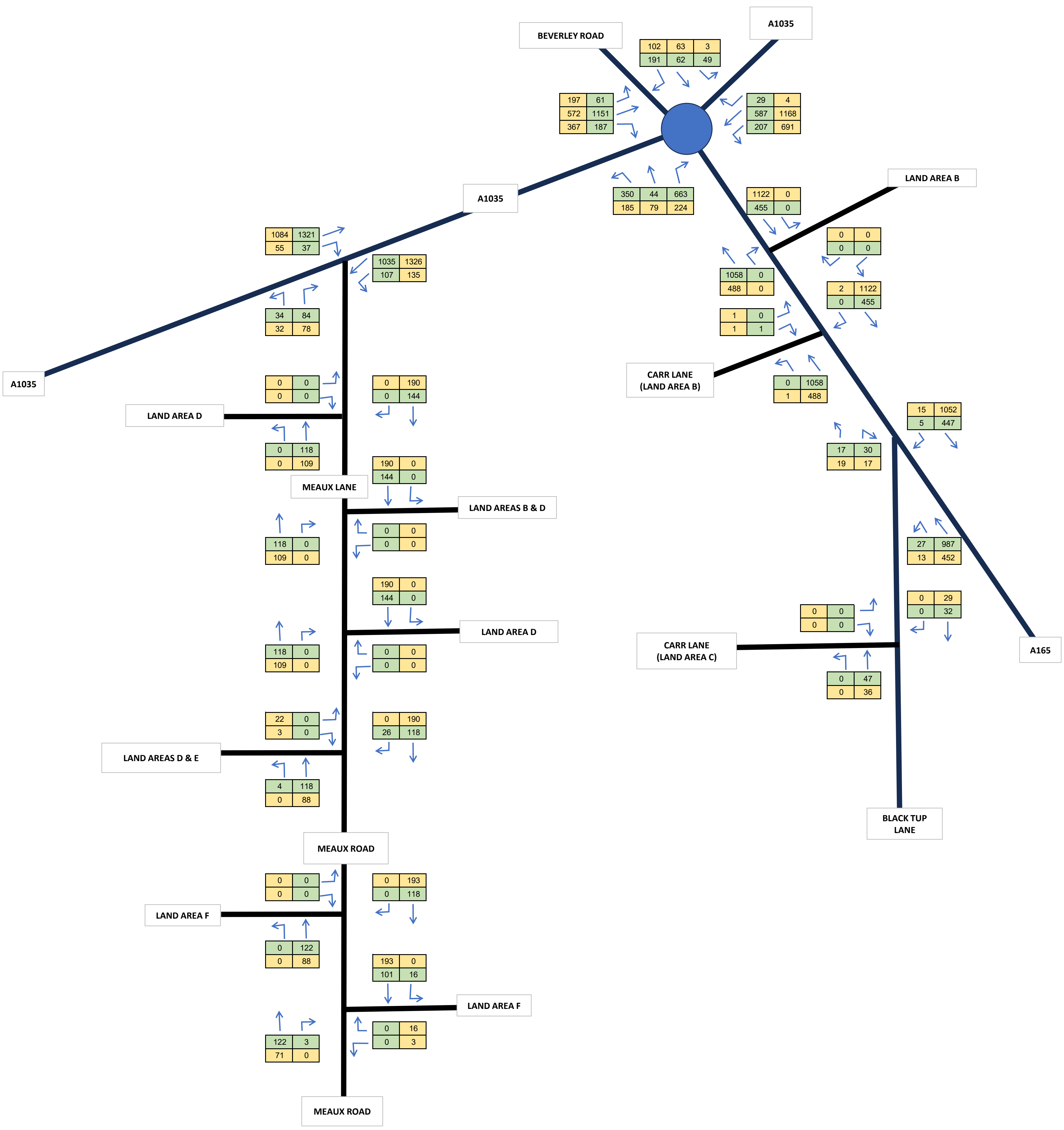
TRAFFIC FIGURE 24

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

Notes

KEY
AM Peak
PM Peak



Phase 5 - 2026 Base + Committed + Proposed Development

Peartree Hill Solar Farm

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TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 25

KEY

- AM Peak
- PM Peak
- AADT Total Veh
- AADT Total HGV

Notes

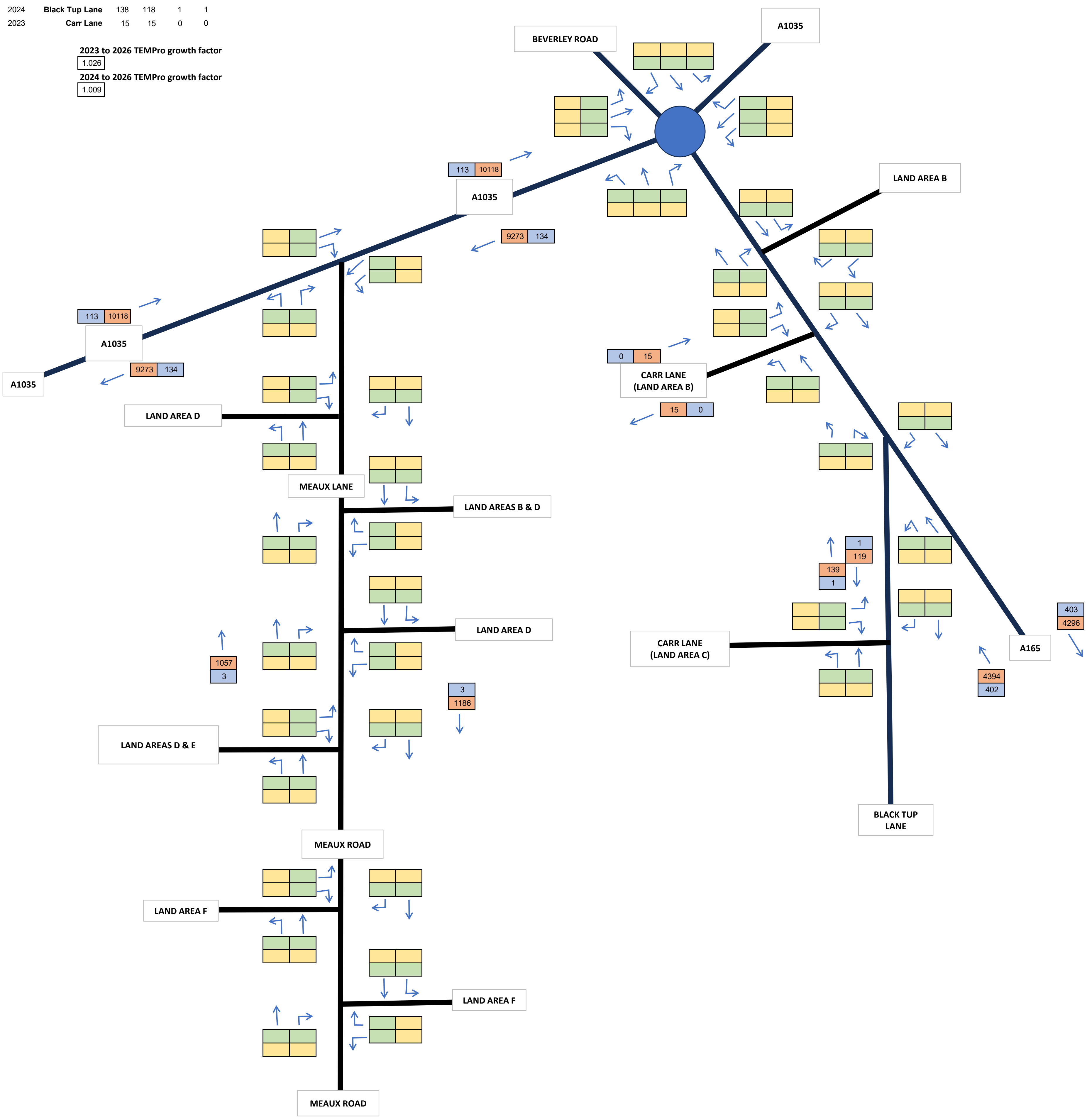
	Surveys	Total vehs		Total HGVs	
		EB/NB	WB/SB	EB/NB	WB/SB
2024	A1035	10029	9191	112	133
2023	A165	4281	4186	392	393
2024	Meaux Lane	1048	1176	3	3
2024	Black Tup Lane	138	118	1	1
2023	Carr Lane	15	15	0	0

2023 to 2026 TEMPro growth factor

1.026

2024 to 2026 TEMPro growth factor

1.009



2026 AADT Base Flows

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 26

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

Notes

Hornsea 4

514 Daily HGVs

690 Staff trips in each peak hour (928 daily)

257 HGVs via A1035

464 Staff trips via A1035

257 HGVs via A165

230 Staff trips via A165

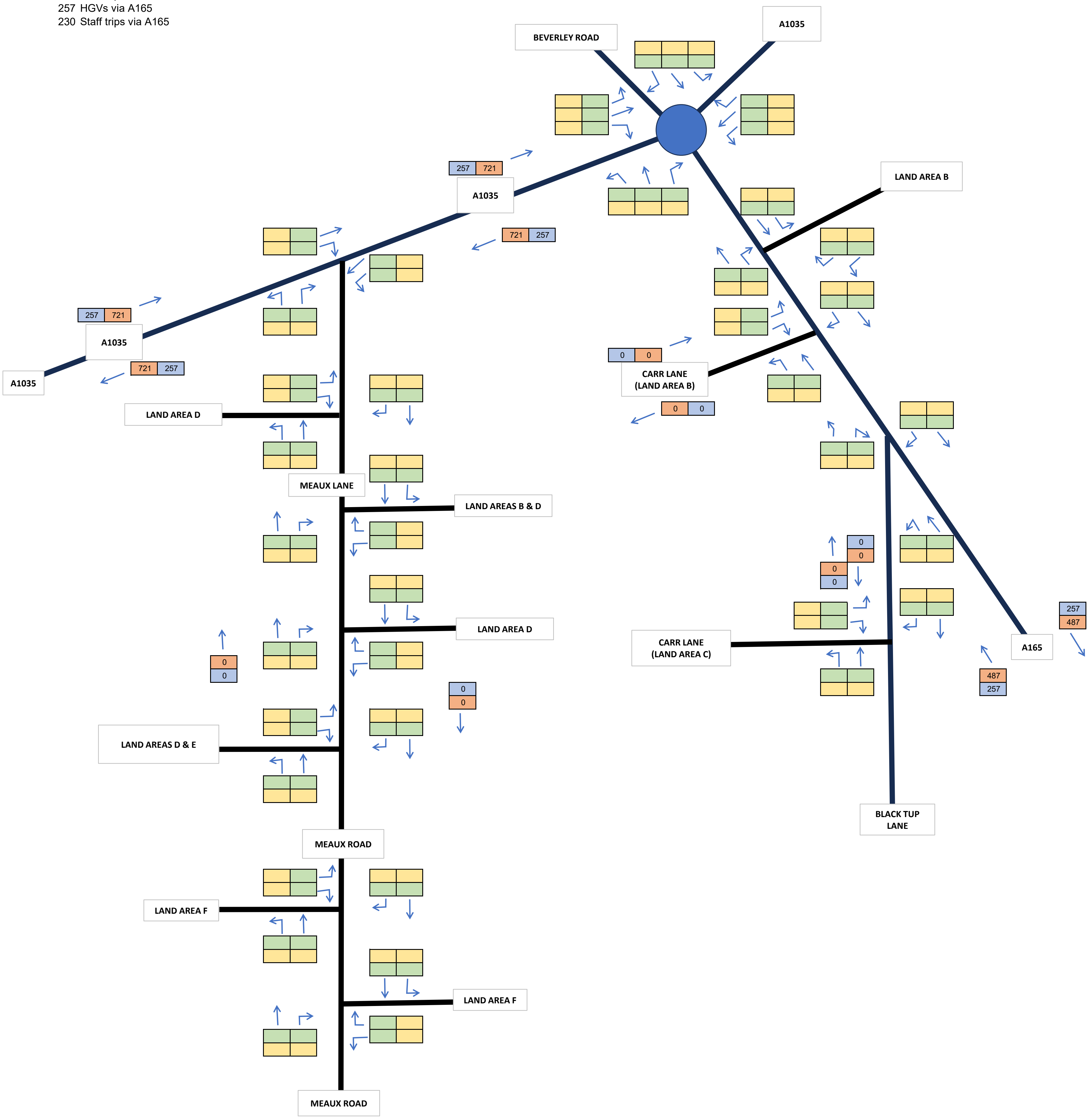
KEY

AM Peak

PM Peak

AADT Total Veh

AADT Total HGV



AADT/AAWT Committed Developments - Hornsea Four

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 27

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

KEY

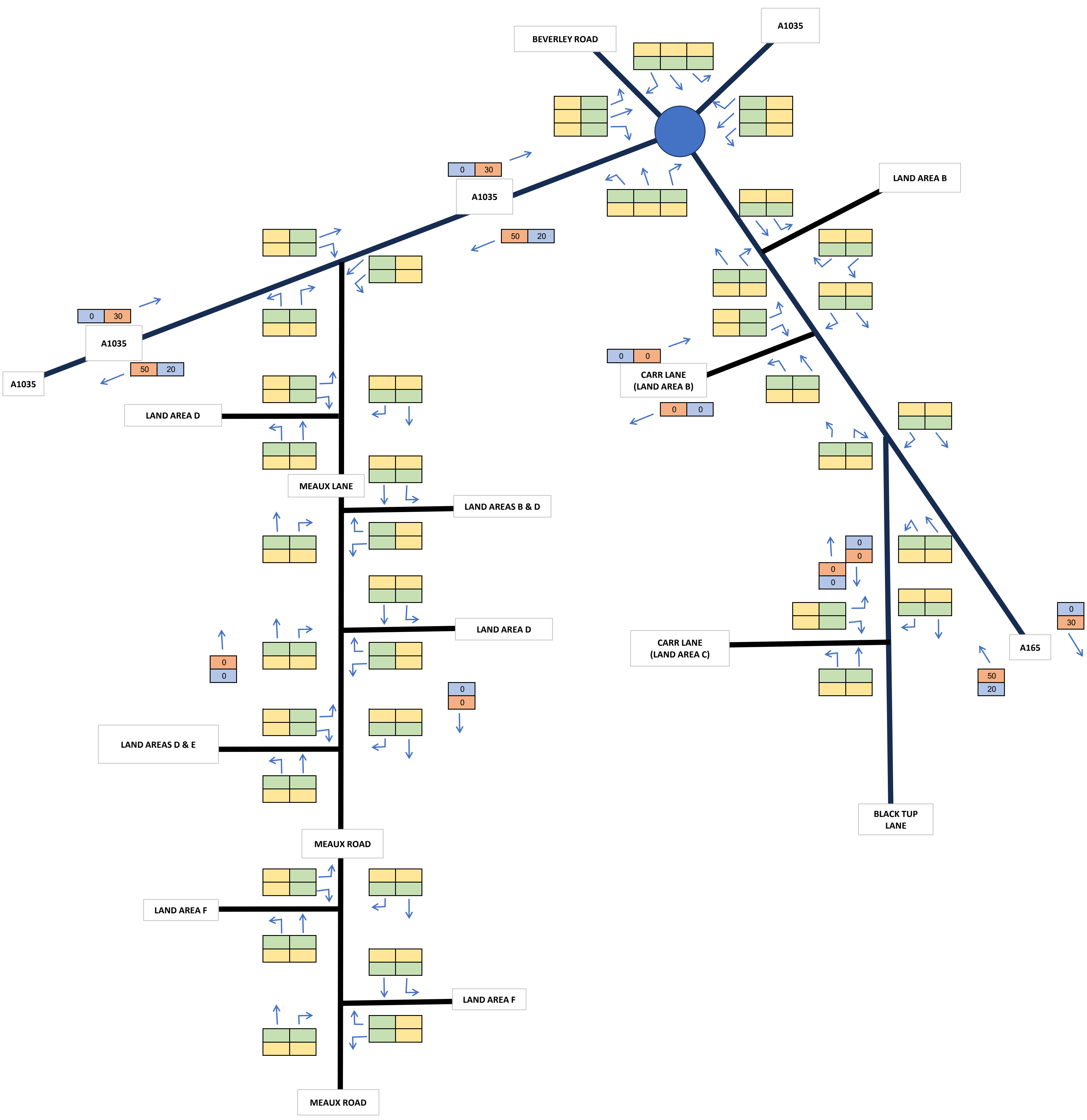
- AM Peak
- PM Peak
- AADT Total Veh
- AADT Total HGV

Notes

Field House Farm

20 Daily HGVs

30 Staff trips in each peak hour (928 daily)



AADT/AAWT Committed Developments - Field House Farm

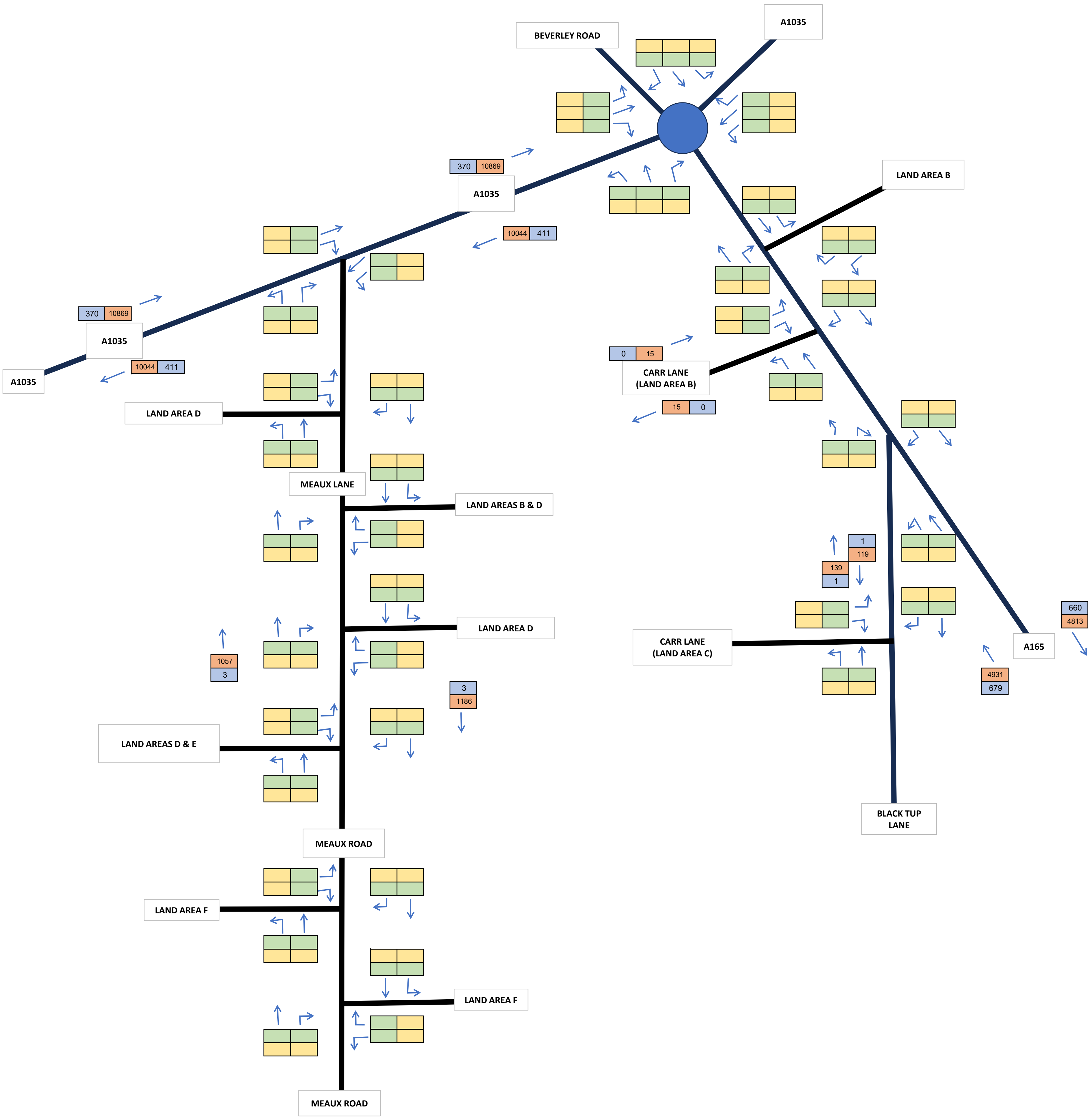
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	**22 October 2024**	**TRAFFIC FIGURE 28**
	Job Number - SCP/230483	

KEY

- AM Peak
- PM Peak
- AAWT Total Veh
- AAWT Total HGV

Notes



2026 Base + Committed Development AADT Flows

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 29

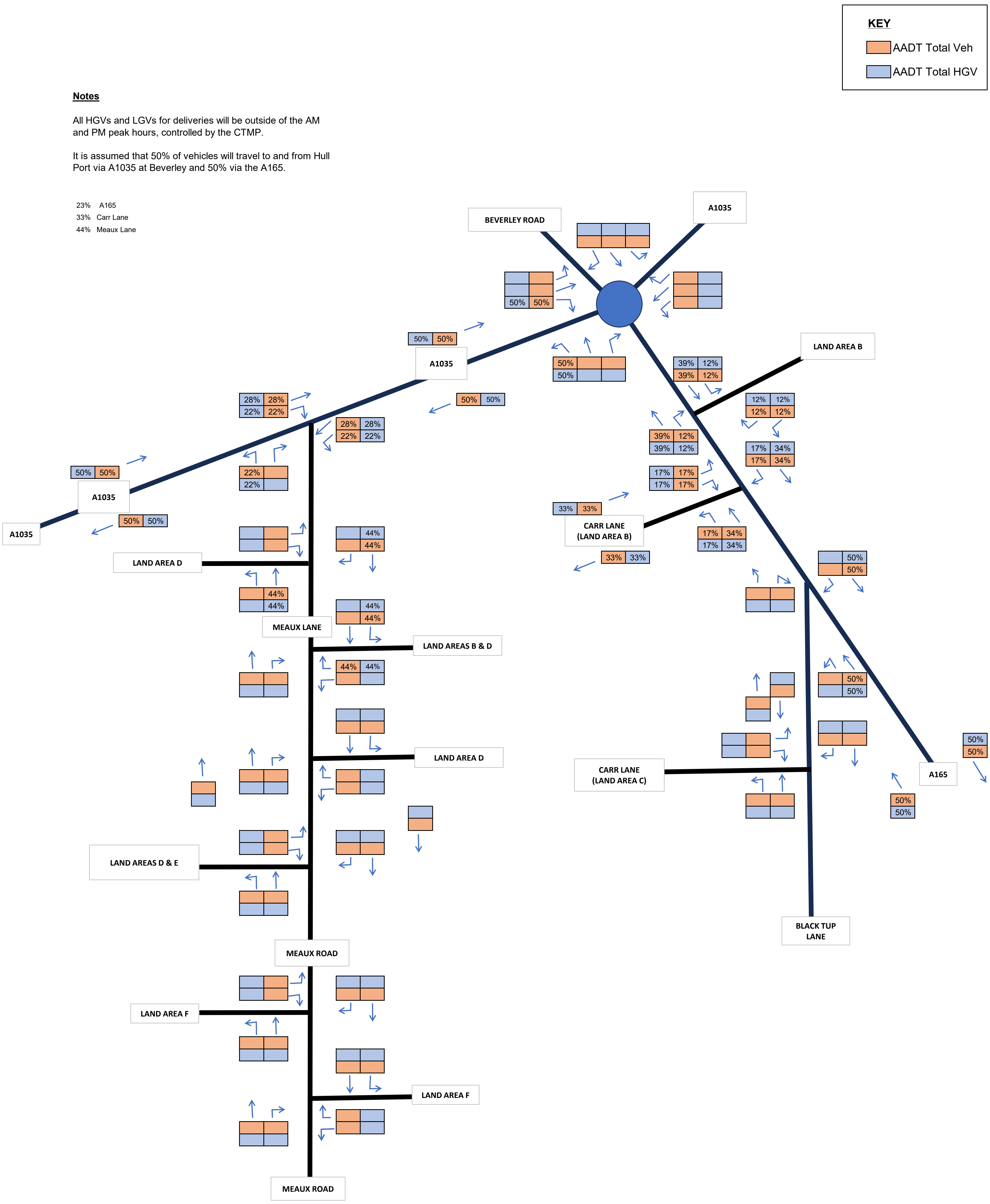
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

Notes

All HGVs and LGVs for deliveries will be outside of the AM and PM peak hours, controlled by the CTMP.

It is assumed that 50% of vehicles will travel to and from Hull Port via A1035 at Beverley and 50% via the A165.

23% A165
33% Carr Lane
44% Meaux Lane



Land Area B - HGV/LGV Distribution (AADT)

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 30

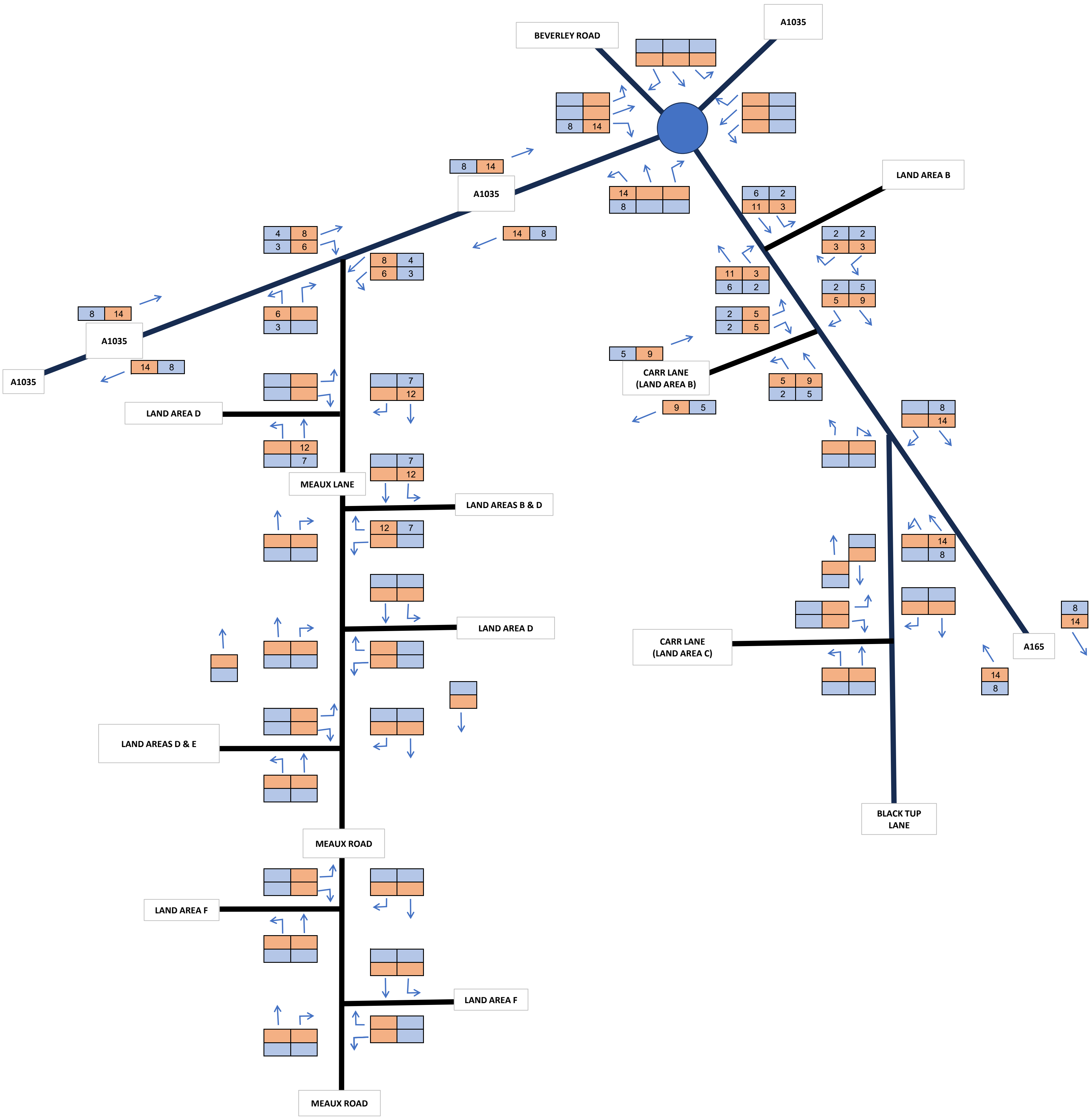
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

KEY
AADT Total Veh
AADT Total HGV

Notes

One-Way LGVs	13
One-Way HGVs	15
Total vehicles	28



Land Area B - HGV/LGV Assignment (AADT)	
Peartree Hill Solar Farm	
22 October 2024	TRAFFIC FIGURE 31
Job Number - SCP/230483	

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

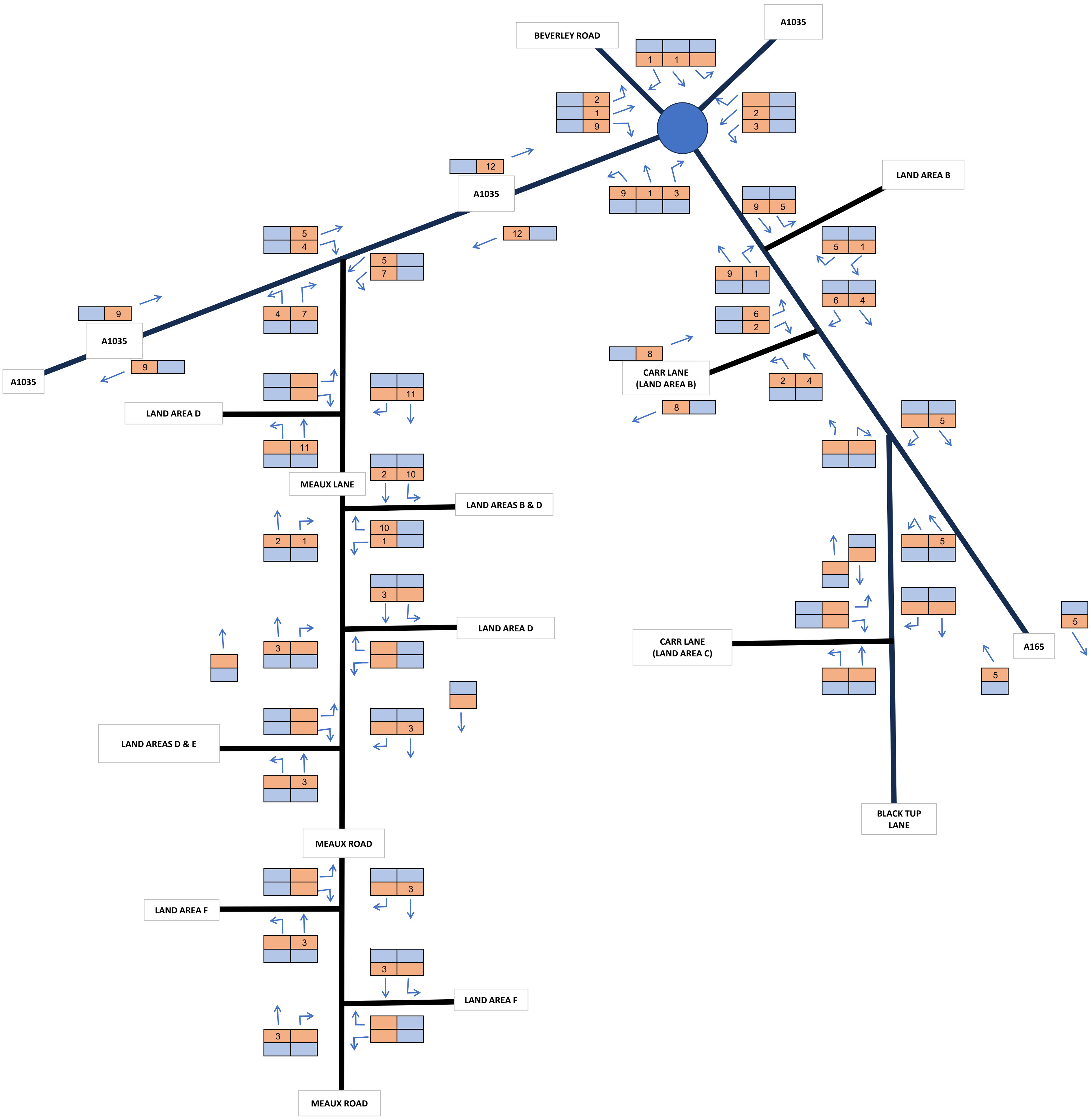
KEY

AADT Total Veh

AADT Total HGV

Notes

This is the peak hour (AM and PM) traffic combined. All staff trips are assumed to be within the peak hours.



Land Area B - Staff Assignment (AADT)

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 32

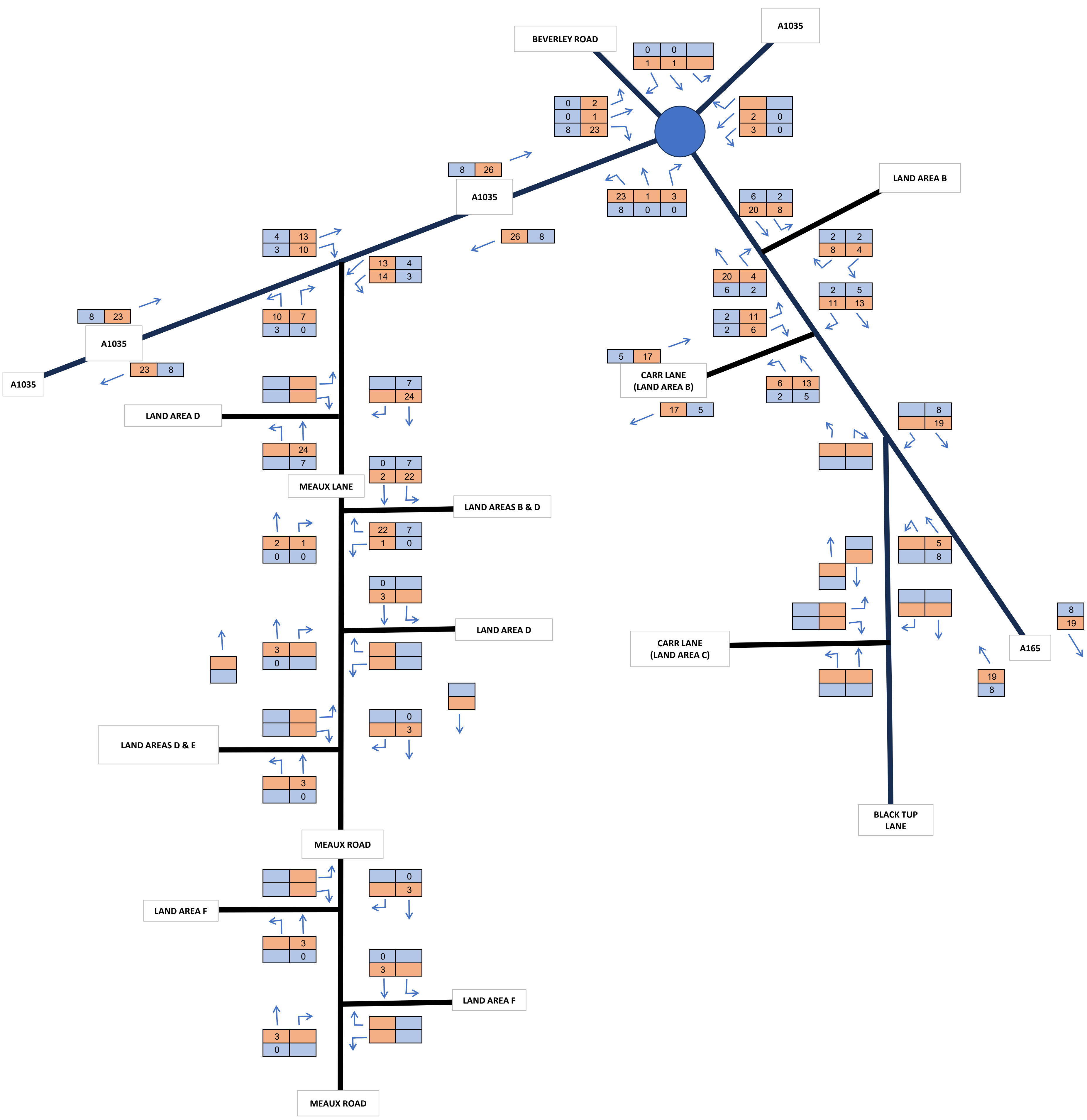
SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

KEY

AADT Total Veh

AADT Total HGV

Notes



Land Area B - Total Trip Generation AADT	
Peartree Hill Solar Farm	
22 October 2024	TRAFFIC FIGURE 33
Job Number - SCP/230483	

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

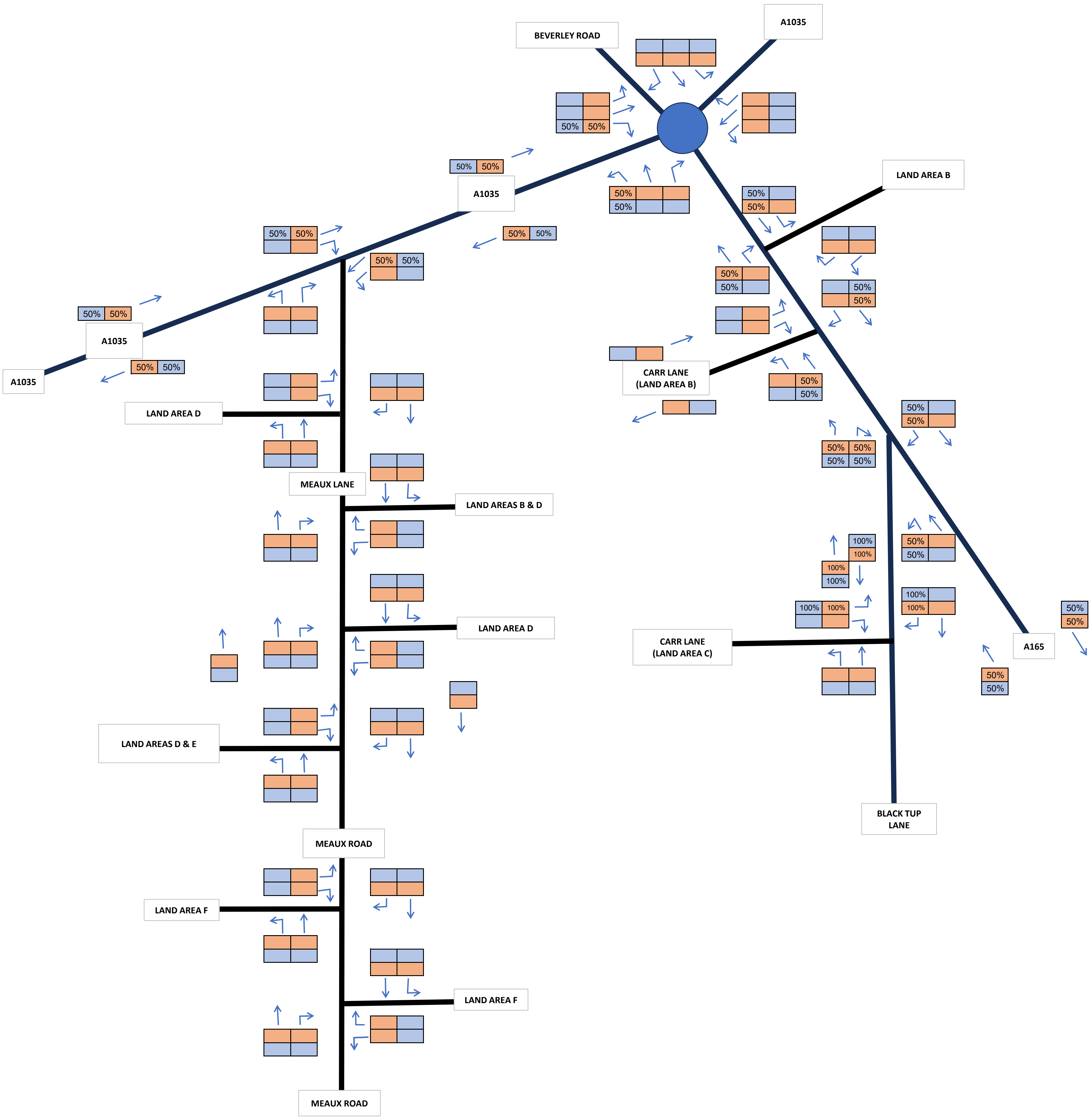
Notes

All HGVs and LGVs for deliveries will be outside of the AM and PM peak hours, controlled by the CTMP.

It is assumed that 50% of vehicles will travel to and from Hull Port via A1035 at Beverley and 50% via the A165.

KEY

- AADT Total Veh
- AADT Total HGV



Land Area C - HGV/LGV Distribution (AADT)

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 34

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

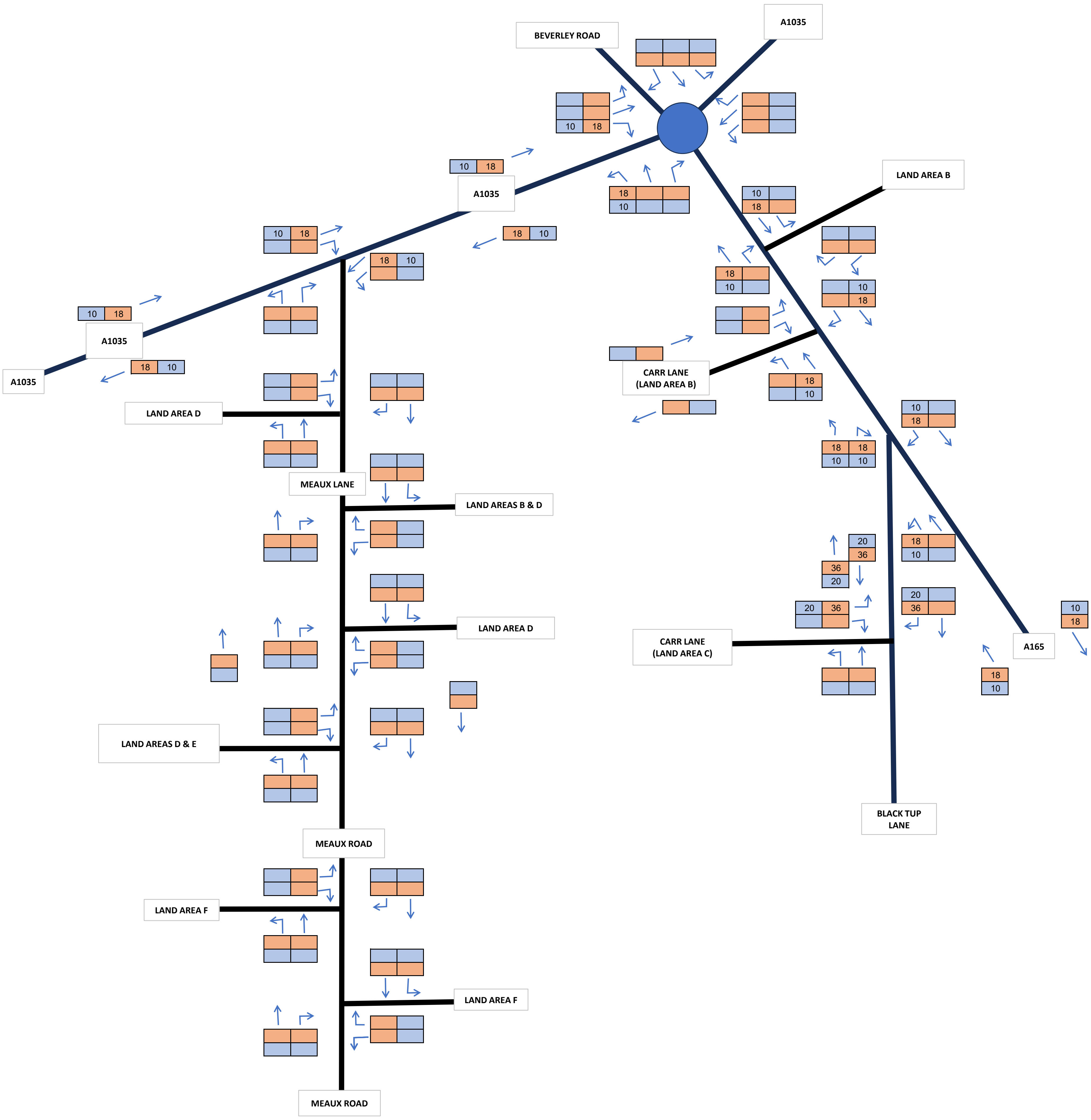
KEY

AADT Total Veh

AADT Total HGV

Notes

One-Way LGVs	16
One-Way HGVs	20
Total vehicles	36



Land Area C - HGV/LGV Assignment (AADT)

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	**22 October 2024**	**TRAFFIC FIGURE 35**
	Job Number - SCP/230483	

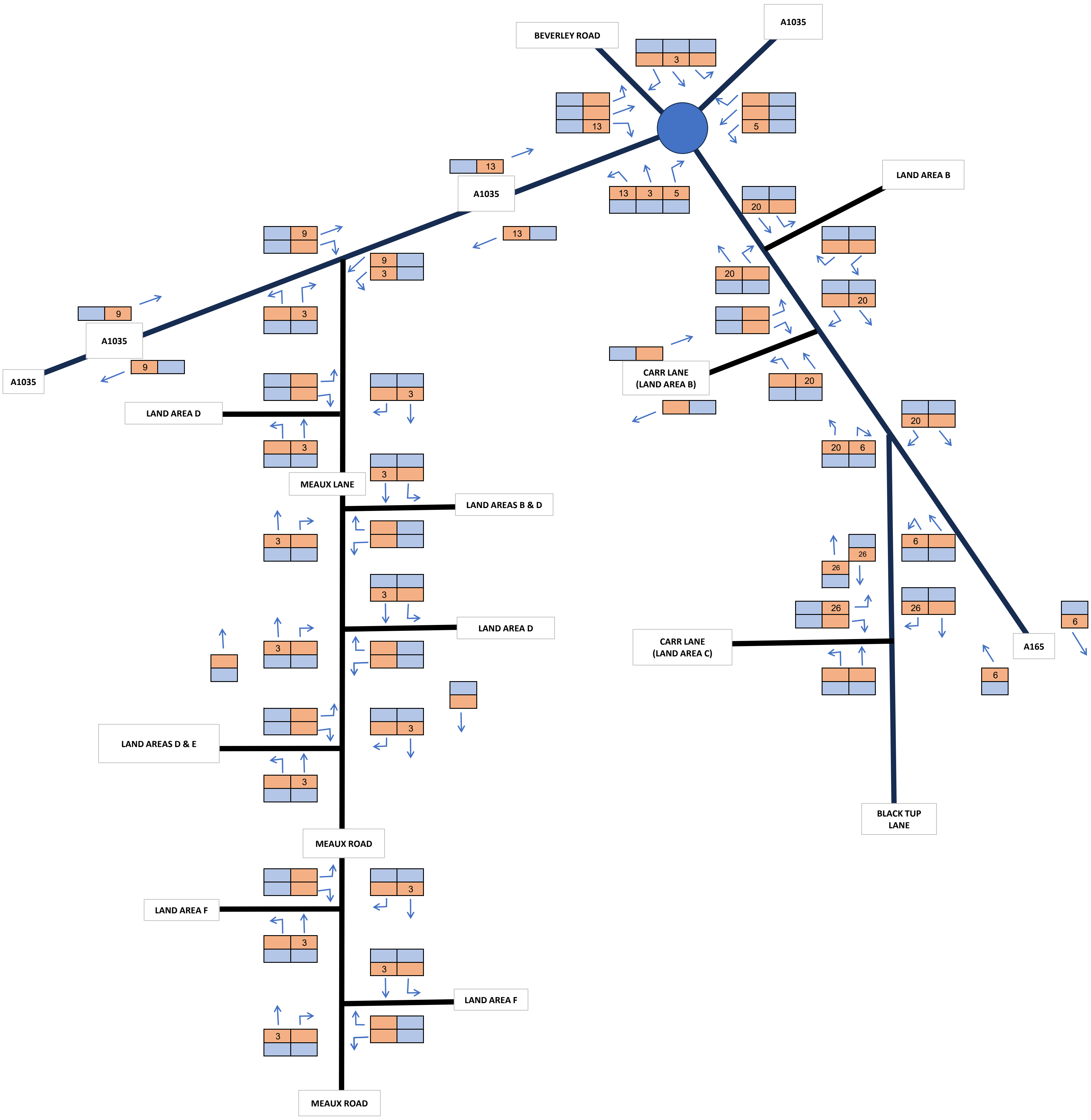
KEY

AADT Total Veh

AADT Total HGV

Notes

This is the peak hour (AM and PM) traffic combined. All staff trips are assumed to be within the peak hours.



Land Area C - Staff Assignment (AADT)

Peartree Hill Solar Farm

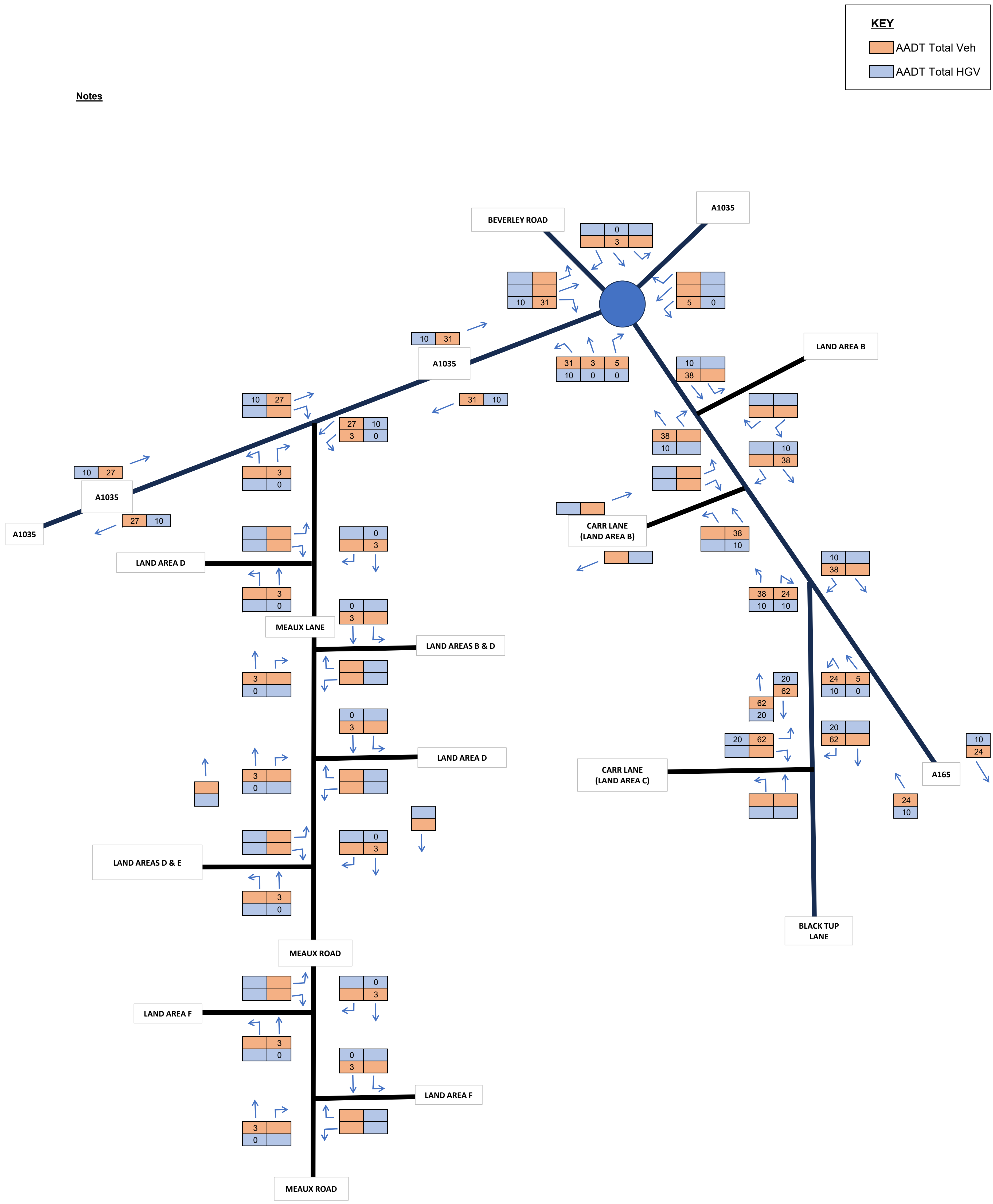
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 36

Notes



Land Area C - Total Trip Generation AADT
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 37
	Job Number - SCP/230483	

KEY

- AADT Total Veh
- AADT Total HGV

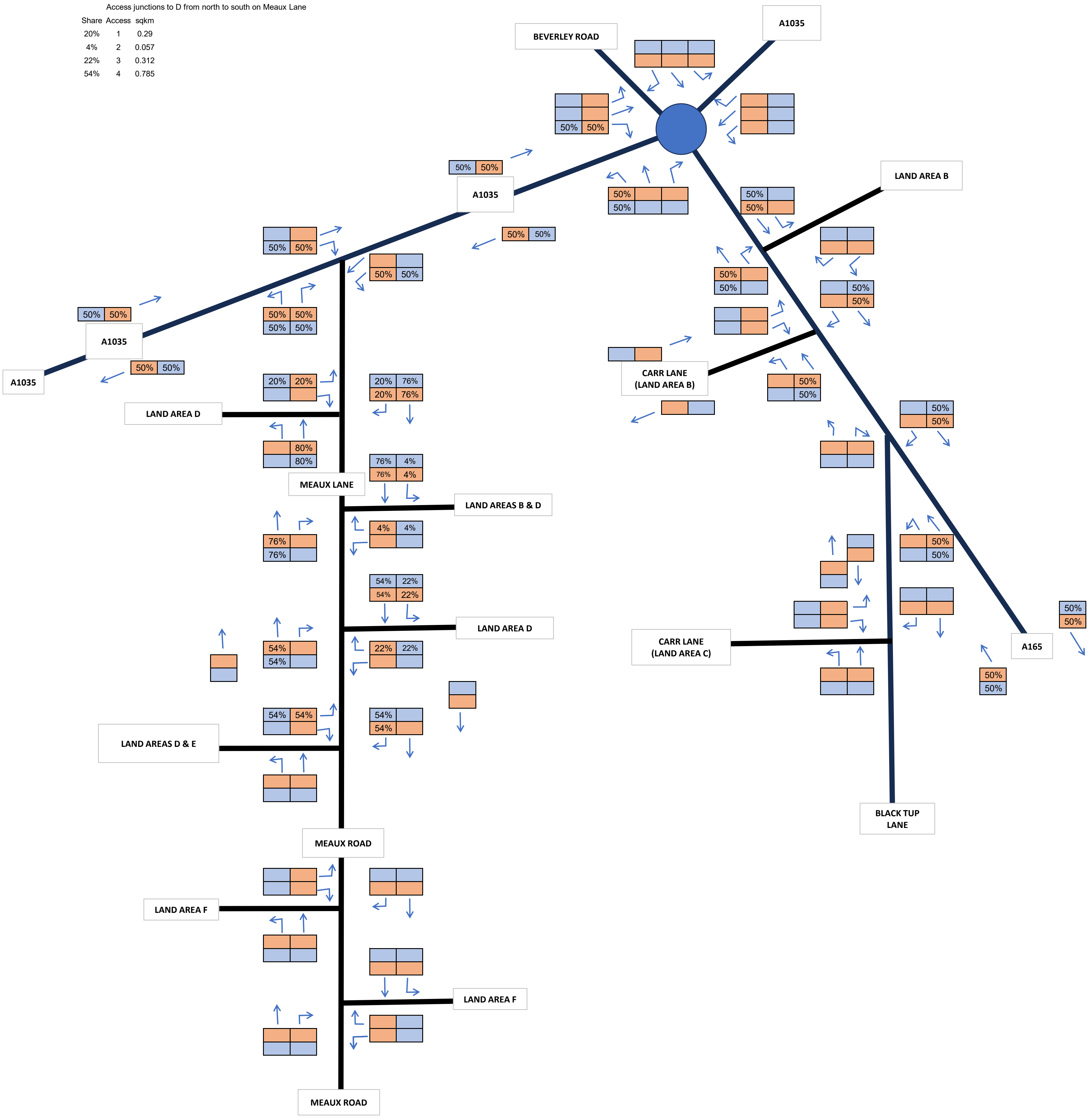
Notes

All HGVs and LGVs for deliveries will be outside of the AM and PM peak hours, controlled by the CTMP.

