SUSTAINABLE DEVELOPMENT AND DELIVERY

A specialist team within DLP Planning Ltd

For and on behalf of
Anglo ES Levedale Ltd
c/o Anglo Renewables Ltd

Construction Traffic Management Plan

Proposed Battery Storage Site at Levedale Road,
Levedale near Penkridge,
Staffordshire

Prepared by
Sustainable Development and Delivery
DLP Planning Ltd
Bristol

December 2022

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Appendices

1.0 INTRODUCTION

1.1 This Construction Traffic Management Plan (CTMP) has been prepared by the Sustainable Development and Delivery Team (SDD) of DLP Planning, on behalf of Anglo Renewables Ltd (the Client), to support a planning application for the construction and operation of a Battery Energy Storage Site (BESS) development on land south of Levedale Road in Levedale, Staffordshire (near Penkridge).

1.2 The objective of this CTMP is to outline the details of the construction access strategy, construction programme, construction traffic, construction worker numbers, construction hours and environmental measures to be implemented during the construction of the battery storage development. Once approved it shall be adhered to at all times during the full construction phase.

1.3 This CTMP is a live document, which will be reviewed and amended as necessary during the construction programme to make working on-site and the proposed construction access route as safe as possible. Haulage firms and personnel working at the site shall be provided with a copy of the CTMP to ensure all measures within it are adhered to.

1.4 **Figure 1** shows the location of site in the wider context to the highway network while **Figure 2** shows the local context of the site. It should be noted that the red line is indicative on both figures.

