FENWICK Solar farm

Preliminary Environmental Information Report

Volume III Appendix 13-5: Indicative Access Appraisal for the Solar PV Site

March 2024



BOOM-POWER.CO.UK

Prepared for: Fenwick Solar Project Limited

Prepared by: AECOM Limited

© 2024 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction	5
1.1	Overview	5
1.2	The Applicant	5
1.3	The Site	5
1.4	Purpose and Structure of this Appendix	6
2.	Access Locations	7
2.1	Introduction	7
2.2	West Lane	9
2.3	Junction of Fenwick Common Lane and Haggs Lane	11
2.4	Junction of Moss Road and Fenwick Common Lane	14
2.5	Access Proposal North off Moss Road Option A1	
2.6	Access Proposal North off Moss Road Option A2	25
3.	Summary	27
4.	References	

Plates

Plate 2-1: Max Articulated Vehicle	8
Plate 2-2: Farm Tractor and Hay Wagon 12.0 m	8
Plate 2-3: Solar PV Site Access Locations	9
Plate 2-4: North Off West Lane Access Proposal	10
Plate 2-5: Fenwick Common Lane and Haggs Lane Access Proposal	12
Plate 2-6: PRoW Fenwick-16 Interaction (Ref. 2)	
Plate 2-7: Junction of Moss Road and Fenwick Common Constraints Mapping	
Plate 2-8: Junction Visibility of Moss Road and Fenwick Common Lane	16
Plate 2-9: SPA Eastbound Turning Left onto Fenwick Common Lane Max Legal HC	SV
No Junction Improvement Works	16
Plate 2-10: SPA Westbound Turning Right onto Fenwick Common Lane Max Legal	Í
HGV No Junction Improvement Works	17
Plate 2-11: SPA Southbound Turning Right onto Moss Road Max Legal HGV No	
Junction Improvement Works	17
Plate 2-12: SPA Southbound Turning Left onto Moss Road Max Legal HGV No	
Junction Improvement Works	18
Plate 2-13: SPA Eastbound Turning Left onto Fenwick Common Lane Max Legal	
HGV with Junction Improvement Works	
Plate 2-14: SPA Westbound Turning Right onto Fenwick Common Lane Max Legal	
HGV with Junction Improvement Works	19
Plate 2-15: SPA Southbound Turning Right onto Moss Road Max Legal HGV with	
Junction Improvement Works	20
Plate 2-16: SPA Southbound Turning Left onto Moss Road Max Legal HGV With	
Junction Improvement Works	
Plate 2-17: North off Moss Road Access Location A1	
Plate 2-18: North off Moss Road Access Proposal A1	
Plate 2-19: North off Moss Road Access Location A2	
Plate 2-20: North off Moss Road Access Proposal A2	
Plate 2-21: PRoW Moss-6 Interaction (Ref. 2)	26

Tables

Table 3-1: Access Locations Summary

1. Introduction

1.1 Overview

- 1.1.1 This appendix has been prepared by AECOM on behalf of Fenwick Solar Project Limited (the 'Applicant') and provides a technical review and assessment of the Indicative access locations for the Solar PV Site. A second technical review and assessment has been undertaken on indicative locations along the Grid Connection Corridor. This assessment is reported in **PEIR Volume III Appendix 13-6: Indicative Access Appraisal for the Grid Connection Corridor**.
- 1.1.2 The Scheme would comprise the installation of Solar Photovoltaic (PV) Panels, On-Site Cables, Interconnecting Cables, Battery Energy Storage System(s) (BESS) Area, On-Site Substation, a cable or line drop connecting the new On-Site Substation to the Existing National Grid Thorpe Marsh Substation, and other supporting infrastructure including fencing, access tracks, drainage, and landscaping at a proposed site in Doncaster (hereafter collectively referred to as the 'Scheme'). The Scheme would allow for the generation, storage and export of more than 50 megawatts (MW) electrical generation capacity.
- 1.1.3 Due to its proposed generating capacity, the Scheme is classified as a Nationally Significant Infrastructure Project (NSIP) and would therefore require a Development Consent Order (DCO) under the Planning Act 2008 (Ref. 1) for its construction, operation and maintenance, and decommissioning phase.

