In Parliament – Session 2021 - 2022



# High Speed Rail (Crewe - Manchester) Environmental Statement

**Volume 5: Map Book** 

Agriculture, forestry and soils (AG-01, AG-02, AG-04)



# High Speed Rail (Crewe - Manchester) Environmental Statement

**Volume 5: Map Book** 

Agriculture, forestry and soils (AG-01, AG-02, AG-04)



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.

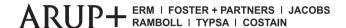
High Speed Two (HS2) Limited Two Snowhill Snow Hill Queensway Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

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





High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard, please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2022, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v3.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3 **CCL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing 100% recycled fibre.

## **Contents**

Mapping explanatory notes

Data dictionary and definitions

Map series name	AG-01 - Agricultural Holdings	AG-02 - Soil Associations	AG-04 - Agricultural Land Quality
Map series description	These maps show the extent of farm holdings and the location of key farm buildings.	These maps show the distribution of soil types.	These maps show the distribution of agricultural land quality within the construction boundary. Farm names have been provided by Ordnance Survey MasterMap, OCTOBER 2018. In some cases, farm names have been amended or added to reflect the name used by the current owner or occupier; these are represented in brown text.
Community Area name			
MA01 Hough to Walley's Green	✓	✓	✓
MA02 Wimboldsley to Lostock Gralam	✓	✓	✓
MA03 Pickmere to Agden and Hulseheath	✓	✓	✓
MA04 Broomedge to Glazebrook	✓	✓	✓
MA05 Risley to Bamfurlong	✓	✓	✓
MA06 Hulseheath to Manchester Airport	✓	✓	✓
MA07 Davenport Green to Ardwick			
MA08 Manchester Piccadilly Station			
ORW1 Preston Station (PSTN)			
ORW2 Carlisle Station (CSTN)			
ORW3 Annandale Depot (ADEP)	✓	✓	✓

### **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.

## 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

Broomedge to Glazebrook

MA04 Map Book

#### MA05 Report

Risley to Bamfurlong

MA05 Map Book

#### MA07 Report

MA06 Report

Hulseheath to

Manchester Airport

MA06 Map Book

Davenport Green to Ardwick

MA07 Map Book

#### MA08 Report

Manchester Piccadilly Station

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 2km intervals. For maps at 1:20,000, 1:10,000, 1:5,000 and 1:2,500 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)
Volume 5: Map book – MA06: Hulseheath to Manchester Airport Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)	Volume 5: Map book – MA07: Davenport to Green Ardwick Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
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)	



# High Speed Rail (Crewe – Manchester) Environmental Statement

Data dictionary and definitions

## Data dictionary and definitions

Legend features	Definition	Source	Copyright
Agricultural and forestry holdings assessment	Holdings assessed derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd, augmented where access was not available by published information from Defra.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2020.
Agricultural and forestry holdings label	Name of the agricultural holdings assessed derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd, augmented where access was not available by published information from Defra.	High Speed Two (HS2) Ltd	
Agriculture land classification	The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland. The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a. This is the land which is most flexible, productive and efficient in response to inputs. Predictive Agricultural Land Classification (ALC) undertaken by the environmental consultants for HS2 Ltd, based on an interpretation of existing published data, existing detailed ALC surveys obtained from Natural England and soil and ALC surveys undertaken by the environmental consultants for HS2 Ltd.	Natural England High Speed Two (HS2) Ltd	© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2019.
Airport	Airport location derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Community area boundary (AG)	The Environmental Statement has been split into eight sections called Community Areas named as MA01 to MA08; Agriculture, Forestry and Soil only deal with MA01-MA06, as no agricultural land is required for the construction of HS2 in MA07-MA08.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
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	

Legend features	Definition	Source	Copyright
District/borough/Unitary authority boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Existing railway line	Existing railway stations derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Existing railway station	Existing railway stations derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
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.		
Main operational agricultural and forestry buildings	Main operational buildings derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2020.
Main operational agricultural and forestry buildings label	Name of the main operational buildings derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd.	High Speed Two (HS2) Ltd	
National Soil Map of Scotland	The National Soil Map of Scotland is a web-based resource based on an original 1:250,000 scale map showing the distribution of the main soil types across Scotland.	The James Hutton Institute	Soil Survey of Scotland Staff. (1981). The James Hutton Institute (2014).
National Soil Map soil association codes and names	NATMAP is a 1:250,000 scale map of England and Wales, showing the locations of the 297 distinct soil associations wherever they occur. From Cranfield University (2001), The National Soil Map of England and Wales, National Soil Resources Institute.	Cranfield University	Soil data © Cranfield University (NSRI) and for the Controller of HMSO 2019.
Route in tunnel	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	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.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.



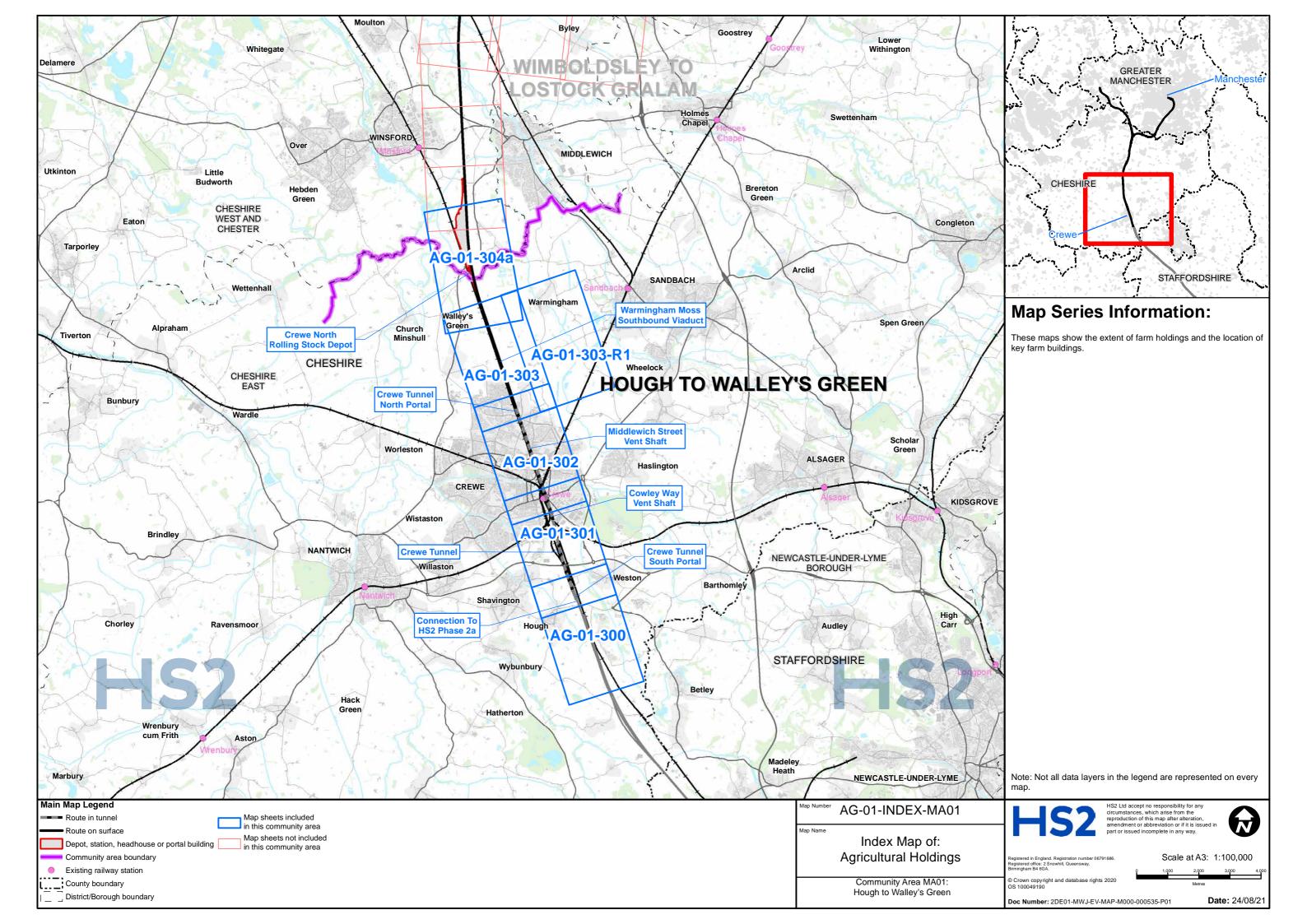
# High Speed Rail (Crewe – Manchester) Environmental Statement