It is assumed that 50% of vehicles will travel to and from Hull Port via A1035 at Beverley and 50% via the A165.

Access junctions to D from north to south on Meaux Lane

Share	Access	sqkm
20%	1	0.29
4%	2	0.057
22%	3	0.312
54%	4	0.785



Land Area D - HGV/LGV Distribution (AADT)

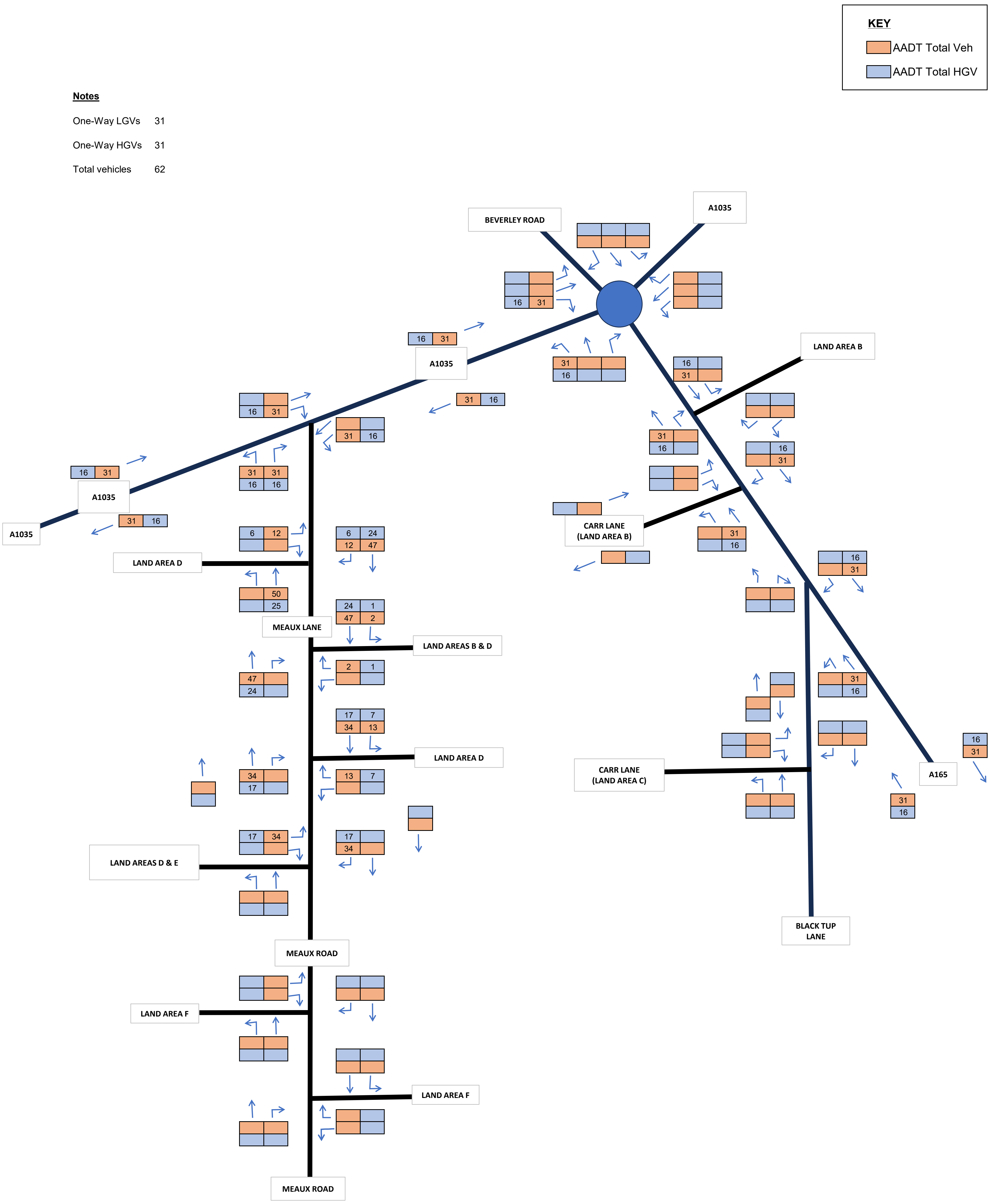
Peartree Hill Solar Farm

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 38



Notes

One-Way LGVs	31
One-Way HGVs	31
Total vehicles	62

Land Area D - HGV/LGV Assignment (AADT)

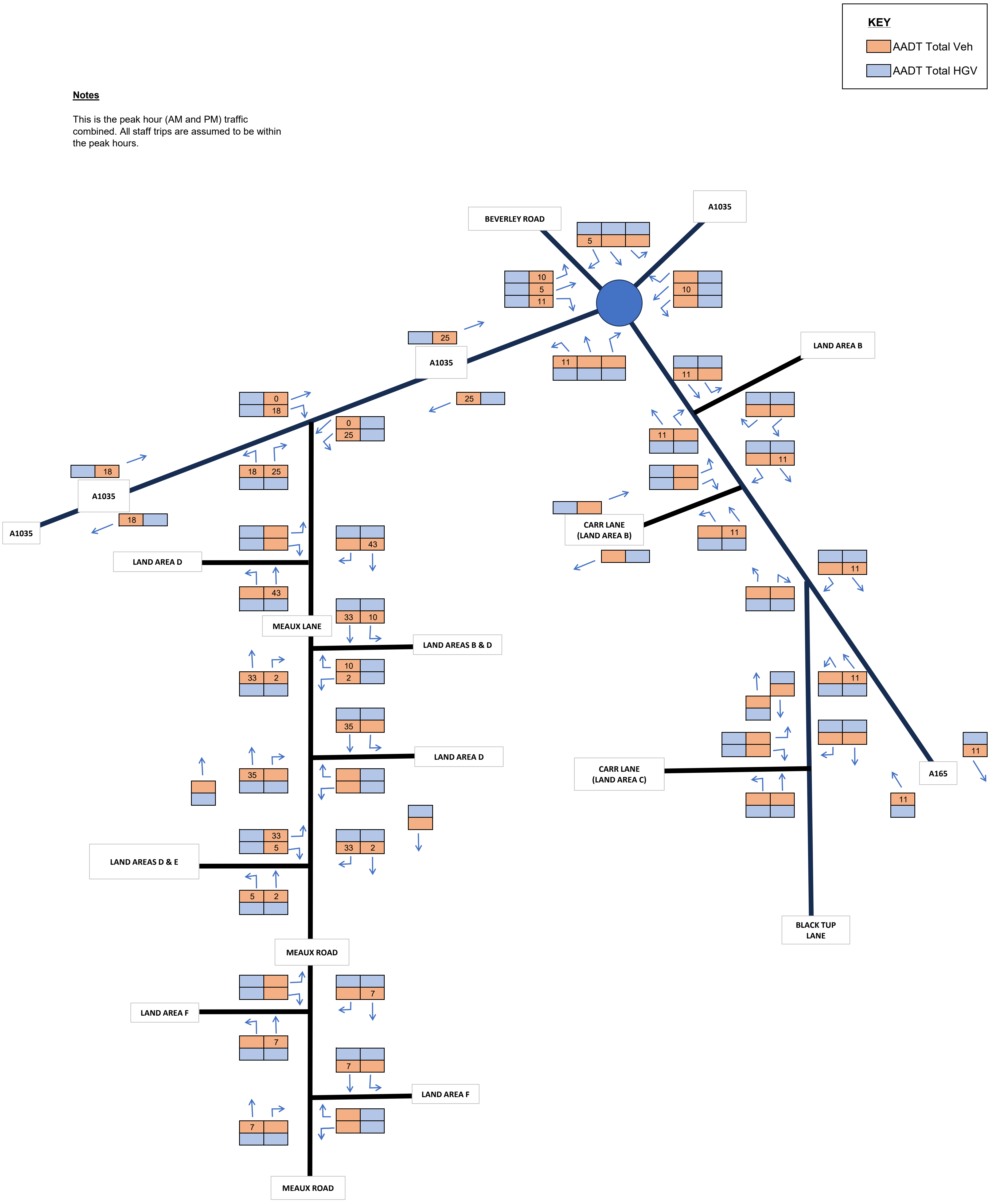
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 39



Notes

This is the peak hour (AM and PM) traffic combined. All staff trips are assumed to be within the peak hours.

Land Area D - Staff Assignment (AADT)

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 40

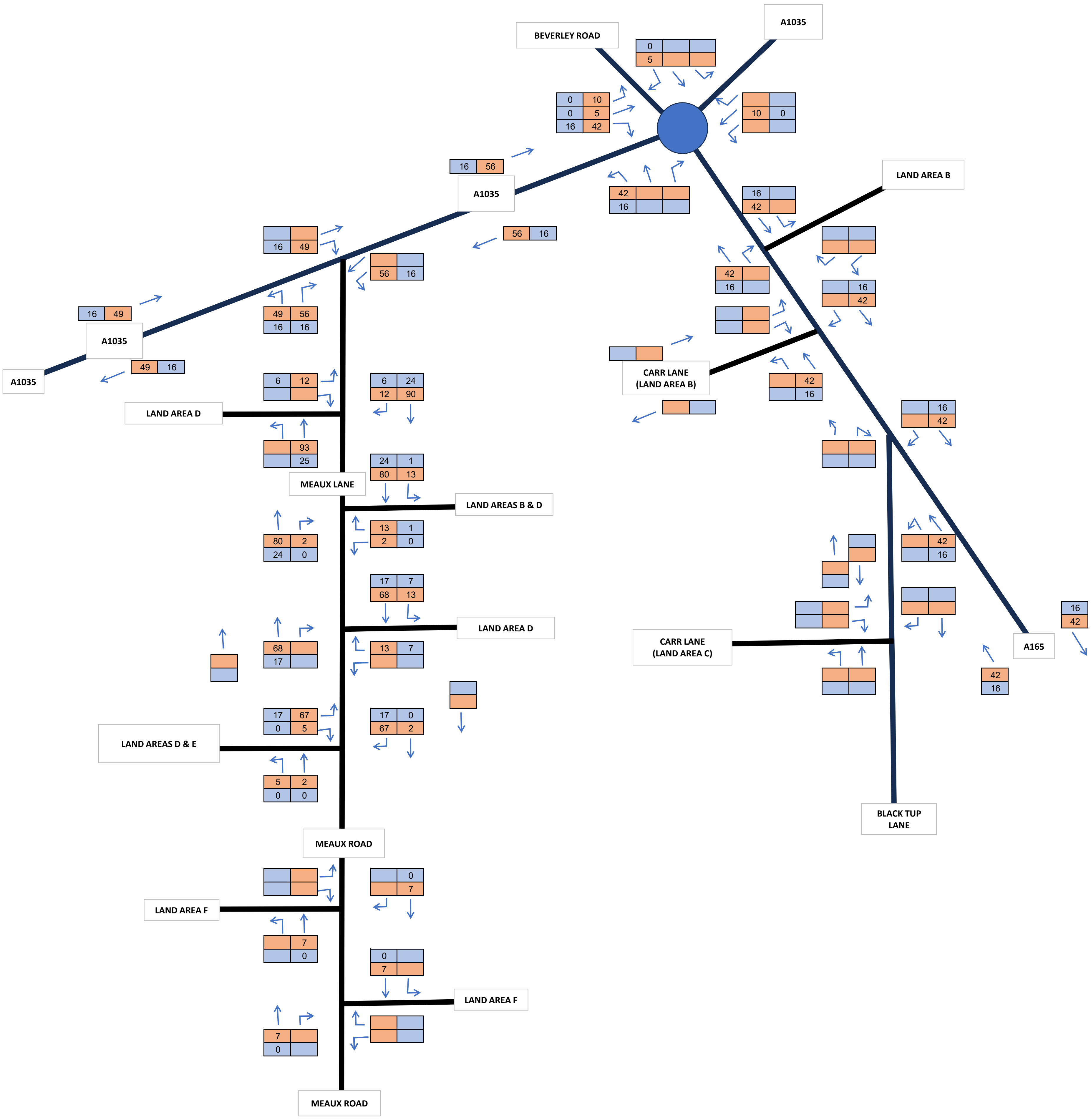
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

KEY

AADT Total Veh

AADT Total HGV

Notes



Land Area D - Total Trip Generation AADT

Peartree Hill Solar Farm

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 41

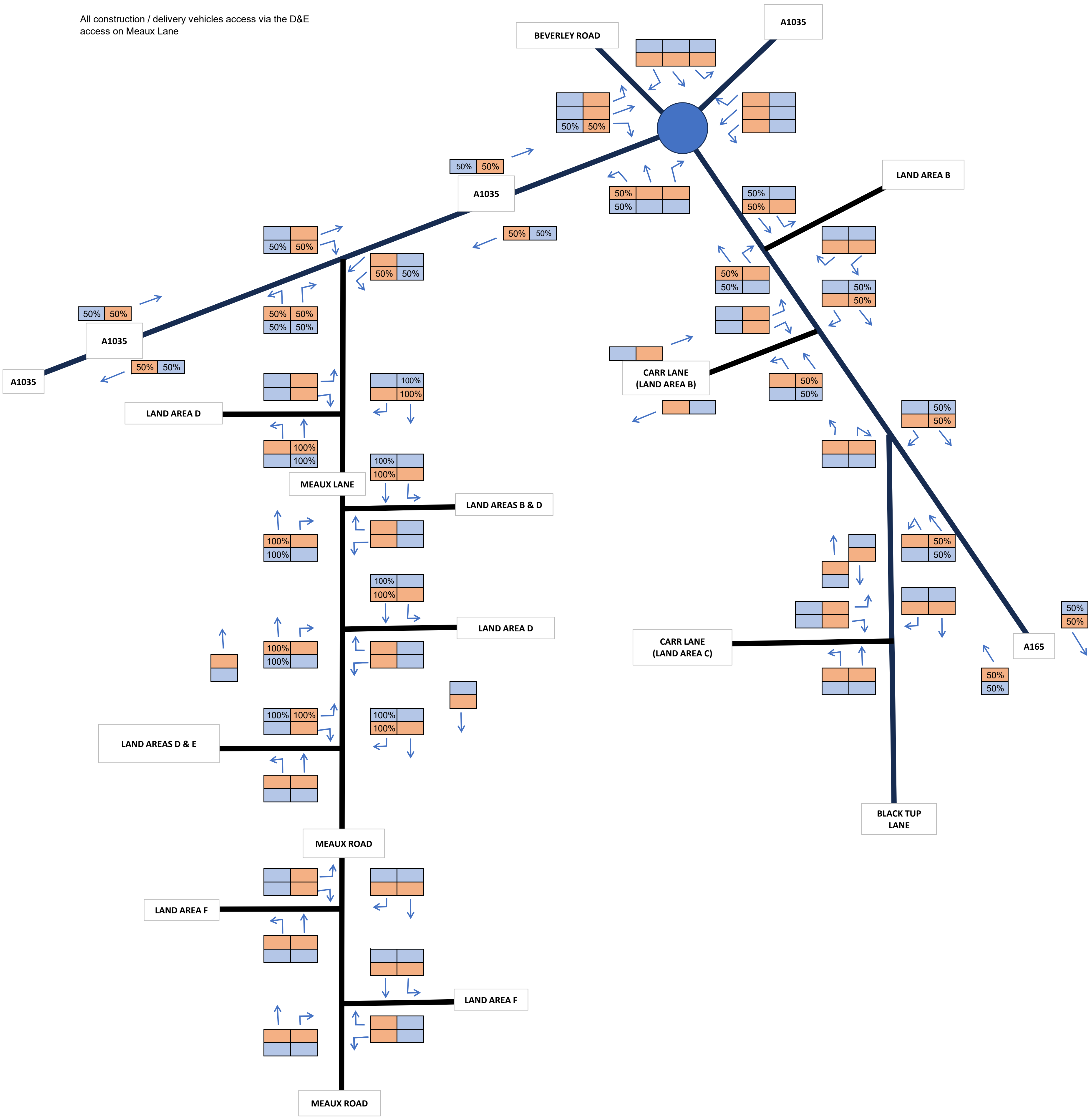
KEY
AADT Total Veh
AADT Total HGV

Notes

All HGVs and LGVs for deliveries will be outside of the AM and PM peak hours, controlled by the CTMP.

It is assumed that 50% of vehicles will travel to and from Hull Port via A1035 at Beverley and 50% via the A165.

All construction / delivery vehicles access via the D&E access on Meaux Lane



Land Area E - HGV/LGV Distribution (AADT)
Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024	TRAFFIC FIGURE 42
Job Number - SCP/230483	

KEY

AADT Total Veh

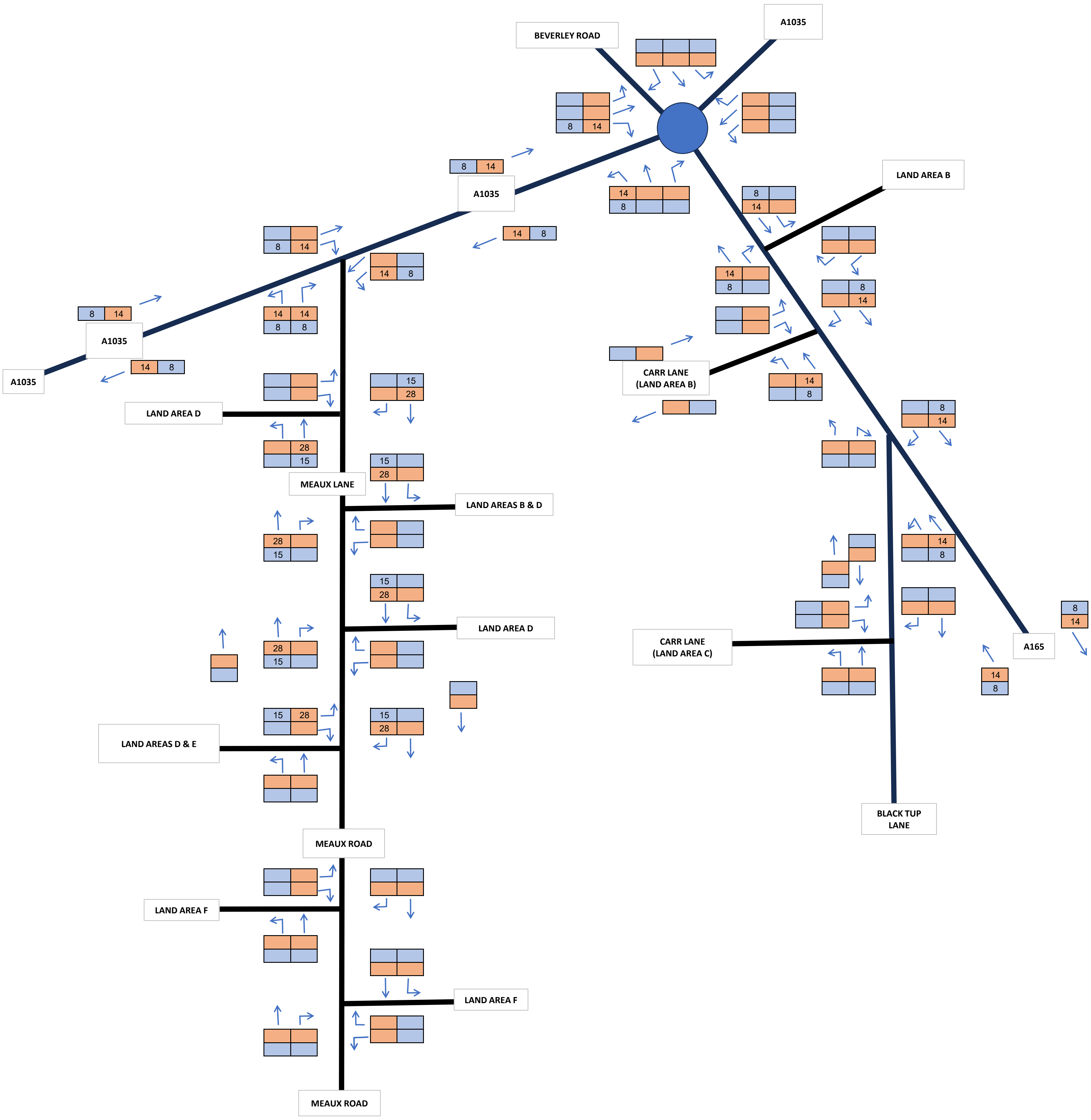
AADT Total HGV

Notes

One-Way LGVs 13

One-Way HGVs 15

Total vehicles 28



Land Area E - HGV/LGV Assignment (AADT)

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 43

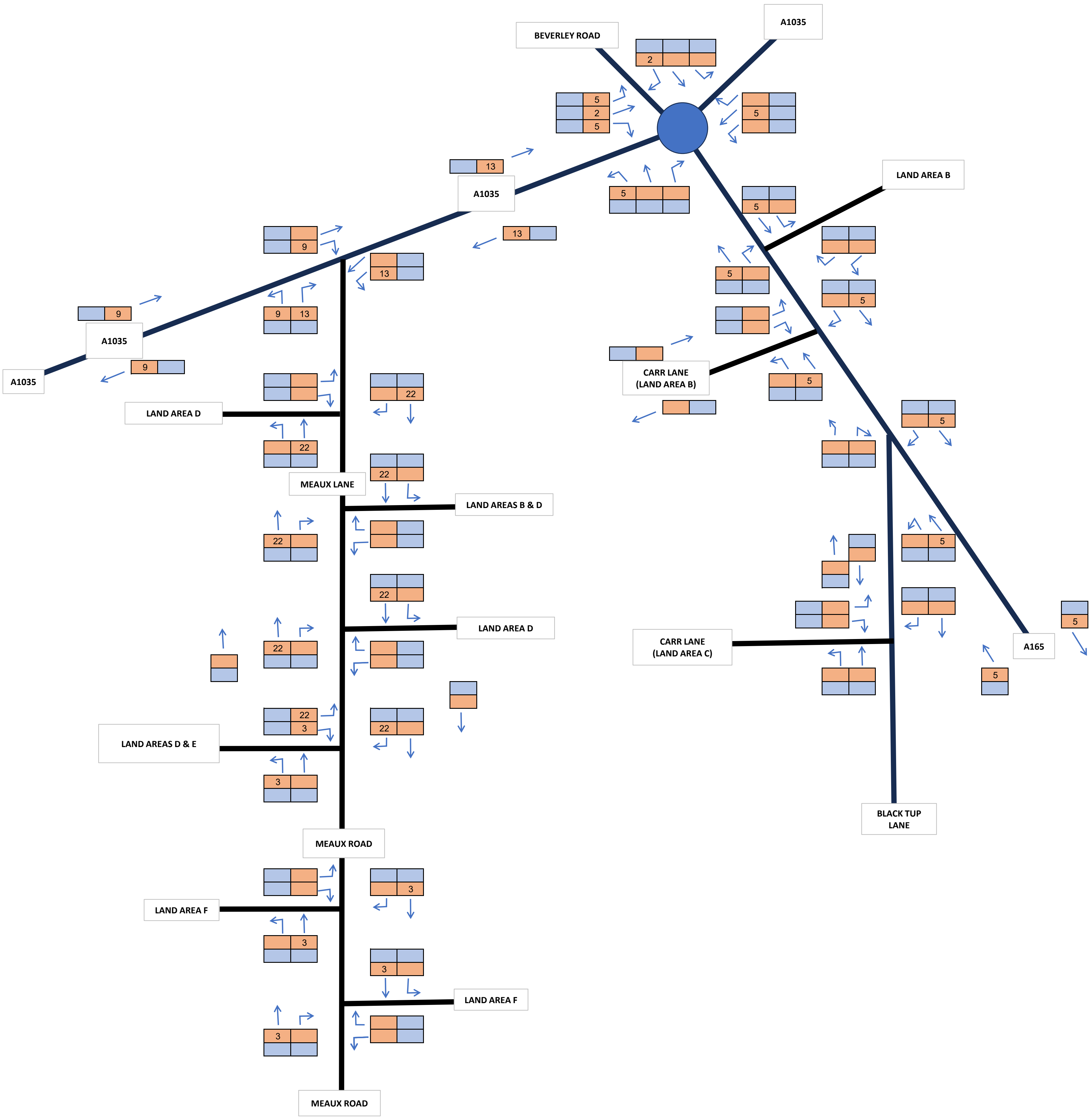
KEY

AADT Total Veh

AADT Total HGV

Notes

This is the peak hour (AM and PM) traffic combined. All staff trips are assumed to be within the peak hours.



Land Area E - Staff Assignment (AADT)	
Peartree Hill Solar Farm	
22 October 2024	TRAFFIC FIGURE 44
Job Number - SCP/230483	

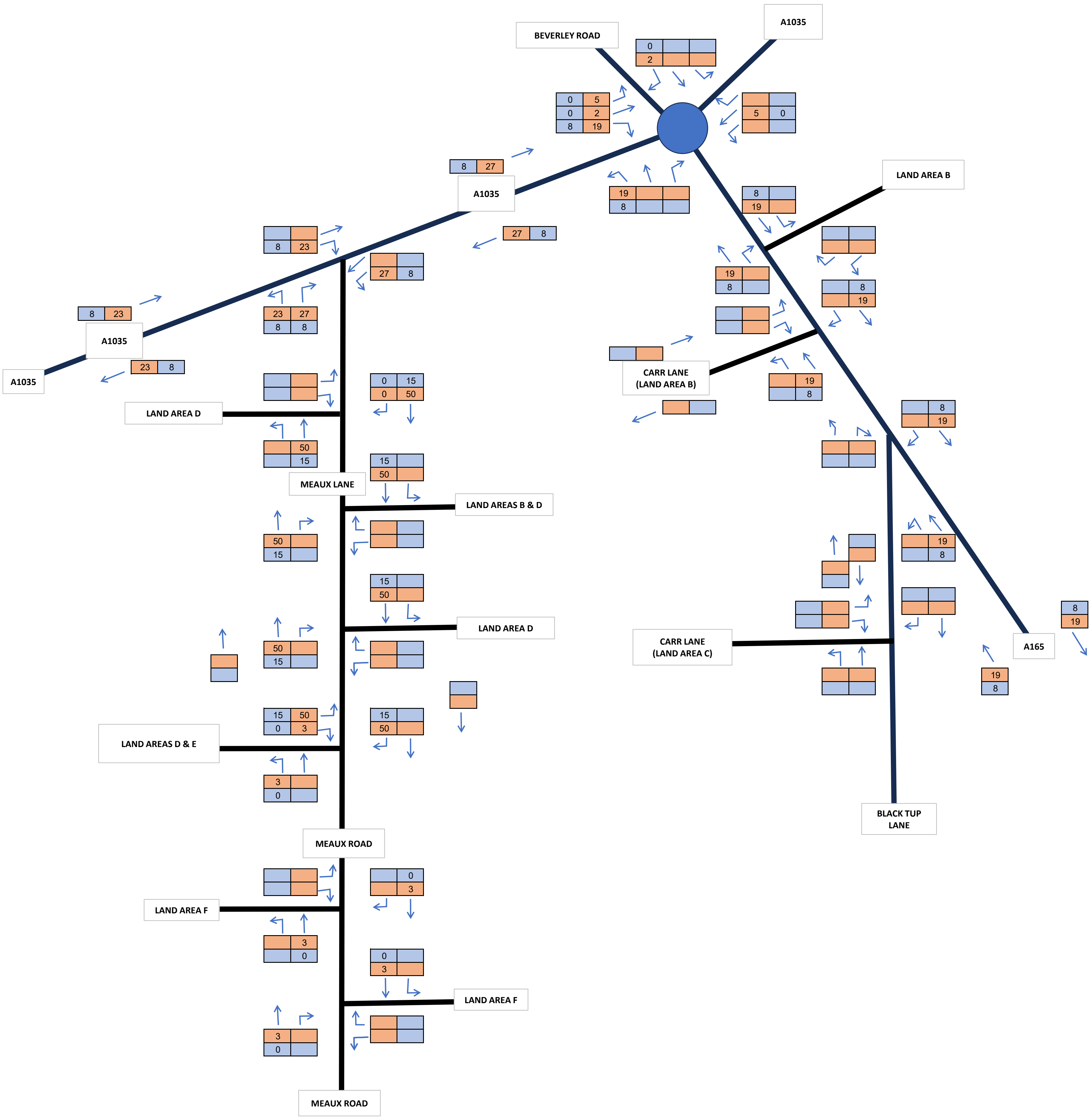
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

KEY

AADT Total Veh

AADT Total HGV

Notes



Land Area E - Total Trip Generation AADT
Peartree Hill Solar Farm
22 October 2024
Job Number - SCP/230483
TRAFFIC FIGURE 45

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

KEY

AADT Total Veh

AADT Total HGV

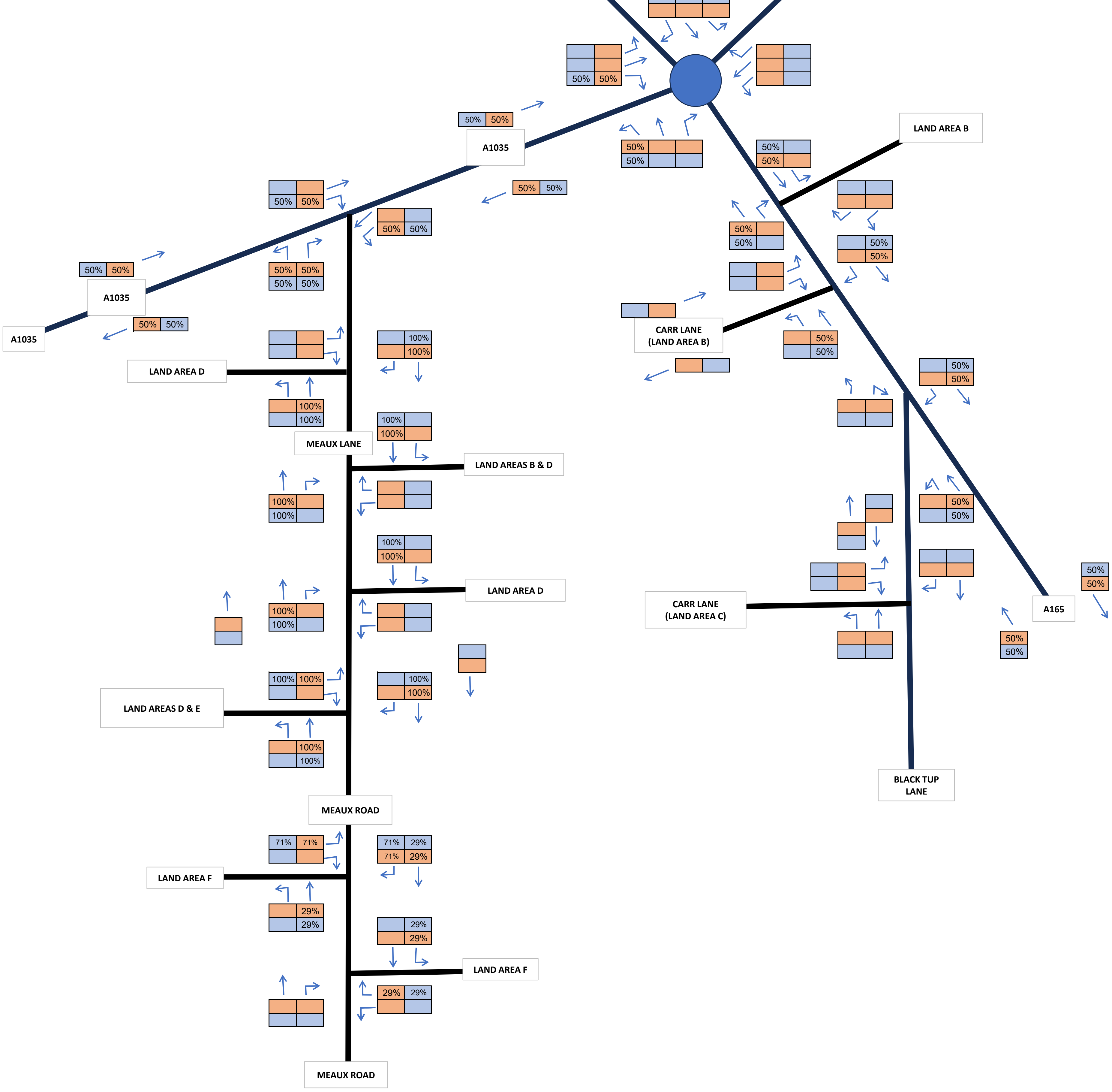
Notes

All HGVs and LGVs for deliveries will be outside of the AM and PM peak hours, controlled by the CTMP.

It is assumed that 50% of vehicles will travel to and from Hull Port via A1035 at Beverley and 50% via the A165.

Access junctions to F from on Meaux Road

Share	Access	sqkm
71%	West	0.46
29%	East	0.19



Land Area F - HGV/LGV Distribution (AADT)

Peartree Hill Solar Farm

SCP
TRANSPORT PLANNING
INFRASTRUCTURE DESIGN
an RSK company

22 October 2024

Job Number - SCP/230483

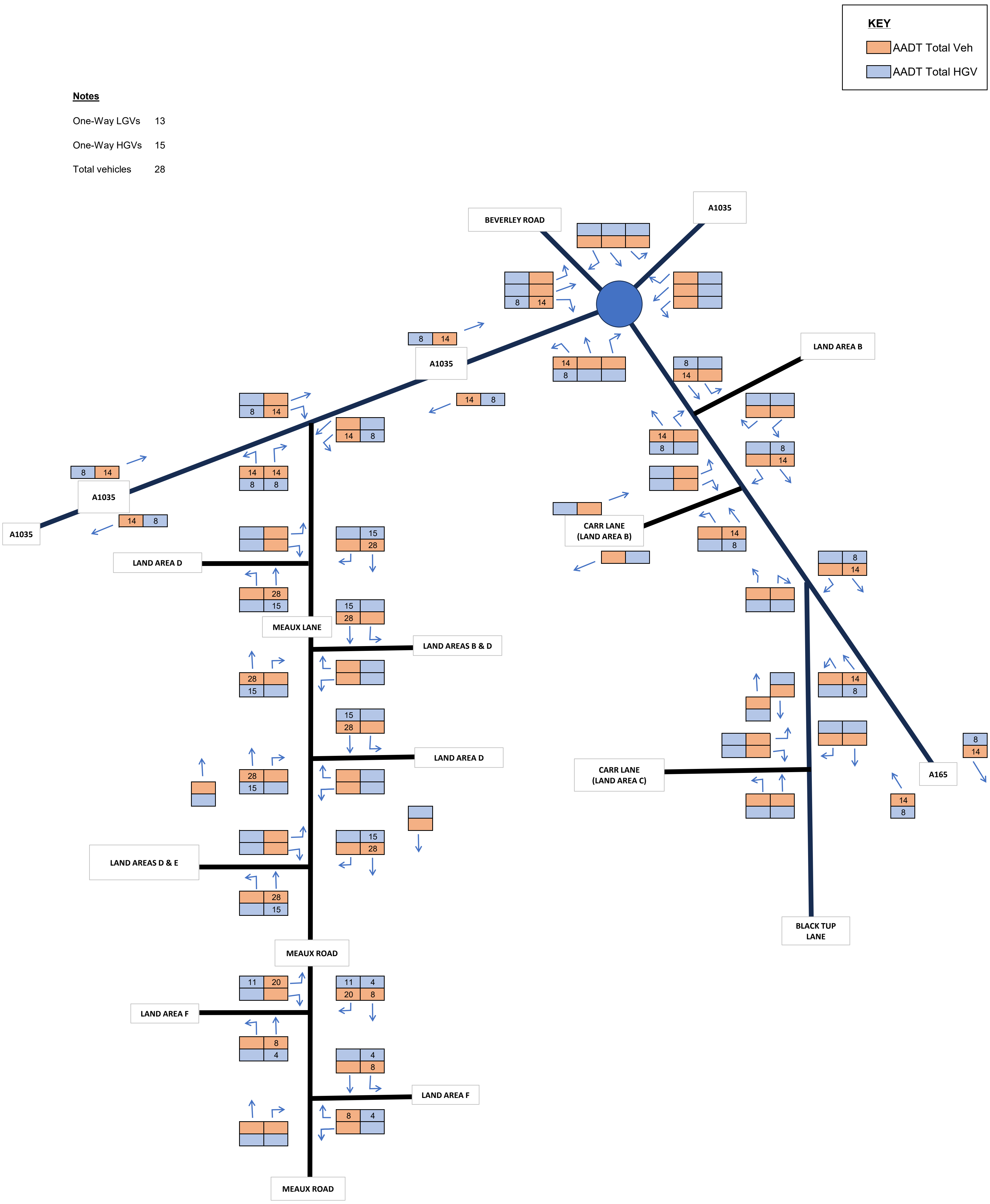
TRAFFIC FIGURE 46

Notes

One-Way LGVs 13

One-Way HGVs 15

Total vehicles 28



Land Area F - HGV/LGV Assignment (AADT)

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 47

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

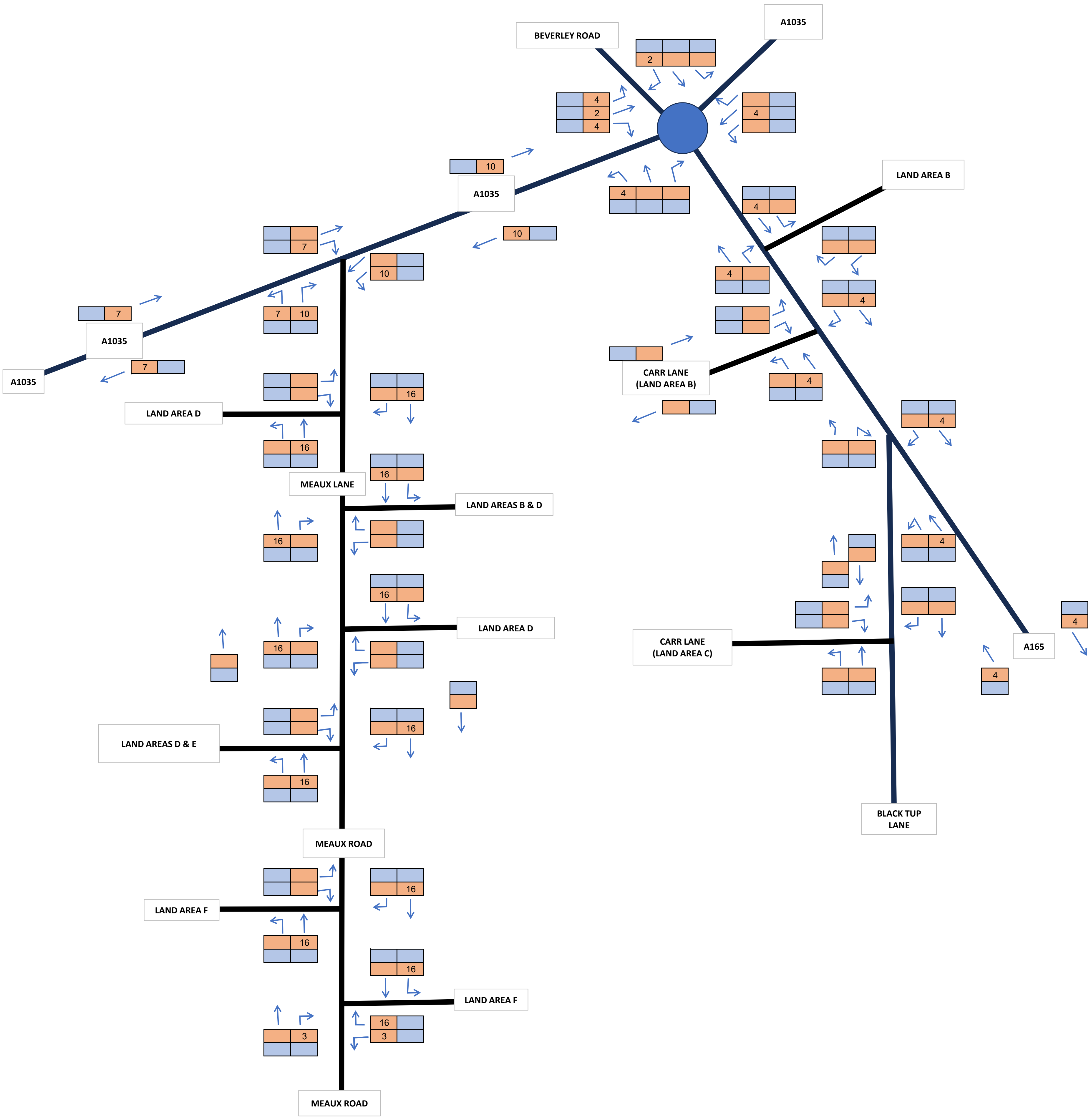
KEY

AADT Total Veh

AADT Total HGV

Notes

This is the peak hour (AM and PM) traffic combined. All staff trips are assumed to be within the peak hours.



Land Area F - Staff Assignment (AADT)

Peartree Hill Solar Farm

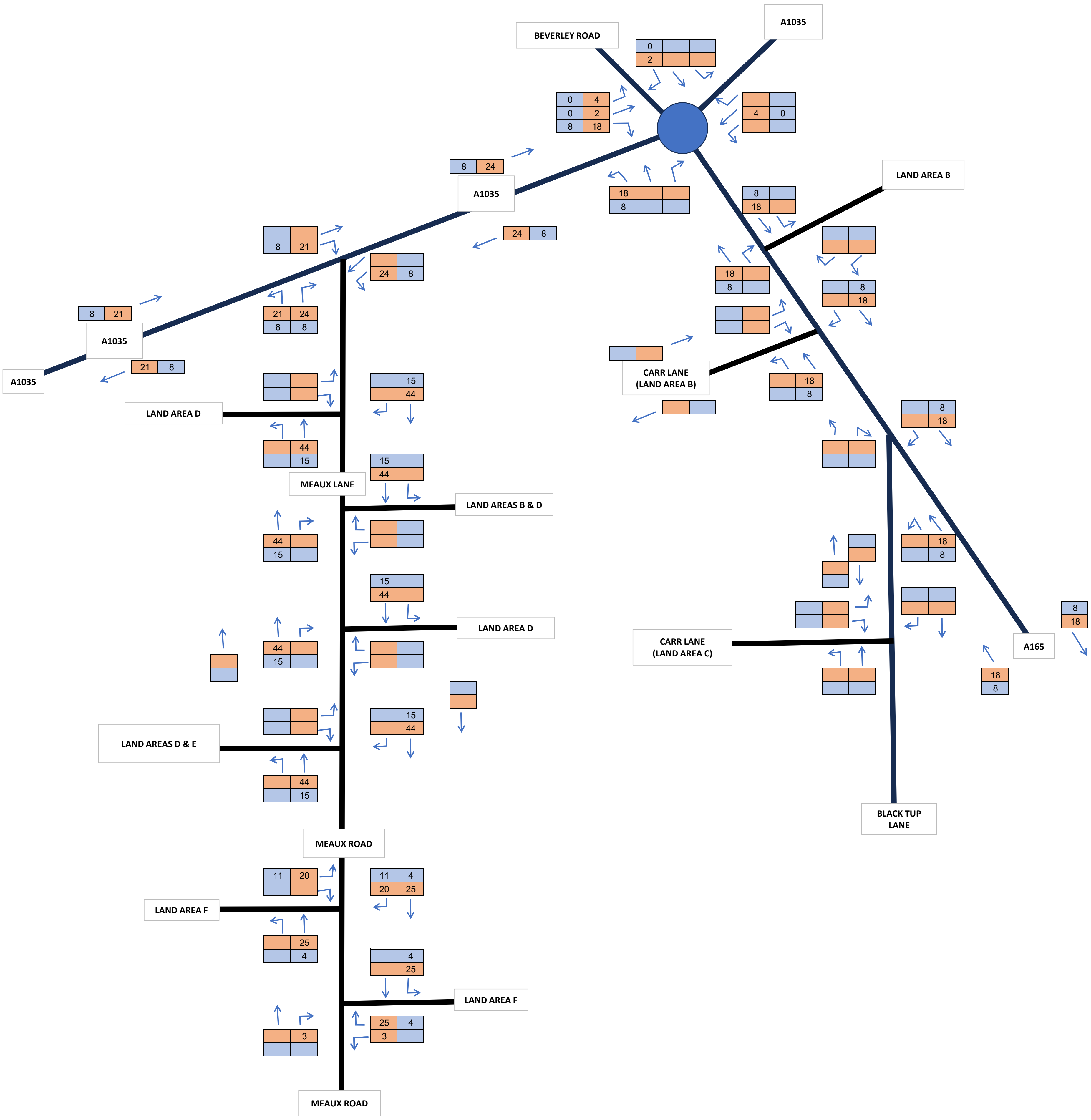
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024	TRAFFIC FIGURE 48
	Job Number - SCP/230483	

KEY

AADT Total Veh

AADT Total HGV

Notes



Land Area F - Total Trip Generation AADT

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 49

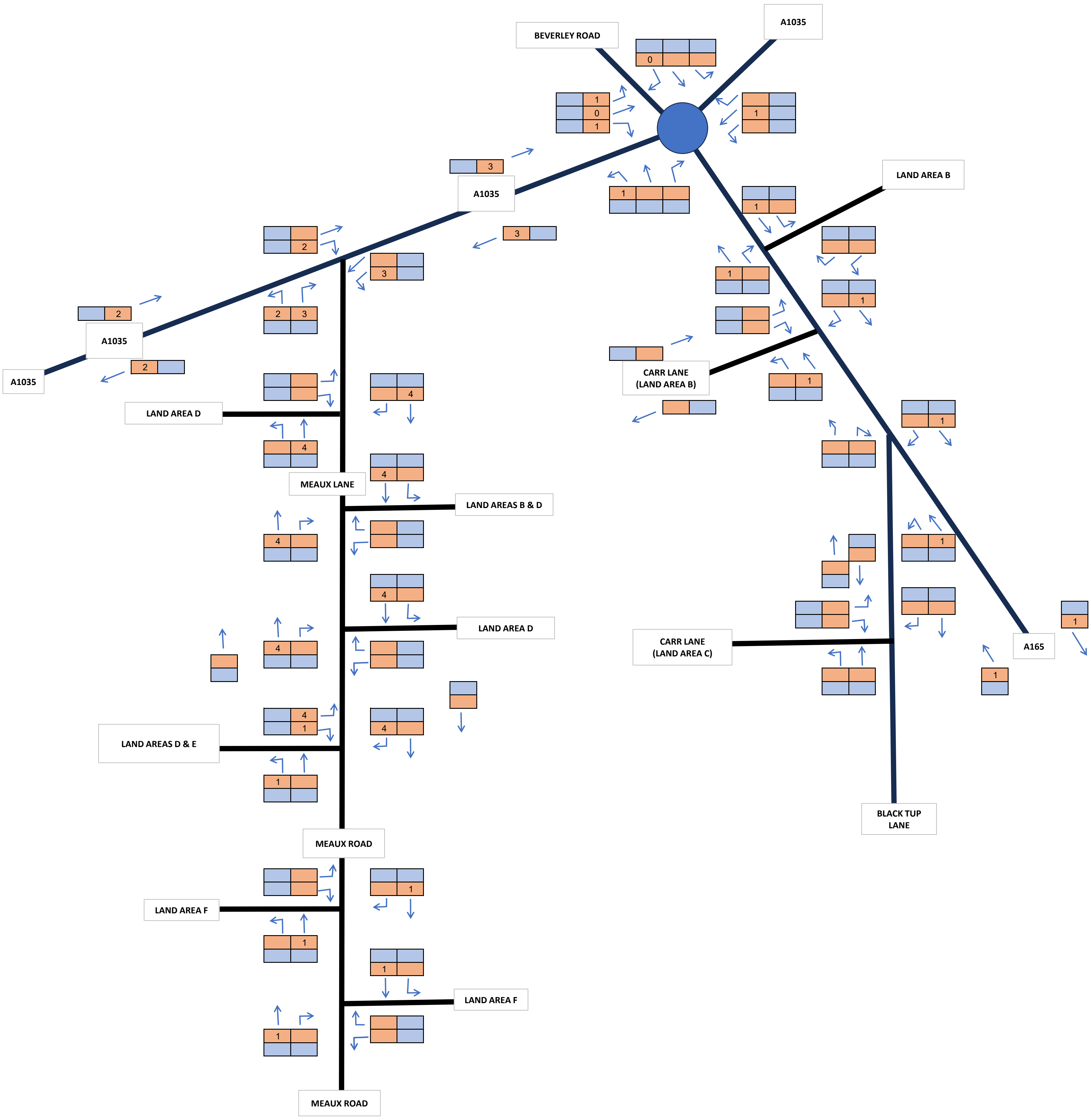
KEY

AADT Total Veh

AADT Total HGV

Notes

The vehicle movements shown are only staff trips. A small number of HGVs (approx 5 per day) will access via existing accesses which are not within the study area, as was set out in the Transport Assessment Scoping Report.



Creyke Beck Grid Connection - Total Trip Generation AADT	
Peartree Hill Solar Farm	
22 October 2024	TRAFFIC FIGURE 50
Job Number - SCP/230483	

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

KEY

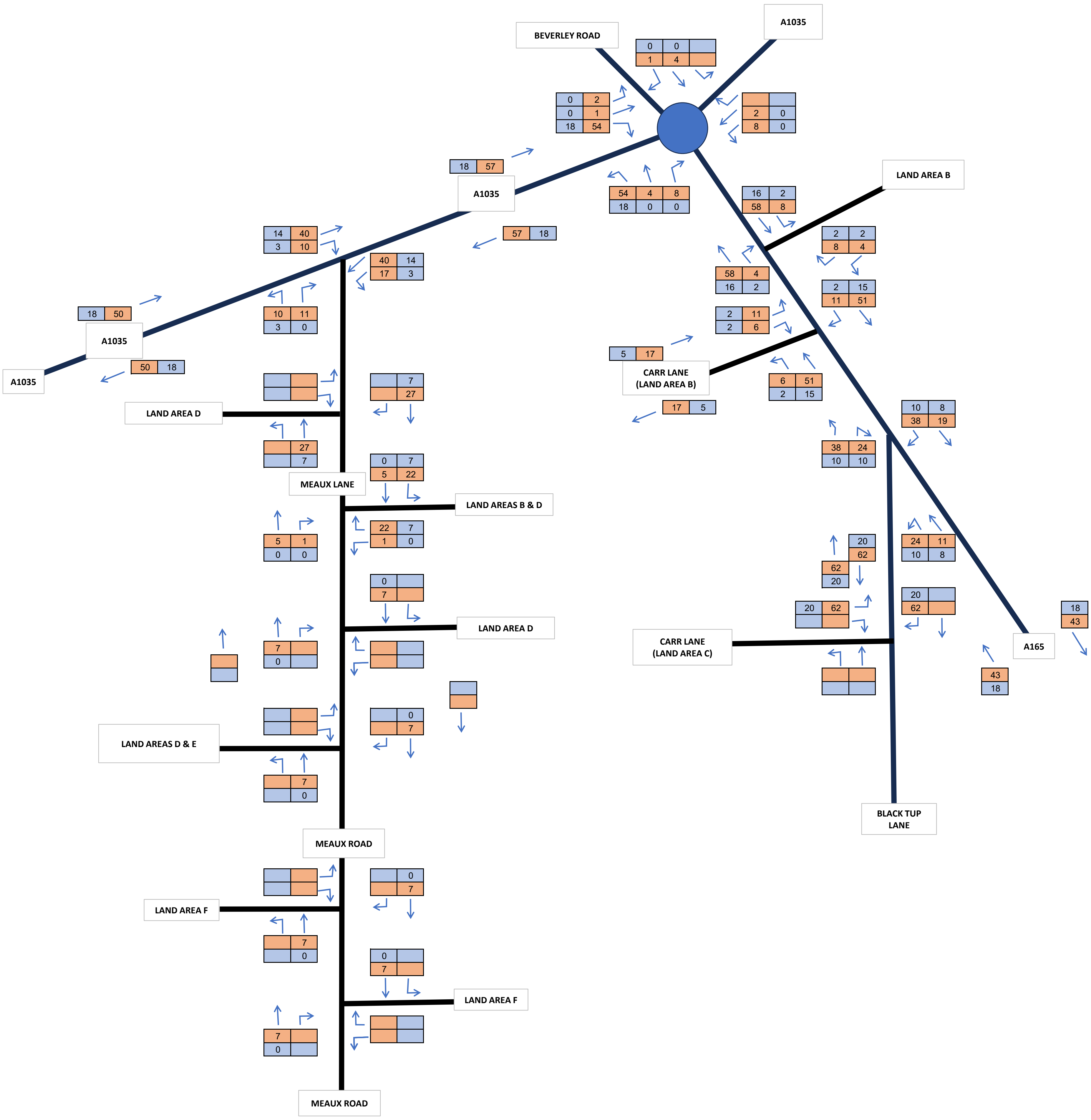
AADT Total Veh

AADT Total HGV

Notes

Phase 2 consists of Land Areas B & C.
Phasing is indicative.

Traffic figures include staff and construction/delivery vehicles.