1.2 The Applicant

1.2.1 The Applicant is Fenwick Solar Project Limited which is a wholly owned subsidiary of BOOM Developments Limited who specialise in non-subsidised solar and battery storage projects. BOOM Developments Limited was founded in 2020, and the name BOOM is an acronym for Build Own Operate Maintain. This reflects the organisation's intentions to be involved in sustainable energy projects from day one right the way through to the operation. The BOOM Managing Director and team have been responsible in previous roles for constructing more than 700 MW of solar developments in the UK between 2015 and 2017 and developing more than 850 MW of solar projects including the UK's first nationally significant infrastructure solar photovoltaic project, Cleeve Hill, which was granted a Development Consent Order in 2020. In 2021, the UK based BOOM partnered with the Pelion Green Future group of companies based across Australia, America, and the European mainland.

1.3 The Site

- 1.3.1 The Site is located approximately 5 kilometres (km) north of Doncaster and is comprised of three main areas:
 - a. The land located east of Fenwick and immediately south of the River Went, hereafter referred to as the 'Solar PV Site';

- b. The land between the Solar PV Site and the existing compound for Thorpe Marsh Substation, hereafter referred to as the 'Grid Connection Corridor'; and
- c. The land located within the existing compound for Thorpe Marsh Substation, hereafter referred to as the 'Existing National Grid Thorpe Marsh Substation'.
- 1.3.2 The Scheme would lie within the administrative area of City of Doncaster Council, who are also the Local Highways Authority.

1.4 Purpose and Structure of this Appendix

- 1.4.1 The purpose of this appendix is to review the preferred access locations for the Solar PV Site where site vehicles will gain access to the Solar PV Site from the existing road network.
- 1.4.2 This appendix will review the proposed access locations and identify any additional constraints that warrant further consideration. This review has been structured whereby each access location will be considered in sequence as follows:
 - a. Access off West Lane;
 - b. The junction of Fenwick Common Lane and Haggs Lane;
 - c. The junction of Moss Road and Fenwick Common Lane;
 - d. Access off Moss Road 1; and
 - e. Access of Moss Road 2.
- 1.4.3 Each section of this report will include an assessment of the constraints associated with the access location and provide a review of the impacts associated with the bell mouth construction, visibility splay parameters and swept path analysis (SPA).
- 1.4.4 The intention of this appendix is to evaluate the most appropriate access locations for the construction phase. Additional optioneering will be pursued in regard to which access locations will be retained and downsized or removed for the subsequent operation and maintenance phase of the Solar PV Site.

2. Access Locations

2.1 Introduction

- 2.1.1 The standard design for bell mouth accesses, in accordance with the Design Manual for Roads and Bridges (DMRB) Design Standard CD 123, are as follows: 6 m lane width after bell mouth, and 15 m radii for the entry and exit curves, CD 123 5.6.2. These are subject to change depending on the final construction vehicles selected for the Scheme and any localised constraints.
- 2.1.2 DMRB standards, applicable to the strategic or trunk road network have been adopted for the local road network as equivalent local road design standards do not exist for the local highway authority.
- 2.1.3 The standards used to analyse visibility impacts from chosen access locations are DMRB CD 109 Table 2.10, for the visibility parameter associated with the existing design speed of the road, and CD 123 section 3.4, which outlines where this visibility parameter is measured from in relation to the access. The Manual for Streets 2 Section 10.1.6 outlines the methodology used to derive the desirable minimum and absolute minimum SSD values used throughout this report. The reduced SSD values utilise the average daily 85th percentile worst case direction speed, with the survey of traffic speeds spanning 7 days. If the reduced SSDs are agreed with the Local Highway Authority this has the potential to reduce the overall visibility splay impacts to adjacent environmental features.
- 2.1.4 The Standard used for bell mouth arrangements is CD 123 Section 5. This is the standard for priority junctions not direct accesses as during construction the estimated high traffic numbers would indicate the requirement to utilise the simple priority junction geometry parameters.
- 2.1.5 In the operation and maintenance phase, there will be lower traffic numbers and therefore a potential for the size of the access designs to be downgraded, post construction, to discourage misuse and fly-tipping.
- 2.1.6 SPA has been undertaken where, as part of the initial appraisal, it has merited further investigation in order to determine the constraints for vehicle manoeuvres and whether junction upgrades may be required for the type of construction vehicles to be utilised.
- 2.1.7 For the SPA assessment, the vehicles selected for assessment have been a Max Legal HGV and Tractor with a 12.0 m trailer depicted in Plate 2-1 and Plate 2-2, respectively. These types of vehicles have been selected based upon the strategy adopted for the East Yorkshire Solar Park Scheme, which was a recent BOOM project. However, the type of construction vehicles required may change during design development and therefore this may impact on the highway interventions required.
- 2.1.8 The SPA of abnormal load vehicles to the Solar PV Site have been considered for the access arrangement off Moss Road, however **PEIR Volume III Appendix 13-7: High Level Access Route Assessment** provides further detail on the other access points.
- 2.1.9 The access locations analysed within this appendix can be seen in Plate 2-3 below.

