In Parliament – Session 2021 - 2022



## High Speed Rail (Crewe - Manchester) Environmental Statement

## **Volume 5: Map Book**

MA06: Hulseheath to Manchester Airport Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)



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MA06: Hulseheath to Manchester Airport Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)



High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

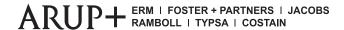
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A report prepared for High Speed Two (HS2) Limited:





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### **Contents**

Mapping explanatory notes

Data dictionary and definitions

Map series name	Map series description
LV-00 – Route Wide Landscape Character Areas and National Character Areas	Map showing the Landscape Character Areas (LCAs) in context with the National Character Areas (NCAs).
LV-02 – Landscape Character Areas	Maps showing the LCAs that have been considered for assessment and illustrating significant residual effects during construction and operation.
LV-07 – Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints	Maps showing the construction phase zone of theoretical visibility and the viewpoint locations from which the visual assessment of the Proposed Scheme has been undertaken.
LV-08 – Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints	Maps showing the operational phase year one and year fifteen zone of theoretical visibility and the viewpoint locations from which the visual assessment of the Proposed Scheme has been undertaken.
LV-17 – Route wide Landscape Context	Map showing the route wide landscape proposals in context with the wider landscape.

### **Mapping explanatory notes**

### Structure of the HS2 Phase 2b Environmental Statement

This map book is part of the suite of documents that make up the Environmental Statement (ES) that accompanies the deposit of the High Speed Rail (Crewe – Manchester) hybrid Bill. The structure of the ES is shown in the diagram below:

#### Non-technical summary

Provides a summary in non-technical language of the Proposed Scheme and its likely significant effects on the environment. This presents a summary of information included within the Environmental Statement.

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#### Glossary, abbreviations and references

Contains terms, abbreviations and references.

#### Volume 1: Introduction and methodology

Provides an overview of the Proposed Scheme and the Environmental Impact Assessment (EIA) process.

#### Volume 3: Route-wide effects

Describes the effects that are likely to occur at a geographical scale greater than the community areas described in the Volume 2: Community Area reports.

#### Volume 4: Off-route effects

Sets out the likely significant effects at locations beyond the Phase 2b Western Leg corridor and its local environment.

Map Book

#### Volume 2: Community Area (CA) reports

Consists of eight reports and their associated map books. These reports set out the design and environmental assessment for the Proposed Scheme at a community area level, as shown below.

#### MA01 Report

Hough to Walley's Green

MA01 Map Book

#### MA02 Report

Wimboldsley to Lostock Gralam

MA02 Map Book

#### MA03 Report

Pickmere to Agden and Hulseheath

MA03 Map Book

#### MA04 Report

Glazebrook

MA04 Map Book

Broomedge to

#### MA05 Report

Risley to Bamfurlong

MA05 Map Book

#### MA06 Report

Hulseheath to Manchester Airport

MA06 Map Book

MA07 Map Book

MA07 Report

to

#### MA08 Report

Davenport Green Manchester **Piccadilly Station** Ardwick

MA08 Map Book

#### Volume 5: Appendices and map books

The majority of appendices in Volume 5 examine certain topics in detail, either within a community area or more widely. Appendices assessing a particular topic are identified by the reference codes below. Volume 5 also contains supporting documents, such as the draft Code of Construction Practice. The topics which also have map books are noted below.



Scope and Methodology Report

Draft Code of Construction Practice

Alternatives report

Planning data

Wider effects report

Working Draft Environmental Statement consultation summary report

Borrow pit report

### **Copyright statements**

Copyright statements are presented in the Data dictionary and definitions section at the front of the map book, due to limited space to include this on the individual maps themselves.

### **Ordnance Survey data**

All maps produced as part of the ES contain Ordnance Survey (OS) data. HS2 Ltd use the most up to date mapping available, where possible, supplied by the OS and as such, we cannot be held responsible for any inaccuracies within this data. As part of our licence conditions, all digital maps carry a watermark.

### **Chainage**

Most of the maps presented as part of the ES have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XXX+YYY, e.g. 192+000 or 239+500.

Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres, e.g. 192+000 refers to the point, 192,000m, or 192km, from Euston Station. Chainage values increase in intervals dependant on the map scale. For maps at 1:50,000 scale chainage is shown at 1:25,000 scale chainage is shown at 1:25,000 scales, chainage is shown at 1km intervals.

Chainage has been included on the maps as a useful tool for comparing different map sets showing the different environmental themes or engineering plans, due to map sets having different scales, and therefore, showing differing amounts of alignment on the map.

### **Map orientation**

The majority of the maps presented in these map books are presented with the railway alignment running horizontally across the page. The direction of travel to London would be following the alignment to the left hand side of the page, and Manchester to the right.

The exception to this, are map series LV-00, LV-02, LV-07 and LV-08, which present the alignment running from bottom to top of the page. This is to allow more of the modelled outputs to be shown at the appropriate map scale. In this instance, the direction of travel to London would be to the bottom of the page, and Manchester to the top.

### Map books

In total, there are 29 map books, which make up the ES, found in Volume 2, Volume 4 and Volume 5. A list of the titles is provided below for reference.

Name	Name
Volume 2: Map book – MA01: Hough to Walley's Green	Volume 5: Map book – Agriculture (AG-01, AG02, AG-04)
Volume 2: Map book – MA02: Wimboldsley to Lostock Gralam	Volume 5: Map book – Air quality (AQ-01)
Volume 2: Map book – MA03: Pickmere to Agden and Hulseheath	Volume 5: Map book – Community (CM-01)
Volume 2: Map book – MA04: Broomedge to Glazebrook	Volume 5: Map book – Ecology and biodiversity (EC-01)
Volume 2: Map book – MA05: Risley to Bamfurlong	Volume 5: Map book – Historic Environment (HE-01, HE-02, HE-03)
Volume 2: Map book – MA06: Hulseheath to Manchester Airport	Volume 5: Map book – Land quality (LQ-01)
Volume 2: Map book – MA07: Davenport to Green Ardwick	Volume 5: Map book – MA01: Hough to Walley's Green Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
Volume 2: Map book – MA08: Manchester Piccadilly Station	Volume 5: Map book – MA02: Wimboldsley to Lostock Gralam Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
Volume 4: Map book – Off-route effects	Volume 5: Map book – MA03: Pickmere to Agden and Hulseheath Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)

Name	Name
Volume 5: Map book – MA04: Broomedge to Glazebrook Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)	Volume 5: Map book – MA05: Risley to Bamfurlong Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
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Volume 5: Map book – MA08: Manchester Piccadilly Station Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)	Volume 5: Map book – OR003 Annandale Depot Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
Volume 5: Map book – Planning Data/Committed Development (CT-13)	Volume 5: Map book – Socio-economics (SE-01)
Volume 5: Map book – Sound, noise and vibration (SV-02, SV-03, SV-08, SV-09)	Volume 5: Map book – Traffic and transport (TR-01, TR-03, TR-04, TR-08)
Volume 5: Map book – Water resources and flood risk (WR-01, WR-02, WR-03, WR-05, WR-06)	



Data dictionary and definitions

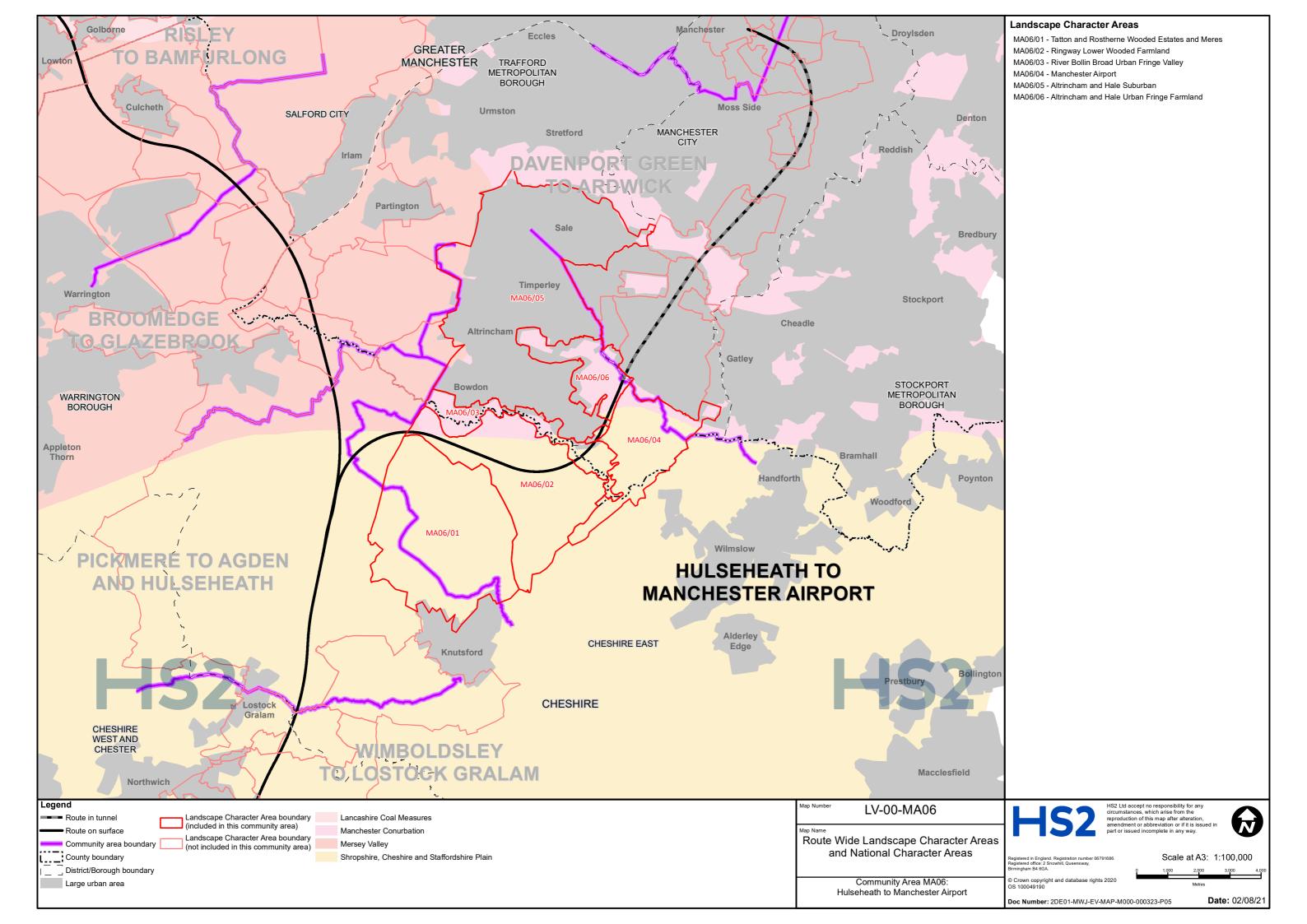
Legend features	Definition	Source	Copyright
5m contours	A contour line showing points of equal elevation (height) above a reference level, such as mean sea level and therefore gives indication of the topography, showing valleys and hills, and the steepness of slopes. Spaced at intervals of 5m.	High Speed Two (HS2) Ltd	
Community area boundary	The Environmental Statement has been split into eight sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Construction compounds	A strategic construction hub for core project management (engineering, planning and construction delivery), commercial and administrative staff associated with the construction of the Proposed Scheme. These compounds will include an area for equipment and materials storage, as well as providing main welfare facilities for construction staff, with some compounds also providing overnight sleeping accommodation for construction staff.	High Speed Two (HS2) Ltd	
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Depot, station, headhouse or portal building	Extends to cover operational footprint of each depot and station and the footprint of each tunnel vent shaft and headhouse at surface level. Excludes any ancillary buildings associated with these structures.	High Speed Two (HS2) Ltd	
District/borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Ecological mitigation pond	Ponds whose primary function is to provide ecological mitigation. This could be a standalone pond or part of a wider wetland habitat creation plan.	High Speed Two (HS2) Ltd	
Engineering earthworks: Cutting	Cuttings created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Engineering earthworks: Embankment	Embankments created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Existing woodland and tree belts	A dataset showing large areas of trees that are likely to have an impact on whether the scheme is visible during construction and vegetation. It was used in the ZTV as part of the base models.	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel portals, vent shafts and headhouses, but does not apply to wholly tunnelled sections or to air rights. It also encompasses associated highway, access, drainage and utility works.		
Landscape Character Area	This dataset represents the landscape character areas that have been assessed route wide as defined by the Landscape Architects. Landscape character areas (LCAs) are single unique areas which are the discrete geographical areas of a particular landscape type.	High Speed Two (HS2) Ltd	
Large urban area	Urban areas derived from Ordnance Survey Meridian data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2016.
Non engineering earthworks: Cutting	Cuttings created in the construction of landscape features and mitigation measures.	High Speed Two (HS2) Ltd	
Non engineering earthworks: Embankment	Embankments created in the construction of landscape features and mitigation measures.	High Speed Two (HS2) Ltd	
Non significantly affected photomontage location	This dataset shows the locations of photomontages from which the schemes visual impact has been assessed as non-significant during either construction or operation.	High Speed Two (HS2) Ltd	
Non significantly affected viewpoint	This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed as non-significant during either construction or operation.		
Non significantly affected viewpoint or photomontage number	This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed as non-significant during either construction or operation.		
Other planting and hedgerows	Soft landscape design that can include any seeded areas for the purpose of creating grassland except for the engineering earthworks. Ecological mitigation area to provide new wetland habitat creation, enhancements to existing areas and areas for ecological management. This level does not include screening planting for visual mitigation purposes.	High Speed Two (HS2) Ltd	
Proposed tree planting	A dataset showing proposed planting that may have an impact on whether the scheme is visible during construction and operation. It was used in the operation year 15 ZTV.	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
Public Rights of Way (PRoW)	Public rights of way are highways which can be used for the following purposes: - Footpaths - pedestrians only - Bridleways - pedestrians, cyclists and equestrians - Restricted byways - as bridleways plus non-motorised vehicles - Byways open to all traffic. Definitive Map data supplied by surveying authorities.	Cheshire East council Cheshire West council Cumbria County council Manchester City council Preston City council Salford City council Trafford Metropolitan Borough council Warrington Borough council Wigan Metropolitan Borough council	<ul> <li>© Cheshire East council.</li> <li>© Cheshire West council.</li> <li>© Cumbria County council.</li> <li>© Manchester City council.</li> <li>© Preston City council.</li> <li>© Salford City council.</li> <li>© Trafford Metropolitan Borough council.</li> <li>© Warrington Borough council.</li> <li>© Wigan Metropolitan Borough council.</li> </ul>
Route in tunnel	Represents the proposed route of HS2, split into route on surface and tunnelled sections.		COGITETI
Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Significantly affected photomontage location	This dataset shows the locations of photomontages from which the schemes visual impact has been assessed as significant during either construction or operation.	High Speed Two (HS2) Ltd	
Significantly affected viewpoint	This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed as significant during either construction or operation.	High Speed Two (HS2) Ltd	
Significantly affected viewpoint or photomontage number	This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed as significant during either construction or operation.	High Speed Two (HS2) Ltd	
Tree planting	A dataset showing proposed planting that may have an impact on whether the scheme is visible during construction and operation. It was used in the operation year 15 ZTV.	High Speed Two (HS2) Ltd	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
ZTV construction	This is a computer generated model showing areas of land within which the activities undertaken during the construction of the scheme may be theoretically visible. ZTV has been used as a tool for identifying likely areas for survey and assessment based on initial scheme design.	High Speed Two (HS2) Ltd	
ZTV operation year 1	This is a computer generated model showing areas of land within which the scheme may be theoretically visible on day 1 of operation.	High Speed Two (HS2) Ltd	
ZTV operation year 15	This is a computer generated model showing areas of land within which the scheme may be theoretically visible after 15 years of operation by incorporating an assumed height of 7.5 metres for any mitigation planting.	High Speed Two (HS2) Ltd	