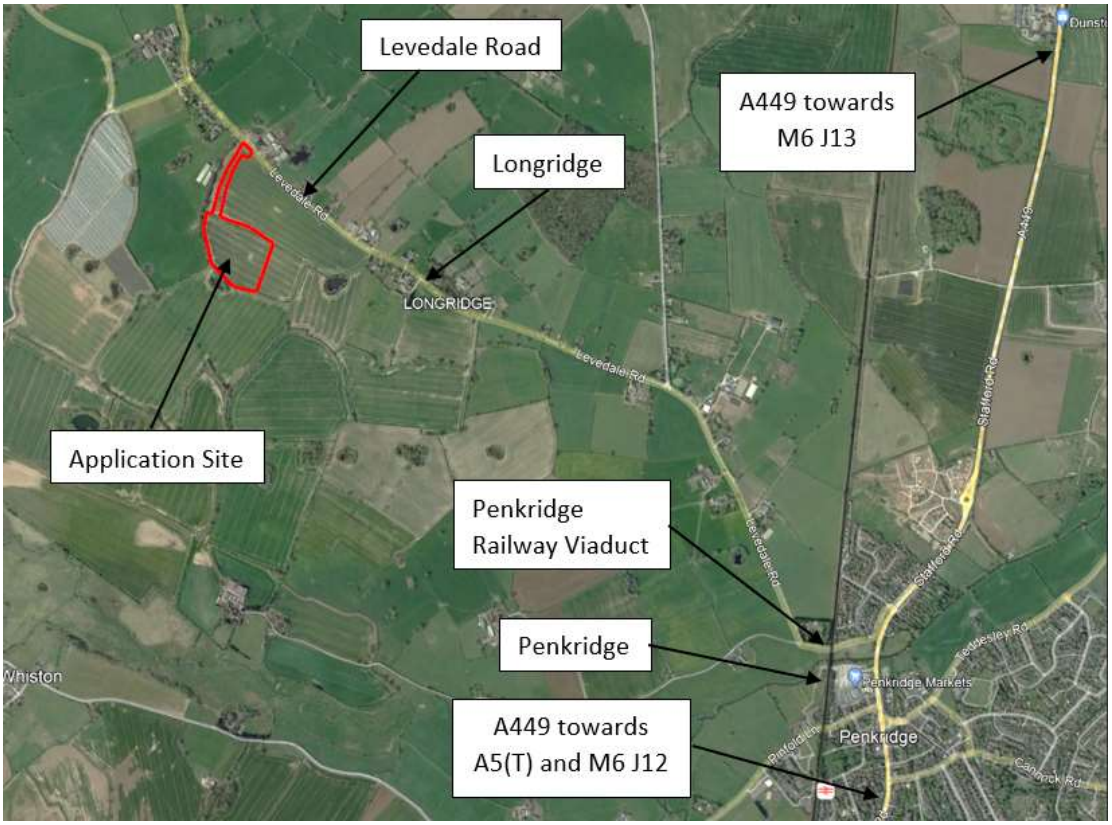


Figure 1. Site Location Plan – Wider Context

Figure 2. Site Location Plan – Local Context

2.0 CONSTRUCTION OPERATIONS

Construction Access

2.1 Vehicular access to the site will be via a new priority junction with Levedale Road. The site access arrangement is shown at **Drawing Number ST5050-2PD-001 rev.A** contained at **Appendix A**.