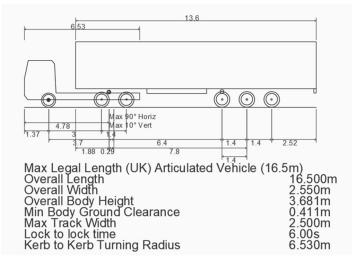


Plate 2-1: Max Articulated Vehicle

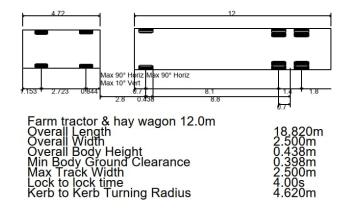


Plate 2-2: Farm Tractor and Hay Wagon 12.0 m



Plate 2-3: Solar PV Site Access Locations

2.2 West Lane

North Off West Lane

- 2.2.1 The access considered for the Solar PV Site north from West Lane has only been considered as a secondary construction access for smaller construction vehicles or as an alternate access do use in the operation and maintenance phase, post construction. This is due to the conclusions in **PEIR Volume III Appendix 13-7: High Level Route Assessment** which identified that HGVs wishing to access this location would require a series of localised improvements to the surrounding highway network to safely accommodate these vehicles.
- 2.2.2 The location for the access North off West Lane is identified on the outside of a bend, this can be seen in Plate 2-4.



Plate 2-4: North Off West Lane Access Proposal

- 2.2.3 The access location presented in Plate 2-4 has been identified as the most optimal due to the presence of an existing gated field access. This reduces the overall quantum of hedgerow removal that would be required to accommodate the access bell mouth. Furthermore, this location maximises the achievable junction visibility for vehicles exiting the Site whilst considering a number of existing constraints that are located in proximity of the junction, notably the existing overhead pylon located in the adjacent field. To increase the overall visibility achieved, would require the access to be shifted to the east, which would bring the access construction wholly within the 30 m zone of influence of the overhead pylon, this would also introduce vertical constraints wherein vertical clearance checks will have to be completed to ensure vehicles don't interfere with the overhead pylon vertical zone of influence. This would increase the overall consultation and permitting necessary to protect the construction workforce and National Grid assets.
- 2.2.4 Based upon the limited street view data, the existing access features ditches either side of the access, therefore the upgrades to the access footprint would require any existing culvert to be widened. Furthermore, the existing access is located in close proximity to a telegraph pole, therefore it is anticipated that the proposals would need to be reviewed by the Statutory Undertaker to determine if any protection or diversion works would be required.
- 2.2.5 The speed limit on West Lane around the access location is national speed limit, which for a single carriageway is 60 mph which indicates a design speed of 100 kph. Using CD109 Table 2.10 this gives a Stopping Sight

Distance (SSD) of 215 m. For a 215 m SSD and a setback of 2.4 m from the carriageway there would be no vegetation clearance to the east. However, there would be a significant clearance required to the west due to the horizontal alignment of the carriageway and the existing building to the west would act as a physical constraint. To inform the design of the access in this region, speed survey data will be obtained during preliminary design to seek to understand the 85th percentile speed of road users in order to demonstrate whether the visibility splay requirements could be relaxed in accordance with DMRB CD 123 or through adoption of the Manual for Streets 2. In the event that the relaxed visibility splay parameters still interact with the existing property, the Scheme would seek to agree a departure from standard with the Local Highway Authority and any additional mitigation required.