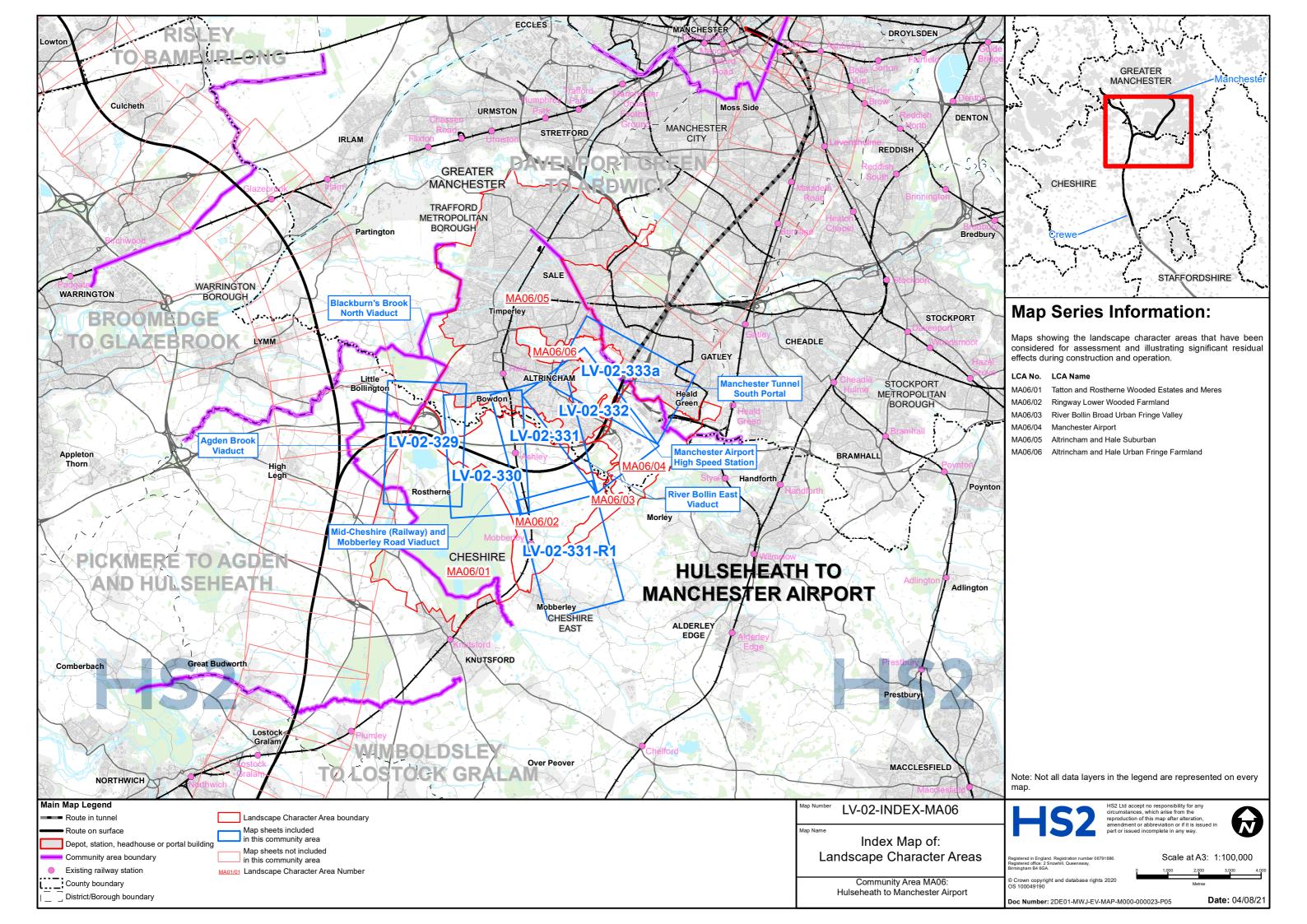


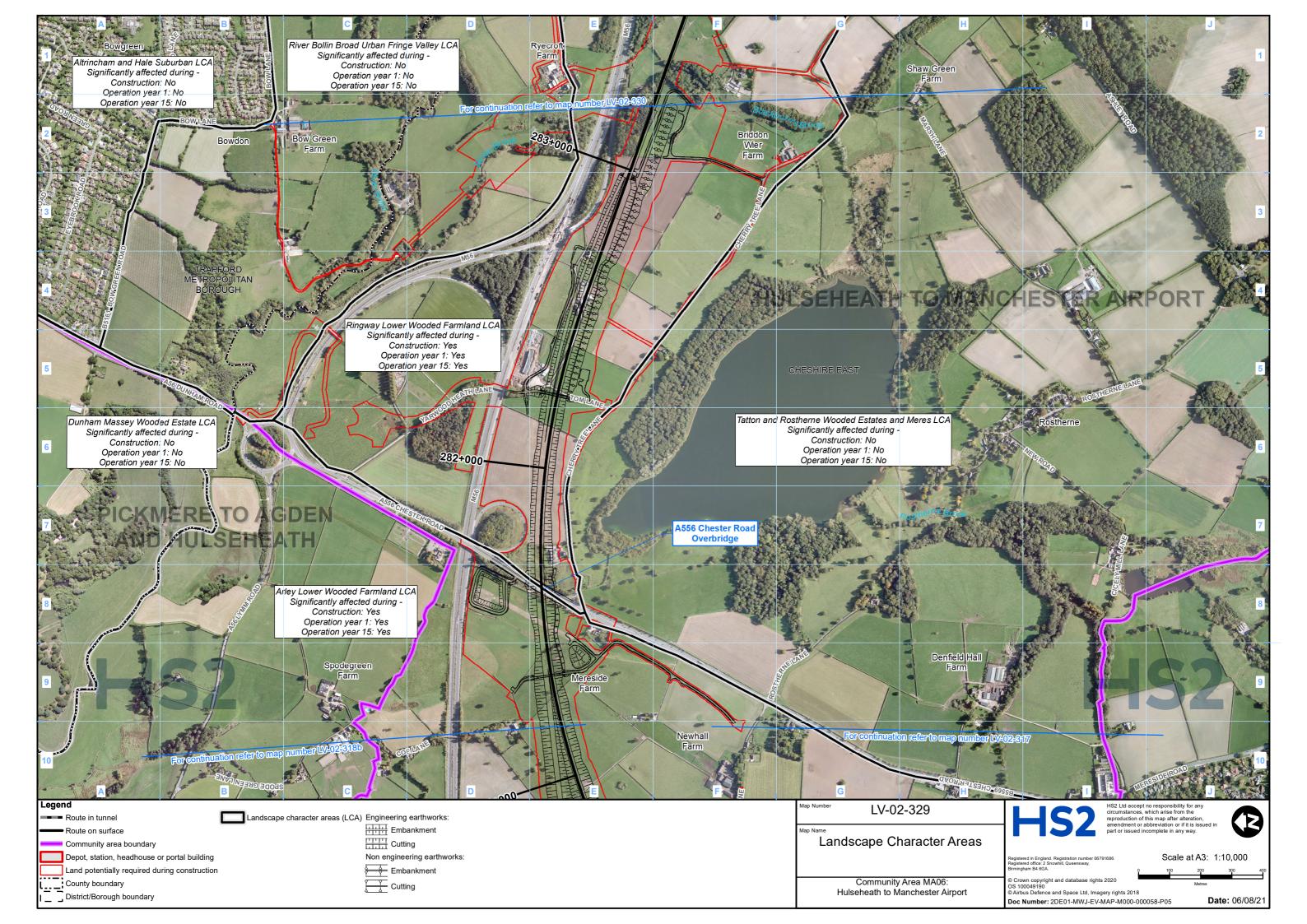
LV-00 - Route-wide Landscape Character Areas and National Character Areas

