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Environmental Impact Assessment Scoping Report

Volume II: Technical Appendices – Appendix 12-1: Routing Options and Survey Specification
September 2026



TECHNICAL NOTE

Client Low Carbon Alliance
Project West Oxfordshire Energy Park
Subject Routing Options and Survey Specification
Prepared By TO Checked and Authorised By CR

VELOCITY

Page No. 1 of 15
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1 INTRODUCTION

1.1 NOTE PURPOSE

- 1.1.1 This Technical Note (TN) has been prepared by Velocity Transport Planning (VTP) in support of proposals for a Solar Farm / Battery Energy Storage System (BESS) at West Oxfordshire Energy Park. The site comprises a number of land parcels located within West Oxfordshire. The Local Planning Authority is West Oxfordshire District Council (WODC), and the Highway Authority is Oxfordshire County Council (OCC).
- 1.1.2 The most significant transport impacts for a Solar Farm and BESS are to be expected during the construction and decommissioning phases. At this stage, it is assumed that decommissioning will be no worse in terms of transport impacts than construction.
- 1.1.3 Operational vehicle movements are expected to be significantly lower than those associated with construction and would primarily comprise maintenance, replacement and a nominal level of staff activity. The anticipated operational vehicle movements will be quantified as the scheme develops to inform the scope of subsequent transport assessment.
- 1.1.4 On that basis, this TN has been prepared to outline the available routes for construction vehicles to/from the site and the surrounding highway network for engagement with OCC. The routes identified within this TN represent options for further investigation and should not be interpreted as agreed construction routes.
- 1.1.5 The TN will also be used to inform the extent of baseline traffic surveys that will be undertaken to support the future DCO application and supporting environmental assessments.
- 1.1.6 At this stage, estimates on expected construction vehicles are not yet available; however this will be developed and discussed with OCC at a later stage to refine the access strategy once baseline flows are known.
- 1.1.7 Following this introduction, this TN is structured as follows:
- ⦿ **Section 1.2:** Route Summary
 - ⦿ **Section 1.3:** Strategic Access Strategy
 - ⦿ **Section 1.4:** Initial Internal Route Commentary
 - ⦿ **Section 1.5:** Traffic Survey Scope
 - ⦿ **Section 1.6:** Next Steps

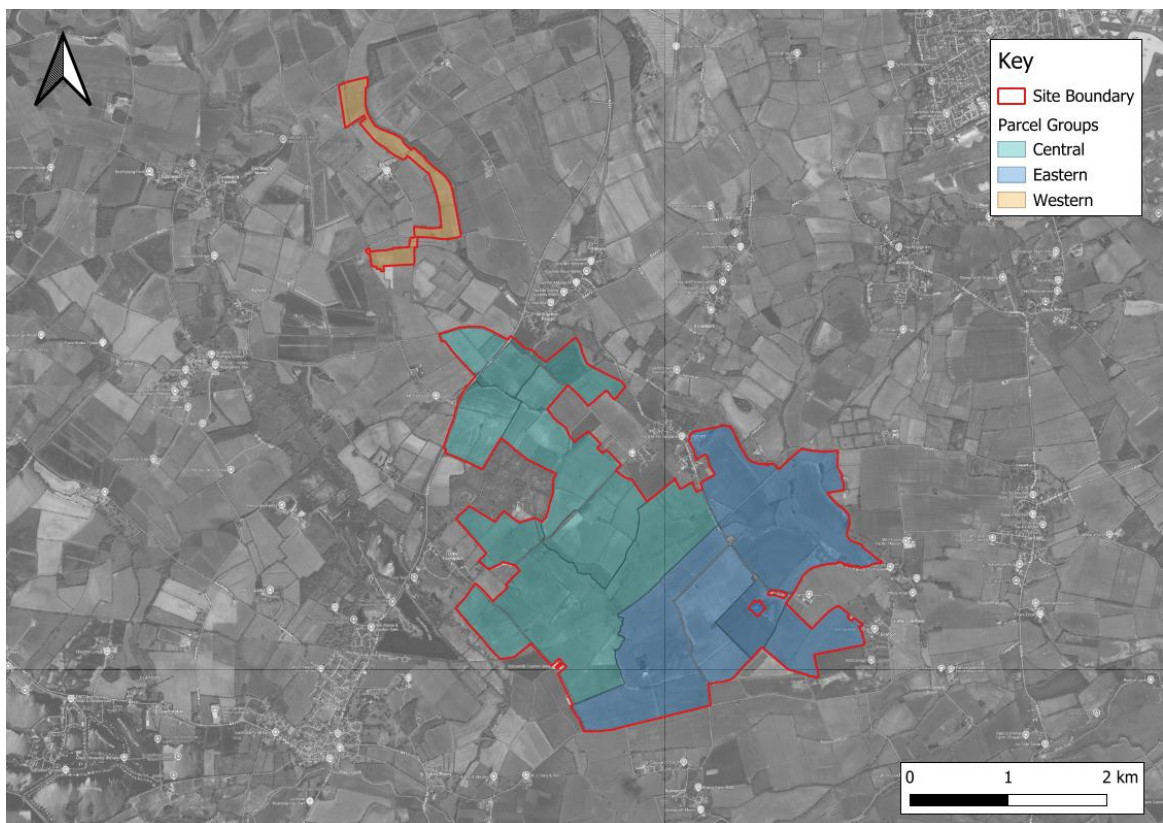


1.2 ROUTE SUMMARY

ACCESS STRATEGY AND STUDY AREA

- 1.2.1 A review of the surrounding highway network has been undertaken to identify potential construction access routes from the higher-order road network, including the A40, A361, A417 and other local routes that may provide access to the various development parcels.
- 1.2.2 The Site comprises two broad Site areas: the northern Site area, incorporating Fields 1–10, and the southern Site area, incorporating the remaining numbered fields.
- 1.2.3 For construction routing purposes, the Site has also been divided into Parcel Groups, shown as Central, Eastern and Western on Figure 1-1. The western parcel (Fields 1-10) is the northern parcel and the central and eastern parcel (11-102) are the southern parcel. For the remainder of this report, the parcels will be referred to as the northern (Fields 1-10) and southern parcels.
- 1.2.4 Fields 1-10 are not to be used for Photovoltaic Panels, Main Substation or BESS and will not require HGV access during the construction phase, and no/limited staff access during the operational phase.
- 1.2.5 The site area and the parcels of land within the site are identified in **Figure 1-1** below.

Figure 1-1: Site Overview



- 1.2.6 The site comprises a number of land parcels located within a rural area of West Oxfordshire, broadly in the vicinity of Langford, Little Faringdon, Broughton Poggs, Filkins, Grafton, Clanfield, Radcot and the surrounding settlements.

- 1.2.7 As such, access to the different development parcels is likely to require the use of a number of local routes, which connect with the strategic highway network.
- 1.2.8 At this stage, the detailed construction programme, final access strategy and confirmed routing of construction vehicles are still subject to further design development and consultation. Accordingly, this TN identifies an initial construction routing summary and survey specification based on the information currently available.
- 1.2.9 The points of access are also yet to be fixed, and therefore a number of access points and a consolidated access point with internal connections/accesses provided through the site)
- 1.2.10 It should be acknowledged that further surveys, localised junction assessments, swept path analysis and/or route-specific reviews may be required following additional information from the project team and feedback from OCC as the local highway authority. As such, a series of 'first-principle' assumptions have been made based on where vehicles can gain suitable access to the site from the SRN.