2.2 The proposed site layout is provided at **Figure 3**.

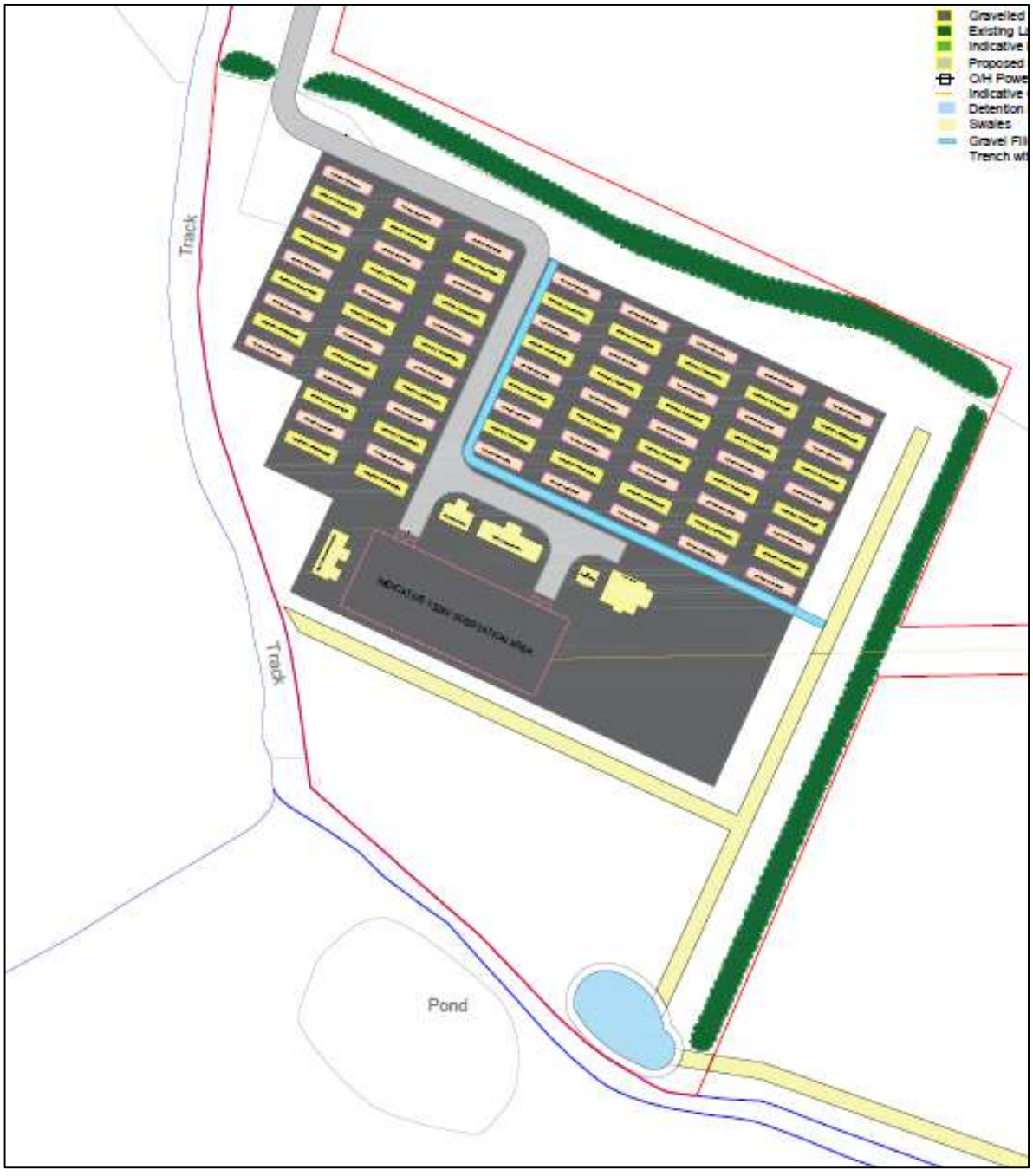


Figure 3. Proposed Site Layout

2.3 All construction vehicles will enter the site in a forward gear, travel to the construction compound (which will be provided with a turning facility) and exit in forward gear i.e. no construction traffic will be permitted to enter or exit the public highway at Levedale in a reverse gear. 'Banks persons' will be provided to assist with movement of large vehicles.

2.4 A swept path analysis of the site access at Levedale Road is shown at **Drawing Number ST5050-2PD-003 rev.A** (contained at **Appendix B**), confirming that a 16.5 metres articulated vehicle can enter and exit the site in a forward gear.

Construction Compound

2.5 A temporary construction compound will be created within the site, the location and size of this compound can be agreed by means of a Planning Condition.

2.6 The compound would consist of the following temporary buildings and provisions during the construction period:

- Site Office
- Toilets
- Parking area to accommodate workers
- Delivery and unloading area
- Storage Containers for storage of materials and waste for collection
- Open storage area for plant and equipment
- Security fencing surrounding the compound
- Wheel washing facilities

2.7 An additional area for wheel washing will also be provided along the access road close to Levedale Road.

2.8 All the above will be removed on completion of the construction works.

Hours of Operation

2.9 It is anticipated that the hours of work will be as follows:

- 08:00 to 18:00 on a weekday
- 08:00 to 13:00pm on a Saturday
- There will be no work permitted on a Sunday or Bank Holidays

2.10 The working hours outlined above will be agreed with the Local Planning Department. Special working outside of the agreed hours, if required, will be agreed with the Local Authorities Environmental Health Officer (EHO) in advance.

2.11 If required, construction personnel may visit the site outside of these hours to repair any damage to perimeter fencing etc. in the interests of safety. Should this be undertaken, the construction personnel will work as quickly and quietly as possible to minimise disruption.

Staff

2.12 During the construction period it is expected that between 10 to 20 staff will be on-site at any given point, depending on the phases of the construction schedule. Once the battery storage site is fully operational, there will be no staff based on-site and it will be monitored remotely. It will not generate any significant traffic movements, with periodic maintenance staff the only likely regular visitors which is anticipated to be around one visit per week. These visits will be made by vans and cars.

Construction Period

2.13 The total construction period for a battery storage site of this size, including the preparation of the site, would be approximately 9 months.

2.14 The initial few weeks of the construction period will comprise clearing and setting up of the site; vehicle movements will be associated with the delivery of aggregates and other ancillary works and equipment.

3.0 CONSTRUCTION TRAFFIC

3.1 Traffic associated with the development will principally derive from the import of construction materials, equipment, and construction personnel. This will consist of heavy goods vehicles (HGVs), vans and other small vehicles.

3.2 During construction, the site will generate around 3 to 4 HGV movements per day.

Programme of Works

3.3 The construction period for the proposed battery storage development, from site clearance to commissioning is anticipated to be around 9 months.

3.4 The majority of the battery storage equipment and components will be delivered once the site has been prepared for their installation.