Phase 2 (Land Areas B & C) - Total Trip Generation AADT

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 51

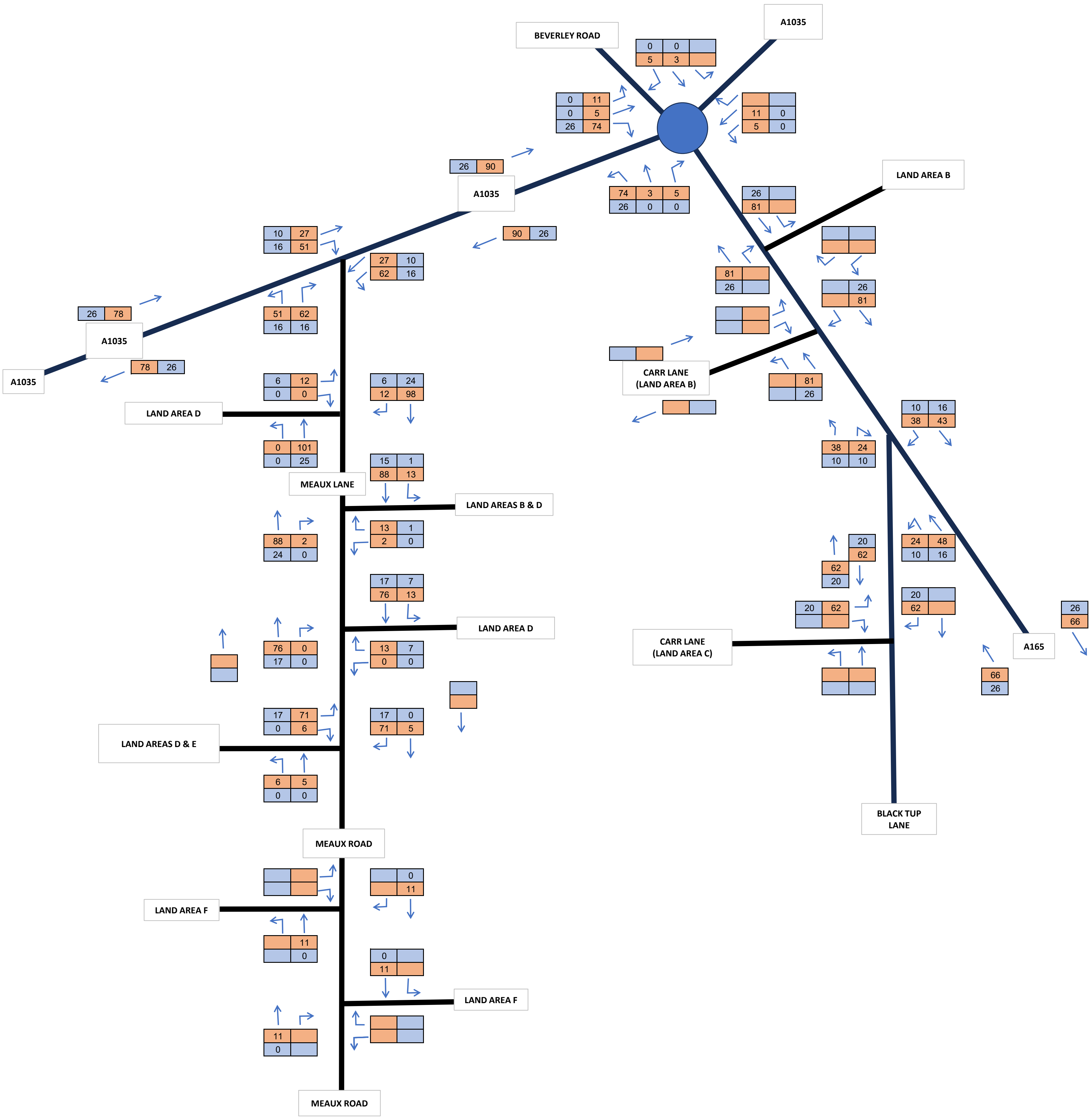
KEY

AADT Total Veh

AADT Total HGV

Notes

Phase 3 consists of Land Areas C & D and the grid connection cable works.
5 HGV and 5 LGV trips associated with the grid connection do not occur on the extent of the study area shown.
Phasing is indicative.
Traffic figures include staff and construction/delivery vehicles.



Phase 3 (Grid Connection and Land Areas C & D) - Total Trip Generation AADT

Peartree Hill Solar Farm

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

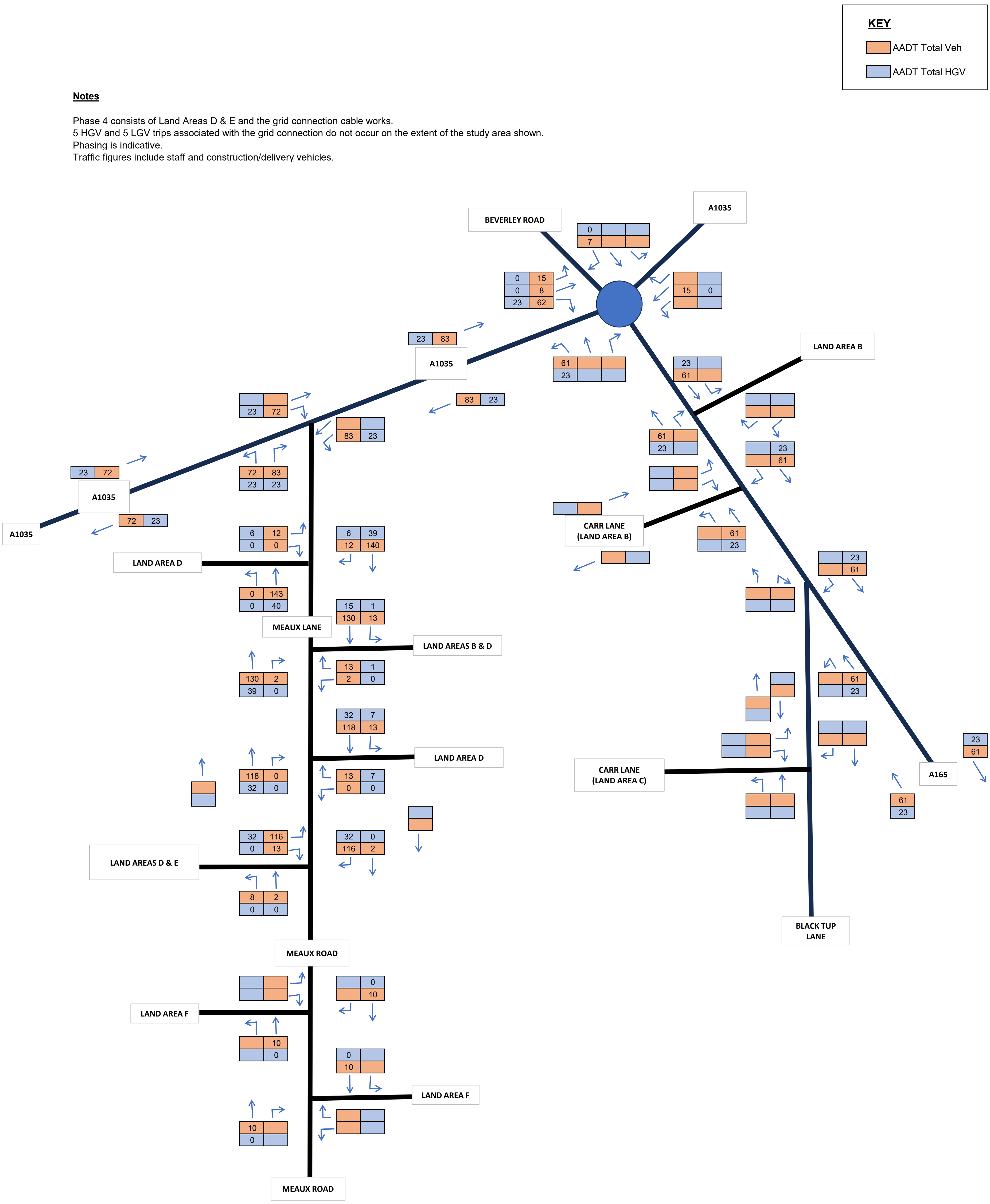
22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 52

Notes

Phase 4 consists of Land Areas D & E and the grid connection cable works.
5 HGV and 5 LGV trips associated with the grid connection do not occur on the extent of the study area shown.
Phasing is indicative.
Traffic figures include staff and construction/delivery vehicles.



Phase 4 (Grid Connection and Land Areas D & E) - Total Trip Generation AADT

Peartree Hill Solar Farm

22 October 2024

Job Number - SCP/230483

TRAFFIC FIGURE 53

SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company

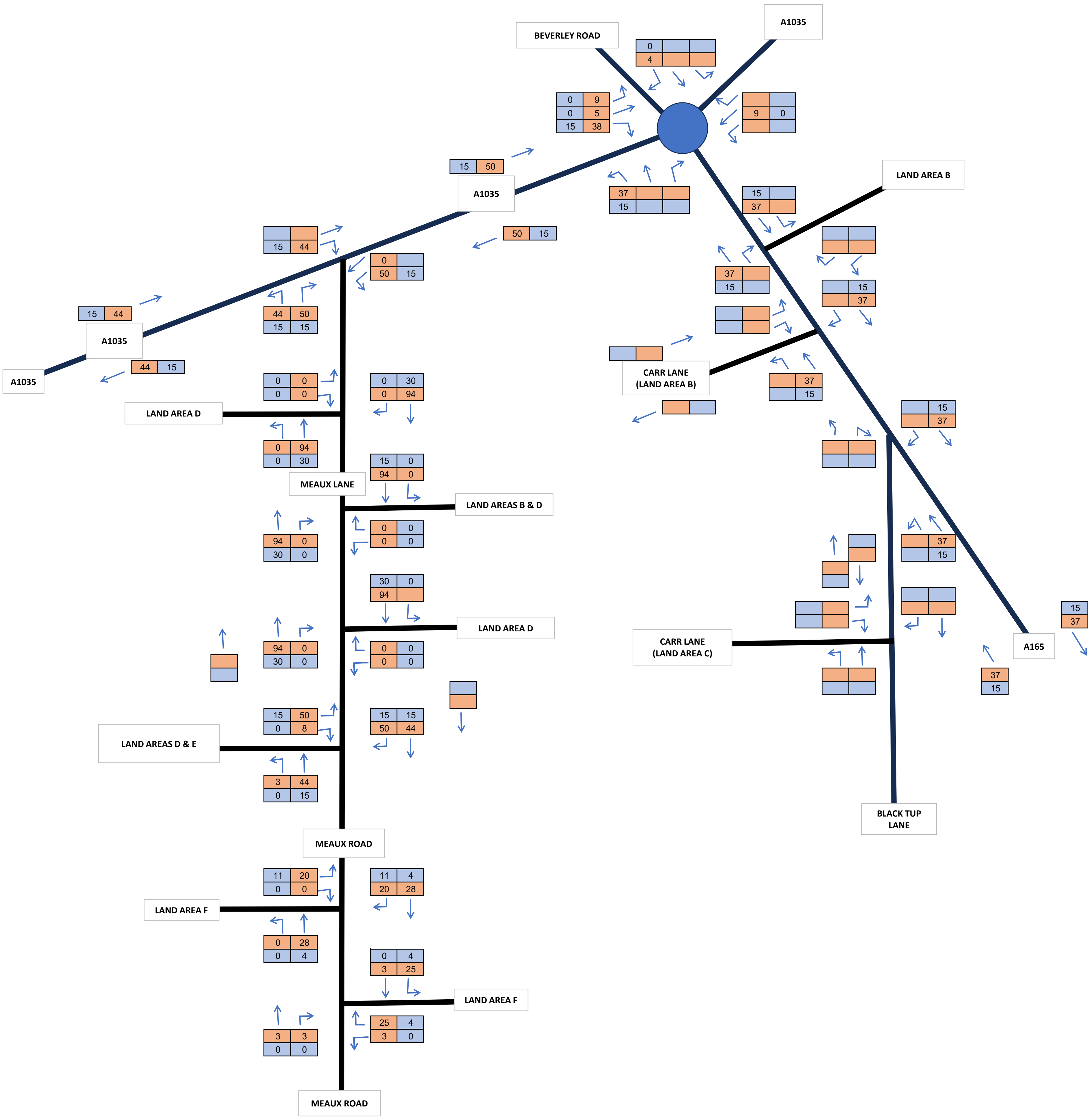
KEY

AADT Total Veh

AADT Total HGV

Notes

Phase 5 consists of Land Areas E & F and the grid connection cable works.
5 HGV and 5 LGV trips associated with the grid connection do not occur on the extent of the study area shown.
Phasing is indicative.
Traffic figures include staff and construction/delivery vehicles.

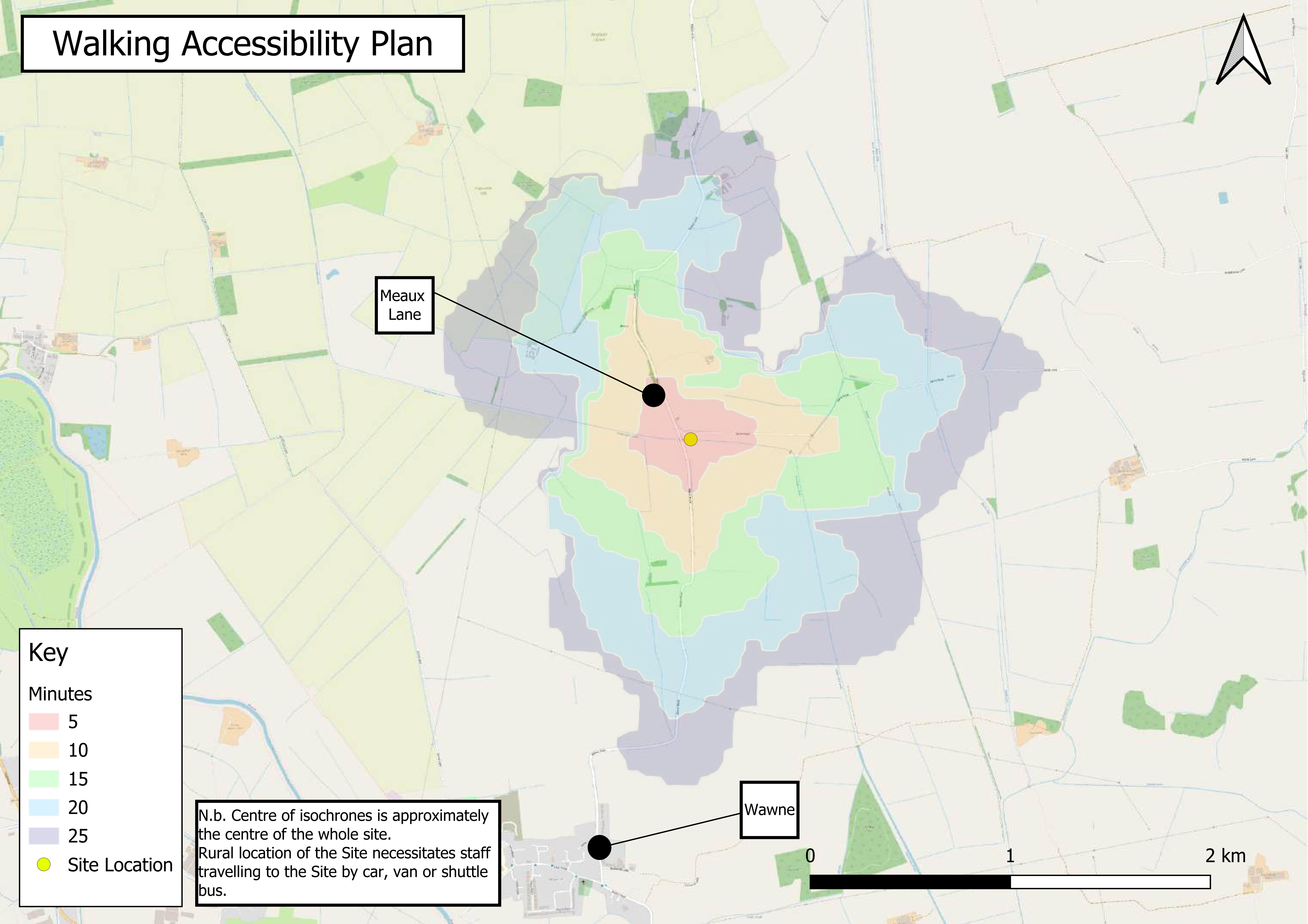


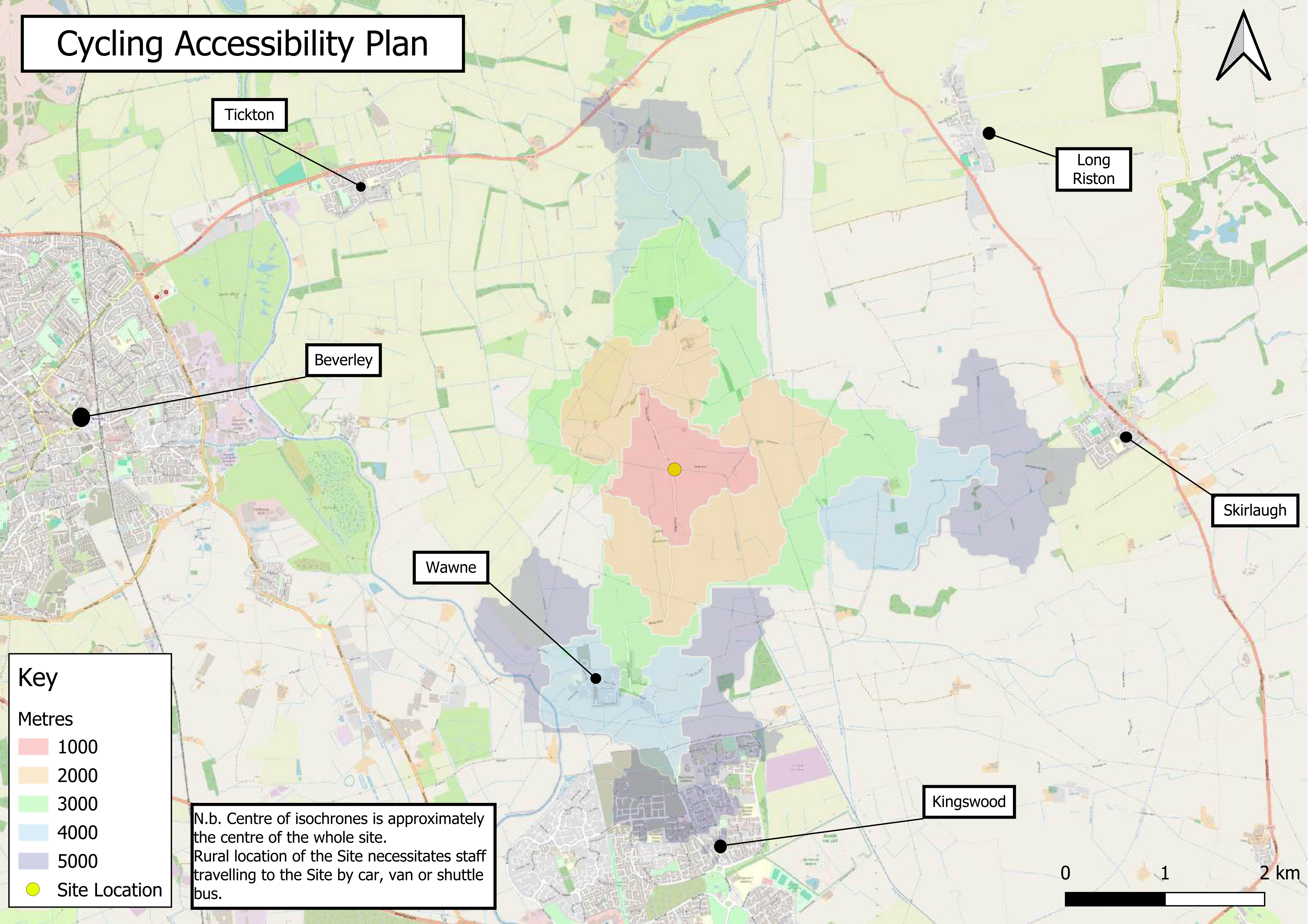
Phase 5 (Grid Connection and Land Areas E & F) - Total Trip Generation AADT	
Peartree Hill Solar Farm	
SCP TRANSPORT PLANNING INFRASTRUCTURE DESIGN an RSK company	22 October 2024
	Job Number - SCP/230483
	TRAFFIC FIGURE 54

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Traffic Diagrams\Peartree Hill Solar Farm - Traffic Flow Diagrams TA v0.2

APPENDIX F

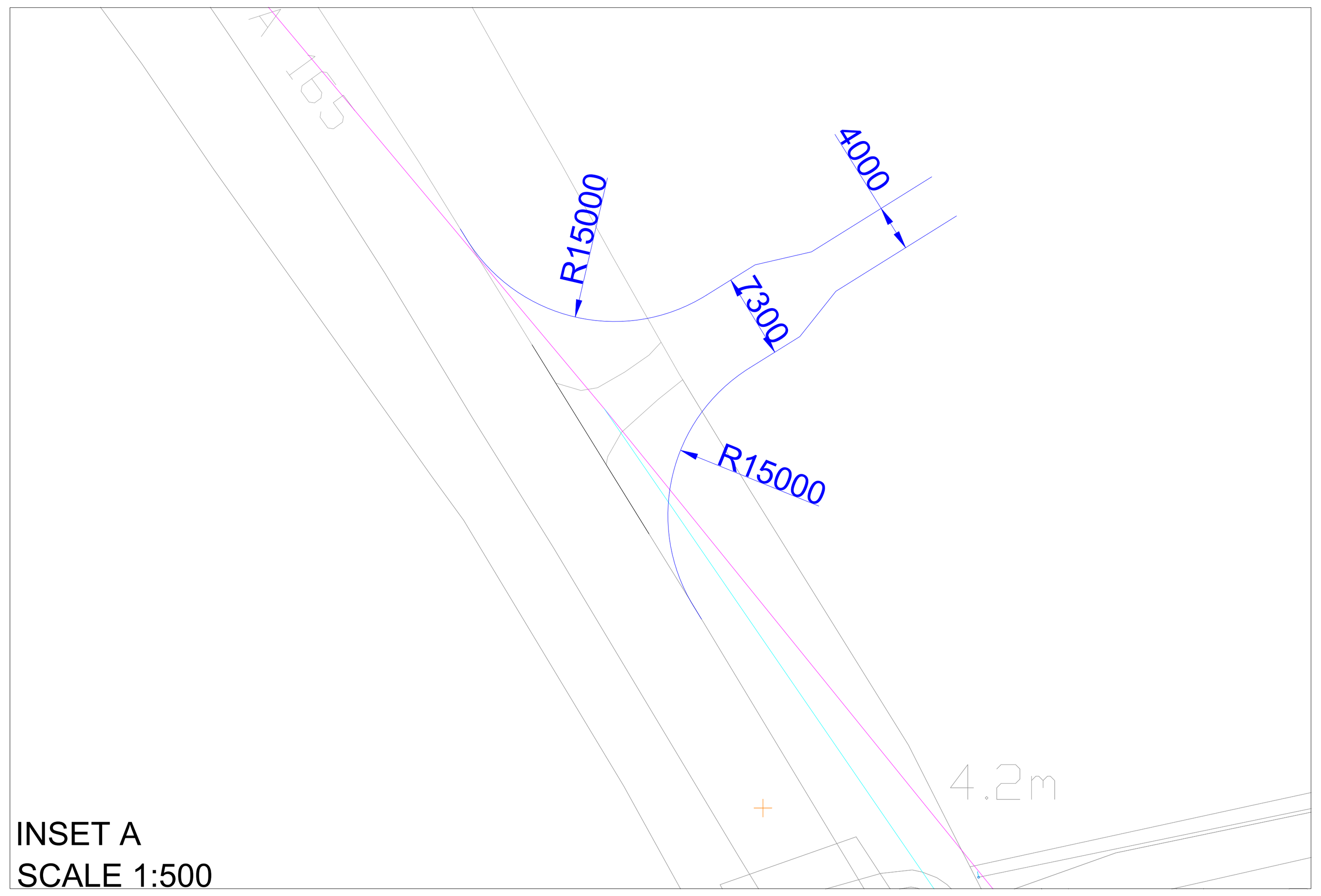
Accessibility Plans

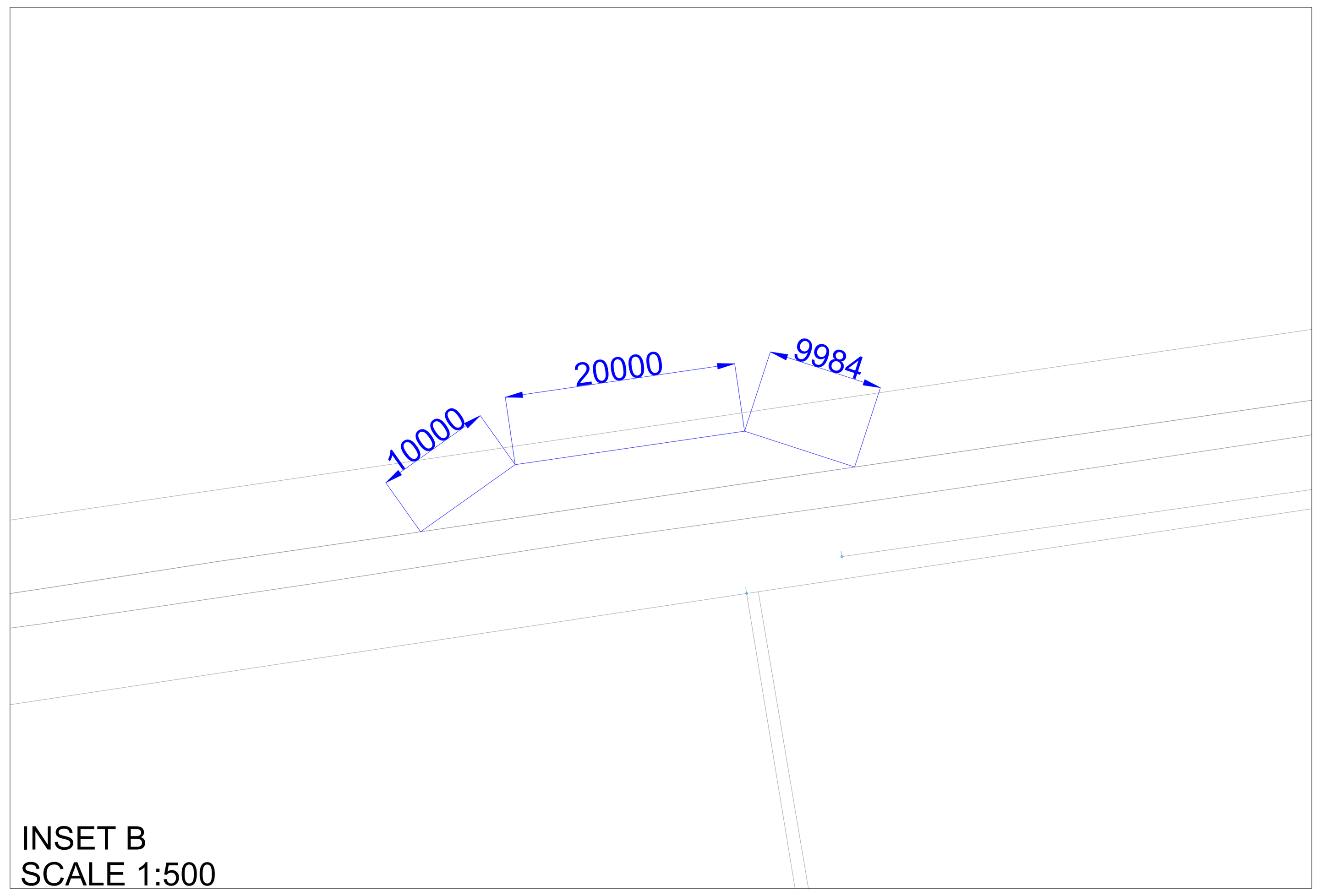

Walking Accessibility Plan
Meaux Lane
Wawne
Key
Minutes
5
10
15
20
25
Site Location
N.b. Centre of isochrones is approximately the centre of the whole site.
Rural location of the Site necessitates staff travelling to the Site by car, van or shuttle bus.
0
1
2 km

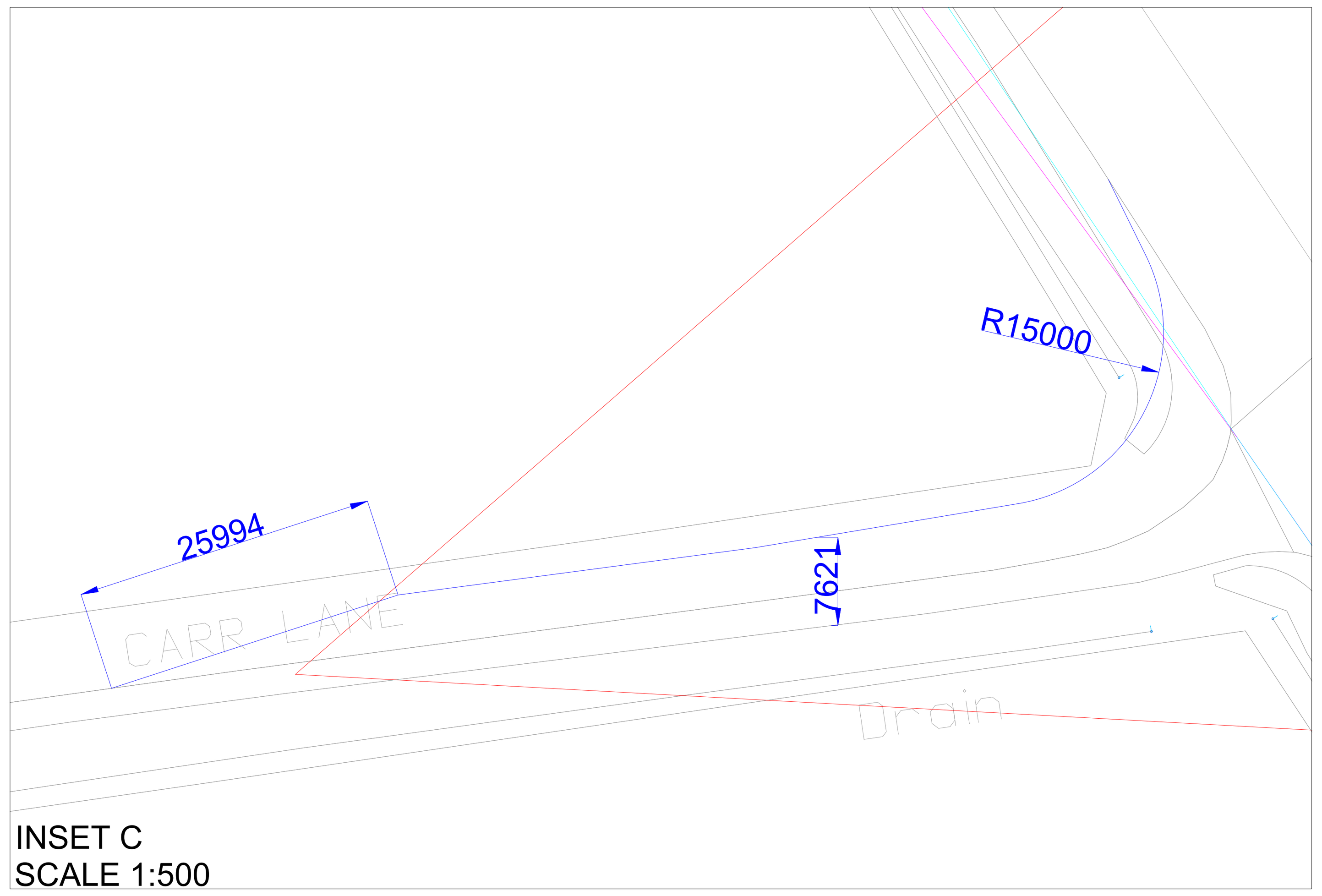

Cycling Accessibility Plan
Tickton
Long Riston
Beverley
Skirlaugh
Wawne
Kingswood
Key
Metres
1000
2000
3000
4000
5000
Site Location
N.b. Centre of isochrones is approximately the centre of the whole site.
Rural location of the Site necessitates staff travelling to the Site by car, van or shuttle bus.
0
1
2 km

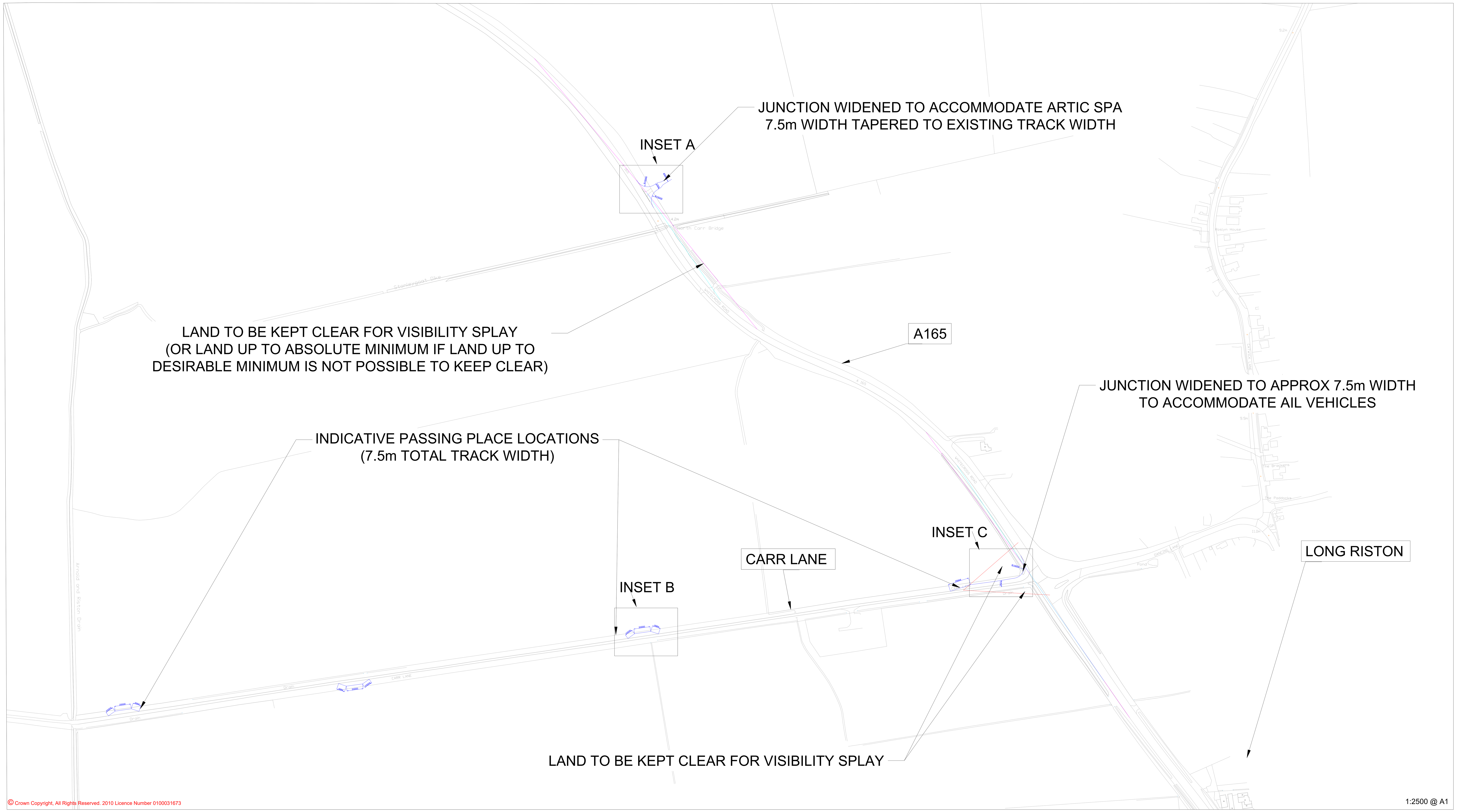
APPENDIX G

Access Junctions and Highway Mitigation Plans





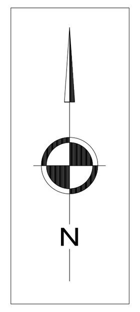




NOTES

KEY

- PROPOSED EDGE OF CARRIAGEWAY
- DESIRABLE MINIMUM VISIBILITY SPLAY (2.4m x 215.0m)
- ABSOLUTE MINIMUM VISIBILITY SPLAY (2.4m x 160.0m)
- FORWARD VISIBILITY SPLAY



REVISIONS

REV	DESCRIPTION	DATE	BY
–	FIRST ISSUE	19.01.24	CGQ
A	UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING DISCUSSIONS WITH ERYC HIGHWAYS	21.06.24	AT
B	ACCESS DIMENSION AMENDMENTS	31.07.24	LD
C	UPDATED FOR MEAUX LANE LWS	27.08.24	LD
D	UPDATED PASSING PLACE ON ARNOLD LANE WEST	30.09.24	CGQ
E	CLIENT LOGO INSERTED	30.10.24	LD

S C P
Transportation Planning : Infrastructure Design

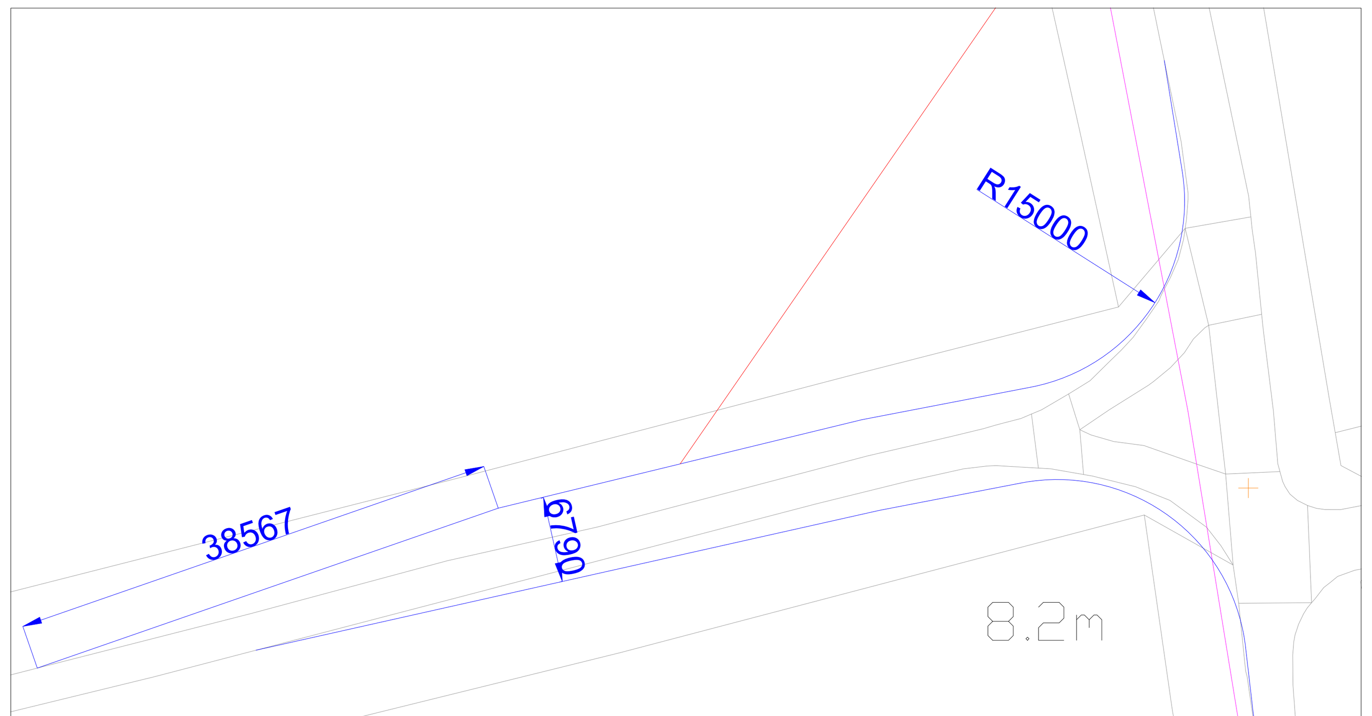
Client Name:
RWE

Project Title:
PEARTREE HILL SOLAR FARM

Drawing Title:
LAND AREA B
ACCESS JUNCTION AND PASSING PLACES
PRELIMINARY DESIGN

Date: 19.01.2024		Drawn By: CGQ	
Scale: AS SPECIFIED		Checked: JP	
Status: DCO APPLICATION		Approved: JP	
Drawing No. SCP/230483/SK13		Rev. E	

INSET A
SCALE 1:500



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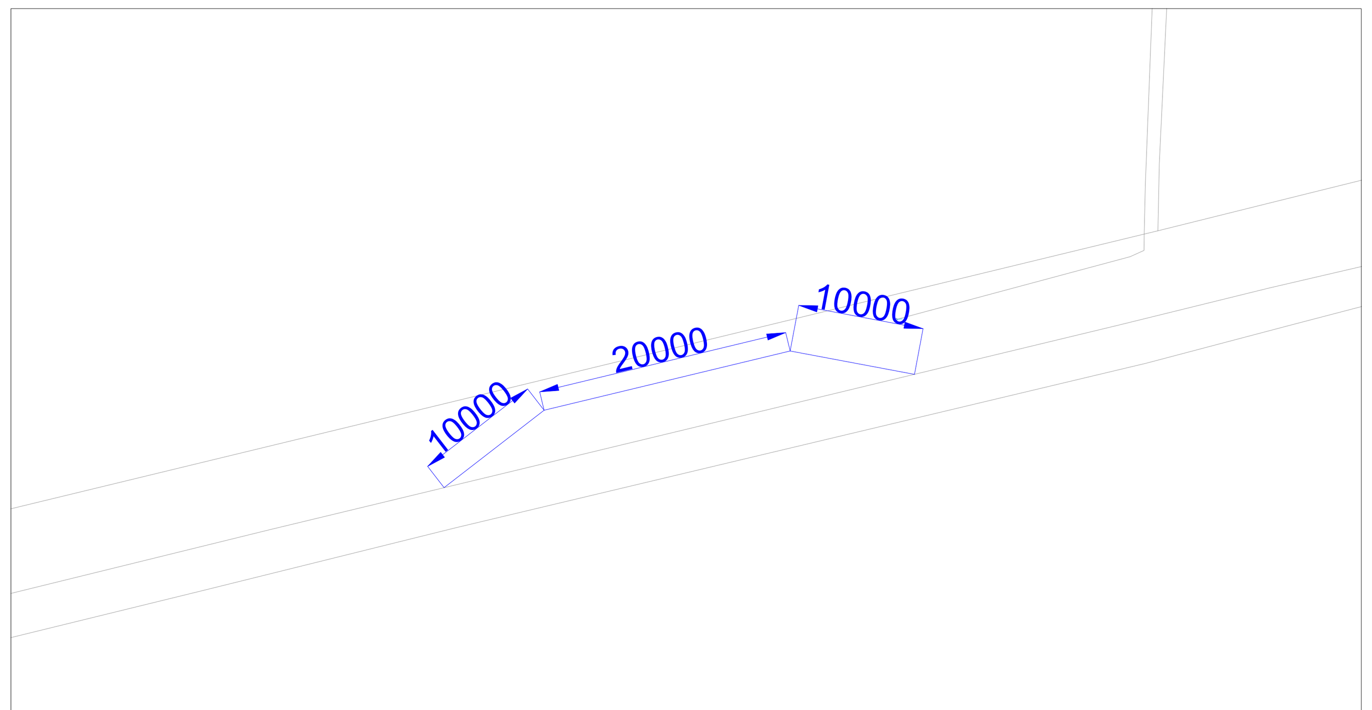
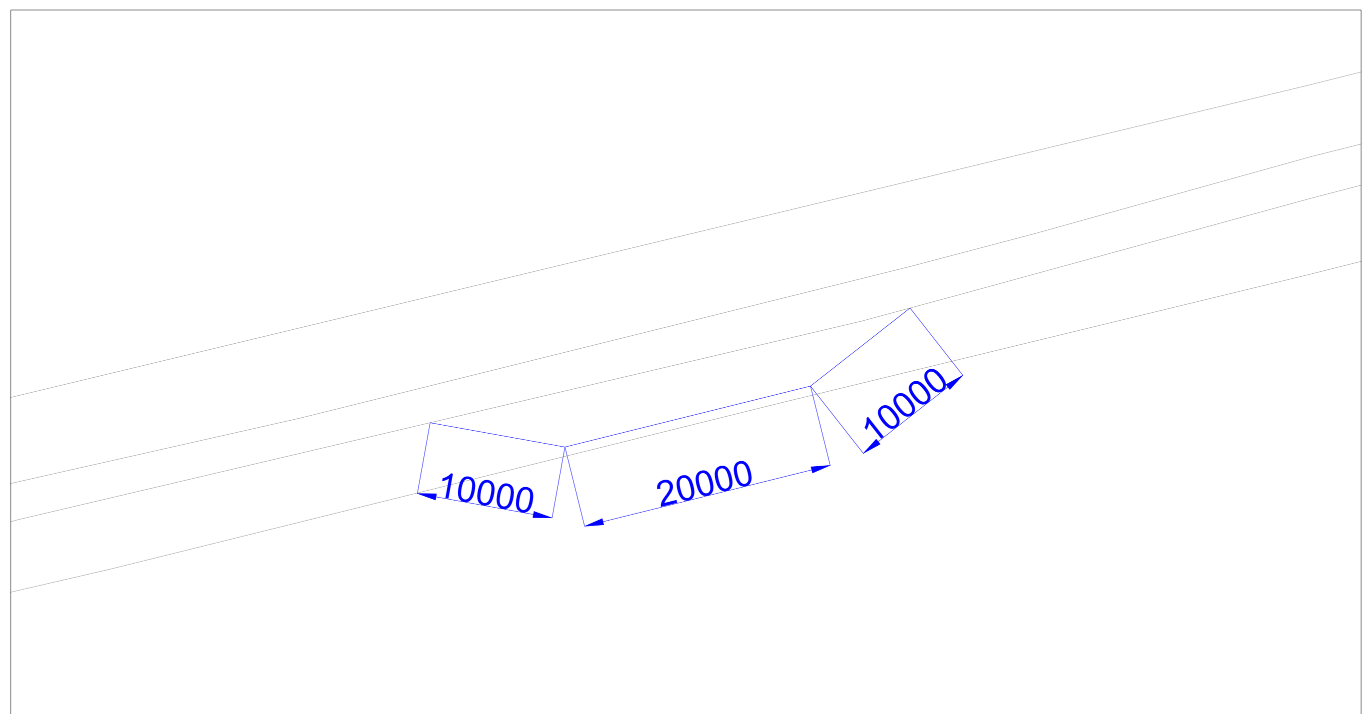
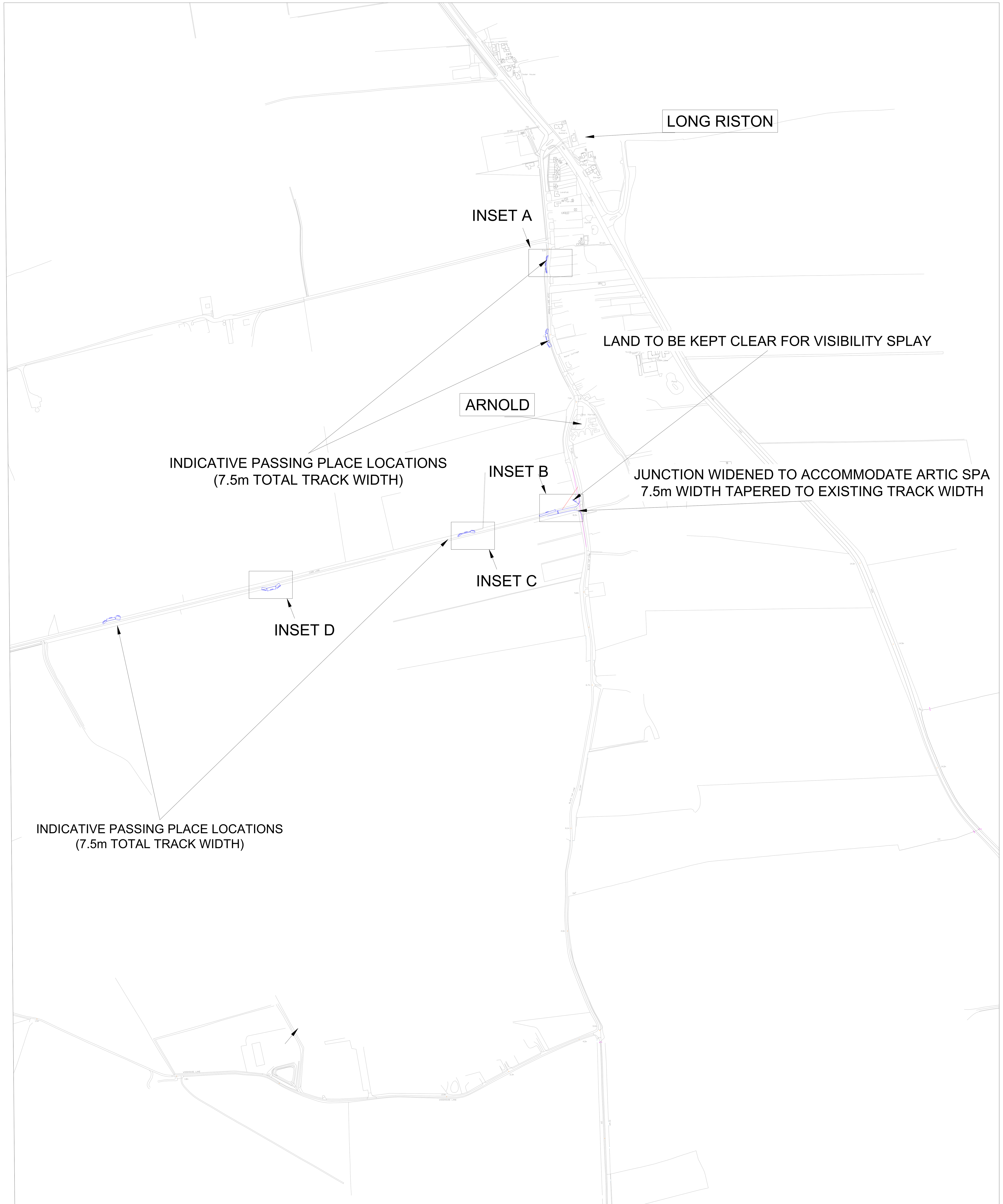
SCALE 1:500



INSET C
SCALE 1:500



INSET D
SCALE 1:500



SCALE: 1:5000 @ A1

NOTES

KEY

- PROPOSED EDGE OF CARRIAGEWAY
- DESIRABLE MINIMUM VISIBILITY SPLAY (2.4m x 90.0m)
- ABSOLUTE MINIMUM VISIBILITY SPLAY (2.4m x 70.0m)
- FORWARD VISIBILITY SPLAY

N

REVISIONS

REV	DESCRIPTION	DATE	BY
–	FIRST ISSUE	19.01.24	CGQ
A	UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING DISCUSSIONS WITH ERYC HIGHWAYS	21.06.24	AT
B	UPDATED PASSING PLACE SPECIFICATIONS	26.07.24	LD
C	UPDATED FOR MEAUX LANE LWS	27.08.24	LD
D	UPDATED PASSING PLACE ON ARNOLD LANE WEST	30.09.24	CGQ
E	CLIENT LOGO INSERTED	30.10.24	LD

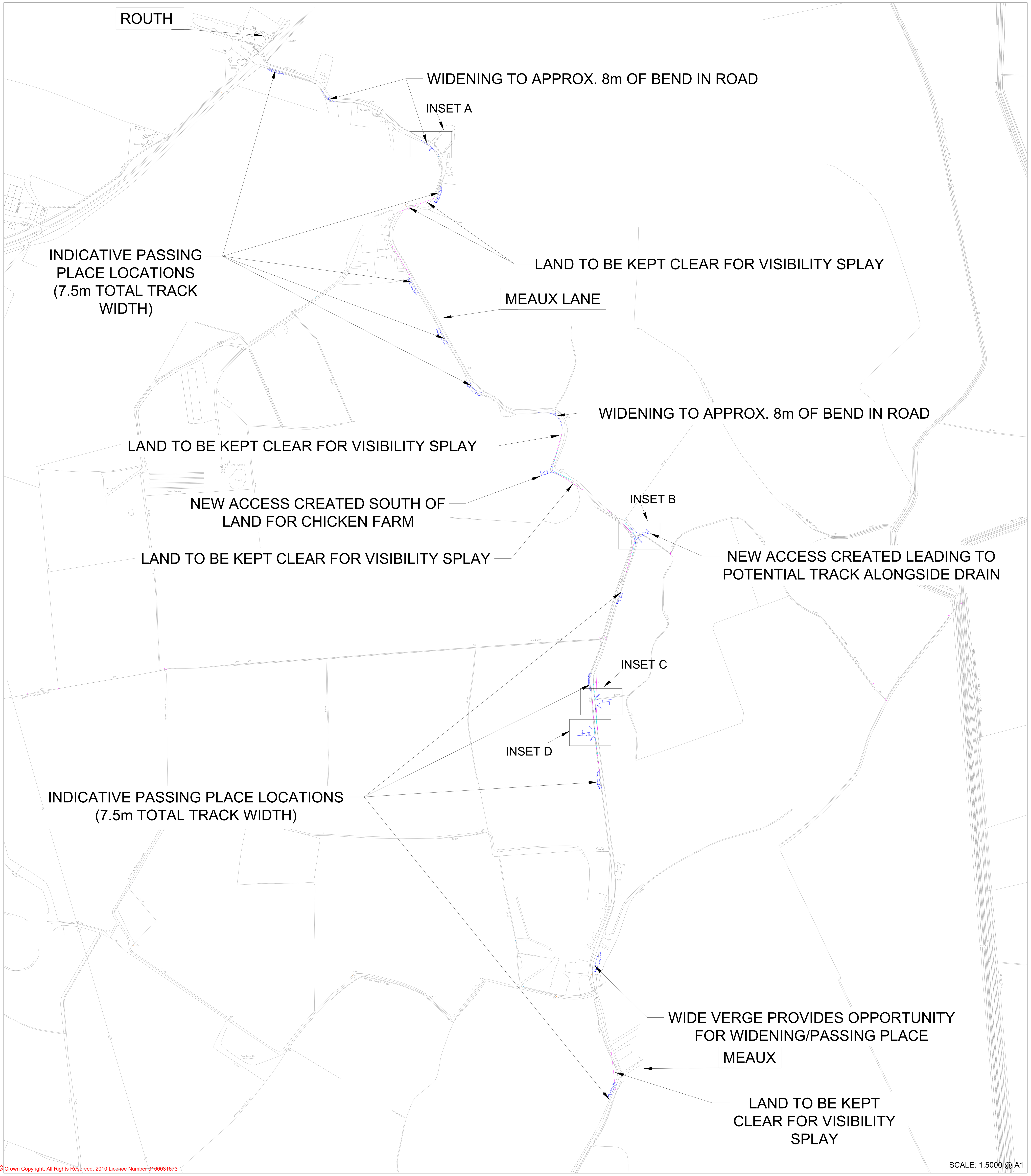
S|C|P
Transportation Planning : Infrastructure Design