1.3 CONSTRUCTION ACCESS STRATEGY

STRATEGIC CONSTRUCTION ACCESS ROUTES

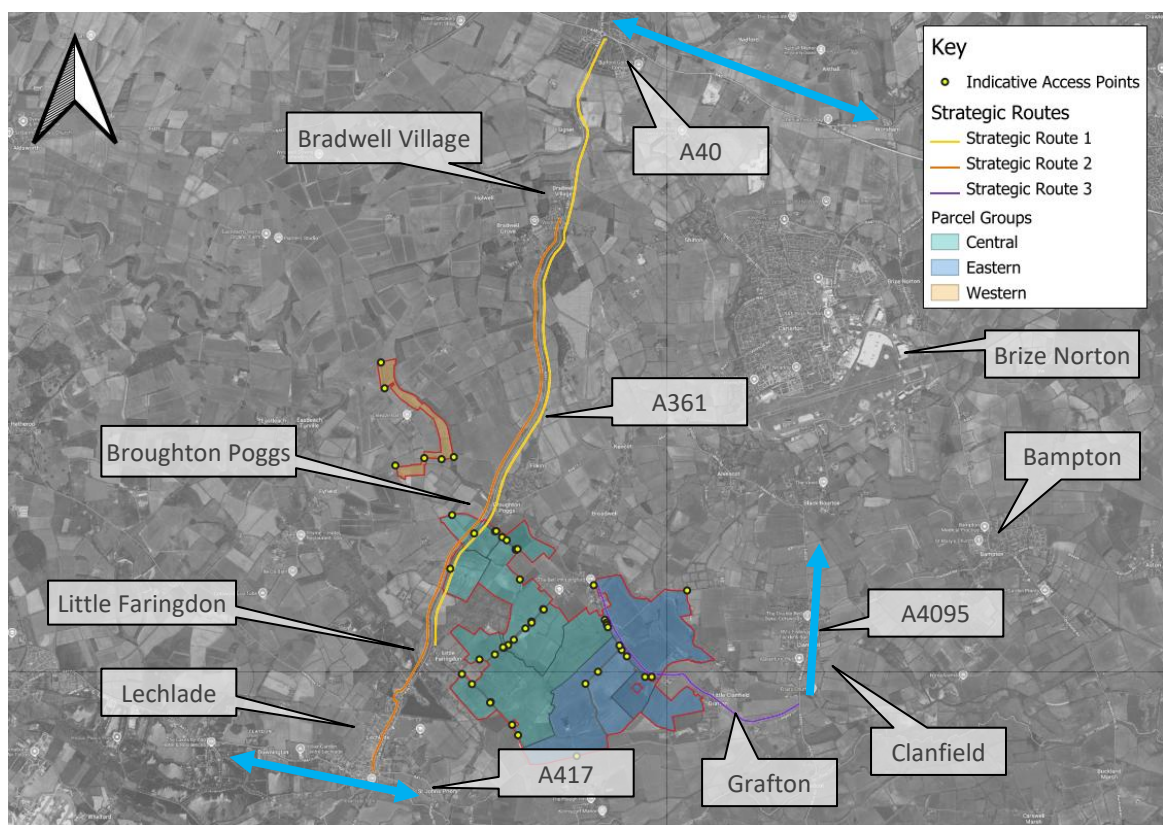
- 1.3.1 A review of the surrounding highway network has identified three principal strategic construction access routes connecting the Proposed Development with the higher-order highway network.
- 1.3.2 These strategic routes would provide the main approach corridors for construction traffic before vehicles transfer onto local roads and internal access routes serving the individual development parcels.
- 1.3.3 In the vicinity of the Proposed Development, the principal higher-order road is identified as the A40 to the north, which is part of the strategic road network and will be used as a distributor road for the majority of construction traffic to the site. The A40 is also suitable for larger vehicles including Abnormal Indivisible Loads (AIL).
- 1.3.4 The A361 passes between the northern and southern parcel and will be a key distributor road for construction access, providing access to the full site. The A361 can be accessed by the A40 to the north (via the Burford Roundabout). Construction access can also be achieved from the A417 to the south; however, it is noted that all construction traffic accessing the site via the A417 would have to do so via High Street through the centre of Lechlade and therefore the A417 would be a secondary access route for smaller construction vehicles. There is a vehicle size limit of 13m on the A361 in Lechlade in the Halfpenny Bridge.
- 1.3.5 The eastern section of the southern parcel can be accessed via the A361, as well as via a potential eastern approach from the A4905. The A4095 can be accessed from the A40 to the north via Brize Norton, Bampton and Clanfield. A weight restriction and narrow bridge at Radcot Bridge constrain access from the south and, accordingly, an approach from the north is currently being investigated.
- 1.3.6 The suitability of this route will require further assessment, including consideration of construction traffic through Bampton, Clanfield and other affected settlements. The emerging construction access strategy will seek to minimise HGV movements through these communities where reasonably practicable.
- 1.3.7 OCC has also identified a potential operational constraint associated with the highway network in the vicinity of RAF Brize Norton, relating to possible temporary road closures or restrictions. The extent and implications of any such restrictions will be investigated as the access strategy develops.

1.3.8 These strategic routes are summarised as follows:

- ⦿ Strategic Route 1: access from the north via the A40 and A361;
- ⦿ Strategic Route 2: access from the south via the A417 and A361; and
- ⦿ Strategic Route 3: access from the east via the A40, Brize Norton, Bampton, Clanfield and A4095 (via Langley Lane).

1.3.9 The strategic routes are shown in **Figure 1-2**. At this stage, they represent indicative construction access corridors and remain subject to further route review, swept path analysis, survey work and consultation with OCC.

Figure 1-2: Strategic Routes



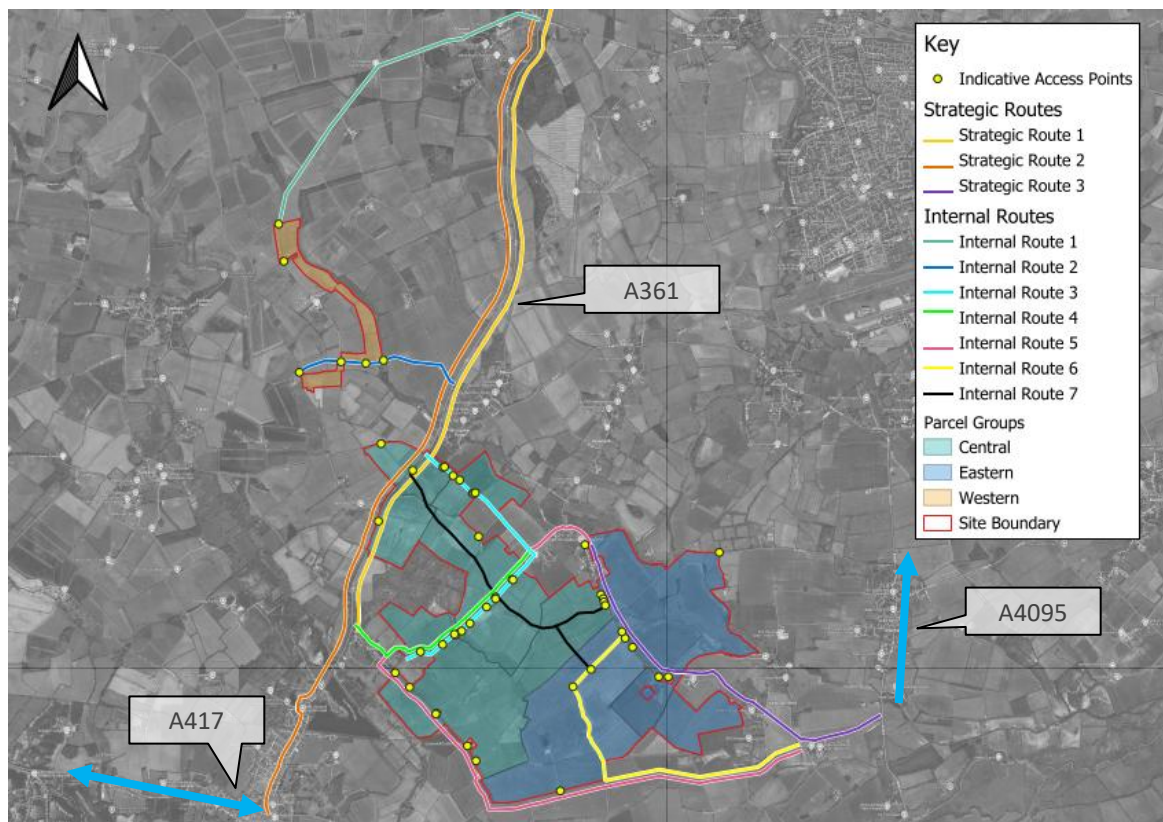
LOCAL AND INTERNAL ACCESS ROUTES

1.3.10 From the strategic routes, a number of local and internal access routes would be required to connect construction traffic with the northern and southern. These may comprise existing local roads, temporary internal haul roads and connections between individual parcel access points.