2.2.6 SPA has not been completed for this access proposal as it is assumed that, as a secondary access that could only accommodate smaller construction or operational vehicles, the access could achieve the required manoeuvres using the design parameters presented in Section 2.1. However, consultation with the Statutory Undertaker to identify any proximity constraints for the adjacent telegraph pole may require SPA to be completed to refine the precise access location during preliminary design. It is noted that there are no overhead lines above the access therefore vertical constraints would not be a concern.

2.3 Junction of Fenwick Common Lane and Haggs Lane

2.3.1 Due to the constraints identified in Section 2.2 and the conclusions from **PEIR Volume III Appendix 13-7: High Level Route Assessment** for access for construction vehicles off West Lane, the junction of Moss Road and Fenwick Common Lane leading to the junction with Haggs Lane is another route that has been considered for the primary access to the Solar PV Site. The optimal location for the access east off Fenwick Common Lane at Haggs Lane is identified in Plate 2-5.



Plate 2-5: Fenwick Common Lane and Haggs Lane Access Proposal

- 2.3.2 This access location is identified as being the most optimal due to the alignment providing the best visibility and utilising an existing access, resulting in limited hedgerow removal.
- 2.3.3 If Haggs Lane were to be used for construction vehicles, the current dimension of the carriageway would not be sufficient to enable two-way construction vehicle movement. As a consequence of this restriction, when combined with the presence of Public Right of Way (PRoW) Fenwick-16 shown in Plate 2-6, this would require the installation of passing places or temporary traffic control to ensure unimpeded construction vehicle movements. Passing places would require additional hedgerow loss on the southern boundary of the carriageway to enable this additional provision due to the presence of drainage ditch on the northern edge of the carriageway. Although temporary traffic control would remove the requirement for additional hedgerow clearance. During preliminary design, it would be recommended that this access consider the impacts to Fenwick-16 and agree a suitable PRoW management strategy if taken forwards.



Plate 2-6: PRoW Fenwick-16 Interaction (Ref. 2)

- 2.3.4 The access proposal utilises an existing footprint and due to the access strategy, this access would implement a right in, left out access to reduce the requirement for any bell mouth widening on the north side. This will limit any interaction or modification to the existing drainage ditch. However, the south side may require widening to accommodate construction vehicle access, as shown on Plate 2-5.
- 2.3.5 The speed limit on Fenwick Common Lane around the access location is national speed limit, which for a single carriageway is 60 mph which indicates a design speed of 100 kph. Using CD109 Table 2.10 this gives a SSD of 215 m. For a 215 m SSD and a setback of 2.4 m from the carriageway the minimum visibility can be achieved with no significant vegetation clearance. Speed survey data has been obtained for this location and it demonstrates that the 85th percentile speeds on Fenwick Common Lane are far lower than the posted national speed limit. The corresponding Desirable Minimum and Absolute Minimum SSD distances are 117 m and 91 m, these can be seen in Plate 2-5 depicted as the purple and orange line, respectively.
- 2.3.6 SPA has not been completed for this access proposal as it is assumed that a Max Legal HGV could comfortably complete this manoeuvre. However, this will be validated during preliminary design if this access route is taken forwards.