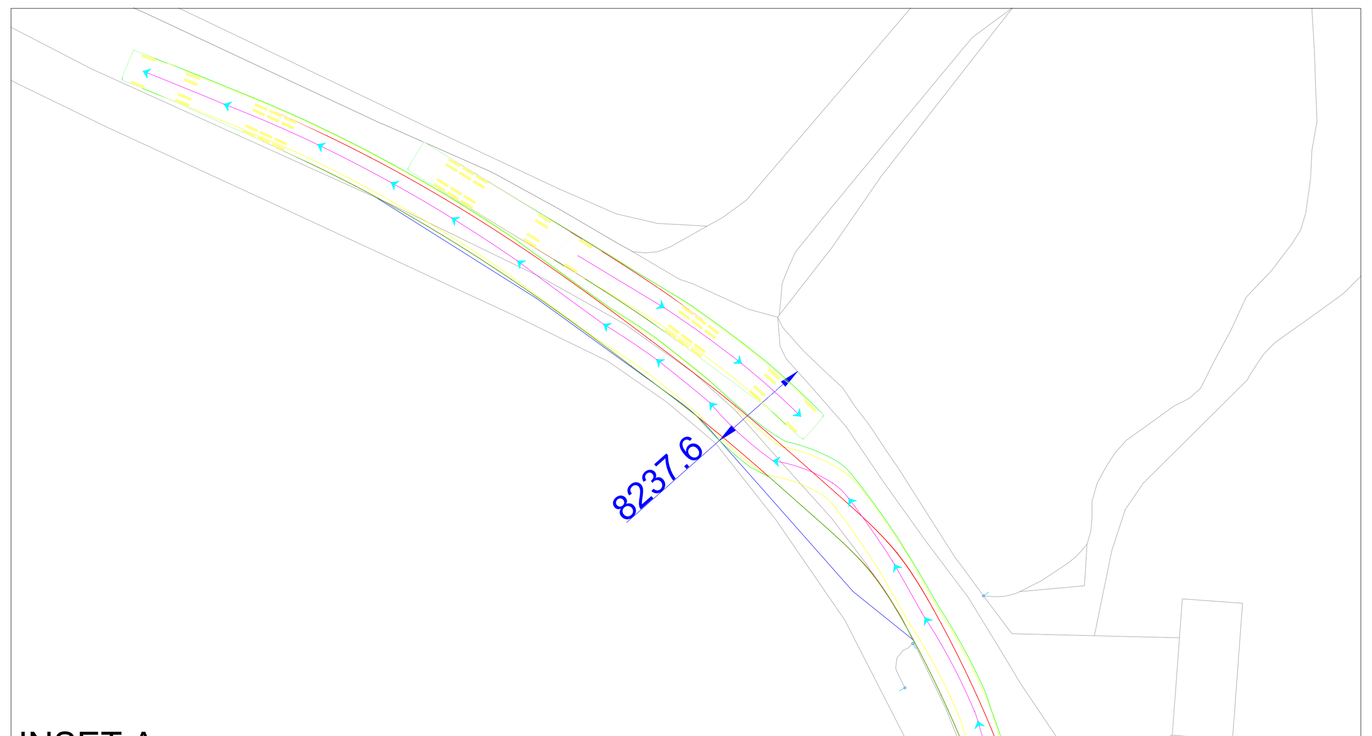
Client Name:
RWE

Project Title:
PEARTREE HILL SOLAR FARM

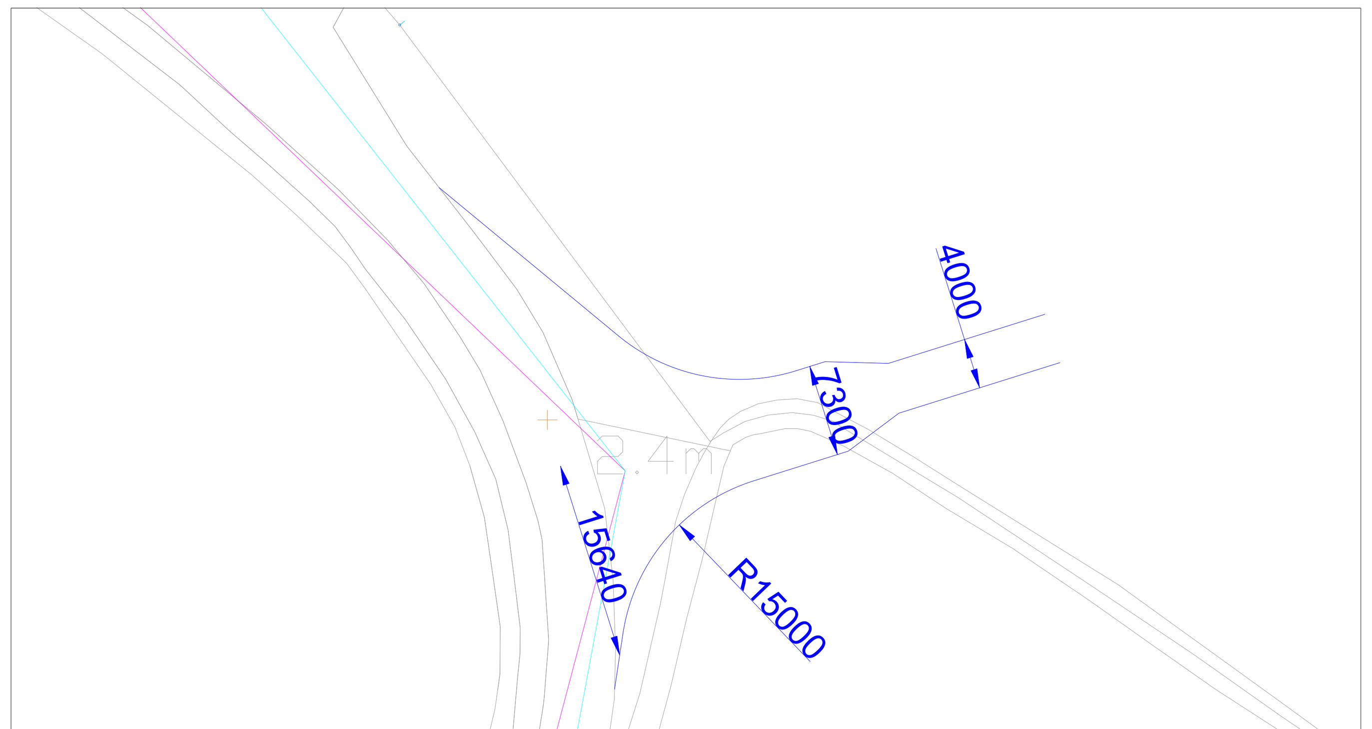
Drawing Title:
LAND AREA C
ACCESS JUNCTIONS AND PASSING PLACES
PRELIMINARY DESIGN

Date:	19.01.2024	Drawn By:	CGQ
Scale:	AS SPECIFIED	Checked:	JP
Status:	DCO APPLICATION	Approved:	JP
Drawing No.	SCP/230483/SK14	Rev.	E

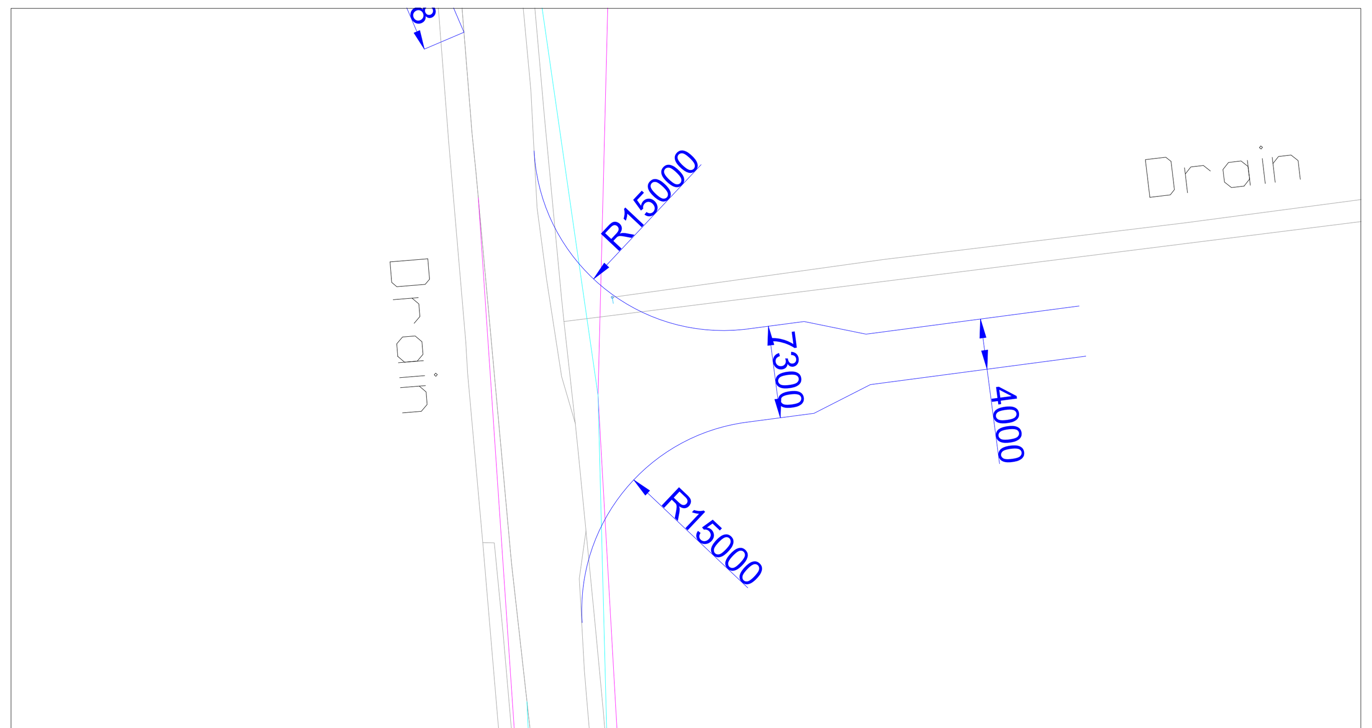




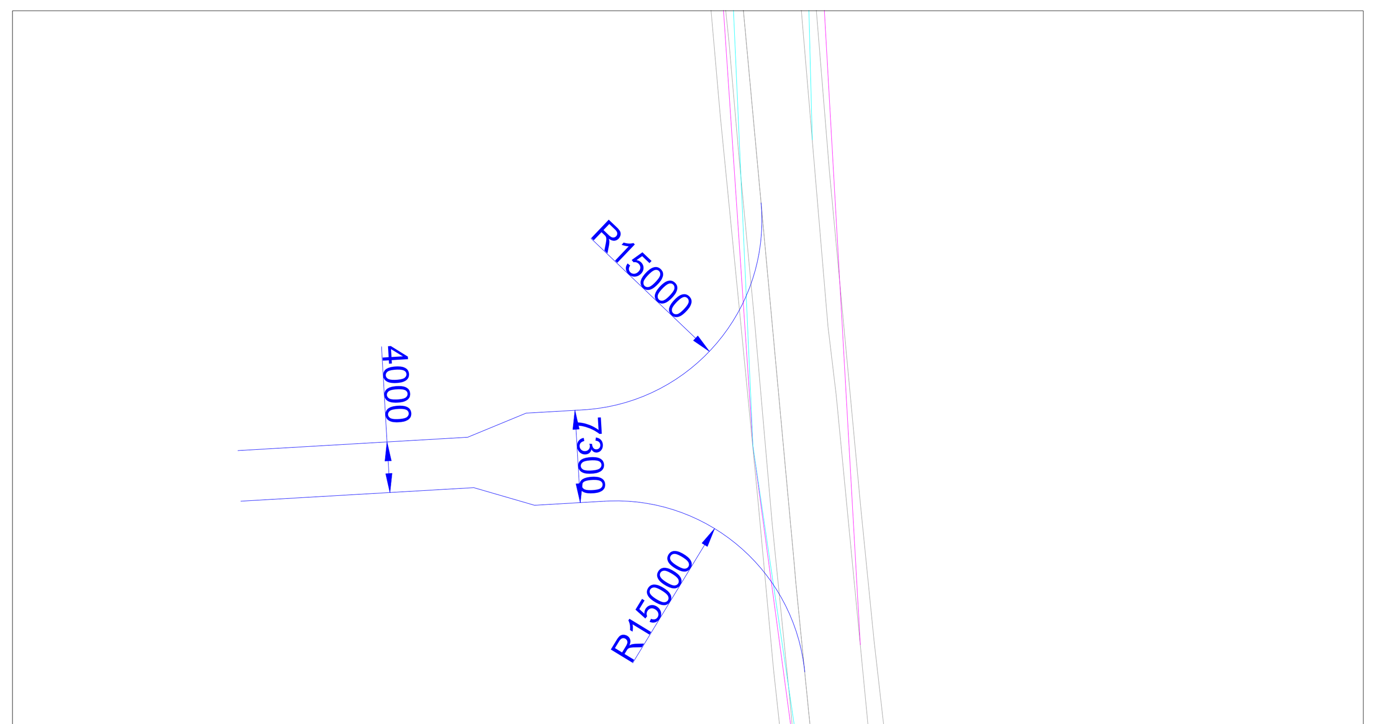
INSET A
SCALE 1:500



INSET B
SCALE 1:500



INSET C
SCALE 1:500



INSET D
SCALE 1:500

NOTES

KEY

- PROPOSED EDGE OF CARRIAGEWAY
- EXISTING 40mph VISIBILITY SPLAY (2.4m x 90.0m)
- PROPOSED 30mph SPEED REDUCTION VISIBILITY SPLAY (2.4m x 90.0m)
- FORWARD VISIBILITY SPLAY

N

REVISIONS

REV	DESCRIPTION	DATE	BY
-	FIRST ISSUE	19.01.24	CGQ
A	UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING DISCUSSIONS WITH ERYC HIGHWAYS	21.06.24	AT
B	ADDITIONAL ACCESS LOCATIONS	26.07.24	LD
C	UPDATED FOR MEAUX LANE LWS	27.08.24	LD
D	UPDATED PASSING PLACE ON ARNOLD LANE WEST	30.09.24	CGQ
E	CLIENT LOGO INSERTED	30.10.24	LD

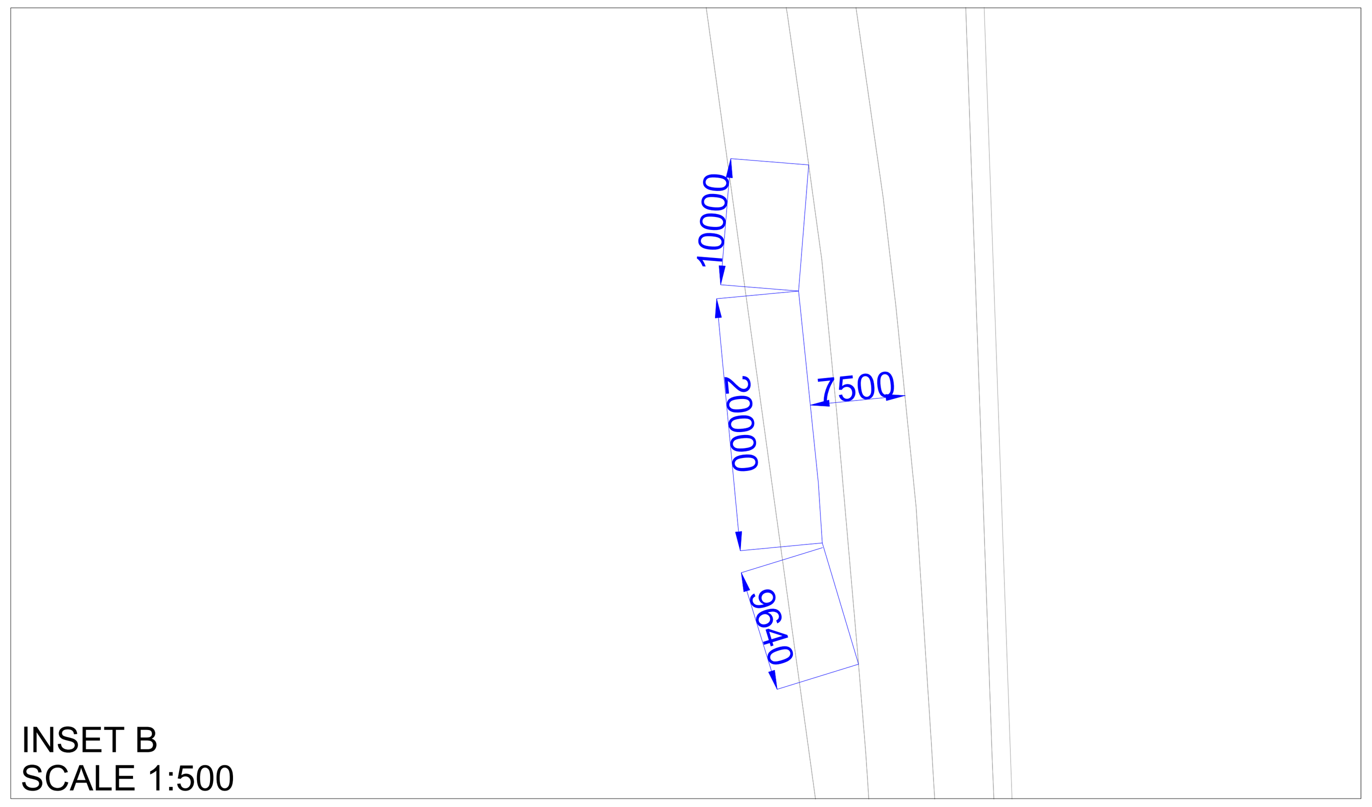
SCP
Transportation Planning : Infrastructure Design

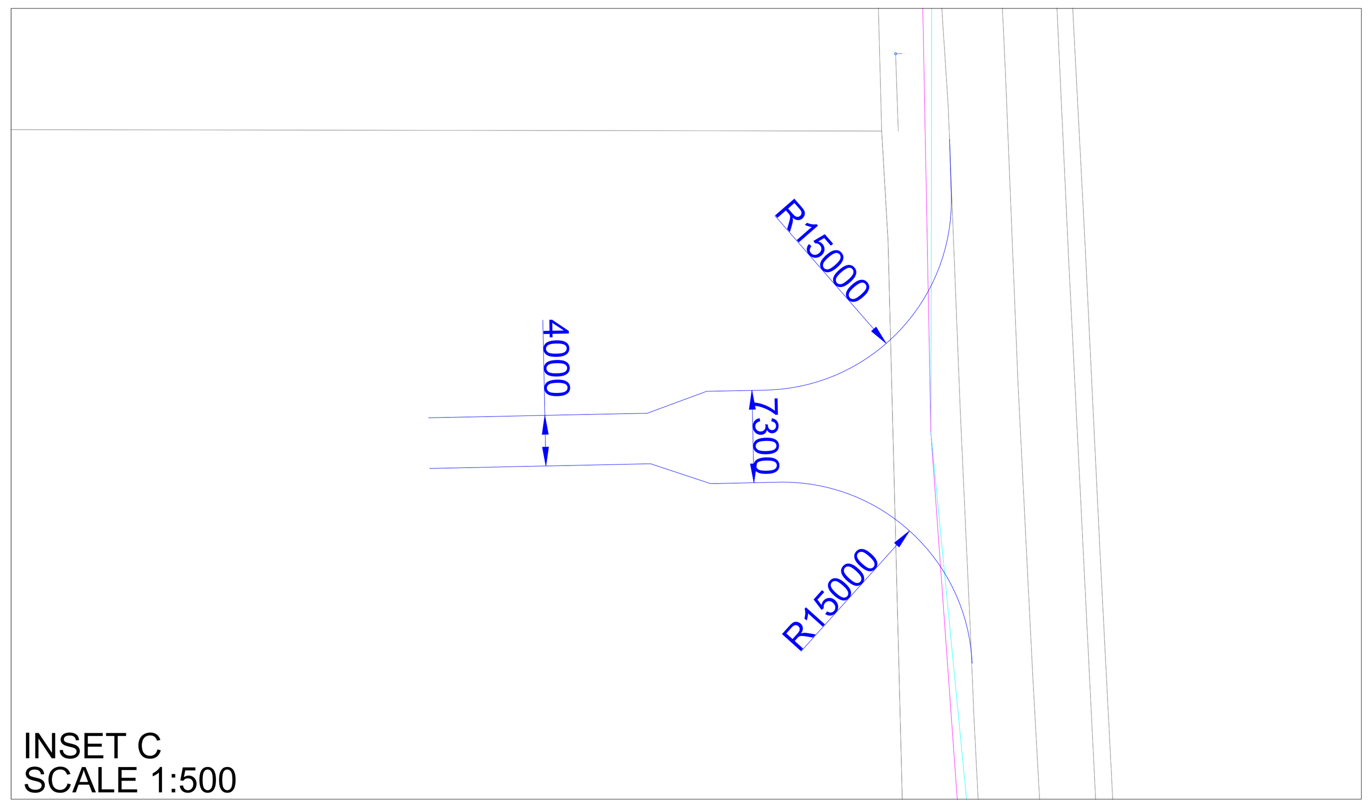
Client Name:
RWE

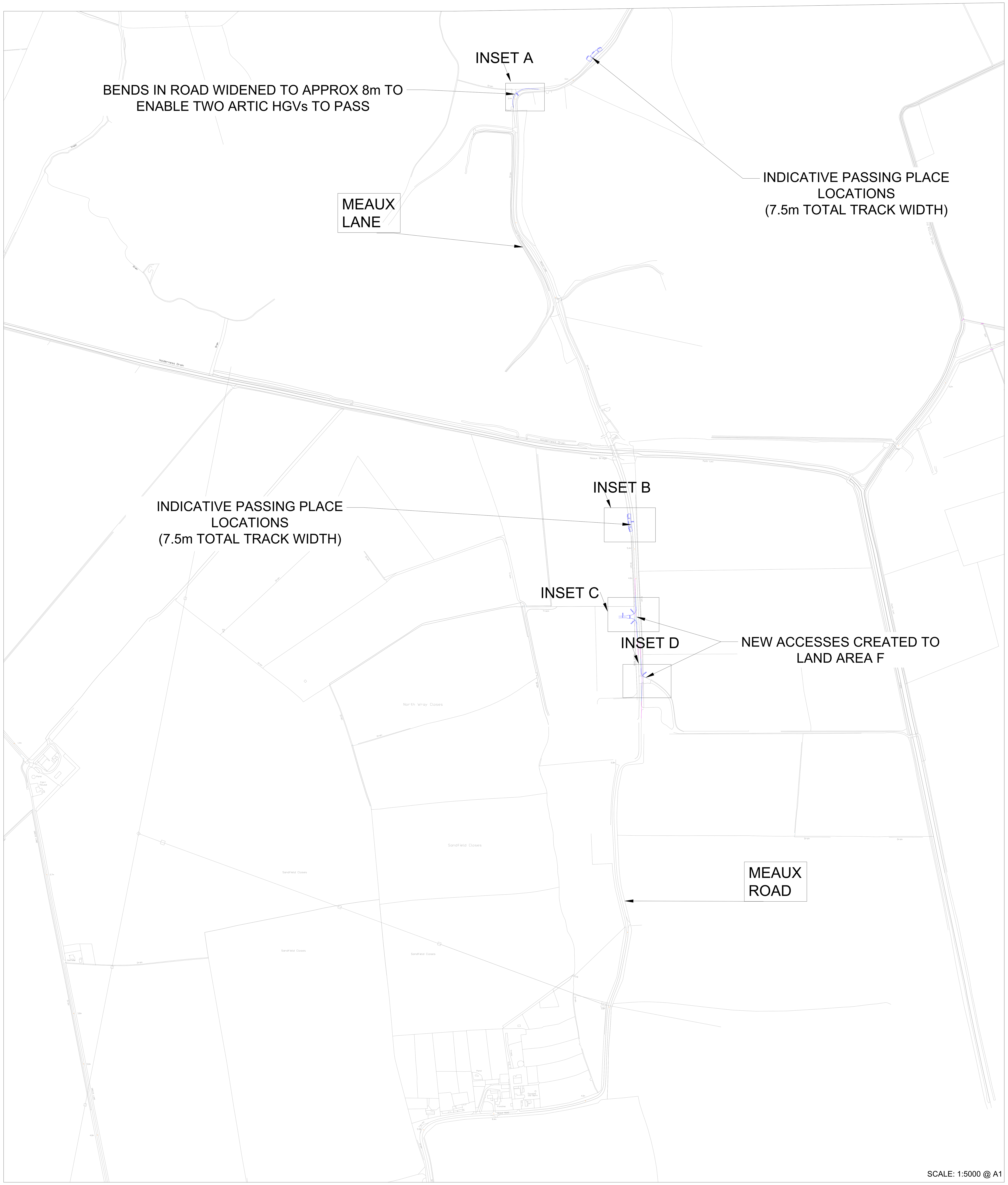
Project Title:
PEARTREE HILL SOLAR FARM

Drawing Title:
LAND AREA D
ACCESS JUNCTIONS AND PASSING PLACES
PRELIMINARY DESIGN

Date: 19.01.2024	Drawn By: CGQ
Scale: AS SPECIFIED	Checked: JP
Status: DCO APPLICATION	Approved: JP
Drawing No. SCP/230483/SK15	Rev. E







SCALE: 1:5000 @ A1

NOTES

KEY

- PROPOSED EDGE OF CARRIAGEWAY
- EXISTING 40mph VISIBILITY SPLAY (2.4m x 90.0m)
- PROPOSED 30mph SPEED REDUCTION VISIBILITY SPLAY (2.4m x 90.0m)
- FORWARD VISIBILITY SPLAY

REVISIONS

REV	DESCRIPTION	DATE	BY
–	FIRST ISSUE	19.01.24	CGQ
A	UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING DISCUSSIONS WITH ERYC HIGHWAYS	21.06.24	AT
B	VISIBILITY SPLAY AND ACCESS DIMENSION AMENDMENTS	31.07.24	LD
C	UPDATED FOR MEAUX LANE LWS	27.08.24	LD
D	UPDATED PASSING PLACE ON ARNOLD LANE WEST	30.09.24	CGQ
E	CLIENT LOGO INSERTED	30.10.24	LD
F	AMENDED ACCESS TO AREA F	02.12.24	CGQ

S|C|P
Transportation Planning : Infrastructure Design

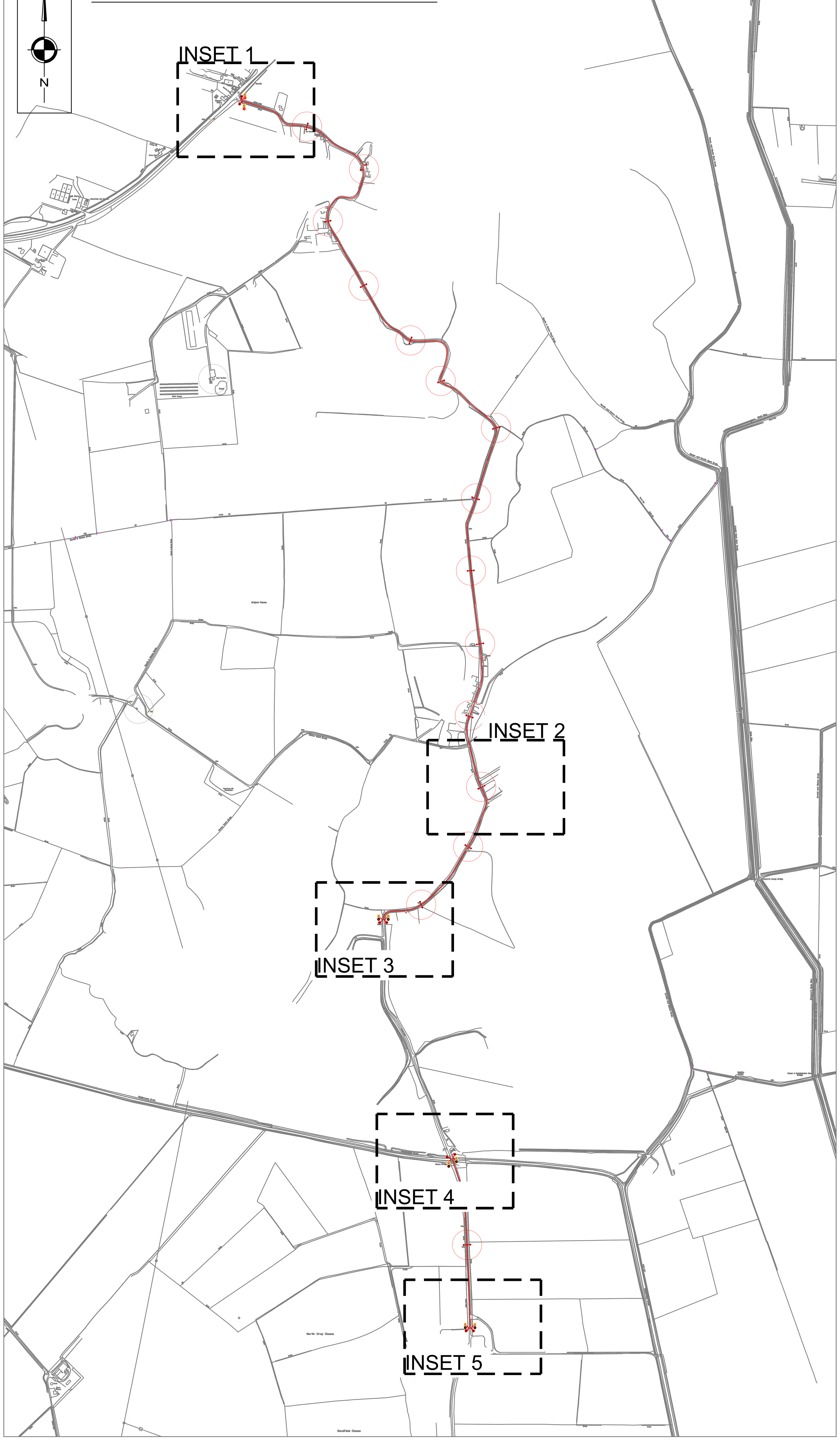
Client Name:
RWE

Project Title:
PEARTREE HILL SOLAR FARM

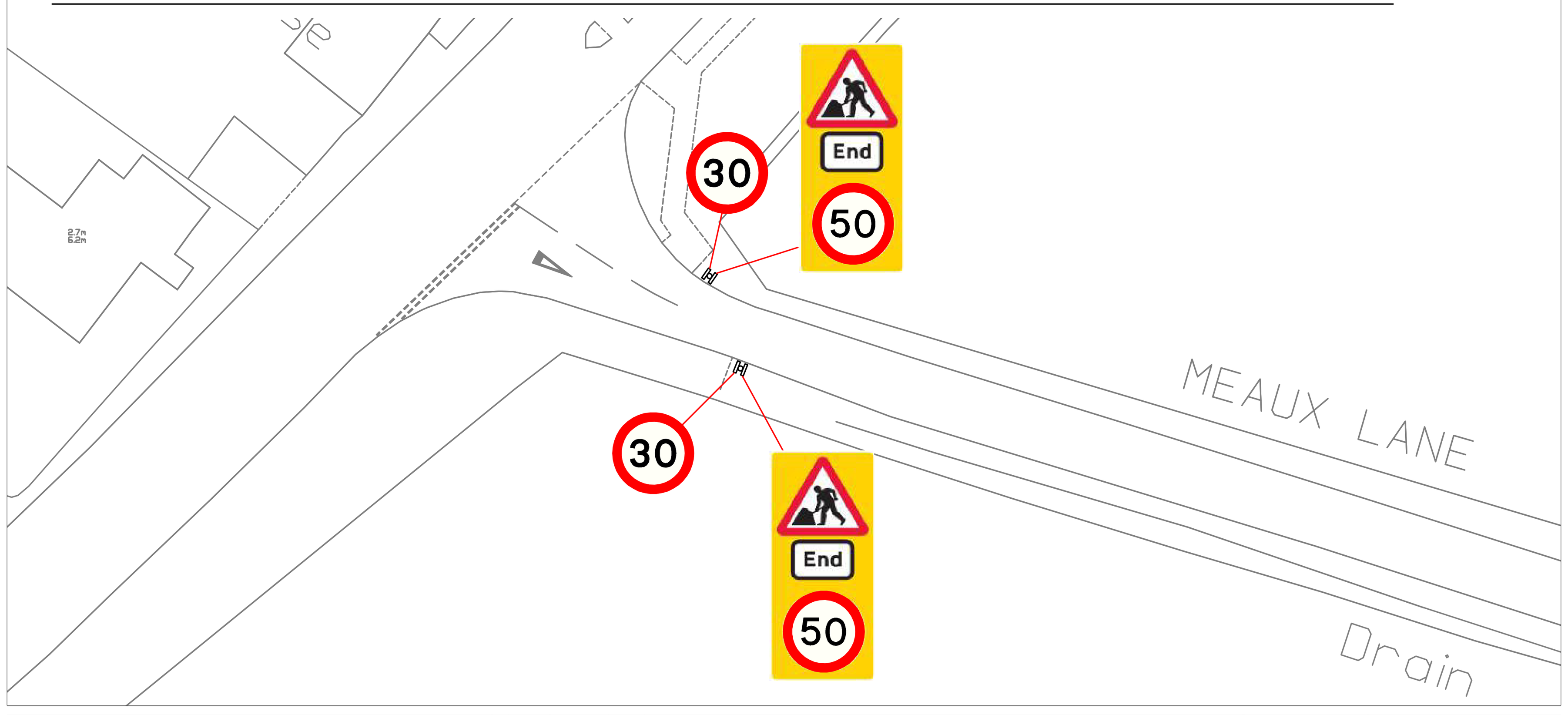
Drawing Title:
LAND AREA F
ACCESS JUNCTIONS AND PASSING PLACES
PRELIMINARY DESIGN

Date:	19.01.2024	Drawn By:	CGQ
Scale:	AS SPECIFIED	Checked:	JP
Status:	DCO APPLICATION	Approved:	JP
Drawing No.	SCP/230483/SK16	Rev.	F

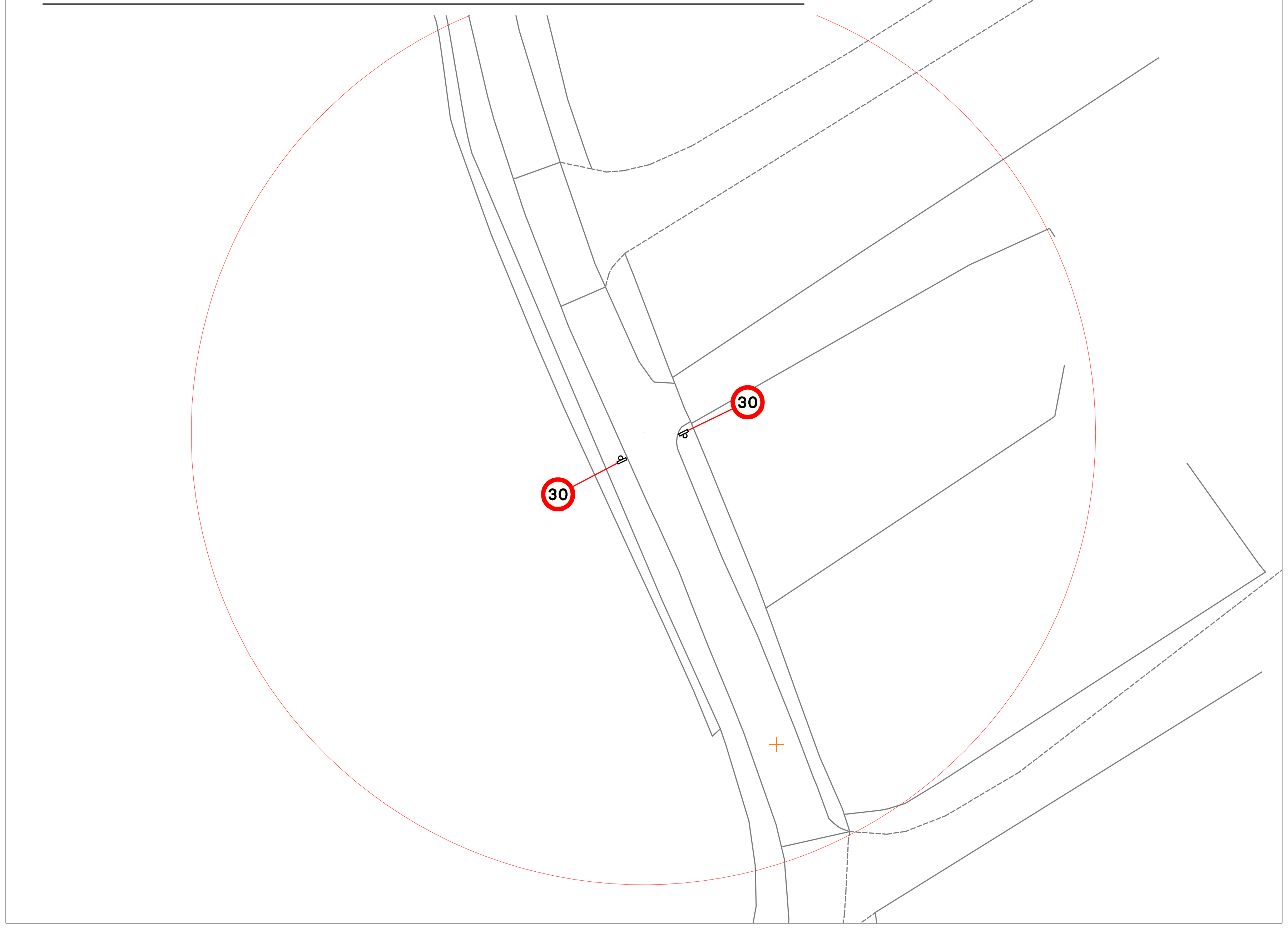
GENERAL ARRANGEMENT - 1:5000



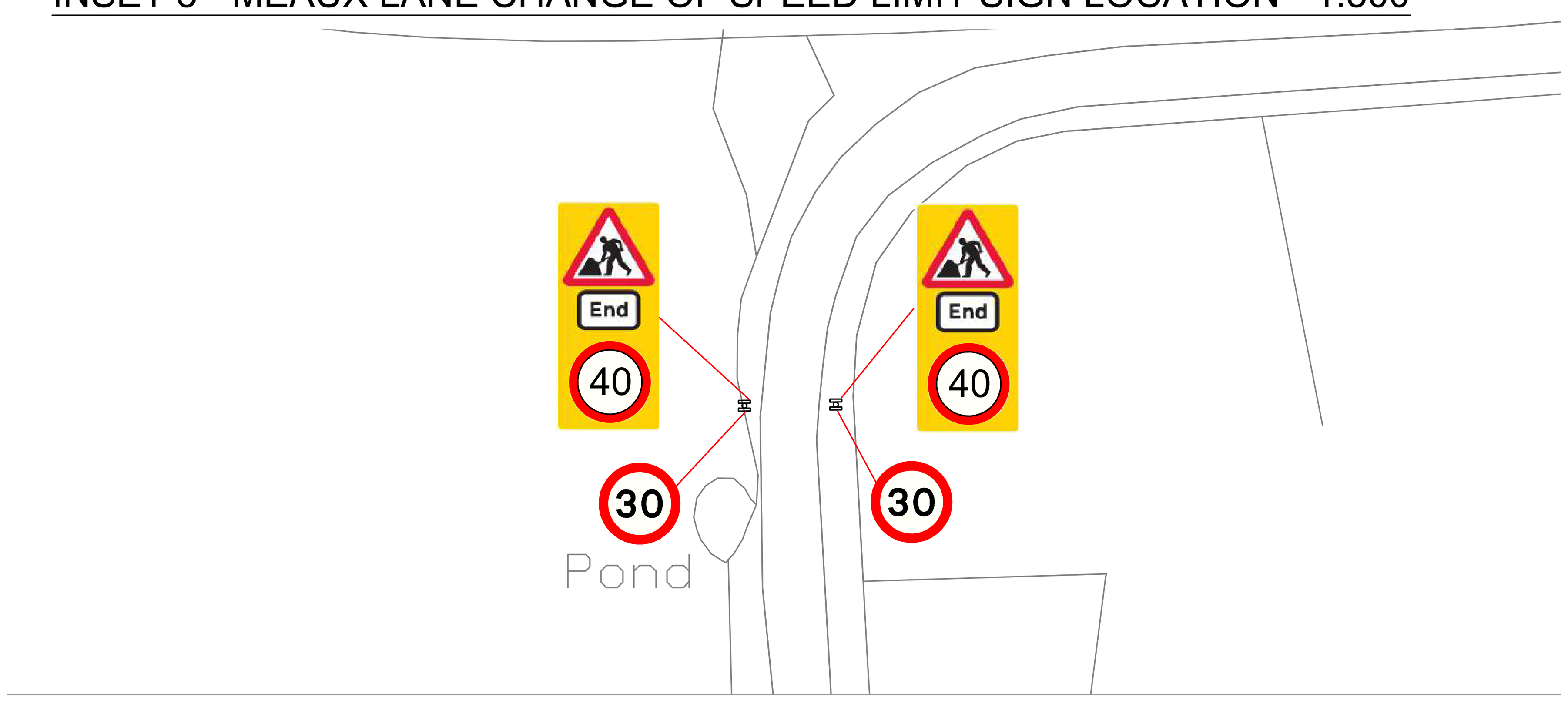
INSET 1 - MEAUX LANE JCT OF A1035 TERMINAL SIGN LOCATION - 1:500



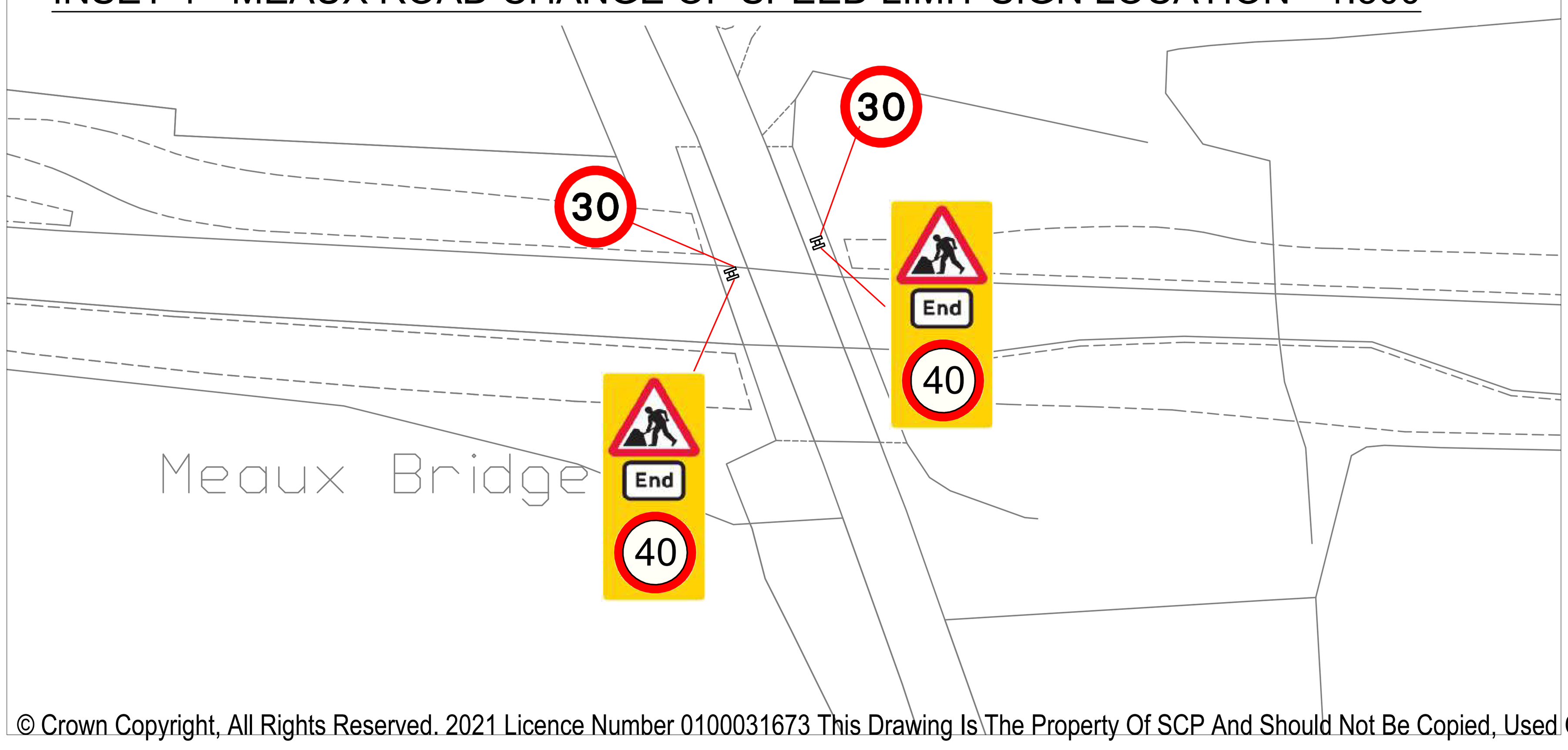
INSET 2 - ALTERNATING REPEATER SIGNS - 1:500



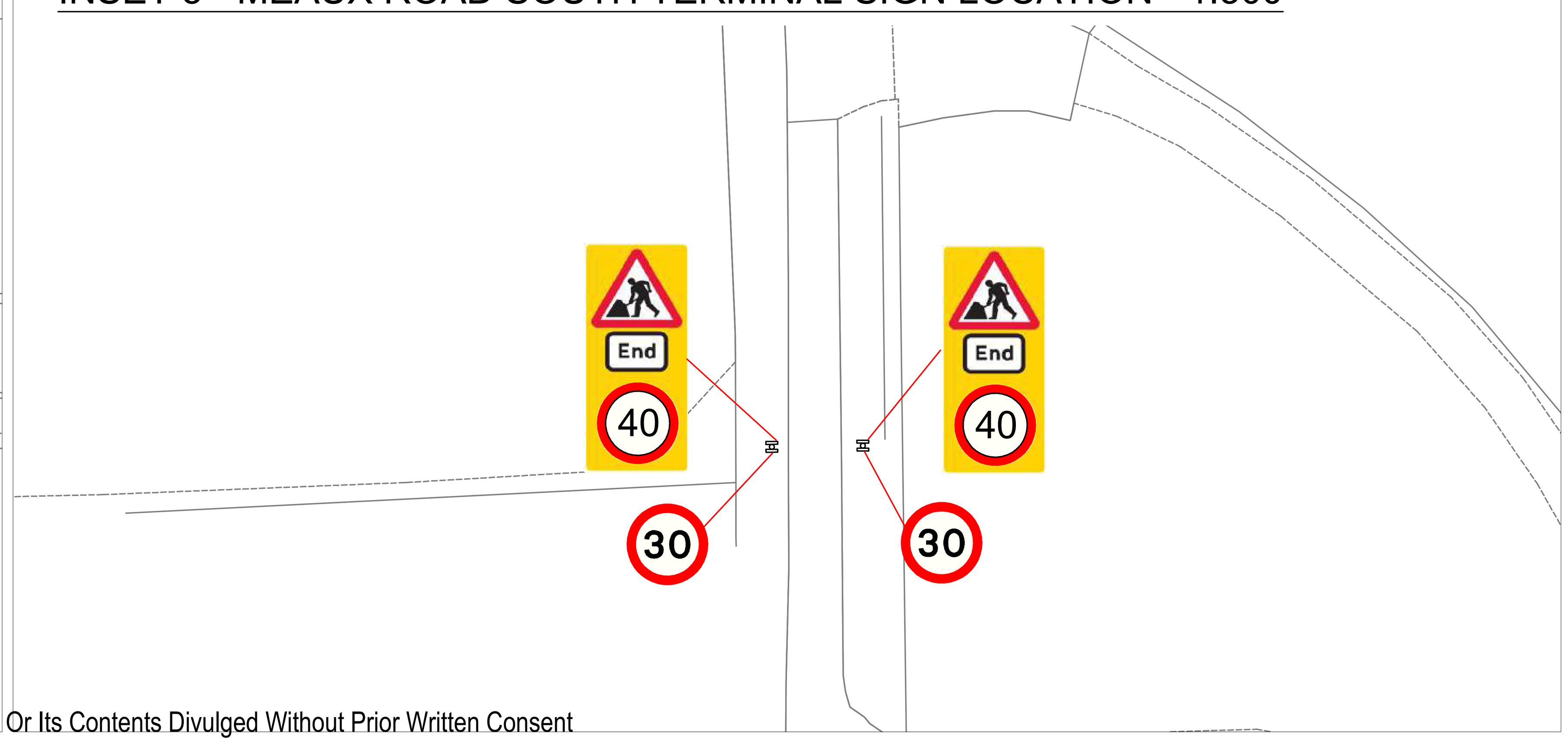
INSET 3 - MEAUX LANE CHANGE OF SPEED LIMIT SIGN LOCATION - 1:500



INSET 4 - MEAUX ROAD CHANGE OF SPEED LIMIT SIGN LOCATION - 1:500



INSET 5 - MEAUX ROAD SOUTH TERMINAL SIGN LOCATION - 1:500



NOTES

- EXTENT OF TTRO WORKS.
- INDICATIVE REPEATER SIGN LOCATIONS AT A 250m SEPARATION DISTANCE.

EXISTING CONFLICTING SIGNAGE TO BE SPRAYED OFF.

AS PER TSM CHAPTER 8 - TABLE 3.4:
- CONSECUTIVE REPEATER SIGNS TO BE POSITIONED AT A MAXIMUM DISTANCE OF 250m BETWEEN ALTERNATING SIDES OF CARRIAGEWAY.
- SIZE OF TERMINAL SIGNS TO BE 750mm.
- SIZE OF REPEATER SIGNS TO BE 600mm.