1.3.11 These routes would comprise existing local roads, potential temporary haul roads and connections between parcel access points. Their suitability would depend on carriageway width, alignment, highway condition, passing opportunities, vegetation, road safety, interaction with pedestrians and cyclists, settlements, structures and existing highway restrictions, third-party land requirements and the final construction programme.

- 1.3.12 The local and internal access routes are therefore considered separately from the strategic routes and are described by the strategic route from which they branch.
- 1.3.13 Based on the location of the parcels of land which comprise the site and context of the surrounding road network, the following routes have been identified:
- ⦿ **Internal Route 1:** This route branches west from the A361 and provides access to Fields 1-10. It can be reached from both Strategic Routes 1 and 2, although access from the north via Strategic Route 1 is considered the more likely approach given its geographic proximity.
 - ⦿ **Internal Route 2:** This route branches west from the A361 north of Broughton Poggs and provides access to Fields 1-10 near Fyfield. It can be reached from both Strategic Routes 1 and 2, although the northern approach via Strategic Route 1 is likely to be preferred.
 - ⦿ **Internal Route 3:** This route provides access through the southern parcel and connects with a number of internal parcel access points. It may be approached from either Strategic Route 1 or Strategic Route 2 via the A361.
 - ⦿ **Internal Route 4:** This route branches east from Strategic Route 2 near Little Faringdon and provides access through the southern parcels towards the eastern fields. It serves a number of internal access points and may also provide an onward link towards Strategic Route 3.
 - ⦿ **Internal Route 5:** This route branches from Strategic Route 3 and loops through the southern parcel, providing access to a number of internal parcel access points.
 - ⦿ **Internal Route 6:** This route branches from Strategic Route 3 near Little Clanfield and provides a southern connection into the southern development parcel, serving a number of internal parcel access points along the route.
 - ⦿ **Internal Route 7:** This route would comprise a purpose-built internal haul road extending from the A361 through the southern development parcel. This route would primarily cross agricultural land and would connect with a number of indicative parcel access points, reducing reliance on the existing local road network.
- 1.3.14 As the construction access strategy develops, the internal route options will be compared in terms of highway suitability, interaction with local communities and vulnerable road users, mitigation requirements and deliverability. The resilience of the emerging access strategy will also be considered, including the availability of appropriate contingency arrangements should a preferred route become temporarily unavailable.
- 1.3.15 A plan showing the extent of the access routes is provided in **Figure 1-3** and again at **APPENDIX A**, including detailed plans of each route.
- 1.3.16 It is noted that some internal routes share sections of the same local road network and therefore overlap with one another. The routes are shown separately to illustrate the potential access options available to the individual development parcels. Where internal routes overlap or use common sections of the local highway network, the cumulative construction traffic using those sections will be considered as part of the subsequent assessment.

Figure 1-3: Site-Wide Access Map



1.4 INITIAL ROUTE COMMENTARY

- 1.4.1 It is assumed that access will be required to each of the development parcels. Given the dispersed nature of the site, it is not currently anticipated that all construction traffic would be routed via a single access point. Instead, a number of potential access corridors have been identified to serve northern and southern parcels. A number of routes may be selected as the more appropriate solution.
- 1.4.2 These routes provide connections to the wider highway network and are therefore considered to represent the most appropriate basis for identifying potential construction HGV access corridors to the site.
- 1.4.3 The commentary below considers the internal access routes serving the development parcels and identifies the strategic route or routes from which each internal route may be approached.
- 1.4.4 Ahead of the summary on each route, it should be noted that internal route 7 was considered the most appropriate during initial pre-applications discussions with OCC Highways. Internal route 7 will be a permanent haul road from the A361 to the southern main array, comprised of stone and up to 8.0m wide, and anticipates that the main construction access point would be from the A361.

INTERNAL ROUTE 1

- 1.4.5 Internal Route 1 is shown in **Figure 1-4**. Internal Route 1 branches west from the A361 and provides access to the Fields 1-10 via Hardwick Lane.