2.4 Junction of Moss Road and Fenwick Common Lane

- 2.4.1 This section of the report considers the existing priority junction of Moss Road and Fenwick Common Lane, which is an option for the primary access route to the Solar PV Site towards the junction of Haggs Lane reported in Section 2.3.
- 2.4.2 This section of the report has conducted SPA for a Max Legal HGV in order to fully understand what constraints and interventions may be required to ensure that this junction could be suitable for use during construction.
- 2.4.3 The main concerns for this junction are based upon the following conflict points:
 - a. Risk of shunt style collisions by vehicles travelling Westbound or Eastbound along Moss Road conflicting with vehicles waiting to exit Fenwick Common Lane; and
 - b. Risk of shunt collisions with vehicles queuing at the level crossing, blocking turning movements left out of Fenwick Common Lane.
- 2.4.4Plate 2-7 provides a visual representation of the constraints that have been identified as part of this assessment. The principal constraint in this location is the close proximity of an existing level crossing to the west of the junction (1). This level crossing is under barrier control and the existing railway line manged by Network Rail is an overhead electrified line (2). A review of the signage in the area has identified a height restriction in place of 5 m, as a consequence, if this access were to be utilised for construction vehicles, the material being transported to the Site would need to consider this as a principal constraint. There is also back of verge hedgerow that runs adjacent to Moss Road and Fenwick Common Lane (3). On both sides of the carriageway of Moss Lane and Fenwick Common Lane there are overhead statutory undertaker assets, which would require protection and/or diversion works (4). To the east of the proposal there is a residential property and, in conjunction with the level crossing, this restricts the visibility at the junction for vehicles exiting onto Moss Road (5). In addition, when reviewing the existing historical data, there previously was a low stone wall (6) on the eastern side of the junction. This wall looked to be damaged between 2016 and 2021 based upon Google Street View data, however this wall could indicate the presence of a culvert spanning under the junction.

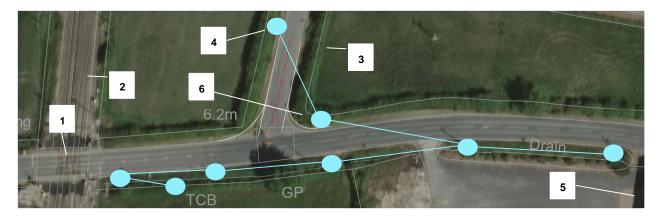


Plate 2-7: Junction of Moss Road and Fenwick Common Constraints Mapping

- 2.4.5 The speed limit on Moss Road around the access location is 50 mph which indicates a design speed of 85 kph. Using CD109 Table 2.10 this gives a SSD of 160 m. For a 160 m SSD and a setback of 2.4 m from the carriageway there would be a small amount of vegetation clearance to the west. However, in the eastern direction, the horizontal alignment of the carriageway and the presence of the existing residential property, formally the Star Inn, acts as a barrier to achieve compliant visibility. As this access is a priority junction which acts as a through route for traffic, in accordance with DMRB CD123, it is not possible to use Speed Survey data to relax the visibility stopping distance requirements. Therefore, a departure from standard for junction visibility in accordance with CD123 would need to be agreed with the Local Highways Authority. However, Speed Survey information has been obtained from a location to the west of the level crossing, the Desirable Minimum SSD and Absolute Minimum SSD has been obtained, these SSD distances are 106 m and 83 m respectively, which can be seen below in Plate 2-8. This clearly indicates that the 85th percentile speeds are much lower than the posted speed limit, which could function as supporting evidence as part of the departure from standard application.
- 2.4.6 The following section of this report will outline the outcomes of an SPA study to identify the possible interventions that could be undertaken at this junction in order to provide safe access during construction.



Plate 2-8: Junction Visibility of Moss Road and Fenwick Common Lane

SPA of Junction of Moss Road and Fenwick Common Lane, Max Legal HGV, no Junction Improvement Works

2.4.7 SPA has been completed for the existing junction with no junction improvement works to assess the impact on the existing arrangement that a vehicle will have. The vehicle used for this SPA is a Max Legal HGV and can be seen below in Plate 2-9, Plate 2-10, Plate 2-11, and Plate 2-12.



Plate 2-9: SPA Eastbound Turning Left onto Fenwick Common Lane Max Legal HGV No Junction Improvement Works

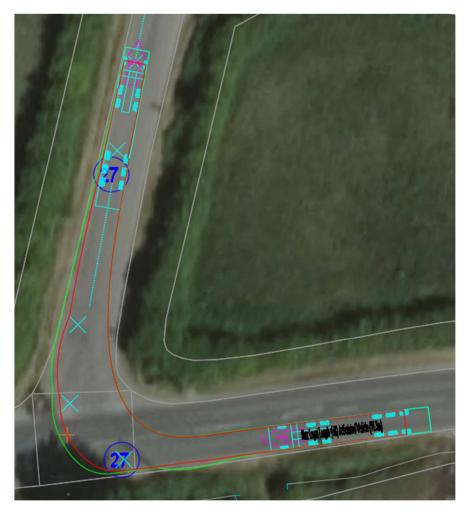


Plate 2-10: SPA Westbound Turning Right onto Fenwick Common Lane Max Legal HGV No Junction Improvement Works