3.5 The portacabin-type buildings are required for the construction offices, toilets, canteen, each measuring approximately 6 metres in length. Other plant / equipment will include a generator, excavator(s) and a mobile crane. None of these deliveries will fall within the “abnormal load” criteria.

3.6 The main components of the battery storage site are the battery storage units and PCS units, these are generally delivered on standard articulated vehicles. None of these deliveries will fall within the “abnormal load” criteria.

Construction Traffic Management

3.7 The arrival and departure times of vehicles will be scheduled with the intention of avoiding the vehicles potentially meeting on Levedale Road. As a robust measure, during times of traffic disruption (such as an accident or heavy congestion on the M6), then outgoing vehicles may be held on the access road (which is wide enough for two large vehicles to comfortably pass) whilst awaiting an arriving vehicle.

3.8 Authorised ‘Banks people’ will be located on site to assist with manoeuvring large vehicles.

4.0 ENVIRONMENTAL MEASURES

Wheel Washing Facilities

4.1 A wheel washing facility will be provided along the proposed access road and will be used to ensure that mud and loose construction materials are not transported on to the adopted public highway. Should debris from the site be on the public highway, mechanical road sweepers will be employed to clear the highway of mud / debris at the earliest opportunity.

4.2 The facility will be provided within the site and will not block the access road for vehicles wanting to enter the site.

4.3 The condition of Levedale Road will be reviewed by the Local Liaison Officer on a daily basis to ensure that any requirement for cleaning will be undertaken in a timely manner.

Dust Emissions and Vibration

4.4 All reasonable measures within the guidance document 'The Control of Dust and Emissions during Construction and Demolition' will be adopted, where practicable and feasible to do so. This document seeks to reduce the emissions of dust PM10 and PM2.5. The main sources of dust and emissions from the site are likely to arise from the works on the public highway associated with the laying of the cable.

4.5 To mitigate the effects of such activities the following measures, controls, and monitoring protocols as suggested within the SPG shall be employed. The matter of stakeholder engagement is discussed separately.

- Strict adherence to agreed working hours.
- Machinery and any activities which could result in dust being generated should be kept away from any identified receptors and effective and appropriate screening put in place.
- Stockpiles of material shall be sheeted, and any loose material removed from the site, as soon as is practicable.
- Deployment of a road sweeper and/or manual sweeping shall be employed as and when required.
- The site will be monitored at least twice a day. Increased monitoring will take place where dry and/or windy conditions are prevalent.
- Spraying of water to suppress dust in dry and windy weather when required.

4.6 The developer will ensure that where there are several other sites close to the site where the accumulation of dust and emissions could on a cumulative basis increase the risk to public health then appropriate management between the sites should be carried out.

Noise Emissions

4.7 Noise impact will be minimised by means of the effective application of the measures and controls suggested in BS 5228-1:2009. The underlying principles to control noise are as follows:

- Regular maintenance of plant and equipment.
- Type of plant and equipment employed to undertake the varies activities on the site.

4.8 To mitigate noise from the site the following measures and controls shall be employed:

- The location of the compound should be, where practicable, to be located away from sensitive receptors.
- All movements of vehicles associated with the site shall adhere to the agreed operating hours and any vehicle call up procedures to reduce idle time of vehicles. The use of reverse alarms shall be of a type that provides effective warning to those near the vehicle and not across a wider area than is necessary.
- The use of hoardings has been mentioned previously. This use of hoardings has an equal benefit of limiting noise from the site in the order of 5 -10db(A). These barriers should be in good order with any holes or gaps created resulting from uneven ground be filled.
- The use of concrete breakers, whilst unavoidable on occasions, will be kept to an absolute minimum, with only models that are silenced to be used.
- The use of electric powered tools, breakers/cutting and generators instead of diesel or petrol powered alternatives, shall be employed unless the activity concerned can only be performed by the petrol or diesel alternatives. No such equipment shall be left running when not in use.
- Metal casings associated with plant and tools should be acoustically dampened.
- All plant/vehicles will be switched off when not in use, and vehicles will not be permitted to remain idle where possible.