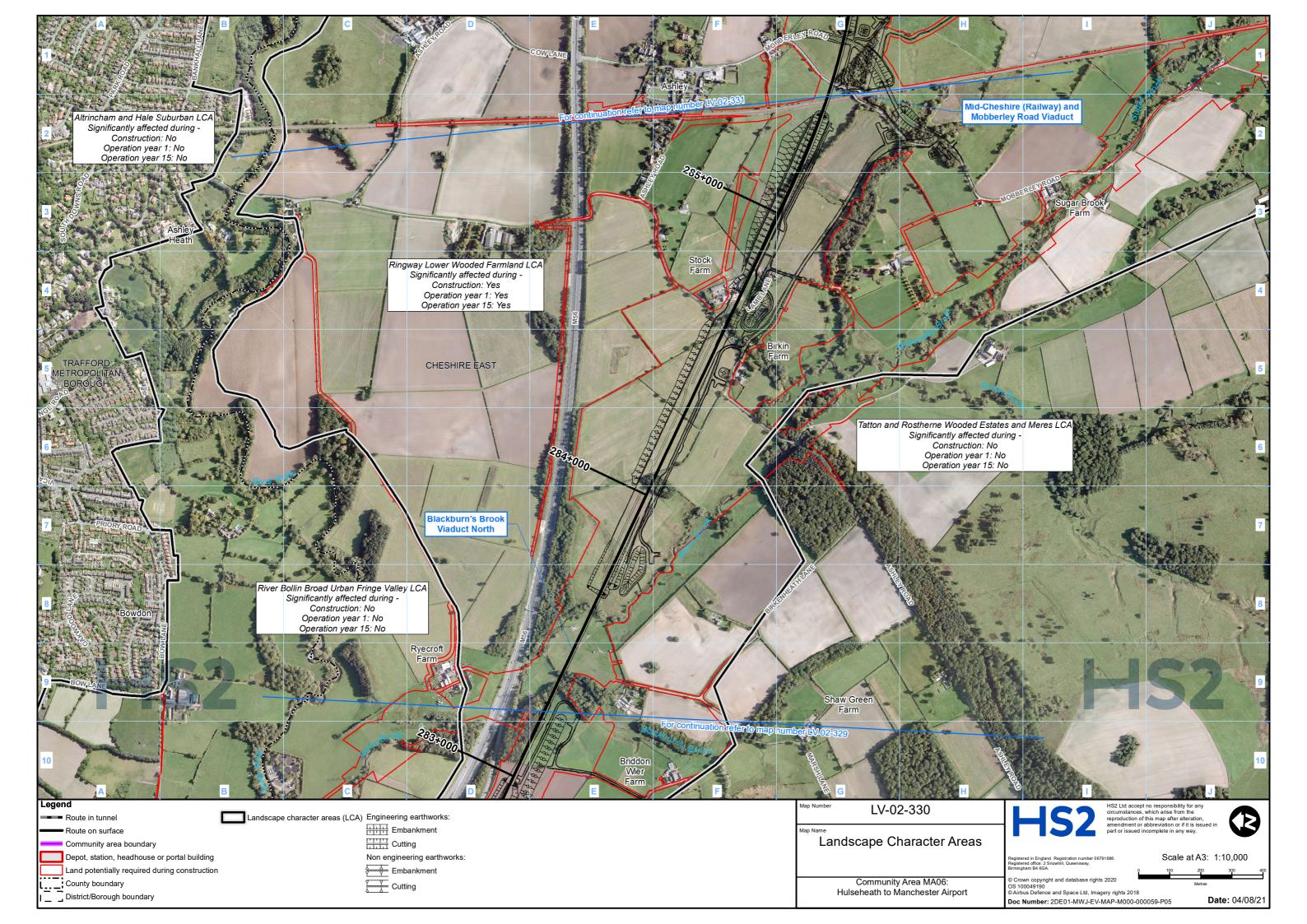


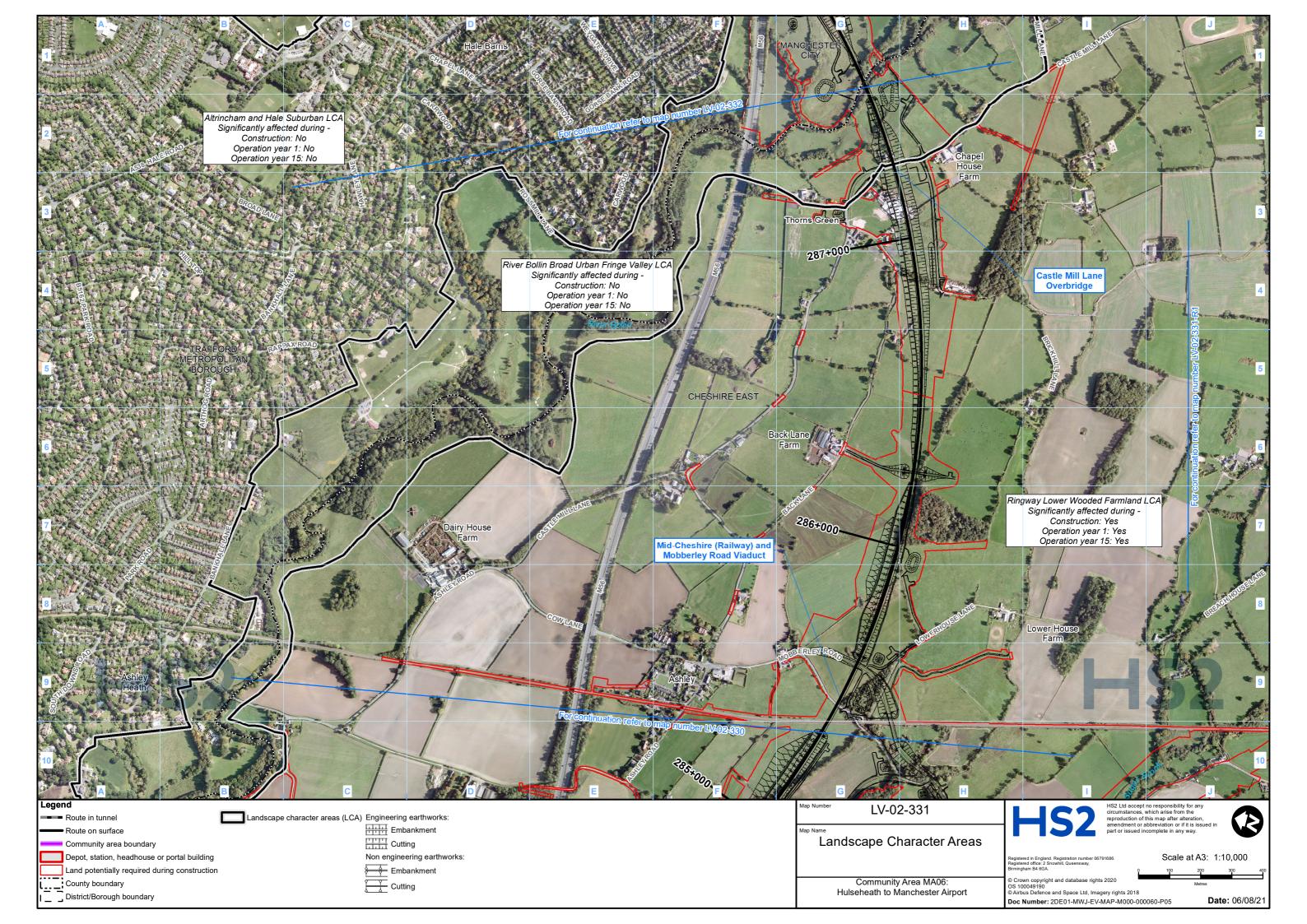


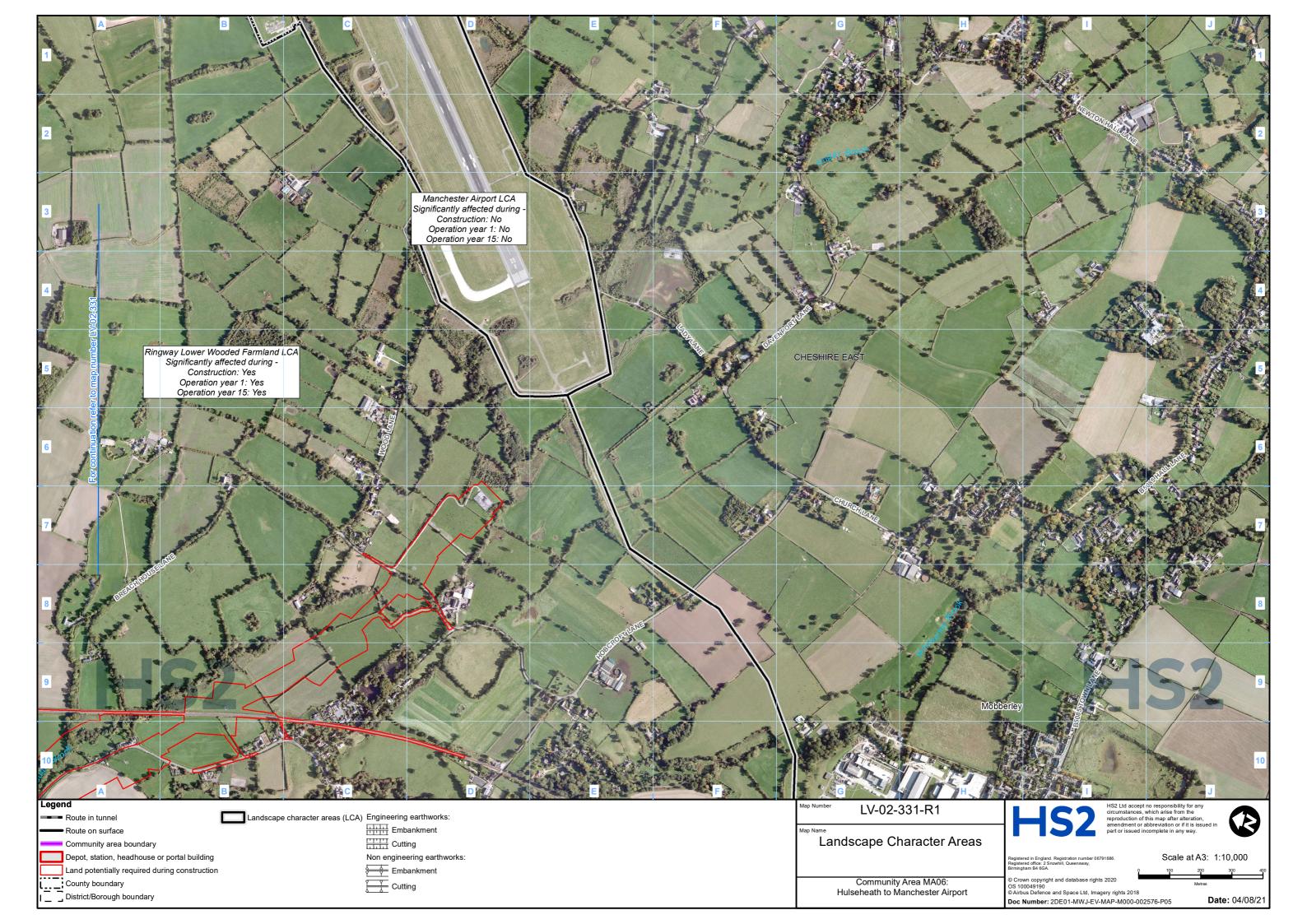
LV-02 - Landscape Character Areas

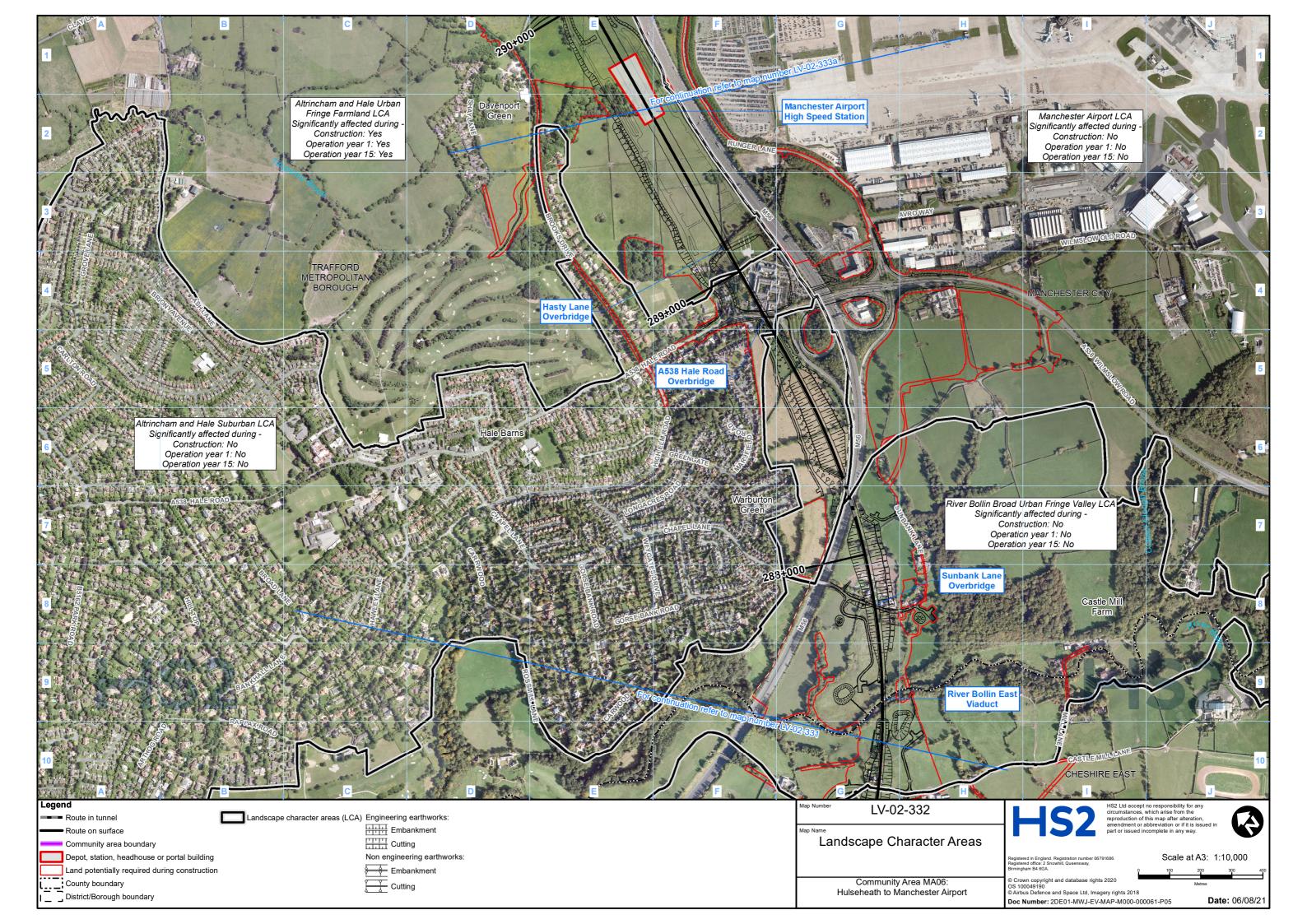


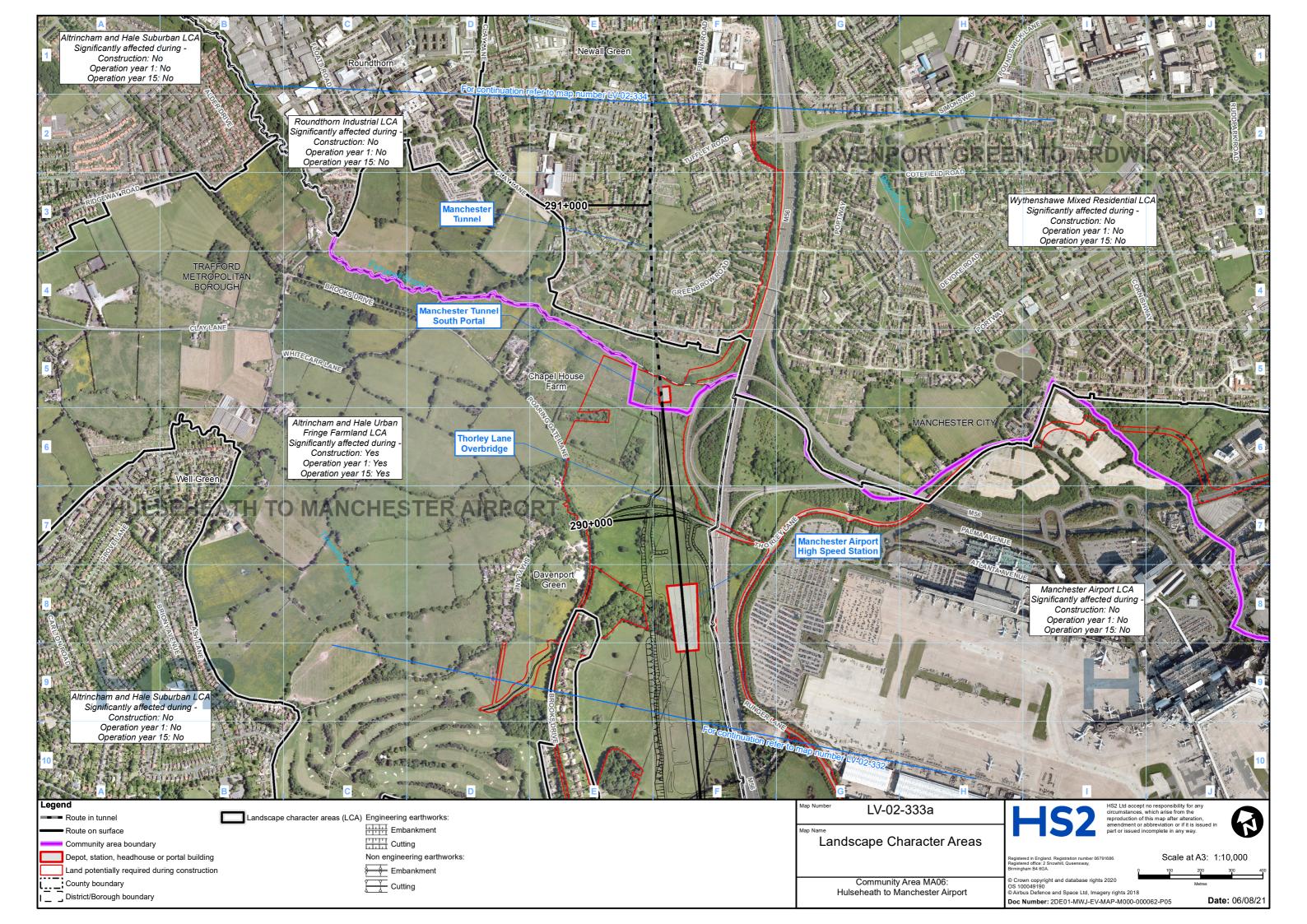






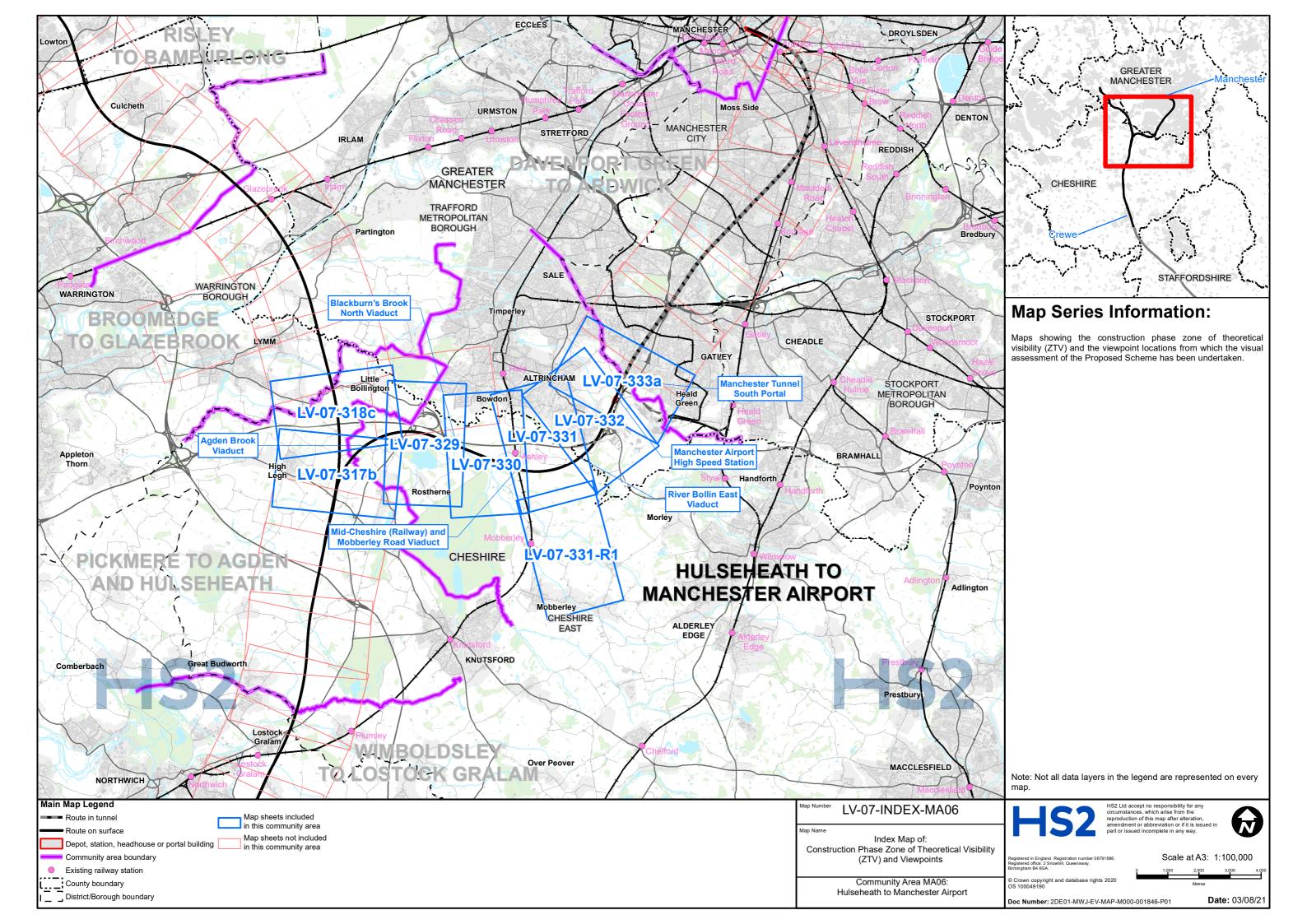