REVISIONS

REV	DESCRIPTION	DATE	BY
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B	AMEND EXTENT OF SPEED LIMIT REDUCTION	02.12.24	CGQ
A	CLIENT LOGO UPDATED	30.10.24	LD

Drawn By: LD	Date: 21.10.2024
Checked: CGQ	Scale@A1: AS STATED
Approved: JP	Status: PLANNING

SCP
an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: EN010157/APP/2.9 - TEMPORARY SPEED LIMIT REDUCTION, MEAUX LANE

Drawing No. SCP/230483/D01

Rev. B

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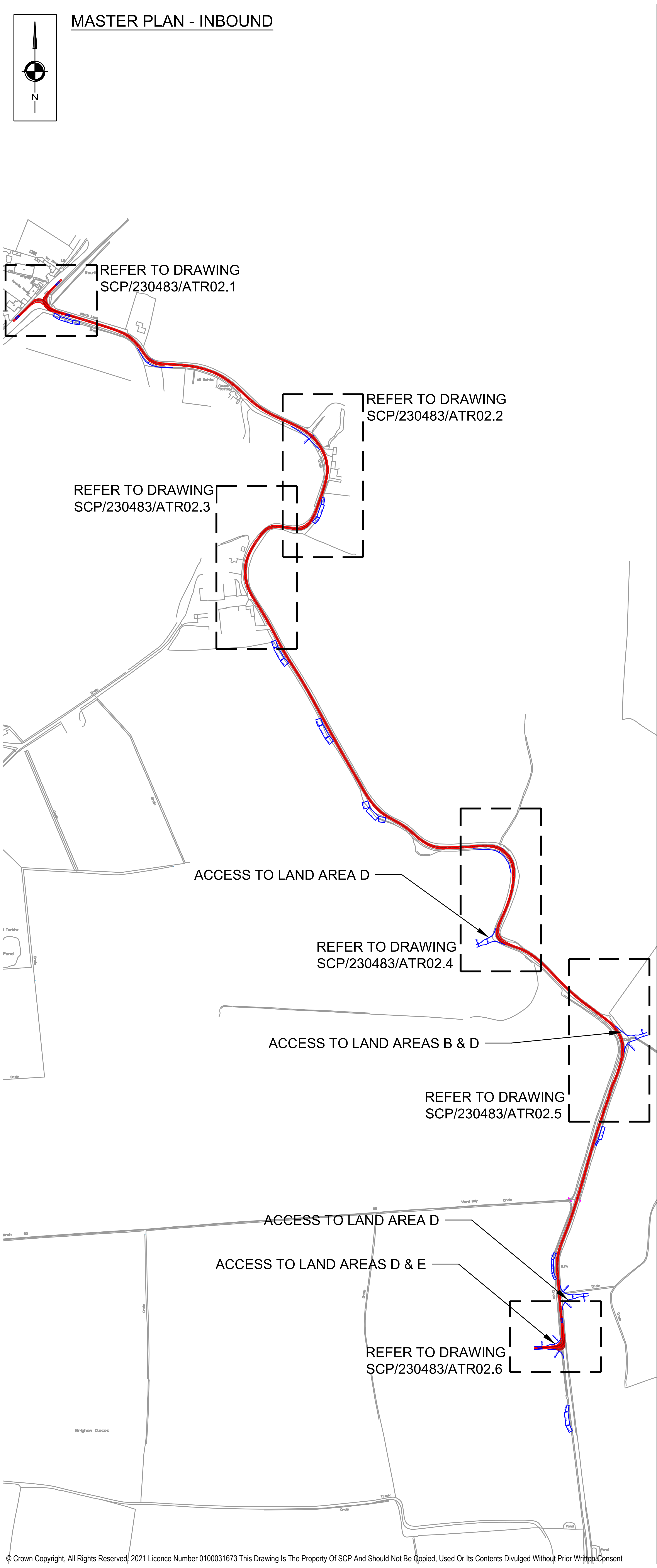

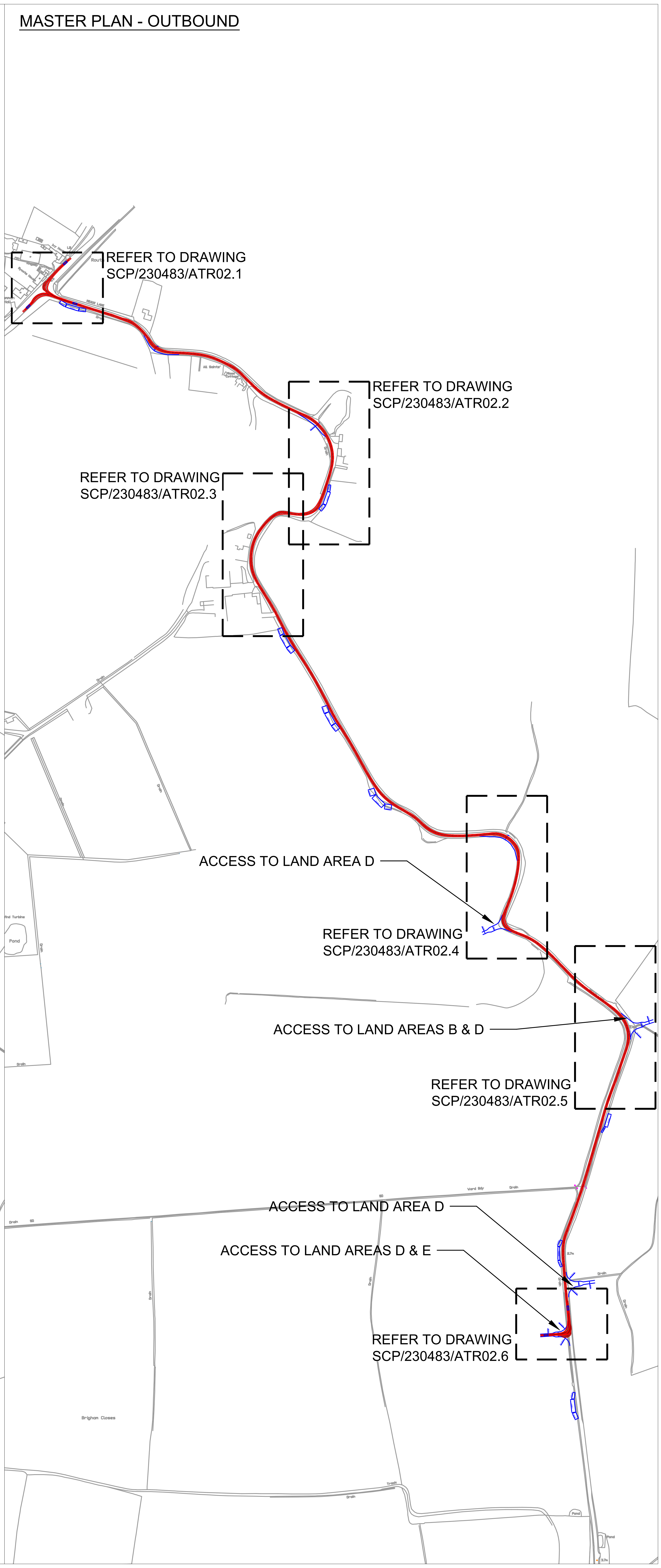

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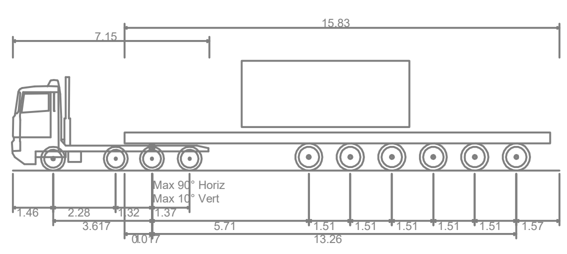

Flat Bed_19.89m_Rear Steer	
Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:5000
Approved: JP	Status: PLANNING

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an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS MASTERPLAN - FLAT BED 19.89m REAR STEER

Drawing No.: SCP/230483/ATR02 | Rev.: -

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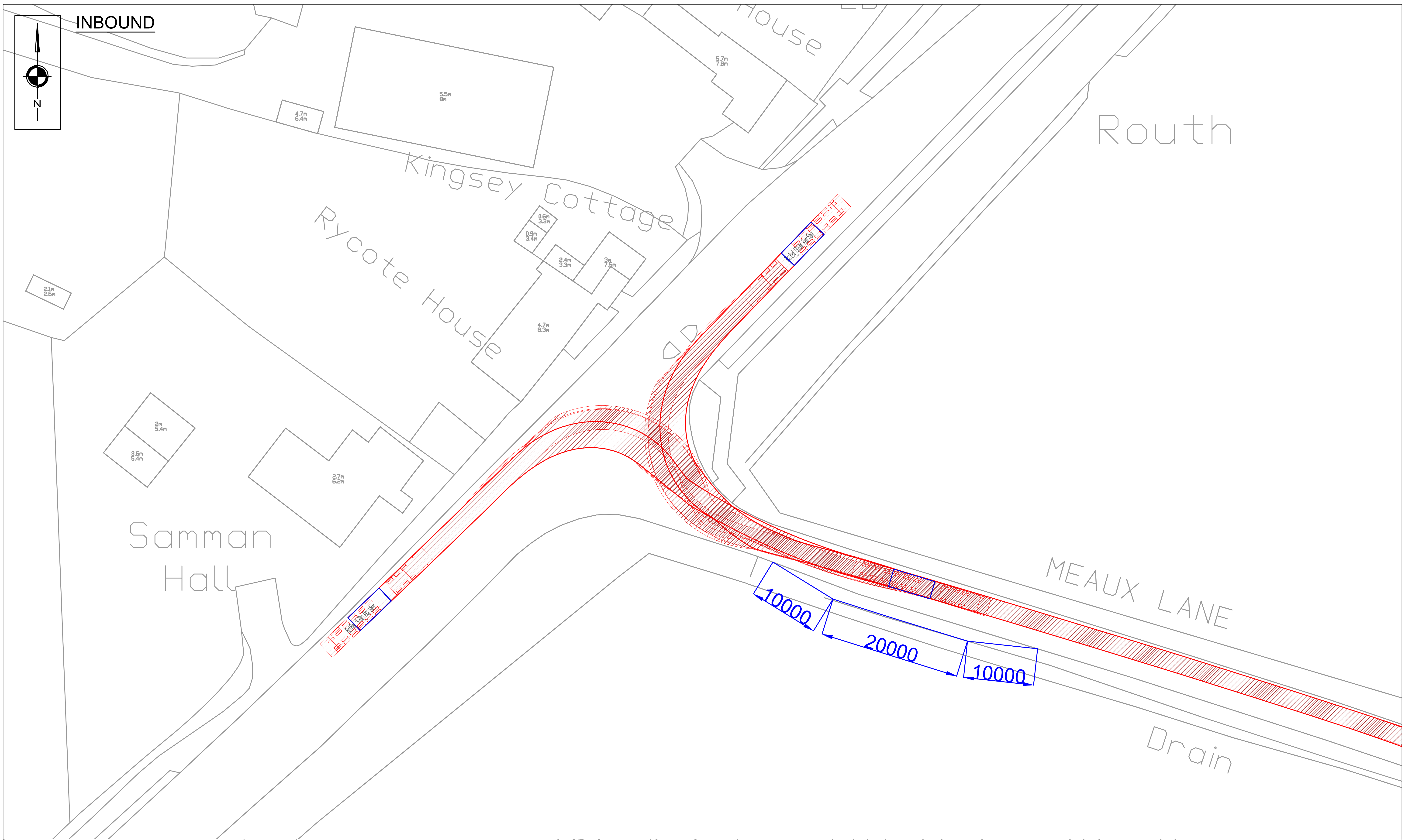
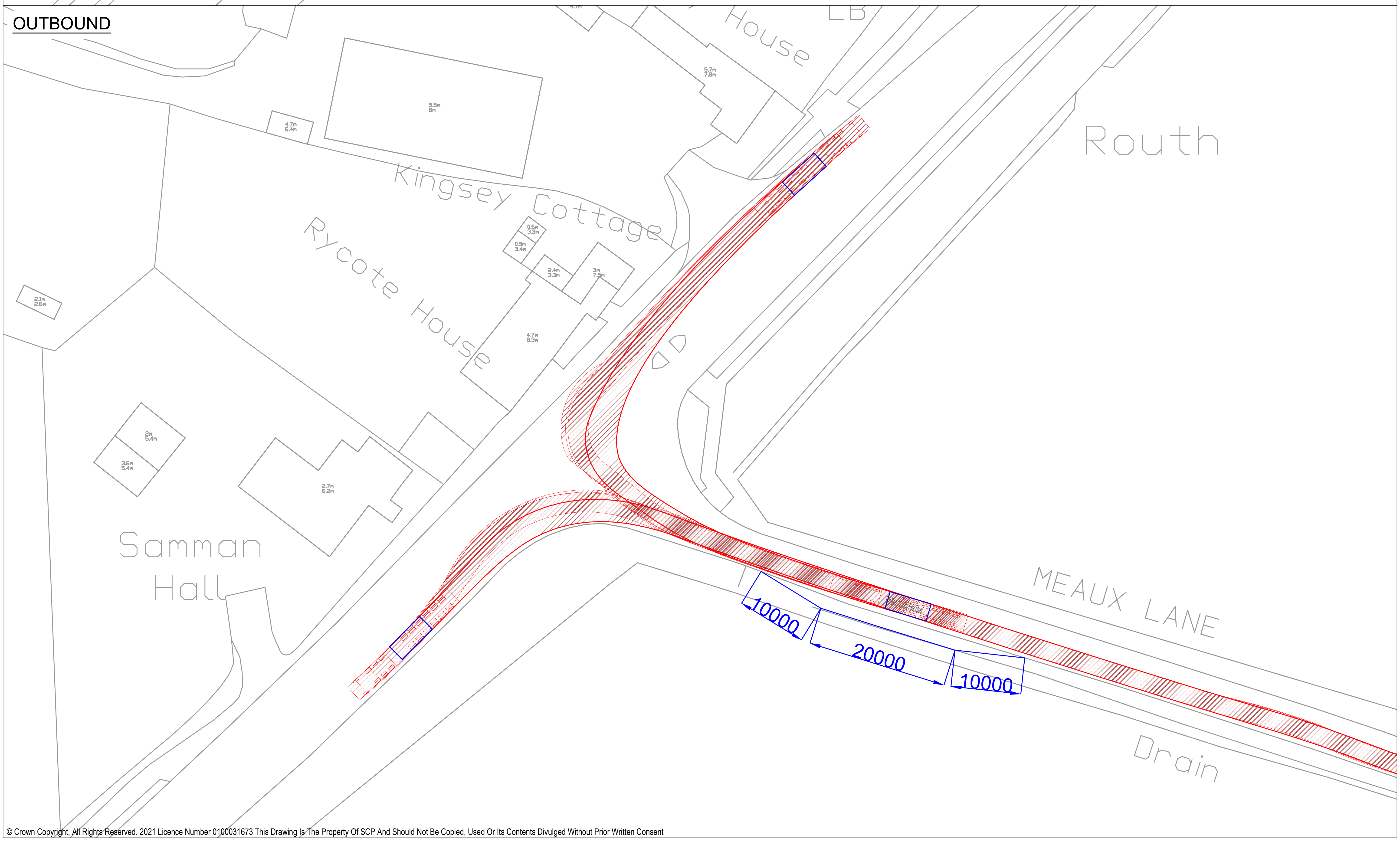


OUTBOUND



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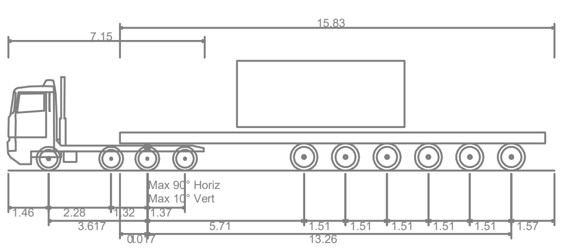

Flat Bed_19.89m_Rear Steer

Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 1 OF 5

Drawing No. SCP/230483/ATR02.1 | Rev. -

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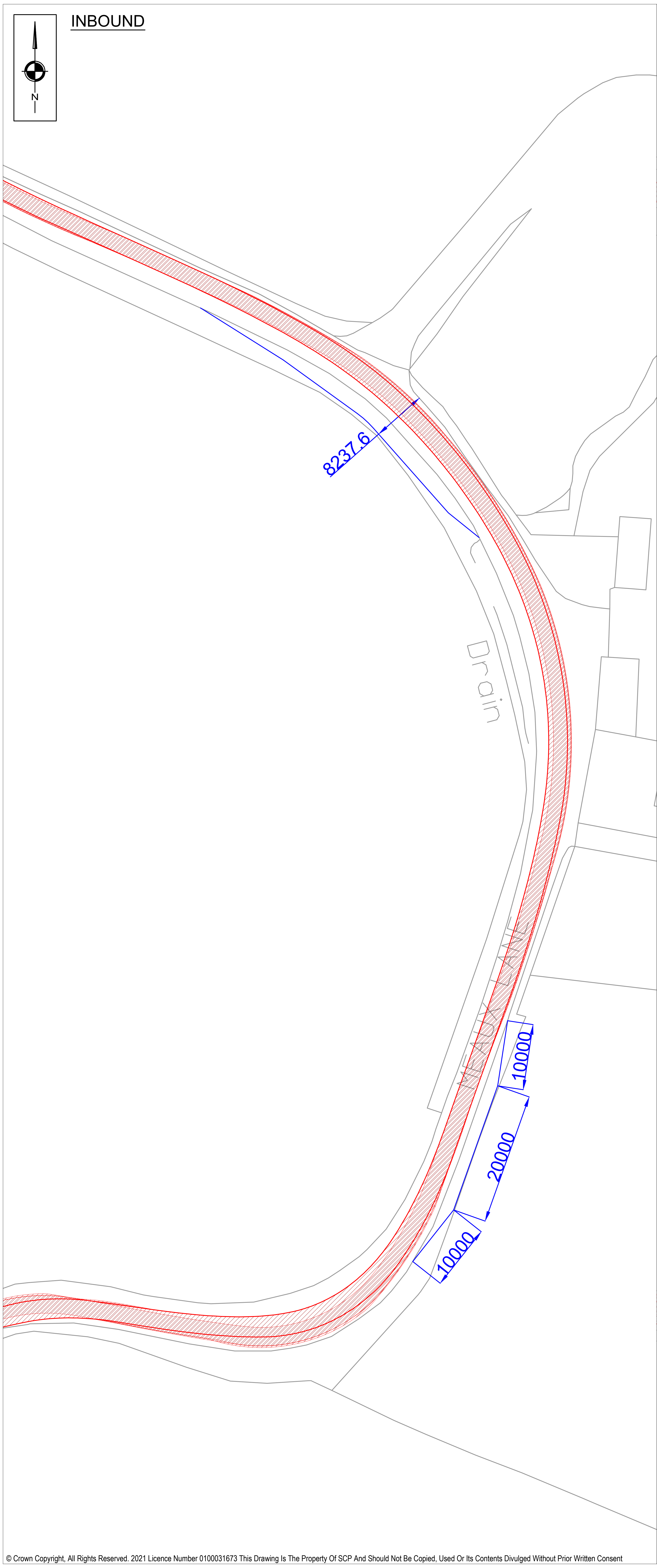

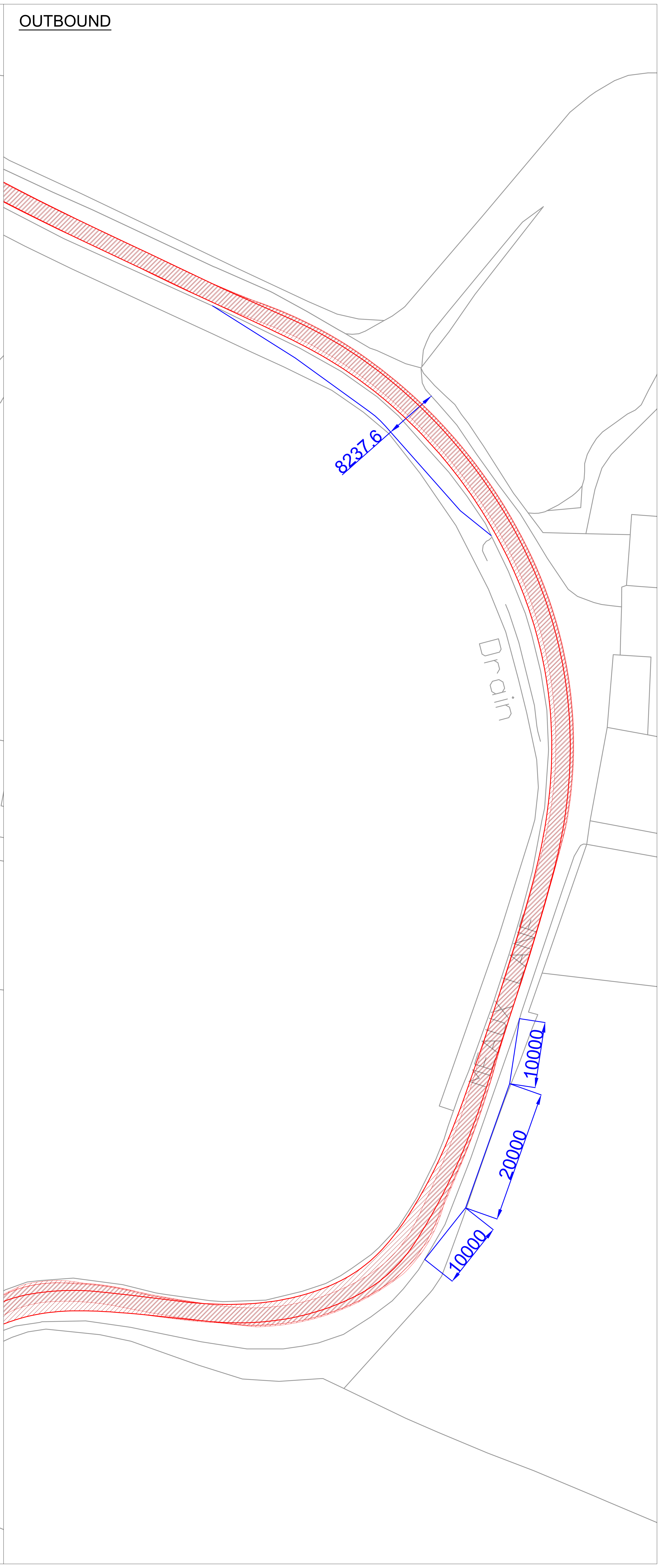

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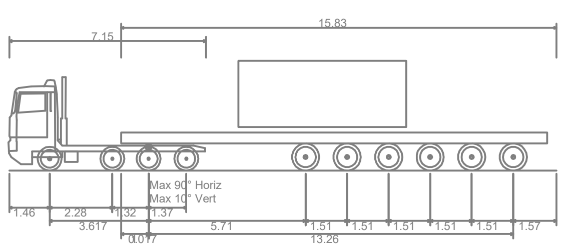

Flat Bed_19.89m_Rear Steer	
Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 2 OF 5

Drawing No. SCP/230483/ATR02.2 Rev. -

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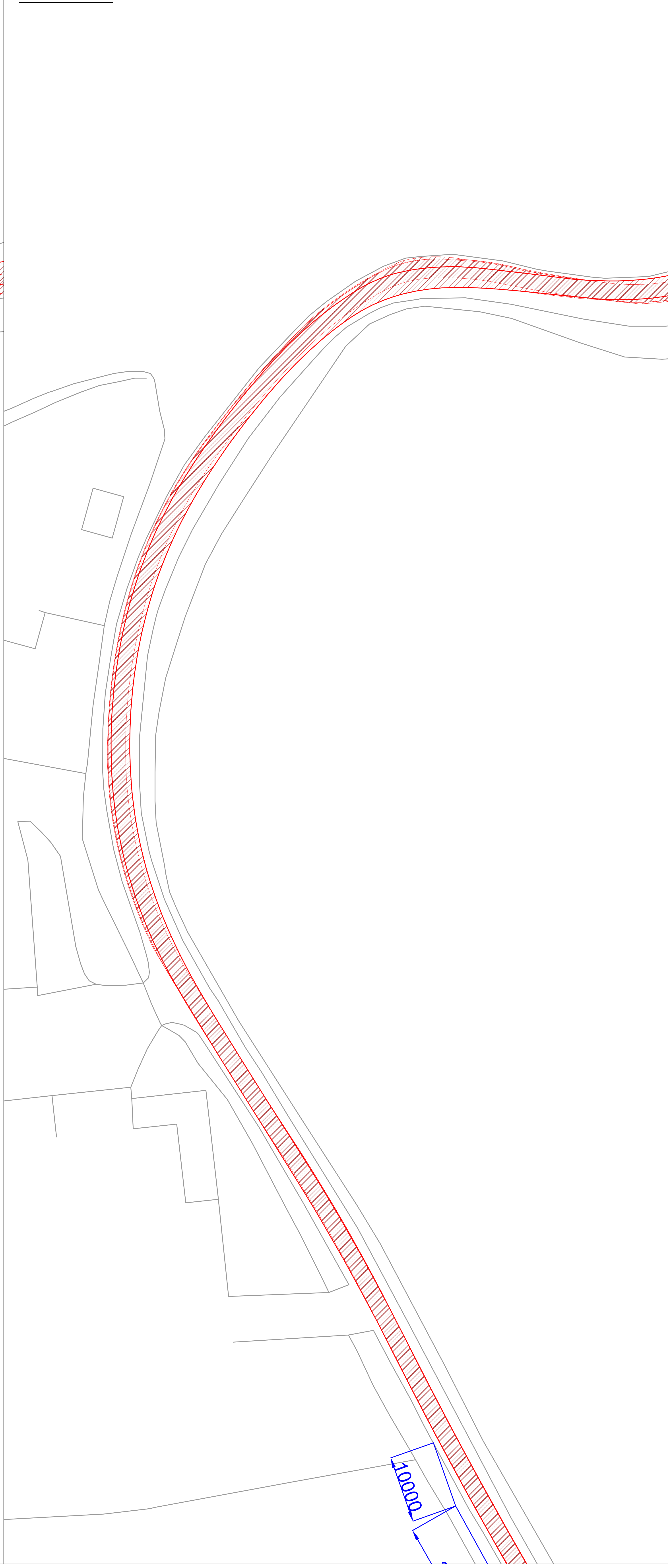
INBOUND

OUTBOUND



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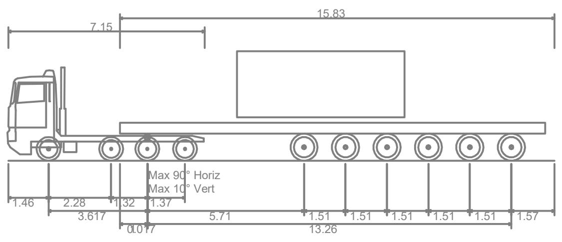

Flat Bed_19.89m_Rear Steer

Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 3 OF 5

Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

Drawing No.: SCP/230483/ATR02.3

Rev.: -

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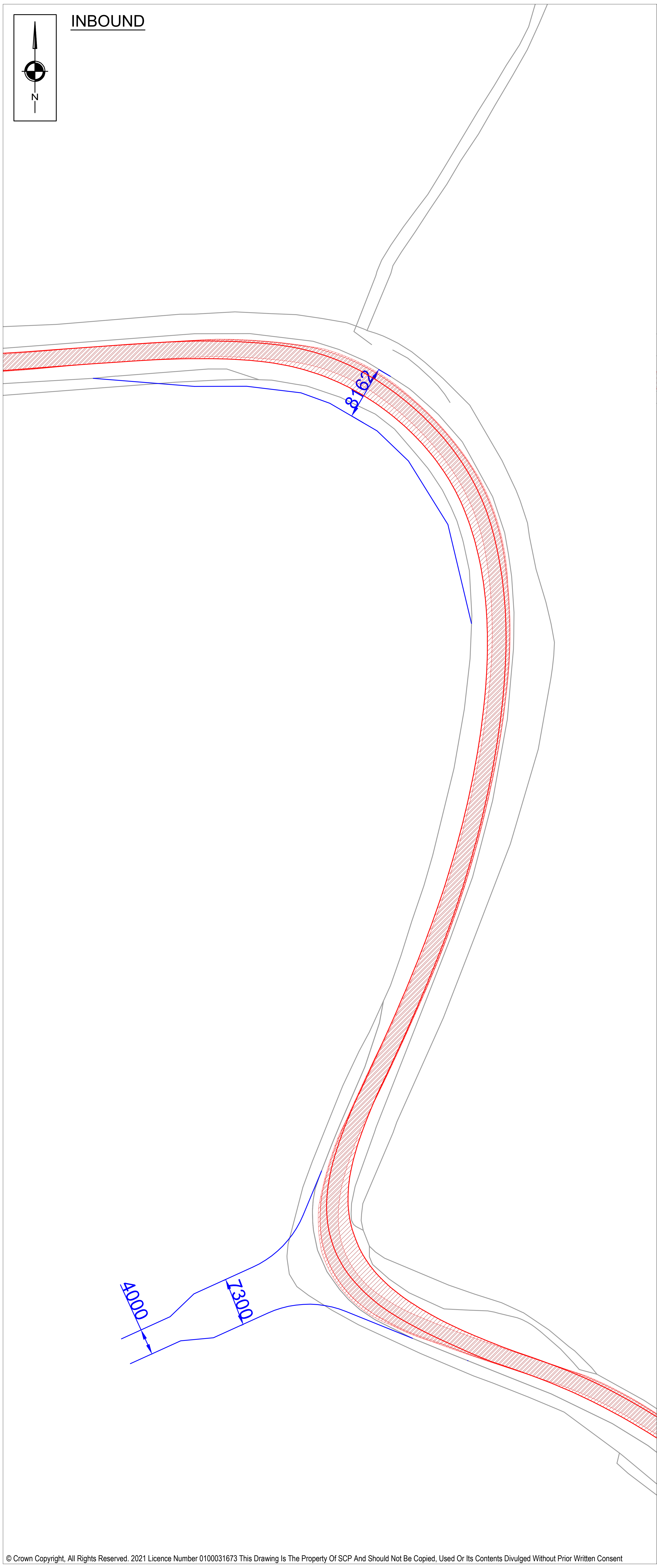

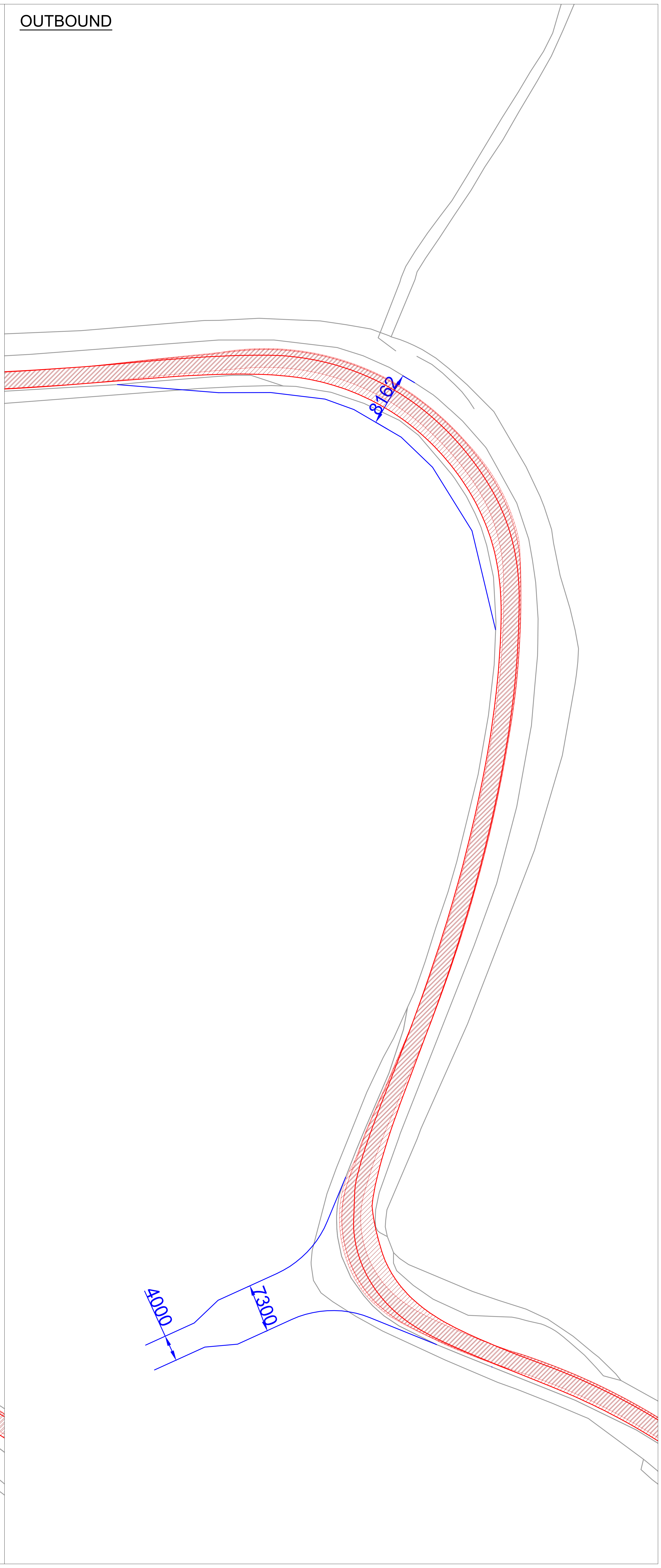

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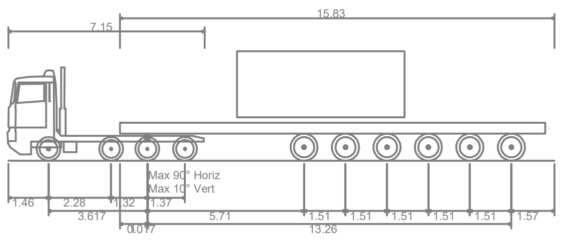

Flat Bed_19.89m_Rear Steer	
Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 4 OF 5

Drawing No. SCP/230483/ATR02.4

Rev. -

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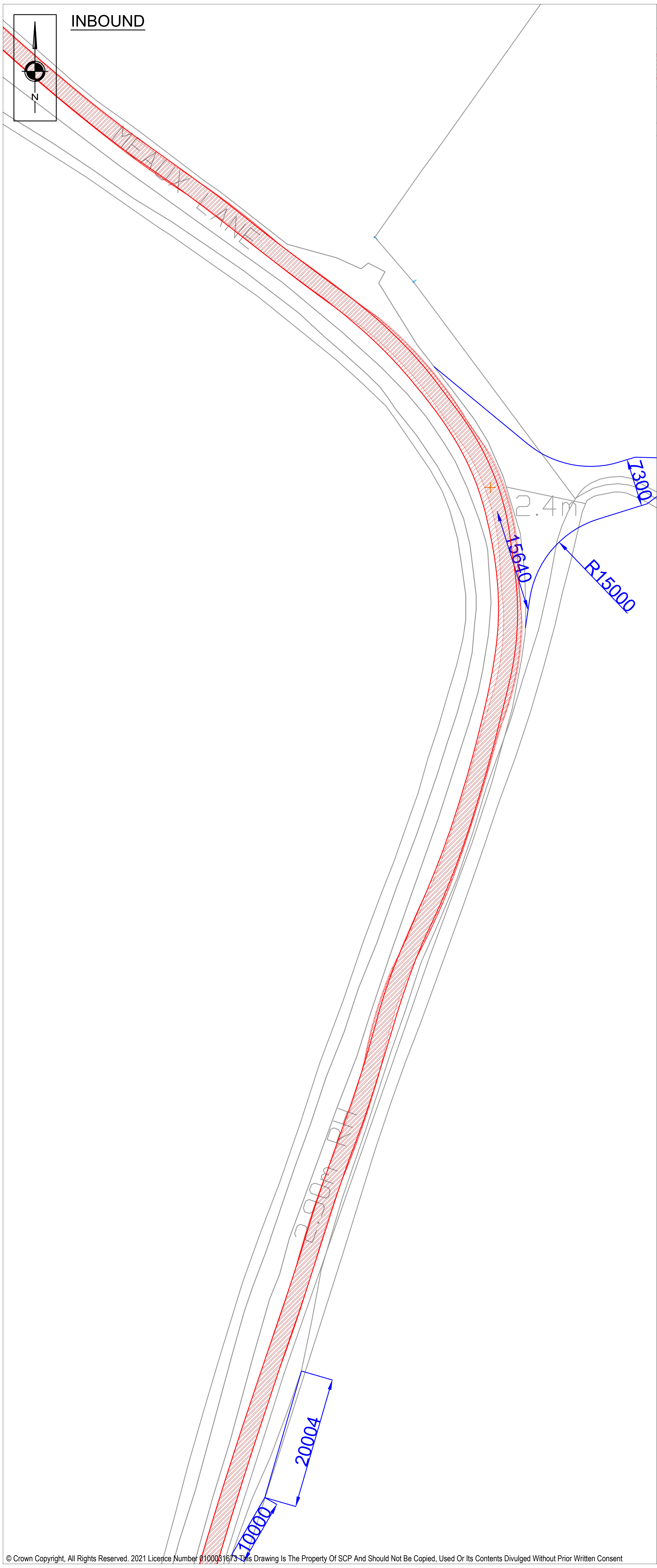
INBOUND



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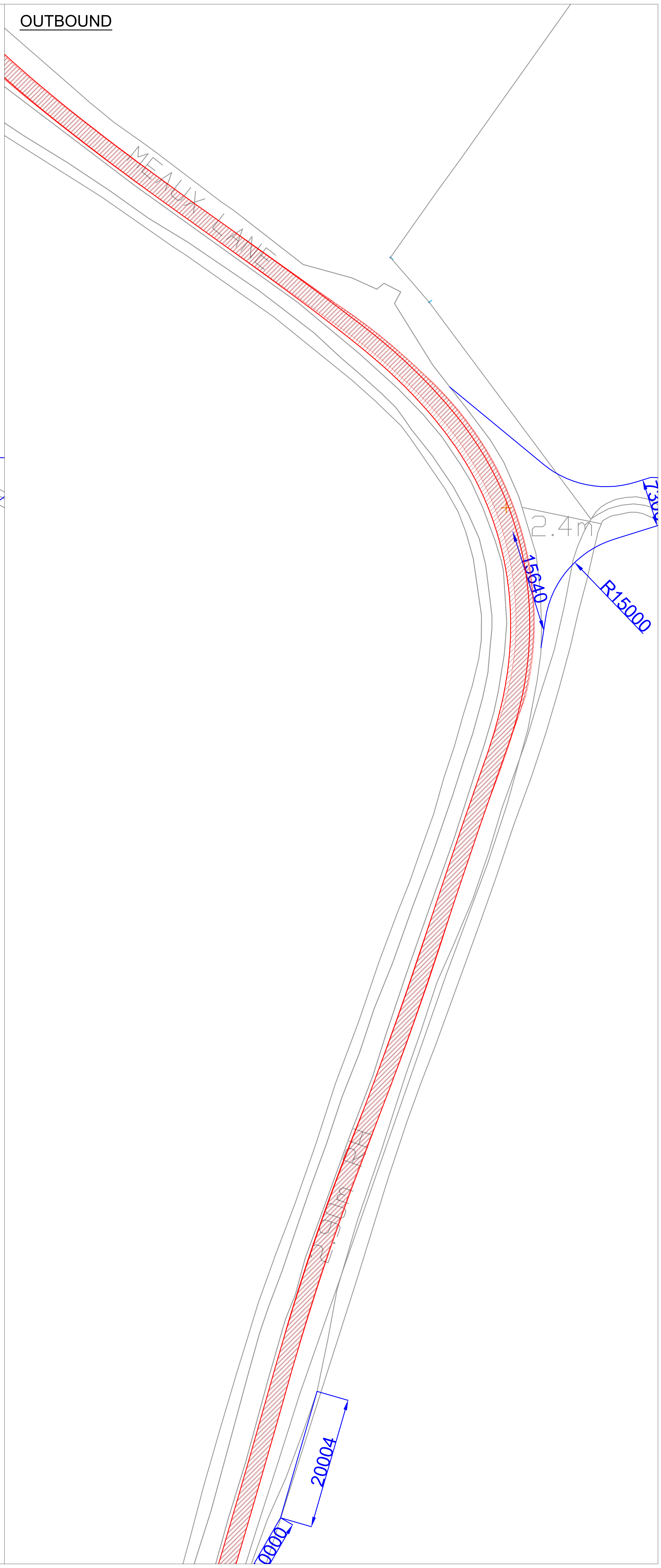

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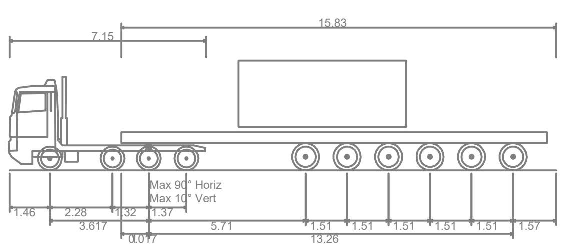

Flat Bed_19.89m_Rear Steer

Overall Length	19.890m
Overall Width	2.540m
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Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 5 OF 5

Drawing No.: SCP/230483/ATR02.5

Rev.: -

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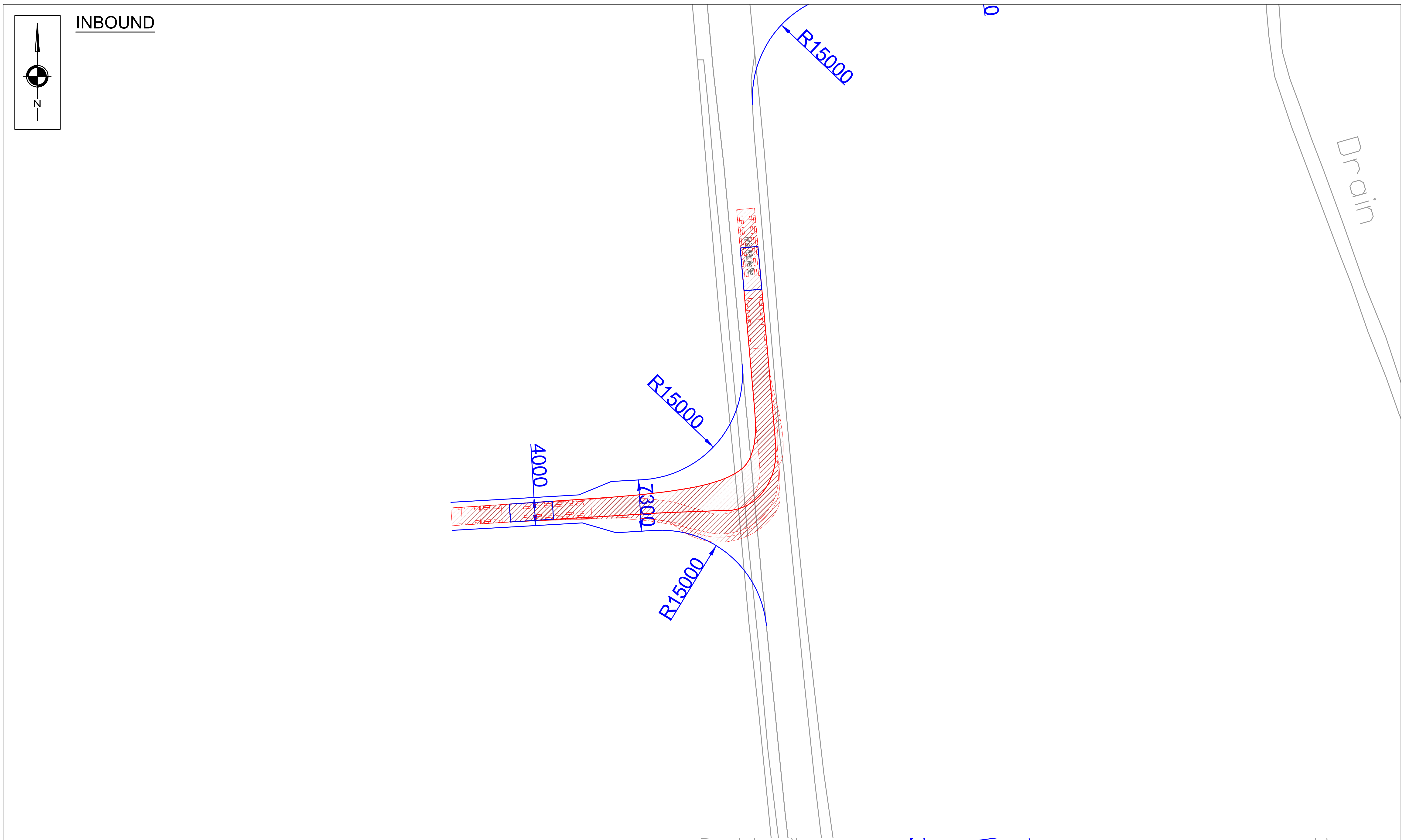

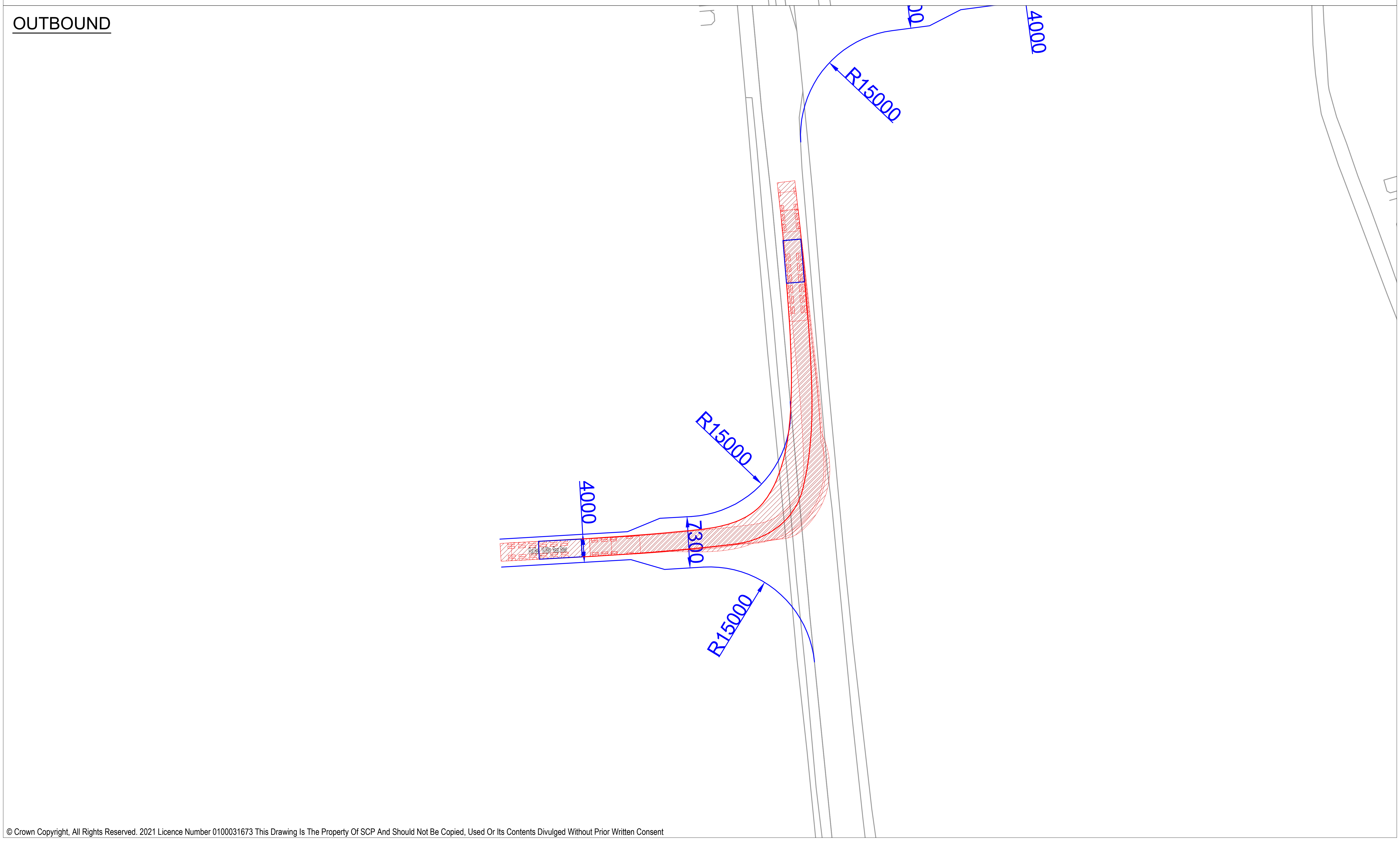

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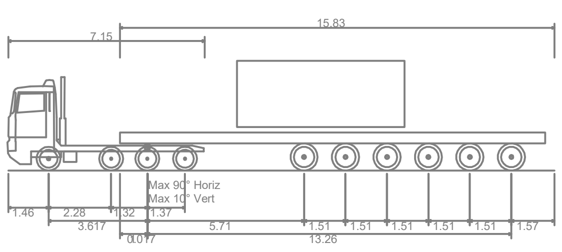

Flat Bed 19.89m_Rear Steer	
Overall Length	19.890m
Overall Width	2.540m
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Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
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REVISIONS

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Drawn By: LD	Date: 29.11.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Client Name:
RWE

Project Title:
PEARTREE HILL SOLAR FARM

Drawing Title:
SWEPT PATH ANALYSIS
- FLAT BED 19.89m REAR STEER

Drawing No.	Rev.
SCP/230483/ATR02.6	-

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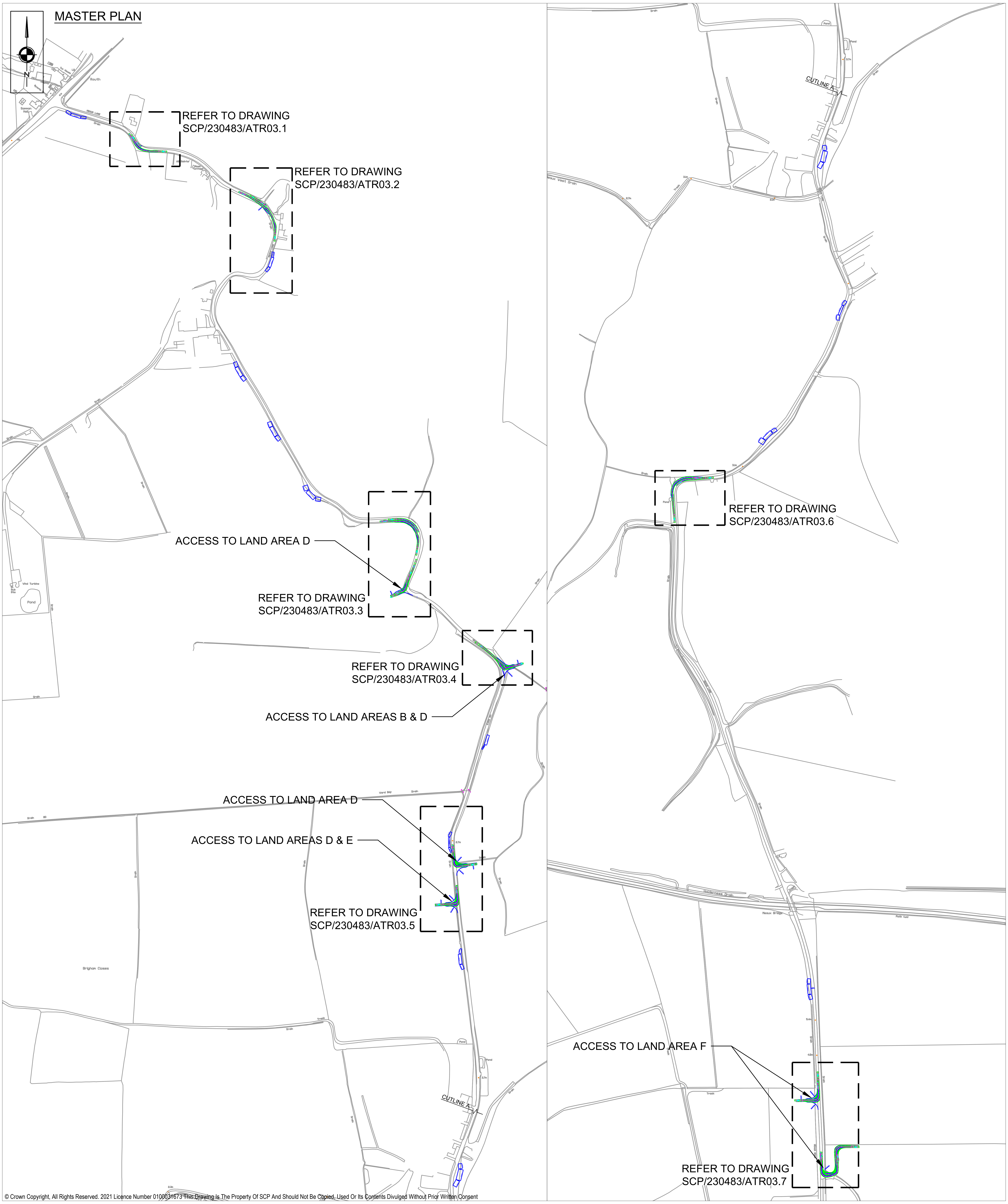

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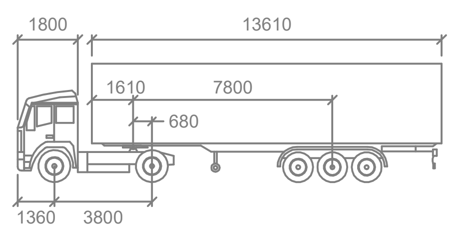

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:5000
Approved: JP	Status: PLANNING

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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS MASTERPLAN

Drawing No. SCP/230483/ATR03

Rev. -

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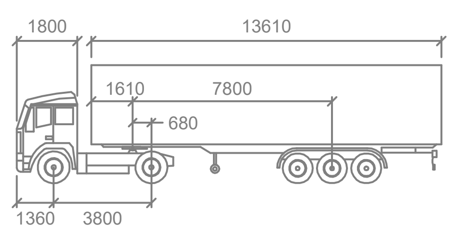

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 1 OF 7

Drawing No. SCP/230483/ATR03.1 | Rev. -

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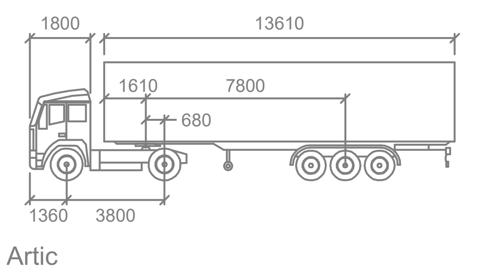

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 2 OF 7

Drawing No. SCP/230483/ATR03.2 Rev. -

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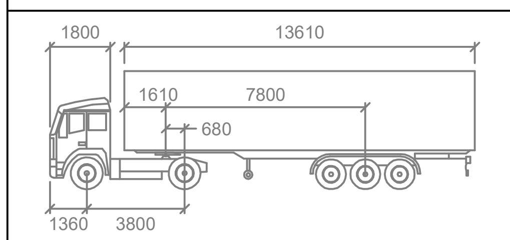
SOUTHBOUND ACCESS

NORTHBOUND EGRESS

NOTES



Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 3 OF 7

Drawing No. SCP/230483/ATR03.3

Rev. -

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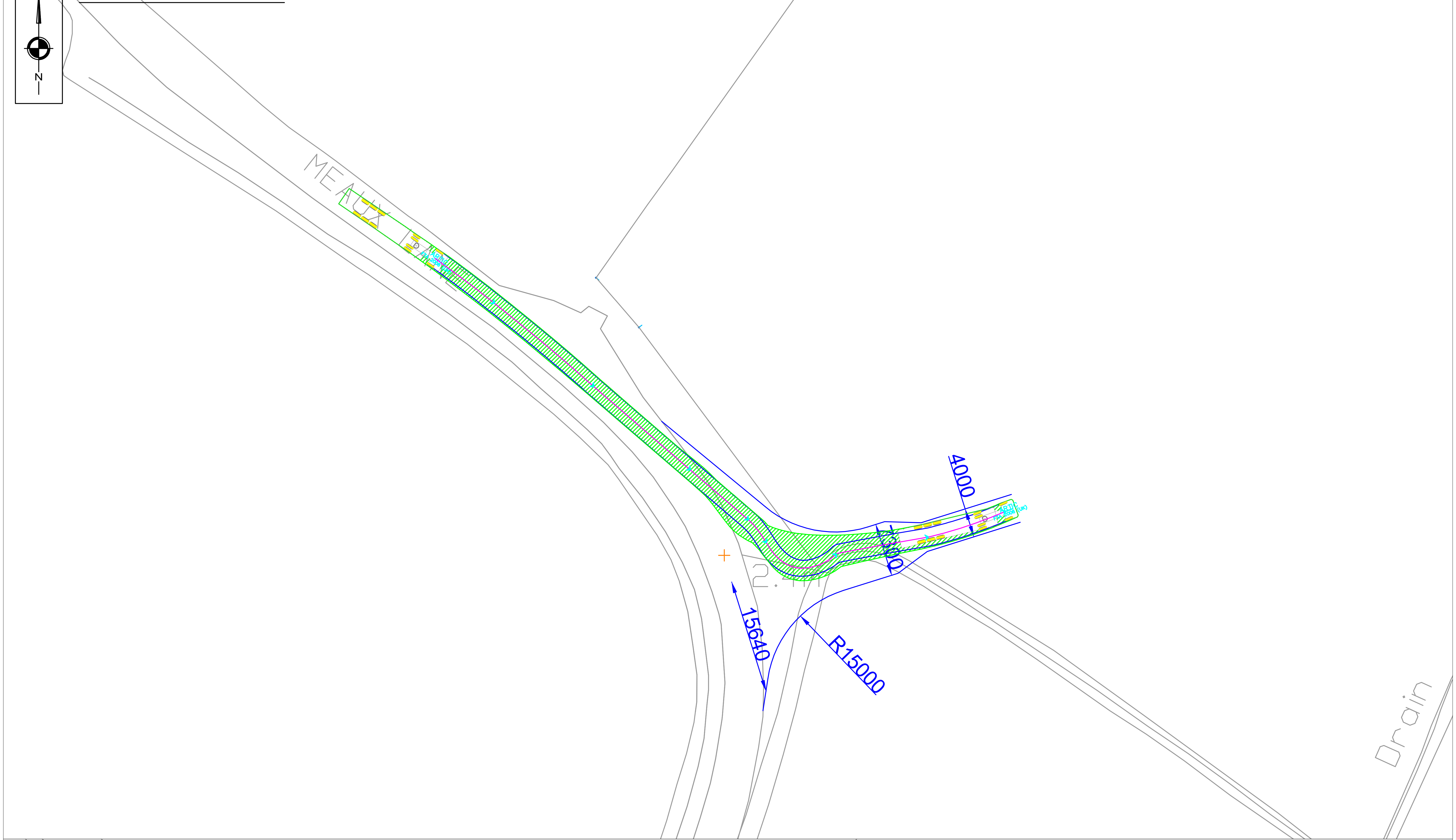
SOUTHBOUND ACCESS



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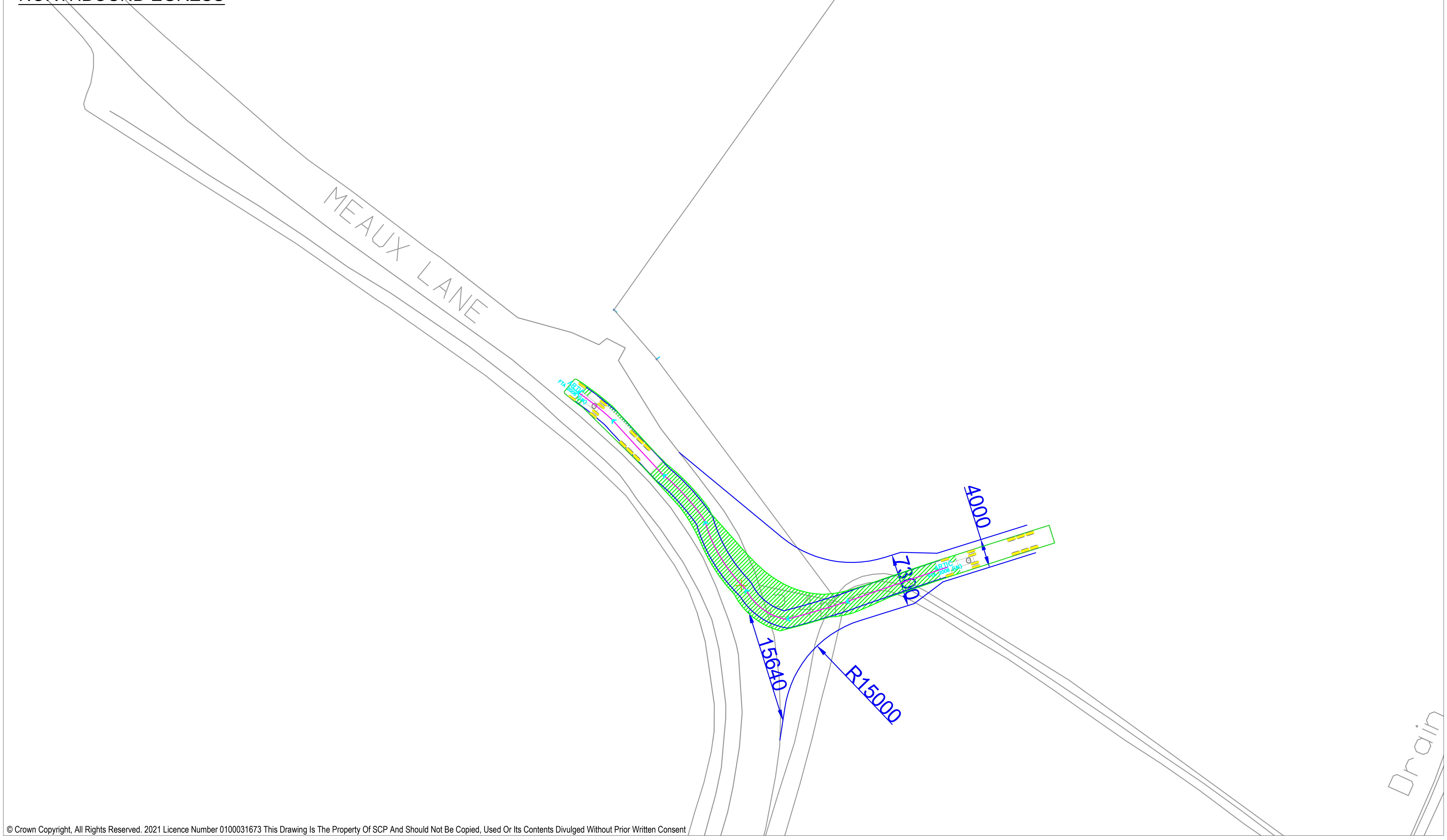

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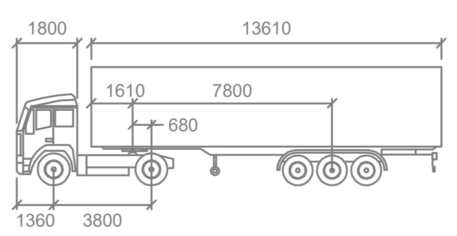