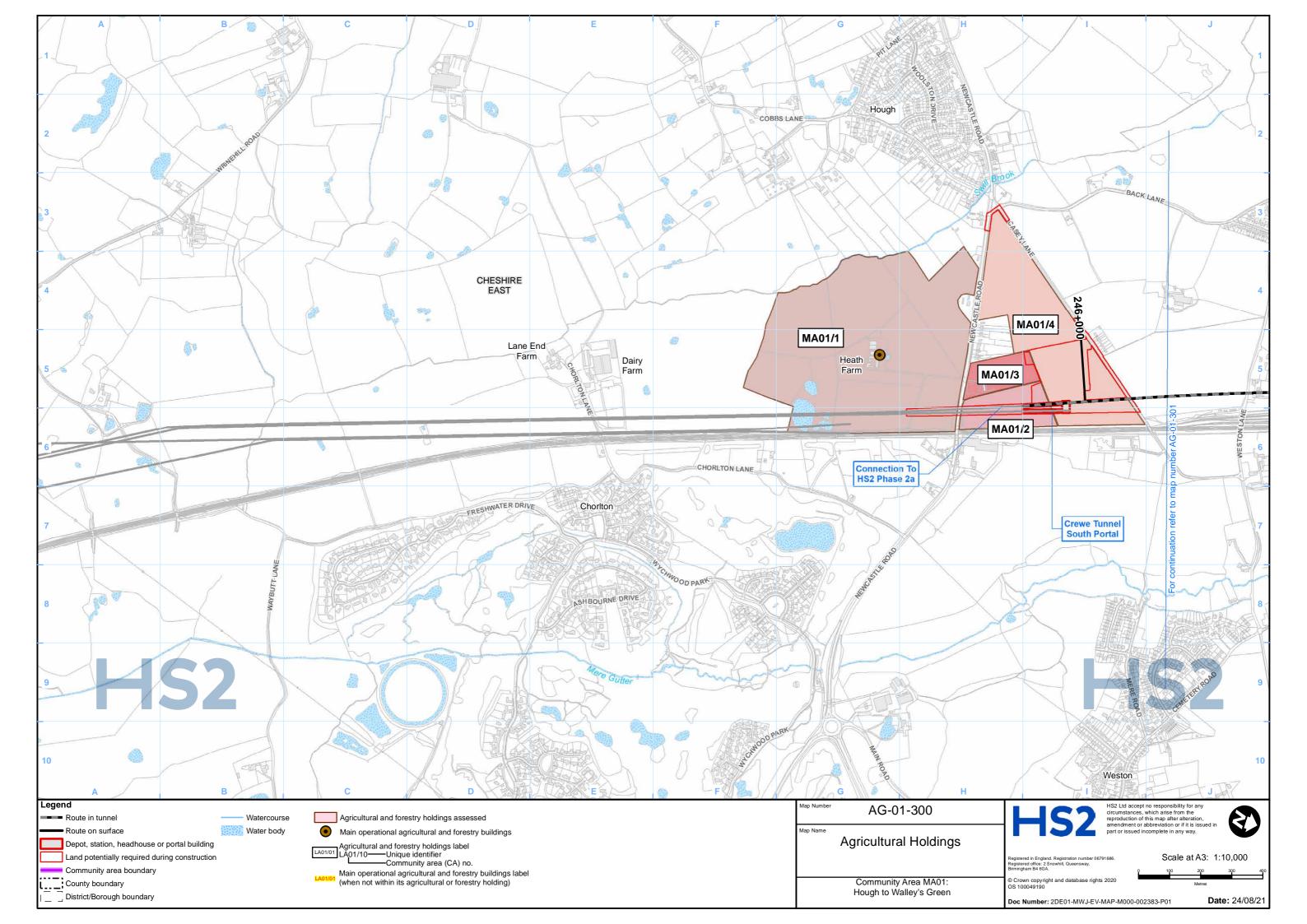
MA01: Hough to Walley's Green

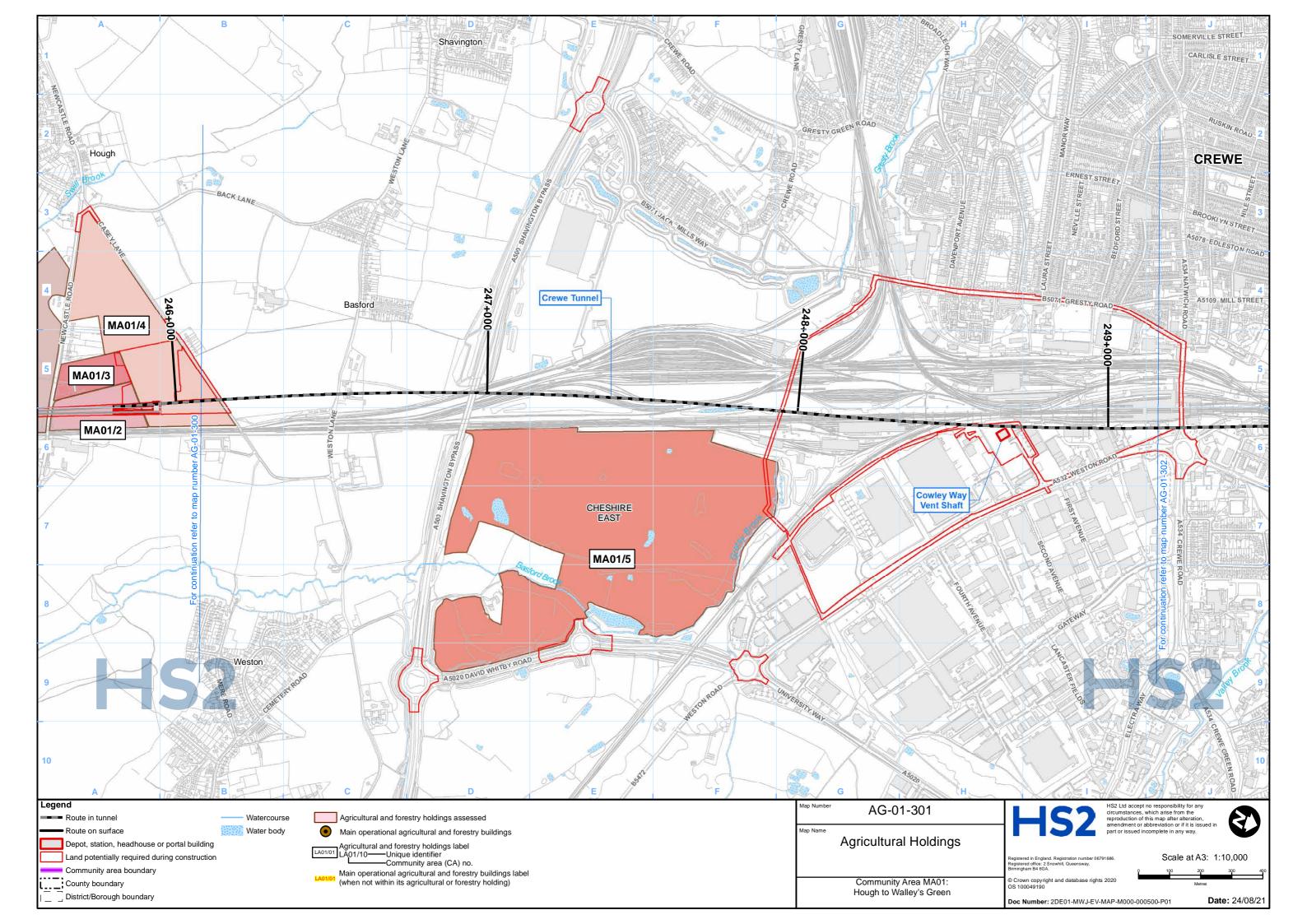
AG-01 - Agricultural Holdings

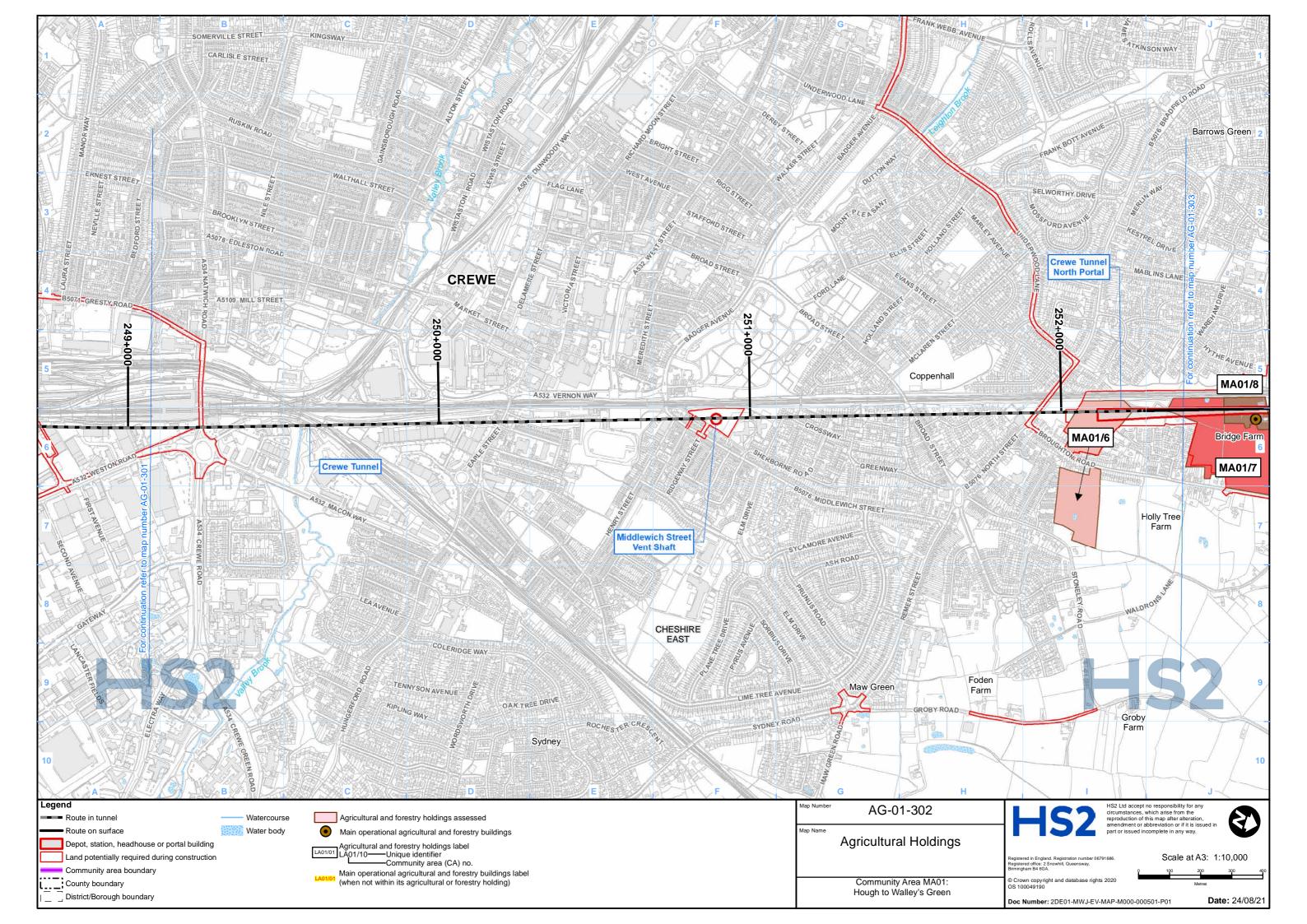