Figure 1-4: Internal Route 1

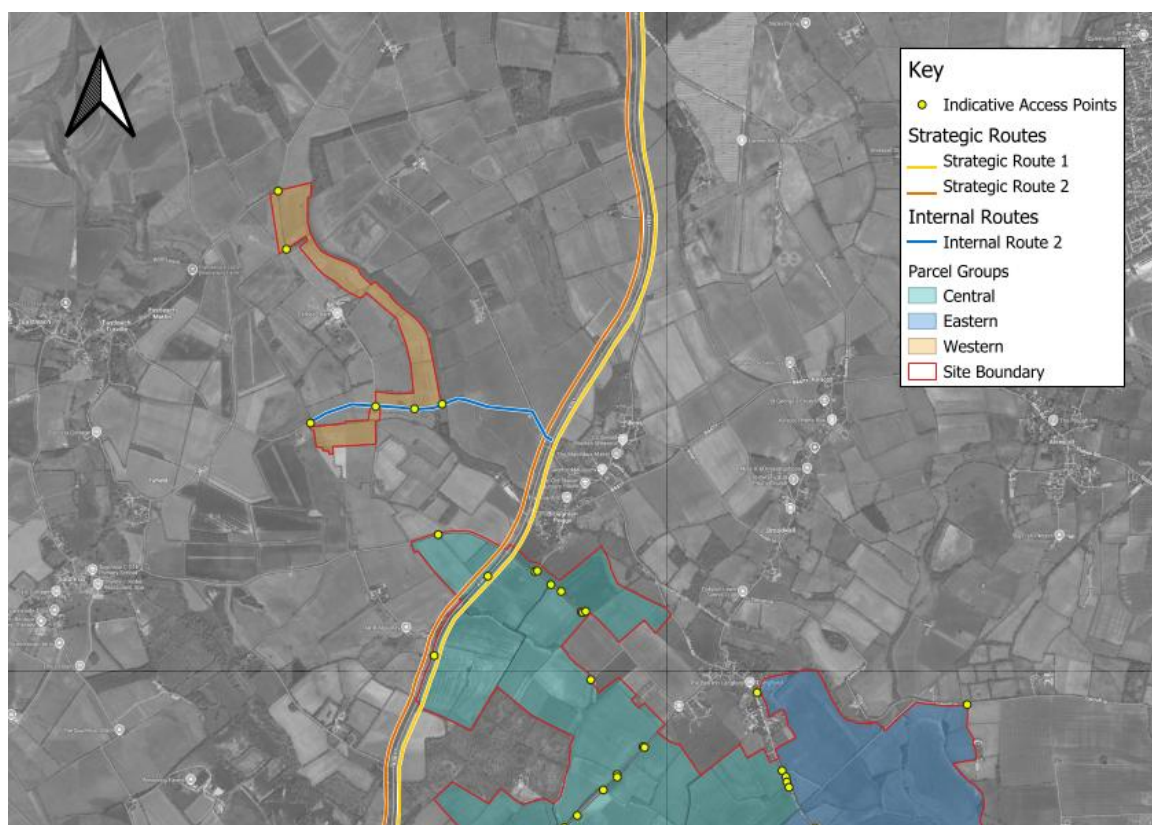


- 1.4.6 The route may be reached from either Strategic Route 1 or Strategic Route 2. Should construction access be required, the northern approach via Strategic Route 1 is considered the more likely option, as it would allow construction traffic to approach from the A40 and remain on the higher-order road network for longer.
- 1.4.7 The route continues west from the A361 via Bradwell and Hardwick Lane before reaching the indicative access points associated with Fields 1-10.
- 1.4.8 The local roads along this route are constrained by narrow carriageways, sections of poor highway condition and limited opportunities for HGVs and opposing vehicles to pass safely. There is therefore a high chance that mitigation would be required in this location.
- 1.4.9 Mature roadside trees and overhanging vegetation may also restrict vehicle movements and limit opportunities to widen the carriageway or provide passing places, making this route potentially difficult for access.
- 1.4.10 Fields 1-10 are not to be used for Photovoltaic Panels, Main Substation or BESS and will not require HGV access during the construction phase, and no/limited staff access during the operational phase.

INTERNAL ROUTE 2

- 1.4.11 Internal Route 2 is shown in **Figure 1-5**. Internal Route 2 branches west from the A361 north of Broughton Poggs and provides access to Fields 1-10 near Fyfield.

Figure 1-5: Internal Route 2

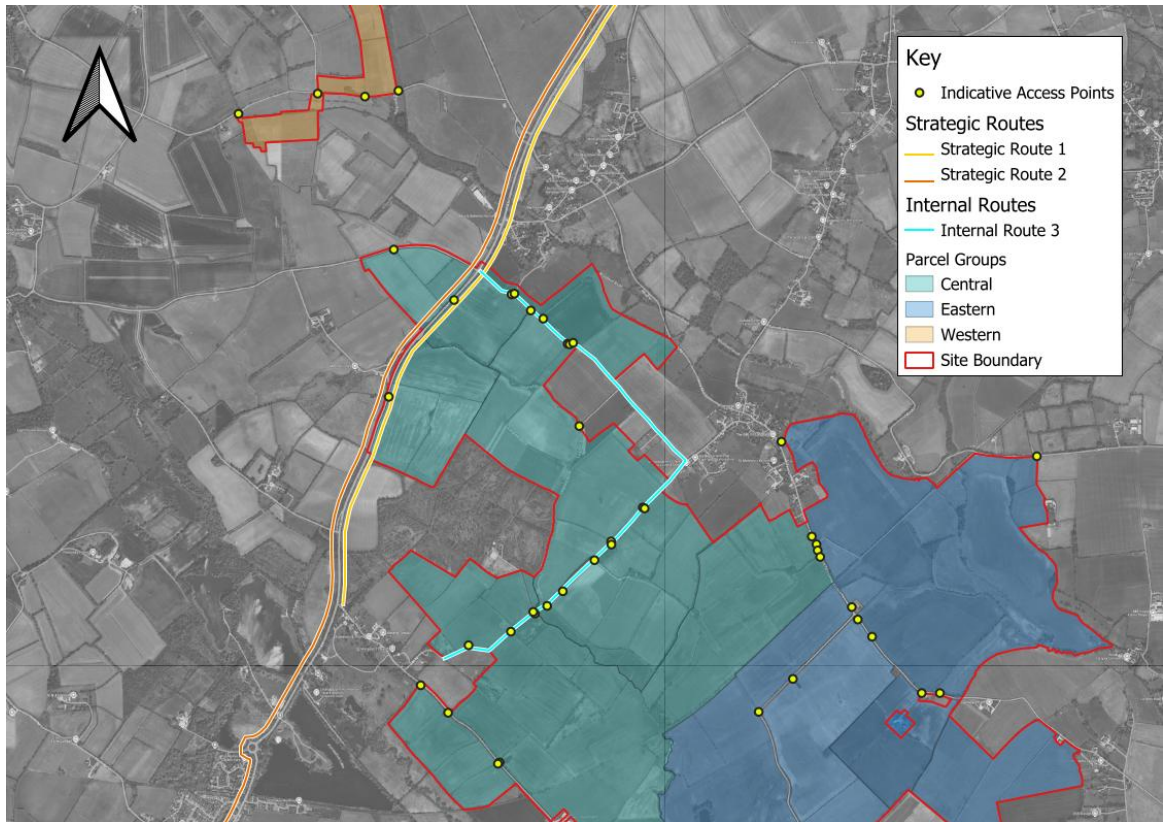


- 1.4.12 Should construction access be required, the route may be reached from either Strategic Route 1 or Strategic Route 2, although the northern approach via Strategic Route 1 is likely to be preferred.
- 1.4.13 The route follows local roads west from the A361 before continuing towards the relevant Field 1-10 access points.
- 1.4.14 The route is constrained by narrow carriageways, sections of poor highway condition and limited opportunities for HGVs and opposing vehicles to pass safely.
- 1.4.15 The connection from the A361 is relatively direct and the junction appears to provide a more favourable entry arrangement for construction vehicles than some of the other western access points; however mitigation is still likely to be required along this route to facilitate access for HGVs.

INTERNAL ROUTE 3

- 1.4.16 Internal Route 3 is shown in **Figure 1-6**. Internal Route 3 provides access through the southern parcel and connects with a number of indicative internal parcel access points.