Plate 2-11: SPA Southbound Turning Right onto Moss Road Max Legal HGV No Junction Improvement Works



Plate 2-12: SPA Southbound Turning Left onto Moss Road Max Legal HGV No Junction Improvement Works

- 2.4.8 The HGV SPA shows that all the movements can be completed within the width of the carriageway, but they cannot be done safely without active traffic management protocols as they take up the majority of the carriageway width. Additionally, this would create issues with access and egress conflicting with traffic on Moss Road where there is a high likelihood of stationary traffic due to the proximity of the level crossing to the west.
- 2.4.9 The SPA shows that all manoeuvres will exacerbate conflict issue 1 highlighted in in Section 2.4.3. And, for these reasons, if this access were to be progressed as a construction access, it is recommended that junction improvements are required.

SPA of Junction of Moss Road and Fenwick Common Lane, Max Legal HGV, with Junction Improvement Works

2.4.10 SPA has been completed for the junction with the relevant improvements designed in accordance with DMRB CD 123 to alleviate the conflict points highlighted in section 2.4.3. The radii used in the design highlighted below are 15 m radii with a carriageway width of 6.0 m, and in addition there is the inclusion of entry and exit tapers at a 1:10 ratio over 25 m. The increased access footprint and the junction improvement works can be seen below along with the associated SPA in Plate 2-13, Plate 2-14, Plate 2-15, Plate 2-16.

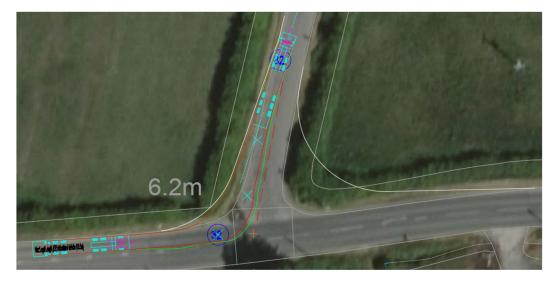


Plate 2-13: SPA Eastbound Turning Left onto Fenwick Common Lane Max Legal HGV with Junction Improvement Works

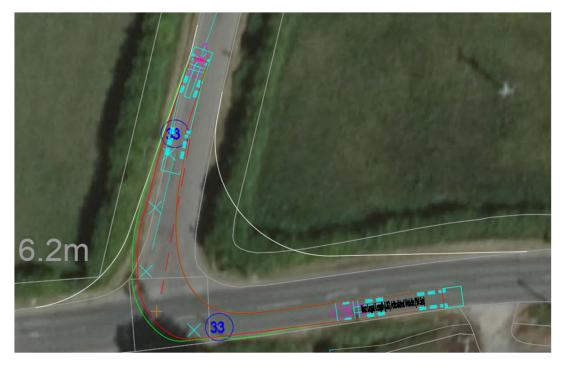


Plate 2-14: SPA Westbound Turning Right onto Fenwick Common Lane Max Legal HGV with Junction Improvement Works

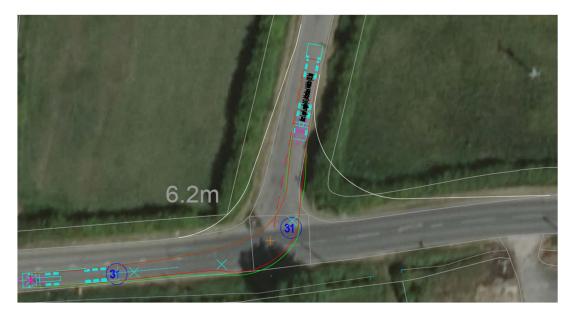


Plate 2-15: SPA Southbound Turning Right onto Moss Road Max Legal HGV with Junction Improvement Works