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 4 OF 7

Drawing No. SCP/230483/ATR03.4 | Rev. -

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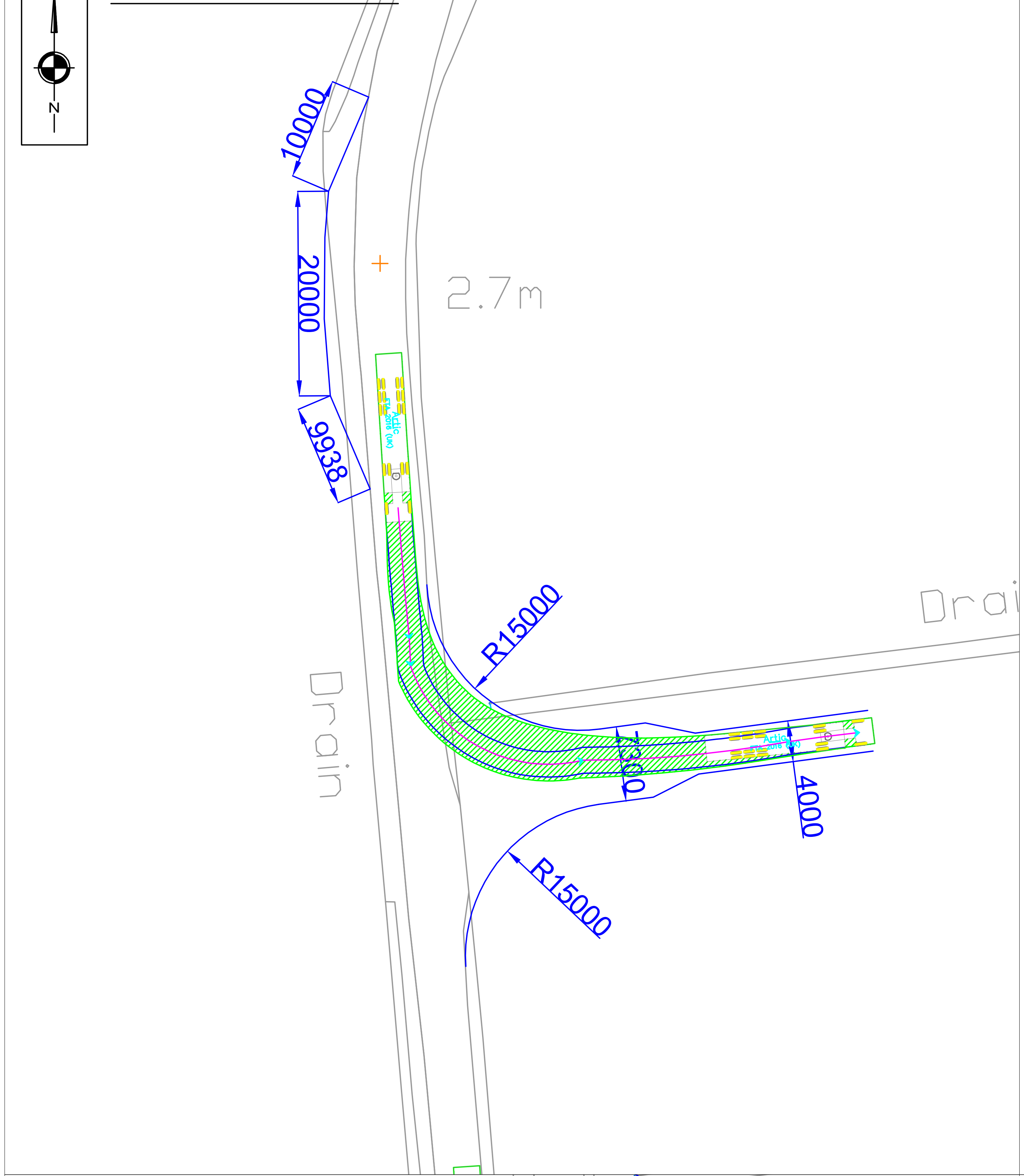

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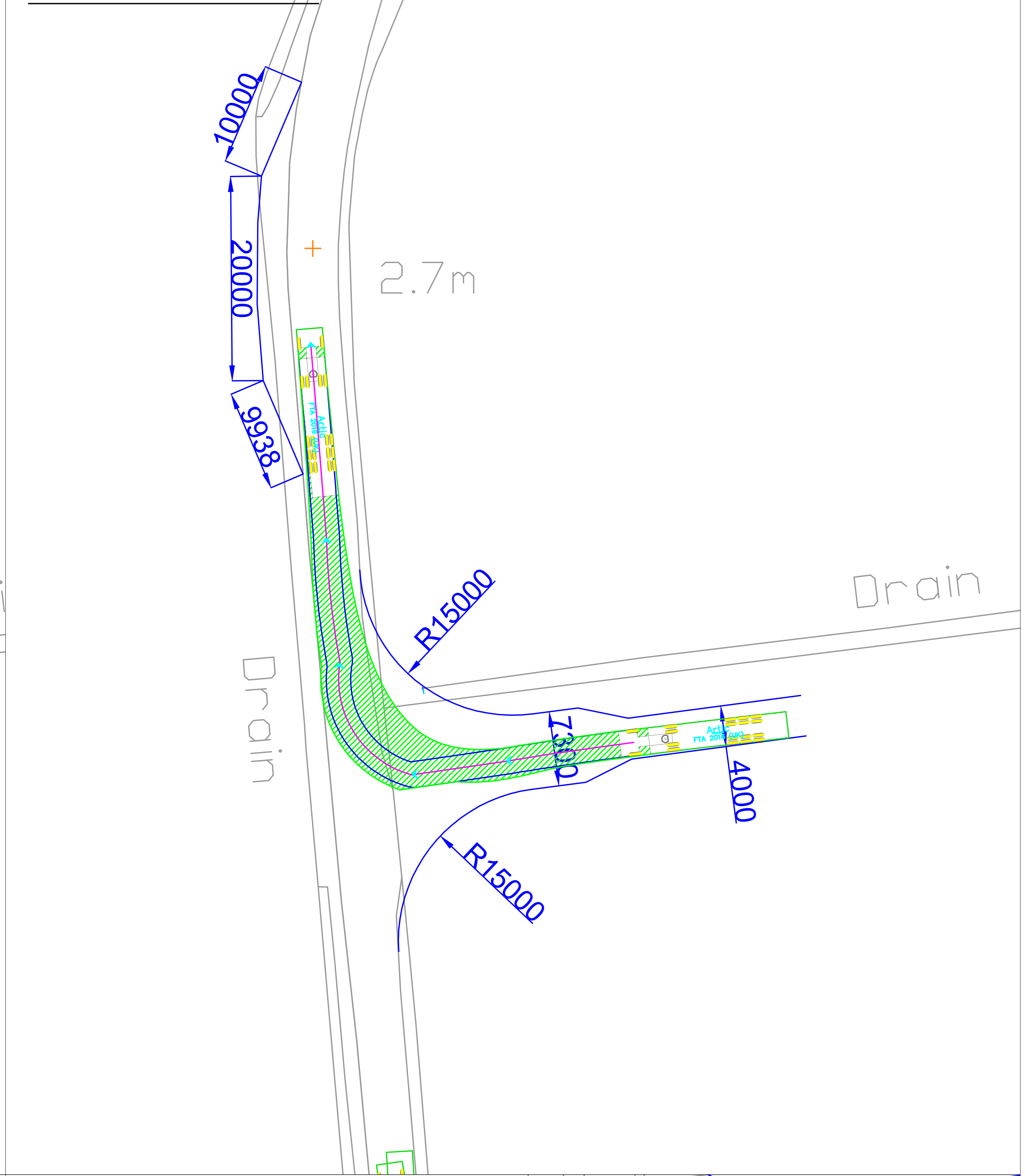

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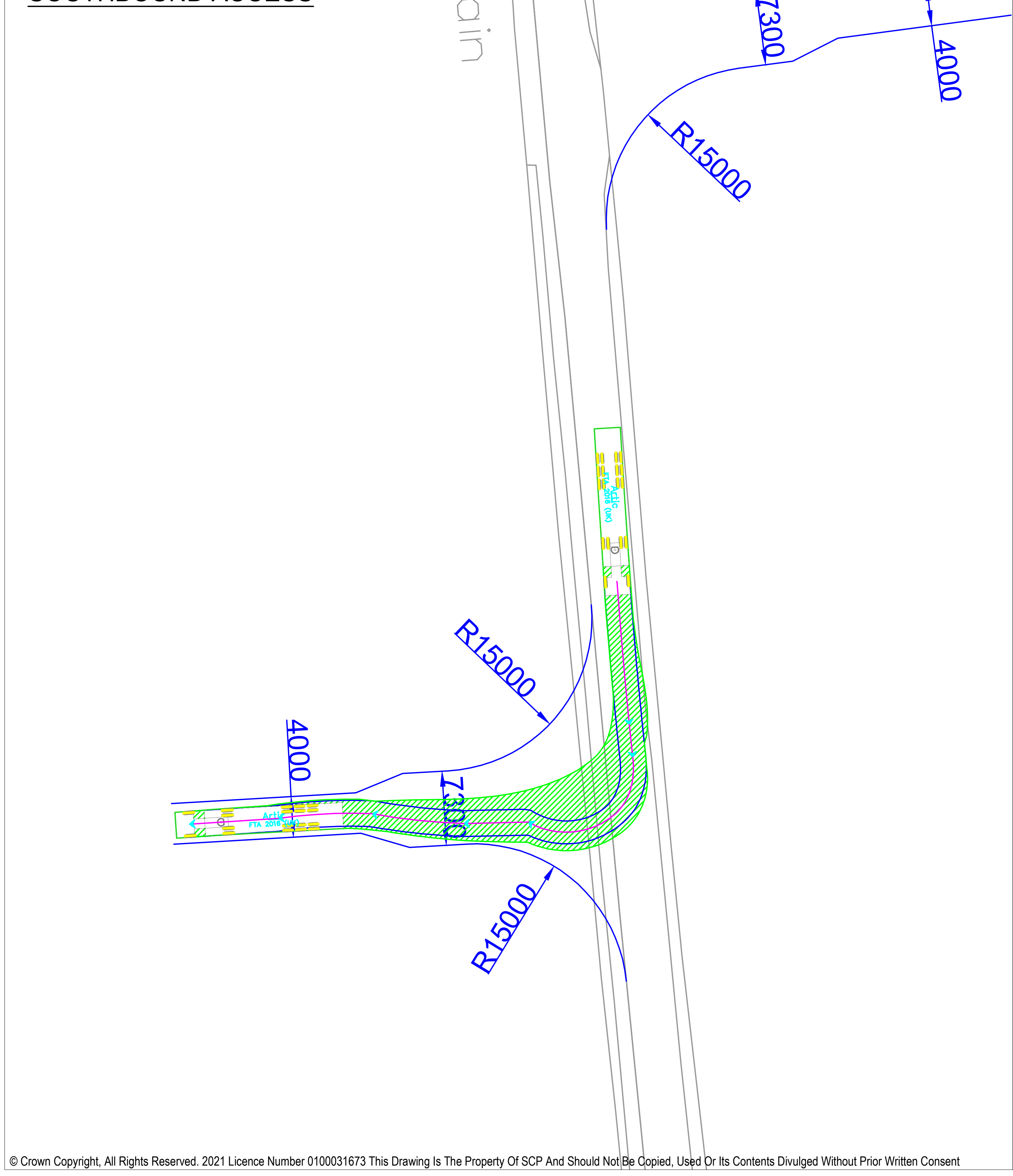

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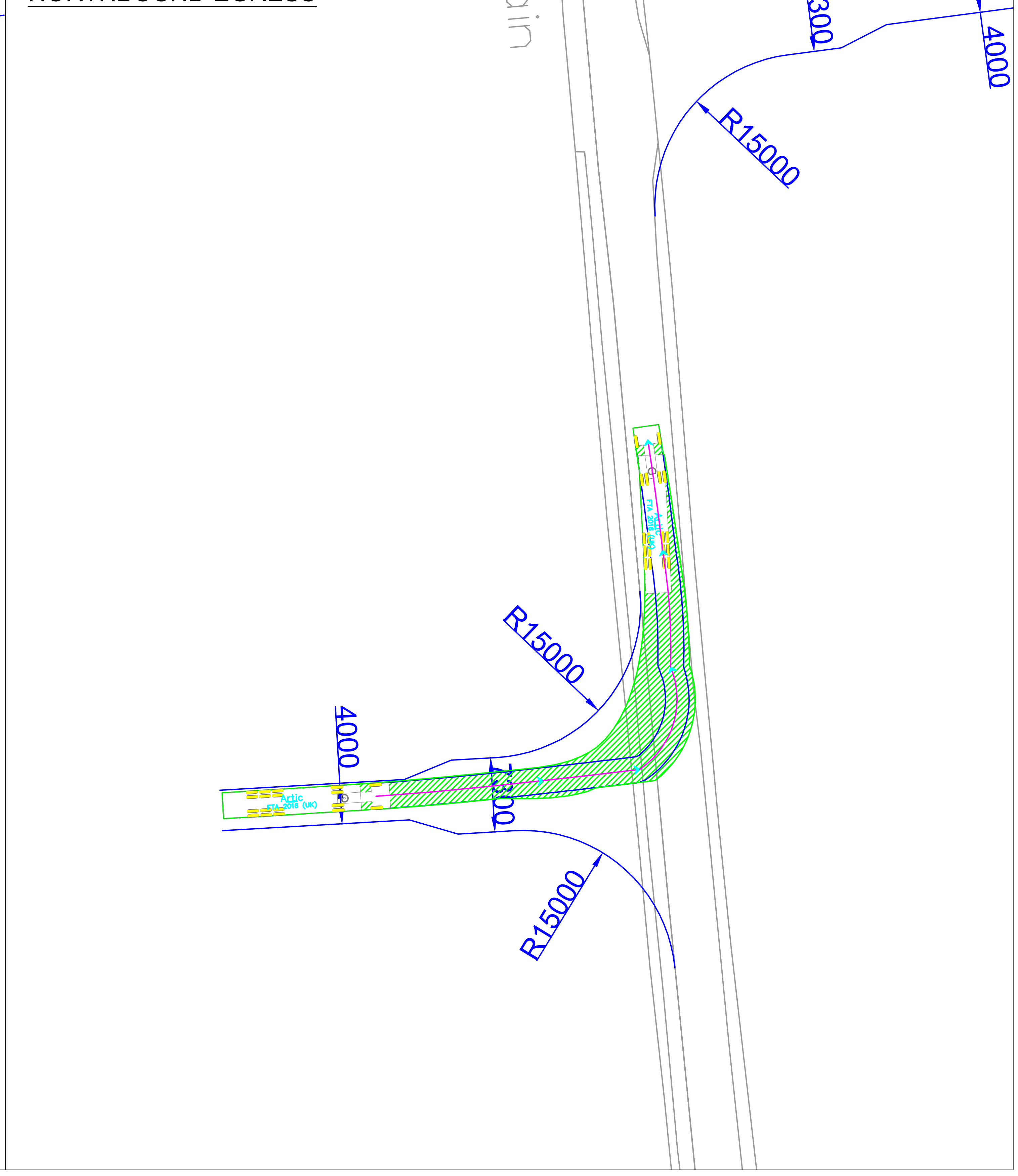

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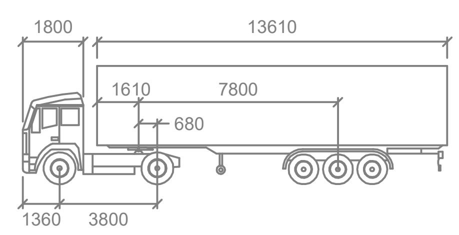

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

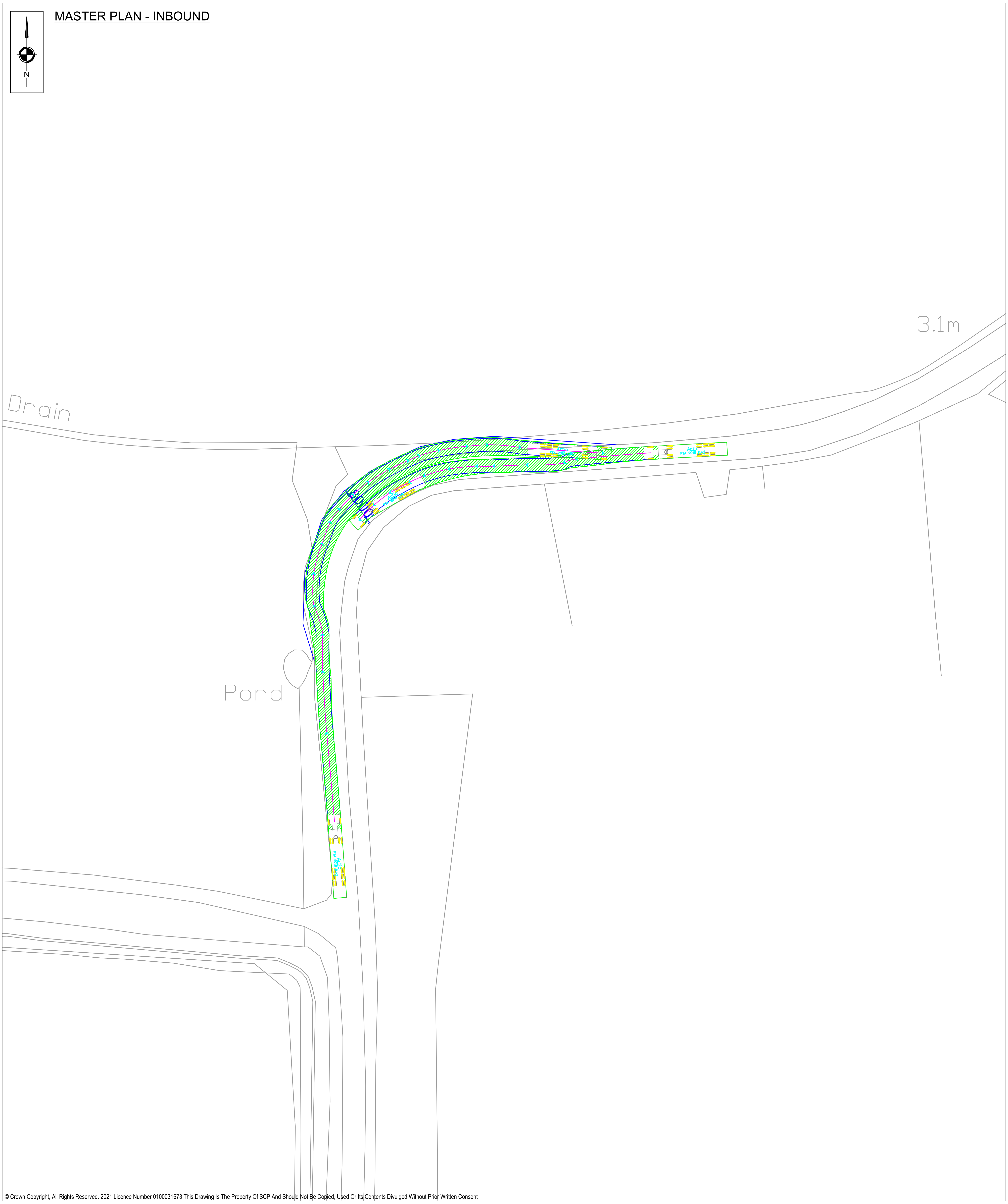
Drawing Title: SWEPT PATH ANALYSIS SHEET 5 OF 7

Drawing No. SCP/230483/ATR03.5

Rev. -

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Drawings in Progress\Access Sketches & Passing Places

MASTER PLAN - INBOUND



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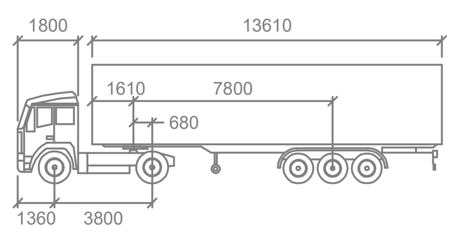

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
an RSK company
Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 6 OF 7

Drawing No. SCP/230483/ATR03.6 | Rev. -

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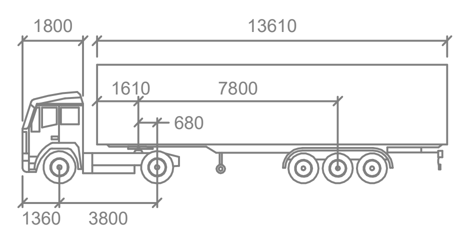

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	mm		
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Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
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Client Name: RWE

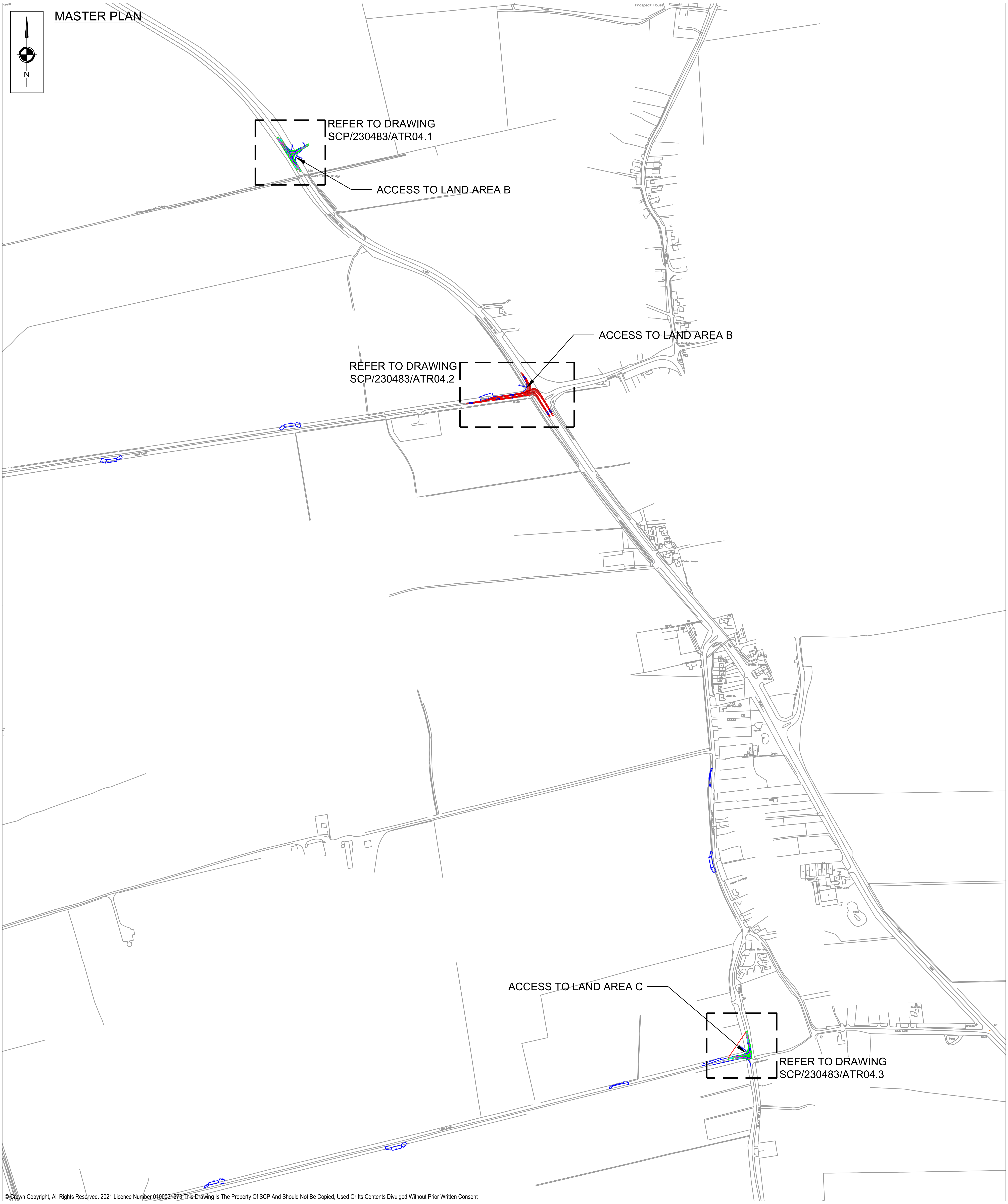
Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 7 OF 7

Drawing No. SCP/230483/ATR03.7 Rev. -

L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Drawings in Progress\Access Sketches & Passing Places

MASTER PLAN



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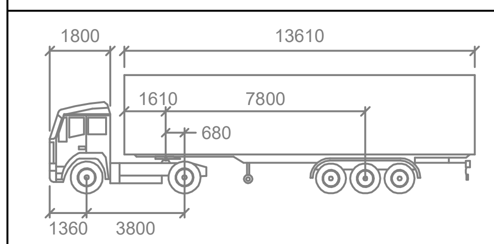

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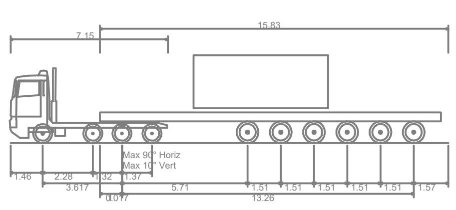
	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		



Flat Bed_19.89m_Rear Steer

Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:5000
Approved: JP	Status: PLANNING

SCP

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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS MASTERPLAN

Drawing No.: SCP/230483/ATR04

Rev.: -

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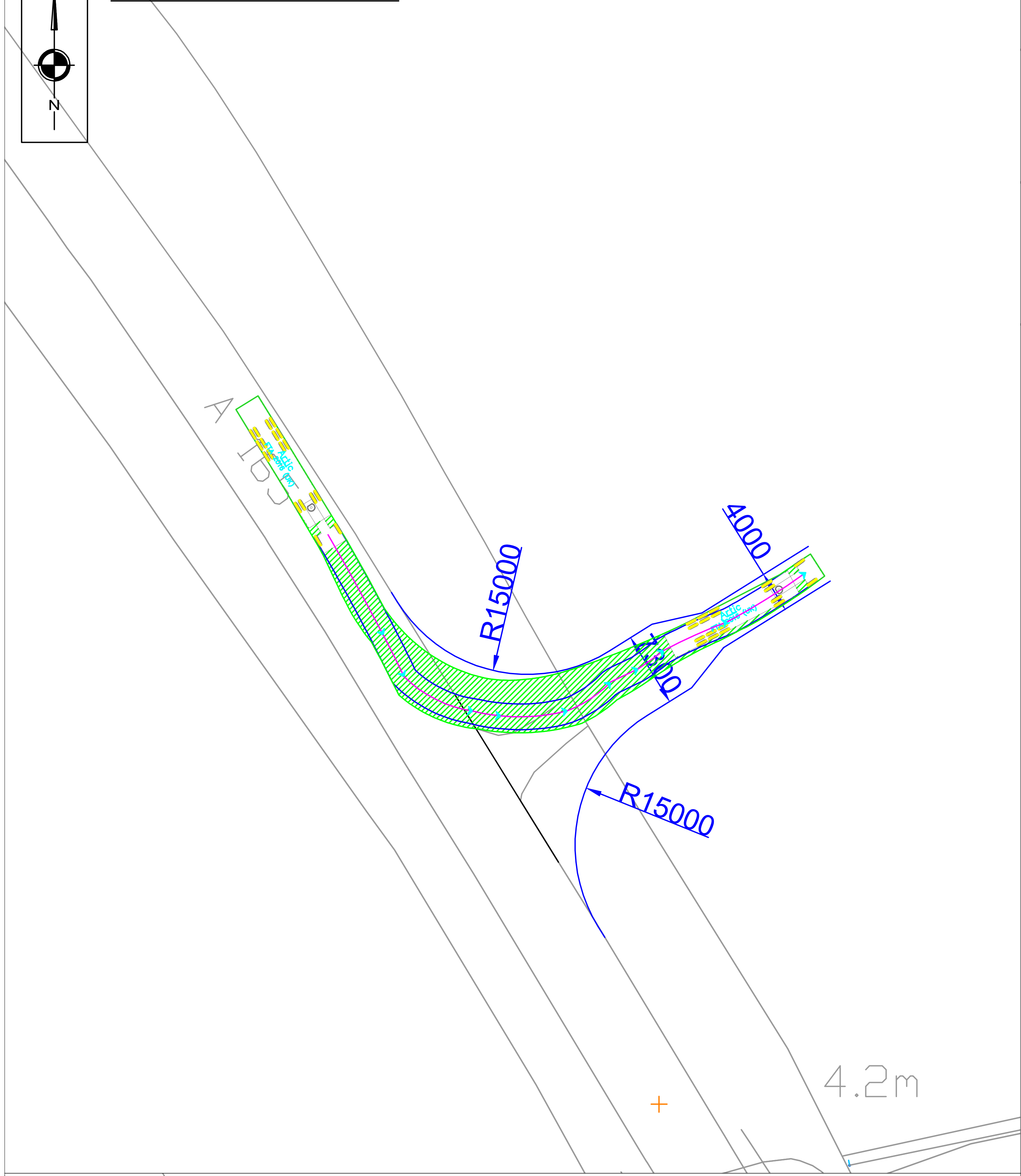

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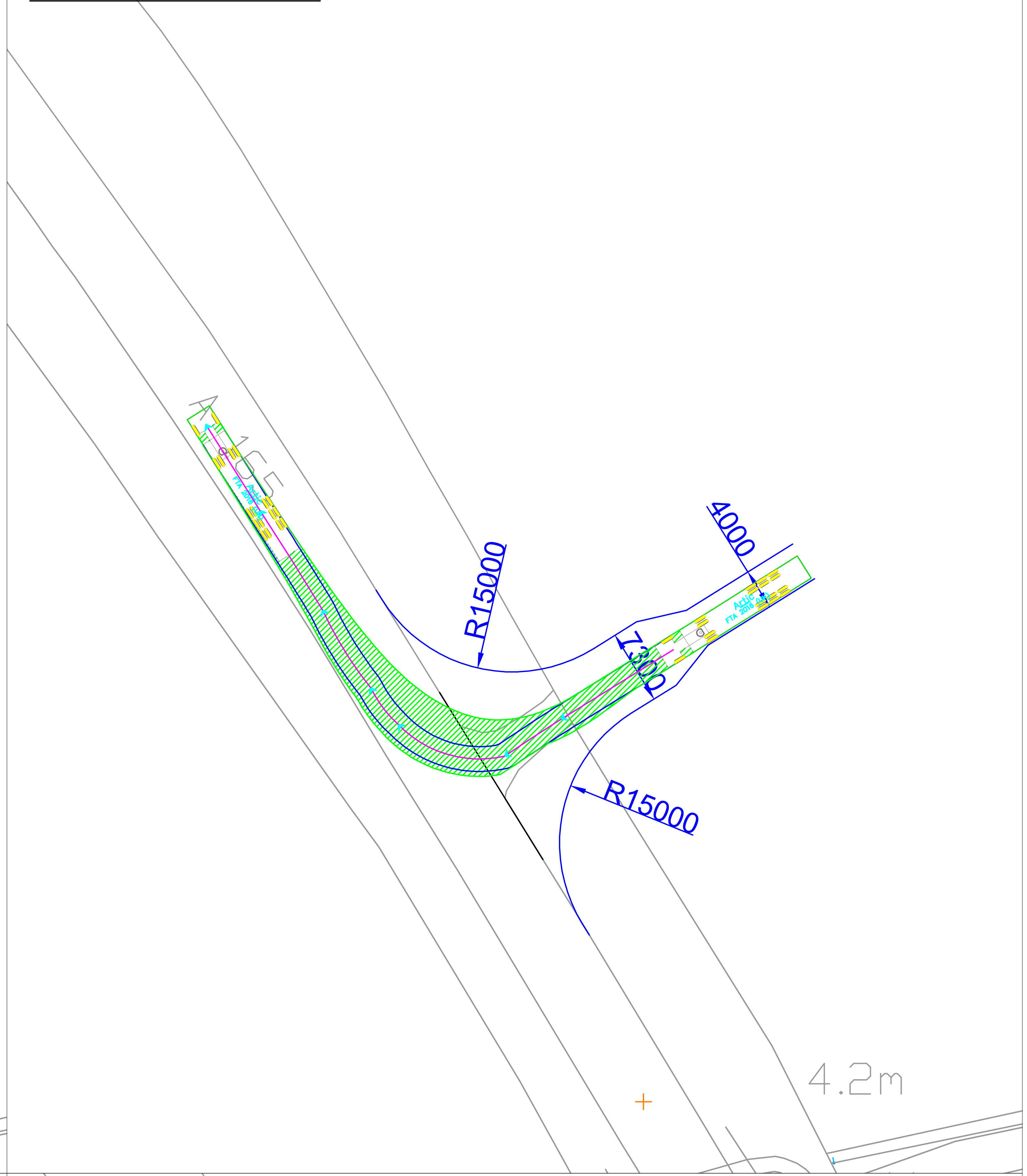

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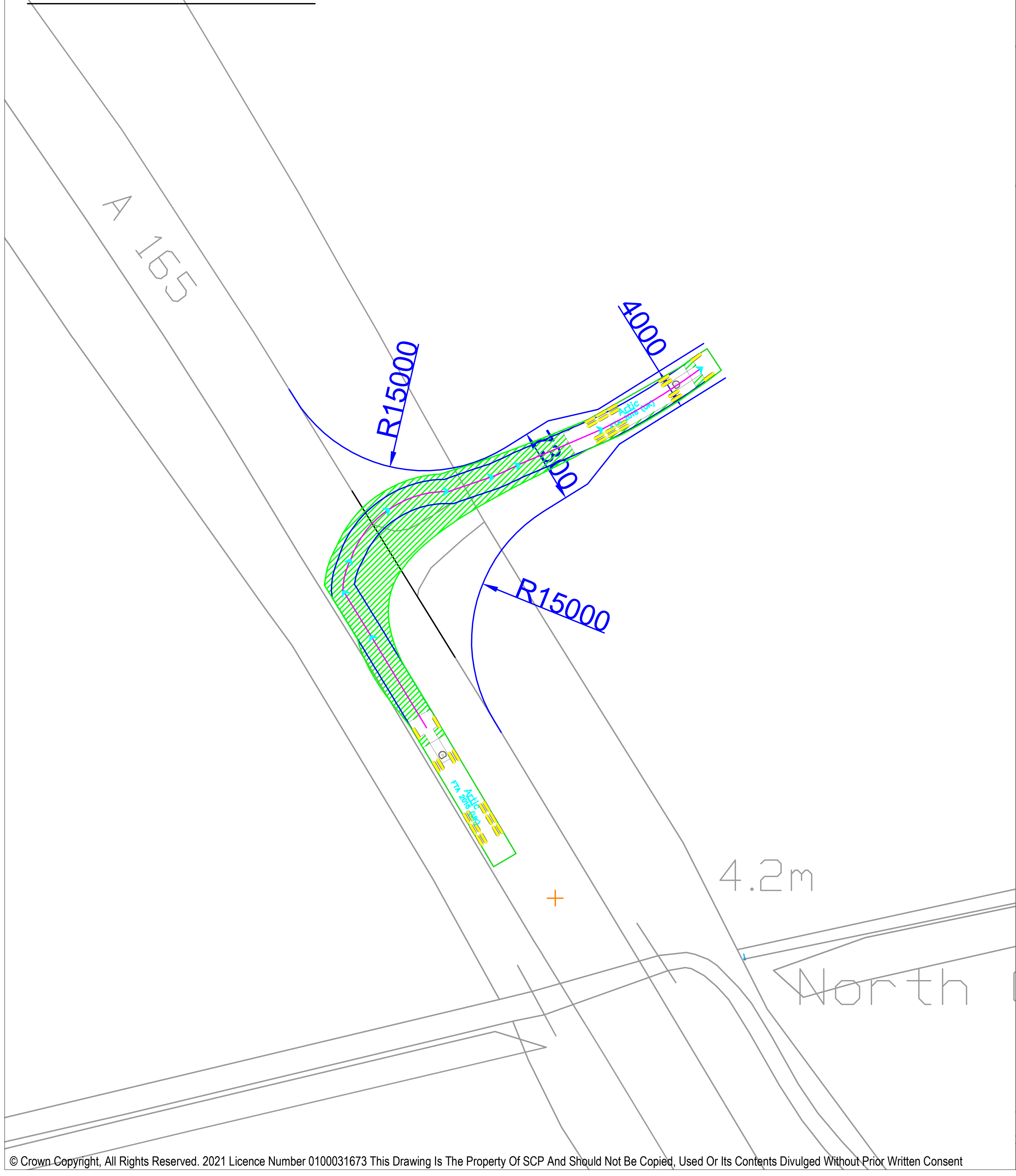

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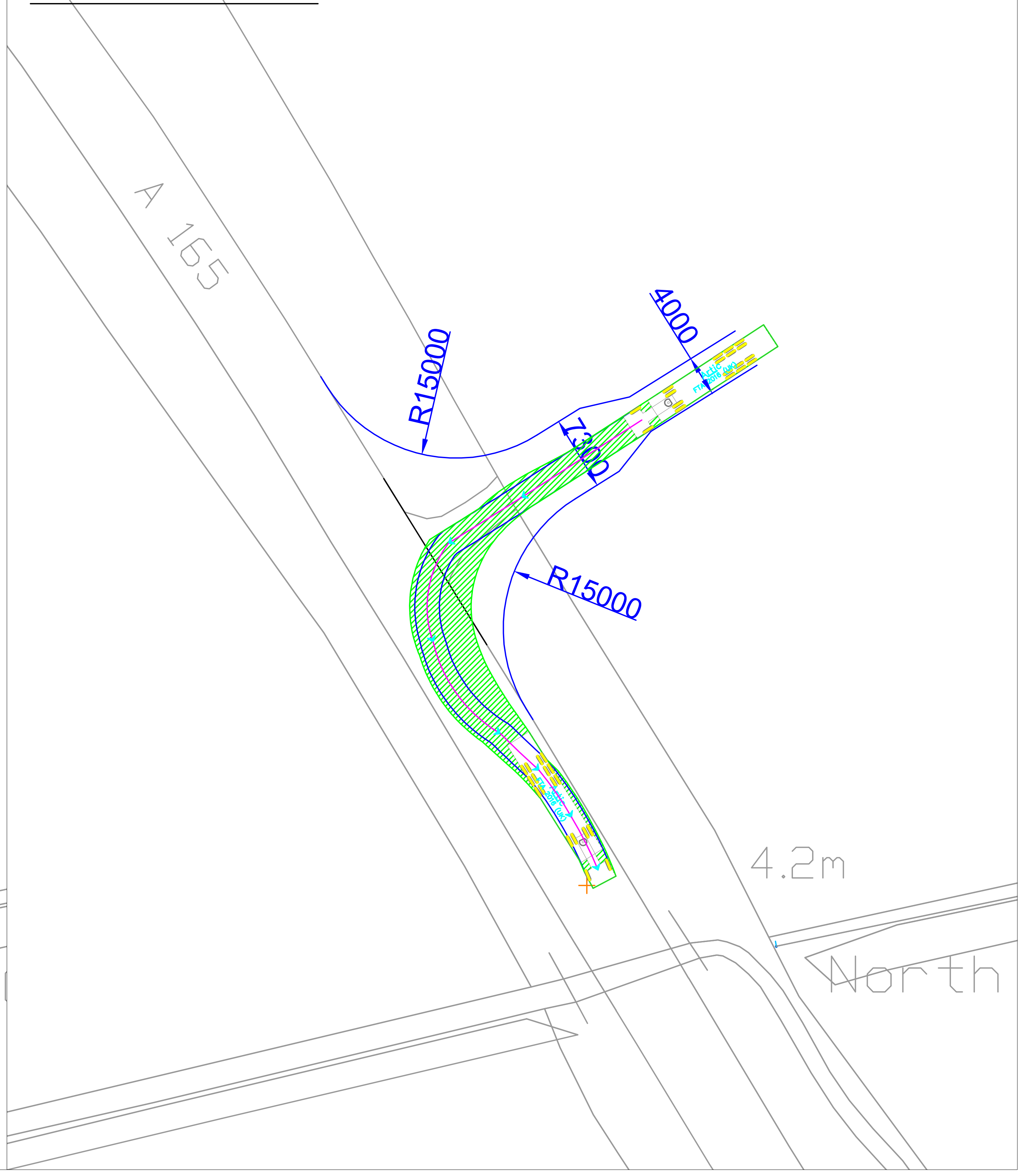

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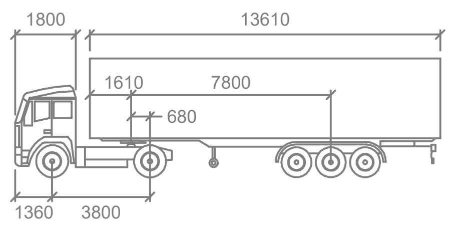

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 1 OF 3

Drawing No.: SCP/230483/ATR04.1

Rev.: -

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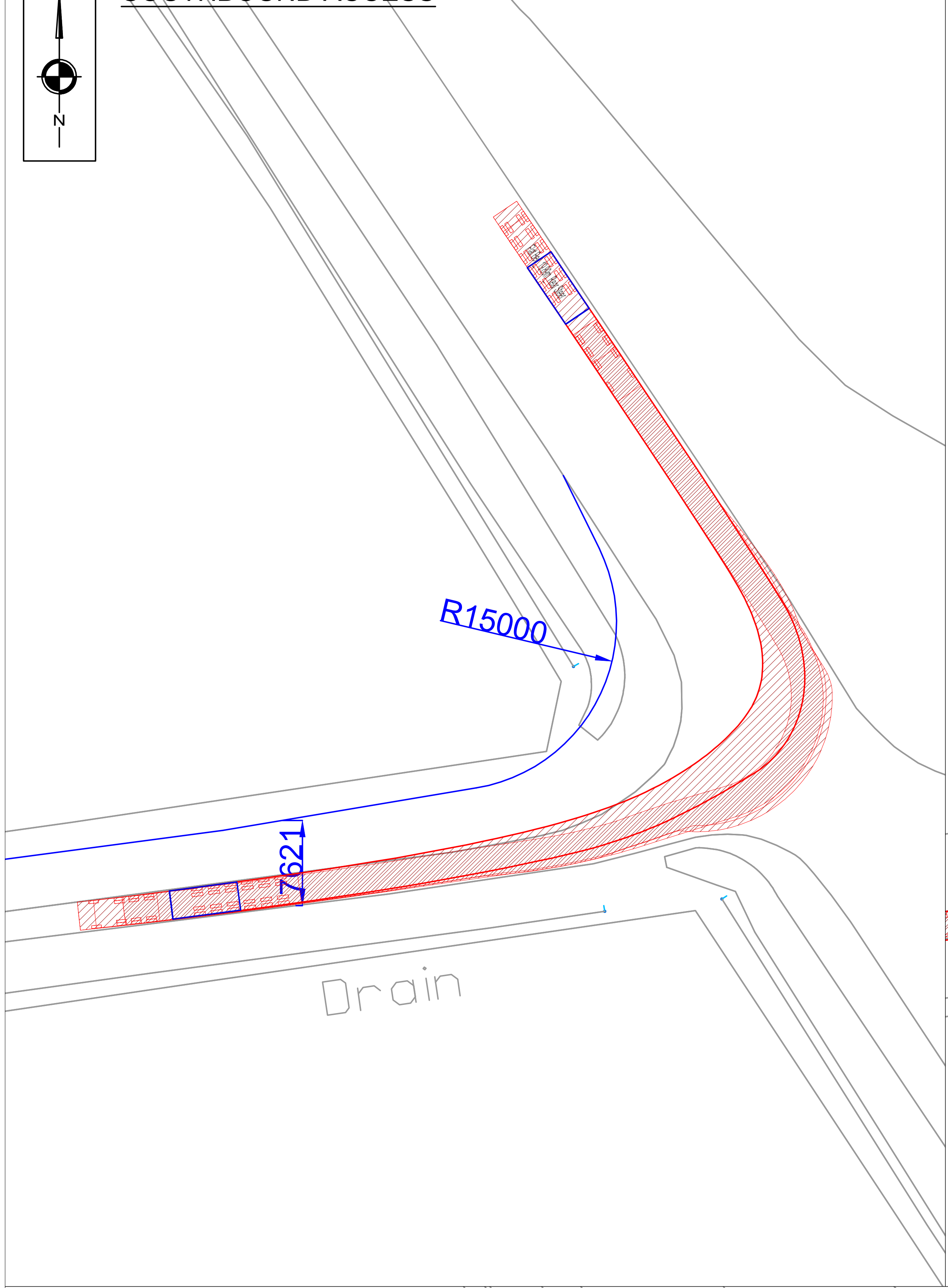

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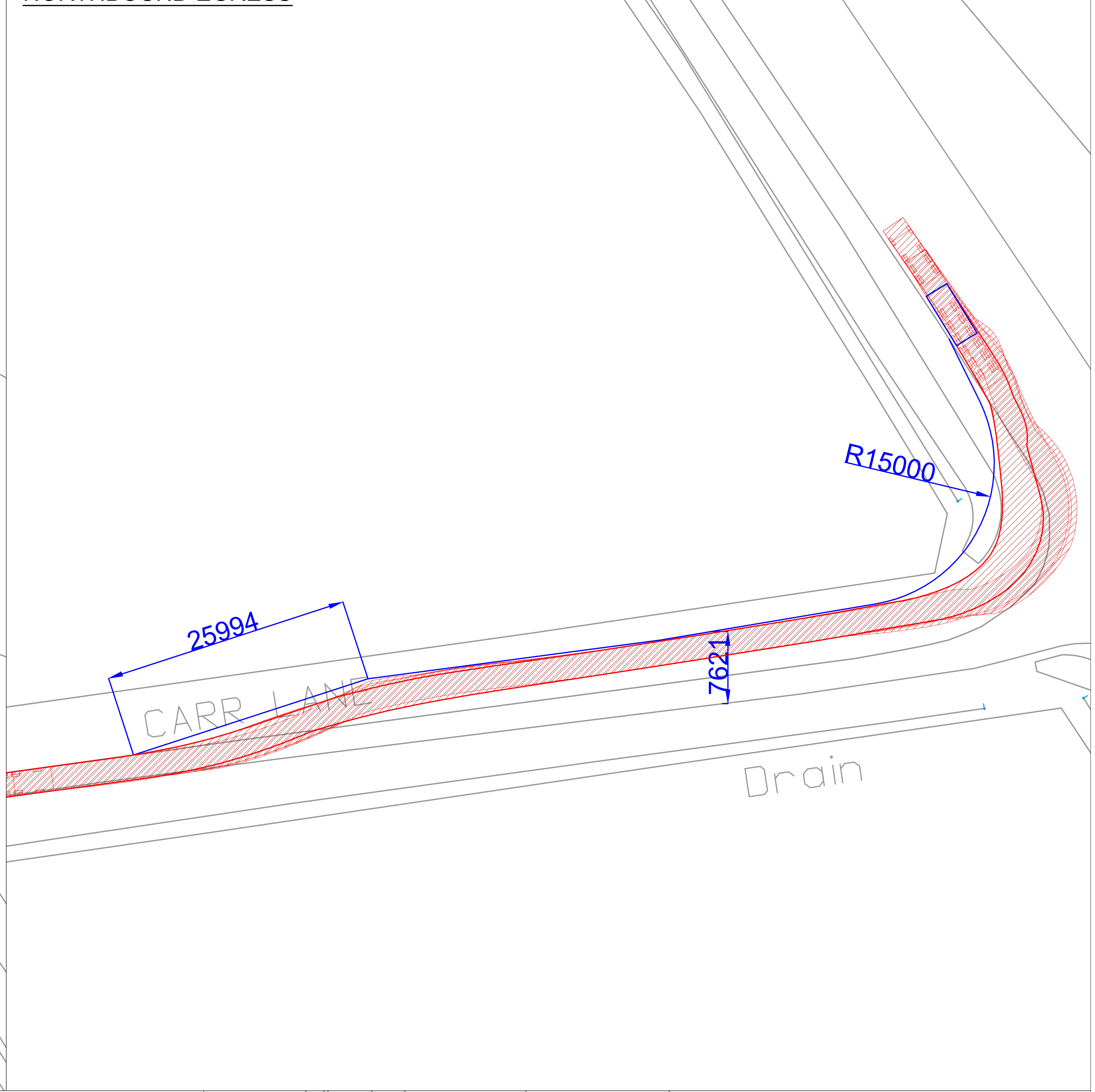

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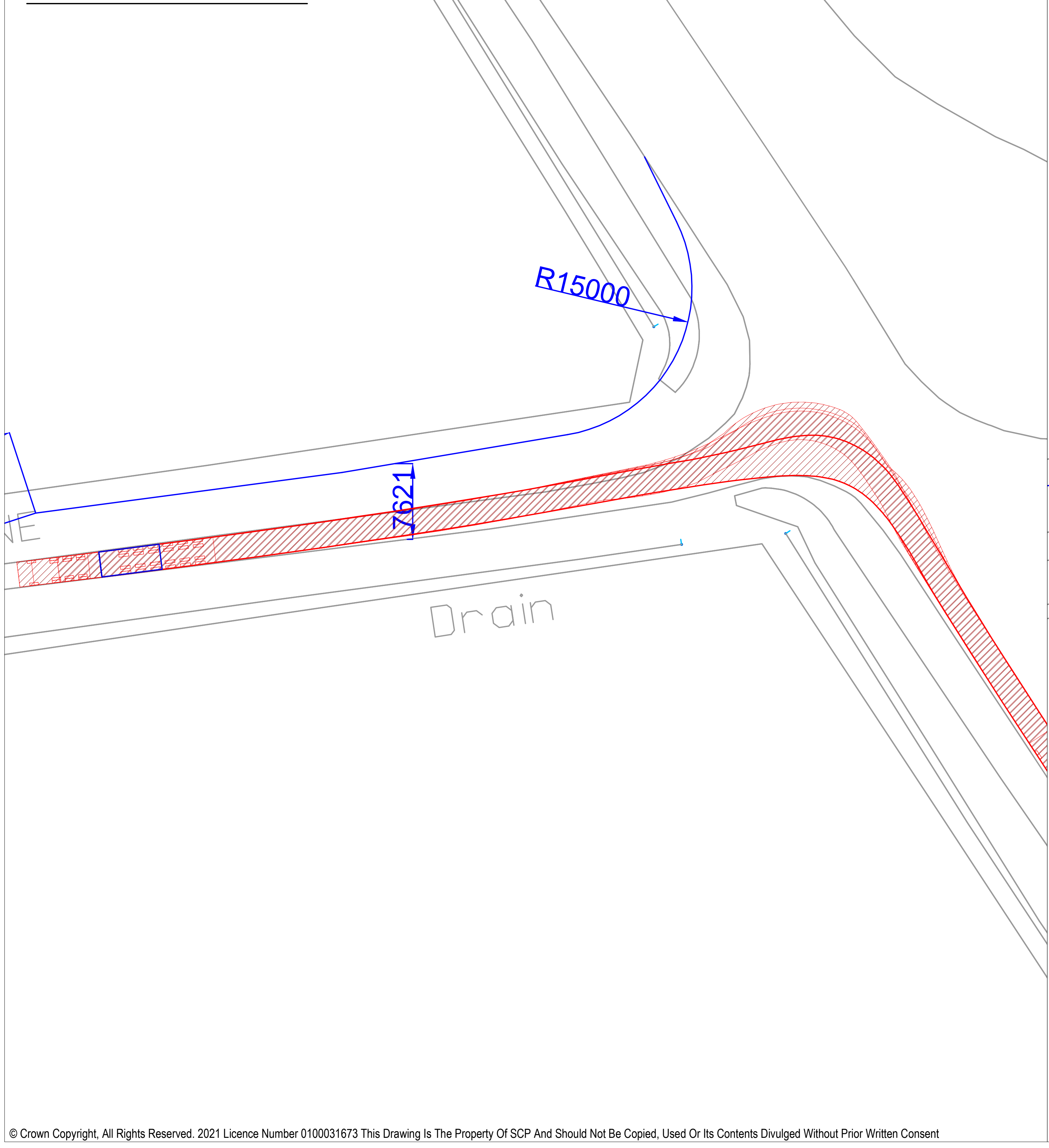

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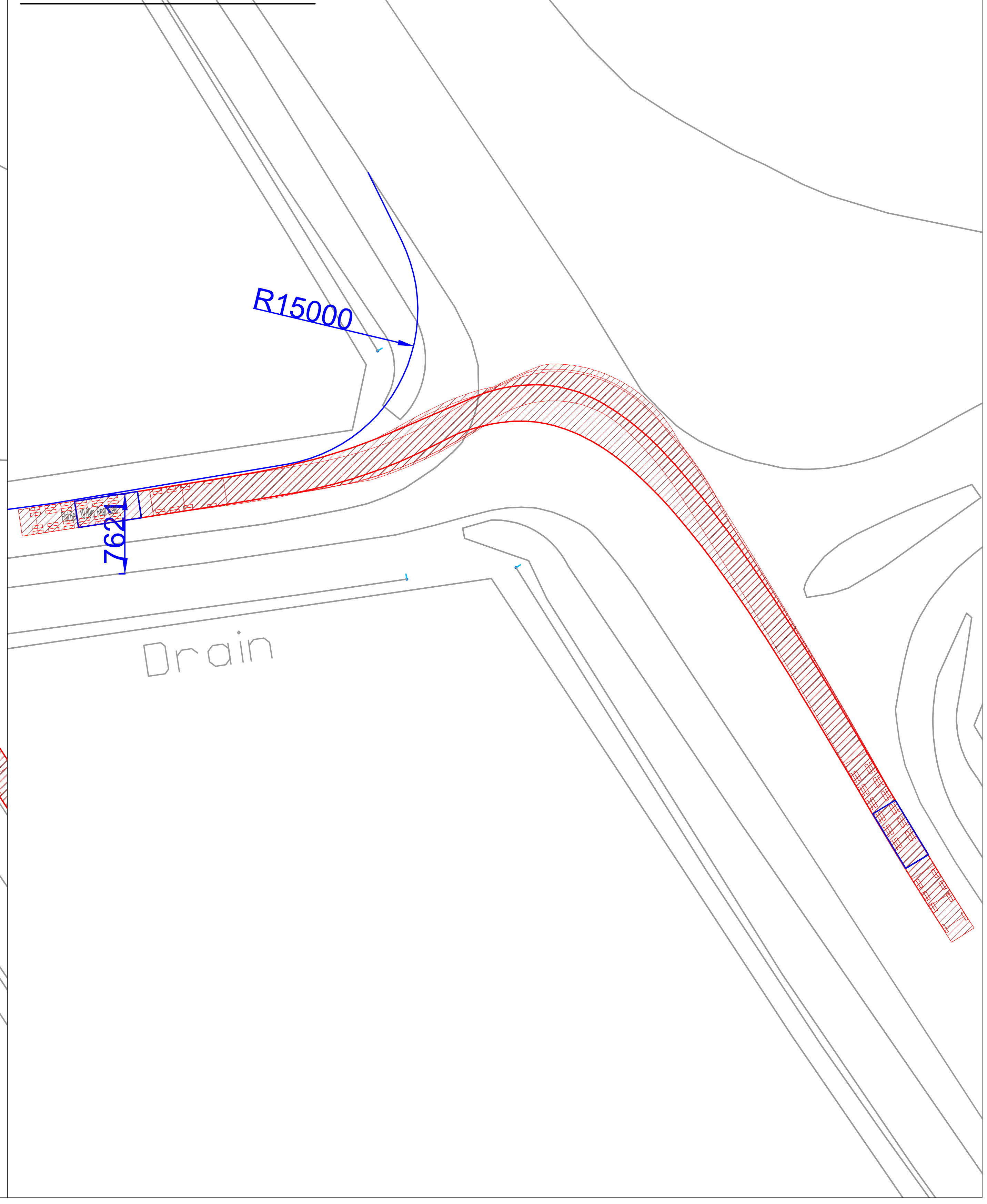