Figure 1-6: Internal Route 3

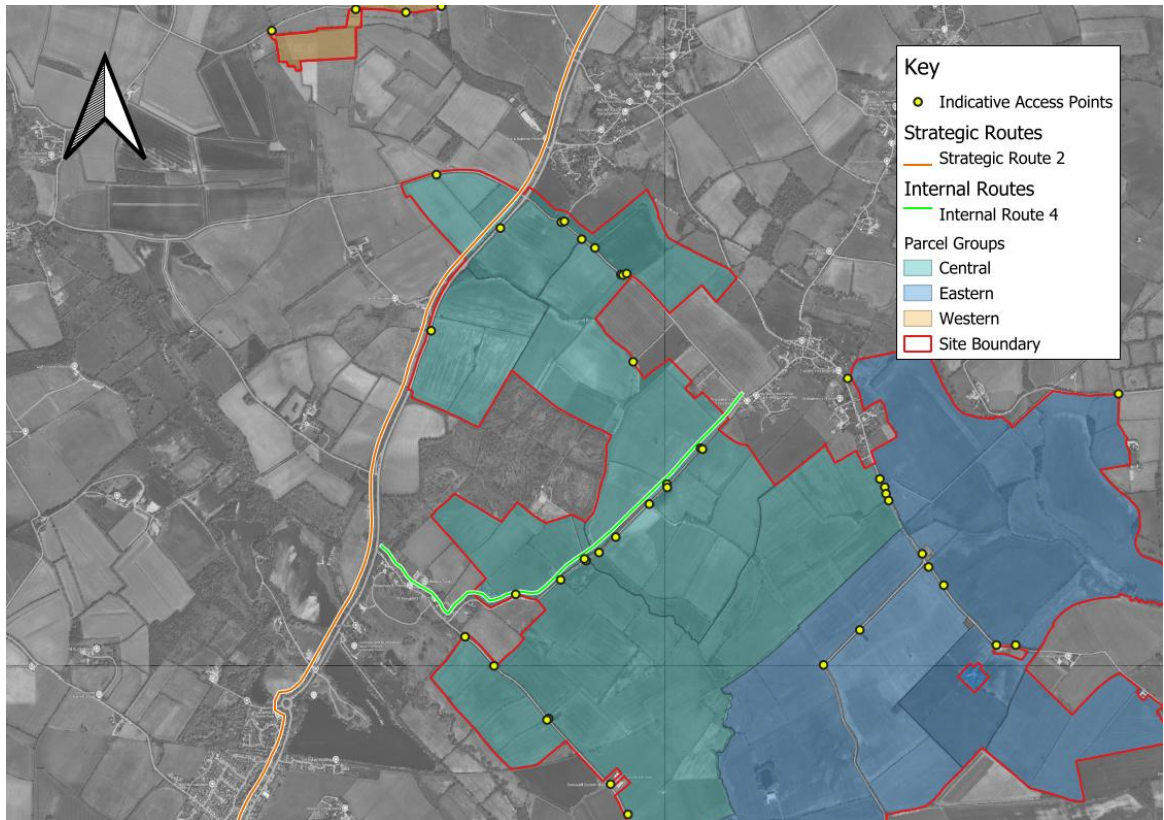


- 1.4.17 This route may be approached from either Strategic Route 1 or Strategic Route 2 via the A361. The route provides a principal internal connection through the southern parcel.
- 1.4.18 Potential constraints include narrow rural roads, limited passing opportunities and interaction with local traffic around the southern parcel. There are existing passing places however these would need to be enhanced and widened significantly to accommodate HGVs. There are also existing hedgerows along this internal road which are protected under the Hedgerows Regulations 1997 and part of internal road 3 is identified as cycle route (a connection route identified as being less safe).

INTERNAL ROUTE 4

- 1.4.19 Internal Route 4 is shown in **Figure 1-7**. Internal Route 4 branches east from Strategic Route 2 near Little Faringdon and provides access through the southern parcel.

Figure 1-7: Internal Route 4

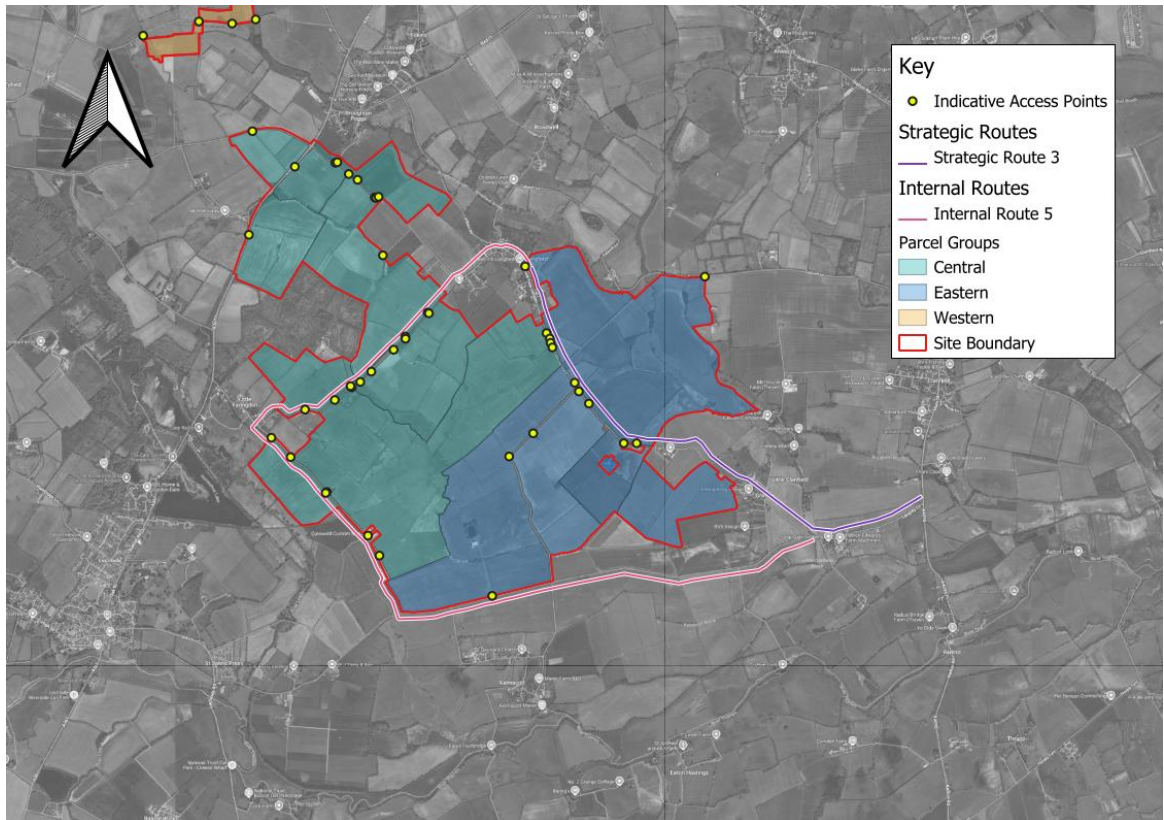


- 1.4.20 This route serves a number of indicative internal access points and may also provide an onward internal connection towards Strategic Route 3.
- 1.4.21 The route passes through a rural local road environment where the carriageway width and passing opportunities are constrained.
- 1.4.22 Potential constraints include narrow rural roads, limited opportunities for HGVs and opposing vehicles to pass safely and interaction with local traffic around Little Faringdon and Langford. The village of Little Faringdon and Lechlade appears constrained and unlikely to be suitable for HGVs without significant mitigation. There are also existing hedgerows along this internal road which are protected under the Hedgerows Regulations 1997 and part of internal road 4 is identified as cycle route (a connection route identified as being less safe).

INTERNAL ROUTE 5

- 1.4.23 Internal Route 5 is shown in **Figure 1-8**. Internal Route 5 branches from Strategic Route 3 and loops through the southern parcel.