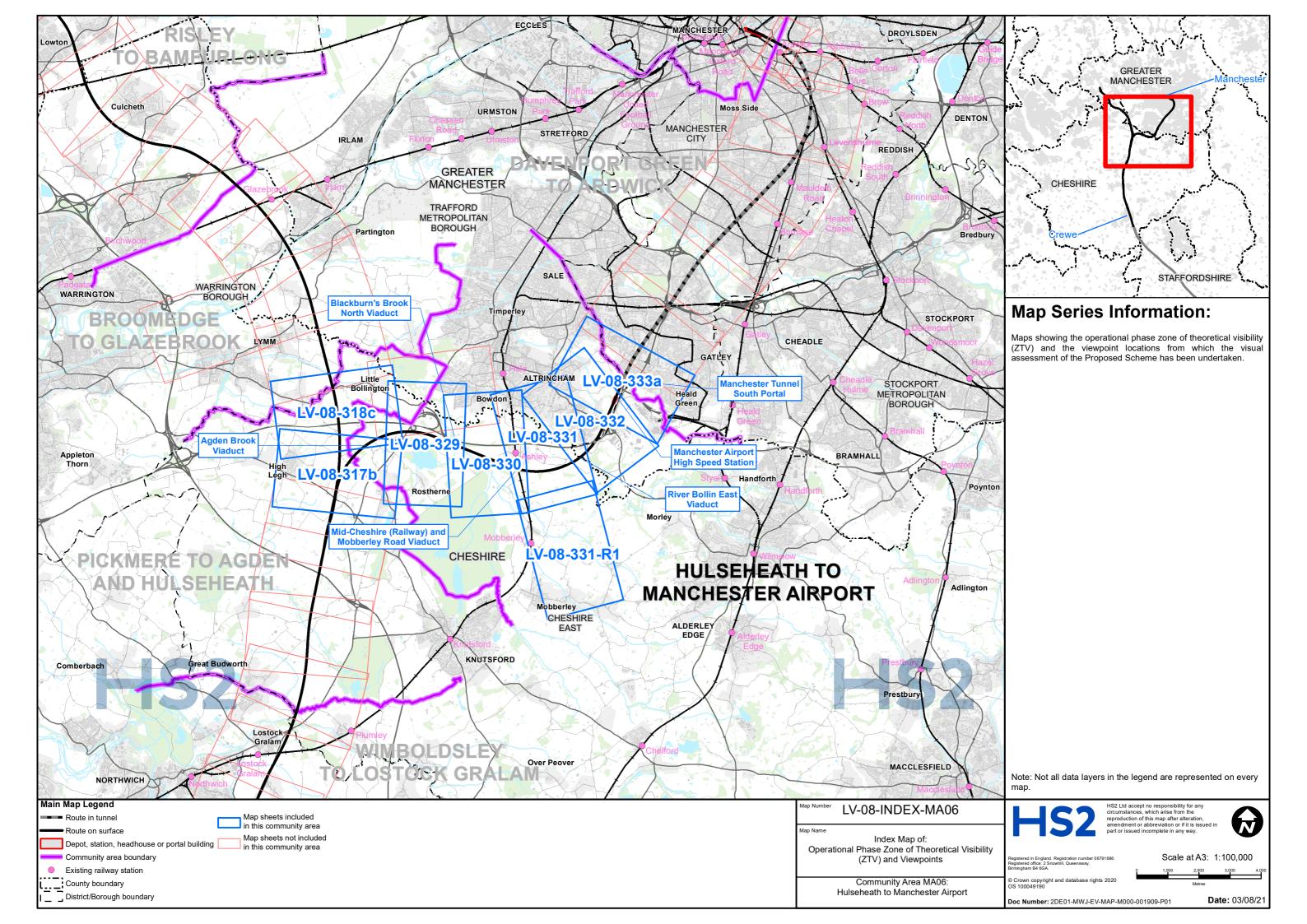


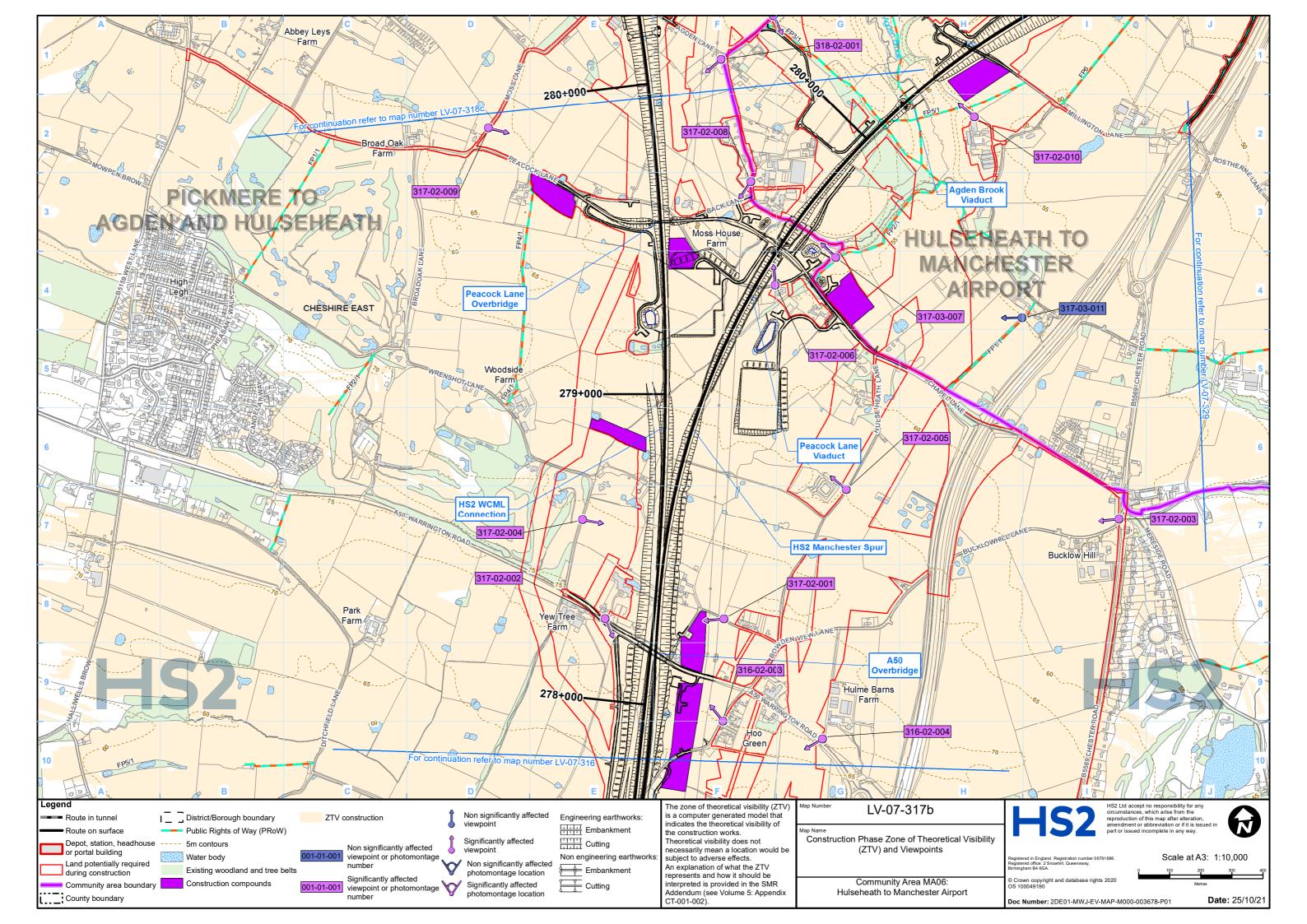


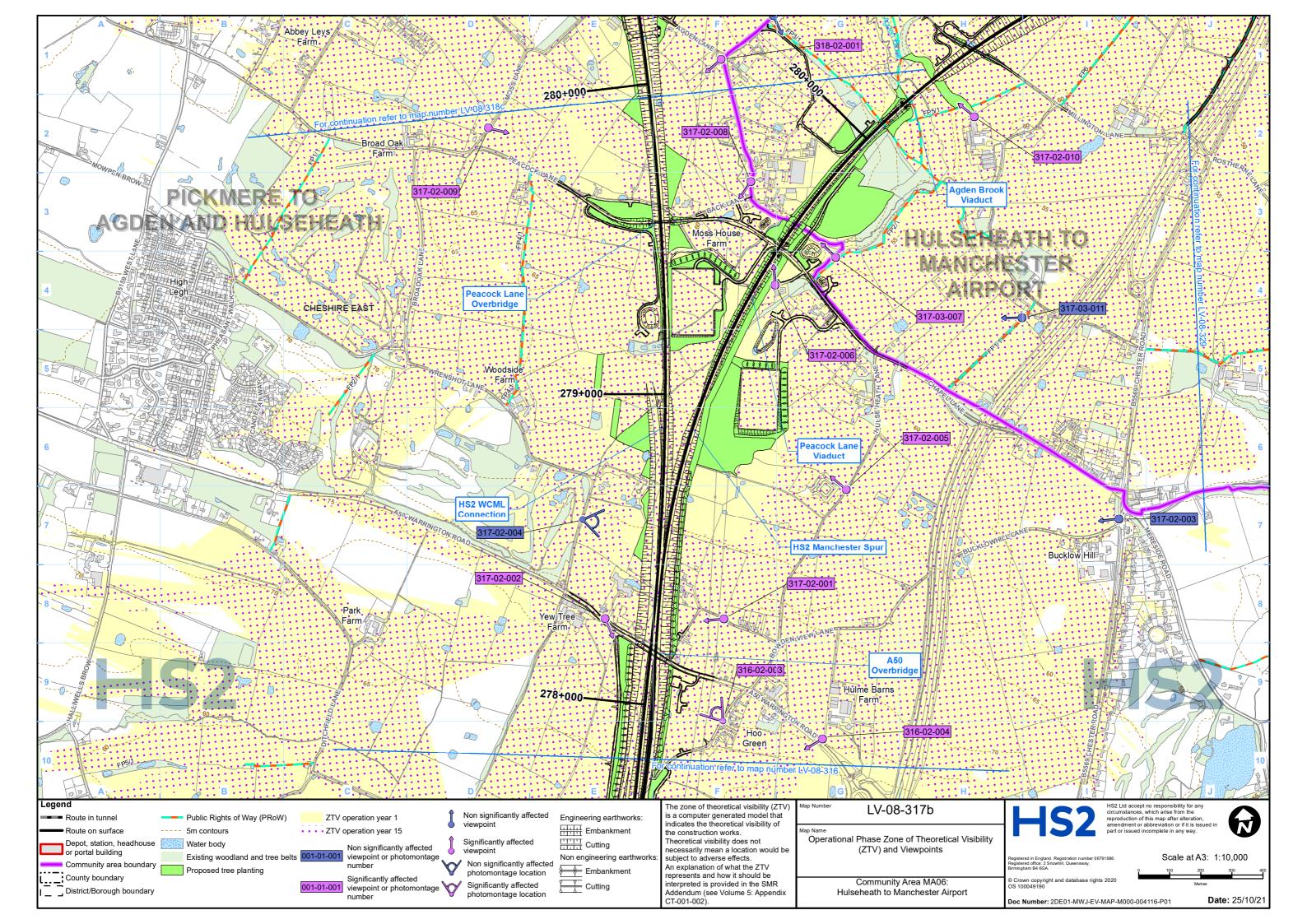


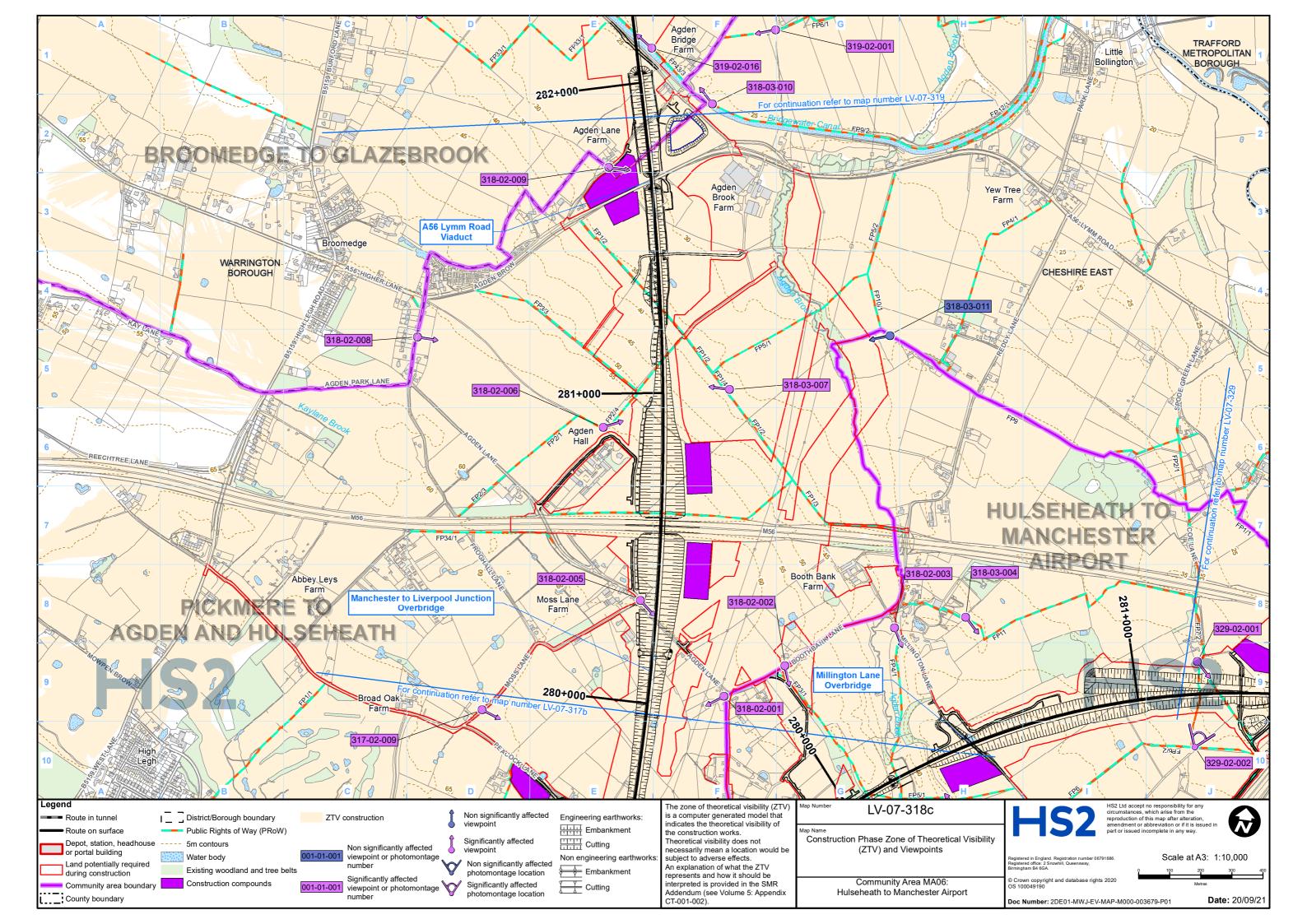
LV-07 - Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints LV-08 - Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints

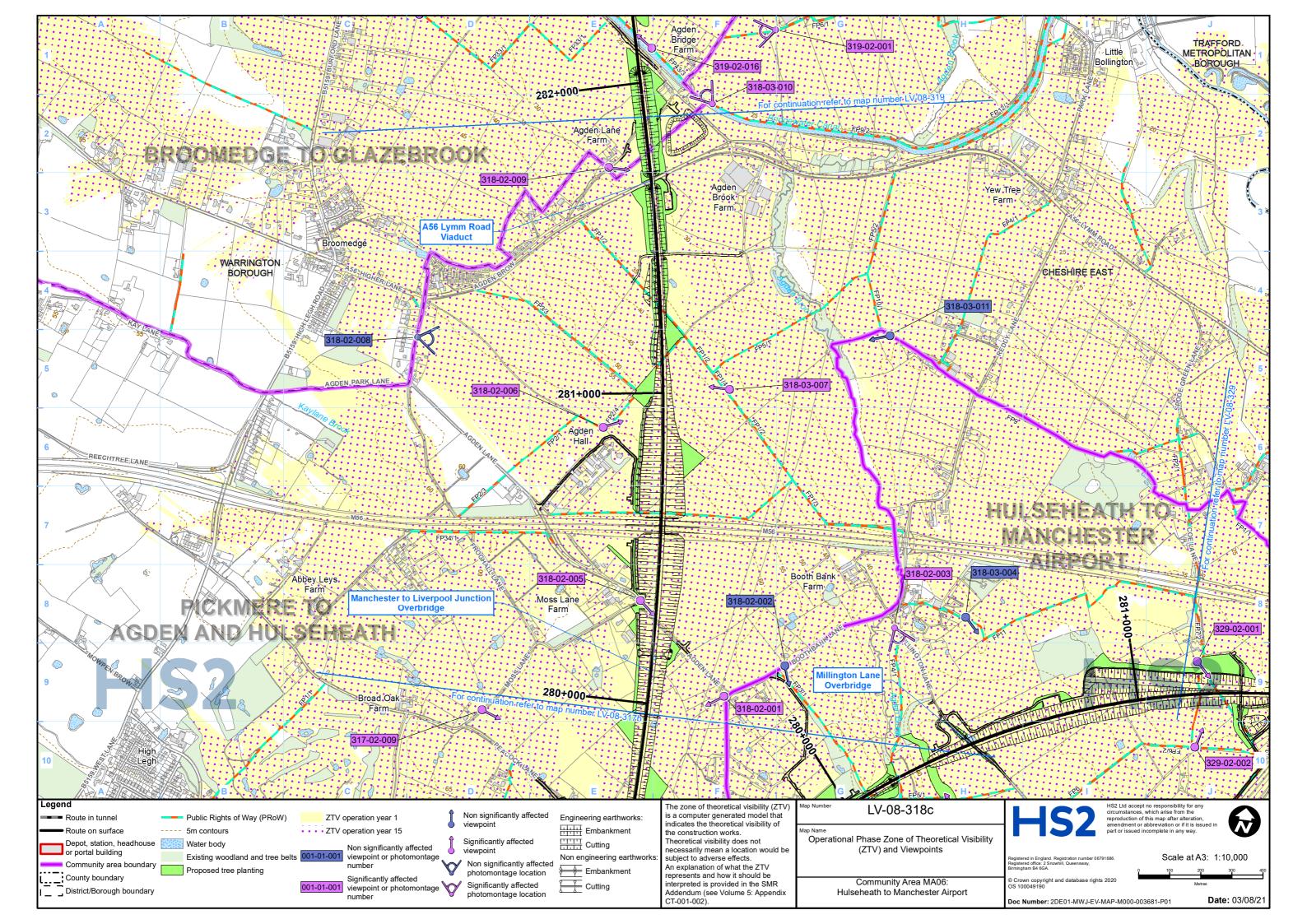


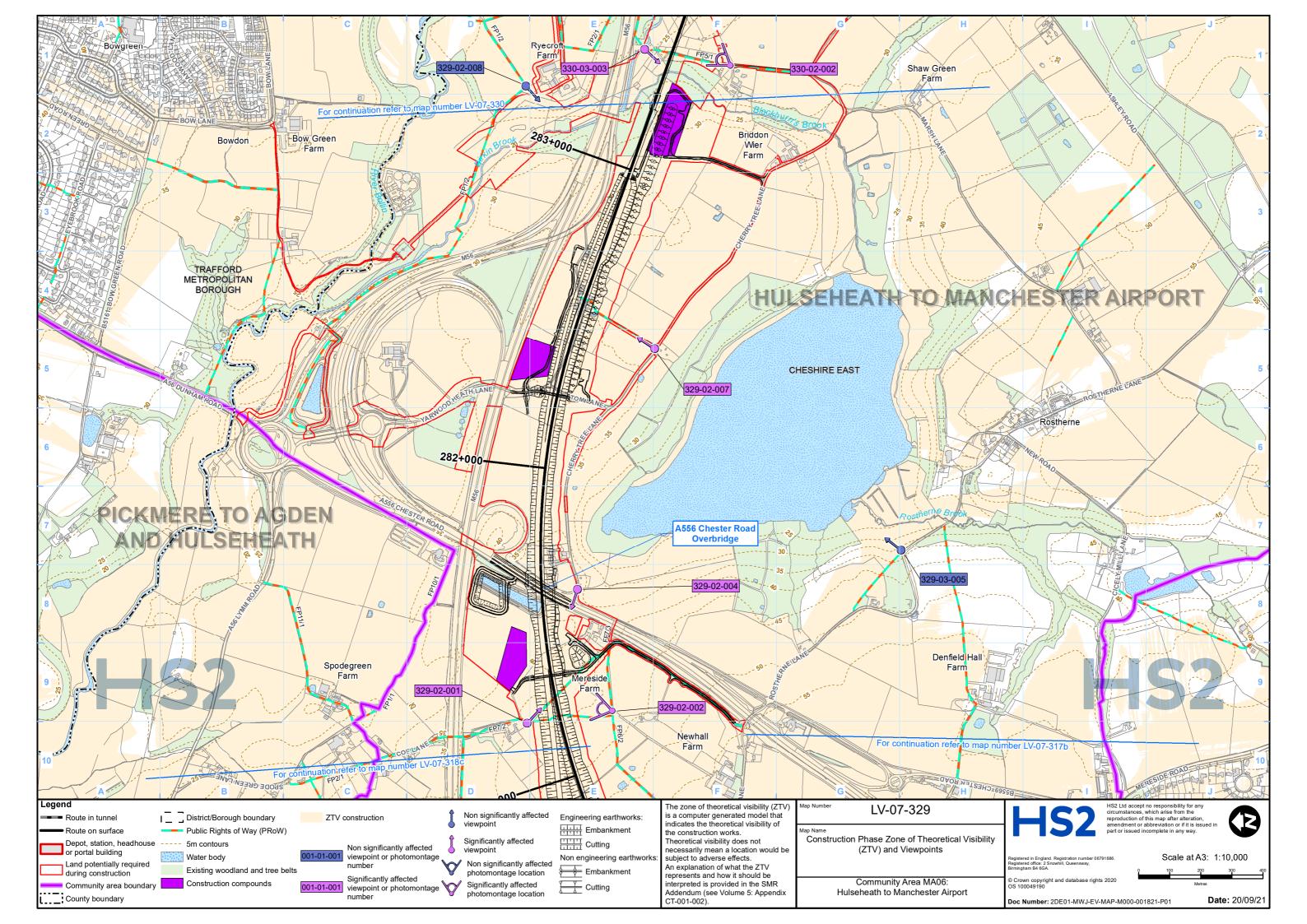


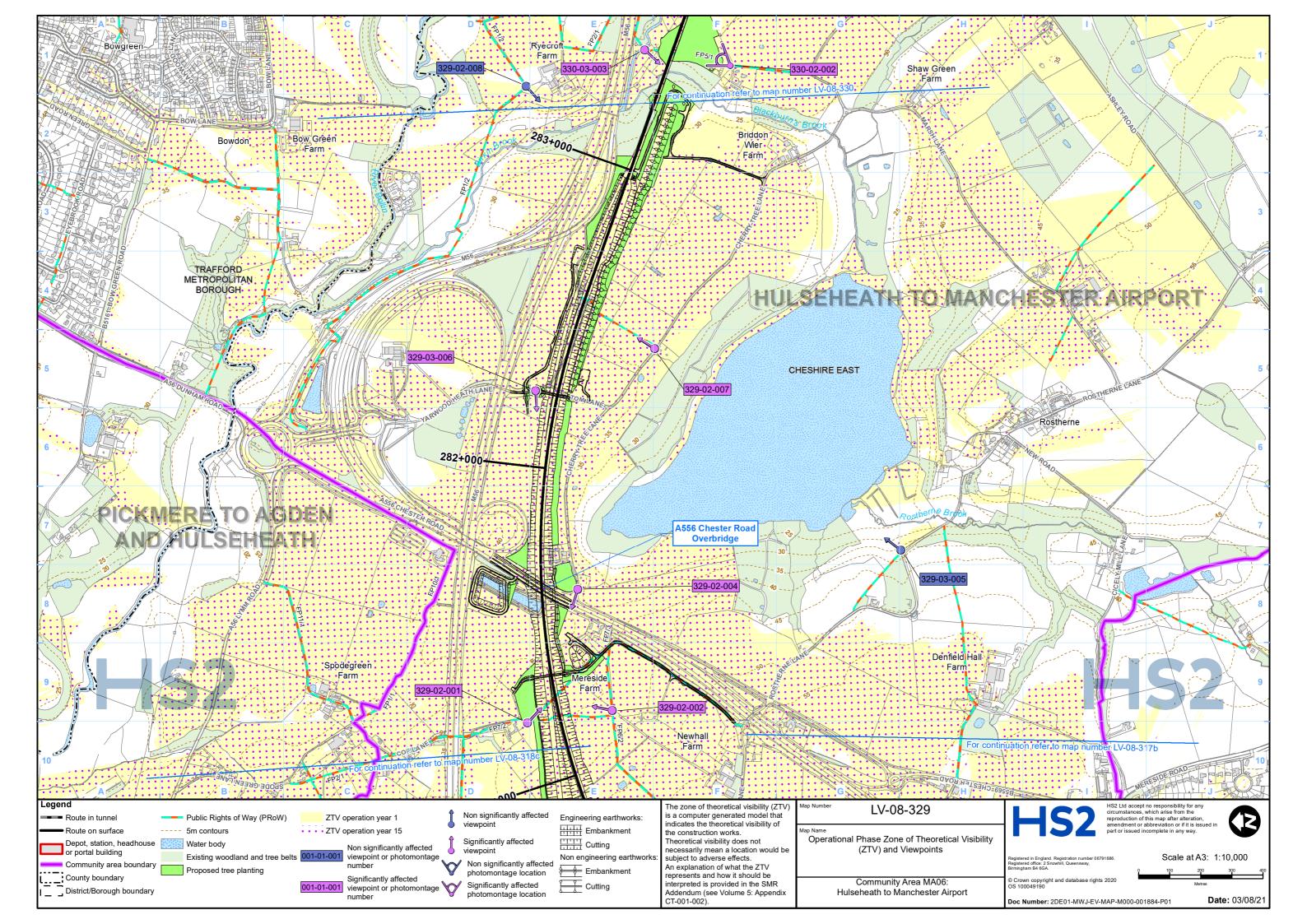


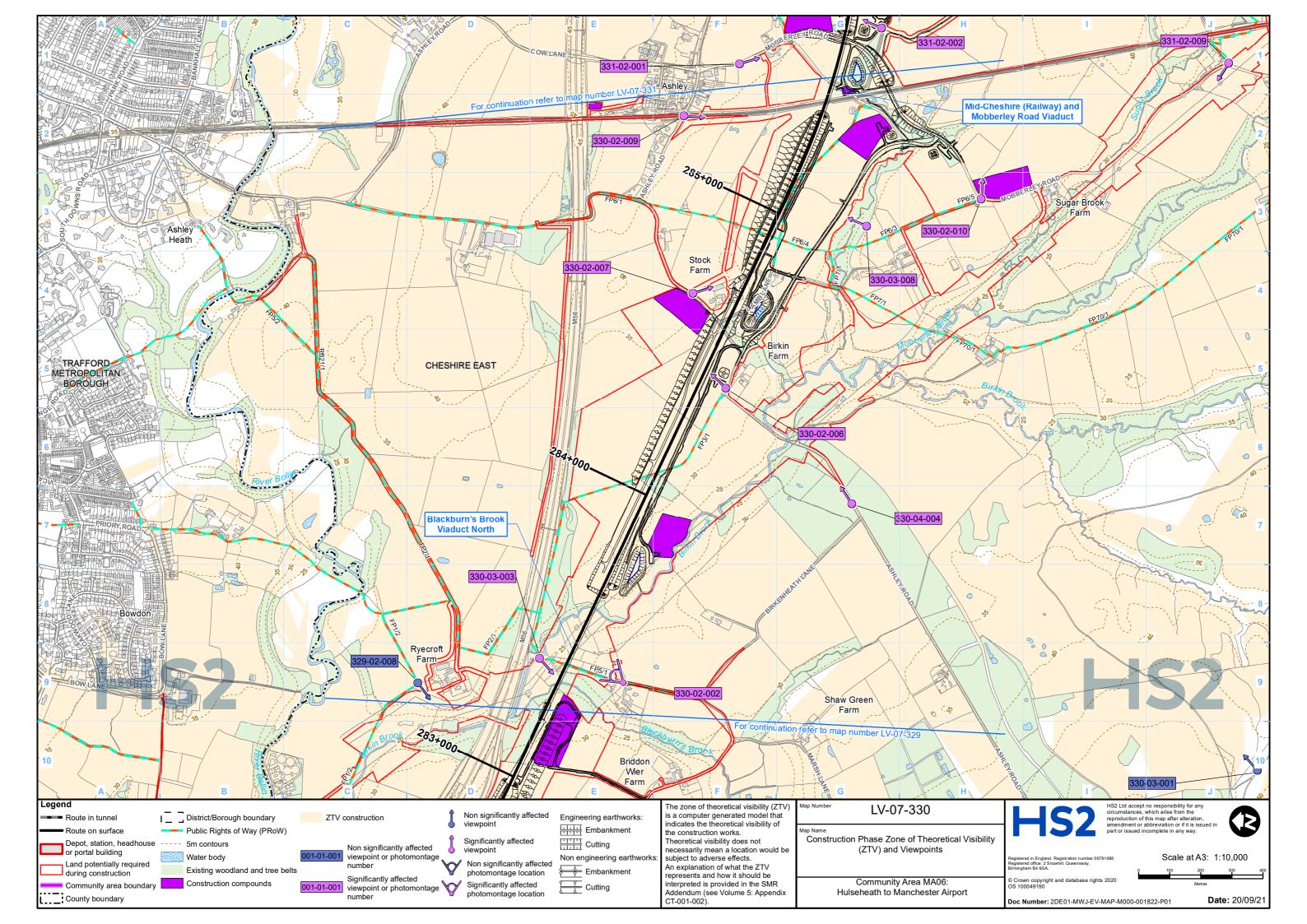


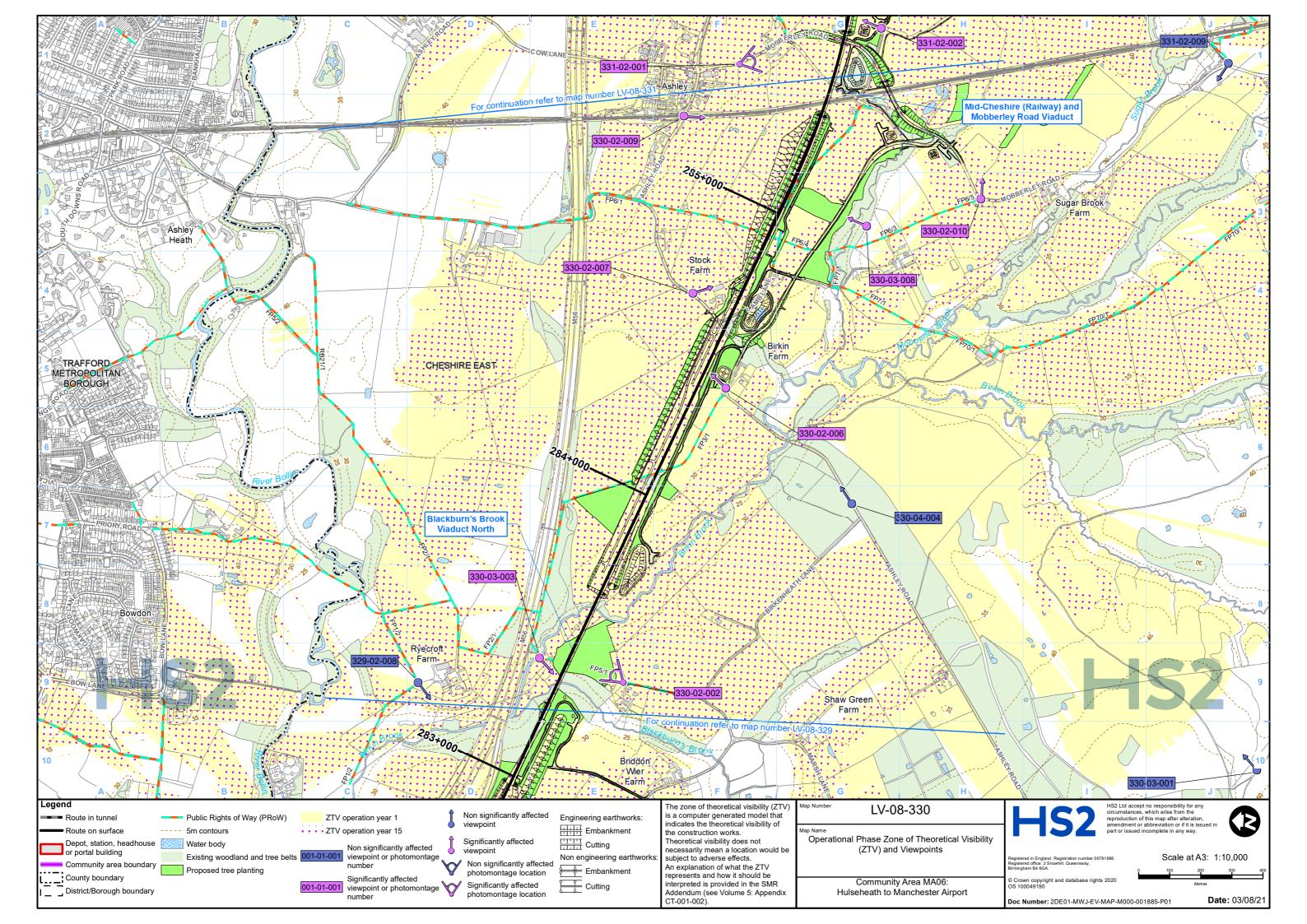