Plate 2-16: SPA Southbound Turning Left onto Moss Road Max Legal HGV With Junction Improvement Works

- 2.4.11 The SPA in the plates above indicate that for this vehicle type all movements can be completed with lane discipline and alleviating the risks highlighted in section 2.4.3. The worst manoeuvre of the existing junction arrangement was the left turn turning onto Moss Road. To achieve this manoeuvre, the SPA indicates that the junction improvement works will need to consider the addition of an exit taper shown in Plate 2-16.
- 2.4.12 The impacts of these junction improvements are hedgerow clearance on the eastern side to accommodate the bell mouth, potential culvert widening subject to onsite investigation, telecommunications pole relocation on the eastern side of the bell mouth and signage relocation on both sides of the bell mouth. These works would be anticipated to require a closure of

Fenwick Common Lane and a localised diversion put in place for continued access to residents of Fenwick whilst these interventions are completed, this is due to the fact that a three-way temporary signal arrangement under traffic management is likely rendered non-viable due to the proximity of the level crossing.

2.4.13 If this access location is taken forward the design will be optimised as far as possible to reduce the environmental impacts whilst allowing vehicles to complete manoeuvres safely.

2.5 Access Proposal North off Moss Road Option A1

2.5.1 Due to constraints associated with the access of West Lane and the existing priority junction of Moss Road and Fenwick Common Lane presented in Section 2.4, the following additional proposal to access the Solar PV Site have been identified as shown in Plate 2-17 and Plate 2-18 below.



Plate 2-17: North off Moss Road Access Location A1



Plate 2-18: North off Moss Road Access Proposal A1

- 2.5.2 The selection of this site instead of utilising the existing junction of Moss Road and Fenwick Common Lane has been identified due to the following factors.
- 2.5.3 This access location relocates the primary access to the Solar PV Site away from the level crossing, therefore minimising any interaction with Network Rail assets and any associated disruption that could be caused by construction vehicles turning in close proximity to vehicles that could be stationary whilst the level crossing is in use.
- 2.5.4 When compared to the access location off Haggs Lane, which would require either a PRoW diversion or management measures and the installation of passing places to enable safe two-way movement of construction vehicles. The selection of a direct access off Moss Road would therefore limit any interaction with Haggs Lane to a crossing to access land to the north within the Solar PV Site. This would therefore minimise the quantum of hedgerow removal and any interaction with the PRoW.
- 2.5.5 This access location removes any interaction, protection or diversion of statutory undertaker assets which would otherwise be required to upgrade the junction of Fenwick Common Lane and Moss Road presented in Section 2.4.
- This access location on Moss Road has been selected due to the relatively 2.5.6straight alignment of the carriageway, which would minimise the overall vegetation loss required to achieve the required visibility splays. Furthermore, the use of this access location would remove the visibility constraint associated with the residential property to the east of the junction of Moss Road and Fenwick Common Lane highlighted in Section 2.4 likely eliminating a potential departure from standard. Due to this access not functioning as a through route, in accordance with DMRB CD 123, speed survey data can be used to derive the SSD for the junction visibility, which lowers the overall junction visibility splay demands further. The posted speed limit for this section of Moss Road is around the access location is 50 mph which indicates a design speed of 85 kph. Using CD109 Table 2.10 this gives a SSD of 160 m. For a 160 m SSD and a setback of 2.4 m from the carriageway there would be a small amount of vegetation clearance and the repositioning of an existing speed sign behind the junction visibility splay. The Speed Survey information available at present has been derived from a location to the west of the level crossing, for this speed survey data the Desirable Minimum SSD and Absolute Minimum SSD has been obtained identified as 106 m and 83 m and depicted as the purple and orange line in Plate 2-18 respectively. However, due to the location where the speed survey information was recorded, it is likely to not be an accurate reflection of the speeds adjacent to this proposed access location. Subsequently, further speed survey information is being commissioned as part of preliminary design and these assessments will be revisited.
- 2.5.7 This site remains at a concept stage and landowner engagement has not been undertaken at this stage.
- 2.5.8 Upon completion of construction, and due to the proximity of this access to the village of Moss, this access point could be removed, and long-term operation and maintenance could utilise Moss Road, Fenwick Common Lane

and Haggs Lane, which would cater for the smaller sized vehicles required for operation and maintenance.