Figure 1-8: Internal Route 5

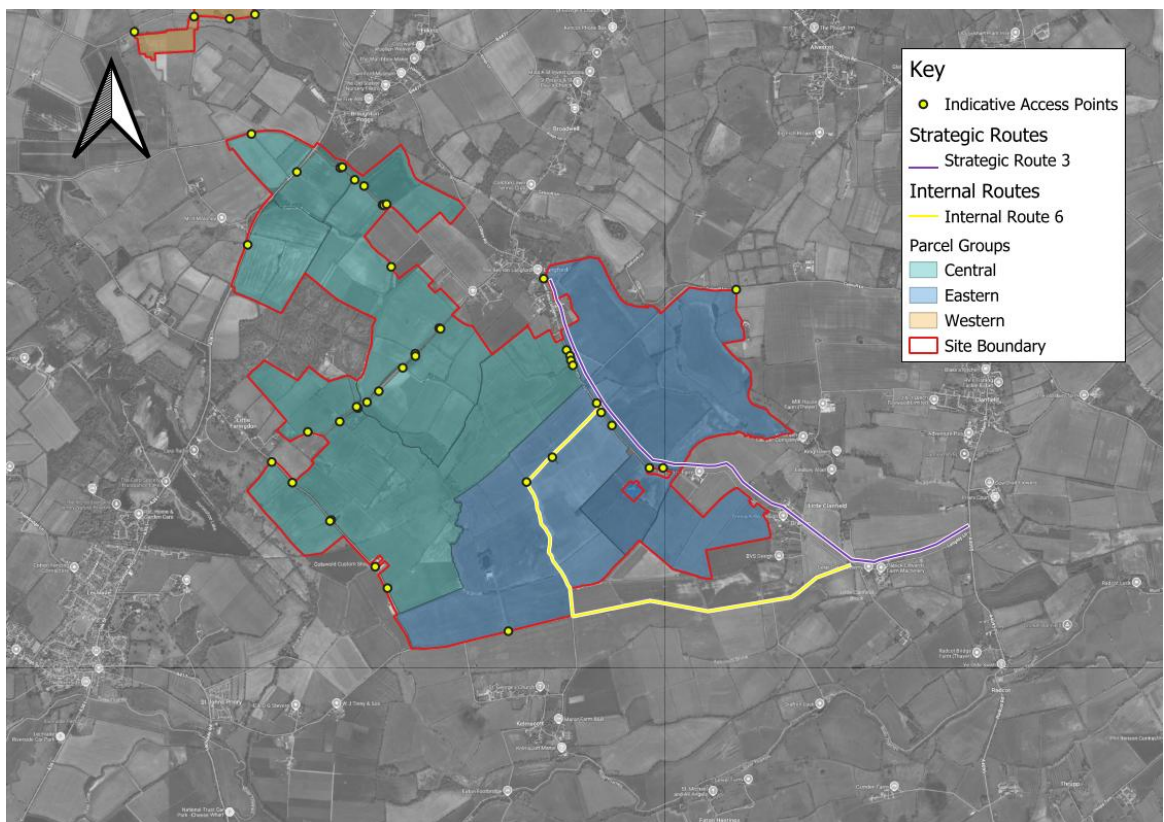


- 1.4.24 The route provides access to a number of indicative parcel access points and forms an internal distribution route between across the southern parcel.
- 1.4.25 The route is expected to comprise a combination of existing local roads and potential internal haul road connections. Langley Lane is a rural road however there are existing passing places that could be enhanced and improved. There are also existing hedgerows along this internal road which are protected under the Hedgerows Regulations 1997 and part of internal road 5 (by Little Farrington) is identified as cycle route (a connection route identified as being less safe).

INTERNAL ROUTE 6

- 1.4.26 Internal Route 6 is shown in **Figure 1-9**. Internal Route 6 branches from Strategic Route 3 near Little Clanfield and provides a southern connection into the southern parcel.

Figure 1-9: Internal Route 6

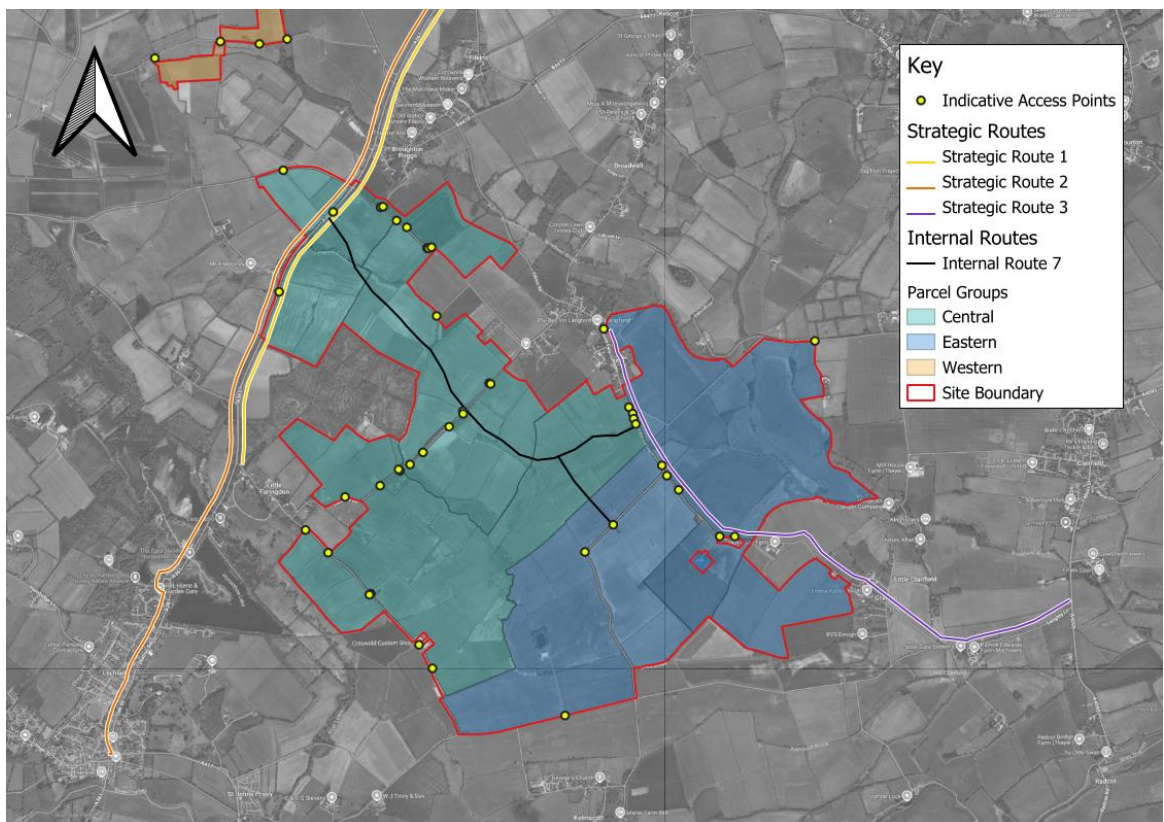


- 1.4.27 The route serves a number of indicative internal parcel access points along its alignment and provides an alternative connection into the southern part of the southern parcel.
- 1.4.28 This route follows local roads and internal connections to the south of the southern parcel before turning north into the site.
- 1.4.29 Potential constraints include narrow local roads, constrained alignment, poor carriageway edge condition and limited opportunities for HGVs and opposing vehicles to pass safely. Langley Lane is a rural road however there are existing passing places that could be enhanced and improved.
- 1.4.30 There may be interaction with rural properties and local traffic around Little Clanfield and Grafton and the surrounding road network. There are also existing hedgerows along this internal road which are protected under the Hedgerows Regulations 1997.

INTERNAL ROUTE 7

- 1.4.31 Internal Route 7 is shown in **Figure 1-10**. The route would comprise a purpose-built internal haul road extending from the A361 through the southern parcel.

Figure 1-10 Internal Route 7



- 1.4.32 The route would be approached primarily from Strategic Route 1 via the A361, although it may also be capable of being approached from Strategic Route 2. The northern approach via Strategic Route 1 is expected to represent the principal construction route.
- 1.4.33 Internal Route 7 would pass predominantly through agricultural land and would provide access to a number of indicative access points serving the southern parcel.
- 1.4.34 The use of a purpose-built haul road would reduce the need for construction HGVs to travel along the narrower and more constrained local roads associated with the other internal route options. It would also reduce potential interaction with local traffic, pedestrians, cyclists and nearby settlements. Given the potential highway benefits associated with reducing construction HGV movements on the existing rural road network, the feasibility and deliverability of Internal Route 7 will be investigated further and compared with the alternative internal route options.
- 1.4.35 Access to a haul road from the A361 has been explored. Further work will consider the proposed access location, geometry, visibility requirements, vehicle tracking and any associated highway works.
- 1.4.36 Principal considerations include third-party land requirements, landowner agreement, ground conditions, drainage, field boundaries and existing hedgerows.
- 1.4.37 Localised hedgerow removal or the creation of new field accesses may be required. Any vegetation removal would be minimised where practicable. The purpose build road would be comprised of stone and up to 8.0m wide