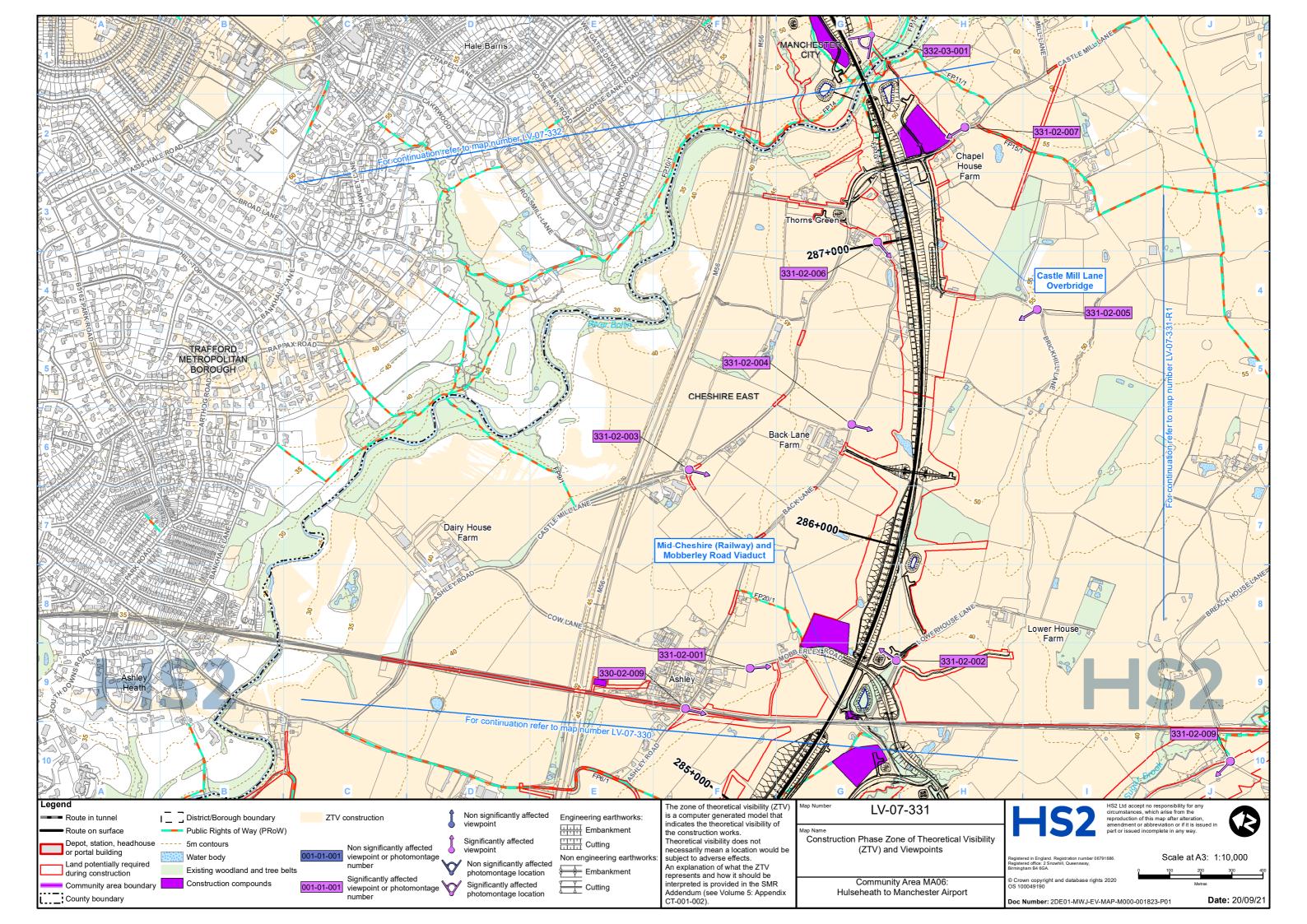


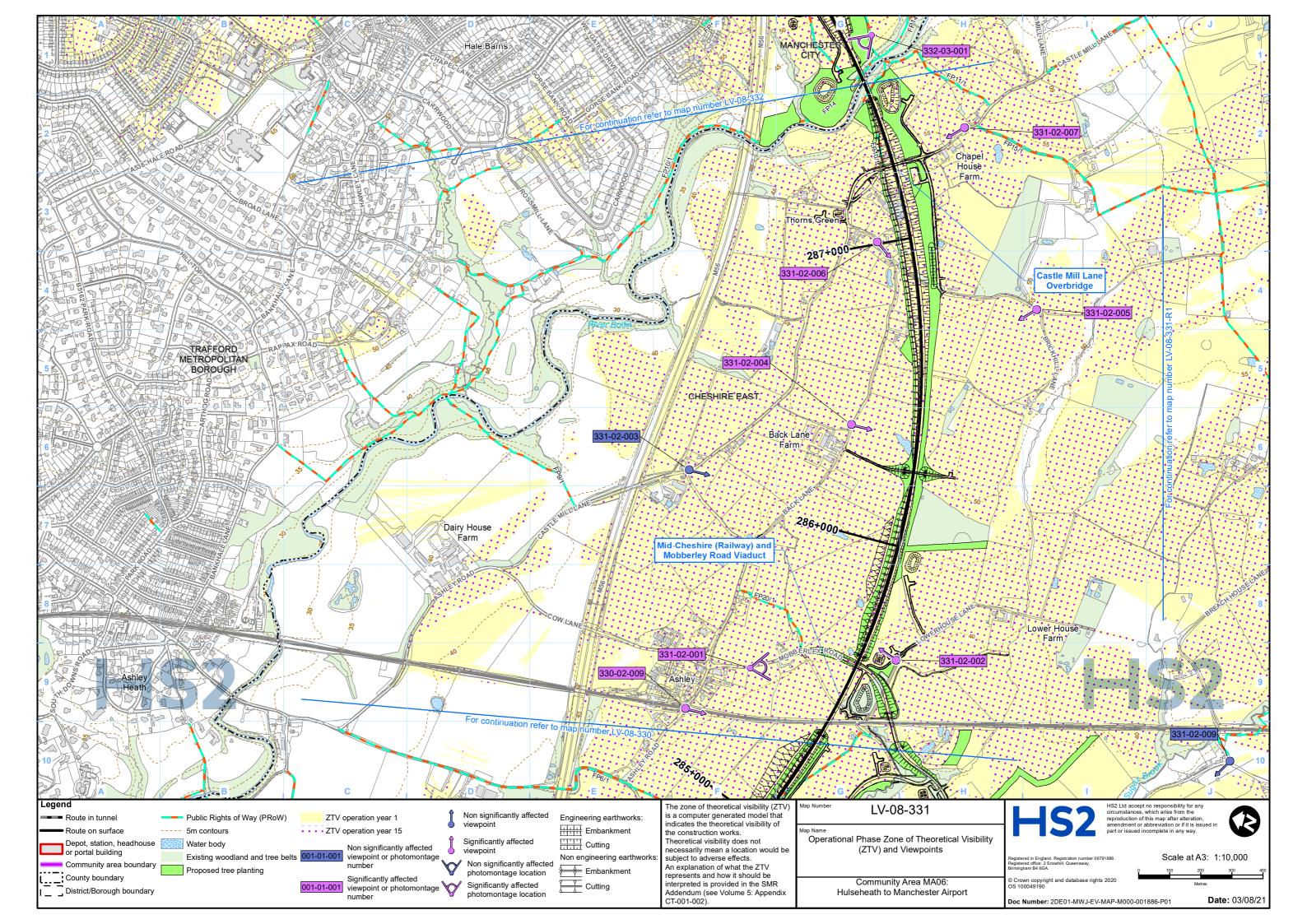


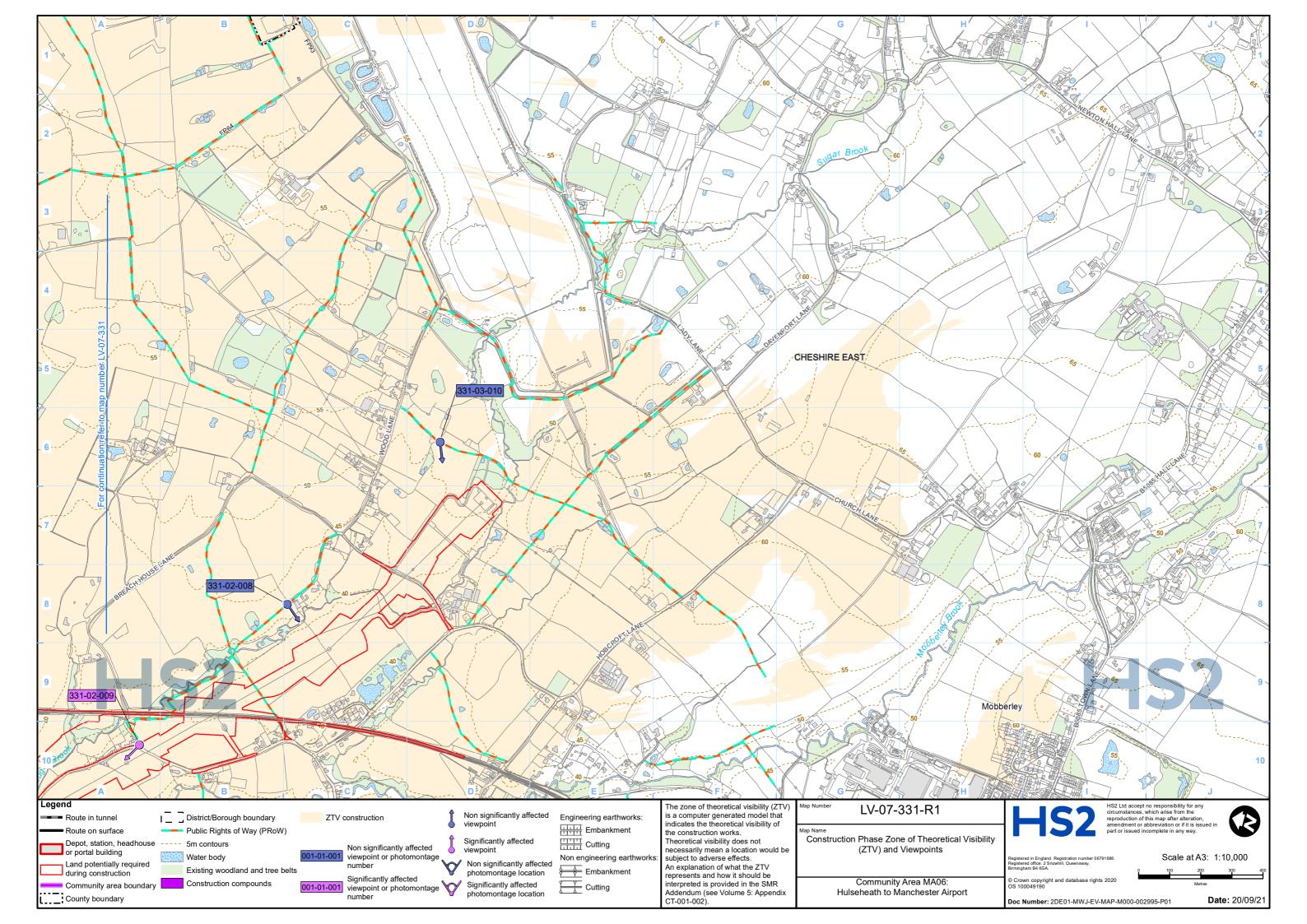


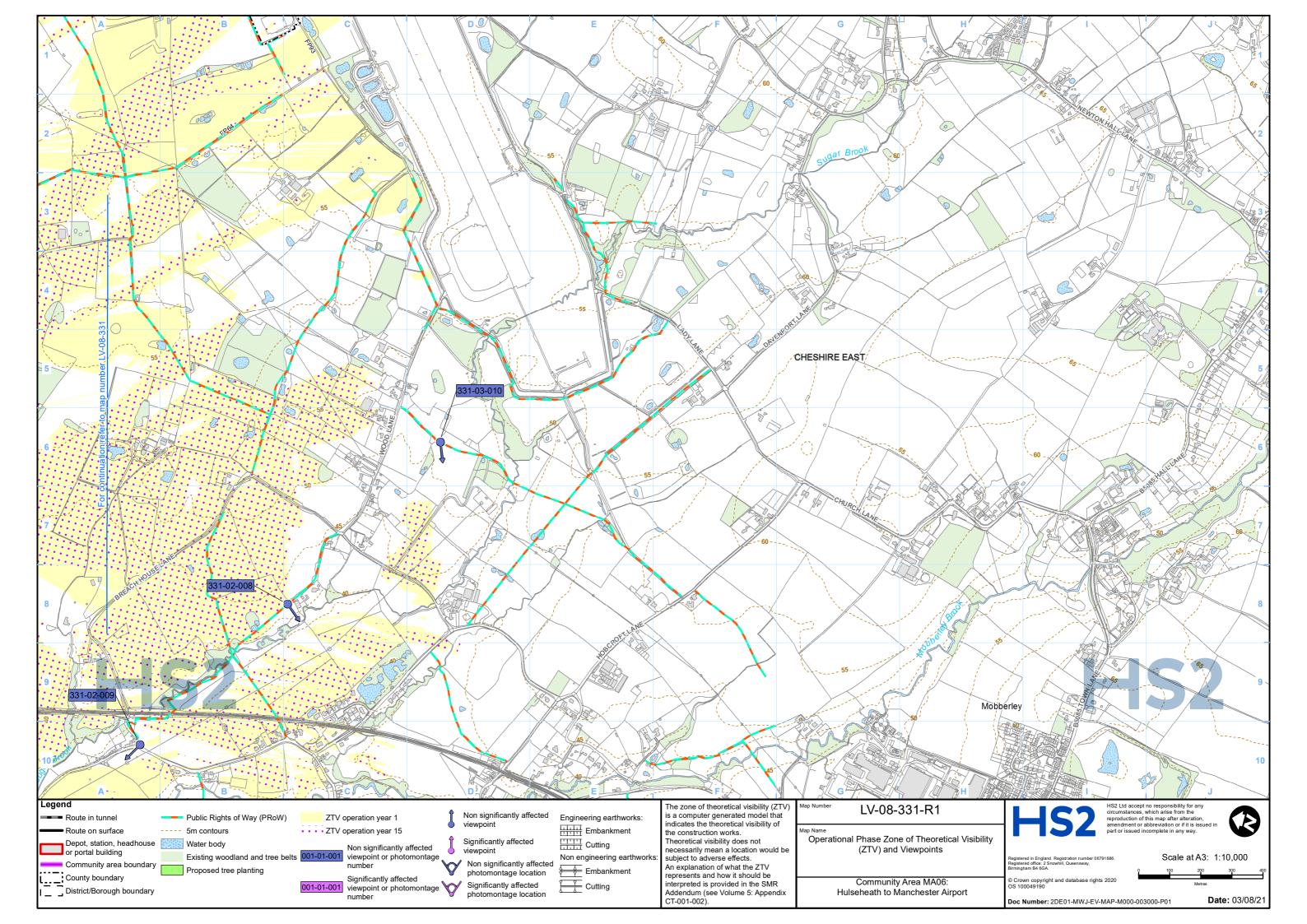


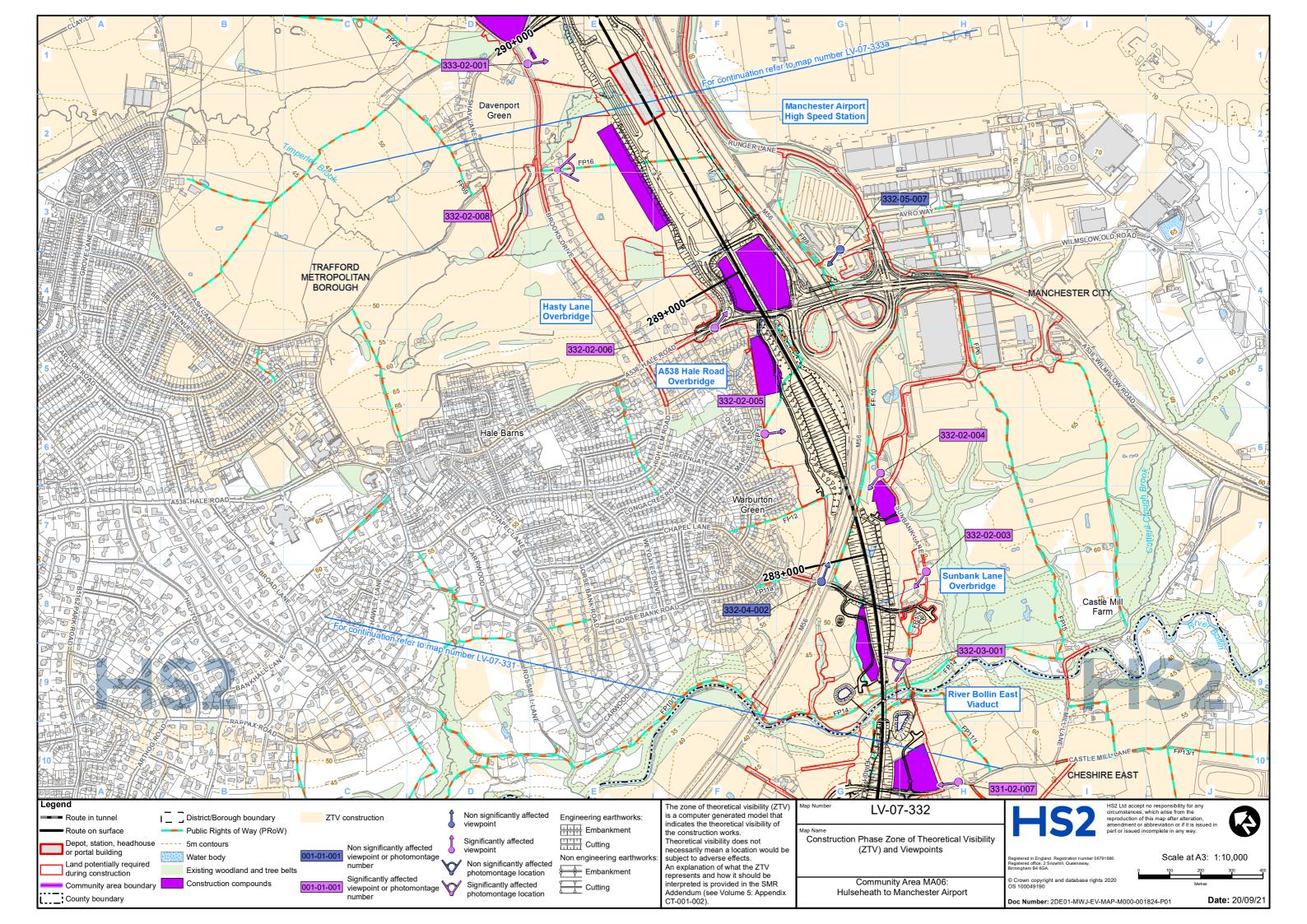


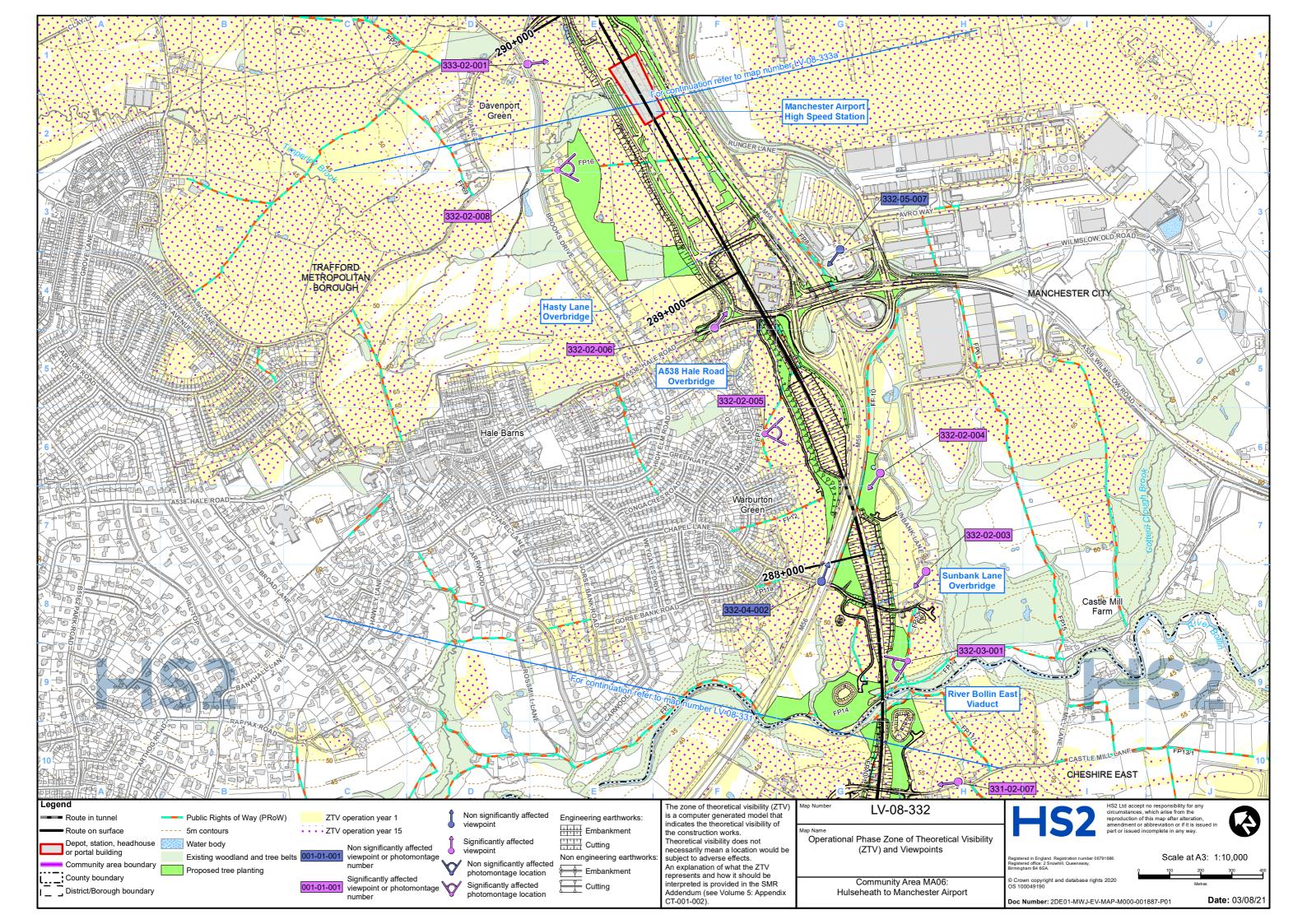