Community Engagement

4.9 It is recognised that a local understanding of the area adds considerable value in managing construction activities and should not be overlooked. A contact number and email address would be provided on-site to keep locals informed and allow comments or complaints to be made. This will help refine the live CTMP and align it with the benefit of local input and any emerging issues which are not immediately apparent.

4.10 Any comments and complaints received during the construction phase will be logged as a matter of course and dealt with effectively.

4.11 The developer will appoint a Local Liaison Officer (LLO) whose duties will be to ensure that the live CTMP is conveyed to all local residents and businesses that may be affected by the construction activities particularly the potential for temporary road closures or traffic management. Any changes to the CTMP will be clearly communicated in a timely manner.

4.12 Comments and complaints received during the construction phase will be logged as a matter of course and dealt with effectively. Where in the view of LLO remedial measures to prevent reoccurrence are required then this will be carried out as a matter of urgency and the measure recorded to learn and benefitted from on other projects.

Highway Condition Survey

4.13 A condition and dilapidation survey is recommended to be undertaken prior to the start of works in consultation with the Local Highway Authority (Staffordshire County Council). Any damage that could be directly attributed to the developer/applicant of the site will be remedied following completion of the construction phase.

5.0 CONSTRUCTION ROUTING STRATEGY

5.1 The Transport Statement included a route study of two construction traffic routes. It concluded that the northern route via Levedale Road and the A449 to the north of central Penkridge is the preferred route. This route is set out below.

Levedale Road

5.2 The proposed construction traffic routing strategy to the site is shown in red at **Figure 5** and would allow for vehicles travelling to and from the M6 to the north.