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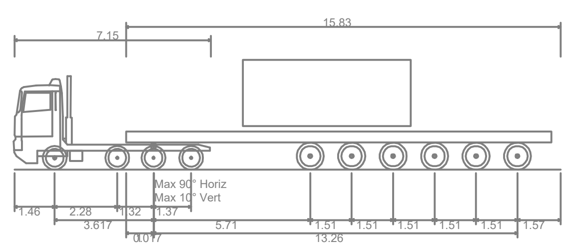

Flat Bed_19.89m_Rear Steer

Overall Length	19.890m
Overall Width	2.540m
Overall Body Height	3.996m
Min Body Ground Clearance	0.235m
Max Track Width	2.490m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.790m

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 2 OF 3

Drawing No.: SCP/230483/ATR04.2

Rev.: -

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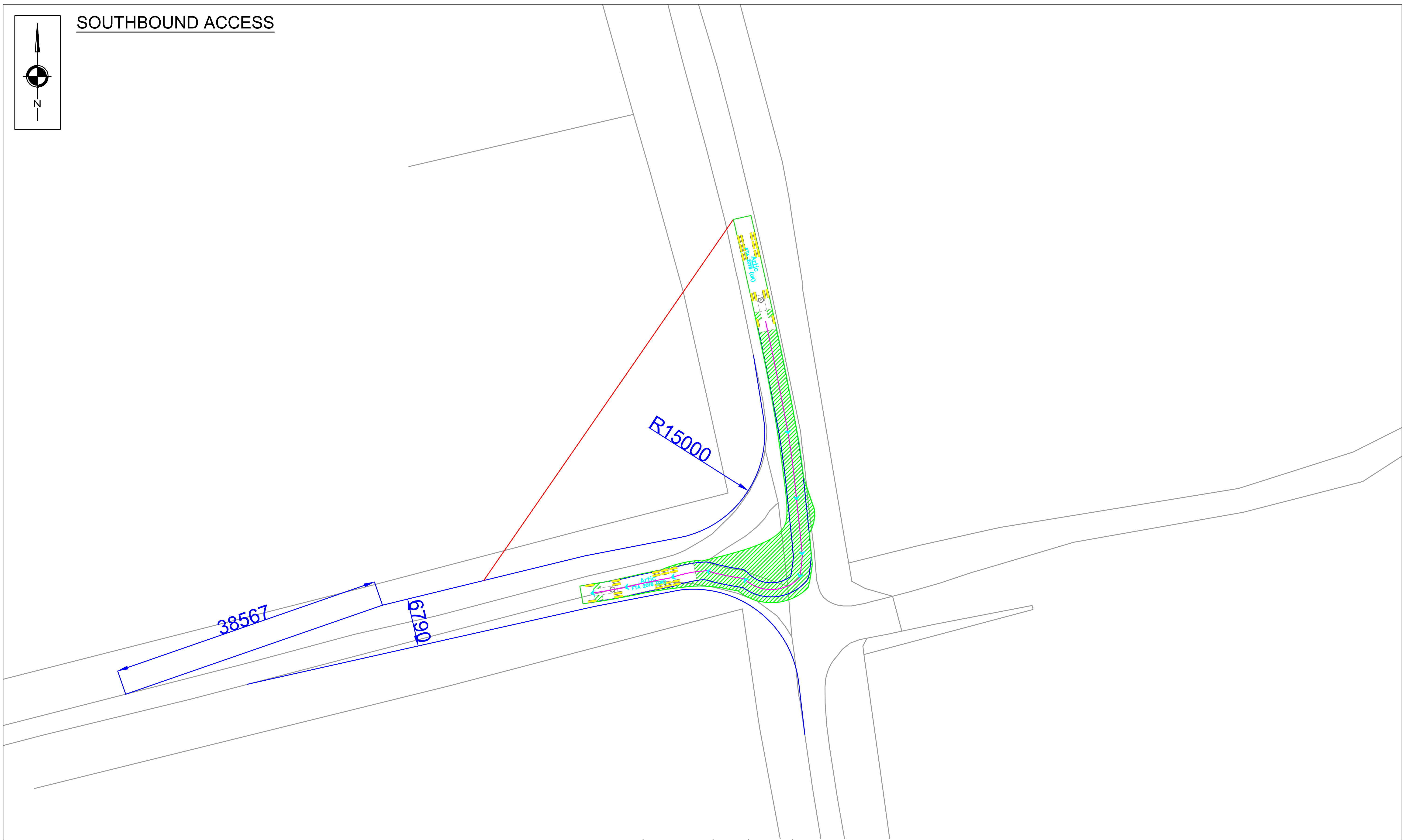

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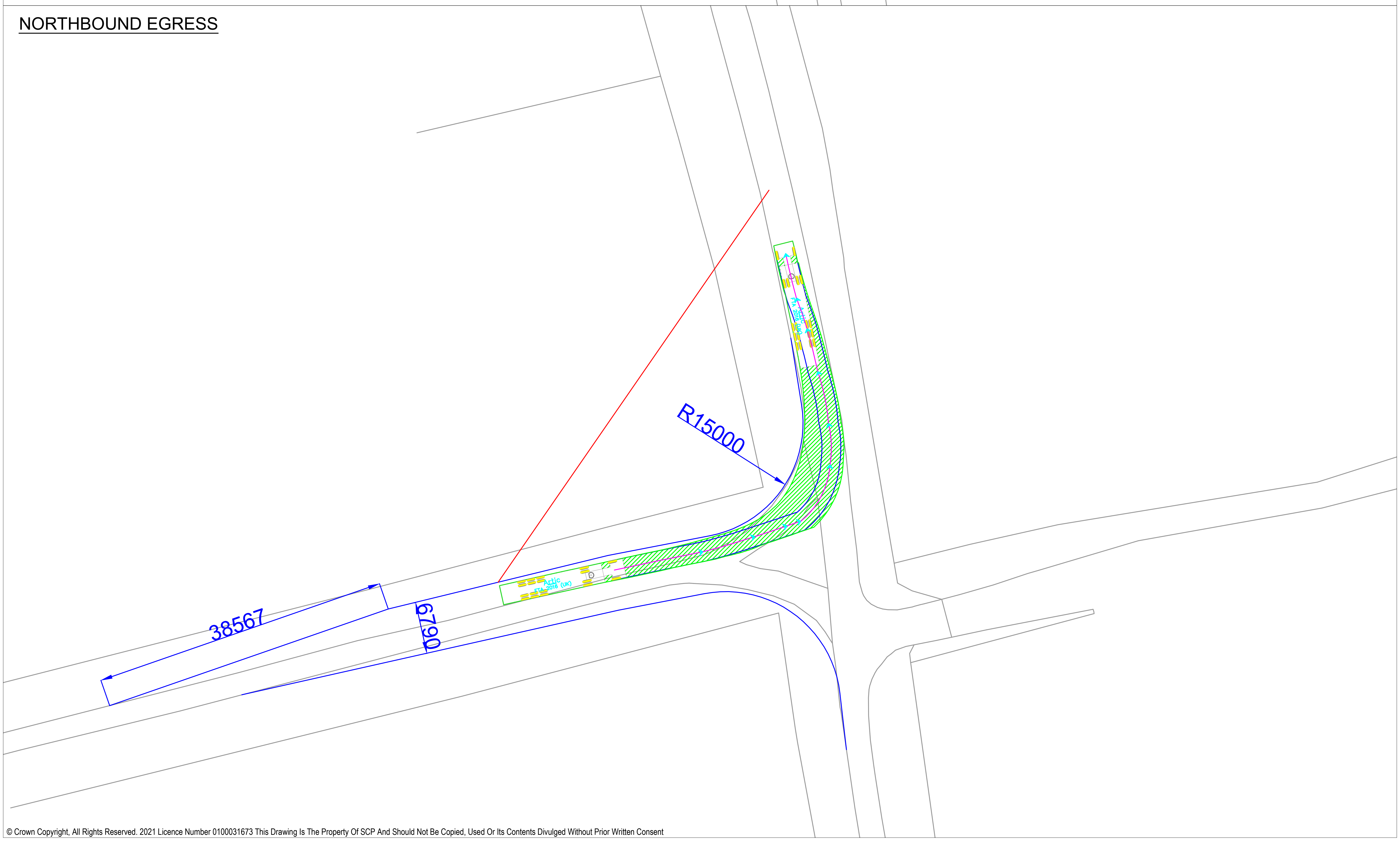

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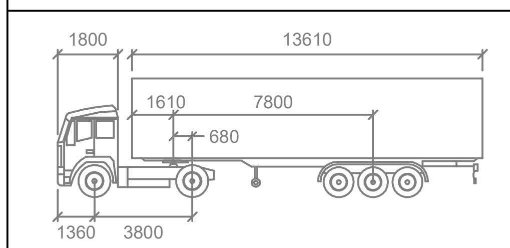

Artic

	mm		
Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

REVISIONS

REV	DESCRIPTION	DATE	BY
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Drawn By: LD	Date: 02.12.2024
Checked: CGQ	Scale@A2: 1:500
Approved: JP	Status: PLANNING

SCP
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Office of Origin: Manchester Tel: 0161 832 4400
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Client Name: RWE

Project Title: PEARTREE HILL SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS SHEET 3 OF 3

Drawing No. SCP/230483/ATR04.3 | Rev. -

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APPENDIX H

TEMPro Outputs

Assumptions
Future jobs reduced from 2,499 to 2,476 (baseline) to account for committed developments

2023 to 2026	All - Rural	
Level	Area	Local Growth Figure
E02002697	East Riding of Yorkshire 014	**1.0259 AM**
		1.0252 PM
		1.0263 AADT

Growth Factor (2026 Data/2023 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1.0117	1.0131

Future Year (2026) - Base Year (2023)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	20	30

Base Year (2023)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1,748	2,283

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1,768	2,313

Assumptions
Future jobs reduced from 2,472 to 2,440 (baseline) to account for committed developments

Growth Factor (2026 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1.0088	1.0089

AM	**1.0095**
PM	**1.0090**
AADT	**1.0089**

Future Year (2026) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	69	69

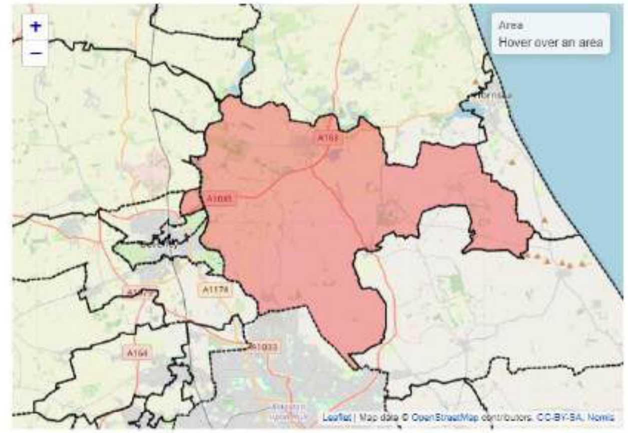
Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	7,861	7,877

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	7,930	7,946

Assumptions
No reduction to baseline due to lack of information about committed developments since 2016
2016 to 2026 All - Rural



- [ ] E02002684 : East Riding of Yorkshire 001
- [ ] E02002685 : East Riding of Yorkshire 002
- [ ] E02002686 : East Riding of Yorkshire 003
- [ ] E02002687 : East Riding of Yorkshire 004
- [ ] E02002688 : East Riding of Yorkshire 005
- [ ] E02002689 : East Riding of Yorkshire 006
- [ ] E02002691 : East Riding of Yorkshire 008
- [ ] E02002692 : East Riding of Yorkshire 009
- [ ] E02002693 : East Riding of Yorkshire 010
- [ ] E02002694 : East Riding of Yorkshire 011
- [ ] E02002695 : East Riding of Yorkshire 012
- [ ] E02002696 : East Riding of Yorkshire 013
- [x] E02002697 : East Riding of Yorkshire 014

Level	Area	Local Growth Figure	
E02002697	East Riding of Yorkshire 014	**1.0493**	**AM**
		1.0375	**PM**
		1.0486	**AADT**

Growth Factor (2026 Data/2016 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1.0320	1.0493

Future Year (2026) - Base Year (2016)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	69	66

Base Year (2016)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	2,152	1,344

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	2,221	1,410

APPENDIX I

Junctions 10 Modelling Output Files

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A1035_Meaux Lane Priority.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 03/09/2024 16:50:02

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023									
Stream B-AC	D1	0.6	16.07	0.35	C	D2	0.3	13.03	0.22	B
Stream C-AB		0.0	7.37	0.04	A		0.1	6.99	0.10	A
	2026 + Committed									
Stream B-AC	D3	1.0	29.93	0.51	D	D4	0.7	34.55	0.43	D
Stream C-AB		0.0	7.53	0.04	A		0.2	9.94	0.14	A
	2026 + Committed + Dev									
Stream B-AC	D5	1.2	34.23	0.55	D	D6	3.1	79.45	0.79	F
Stream C-AB		0.1	8.23	0.10	A		0.2	9.94	0.14	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

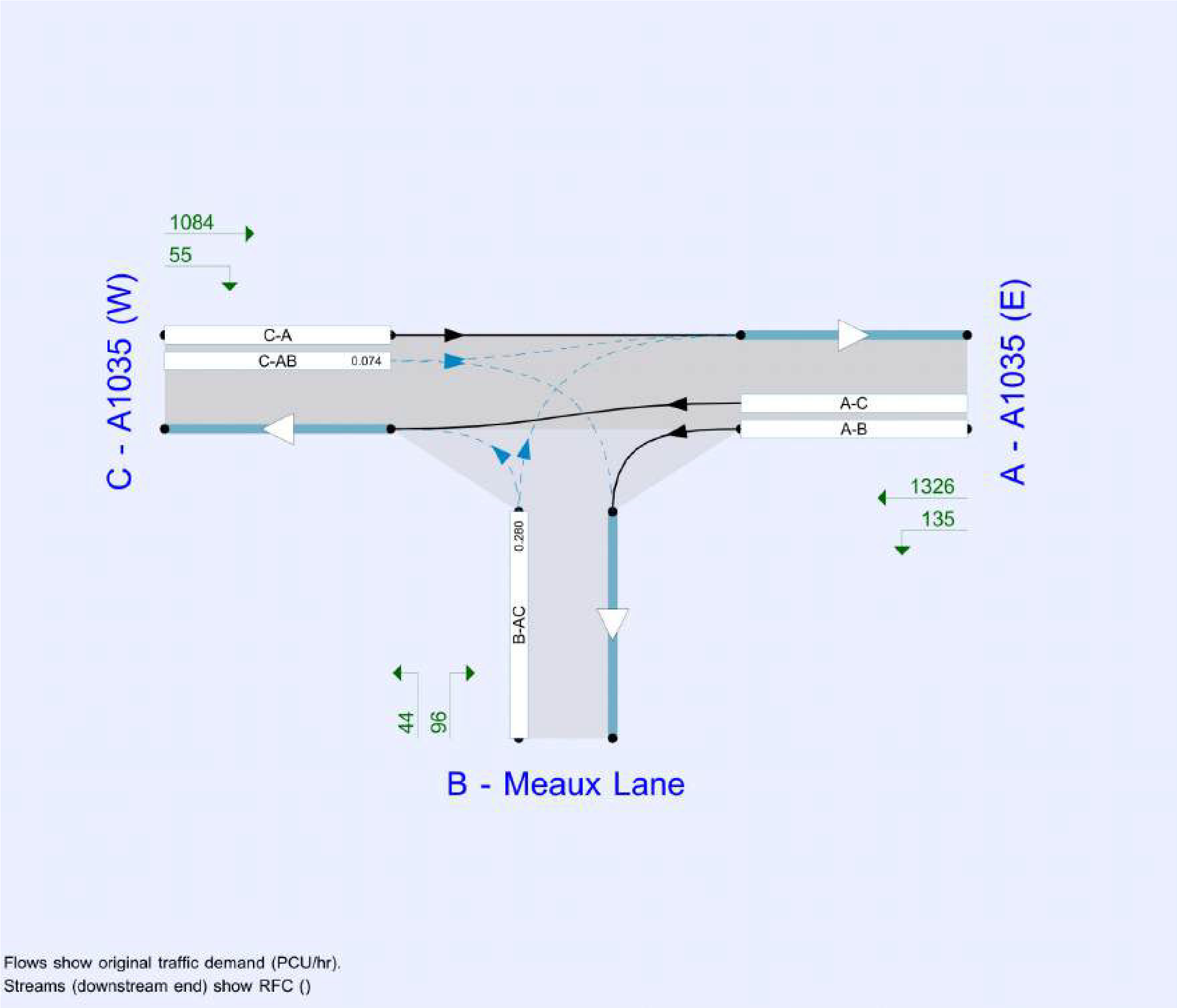
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.03	A

Arms

Arms

Arm	Name	Description	Arm type
A	A1035 (E)		Major
B	Meaux Lane		Minor
C	A1035 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A1035 (W)	11.75		✓	3.50	250.0	✓	10.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Meaux Lane	One lane	4.28	190	155

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	701	0.092	0.232	0.146	0.331
B-C	814	0.098	0.247	-	-
C-B	820	0.238	0.238	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1075	100.000
B - Meaux Lane		ONE HOUR	✓	115	100.000
C - A1035 (W)		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	80	995
	B - Meaux Lane	82	0	33
	C - A1035 (W)	722	19	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	1	6
	B - Meaux Lane	4	0	3
	C - A1035 (W)	6	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.35	16.07	0.6	C	106	158
C-AB	0.04	7.37	0.0	A	17	26
C-A					663	994
A-B					73	110
A-C					913	1370

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	479	0.181	86	0.0	0.2	9.464	A
C-AB	14	4	628	0.023	14	0.0	0.0	6.222	A
C-A	544	136			544				
A-B	60	15			60				
A-C	749	187			749				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	429	0.241	103	0.2	0.3	11.431	B
C-AB	17	4	590	0.029	17	0.0	0.0	6.658	A
C-A	649	162			649				
A-B	72	18			72				
A-C	894	224			894				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	359	0.353	126	0.3	0.6	15.949	C
C-AB	21	5	538	0.039	21	0.0	0.0	7.374	A
C-A	795	199			795				
A-B	88	22			88				
A-C	1096	274			1096				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	359	0.353	127	0.6	0.6	16.070	C
C-AB	21	5	538	0.039	21	0.0	0.0	7.374	A
C-A	795	199			795				
A-B	88	22			88				
A-C	1096	274			1096				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	429	0.241	104	0.6	0.3	11.523	B
C-AB	17	4	590	0.029	17	0.0	0.0	6.659	A
C-A	649	162			649				
A-B	72	18			72				
A-C	894	224			894				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	479	0.181	87	0.3	0.2	9.529	A
C-AB	14	4	628	0.023	14	0.0	0.0	6.225	A
C-A	544	136			544				
A-B	60	15			60				
A-C	749	187			749				

2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	858	100.000
B - Meaux Lane		ONE HOUR	✓	69	100.000
C - A1035 (W)		ONE HOUR	✓	1097	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	131	727
	B - Meaux Lane	54	0	15
	C - A1035 (W)	1043	54	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	0	3
	B - Meaux Lane	0	0	0
	C - A1035 (W)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.22	13.03	0.3	B	63	95
C-AB	0.10	6.99	0.1	A	50	74
C-A					957	1436
A-B					120	180
A-C					667	1001

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	51	0.0	0.1	8.523	A
C-AB	41	10	666	0.061	40	0.0	0.1	5.977	A
C-A	785	196			785				
A-B	99	25			99				
A-C	547	137			547				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	423	0.147	62	0.1	0.2	9.961	A
C-AB	49	12	637	0.076	48	0.1	0.1	6.366	A
C-A	938	234			938				
A-B	118	29			118				
A-C	654	163			654				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	352	0.216	76	0.2	0.3	12.994	B
C-AB	59	15	595	0.100	59	0.1	0.1	6.984	A
C-A	1148	287			1148				
A-B	144	36			144				
A-C	800	200			800				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	352	0.216	76	0.3	0.3	13.034	B
C-AB	59	15	595	0.100	59	0.1	0.1	6.986	A
C-A	1148	287			1148				
A-B	144	36			144				
A-C	800	200			800				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	423	0.147	62	0.3	0.2	9.996	A
C-AB	49	12	637	0.076	49	0.1	0.1	6.368	A
C-A	938	234			938				
A-B	118	29			118				
A-C	654	163			654				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	52	0.2	0.1	8.553	A
C-AB	41	10	666	0.061	41	0.1	0.1	5.985	A
C-A	785	196			785				
A-B	99	25			99				
A-C	547	137			547				

2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1117	100.000
B - Meaux Lane		ONE HOUR	✓	118	100.000
C - A1035 (W)		ONE HOUR	✓	1340	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	82	1035
	B - Meaux Lane	84	0	34
	C - A1035 (W)	1321	19	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	1	6
	B - Meaux Lane	4	0	3
	C - A1035 (W)	6	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.51	29.93	1.0	D	108	162
C-AB	0.04	7.53	0.0	A	17	26
C-A					1212	1818
A-B					75	113
A-C					950	1425

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	414	0.215	88	0.0	0.3	11.399	B
C-AB	14	4	620	0.023	14	0.0	0.0	6.299	A
C-A	995	249			995				
A-B	62	15			62				
A-C	779	195			779				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	349	0.304	105	0.3	0.4	15.301	C
C-AB	17	4	581	0.029	17	0.0	0.0	6.765	A
C-A	1188	297			1188				
A-B	74	18			74				
A-C	930	233			930				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	254	0.511	128	0.4	1.0	28.982	D
C-AB	21	5	527	0.040	21	0.0	0.0	7.535	A
C-A	1454	364			1454				
A-B	90	23			90				
A-C	1140	285			1140				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	254	0.511	130	1.0	1.0	29.933	D
C-AB	21	5	527	0.040	21	0.0	0.0	7.535	A
C-A	1454	364			1454				
A-B	90	23			90				
A-C	1140	285			1140				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	349	0.304	108	1.0	0.5	15.686	C
C-AB	17	4	581	0.029	17	0.0	0.0	6.766	A
C-A	1188	297			1188				
A-B	74	18			74				
A-C	930	233			930				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	414	0.215	90	0.5	0.3	11.529	B
C-AB	14	4	620	0.023	14	0.0	0.0	6.302	A
C-A	995	249			995				
A-B	62	15			62				
A-C	779	195			779				

2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.12	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1461	100.000
B - Meaux Lane		ONE HOUR	✓	71	100.000
C - A1035 (W)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	135	1326
	B - Meaux Lane	55	0	16
	C - A1035 (W)	1084	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	0	3
	B - Meaux Lane	0	0	0
	C - A1035 (W)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.43	34.55	0.7	D	65	98
C-AB	0.14	9.94	0.2	A	50	76
C-A					995	1492
A-B					124	186
A-C					1217	1825

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	362	0.148	53	0.0	0.2	11.621	B
C-AB	41	10	558	0.074	41	0.0	0.1	7.234	A
C-A	816	204			816				
A-B	102	25			102				
A-C	998	250			998				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	288	0.222	63	0.2	0.3	15.996	C
C-AB	49	12	507	0.097	49	0.1	0.1	8.172	A
C-A	974	244			974				
A-B	121	30			121				
A-C	1192	298			1192				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	182	0.429	76	0.3	0.7	33.553	D
C-AB	61	15	437	0.139	60	0.1	0.2	9.936	A
C-A	1194	298			1194				
A-B	149	37			149				
A-C	1460	365			1460				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	182	0.429	78	0.7	0.7	34.552	D
C-AB	61	15	437	0.139	61	0.2	0.2	9.944	A
C-A	1194	298			1194				
A-B	149	37			149				
A-C	1460	365			1460				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	288	0.222	66	0.7	0.3	16.313	C
C-AB	49	12	507	0.097	50	0.2	0.1	8.184	A
C-A	974	244			974				
A-B	121	30			121				
A-C	1192	298			1192				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	362	0.148	54	0.3	0.2	11.711	B
C-AB	41	10	558	0.074	42	0.1	0.1	7.246	A
C-A	816	204			816				
A-B	102	25			102				
A-C	998	250			998				

2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1158	100.000
B - Meaux Lane		ONE HOUR	✓	118	100.000
C - A1035 (W)		ONE HOUR	✓	1369	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	123	1035
	B - Meaux Lane	84	0	34
	C - A1035 (W)	1321	48	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	1	6
	B - Meaux Lane	4	0	3
	C - A1035 (W)	6	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.55	34.23	1.2	D	108	162
C-AB	0.10	8.23	0.1	A	44	66
C-A					1212	1818
A-B					113	169
A-C					950	1425

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	405	0.220	88	0.0	0.3	11.742	B
C-AB	36	9	613	0.059	36	0.0	0.1	6.613	A
C-A	995	249			995				
A-B	93	23			93				
A-C	779	195			779				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	337	0.315	105	0.3	0.5	16.092	C
C-AB	43	11	572	0.075	43	0.1	0.1	7.210	A
C-A	1188	297			1188				
A-B	111	28			111				
A-C	930	233			930				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	238	0.545	127	0.5	1.2	32.789	D
C-AB	53	13	517	0.102	53	0.1	0.1	8.224	A
C-A	1454	364			1454				
A-B	135	34			135				
A-C	1140	285			1140				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	238	0.545	130	1.2	1.2	34.225	D
C-AB	53	13	517	0.102	53	0.1	0.1	8.229	A
C-A	1454	364			1454				
A-B	135	34			135				
A-C	1140	285			1140				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	337	0.315	109	1.2	0.5	16.587	C
C-AB	43	11	572	0.075	43	0.1	0.1	7.214	A
C-A	1188	297			1188				
A-B	111	28			111				
A-C	930	233			930				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	404	0.220	90	0.5	0.3	11.889	B
C-AB	36	9	613	0.059	36	0.1	0.1	6.623	A
C-A	995	249			995				
A-B	93	23			93				
A-C	779	195			779				

2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		4.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.26	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1461	100.000
B - Meaux Lane		ONE HOUR	✓	140	100.000
C - A1035 (W)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	135	1326
	B - Meaux Lane	96	0	44
	C - A1035 (W)	1084	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
From	A - A1035 (E)	0	0	3
	B - Meaux Lane	0	0	0
	C - A1035 (W)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.79	79.45	3.1	F	128	193
C-AB	0.14	9.94	0.2	A	50	76
C-A					995	1492
A-B					124	186
A-C					1217	1825

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	377	0.280	104	0.0	0.4	13.107	B
C-AB	41	10	558	0.074	41	0.0	0.1	7.234	A
C-A	816	204			816				
A-B	102	25			102				
A-C	998	250			998				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	31	303	0.415	125	0.4	0.7	20.036	C
C-AB	49	12	507	0.097	49	0.1	0.1	8.172	A
C-A	974	244			974				
A-B	121	30			121				
A-C	1192	298			1192				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	39	195	0.790	146	0.7	2.8	64.667	F
C-AB	61	15	437	0.139	60	0.1	0.2	9.936	A
C-A	1194	298			1194				
A-B	149	37			149				
A-C	1460	365			1460				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	39	195	0.790	153	2.8	3.1	79.452	F
C-AB	61	15	437	0.139	61	0.2	0.2	9.944	A
C-A	1194	298			1194				
A-B	149	37			149				
A-C	1460	365			1460				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	31	303	0.415	135	3.1	0.7	22.606	C
C-AB	49	12	507	0.097	50	0.2	0.1	8.184	A
C-A	974	244			974				
A-B	121	30			121				
A-C	1192	298			1192				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	377	0.280	107	0.7	0.4	13.389	B
C-AB	41	10	558	0.074	42	0.1	0.1	7.246	A
C-A	816	204			816				
A-B	102	25			102				
A-C	998	250			998				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: White Cross Roundabout.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 06/09/2024 11:26:56

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - A165 (E)	D1	0.4	1.80	0.29	A	D2	0.5	1.90	0.34	A
2 - A165 White Cross Road		1.0	4.88	0.48	A		0.5	3.46	0.33	A
3 - A1035		1.2	4.99	0.53	A		2.3	7.20	0.70	A
4 - Beverley Road		0.3	3.55	0.23	A		0.2	3.16	0.14	A
	2026 Base + Committed									
1 - A165 (E)	D3	0.5	1.82	0.30	A	D4	2.4	4.16	0.70	A
2 - A165 White Cross Road		3.3	10.65	0.76	B		0.8	5.36	0.44	A
3 - A1035		66.4	139.86	1.08	F		2.7	7.97	0.73	A
4 - Beverley Road		0.6	7.08	0.38	A		0.2	3.25	0.14	A
	2026 Base + Committed + Dev									
1 - A165 (E)	D5	0.5	1.84	0.30	A	D6	2.4	4.21	0.70	A
2 - A165 White Cross Road		3.6	11.31	0.77	B		0.9	5.54	0.46	A
3 - A1035		72.8	151.23	1.09	F		3.0	8.63	0.75	A
4 - Beverley Road		0.7	7.20	0.39	A		0.2	3.28	0.14	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

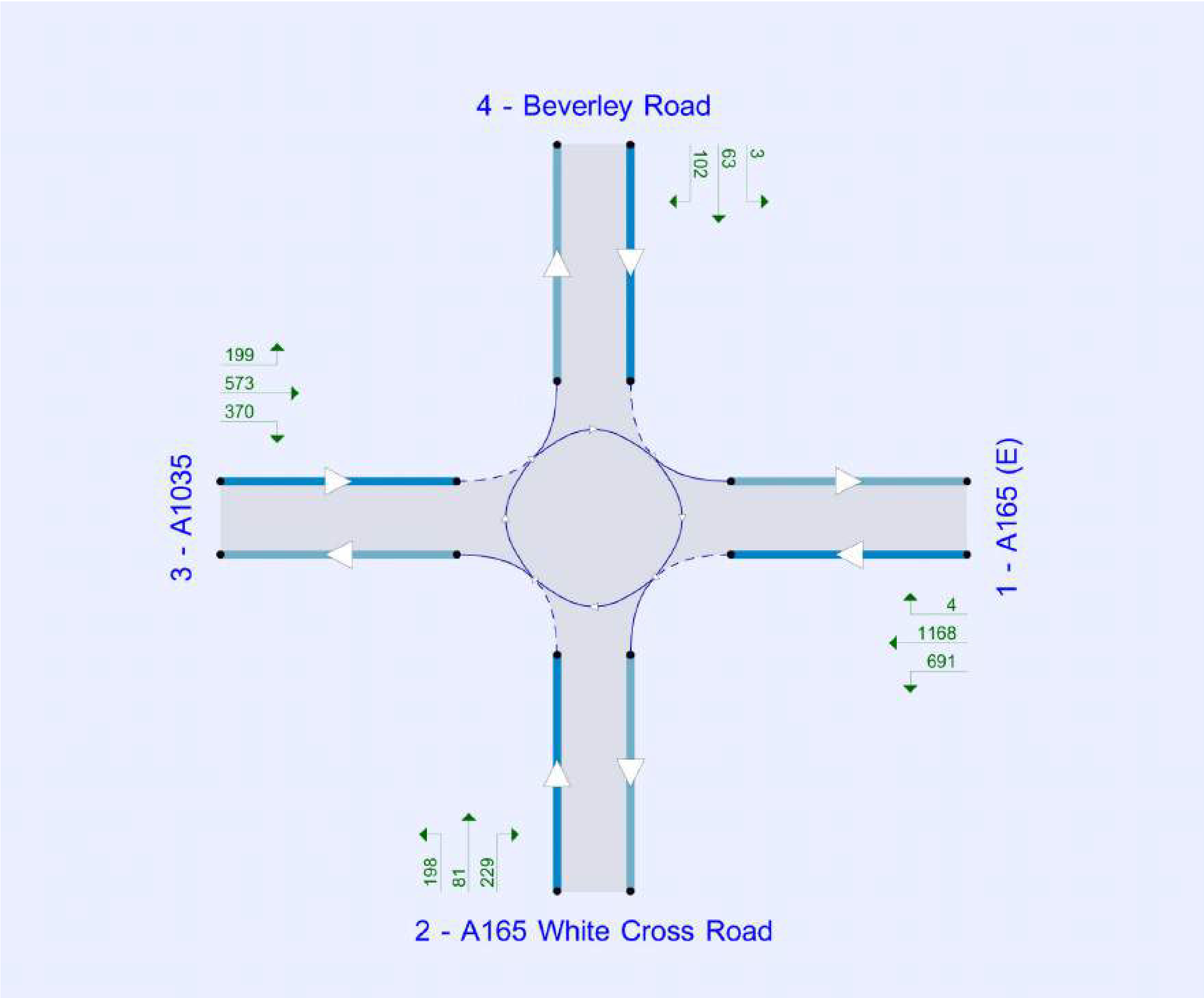
File summary

File Description

Title	
Location	
Site number	
Date	06/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 Base + Committed	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Base + Committed	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Base + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Base + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A165 (E)		
2	A165 White Cross Road		
3	A1035		
4	Beverley Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A165 (E)	8.70	10.60	77.0	41.0	70.0	16.0		
2 - A165 White Cross Road	4.20	7.20	32.7	33.0	70.0	30.0		
3 - A1035	3.40	6.80	37.8	25.0	70.0	27.0		
4 - Beverley Road	4.40	7.90	23.5	20.0	70.0	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A165 (E)	0.791	3403
2 - A165 White Cross Road	0.559	2013
3 - A1035	0.537	1867
4 - Beverley Road	0.547	2002

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	793	100.000
2 - A165 White Cross Road		ONE HOUR	✓	668	100.000
3 - A1035		ONE HOUR	✓	798	100.000
4 - Beverley Road		ONE HOUR	✓	289	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	202	563	28
	2 - A165 White Cross Road	308	0	317	43
	3 - A1035	556	182	0	60
	4 - Beverley Road	48	60	181	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	11	7	8
	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.29	1.80	0.4	A	728	1092
2 - A165 White Cross Road	0.48	4.88	1.0	A	613	919
3 - A1035	0.53	4.99	1.2	A	732	1098
4 - Beverley Road	0.23	3.55	0.3	A	265	398

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	597	149	317	3152	0.189	596	684	0.0	0.3	1.521	A
2 - A165 White Cross Road	503	126	580	1689	0.298	501	333	0.0	0.5	3.293	A
3 - A1035	601	150	284	1715	0.350	599	797	0.0	0.6	3.411	A
4 - Beverley Road	218	54	785	1572	0.138	217	98	0.0	0.2	2.760	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	713	178	380	3103	0.230	713	819	0.3	0.3	1.626	A
2 - A165 White Cross Road	601	150	694	1625	0.369	600	399	0.5	0.6	3.817	A
3 - A1035	717	179	340	1684	0.426	717	953	0.6	0.8	3.939	A
4 - Beverley Road	260	65	939	1488	0.175	260	118	0.2	0.2	3.047	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	873	218	465	3035	0.288	873	1002	0.3	0.4	1.797	A
2 - A165 White Cross Road	735	184	849	1538	0.478	734	488	0.6	1.0	4.861	A
3 - A1035	879	220	417	1644	0.535	877	1167	0.8	1.2	4.966	A
4 - Beverley Road	318	80	1149	1373	0.232	318	144	0.2	0.3	3.549	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	873	218	466	3035	0.288	873	1004	0.4	0.4	1.798	A
2 - A165 White Cross Road	735	184	850	1538	0.478	735	489	1.0	1.0	4.880	A
3 - A1035	879	220	417	1643	0.535	879	1168	1.2	1.2	4.990	A
4 - Beverley Road	318	80	1152	1371	0.232	318	144	0.3	0.3	3.553	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	713	178	381	3102	0.230	713	822	0.4	0.3	1.627	A
2 - A165 White Cross Road	601	150	695	1625	0.370	602	400	1.0	0.6	3.835	A
3 - A1035	717	179	341	1684	0.426	719	955	1.2	0.8	3.961	A
4 - Beverley Road	260	65	943	1486	0.175	260	118	0.3	0.2	3.054	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	597	149	319	3151	0.189	597	688	0.3	0.3	1.522	A
2 - A165 White Cross Road	503	126	582	1688	0.298	504	335	0.6	0.5	3.307	A
3 - A1035	601	150	286	1714	0.351	602	799	0.8	0.6	3.435	A
4 - Beverley Road	218	54	789	1570	0.139	218	99	0.2	0.2	2.767	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	913	100.000
2 - A165 White Cross Road		ONE HOUR	✓	477	100.000
3 - A1035		ONE HOUR	✓	1073	100.000
4 - Beverley Road		ONE HOUR	✓	164	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	336	573	4
	2 - A165 White Cross Road	219	0	181	77
	3 - A1035	554	335	0	184
	4 - Beverley Road	3	62	99	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	5	3	0
	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.34	1.90	0.5	A	838	1257
2 - A165 White Cross Road	0.33	3.46	0.5	A	438	657
3 - A1035	0.70	7.20	2.3	A	985	1477
4 - Beverley Road	0.14	3.16	0.2	A	150	226

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	687	172	372	3109	0.221	686	582	0.0	0.3	1.541	A
2 - A165 White Cross Road	359	90	508	1729	0.208	358	550	0.0	0.3	2.705	A
3 - A1035	808	202	225	1746	0.463	804	641	0.0	0.9	3.879	A
4 - Beverley Road	123	31	831	1547	0.080	123	199	0.0	0.1	2.562	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	821	205	445	3051	0.269	820	697	0.3	0.4	1.673	A
2 - A165 White Cross Road	429	107	607	1674	0.256	428	658	0.3	0.4	2.978	A
3 - A1035	965	241	269	1722	0.560	963	766	0.9	1.3	4.816	A
4 - Beverley Road	147	37	995	1457	0.101	147	238	0.1	0.1	2.784	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1005	251	545	2972	0.338	1005	852	0.4	0.5	1.897	A
2 - A165 White Cross Road	525	131	744	1597	0.329	525	805	0.4	0.5	3.455	A
3 - A1035	1181	295	330	1690	0.699	1177	938	1.3	2.3	7.095	A
4 - Beverley Road	181	45	1216	1336	0.135	180	291	0.1	0.2	3.157	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1005	251	546	2971	0.338	1005	854	0.5	0.5	1.898	A
2 - A165 White Cross Road	525	131	744	1597	0.329	525	807	0.5	0.5	3.459	A
3 - A1035	1181	295	330	1690	0.699	1181	939	2.3	2.3	7.205	A
4 - Beverley Road	181	45	1220	1334	0.135	181	292	0.2	0.2	3.162	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	821	205	447	3049	0.269	821	700	0.5	0.4	1.675	A
2 - A165 White Cross Road	429	107	608	1673	0.256	429	661	0.5	0.4	2.982	A
3 - A1035	965	241	270	1722	0.560	969	768	2.3	1.3	4.894	A
4 - Beverley Road	147	37	1000	1455	0.101	148	239	0.2	0.1	2.791	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	687	172	374	3107	0.221	688	585	0.4	0.3	1.545	A
2 - A165 White Cross Road	359	90	509	1728	0.208	359	553	0.4	0.3	2.709	A
3 - A1035	808	202	226	1746	0.463	810	643	1.3	0.9	3.923	A
4 - Beverley Road	123	31	836	1544	0.080	124	200	0.1	0.1	2.568	A

2026 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	59.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	59.15	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Base + Committed	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	814	100.000
2 - A165 White Cross Road		ONE HOUR	✓	1047	100.000
3 - A1035		ONE HOUR	✓	1399	100.000
4 - Beverley Road		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	207	578	29
	2 - A165 White Cross Road	663	0	340	44
	3 - A1035	1151	187	0	61
	4 - Beverley Road	49	62	186	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	11	7	8
	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.30	1.82	0.5	A	747	1120
2 - A165 White Cross Road	0.76	10.65	3.3	B	961	1441
3 - A1035	1.08	139.86	66.4	F	1284	1926
4 - Beverley Road	0.38	7.08	0.6	A	273	409

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	326	3146	0.195	612	1393	0.0	0.3	1.534	A
2 - A165 White Cross Road	788	197	596	1680	0.469	784	342	0.0	1.0	4.418	A
3 - A1035	1053	263	551	1571	0.670	1045	829	0.0	2.1	7.142	A
4 - Beverley Road	224	56	1496	1183	0.189	223	100	0.0	0.2	3.893	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	389	3095	0.236	731	1664	0.3	0.3	1.644	A
2 - A165 White Cross Road	941	235	712	1615	0.583	939	408	1.0	1.5	5.861	A
3 - A1035	1258	314	660	1513	0.831	1247	991	2.1	4.8	13.812	B
4 - Beverley Road	267	67	1787	1024	0.261	267	120	0.2	0.4	4.940	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	460	3039	0.295	896	1937	0.3	0.5	1.814	A
2 - A165 White Cross Road	1153	288	872	1525	0.756	1146	484	1.5	3.3	10.280	B
3 - A1035	1540	385	806	1435	1.074	1407	1212	4.8	38.0	65.965	F
4 - Beverley Road	327	82	2072	868	0.377	326	141	0.4	0.6	6.894	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	464	3036	0.295	896	1958	0.5	0.5	1.816	A
2 - A165 White Cross Road	1153	288	873	1525	0.756	1152	487	3.3	3.3	10.645	B
3 - A1035	1540	385	810	1432	1.075	1427	1215	38.0	66.4	139.857	F
4 - Beverley Road	327	82	2094	856	0.382	327	143	0.6	0.6	7.081	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	422	3069	0.238	732	1869	0.5	0.3	1.663	A
2 - A165 White Cross Road	941	235	714	1614	0.583	948	441	3.3	1.6	6.029	A
3 - A1035	1258	314	666	1509	0.833	1488	996	66.4	8.9	97.503	F
4 - Beverley Road	267	67	2023	894	0.299	268	131	0.6	0.4	5.980	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	332	3141	0.195	613	1426	0.3	0.3	1.538	A
2 - A165 White Cross Road	788	197	598	1679	0.469	791	347	1.6	1.0	4.484	A
3 - A1035	1053	263	556	1569	0.671	1080	833	8.9	2.2	8.210	A
4 - Beverley Road	224	56	1533	1162	0.192	224	102	0.4	0.2	3.993	A

2026 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Base + Committed	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	1863	100.000
2 - A165 White Cross Road		ONE HOUR	✓	488	100.000
3 - A1035		ONE HOUR	✓	1114	100.000
4 - Beverley Road		ONE HOUR	✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	691	1168	4
	2 - A165 White Cross Road	224	0	185	79
	3 - A1035	568	358	0	188
	4 - Beverley Road	3	63	102	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	5	3	0
	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.70	4.16	2.4	A	1710	2564
2 - A165 White Cross Road	0.44	5.36	0.8	A	448	672
3 - A1035	0.73	7.97	2.7	A	1022	1533
4 - Beverley Road	0.14	3.25	0.2	A	154	231

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	392	3093	0.453	1399	596	0.0	0.9	2.200	A
2 - A165 White Cross Road	367	92	957	1478	0.249	366	835	0.0	0.3	3.330	A
3 - A1035	839	210	230	1744	0.481	835	1093	0.0	0.9	4.019	A
4 - Beverley Road	126	32	862	1530	0.083	126	203	0.0	0.1	2.599	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	469	3032	0.552	1673	713	0.9	1.3	2.744	A
2 - A165 White Cross Road	439	110	1144	1373	0.319	438	998	0.3	0.5	3.963	A
3 - A1035	1001	250	276	1719	0.583	1000	1307	0.9	1.4	5.081	A
4 - Beverley Road	151	38	1032	1437	0.105	151	243	0.1	0.1	2.837	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	574	2949	0.696	2047	872	1.3	2.3	4.119	A
2 - A165 White Cross Road	537	134	1400	1230	0.437	536	1221	0.5	0.8	5.332	A
3 - A1035	1227	307	337	1686	0.727	1222	1599	1.4	2.6	7.810	A
4 - Beverley Road	185	46	1262	1311	0.141	185	297	0.1	0.2	3.238	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	576	2948	0.696	2051	875	2.3	2.4	4.165	A
2 - A165 White Cross Road	537	134	1403	1229	0.437	537	1224	0.8	0.8	5.363	A
3 - A1035	1227	307	338	1686	0.728	1226	1602	2.6	2.7	7.973	A
4 - Beverley Road	185	46	1266	1309	0.141	185	298	0.2	0.2	3.245	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	472	3030	0.553	1679	718	2.4	1.3	2.772	A
2 - A165 White Cross Road	439	110	1148	1371	0.320	440	1003	0.8	0.5	3.987	A
3 - A1035	1001	250	277	1719	0.583	1006	1311	2.7	1.4	5.184	A
4 - Beverley Road	151	38	1039	1433	0.105	151	245	0.2	0.1	2.847	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	394	3091	0.454	1404	600	1.3	0.9	2.215	A
2 - A165 White Cross Road	367	92	960	1476	0.249	368	838	0.5	0.3	3.347	A
3 - A1035	839	210	231	1743	0.481	841	1097	1.4	1.0	4.072	A
4 - Beverley Road	126	32	868	1527	0.083	127	204	0.1	0.1	2.605	A

2026 Base + Committed + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	63.60	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	63.60	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	829	100.000
2 - A165 White Cross Road		ONE HOUR	✓	1059	100.000
3 - A1035		ONE HOUR	✓	1412	100.000
4 - Beverley Road		ONE HOUR	✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	212	588	29
	2 - A165 White Cross Road	663	0	352	44
	3 - A1035	1151	200	0	61
	4 - Beverley Road	49	64	191	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	11	7	8
	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.30	1.84	0.5	A	761	1141
2 - A165 White Cross Road	0.77	11.31	3.6	B	972	1458
3 - A1035	1.09	151.23	72.8	F	1296	1944
4 - Beverley Road	0.39	7.20	0.7	A	279	418

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	624	156	340	3134	0.199	623	1393	0.0	0.3	1.548	A
2 - A165 White Cross Road	797	199	607	1674	0.476	793	357	0.0	1.0	4.490	A
3 - A1035	1063	266	551	1571	0.677	1054	849	0.0	2.2	7.268	A
4 - Beverley Road	229	57	1505	1178	0.194	228	100	0.0	0.2	3.936	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	745	186	407	3081	0.242	745	1664	0.3	0.3	1.664	A
2 - A165 White Cross Road	952	238	726	1607	0.592	950	426	1.0	1.6	6.016	A
3 - A1035	1269	317	660	1513	0.839	1258	1015	2.2	5.0	14.349	B
4 - Beverley Road	273	68	1798	1018	0.269	273	120	0.2	0.4	5.022	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	913	228	480	3024	0.302	912	1929	0.3	0.5	1.841	A
2 - A165 White Cross Road	1166	291	889	1516	0.769	1158	503	1.6	3.5	10.867	B
3 - A1035	1555	389	805	1435	1.083	1411	1242	5.0	41.1	69.949	F
4 - Beverley Road	335	84	2075	866	0.386	334	141	0.4	0.6	7.013	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	913	228	483	3021	0.302	913	1948	0.5	0.5	1.843	A
2 - A165 White Cross Road	1166	291	890	1516	0.769	1166	506	3.5	3.6	11.312	B
3 - A1035	1555	389	810	1432	1.085	1428	1245	41.1	72.8	151.227	F
4 - Beverley Road	335	84	2096	855	0.392	335	142	0.6	0.7	7.198	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	745	186	441	3055	0.244	746	1858	0.5	0.3	1.686	A
2 - A165 White Cross Road	952	238	727	1607	0.593	960	459	3.6	1.6	6.211	A
3 - A1035	1269	317	667	1509	0.841	1488	1020	72.8	18.2	114.468	F
4 - Beverley Road	273	68	2024	894	0.306	274	130	0.7	0.5	6.046	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	624	156	352	3124	0.200	624	1456	0.3	0.3	1.557	A
2 - A165 White Cross Road	797	199	609	1673	0.477	800	368	1.6	1.0	4.563	A
3 - A1035	1063	266	556	1569	0.678	1127	853	18.2	2.3	9.885	A
4 - Beverley Road	229	57	1579	1138	0.201	230	104	0.5	0.3	4.127	A

2026 Base + Committed + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	1863	100.000
2 - A165 White Cross Road		ONE HOUR	✓	508	100.000
3 - A1035		ONE HOUR	✓	1142	100.000
4 - Beverley Road		ONE HOUR	✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	691	1168	4
	2 - A165 White Cross Road	229	0	198	81
	3 - A1035	573	370	0	199
	4 - Beverley Road	3	63	102	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
From	1 - A165 (E)	0	5	3	0
	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.70	4.21	2.4	A	1710	2564
2 - A165 White Cross Road	0.46	5.54	0.9	A	466	699
3 - A1035	0.75	8.63	3.0	A	1048	1572
4 - Beverley Road	0.14	3.28	0.2	A	154	231

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	401	3086	0.455	1399	603	0.0	0.9	2.209	A
2 - A165 White Cross Road	382	96	957	1478	0.259	381	844	0.0	0.4	3.375	A
3 - A1035	860	215	236	1741	0.494	856	1102	0.0	1.0	4.125	A
4 - Beverley Road	126	32	878	1521	0.083	126	213	0.0	0.1	2.616	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	480	3023	0.554	1673	722	0.9	1.3	2.762	A
2 - A165 White Cross Road	457	114	1144	1373	0.333	456	1009	0.4	0.5	4.040	A
3 - A1035	1027	257	282	1716	0.598	1025	1318	1.0	1.5	5.288	A
4 - Beverley Road	151	38	1052	1426	0.106	151	255	0.1	0.1	2.860	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	587	2939	0.698	2047	883	1.3	2.4	4.167	A
2 - A165 White Cross Road	559	140	1400	1230	0.455	558	1234	0.5	0.8	5.504	A
3 - A1035	1257	314	345	1682	0.748	1252	1613	1.5	2.9	8.411	A
4 - Beverley Road	185	46	1285	1298	0.142	185	311	0.1	0.2	3.276	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	589	2937	0.698	2051	886	2.4	2.4	4.214	A
2 - A165 White Cross Road	559	140	1403	1229	0.455	559	1237	0.8	0.9	5.539	A
3 - A1035	1257	314	346	1682	0.748	1257	1616	2.9	3.0	8.627	A
4 - Beverley Road	185	46	1290	1296	0.143	185	313	0.2	0.2	3.284	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	483	3021	0.554	1679	727	2.4	1.3	2.791	A
2 - A165 White Cross Road	457	114	1148	1371	0.333	458	1014	0.9	0.5	4.066	A
3 - A1035	1027	257	283	1715	0.599	1032	1323	3.0	1.5	5.412	A
4 - Beverley Road	151	38	1059	1422	0.106	151	257	0.2	0.1	2.870	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	404	3084	0.455	1404	607	1.3	0.9	2.226	A
2 - A165 White Cross Road	382	96	960	1476	0.259	383	848	0.5	0.4	3.395	A
3 - A1035	860	215	237	1740	0.494	862	1107	1.5	1.0	4.186	A
4 - Beverley Road	126	32	884	1518	0.083	127	214	0.1	0.1	2.624	A

Junctions 10

PICADY 10 - Priority Intersection Module

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: A165_Land Area B Priority.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 03/09/2024 15:35:51

»2026 + Committed + Dev, AM
»2026 + Committed + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2026 + Committed + Dev									
Stream B-AC	D1	0.0	0.00	0.00	A	D2	0.0	18.20	0.03	C
Stream C-AB		0.0	3.44	0.01	A		0.0	0.00	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

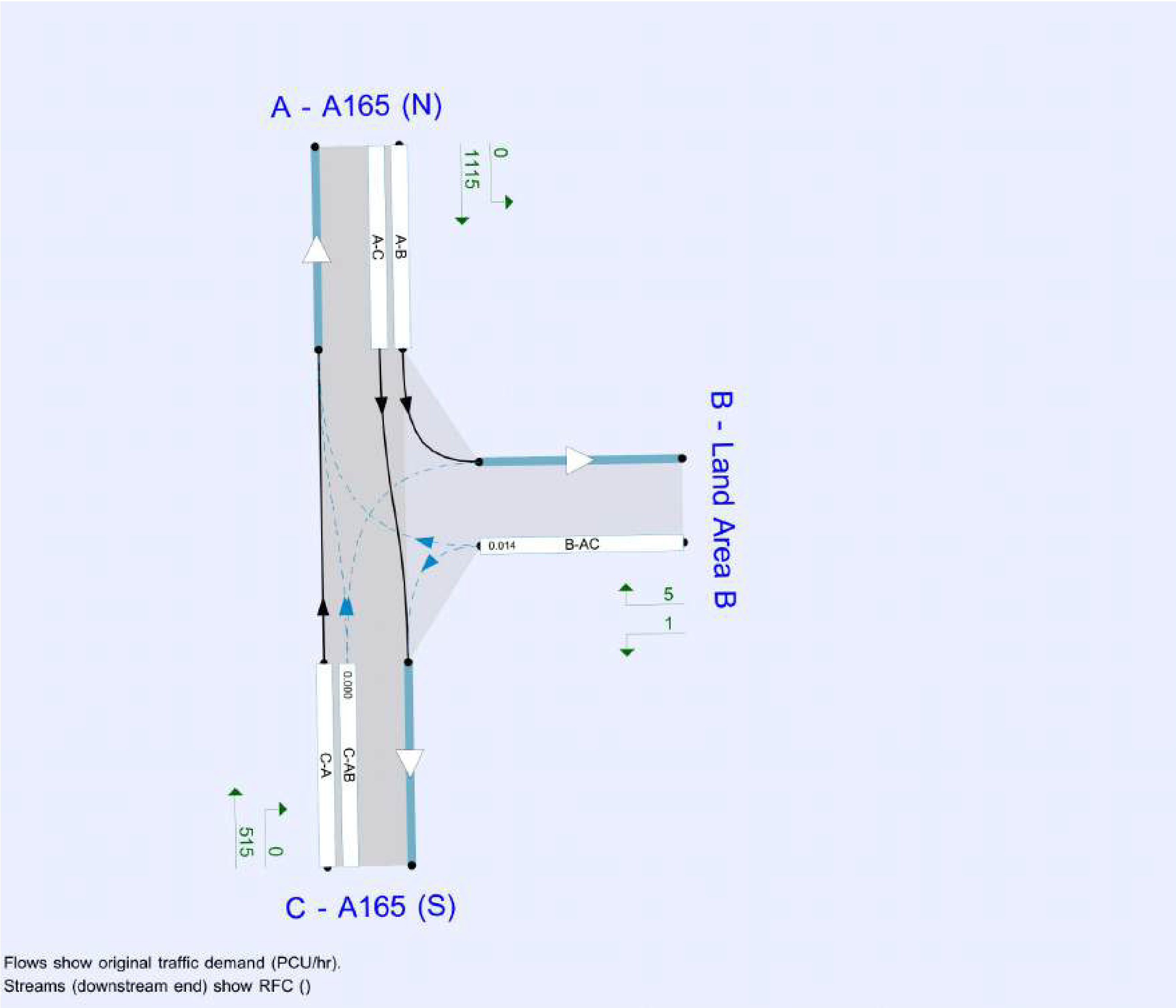
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.01	A

Arms

Arms

Arm	Name	Description	Arm type
A	A165 (N)		Major
B	Land Area B		Minor
C	A165 (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A165 (S)	7.70			175.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Land Area B	One lane	4.40	45	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578	0.098	0.248	0.156	0.354
B-C	733	0.104	0.262	-	-
C-B	675	0.242	0.242	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	487	100.000
B - Land Area B		ONE HOUR	✓	0	100.000
C - A165 (S)		ONE HOUR	✓	1050	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (N)	B - Land Area B	C - A165 (S)
From	A - A165 (N)	0	5	482
	B - Land Area B	0	0	0
	C - A165 (S)	1049	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (N)	B - Land Area B	C - A165 (S)
From	A - A165 (N)	0	0	13
	B - Land Area B	0	0	0
	C - A165 (S)	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.01	3.44	0.0	A	5	7
C-A					959	1438
A-B					5	7
A-C					442	663