AG-02 - Soil Associations

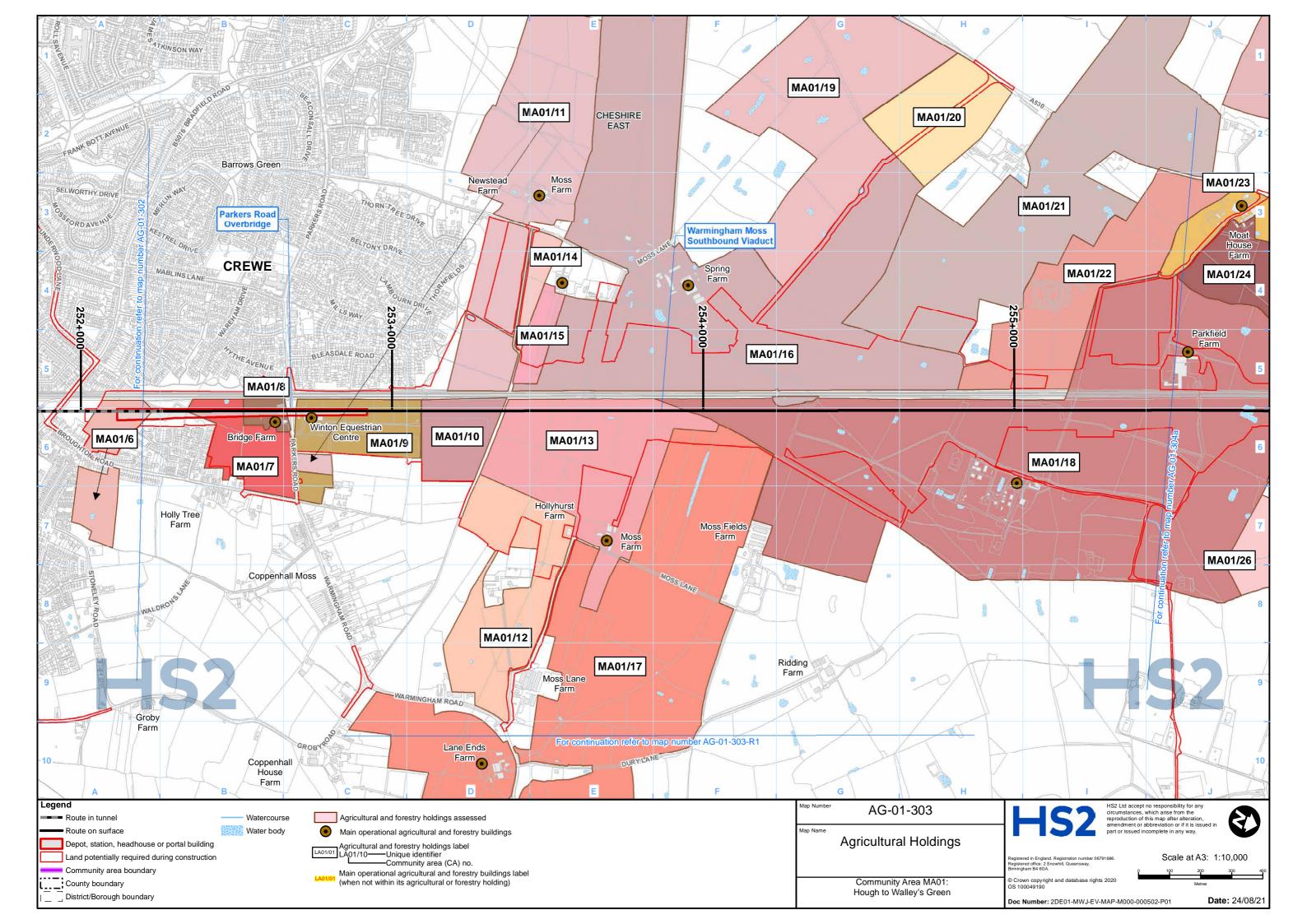
AG-04 - Agricultural Land Quality

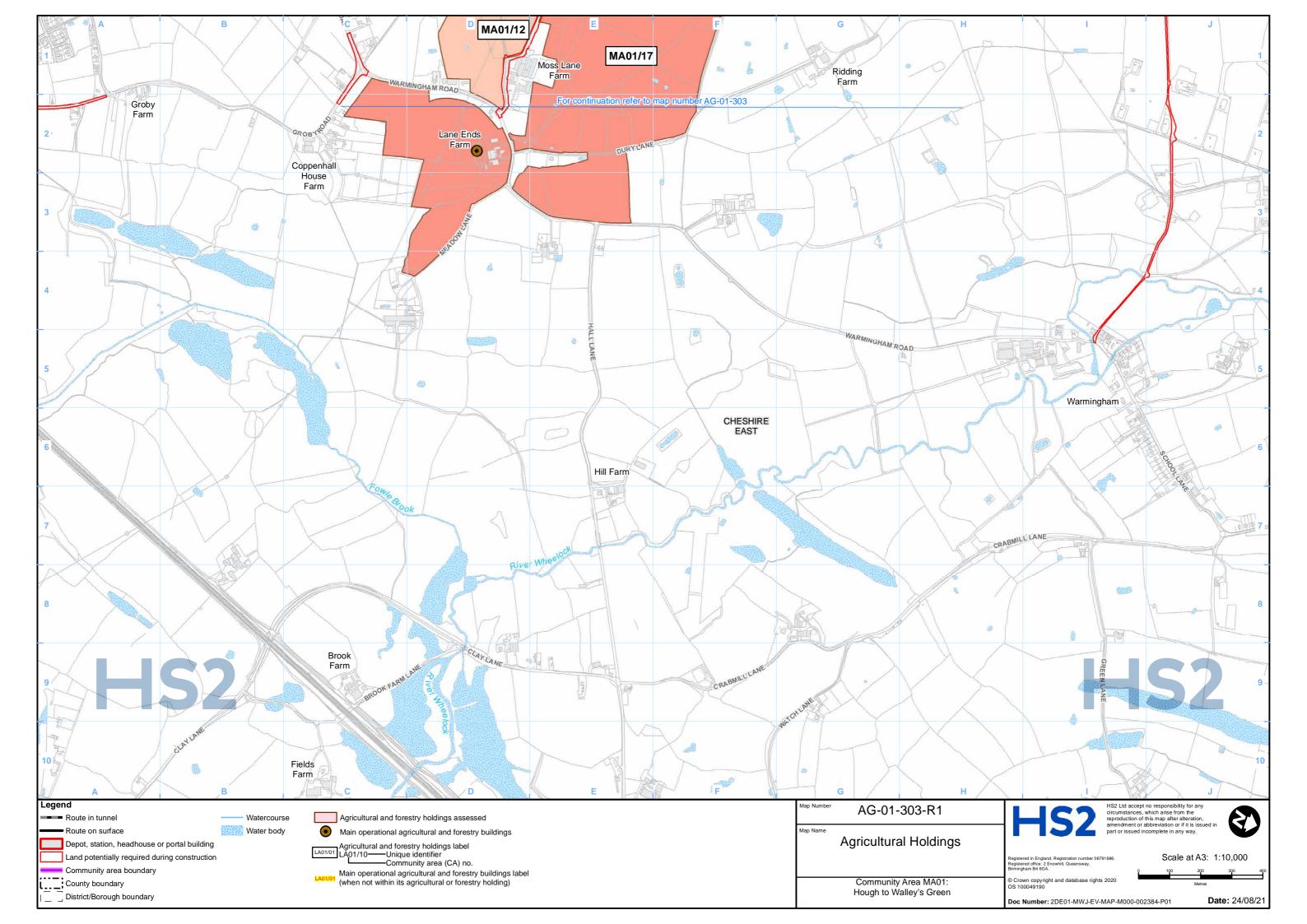