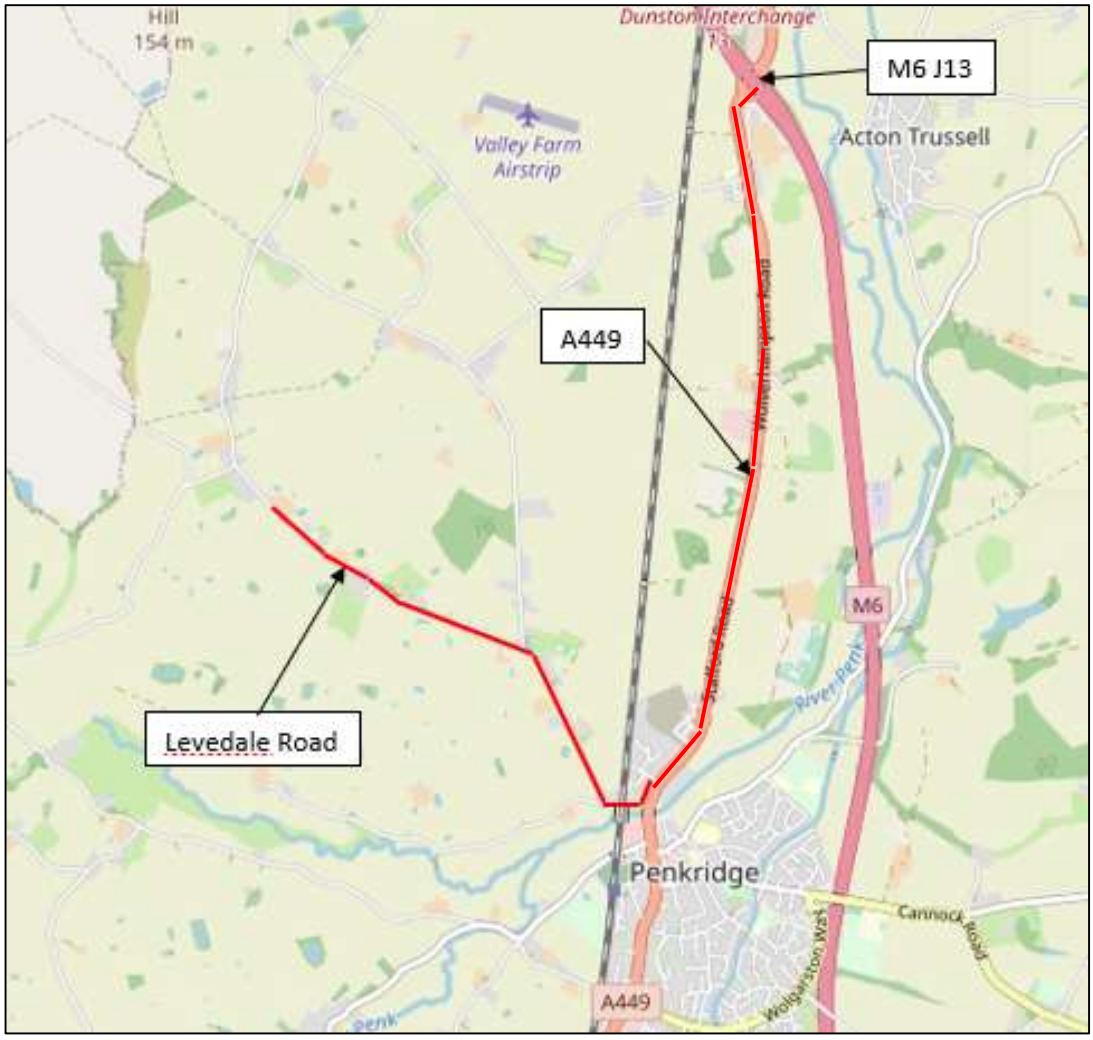


Figure 4. Potential Routing to Strategic Road Network

5.3 Construction vehicles travelling to / from the site will do so via Levedale Road connecting with Penkridge. This is due to the presence of narrow lanes and signs advising that the roads may be unsuitable for HGVs to the west.

5.4 There are no vehicle restrictions along Levedale Road between the proposed site access and Penkridge.

5.5 This section of Levedale Road generally benefits from straight carriageways with open corners. Three minor pinchpoints have been identified:

A. Junction of Levedale Road and Preston Vale Lane
B. Penkridge Railway Viaduct
C. Junction of Levedale Road and Preston Vale Road

5.6 The route study within the Transport Statement demonstrated that the pinchpoints were acceptable for the proposed construction traffic, particularly when using the northern route option.

A449

5.7 The A449 to the north of Penkridge Road is wide, straight and largely rural in nature. There are no vehicle restrictions along the A449 between Penkridge and the M6 at Junction 13.

5.8 Given its designation as an A road and lack of vehicle restrictions, this route would be appropriate for construction vehicles.