2.6 Access Proposal North off Moss Road Option A2

2.6.1 Due to constraints associated with the access off West Lane, the existing priority junction of Moss Road and Fenwick Common Lane, and the preliminary nature of landowner engagement noted in Section 2.5.7, the potential to utilise the access proposal north off Moss Road has been identified and highlighted in the **PEIR Volume III Appendix 13-6: Indicative Access Appraisal for the Grid Connection Corridor** in order to access the Solar PV Site. The location of this can be seen below in Plate 2-19, and Plate 2-20. As this access location is necessary for the Grid Connection Corridor, please refer to the assessment undertaken in that report for greater technical detail.



Plate 2-19: North off Moss Road Access Location A2



Plate 2-20: North off Moss Road Access Proposal A2

2.6.2 The constraints of utilising this access location when compared to the access off Moss Road Option A1 are that construction traffic will have to travel through the village Moss to access the Solar PV Site. Additionally, there is a PROW adjacent to the access location, Moss-6 presented in Plate 2-21. There are also statutory undertaker assets (overhead electricity cable) crossing the field which would need to be assessed for any protection/diversion works that may be required to facilitate construction access, including assessment of vertical clearances.



Plate 2-21: PRoW Moss-6 Interaction (Ref. 2)

- 2.6.3 There are no visibility issues associated with this access location, but there would be the requirement to implement either a diversion or management of the PRoW Moss-6.
- 2.6.4 If this Option were selected as the primary access for the Solar PV Site, the access would have to accommodate Max Legal HGVs, the Scheme will provide a bell mouth design that accommodates safe HGV manoeuvres during preliminary design.
- 2.6.5 Similar to the Access Proposal North off Moss Road Option A1, upon completion of construction, and due to the proximity of this access to the village of Moss, this access point could be removed, and long-term operation and maintenance could utilise Moss Road, Fenwick Common Lane and Haggs Lane, which would cater for the smaller sized vehicles required for operation and maintenance.

3. Summary

- 3.1.1 This appendix should be read in conjunction with both PEIR Volume III Appendix 13-6: Indicative Access Appraisal for the Grid Connection Corridor and PEIR Volume III Appendix 13-7: High Level Route Assessment in order to undertake a holistic review of the proposed access strategy.
- 3.1.2 It is recommended, in order to further refine and validate the access locations, that further Speed Survey Data for West Lane and Moss Road in the vicinity of the preferred access locations are commissioned in order to enable an assessment using recorded 85th percentile speed survey data.
- 3.1.3 Furthermore, due to the constraints reported for the access locations of West Lane, Moss Road with Fenwick Common Lane and Haggs Lane, that preliminary design continues to develop and refine the access options off Moss Road. These locations have been demonstrated to be the optimal access locations for construction of the Solar PV Site.
- 3.1.4 For access to the Solar PV Site during the operation and maintenance phase, it is recommended that the accesses off West Lane and, Moss Road with Fenwick Common Lane and Haggs Lane are utilised. This would enable the construction accesses off Moss Road to be removed and therefore minimise any operational traffic adjacent to the village of Moss.

Table 3-1: Access Locations Summary

Access Proposal	Corresponding Plate
North off West Lane	Plate 2-3
Junction of Fenwick Common Lane and Haggs Lane	Plate 2-5
Junction of Moss Road and Fenwick Common Lane	Plate 2-13
North off Moss Road Access Proposal A1	Plate 2-18
North off Moss Road Access Proposal A2	Plate 2-20

4. References

- Ref. 1 His Majesty's Government (2008). Planning Act 2008. Available at: <u>https://www.legislation.gov.uk/ukpga/2008/29/contents</u>. [Accessed 15 February 2024].
- Ref. 2 City of Doncaster Council (2023). Public Rights of Way Pages. Available at: <u>https://www.doncaster.gov.uk/services/culture-leisure-tourism/public-rights-of-way-pages</u>. [Accessed 15 February 2024].



BUILD | OWN | OPERATE | MAINTAIN

BOOM-POWER.CO.UK