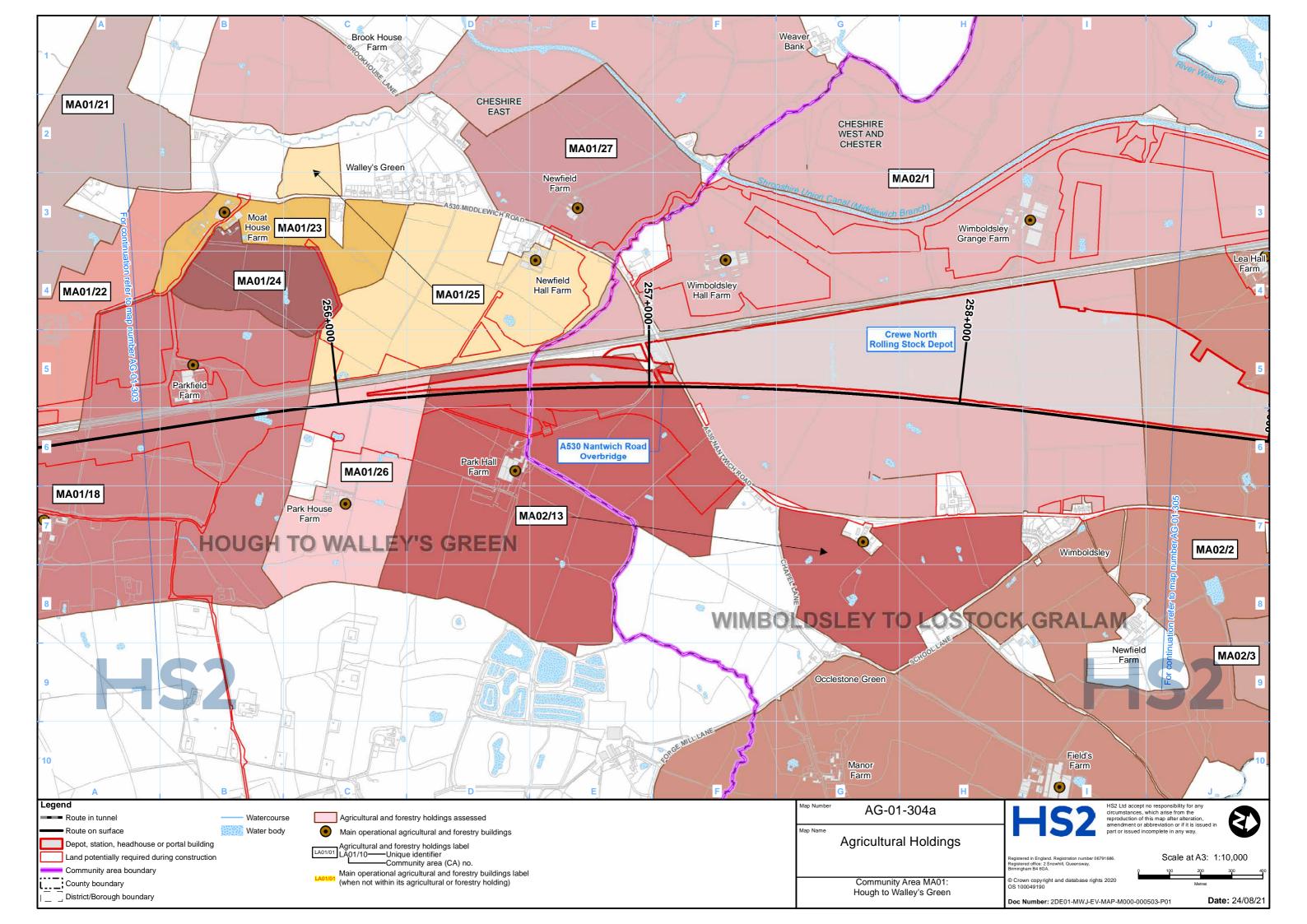


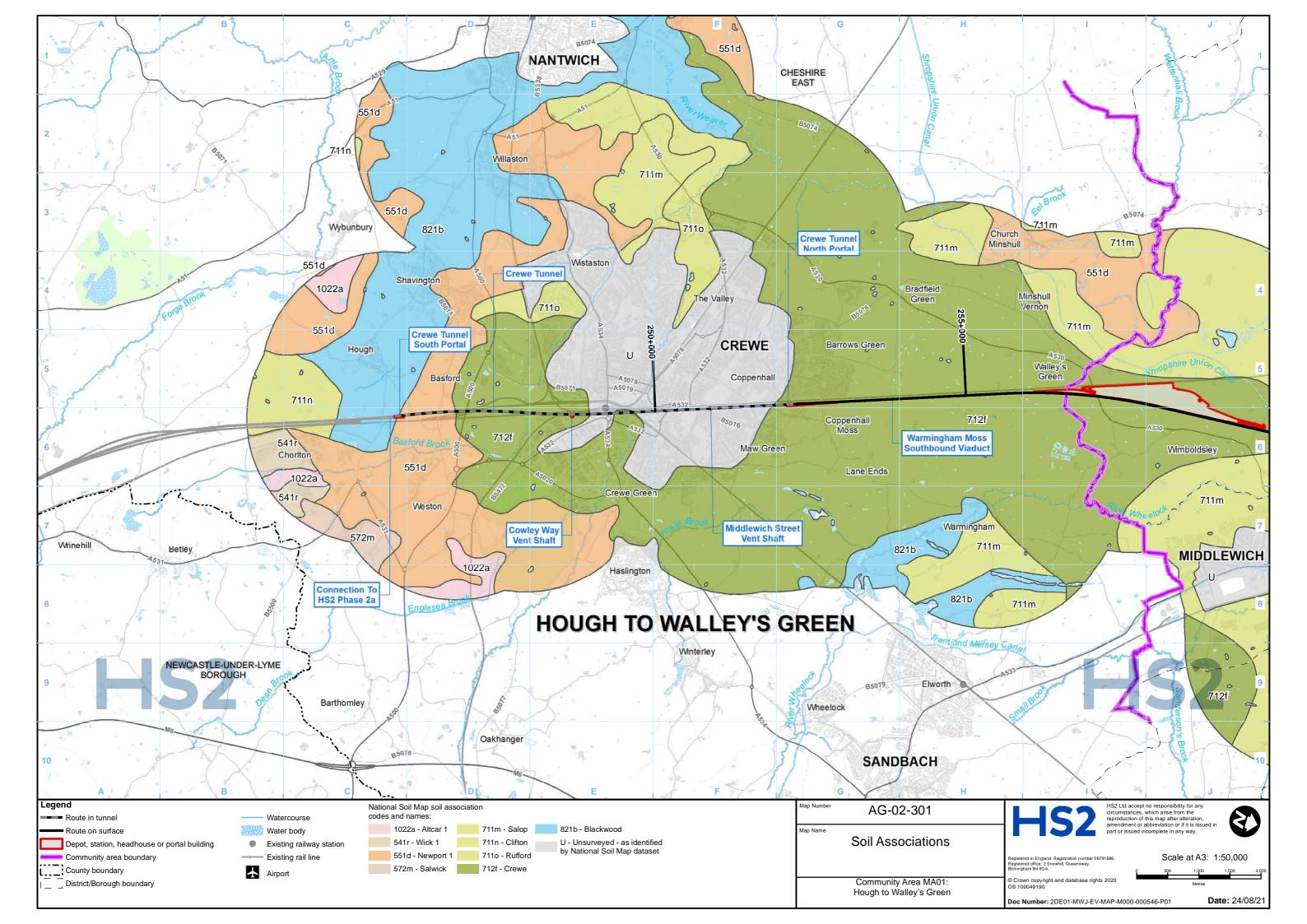


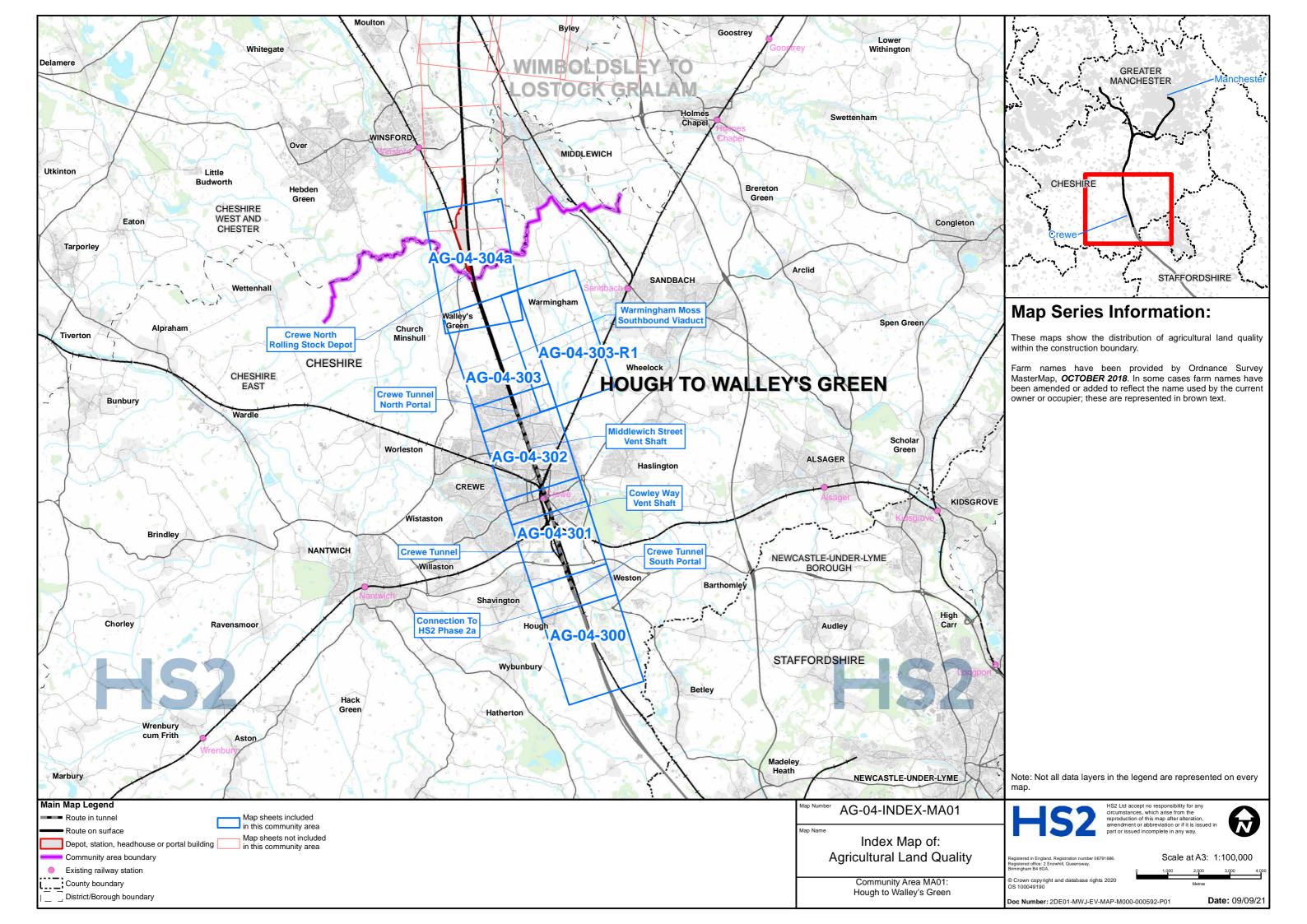


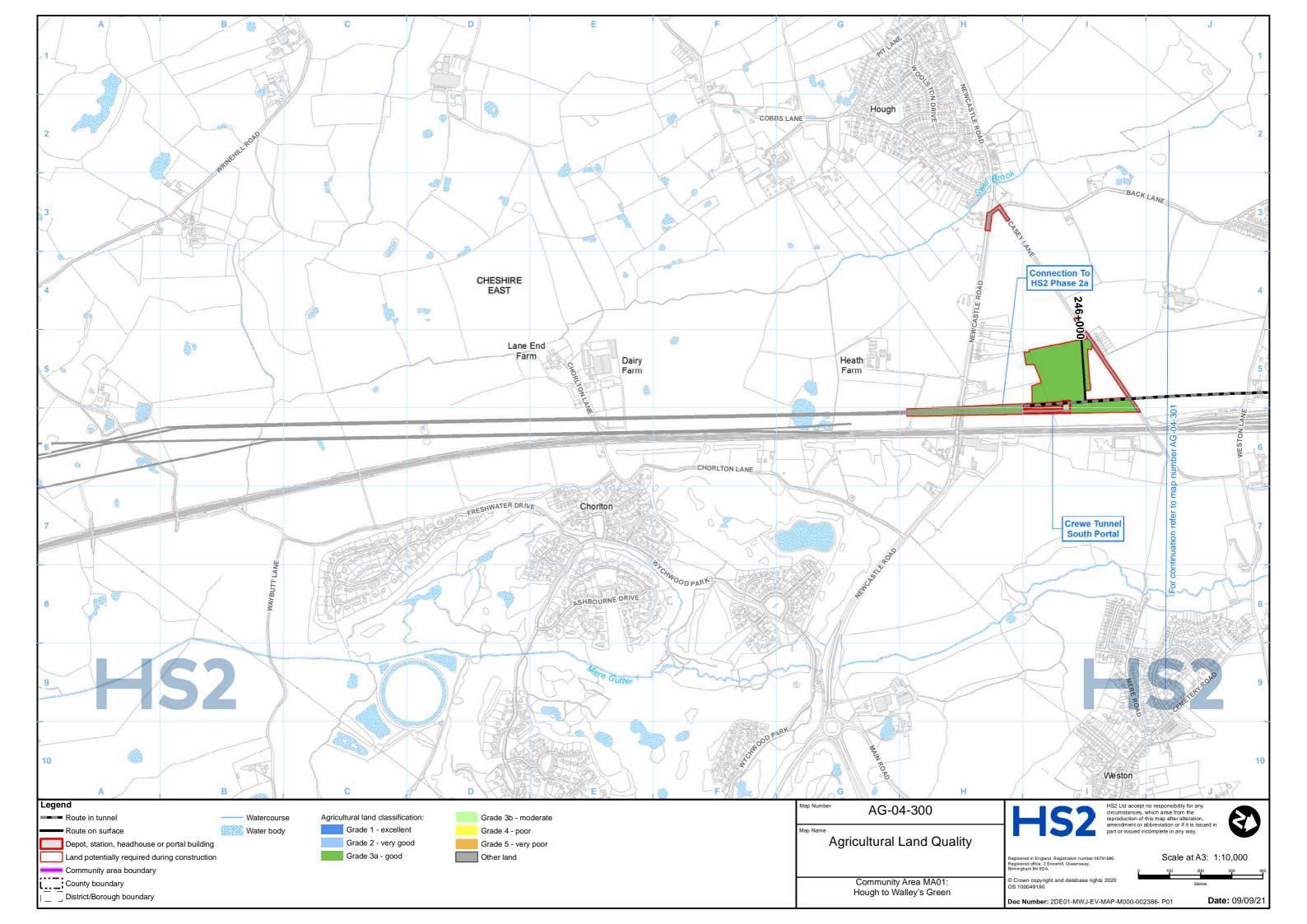