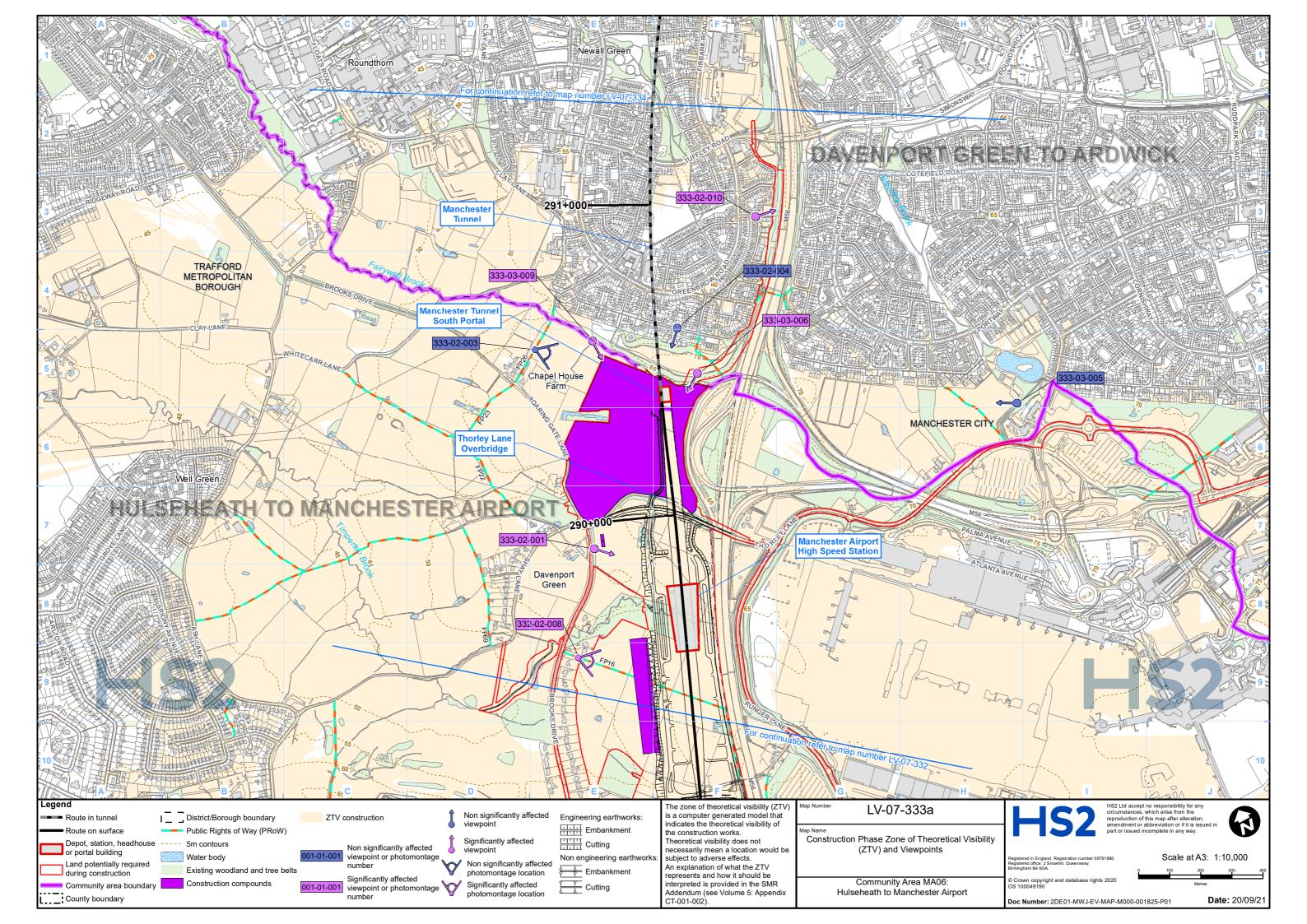


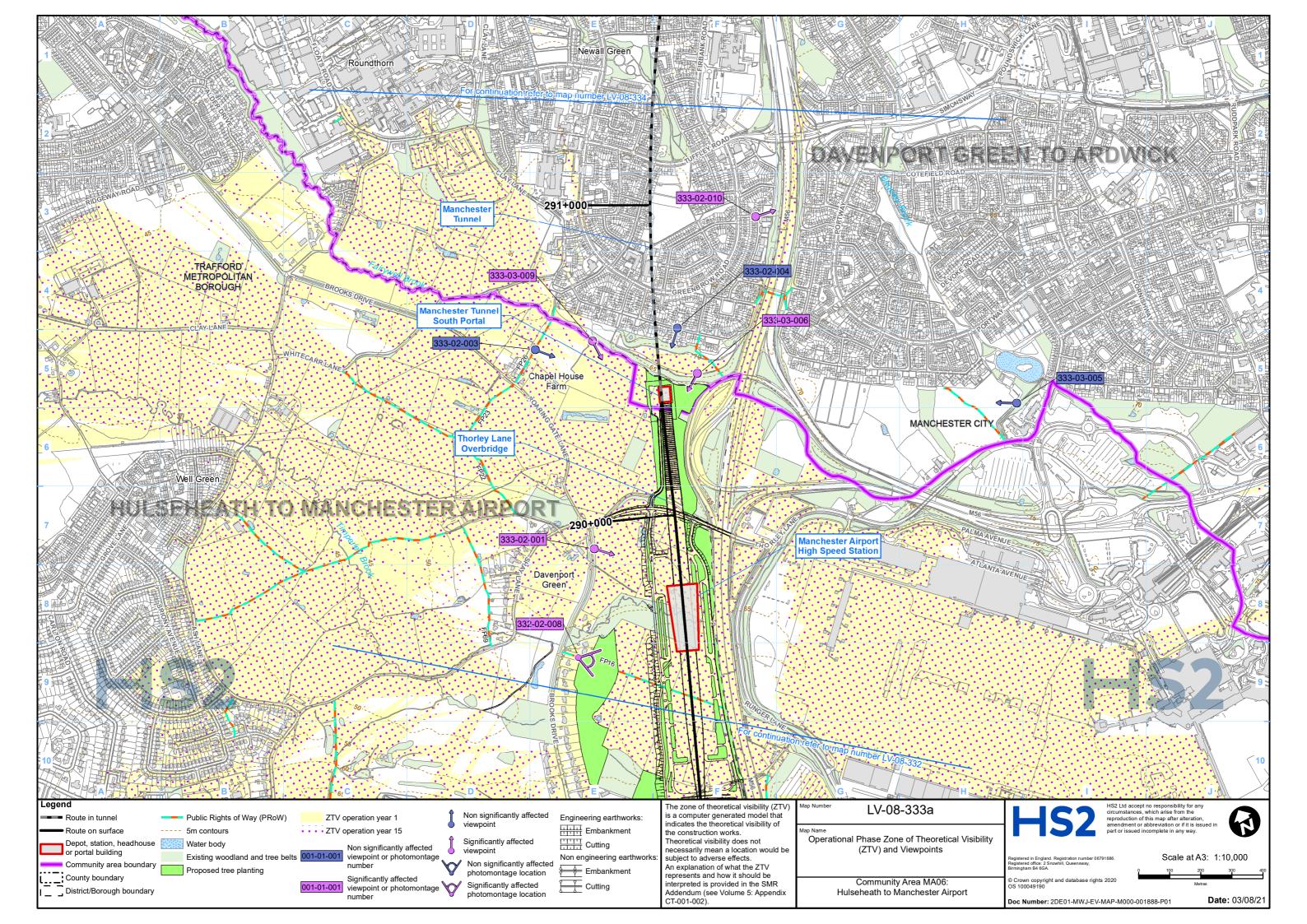










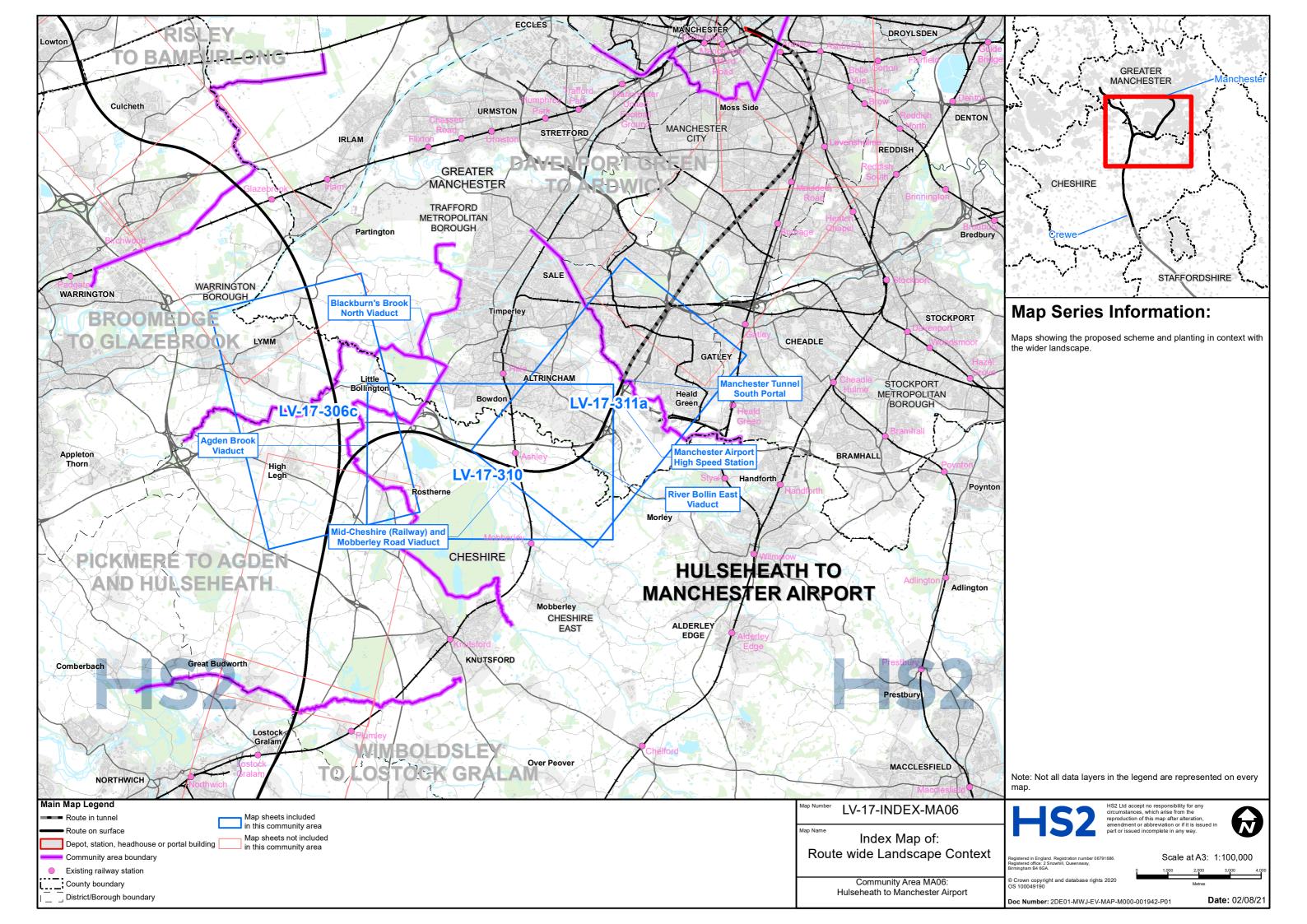


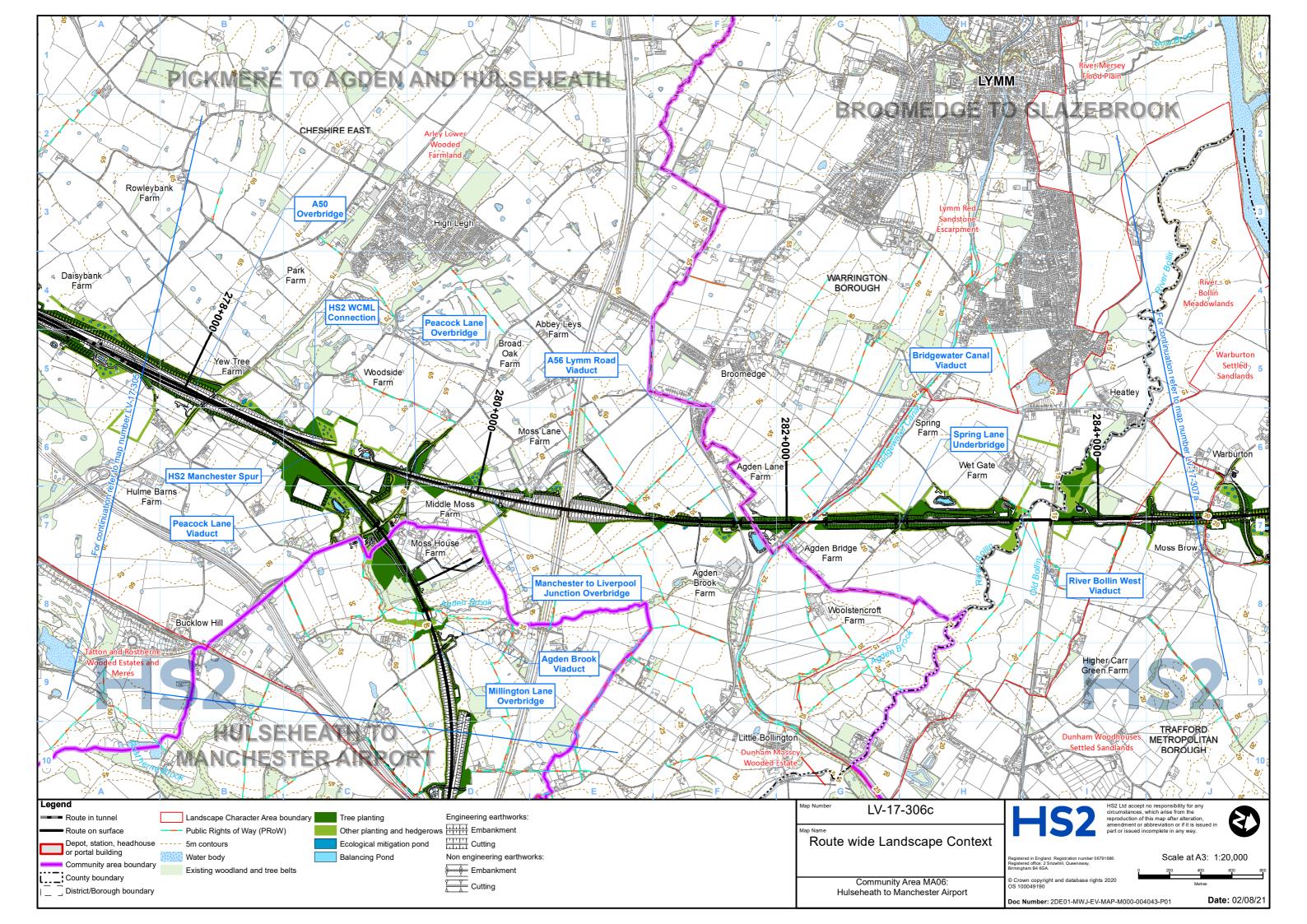
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