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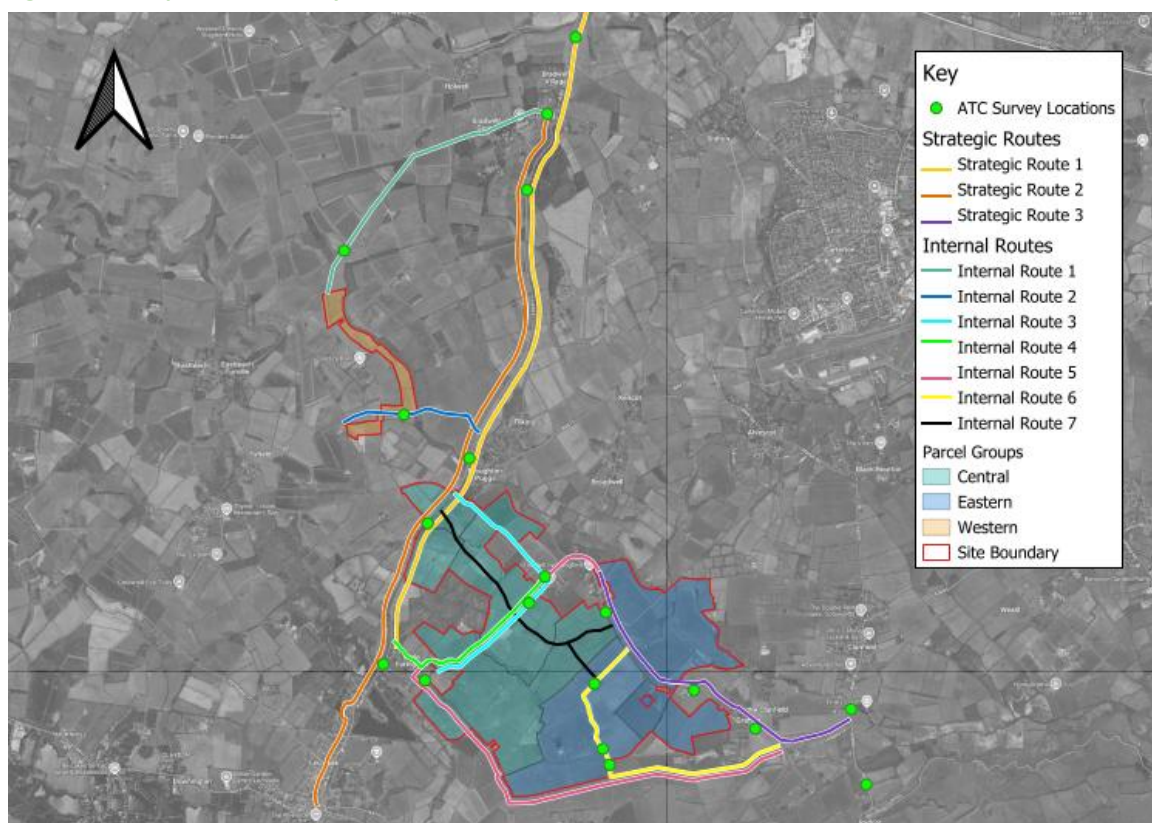
1.5 TRAFFIC SURVEY SCOPE

- 1.5.1 Whilst the level of trip generation during construction is not yet confirmed, it is anticipated that delivery hours will be restricted to avoid the morning and evening peak hours, as well as School drop-off times for any local schools.
- 1.5.2 The requirement for detailed junction capacity assessment will be established once the baseline traffic conditions and construction traffic generation and distribution are better understood. The scope of any junction assessment will take account of the scale of the anticipated construction traffic effects and the characteristics and sensitivity of the affected junctions and will be discussed with OCC as the assessment develops.
- 1.5.3 The identified access corridors are intended to provide an initial basis for defining the traffic survey study area. The final construction access strategy will be subject to further design development, review of highway constraints, swept path analysis, and consultation with OCC as the local highway authority. The assessment will also consider road safety, vulnerable road users, highway condition, structures and restrictions and the effects on local communities. Where appropriate, baseline highway condition surveys will be undertaken to inform future monitoring and asset protection arrangements.
- 1.5.4 To assess the potential impact of the construction traffic associated with the Proposed Development, baseline traffic data will be required along the identified access corridors, as well as on local roads around the site that may be required to accommodate construction traffic movements.
- 1.5.5 In order to inform the baseline position and reduce the overall scope of new traffic surveys where appropriate, available Department for Transport (DfT) traffic count data will be reviewed to establish existing annual average daily traffic flows and the proportion of HGVs on relevant links within the study area.
- 1.5.6 Where there are gaps in the available DfT data, or where more detailed local information is required, it is proposed to undertake automatic traffic counter (ATC) surveys. These surveys would record traffic data over a 24-hour, week-long period, including vehicle flows, vehicle classification and vehicle speeds.
- 1.5.7 Surveys will be undertaken during representative traffic conditions and, where practicable, will avoid school holidays, significant roadworks and other abnormal traffic conditions. The representativeness of the survey data will also be reviewed with regard to seasonal variation, including visitor traffic associated with Cotswold Wildlife Park on the A361.
- 1.5.8 A number of ATC survey locations will be selected to capture traffic conditions along the emerging construction access corridors and on the local roads serving the proposed site access points. The survey locations will also be selected to allow comparison with, and where appropriate calibration of, existing DfT traffic count data.
- 1.5.9 The proposed ATC survey locations are shown in **Figure 1-11** and **APPENDIX B**. The locations have been selected to capture baseline traffic flows, vehicle classifications and speeds along the strategic construction access corridors and on the local roads serving the proposed internal access routes and parcel access points. The survey points identified within **Figure 1-11** covers data collection for all internal routes and strategic routes. The survey locations will be refined should any of the strategic or internal routes be discounted.



- 1.5.10 The need for additional survey locations will remain under review as the construction traffic forecasts, access arrangements and route distribution are developed.