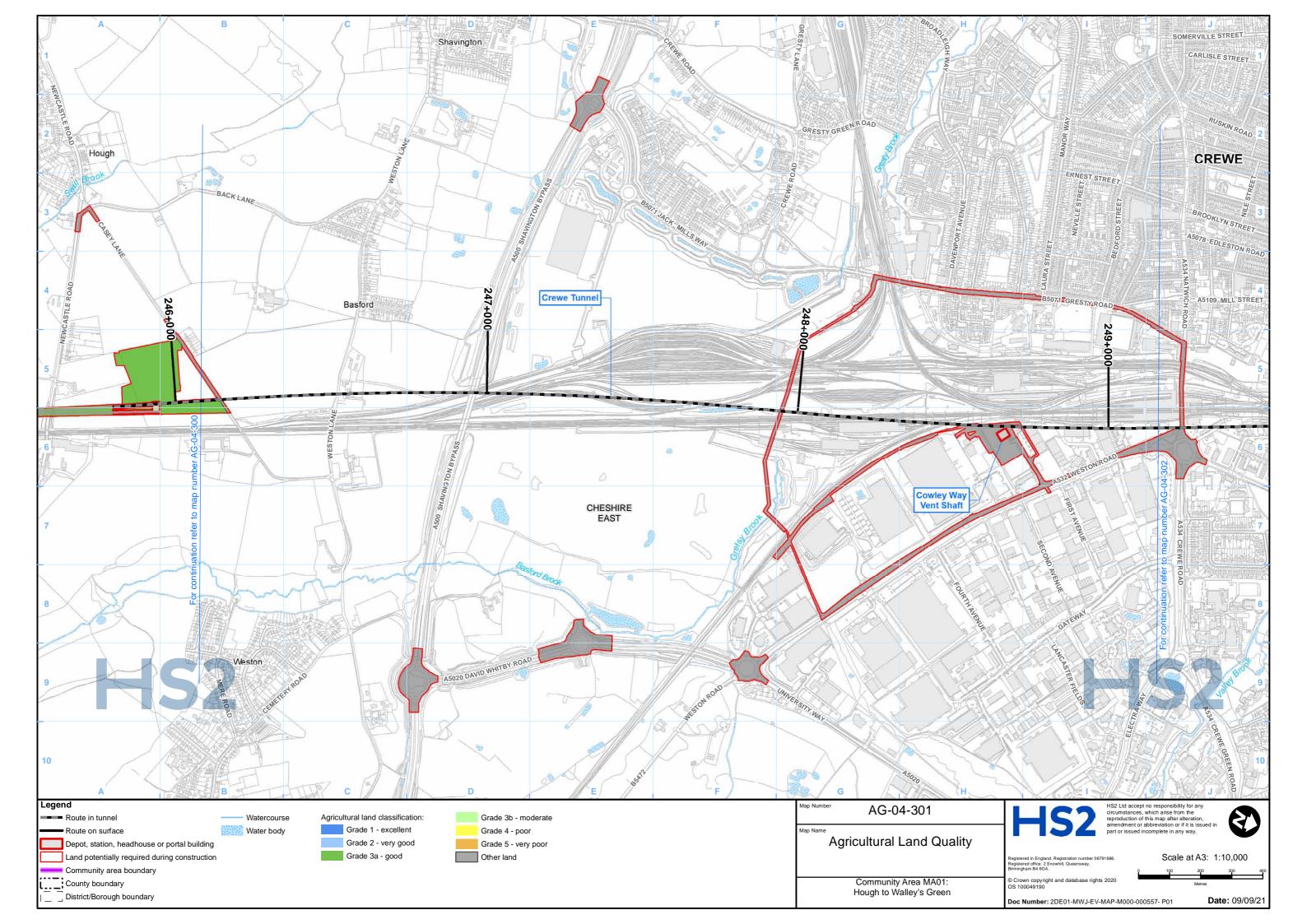


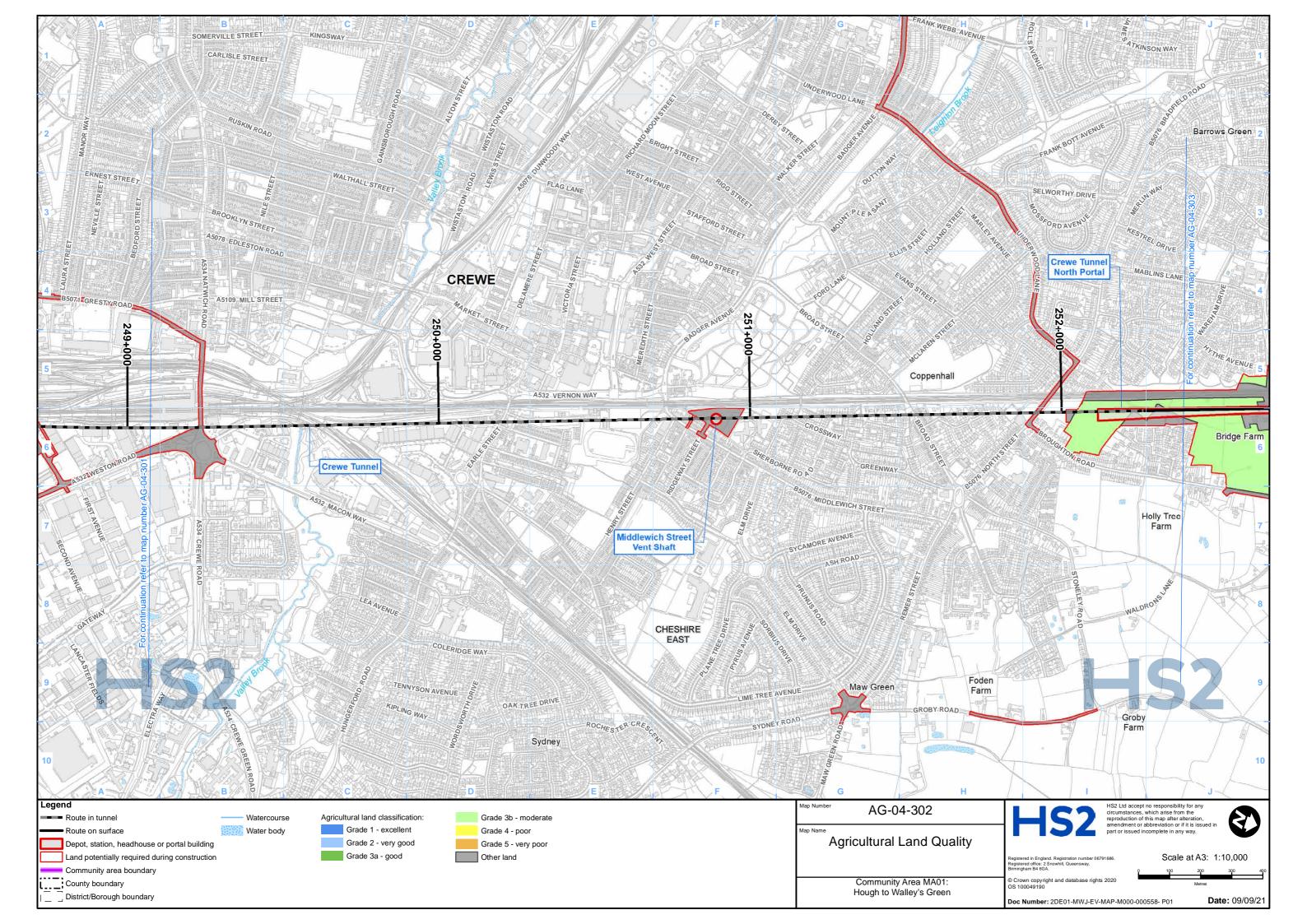


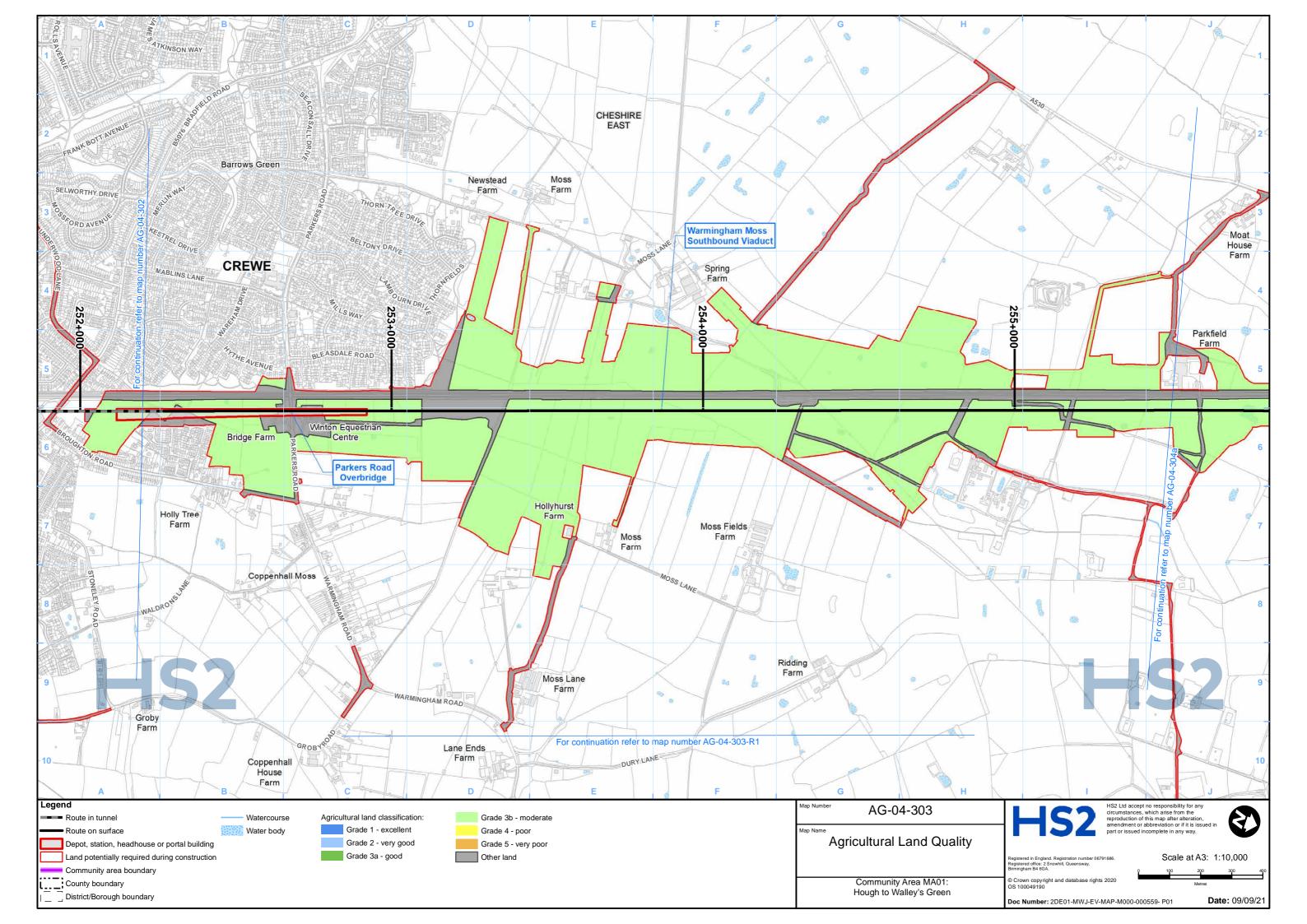


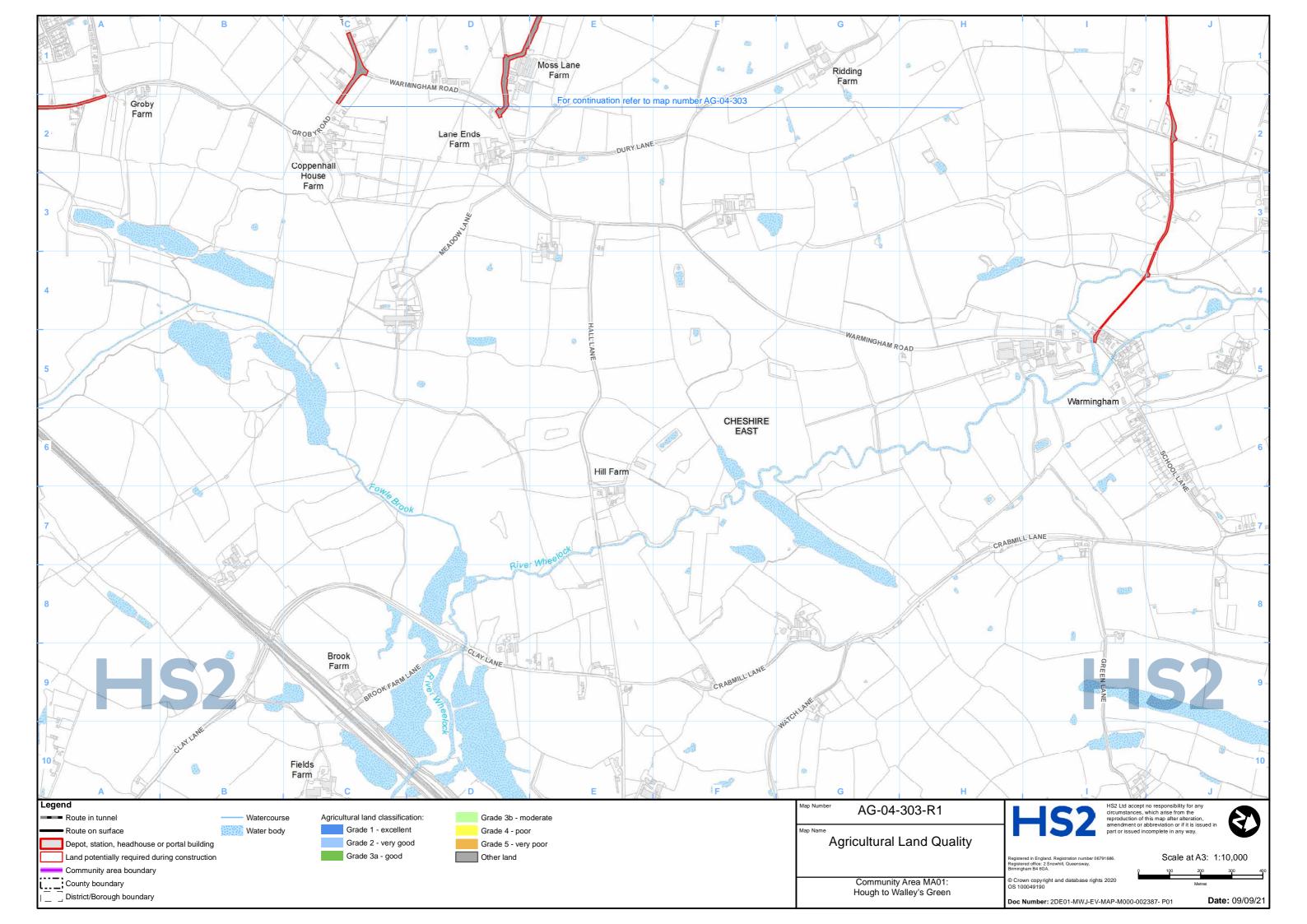