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	3	0.64	1119	0.002	3	0.0	0.0	3.425	A
C-A	788	197			788				
A-B	4	0.94			4				
A-C	363	91			363				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-AB	4	1	1214	0.003	4	0.0	0.0	3.172	A
C-A	940	235			940				
A-B	4	1			4				
A-C	433	108			433				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	367	0.000	0	0.0	0.0	0.000	A
C-AB	8	2	1350	0.006	8	0.0	0.0	2.879	A
C-A	1148	287			1148				
A-B	6	1			6				
A-C	531	133			531				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	367	0.000	0	0.0	0.0	0.000	A
C-AB	8	2	1350	0.006	8	0.0	0.0	2.886	A
C-A	1148	287			1148				
A-B	6	1			6				
A-C	531	133			531				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-AB	4	1	1214	0.003	4	0.0	0.0	3.197	A
C-A	940	235			940				
A-B	4	1			4				
A-C	433	108			433				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	3	0.64	1119	0.002	3	0.0	0.0	3.441	A
C-A	788	197			788				
A-B	4	0.94			4				
A-C	363	91			363				

2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.07	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.07	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	1115	100.000
B - Land Area B		ONE HOUR	✓	6	100.000
C - A165 (S)		ONE HOUR	✓	515	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (N)	B - Land Area B	C - A165 (S)
From	A - A165 (N)	0	0	1115
	B - Land Area B	5	0	1
	C - A165 (S)	515	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (N)	B - Land Area B	C - A165 (S)
From	A - A165 (N)	0	0	5
	B - Land Area B	0	0	0
	C - A165 (S)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	18.20	0.0	C	6	8
C-AB	0.00	0.00	0.0	A	0	0
C-A					473	709
A-B					0	0
A-C					1023	1535

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	332	0.014	4	0.0	0.0	11.000	B
C-AB	0	0	472	0.000	0	0.0	0.0	0.000	A
C-A	388	97			388				
A-B	0	0			0				
A-C	839	210			839				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	279	0.019	5	0.0	0.0	13.169	B
C-AB	0	0	432	0.000	0	0.0	0.0	0.000	A
C-A	463	116			463				
A-B	0	0			0				
A-C	1002	251			1002				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	204	0.032	7	0.0	0.0	18.187	C
C-AB	0	0	378	0.000	0	0.0	0.0	0.000	A
C-A	567	142			567				
A-B	0	0			0				
A-C	1228	307			1228				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	204	0.032	7	0.0	0.0	18.196	C
C-AB	0	0	378	0.000	0	0.0	0.0	0.000	A
C-A	567	142			567				
A-B	0	0			0				
A-C	1228	307			1228				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	279	0.019	5	0.0	0.0	13.174	B
C-AB	0	0	432	0.000	0	0.0	0.0	0.000	A
C-A	463	116			463				
A-B	0	0			0				
A-C	1002	251			1002				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	332	0.014	5	0.0	0.0	11.004	B
C-AB	0	0	472	0.000	0	0.0	0.0	0.000	A
C-A	388	97			388				
A-B	0	0			0				
A-C	839	210			839				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905

For sales and distribution information, program advice and maintenance, contact TRL Software:
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: A165_Carr Lane Priority.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 03/09/2024 16:33:04

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
Stream B-AC	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	5.22	0.00	A
	2026 + Committed									
Stream B-AC	D3	0.0	0.00	0.00	A	D4	0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	5.25	0.00	A
	2026 + Committed + Dev									
Stream B-AC	D5	0.0	0.00	0.00	A	D6	0.0	7.38	0.02	A
Stream C-AB		0.0	6.81	0.01	A		0.0	5.29	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

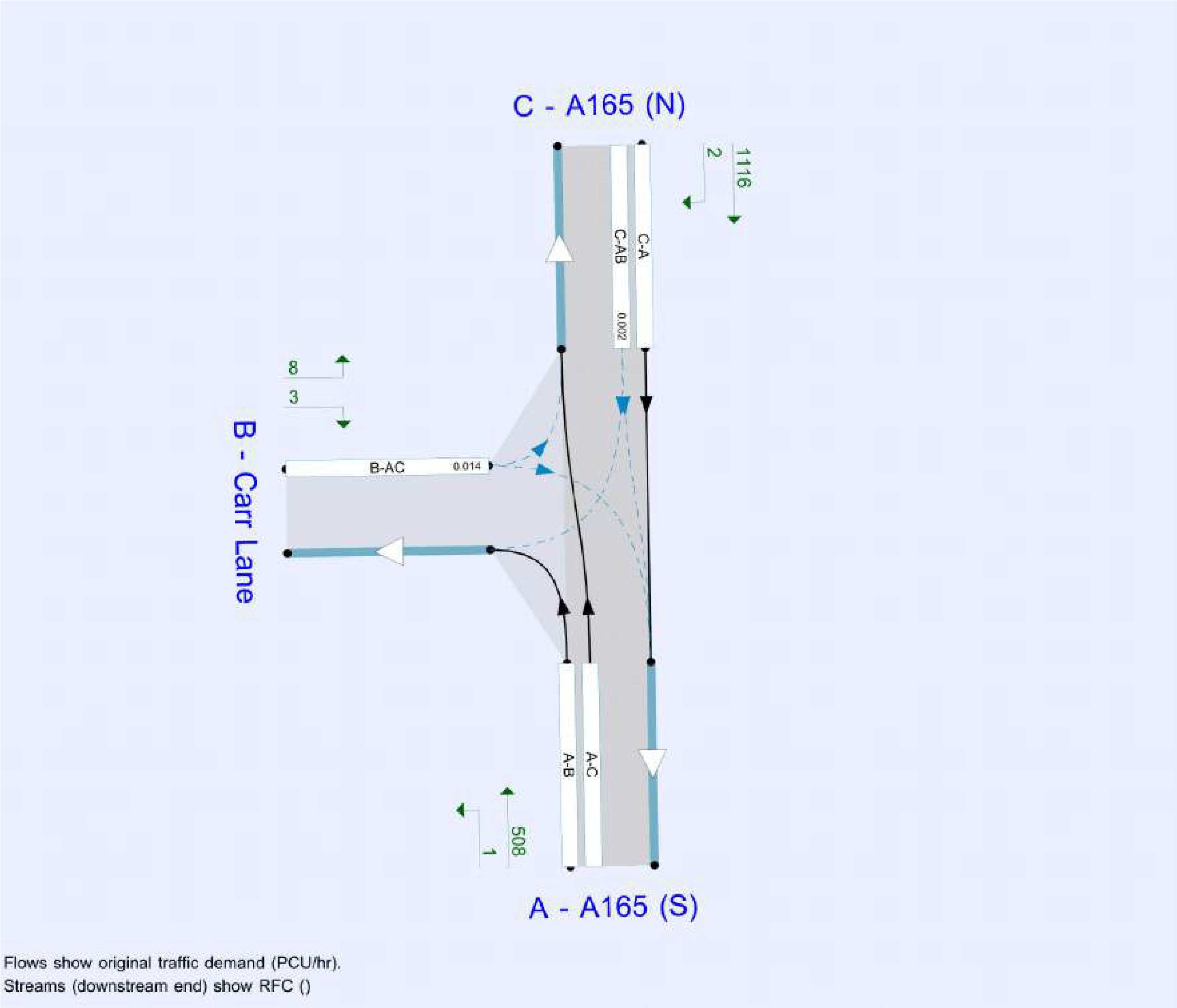
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 + Committed	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 + Committed	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

Arms

Arms

Arm	Name	Description	Arm type
A	A165 (S)		Major
B	Carr Lane		Minor
C	A165 (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A165 (N)	11.20		✓	3.50	250.0	✓	16.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Carr Lane	One lane	4.84	60	28

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	605	0.084	0.212	0.133	0.303
B-C	760	0.092	0.232	-	-
C-B	820	0.246	0.246	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	668	100.000
B - Carr Lane		ONE HOUR	✓	1	100.000
C - A165 (N)		ONE HOUR	✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	668
	B - Carr Lane	1	0	0
	C - A165 (N)	444	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	9
	B - Carr Lane	0	0	0
	C - A165 (N)	13	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					407	611
A-B					0	0
A-C					613	919

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	532	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1484	0.000	0	0.0	0.0	0.000	A
C-A	334	84			334				
A-B	0	0			0				
A-C	503	126			503				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1433	0.000	0	0.0	0.0	0.000	A
C-A	399	100			399				
A-B	0	0			0				
A-C	601	150			601				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	465	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1362	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	0	0			0				
A-C	735	184			735				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	465	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1362	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	0	0			0				
A-C	735	184			735				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1433	0.000	0	0.0	0.0	0.000	A
C-A	399	100			399				
A-B	0	0			0				
A-C	601	150			601				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	532	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1484	0.000	0	0.0	0.0	0.000	A
C-A	334	84			334				
A-B	0	0			0				
A-C	503	126			503				

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	477	100.000
B - Carr Lane		ONE HOUR	✓	2	100.000
C - A165 (N)		ONE HOUR	✓	734	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	1	476
	B - Carr Lane	1	0	1
	C - A165 (N)	732	2	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	6
	B - Carr Lane	0	0	0
	C - A165 (N)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	5.22	0.0	A	2	3
C-A					672	1008
A-B					0.92	1
A-C					437	655

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	544	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.38	732	0.002	1	0.0	0.0	4.927	A
C-A	551	138			551				
A-B	0.75	0.19			0.75				
A-C	358	90			358				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	518	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.45	715	0.003	2	0.0	0.0	5.047	A
C-A	658	165			658				
A-B	0.90	0.22			0.90				
A-C	428	107			428				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.55	691	0.003	2	0.0	0.0	5.224	A
C-A	806	201			806				
A-B	1	0.28			1				
A-C	524	131			524				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.55	691	0.003	2	0.0	0.0	5.224	A
C-A	806	201			806				
A-B	1	0.28			1				
A-C	524	131			524				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	518	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.45	715	0.003	2	0.0	0.0	5.047	A
C-A	658	165			658				
A-B	0.90	0.22			0.90				
A-C	428	107			428				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	544	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.38	732	0.002	2	0.0	0.0	4.927	A
C-A	551	138			551				
A-B	0.75	0.19			0.75				
A-C	358	90			358				

2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 + Committed	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1047	100.000
B - Carr Lane		ONE HOUR	✓	1	100.000
C - A165 (N)		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	1047
	B - Carr Lane	1	0	0
	C - A165 (N)	455	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	9
	B - Carr Lane	0	0	0
	C - A165 (N)	13	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					418	626
A-B					0	0
A-C					961	1441

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	467	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1335	0.000	0	0.0	0.0	0.000	A
C-A	343	86			343				
A-B	0	0			0				
A-C	788	197			788				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	426	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1254	0.000	0	0.0	0.0	0.000	A
C-A	409	102			409				
A-B	0	0			0				
A-C	941	235			941				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	368	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1144	0.000	0	0.0	0.0	0.000	A
C-A	501	125			501				
A-B	0	0			0				
A-C	1153	288			1153				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	368	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1144	0.000	0	0.0	0.0	0.000	A
C-A	501	125			501				
A-B	0	0			0				
A-C	1153	288			1153				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	426	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1254	0.000	0	0.0	0.0	0.000	A
C-A	409	102			409				
A-B	0	0			0				
A-C	941	235			941				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	467	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1335	0.000	0	0.0	0.0	0.000	A
C-A	343	86			343				
A-B	0	0			0				
A-C	788	197			788				

2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 + Committed	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	489	100.000
B - Carr Lane		ONE HOUR	✓	2	100.000
C - A165 (N)		ONE HOUR	✓	1115	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	1	488
	B - Carr Lane	1	0	1
	C - A165 (N)	1113	2	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	6
	B - Carr Lane	0	0	0
	C - A165 (N)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	5.25	0.0	A	2	3
C-A					1021	1532
A-B					0.92	1
A-C					448	672

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	514	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.38	730	0.002	1	0.0	0.0	4.942	A
C-A	838	209			838				
A-B	0.75	0.19			0.75				
A-C	367	92			367				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.45	712	0.003	2	0.0	0.0	5.066	A
C-A	1001	250			1001				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	432	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.55	688	0.003	2	0.0	0.0	5.248	A
C-A	1225	306			1225				
A-B	1	0.28			1				
A-C	537	134			537				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	432	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.55	688	0.003	2	0.0	0.0	5.248	A
C-A	1225	306			1225				
A-B	1	0.28			1				
A-C	537	134			537				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.45	712	0.003	2	0.0	0.0	5.068	A
C-A	1001	250			1001				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	514	0.000	0	0.0	0.0	0.000	A
C-AB	2	0.38	730	0.002	2	0.0	0.0	4.942	A
C-A	838	209			838				
A-B	0.75	0.19			0.75				
A-C	367	92			367				

2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1053	100.000
B - Carr Lane		ONE HOUR	✓	1	100.000
C - A165 (N)		ONE HOUR	✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	2	1051
	B - Carr Lane	1	0	0
	C - A165 (N)	476	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	9
	B - Carr Lane	0	0	0
	C - A165 (N)	13	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.01	6.81	0.0	A	6	8
C-A					437	655
A-B					2	3
A-C					964	1447

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	625	0.007	4	0.0	0.0	5.797	A
C-A	358	90			358				
A-B	2	0.38			2				
A-C	791	198			791				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	422	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	588	0.009	5	0.0	0.0	6.182	A
C-A	428	107			428				
A-B	2	0.45			2				
A-C	945	236			945				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	363	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	535	0.012	7	0.0	0.0	6.808	A
C-A	524	131			524				
A-B	2	0.55			2				
A-C	1157	289			1157				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	363	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	535	0.012	7	0.0	0.0	6.808	A
C-A	524	131			524				
A-B	2	0.55			2				
A-C	1157	289			1157				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	422	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	588	0.009	5	0.0	0.0	6.182	A
C-A	428	107			428				
A-B	2	0.45			2				
A-C	945	236			945				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	625	0.007	5	0.0	0.0	5.797	A
C-A	358	90			358				
A-B	2	0.38			2				
A-C	791	198			791				

2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	509	100.000
B - Carr Lane		ONE HOUR	✓	11	100.000
C - A165 (N)		ONE HOUR	✓	1118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	1	508
	B - Carr Lane	3	0	8
	C - A165 (N)	1116	2	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Carr Lane	C - A165 (N)
From	A - A165 (S)	0	0	6
	B - Carr Lane	0	0	0
	C - A165 (N)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	7.38	0.0	A	10	15
C-AB	0.00	5.29	0.0	A	2	3
C-A					1024	1536
A-B					0.92	1
A-C					466	699

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	573	0.014	8	0.0	0.0	6.379	A
C-AB	2	0.38	726	0.002	1	0.0	0.0	4.967	A
C-A	840	210			840				
A-B	0.75	0.19			0.75				
A-C	382	96			382				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	543	0.018	10	0.0	0.0	6.752	A
C-AB	2	0.45	708	0.003	2	0.0	0.0	5.098	A
C-A	1003	251			1003				
A-B	0.90	0.22			0.90				
A-C	457	114			457				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	500	0.024	12	0.0	0.0	7.383	A
C-AB	2	0.55	683	0.003	2	0.0	0.0	5.290	A
C-A	1229	307			1229				
A-B	1	0.28			1				
A-C	559	140			559				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	500	0.024	12	0.0	0.0	7.383	A
C-AB	2	0.55	683	0.003	2	0.0	0.0	5.290	A
C-A	1229	307			1229				
A-B	1	0.28			1				
A-C	559	140			559				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	543	0.018	10	0.0	0.0	6.755	A
C-AB	2	0.45	708	0.003	2	0.0	0.0	5.100	A
C-A	1003	251			1003				
A-B	0.90	0.22			0.90				
A-C	457	114			457				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	573	0.014	8	0.0	0.0	6.379	A
C-AB	2	0.38	726	0.002	2	0.0	0.0	4.969	A
C-A	840	210			840				
A-B	0.75	0.19			0.75				
A-C	382	96			382				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A165_Arnold Lane West Priority.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 03/09/2024 17:14:27

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2023 Base										
Stream B-AC	D1	0.2	12.56	0.11	B	D2	0.1	7.84	0.08	A
Stream C-AB		0.0	5.70	0.01	A		0.0	5.40	0.02	A
2026 + Committed										
Stream B-AC	D3	0.2	17.04	0.15	C	D4	0.1	8.96	0.09	A
Stream C-AB		0.0	6.80	0.01	A		0.0	5.43	0.02	A
2026 + Committed + Dev										
Stream B-AC	D5	0.3	17.69	0.15	C	D6	0.2	8.69	0.14	A
Stream C-AB		0.1	7.18	0.05	A		0.0	5.43	0.02	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

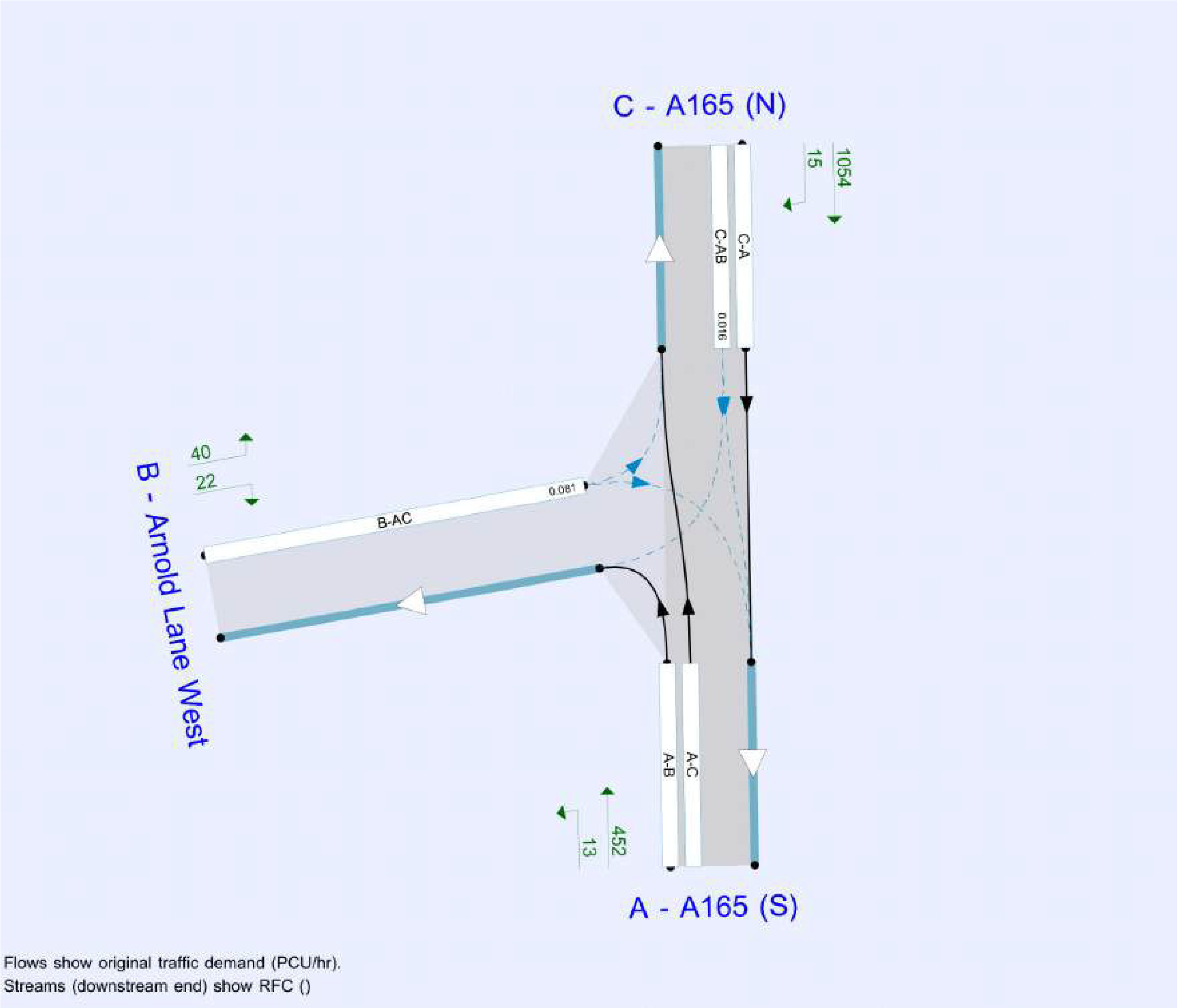
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 + Committed	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 + Committed	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.55	A

Arms

Arms

Arm	Name	Description	Arm type
A	A165 (S)		Major
B	Arnold Lane West		Minor
C	A165 (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A165 (N)	10.95		✓	3.30	250.0	✓	20.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Arnold Lane West	One lane	4.98	56	54

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	626	0.093	0.234	0.147	0.335
B-C	788	0.091	0.231	-	-
C-B	805	0.245	0.245	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	625	100.000
B - Arnold Lane West		ONE HOUR	✓	46	100.000
C - A165 (N)		ONE HOUR	✓	441	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	26	599
	B - Arnold Lane West	29	0	17
	C - A165 (N)	436	5	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	39	9
	B - Arnold Lane West	69	0	13
	C - A165 (N)	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.56	0.2	B	42	63
C-AB	0.01	5.70	0.0	A	5	7
C-A					400	600
A-B					24	36
A-C					550	824

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	530	0.065	34	0.0	0.1	10.351	B
C-AB	4	0.94	690	0.005	4	0.0	0.0	5.248	A
C-A	328	82			328				
A-B	20	5			20				
A-C	451	113			451				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	501	0.083	41	0.1	0.1	11.184	B
C-AB	4	1	667	0.007	4	0.0	0.0	5.430	A
C-A	392	98			392				
A-B	23	6			23				
A-C	538	135			538				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	460	0.110	50	0.1	0.2	12.554	B
C-AB	6	1	636	0.009	5	0.0	0.0	5.705	A
C-A	480	120			480				
A-B	29	7			29				
A-C	660	165			660				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	460	0.110	51	0.2	0.2	12.564	B
C-AB	6	1	636	0.009	6	0.0	0.0	5.705	A
C-A	480	120			480				
A-B	29	7			29				
A-C	660	165			660				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	501	0.083	42	0.2	0.1	11.199	B
C-AB	4	1	667	0.007	5	0.0	0.0	5.430	A
C-A	392	98			392				
A-B	23	6			23				
A-C	538	135			538				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	530	0.065	35	0.1	0.1	10.380	B
C-AB	4	0.94	690	0.005	4	0.0	0.0	5.250	A
C-A	328	82			328				
A-B	20	5			20				
A-C	451	113			451				

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	454	100.000
B - Arnold Lane West		ONE HOUR	✓	35	100.000
C - A165 (N)		ONE HOUR	✓	679	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	13	441
	B - Arnold Lane West	16	0	19
	C - A165 (N)	664	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	0	3
	B - Arnold Lane West	7	0	0
	C - A165 (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.84	0.1	A	32	48
C-AB	0.02	5.40	0.0	A	14	21
C-A					609	914
A-B					12	18
A-C					405	607

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	576	0.046	26	0.0	0.0	6.750	A
C-AB	11	3	721	0.016	11	0.0	0.0	5.070	A
C-A	500	125			500				
A-B	10	2			10				
A-C	332	83			332				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	549	0.057	31	0.0	0.1	7.164	A
C-AB	13	3	705	0.019	13	0.0	0.0	5.205	A
C-A	597	149			597				
A-B	12	3			12				
A-C	396	99			396				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	512	0.075	38	0.1	0.1	7.839	A
C-AB	17	4	682	0.024	16	0.0	0.0	5.405	A
C-A	731	183			731				
A-B	14	4			14				
A-C	486	121			486				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	512	0.075	39	0.1	0.1	7.841	A
C-AB	17	4	682	0.024	17	0.0	0.0	5.405	A
C-A	731	183			731				
A-B	14	4			14				
A-C	486	121			486				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	549	0.057	32	0.1	0.1	7.169	A
C-AB	13	3	705	0.019	14	0.0	0.0	5.208	A
C-A	597	149			597				
A-B	12	3			12				
A-C	396	99			396				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	576	0.046	26	0.1	0.0	6.756	A
C-AB	11	3	721	0.016	11	0.0	0.0	5.071	A
C-A	500	125			500				
A-B	10	2			10				
A-C	332	83			332				

2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 + Committed	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1003	100.000
B - Arnold Lane West		ONE HOUR	✓	47	100.000
C - A165 (N)		ONE HOUR	✓	452	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	27	976
	B - Arnold Lane West	30	0	17
	C - A165 (N)	447	5	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	39	9
	B - Arnold Lane West	69	0	13
	C - A165 (N)	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	17.04	0.2	C	43	65
C-AB	0.01	6.80	0.0	A	5	7
C-A					410	615
A-B					25	37
A-C					896	1343

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	459	0.077	35	0.0	0.1	12.145	B
C-AB	4	0.94	620	0.006	4	0.0	0.0	5.840	A
C-A	337	84			337				
A-B	20	5			20				
A-C	735	184			735				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	416	0.102	42	0.1	0.2	13.802	B
C-AB	4	1	584	0.008	4	0.0	0.0	6.209	A
C-A	402	100			402				
A-B	24	6			24				
A-C	877	219			877				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	354	0.146	51	0.2	0.2	17.006	C
C-AB	6	1	535	0.010	5	0.0	0.0	6.803	A
C-A	492	123			492				
A-B	30	7			30				
A-C	1075	269			1075				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	354	0.146	52	0.2	0.2	17.042	C
C-AB	6	1	535	0.010	6	0.0	0.0	6.803	A
C-A	492	123			492				
A-B	30	7			30				
A-C	1075	269			1075				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	416	0.102	43	0.2	0.2	13.839	B
C-AB	4	1	584	0.008	5	0.0	0.0	6.212	A
C-A	402	100			402				
A-B	24	6			24				
A-C	877	219			877				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	459	0.077	36	0.2	0.1	12.184	B
C-AB	4	0.94	620	0.006	4	0.0	0.0	5.841	A
C-A	337	84			337				
A-B	20	5			20				
A-C	735	184			735				

2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.26	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 + Committed	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	465	100.000
B - Arnold Lane West		ONE HOUR	✓	36	100.000
C - A165 (N)		ONE HOUR	✓	1058	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	13	452
	B - Arnold Lane West	17	0	19
	C - A165 (N)	1043	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	0	3
	B - Arnold Lane West	7	0	0
	C - A165 (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	8.96	0.1	A	33	50
C-AB	0.02	5.43	0.0	A	14	21
C-A					957	1436
A-B					12	18
A-C					415	622

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	540	0.050	27	0.0	0.1	7.242	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.085	A
C-A	785	196			785				
A-B	10	2			10				
A-C	340	85			340				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	505	0.064	32	0.1	0.1	7.862	A
C-AB	13	3	703	0.019	13	0.0	0.0	5.224	A
C-A	938	234			938				
A-B	12	3			12				
A-C	406	102			406				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	454	0.087	40	0.1	0.1	8.958	A
C-AB	17	4	680	0.024	16	0.0	0.0	5.429	A
C-A	1148	287			1148				
A-B	14	4			14				
A-C	498	124			498				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	454	0.087	40	0.1	0.1	8.962	A
C-AB	17	4	680	0.024	17	0.0	0.0	5.429	A
C-A	1148	287			1148				
A-B	14	4			14				
A-C	498	124			498				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	505	0.064	32	0.1	0.1	7.869	A
C-AB	13	3	703	0.019	14	0.0	0.0	5.224	A
C-A	938	234			938				
A-B	12	3			12				
A-C	406	102			406				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	540	0.050	27	0.1	0.1	7.252	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.087	A
C-A	785	196			785				
A-B	10	2			10				
A-C	340	85			340				

2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed + Dev	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1021	100.000
B - Arnold Lane West		ONE HOUR	✓	47	100.000
C - A165 (N)		ONE HOUR	✓	473	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	33	988
	B - Arnold Lane West	30	0	17
	C - A165 (N)	447	26	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	39	9
	B - Arnold Lane West	69	0	13
	C - A165 (N)	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	17.69	0.3	C	43	65
C-AB	0.05	7.18	0.1	A	24	36
C-A					410	615
A-B					30	45
A-C					907	1360

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	452	0.078	35	0.0	0.1	12.351	B
C-AB	20	5	617	0.032	19	0.0	0.0	6.025	A
C-A	337	84			337				
A-B	25	6			25				
A-C	744	186			744				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	407	0.104	42	0.1	0.2	14.128	B
C-AB	23	6	580	0.040	23	0.0	0.0	6.464	A
C-A	402	100			402				
A-B	30	7			30				
A-C	888	222			888				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	343	0.151	51	0.2	0.2	17.649	C
C-AB	29	7	530	0.054	29	0.0	0.1	7.182	A
C-A	492	123			492				
A-B	36	9			36				
A-C	1088	272			1088				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	343	0.151	52	0.2	0.3	17.690	C
C-AB	29	7	530	0.054	29	0.1	0.1	7.182	A
C-A	492	123			492				
A-B	36	9			36				
A-C	1088	272			1088				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	407	0.104	43	0.3	0.2	14.168	B
C-AB	23	6	580	0.040	23	0.1	0.0	6.465	A
C-A	402	100			402				
A-B	30	7			30				
A-C	888	222			888				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	452	0.078	36	0.2	0.1	12.390	B
C-AB	20	5	617	0.032	20	0.0	0.0	6.031	A
C-A	337	84			337				
A-B	25	6			25				
A-C	744	186			744				

2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	465	100.000
B - Arnold Lane West		ONE HOUR	✓	62	100.000
C - A165 (N)		ONE HOUR	✓	1069	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	13	452
	B - Arnold Lane West	22	0	40
	C - A165 (N)	1054	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
From	A - A165 (S)	0	0	3
	B - Arnold Lane West	7	0	0
	C - A165 (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	8.69	0.2	A	57	85
C-AB	0.02	5.43	0.0	A	14	21
C-A					967	1451
A-B					12	18
A-C					415	622

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	573	0.081	46	0.0	0.1	6.995	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.085	A
C-A	794	198			794				
A-B	10	2			10				
A-C	340	85			340				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	540	0.103	56	0.1	0.1	7.601	A
C-AB	13	3	703	0.019	13	0.0	0.0	5.224	A
C-A	948	237			948				
A-B	12	3			12				
A-C	406	102			406				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	493	0.139	68	0.1	0.2	8.679	A
C-AB	17	4	680	0.024	16	0.0	0.0	5.429	A
C-A	1160	290			1160				
A-B	14	4			14				
A-C	498	124			498				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	493	0.139	68	0.2	0.2	8.686	A
C-AB	17	4	680	0.024	17	0.0	0.0	5.429	A
C-A	1160	290			1160				
A-B	14	4			14				
A-C	498	124			498				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	540	0.103	56	0.2	0.1	7.610	A
C-AB	13	3	703	0.019	14	0.0	0.0	5.224	A
C-A	948	237			948				
A-B	12	3			12				
A-C	406	102			406				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	573	0.081	47	0.1	0.1	7.006	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.087	A
C-A	794	198			794				
A-B	10	2			10				
A-C	340	85			340				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Swinemoor Roundabout.j10
Path: L:\Job Library\2023\230483 - Peartree Hill Solar Farm DCO\Traffic Data\Junction Models
Report generation date: 19/09/2024 14:35:46

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2016 Base									
1 - A1035 (E)	D1	0.2	1.80	0.12	A	D2	0.1	1.63	0.06	A
2 - Swinemoor Lane		0.1	2.80	0.11	A		0.2	2.47	0.16	A
3 - A1174 Hull Bridge Road		0.2	3.61	0.11	A		0.2	2.96	0.12	A
4 - A1035 Grange Way		0.2	2.99	0.13	A		0.1	2.46	0.09	A
	2026 Base + Committed									
1 - A1035 (E)	D3	0.2	1.83	0.13	A	D4	0.5	2.18	0.28	A
2 - Swinemoor Lane		0.5	3.32	0.30	A		0.2	2.85	0.19	A
3 - A1174 Hull Bridge Road		0.2	4.15	0.13	A		0.2	3.43	0.15	A
4 - A1035 Grange Way		0.7	4.54	0.34	A		0.1	2.49	0.10	A
	2026 Base + Committed + Dev									
1 - A1035 (E)	D5	0.2	1.83	0.13	A	D6	0.5	2.20	0.29	A
2 - Swinemoor Lane		0.5	3.40	0.32	A		0.2	2.85	0.19	A
3 - A1174 Hull Bridge Road		0.2	4.21	0.13	A		0.2	3.43	0.15	A
4 - A1035 Grange Way		0.7	4.62	0.34	A		0.1	2.49	0.10	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

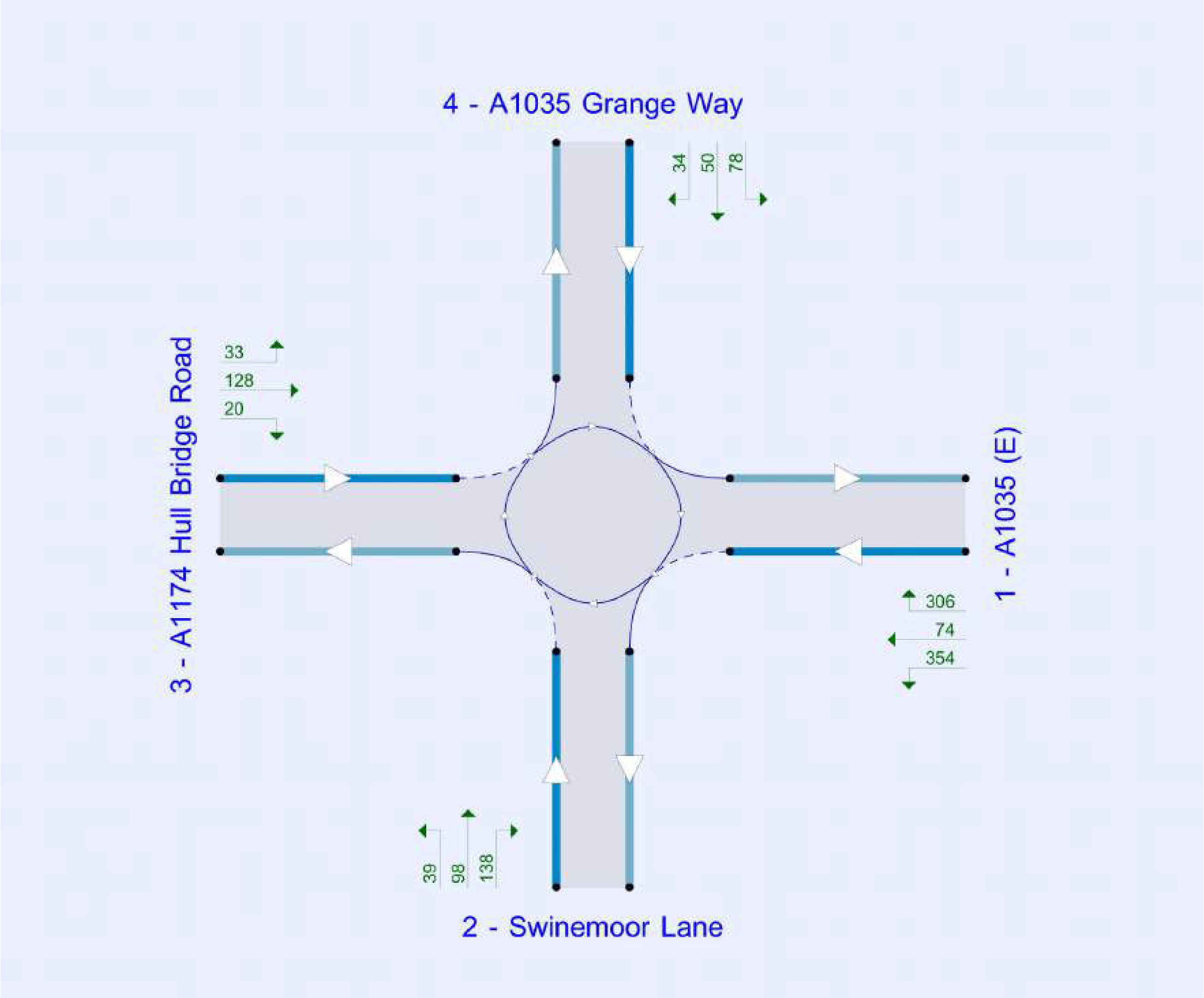
File summary

File Description

Title	
Location	
Site number	
Date	06/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 Base	AM	ONE HOUR	00:00	01:30	15	✓
D2	2016 Base	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2016 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.65	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A1035 (E)		
2	Swinemoor Lane		
3	A1174 Hull Bridge Road		
4	A1035 Grange Way		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A1035 (E)	5.91	11.57	25.0	41.7	60.0	32.0		
2 - Swinemoor Lane	3.69	7.00	19.7	43.5	60.0	21.0		
3 - A1174 Hull Bridge Road	4.04	7.48	10.1	42.2	60.0	45.0		
4 - A1035 Grange Way	5.04	7.98	10.1	42.2	60.0	42.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A1035 (E)	0.759	2837
2 - Swinemoor Lane	0.602	1872
3 - A1174 Hull Bridge Road	0.546	1678
4 - A1035 Grange Way	0.597	1957

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	297	100.000
2 - Swinemoor Lane		ONE HOUR	✓	173	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	156	100.000
4 - A1035 Grange Way		ONE HOUR	✓	223	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	82	150	65
	2 - Swinemoor Lane	71	0	25	77
	3 - A1174 Hull Bridge Road	70	39	0	47
	4 - A1035 Grange Way	75	96	52	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	4	19	37
	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.12	1.80	0.2	A	273	409
2 - Swinemoor Lane	0.11	2.80	0.1	A	159	238
3 - A1174 Hull Bridge Road	0.11	3.61	0.2	A	143	215
4 - A1035 Grange Way	0.13	2.99	0.2	A	205	307

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	224	56	140	2730	0.082	223	162	0.0	0.1	1.689	A
2 - Swinemoor Lane	130	33	201	1752	0.074	130	163	0.0	0.1	2.599	A
3 - A1174 Hull Bridge Road	117	29	160	1590	0.074	117	171	0.0	0.1	3.374	A
4 - A1035 Grange Way	168	42	135	1876	0.089	167	142	0.0	0.1	2.787	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	267	67	168	2709	0.099	267	194	0.1	0.1	1.734	A
2 - Swinemoor Lane	156	39	240	1728	0.090	155	195	0.1	0.1	2.680	A
3 - A1174 Hull Bridge Road	140	35	191	1573	0.089	140	204	0.1	0.1	3.468	A
4 - A1035 Grange Way	200	50	162	1860	0.108	200	170	0.1	0.2	2.868	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	327	82	206	2681	0.122	327	238	0.1	0.2	1.799	A
2 - Swinemoor Lane	190	48	294	1695	0.112	190	239	0.1	0.1	2.800	A
3 - A1174 Hull Bridge Road	172	43	234	1549	0.111	172	250	0.1	0.2	3.606	A
4 - A1035 Grange Way	246	61	198	1838	0.134	245	208	0.2	0.2	2.989	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	327	82	206	2681	0.122	327	238	0.2	0.2	1.799	A
2 - Swinemoor Lane	190	48	294	1695	0.112	190	239	0.1	0.1	2.800	A
3 - A1174 Hull Bridge Road	172	43	235	1549	0.111	172	250	0.2	0.2	3.607	A
4 - A1035 Grange Way	246	61	198	1838	0.134	246	208	0.2	0.2	2.989	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	267	67	168	2709	0.099	267	194	0.2	0.1	1.734	A
2 - Swinemoor Lane	156	39	240	1728	0.090	156	195	0.1	0.1	2.680	A
3 - A1174 Hull Bridge Road	140	35	192	1573	0.089	140	204	0.2	0.1	3.472	A
4 - A1035 Grange Way	200	50	162	1860	0.108	201	170	0.2	0.2	2.869	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	224	56	141	2730	0.082	224	163	0.1	0.1	1.689	A
2 - Swinemoor Lane	130	33	201	1751	0.074	130	163	0.1	0.1	2.601	A
3 - A1174 Hull Bridge Road	117	29	160	1590	0.074	118	171	0.1	0.1	3.375	A
4 - A1035 Grange Way	168	42	136	1876	0.090	168	142	0.2	0.1	2.788	A

2016 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	155	100.000
2 - Swinemoor Lane		ONE HOUR	✓	260	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	170	100.000
4 - A1035 Grange Way		ONE HOUR	✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	50	71	34
	2 - Swinemoor Lane	128	0	38	94
	3 - A1174 Hull Bridge Road	119	19	0	32
	4 - A1035 Grange Way	70	48	33	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	2	18	47
	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.06	1.63	0.1	A	142	213
2 - Swinemoor Lane	0.16	2.47	0.2	A	239	358
3 - A1174 Hull Bridge Road	0.12	2.96	0.2	A	156	234
4 - A1035 Grange Way	0.09	2.46	0.1	A	139	208

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	117	29	75	2780	0.042	116	238	0.0	0.1	1.582	A
2 - Swinemoor Lane	196	49	104	1810	0.108	195	88	0.0	0.1	2.289	A
3 - A1174 Hull Bridge Road	128	32	192	1572	0.081	128	107	0.0	0.1	2.741	A
4 - A1035 Grange Way	114	28	200	1837	0.062	113	120	0.0	0.1	2.306	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	139	35	90	2769	0.050	139	285	0.1	0.1	1.603	A
2 - Swinemoor Lane	234	58	124	1798	0.130	234	105	0.1	0.2	2.363	A
3 - A1174 Hull Bridge Road	153	38	230	1552	0.098	153	128	0.1	0.1	2.830	A
4 - A1035 Grange Way	136	34	239	1814	0.075	136	144	0.1	0.1	2.369	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	171	43	110	2753	0.062	171	349	0.1	0.1	1.632	A
2 - Swinemoor Lane	286	72	152	1781	0.161	286	129	0.2	0.2	2.472	A
3 - A1174 Hull Bridge Road	187	47	282	1524	0.123	187	156	0.1	0.2	2.963	A
4 - A1035 Grange Way	166	42	293	1782	0.093	166	176	0.1	0.1	2.460	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	171	43	110	2753	0.062	171	349	0.1	0.1	1.632	A
2 - Swinemoor Lane	286	72	152	1781	0.161	286	129	0.2	0.2	2.473	A
3 - A1174 Hull Bridge Road	187	47	282	1524	0.123	187	156	0.2	0.2	2.963	A
4 - A1035 Grange Way	166	42	293	1782	0.093	166	176	0.1	0.1	2.461	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	139	35	90	2768	0.050	139	285	0.1	0.1	1.603	A
2 - Swinemoor Lane	234	58	124	1798	0.130	234	105	0.2	0.2	2.365	A
3 - A1174 Hull Bridge Road	153	38	230	1552	0.098	153	128	0.2	0.1	2.831	A
4 - A1035 Grange Way	136	34	239	1814	0.075	136	144	0.1	0.1	2.371	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	117	29	75	2780	0.042	117	239	0.1	0.1	1.585	A
2 - Swinemoor Lane	196	49	104	1810	0.108	196	88	0.2	0.1	2.290	A
3 - A1174 Hull Bridge Road	128	32	193	1572	0.081	128	107	0.1	0.1	2.744	A
4 - A1035 Grange Way	114	28	200	1837	0.062	114	121	0.1	0.1	2.307	A

2026 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	3.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	326	100.000
2 - Swinemoor Lane		ONE HOUR	✓	455	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	163	100.000
4 - A1035 Grange Way		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	91	162	73
	2 - Swinemoor Lane	348	0	26	81
	3 - A1174 Hull Bridge Road	73	41	0	49
	4 - A1035 Grange Way	350	101	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	4	19	37
	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.13	1.83	0.2	A	299	449
2 - Swinemoor Lane	0.30	3.32	0.5	A	418	626
3 - A1174 Hull Bridge Road	0.13	4.15	0.2	A	150	224
4 - A1035 Grange Way	0.34	4.54	0.7	A	464	696

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	245	61	148	2725	0.090	245	578	0.0	0.1	1.708	A
2 - Swinemoor Lane	343	86	218	1741	0.197	341	175	0.0	0.3	2.798	A
3 - A1174 Hull Bridge Road	123	31	377	1472	0.083	122	182	0.0	0.1	3.682	A
4 - A1035 Grange Way	381	95	347	1750	0.218	379	152	0.0	0.4	3.632	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	293	73	177	2703	0.108	293	693	0.1	0.1	1.758	A
2 - Swinemoor Lane	409	102	261	1715	0.238	409	209	0.3	0.3	2.998	A
3 - A1174 Hull Bridge Road	147	37	451	1431	0.102	146	218	0.1	0.2	3.867	A
4 - A1035 Grange Way	455	114	415	1709	0.266	454	182	0.4	0.5	3.969	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	359	90	217	2672	0.134	359	848	0.1	0.2	1.830	A
2 - Swinemoor Lane	501	125	319	1680	0.298	500	256	0.3	0.5	3.319	A
3 - A1174 Hull Bridge Road	179	45	552	1376	0.130	179	267	0.2	0.2	4.152	A
4 - A1035 Grange Way	557	139	508	1653	0.337	556	223	0.5	0.7	4.538	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	359	90	217	2672	0.134	359	849	0.2	0.2	1.831	A
2 - Swinemoor Lane	501	125	319	1680	0.298	501	257	0.5	0.5	3.322	A
3 - A1174 Hull Bridge Road	179	45	553	1376	0.130	179	268	0.2	0.2	4.153	A
4 - A1035 Grange Way	557	139	509	1653	0.337	557	224	0.7	0.7	4.544	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	293	73	177	2702	0.108	293	694	0.2	0.1	1.761	A
2 - Swinemoor Lane	409	102	261	1715	0.238	410	210	0.5	0.3	3.003	A
3 - A1174 Hull Bridge Road	147	37	452	1431	0.102	147	219	0.2	0.2	3.871	A
4 - A1035 Grange Way	455	114	416	1708	0.266	456	183	0.7	0.5	3.978	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	245	61	148	2724	0.090	246	581	0.1	0.1	1.709	A
2 - Swinemoor Lane	343	86	218	1741	0.197	343	176	0.3	0.3	2.805	A
3 - A1174 Hull Bridge Road	123	31	378	1471	0.083	123	183	0.2	0.1	3.688	A
4 - A1035 Grange Way	381	95	348	1749	0.218	381	153	0.5	0.4	3.642	A

2026 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.53	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	705	100.000
2 - Swinemoor Lane		ONE HOUR	✓	275	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	181	100.000
4 - A1035 Grange Way		ONE HOUR	✓	162	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	325	74	306
	2 - Swinemoor Lane	138	0	39	98
	3 - A1174 Hull Bridge Road	128	20	0	33
	4 - A1035 Grange Way	78	50	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	2	18	47
	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.28	2.18	0.5	A	647	970
2 - Swinemoor Lane	0.19	2.85	0.2	A	252	379
3 - A1174 Hull Bridge Road	0.15	3.43	0.2	A	166	249
4 - A1035 Grange Way	0.10	2.49	0.1	A	149	223

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	531	133	78	2778	0.191	530	258	0.0	0.3	1.915	A
2 - Swinemoor Lane	207	52	311	1685	0.123	206	297	0.0	0.1	2.499	A
3 - A1174 Hull Bridge Road	136	34	407	1455	0.094	136	110	0.0	0.1	2.997	A
4 - A1035 Grange Way	122	30	215	1828	0.067	122	328	0.0	0.1	2.324	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	634	158	93	2766	0.229	633	309	0.3	0.4	2.019	A
2 - Swinemoor Lane	247	62	372	1648	0.150	247	355	0.1	0.2	2.636	A
3 - A1174 Hull Bridge Road	163	41	487	1411	0.115	163	132	0.1	0.1	3.166	A
4 - A1035 Grange Way	146	36	257	1803	0.081	146	393	0.1	0.1	2.392	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	776	194	114	2750	0.282	776	378	0.4	0.5	2.180	A
2 - Swinemoor Lane	303	76	456	1598	0.189	303	435	0.2	0.2	2.852	A
3 - A1174 Hull Bridge Road	199	50	596	1352	0.147	199	162	0.1	0.2	3.430	A
4 - A1035 Grange Way	178	45	315	1769	0.101	178	481	0.1	0.1	2.493	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	776	194	115	2750	0.282	776	379	0.5	0.5	2.181	A
2 - Swinemoor Lane	303	76	456	1598	0.189	303	435	0.2	0.2	2.852	A
3 - A1174 Hull Bridge Road	199	50	597	1352	0.147	199	162	0.2	0.2	3.431	A
4 - A1035 Grange Way	178	45	315	1769	0.101	178	481	0.1	0.1	2.494	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	634	158	94	2766	0.229	634	310	0.5	0.4	2.019	A
2 - Swinemoor Lane	247	62	372	1648	0.150	247	355	0.2	0.2	2.638	A
3 - A1174 Hull Bridge Road	163	41	488	1411	0.115	163	132	0.2	0.1	3.170	A
4 - A1035 Grange Way	146	36	257	1803	0.081	146	393	0.1	0.1	2.395	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	531	133	78	2777	0.191	531	259	0.4	0.3	1.915	A
2 - Swinemoor Lane	207	52	312	1685	0.123	207	298	0.2	0.1	2.501	A
3 - A1174 Hull Bridge Road	136	34	408	1454	0.094	136	111	0.1	0.1	3.002	A
4 - A1035 Grange Way	122	30	215	1828	0.067	122	329	0.1	0.1	2.324	A

2026 Base + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	3.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	326	100.000
2 - Swinemoor Lane		ONE HOUR	✓	483	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	163	100.000
4 - A1035 Grange Way		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	91	162	73
	2 - Swinemoor Lane	376	0	26	81
	3 - A1174 Hull Bridge Road	73	41	0	49
	4 - A1035 Grange Way	350	101	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	4	19	37
	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.13	1.83	0.2	A	299	449
2 - Swinemoor Lane	0.32	3.40	0.5	A	443	665
3 - A1174 Hull Bridge Road	0.13	4.21	0.2	A	150	224
4 - A1035 Grange Way	0.34	4.62	0.7	A	464	696

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	245	61	148	2725	0.090	245	599	0.0	0.1	1.708	A
2 - Swinemoor Lane	364	91	218	1741	0.209	362	175	0.0	0.3	2.831	A
3 - A1174 Hull Bridge Road	123	31	398	1460	0.084	122	182	0.0	0.1	3.714	A
4 - A1035 Grange Way	381	95	368	1737	0.219	379	152	0.0	0.4	3.665	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	293	73	177	2703	0.108	293	718	0.1	0.1	1.758	A
2 - Swinemoor Lane	434	109	261	1715	0.253	434	209	0.3	0.4	3.049	A
3 - A1174 Hull Bridge Road	147	37	476	1417	0.103	146	218	0.1	0.2	3.909	A
4 - A1035 Grange Way	455	114	440	1694	0.269	454	182	0.4	0.5	4.018	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	359	90	217	2672	0.134	359	879	0.1	0.2	1.830	A
2 - Swinemoor Lane	532	133	319	1680	0.317	531	256	0.4	0.5	3.399	A
3 - A1174 Hull Bridge Road	179	45	583	1359	0.132	179	267	0.2	0.2	4.211	A
4 - A1035 Grange Way	557	139	539	1635	0.341	556	223	0.5	0.7	4.615	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	359	90	217	2672	0.134	359	880	0.2	0.2	1.831	A
2 - Swinemoor Lane	532	133	319	1680	0.317	532	257	0.5	0.5	3.402	A
3 - A1174 Hull Bridge Road	179	45	584	1359	0.132	179	268	0.2	0.2	4.213	A
4 - A1035 Grange Way	557	139	539	1634	0.341	557	224	0.7	0.7	4.622	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	293	73	177	2702	0.108	293	719	0.2	0.1	1.761	A
2 - Swinemoor Lane	434	109	261	1715	0.253	435	210	0.5	0.4	3.054	A
3 - A1174 Hull Bridge Road	147	37	477	1417	0.103	147	219	0.2	0.2	3.913	A
4 - A1035 Grange Way	455	114	441	1693	0.269	456	183	0.7	0.5	4.028	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	245	61	148	2724	0.090	246	602	0.1	0.1	1.711	A
2 - Swinemoor Lane	364	91	218	1741	0.209	364	176	0.4	0.3	2.838	A
3 - A1174 Hull Bridge Road	123	31	399	1459	0.084	123	183	0.2	0.1	3.717	A
4 - A1035 Grange Way	381	95	369	1736	0.219	381	153	0.5	0.4	3.676	A

2026 Base + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.53	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	734	100.000
2 - Swinemoor Lane		ONE HOUR	✓	275	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	181	100.000
4 - A1035 Grange Way		ONE HOUR	✓	162	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	354	74	306
	2 - Swinemoor Lane	138	0	39	98
	3 - A1174 Hull Bridge Road	128	20	0	33
	4 - A1035 Grange Way	78	50	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
From	1 - A1035 (E)	0	2	18	47
	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.29	2.20	0.5	A	674	1010
2 - Swinemoor Lane	0.19	2.85	0.2	A	252	379
3 - A1174 Hull Bridge Road	0.15	3.43	0.2	A	166	249
4 - A1035 Grange Way	0.10	2.49	0.1	A	149	223

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	553	138	78	2778	0.199	551	258	0.0	0.3	1.920	A
2 - Swinemoor Lane	207	52	311	1685	0.123	206	318	0.0	0.1	2.499	A
3 - A1174 Hull Bridge Road	136	34	407	1455	0.094	136	110	0.0	0.1	2.997	A
4 - A1035 Grange Way	122	30	215	1828	0.067	122	328	0.0	0.1	2.324	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	660	165	93	2766	0.239	660	309	0.3	0.4	2.030	A
2 - Swinemoor Lane	247	62	372	1648	0.150	247	381	0.1	0.2	2.636	A
3 - A1174 Hull Bridge Road	163	41	487	1411	0.115	163	132	0.1	0.1	3.166	A
4 - A1035 Grange Way	146	36	257	1803	0.081	146	393	0.1	0.1	2.392	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	808	202	114	2750	0.294	808	378	0.4	0.5	2.201	A
2 - Swinemoor Lane	303	76	456	1598	0.189	303	467	0.2	0.2	2.852	A
3 - A1174 Hull Bridge Road	199	50	596	1352	0.147	199	162	0.1	0.2	3.430	A
4 - A1035 Grange Way	178	45	315	1769	0.101	178	481	0.1	0.1	2.493	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	808	202	115	2750	0.294	808	379	0.5	0.5	2.201	A
2 - Swinemoor Lane	303	76	456	1598	0.189	303	467	0.2	0.2	2.852	A
3 - A1174 Hull Bridge Road	199	50	597	1352	0.147	199	162	0.2	0.2	3.431	A
4 - A1035 Grange Way	178	45	315	1769	0.101	178	481	0.1	0.1	2.494	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	660	165	94	2766	0.239	660	310	0.5	0.4	2.031	A
2 - Swinemoor Lane	247	62	372	1648	0.150	247	381	0.2	0.2	2.638	A
3 - A1174 Hull Bridge Road	163	41	488	1411	0.115	163	132	0.2	0.1	3.170	A
4 - A1035 Grange Way	146	36	257	1803	0.081	146	393	0.1	0.1	2.393	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	553	138	78	2777	0.199	553	259	0.4	0.3	1.923	A
2 - Swinemoor Lane	207	52	312	1685	0.123	207	319	0.2	0.1	2.501	A
3 - A1174 Hull Bridge Road	136	34	408	1454	0.094	136	111	0.1	0.1	2.999	A
4 - A1035 Grange Way	122	30	215	1828	0.067	122	329	0.1	0.1	2.324	A

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