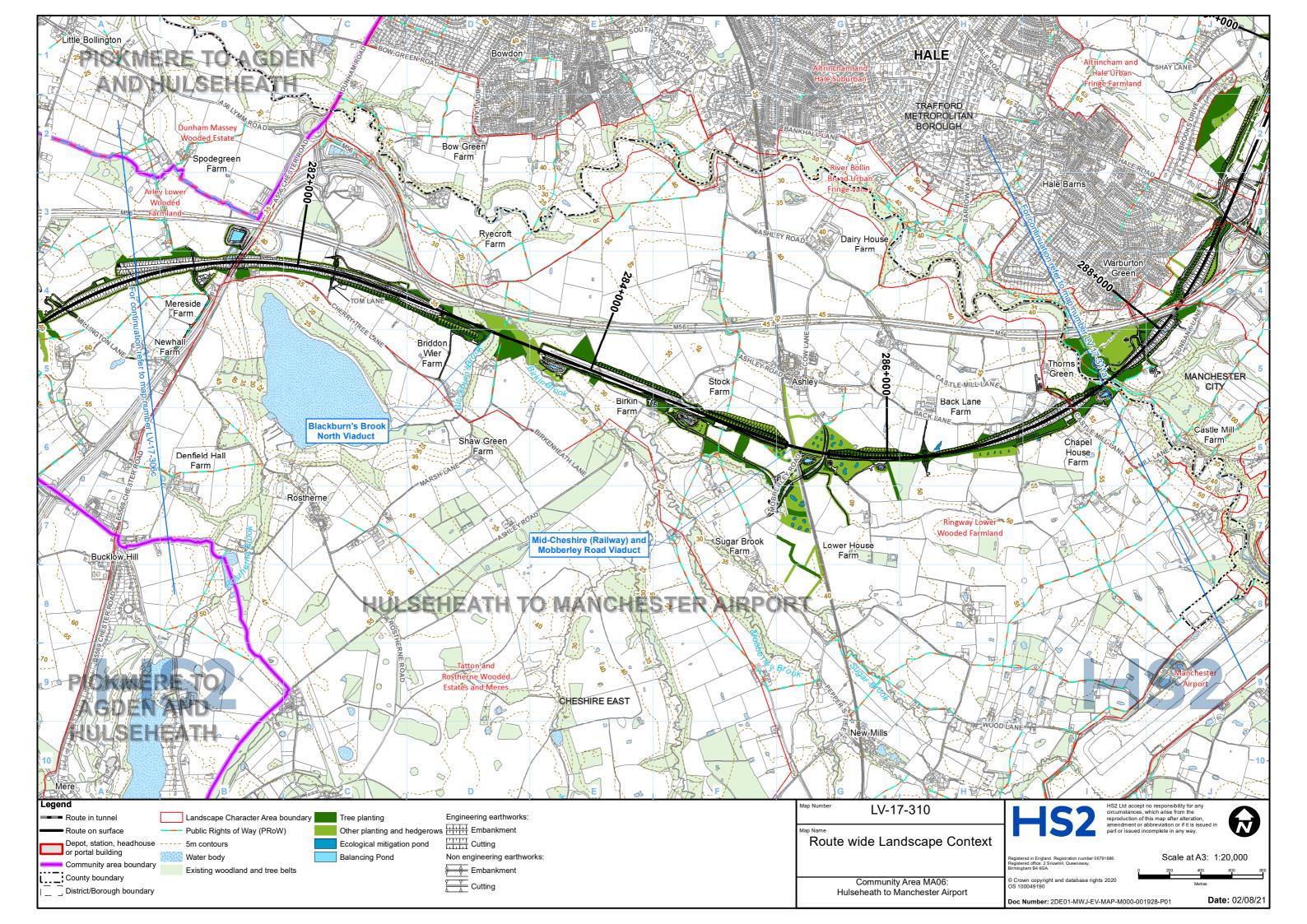
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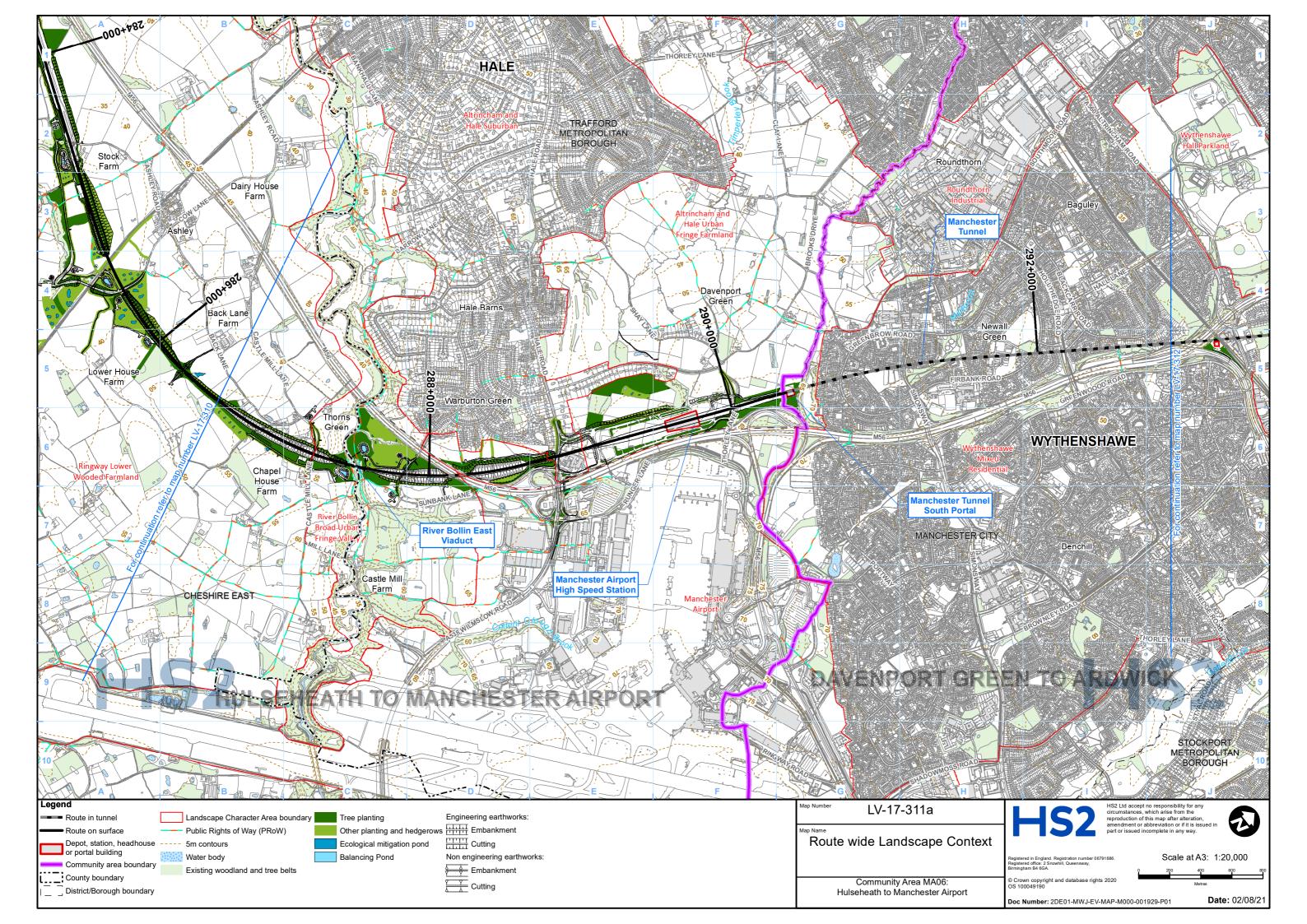


LV-17 - Routewide Landscape Context









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