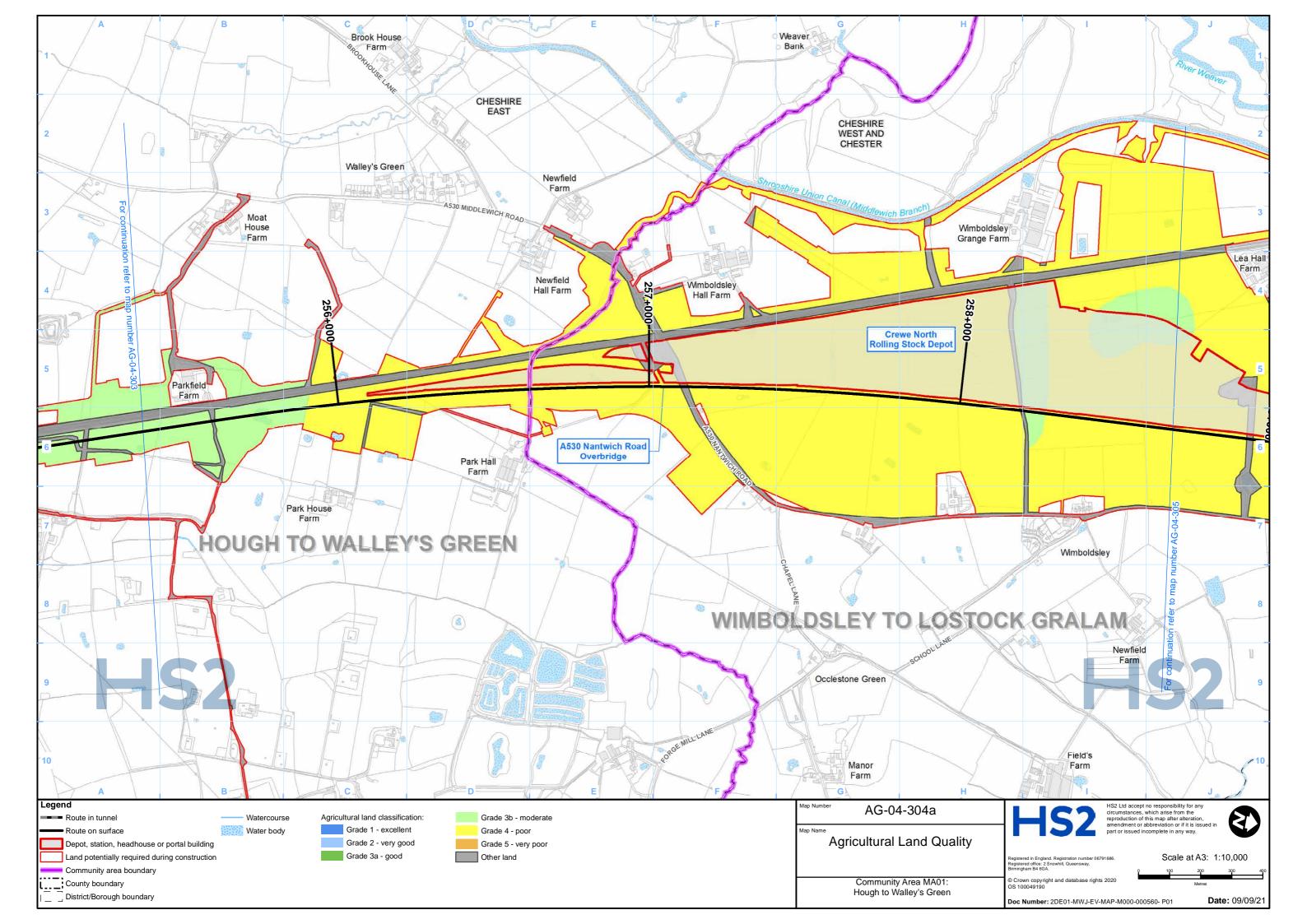














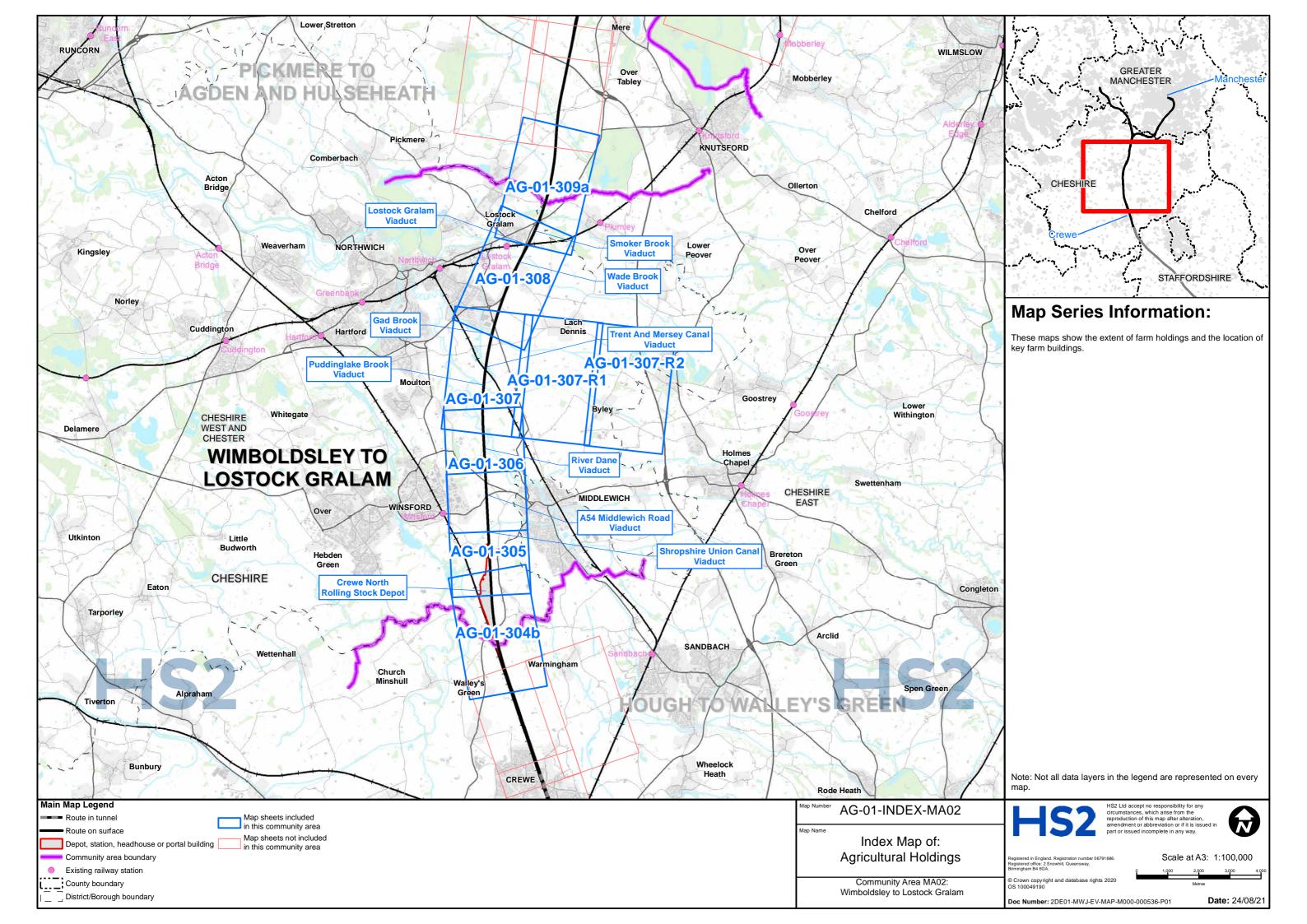
# High Speed Rail (Crewe - Manchester) Environmental Statement