Figure 1-11: Proposed ATC Survey Locations

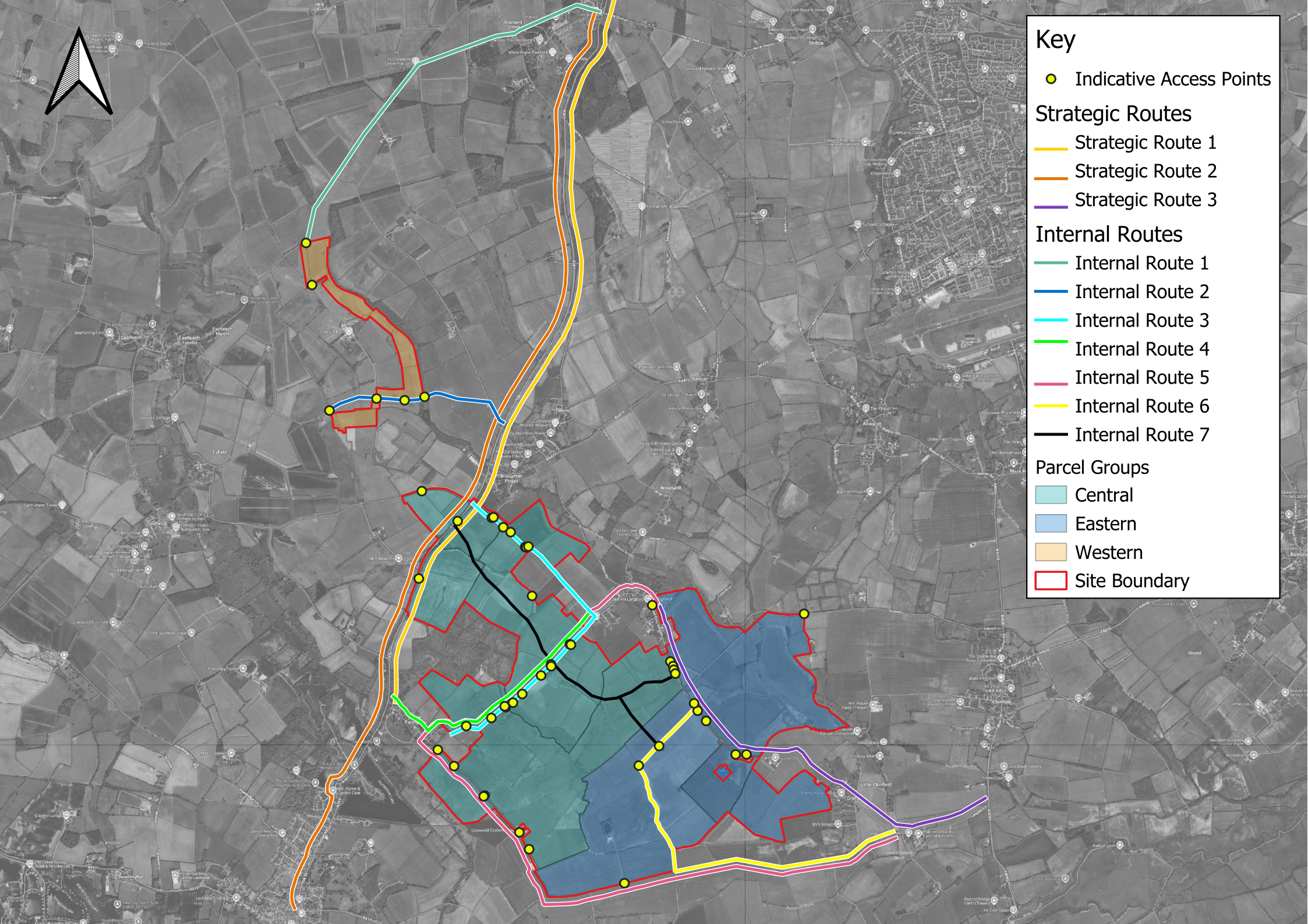


1.6 NEXT STEPS

- ⦿ The scope of surveys have been agreed with OCC. It was also agreed that internal route 7 is considered the most appropriate during initial pre-application discussions with OCC Highways. Internal route 7 will be a permanent haul road from the A361 to the southern main array, comprised of stone and up to 8.0m wide, and anticipates that the main construction access point would be from the A361.
- ⦿ OCC will be engaged further once the survey results are received and there is greater clarity regarding the construction traffic forecasts and access strategy. The methodology, assumptions and inputs associated with any transport modelling will also be discussed with OCC prior to modelling being relied upon to inform the highway mitigation or design.
- ⦿ The Environmental Scoping will be undertaken in Q4 2026. At this stage, it is anticipated that Transport and Access effects associated with construction will be scoped into the assessment. The scope of the operational assessment will be confirmed once the anticipated operational vehicle movements, servicing and maintenance requirements have been quantified. The assumption that decommissioning effects would be comparable to, and no greater than, construction will also be reviewed as further information becomes available.

APPENDIX A

INDICATIVE CONSTRUCTION HGV ROUTE PLANS



Key

- Indicative Access Points

Strategic Routes

- Strategic Route 1
- Strategic Route 2
- Strategic Route 3

Internal Routes

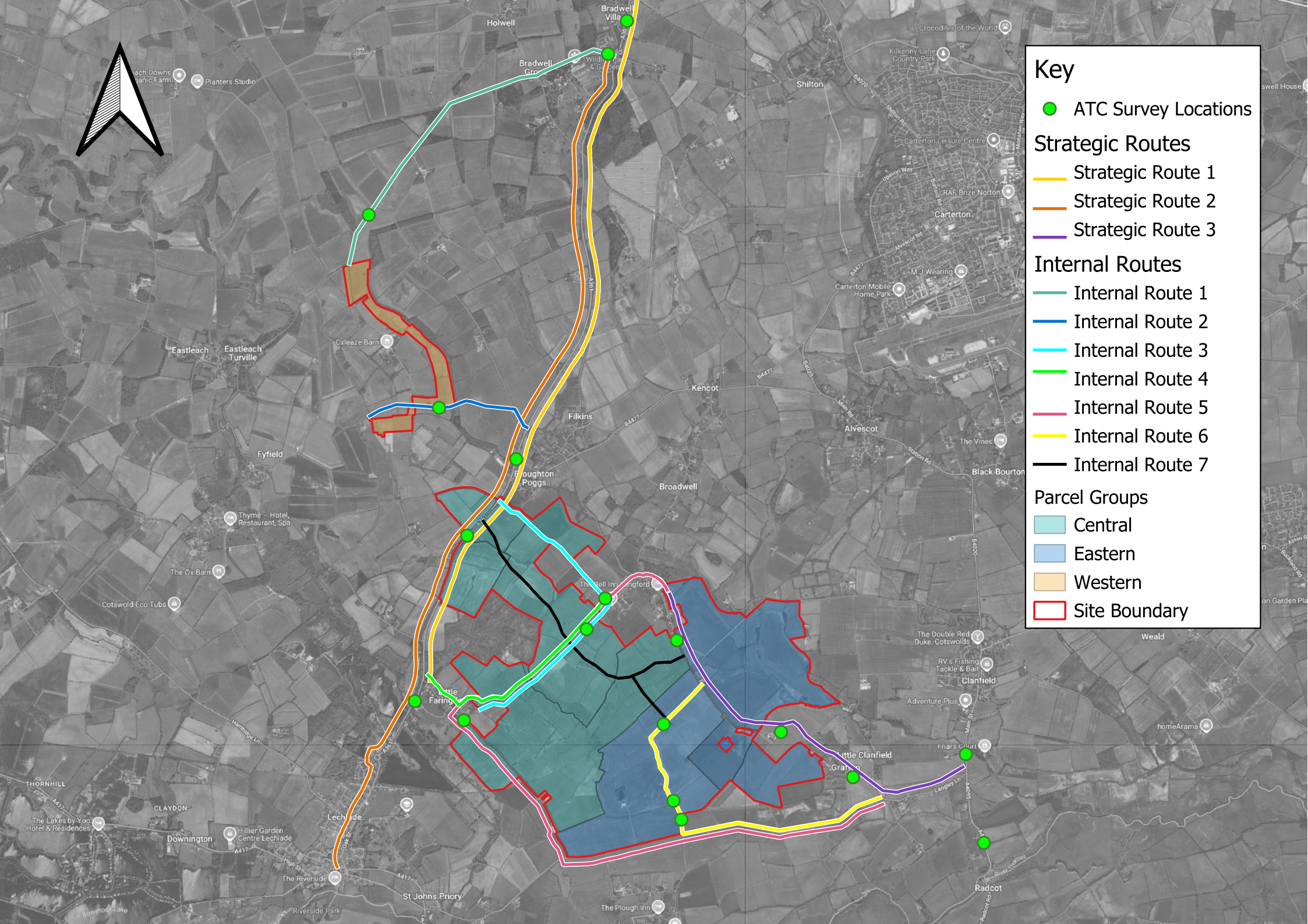
- Internal Route 1
- Internal Route 2
- Internal Route 3
- Internal Route 4
- Internal Route 5
- Internal Route 6
- Internal Route 7

Parcel Groups

- Central
- Eastern
- Western
- Site Boundary

APPENDIX B

PROPOSED ATC SURVEY LOCATIONS



Key

- ATC Survey Locations

Strategic Routes

- Strategic Route 1
- Strategic Route 2
- Strategic Route 3

Internal Routes

- Internal Route 1
- Internal Route 2
- Internal Route 3
- Internal Route 4
- Internal Route 5
- Internal Route 6
- Internal Route 7

Parcel Groups

- Central
- Eastern
- Western
- Site Boundary