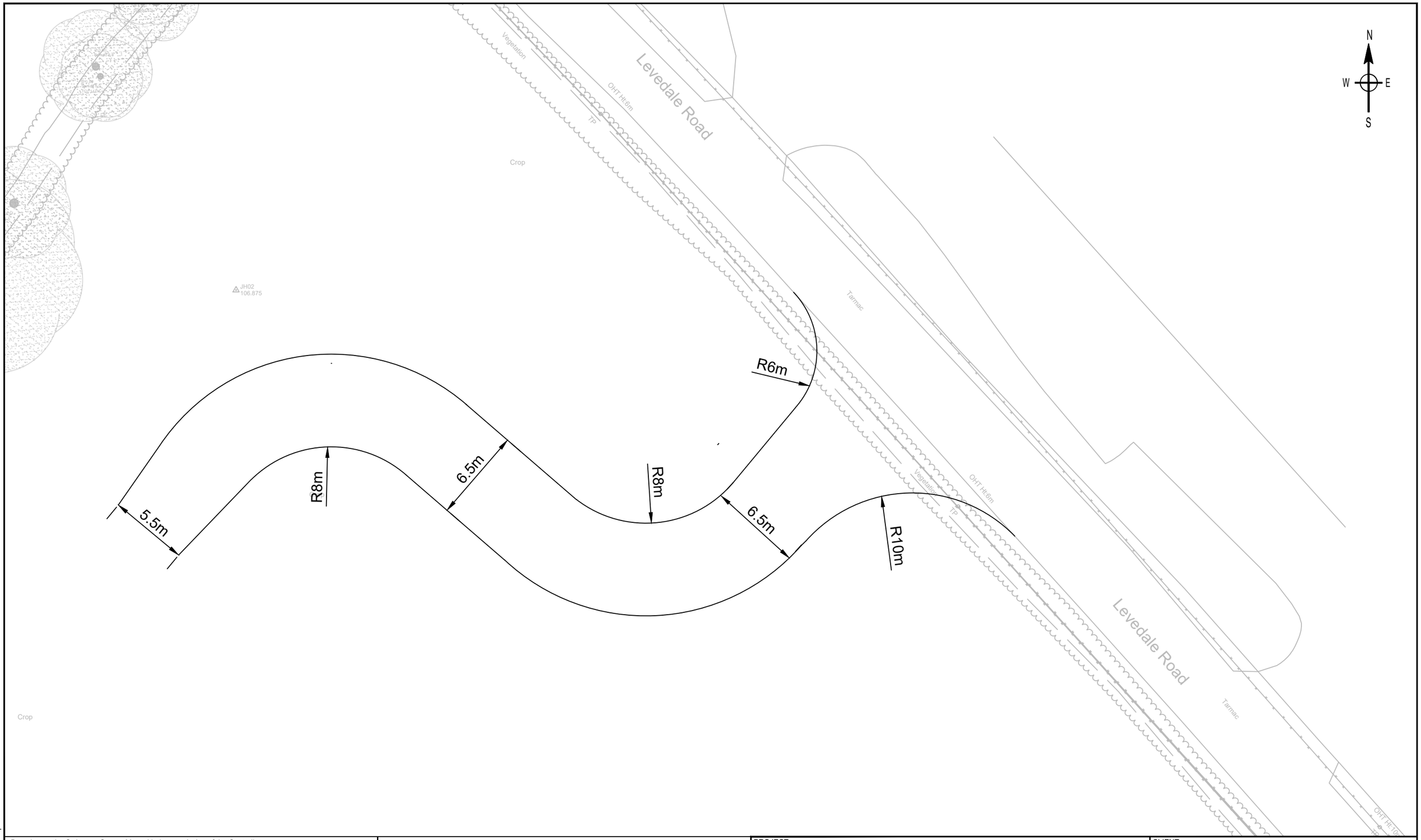
5.9 Given the route does not pass many dwellings, and those that are en-route are set back from the road access via frontage or internal estate roads, the additional construction traffic will result in minimal additional inconvenience to local residents and less than travelling through central Penkridge.

6.0 CONCLUSION

6.1 The measures, controls, and procedures to be adopted in connection with the traffic management of this site will deliver a high level of control and understanding as to how construction vehicular activities will be undertaken and managed.

6.2 This Construction Traffic Management Plan sets out an appropriate methodology to satisfy that that a workable and reasonable approach to managing construction traffic activities can be achieved.

APPENDIX A – Proposed Site Access Arrangement – Drawing Number ST5050-2PD-001 rev.A



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CAD FILE NAME : ST5050-2PD-001 Site Access Proposals

REV		DR	CH	AP	DATE
A	Transferred to topographical base	BL	DB	DB	14.12.22

PROJECT
Battery Storage, Levedale Road, Penkridge

CLIENT
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DRAWING TITLE
Proposed Site Access