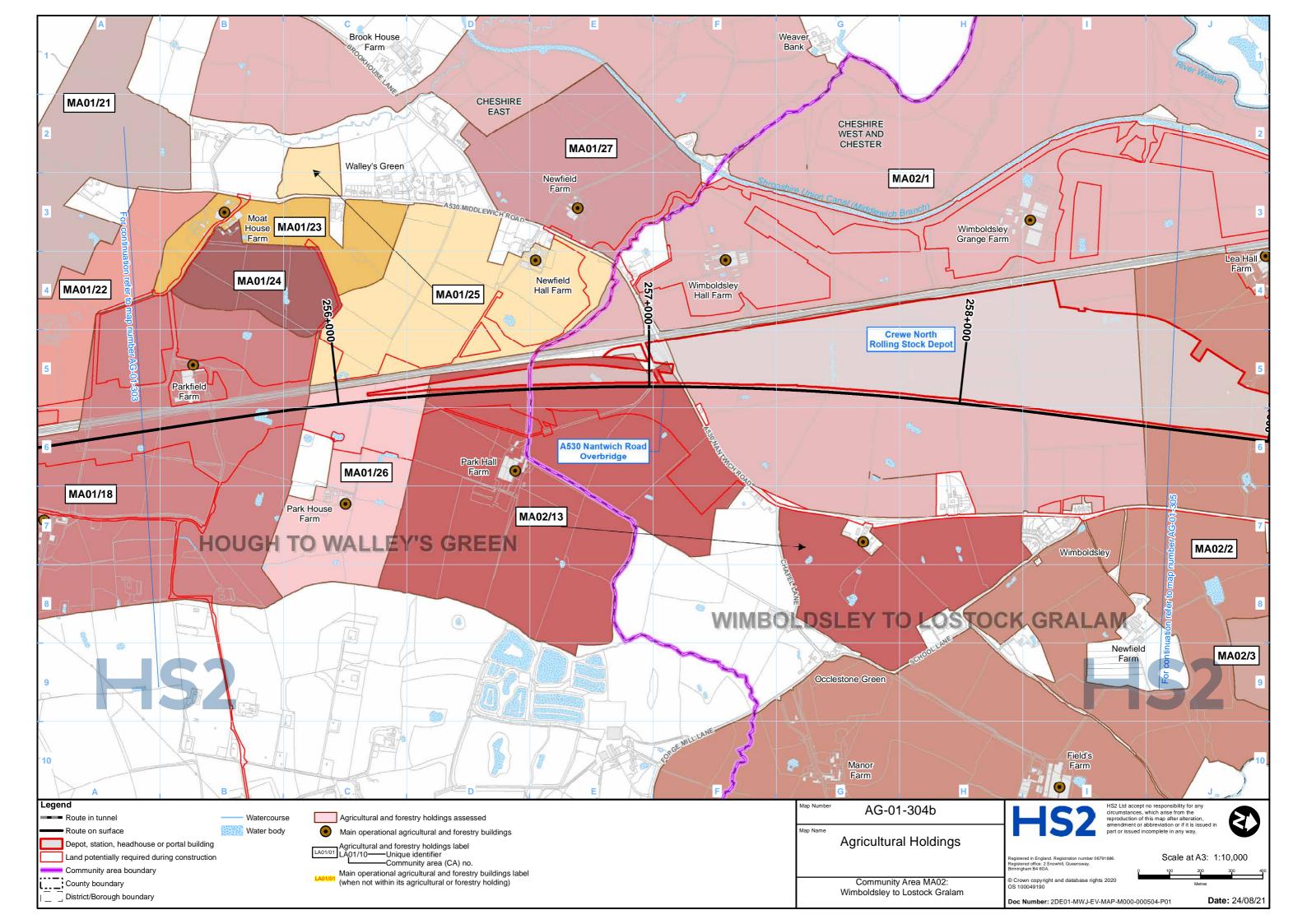
MA02: Wimboldsley to Lostock Gralam

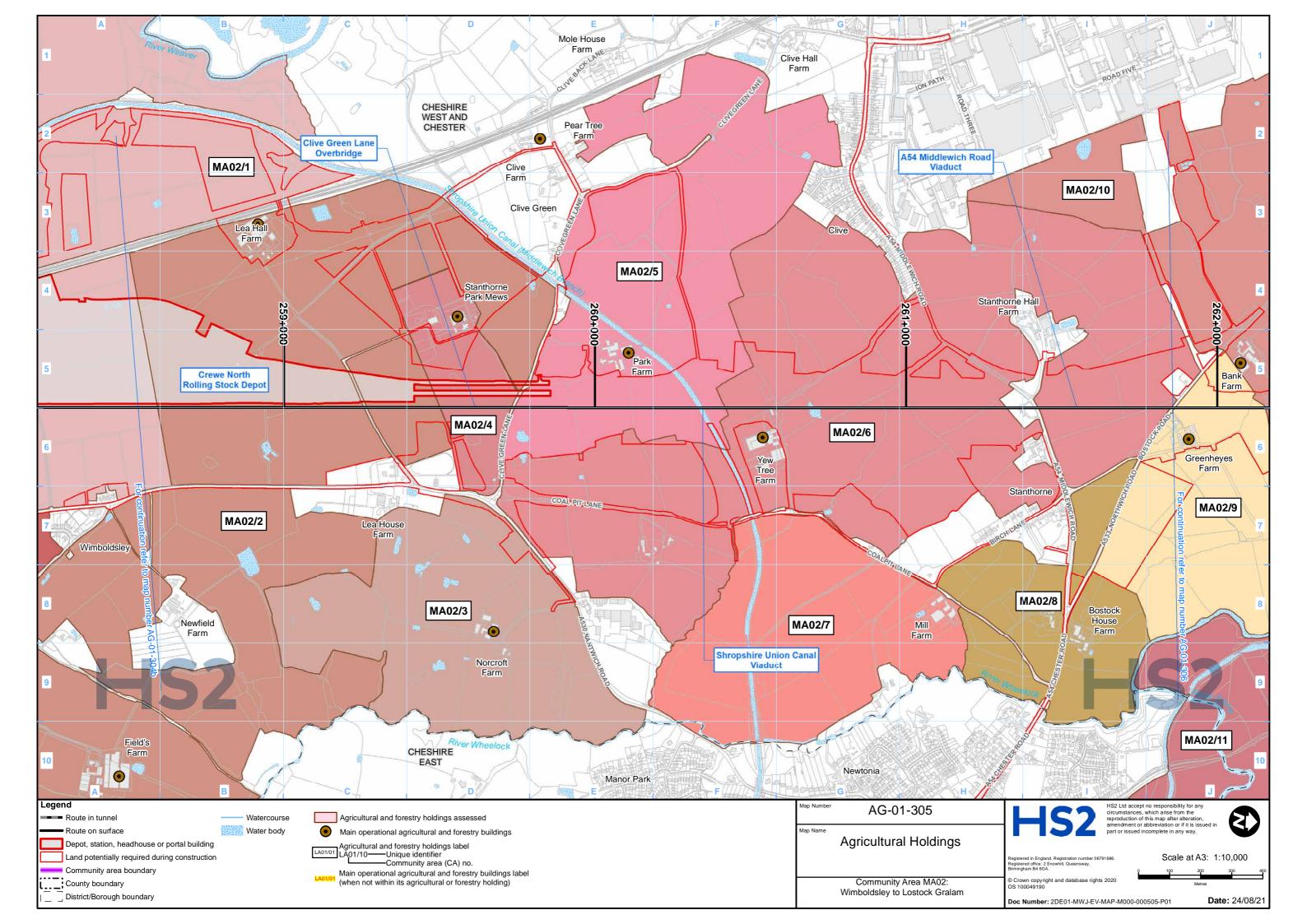
AG-01 - Agricultural Holdings

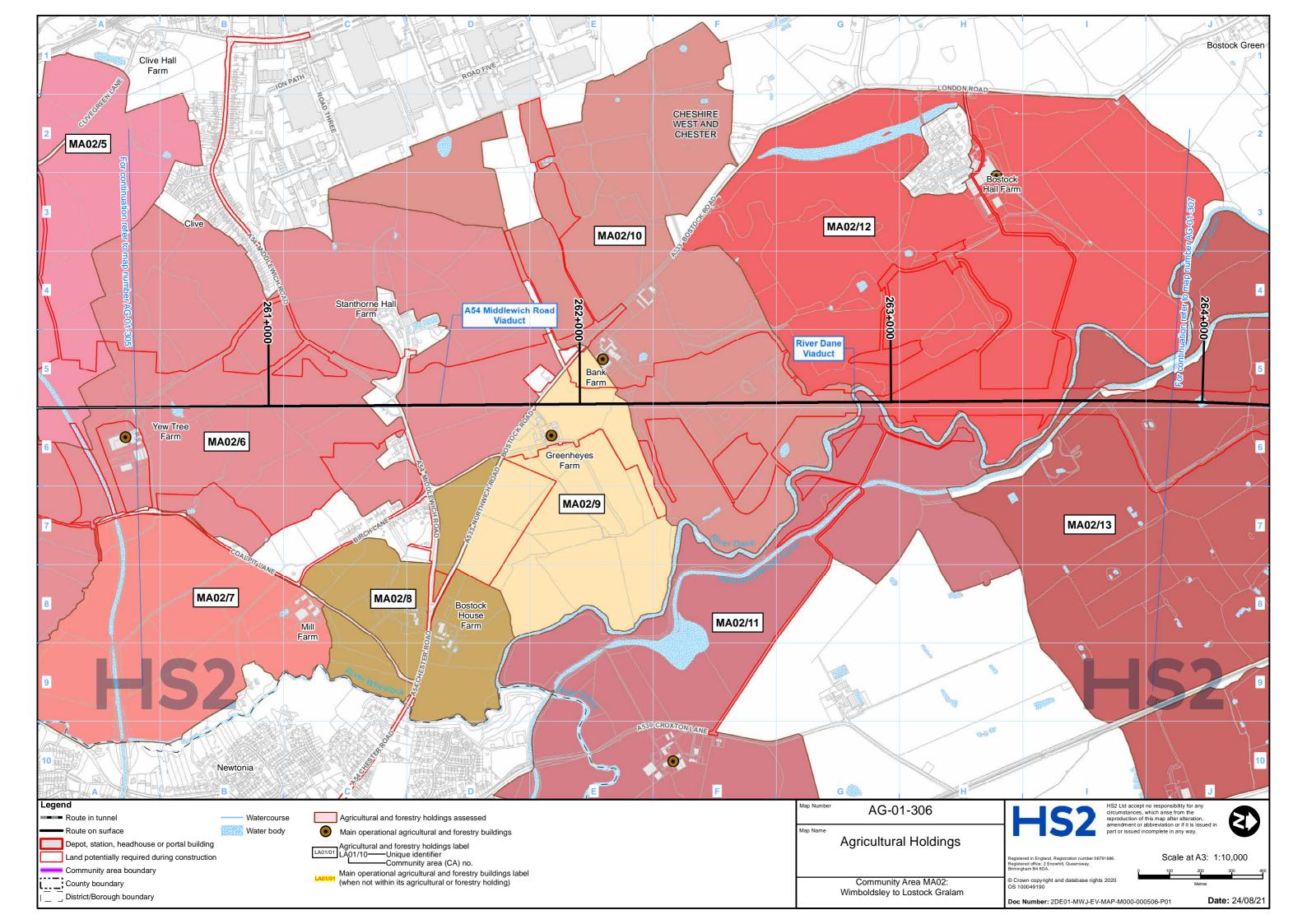
AG-02 - Soil Associations