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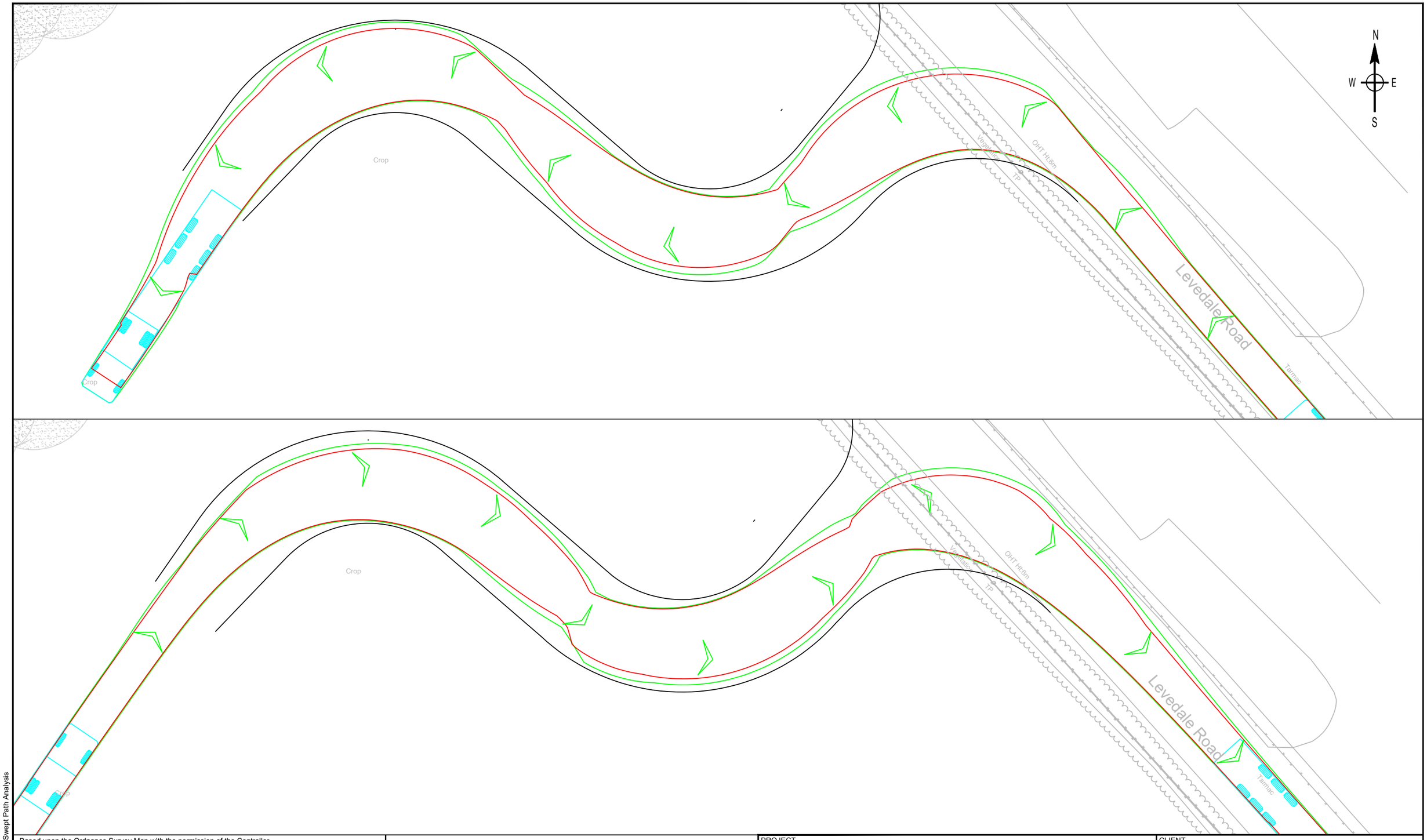
DRAWN BY	CHECKED BY	APPROVED BY	DATE	SCALES @ A3 SIZE	ISSUE STATUS	DRAWING NUMBER	REV.
BL	DB	DB	12.10.22	1:250	PLANNING	ST5050-2PD-001	A

APPENDIX B – Swept Path Analysis – Drawing Number ST5050-2PD-003 rev.A



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CAD FILE NAME : ST5050-2PD-003 Site Access Swept Path Analysis

REV		DR	CH	AP	DATE
A	Transferred to topographical base	BL	DB	DB	14.12.22

PROJECT
Battery Storage, Levedale Road, Penkridge

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DRAWING TITLE
Proposed Site Access
16.5m Articulated Vehicle Swept Path Analysis

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