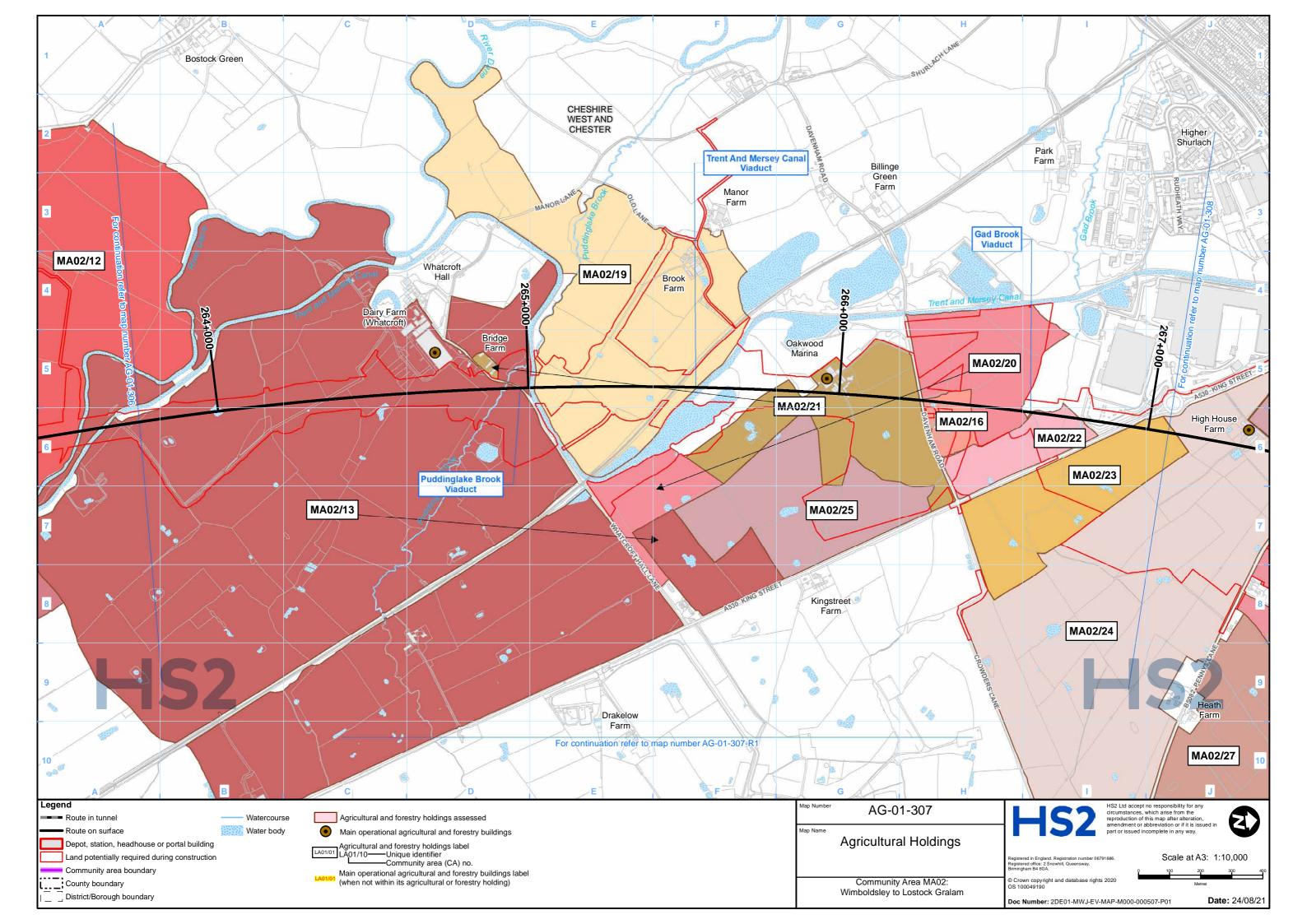
AG-04 - Agricultural Land Quality

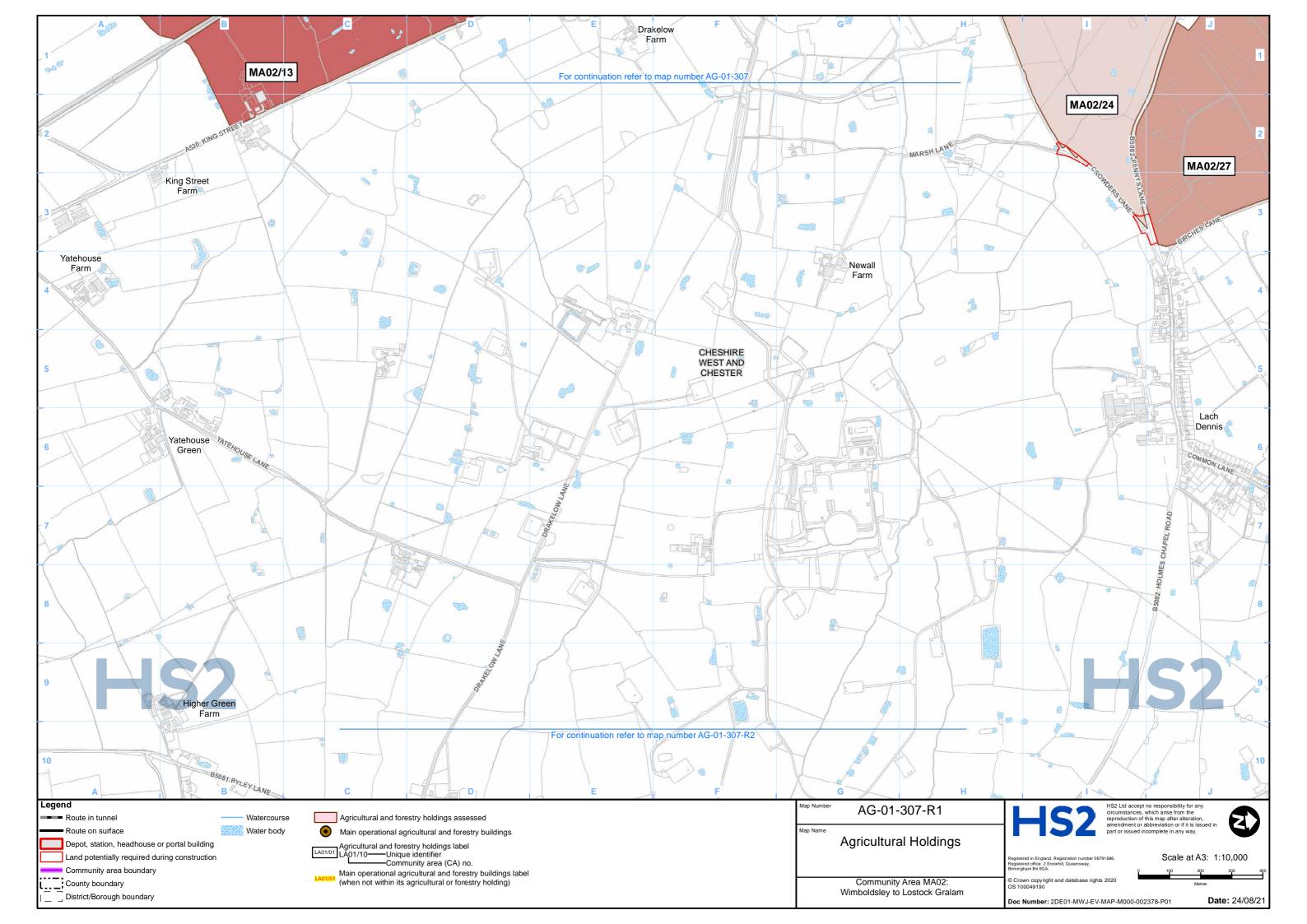


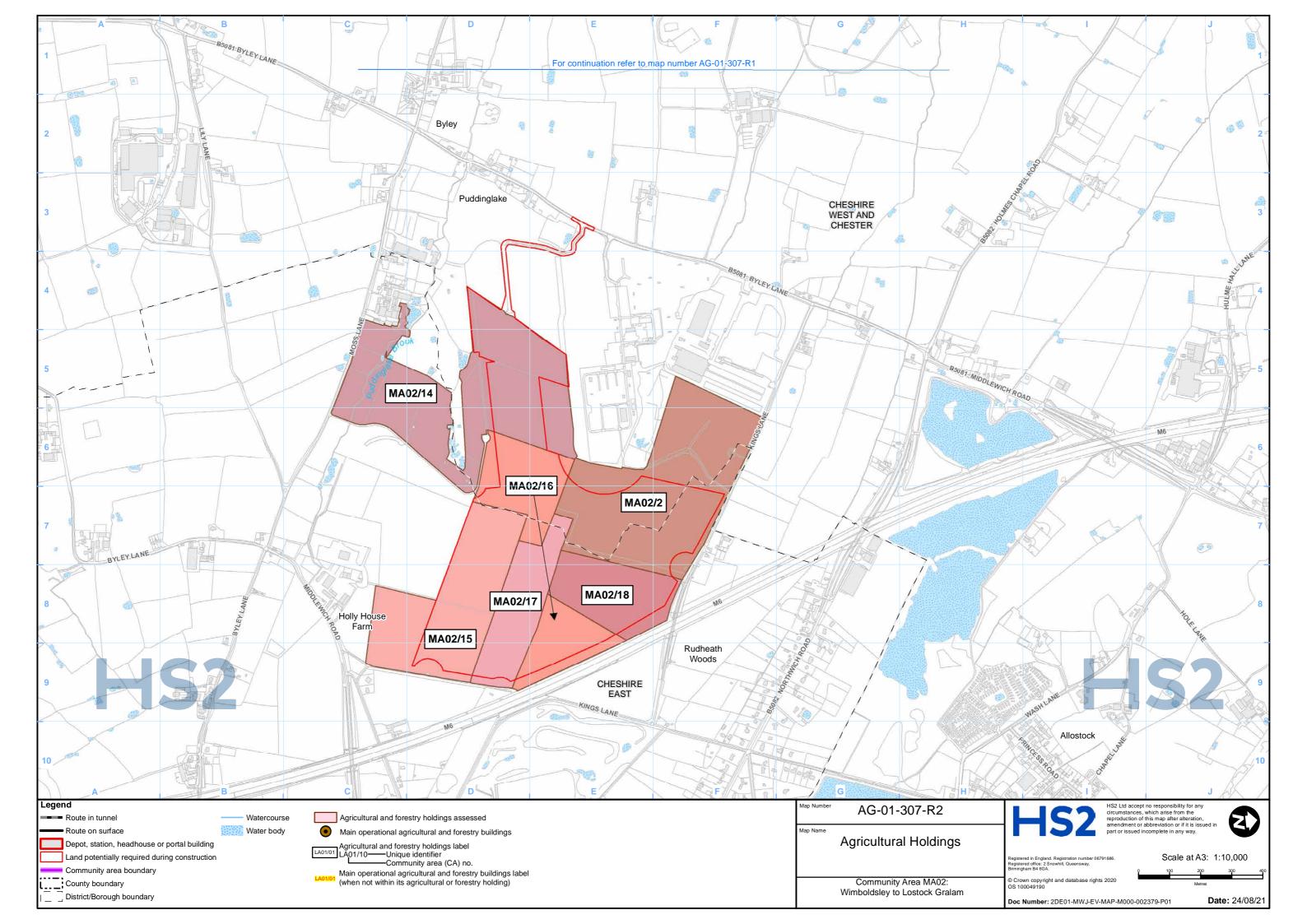


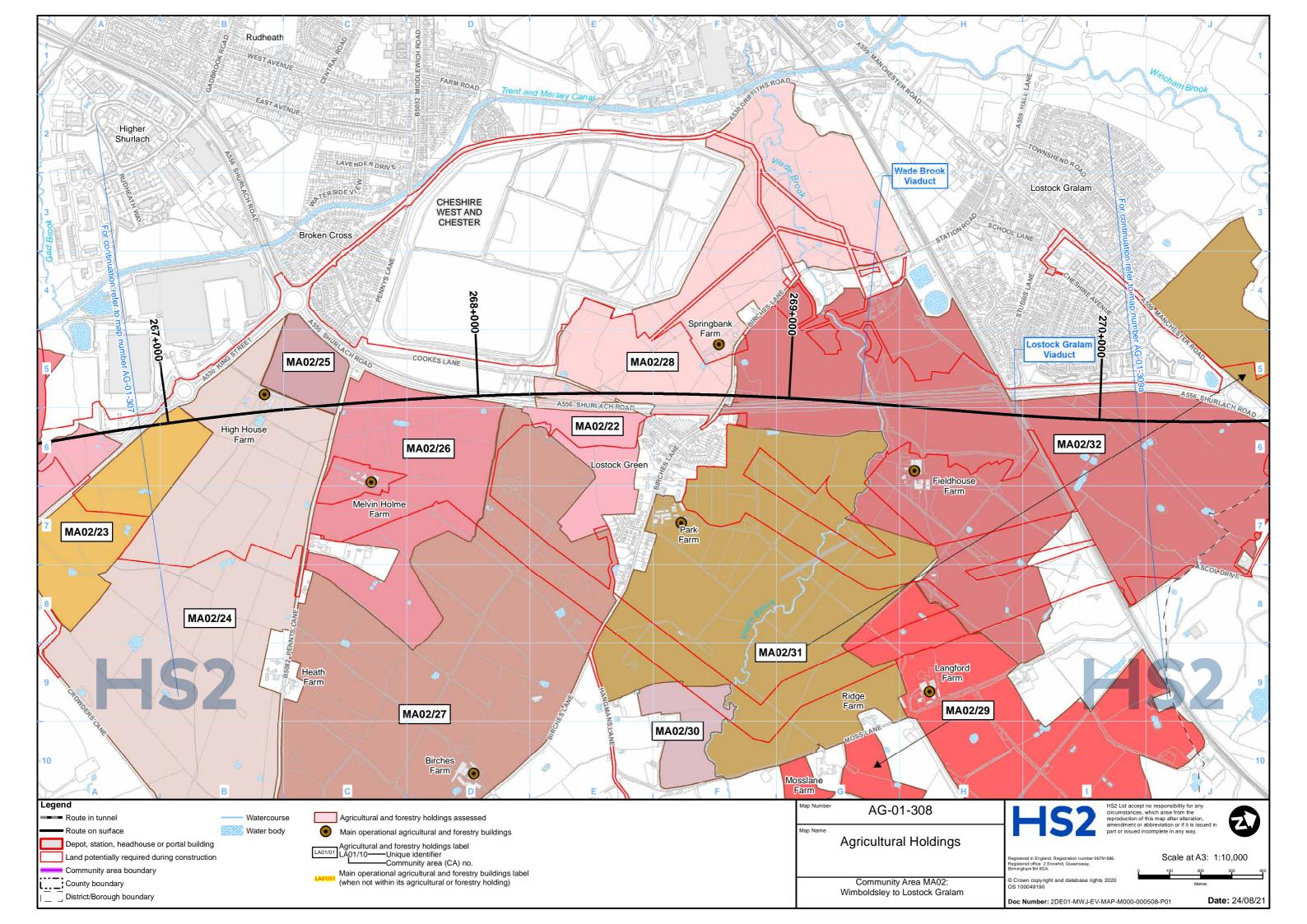


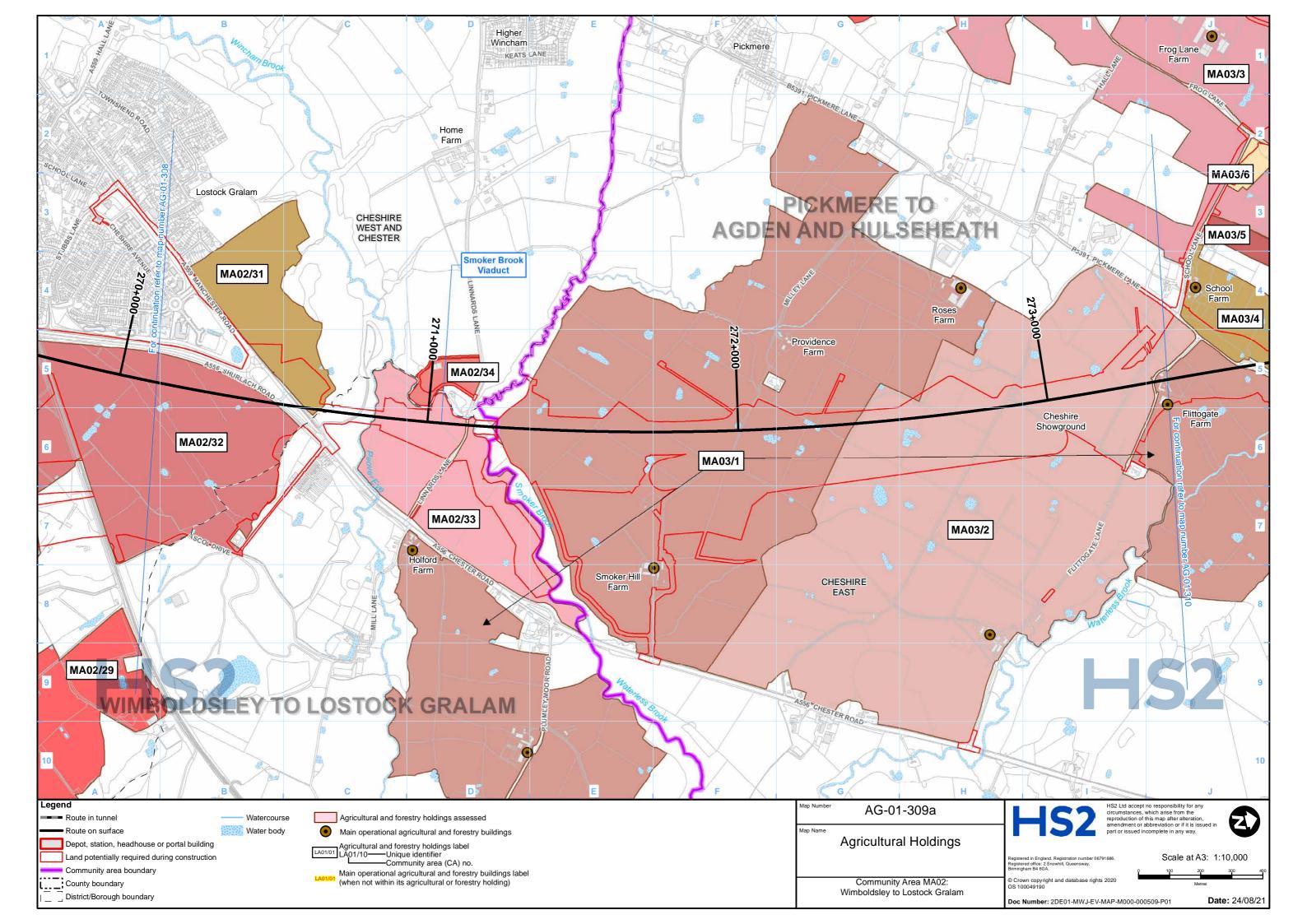


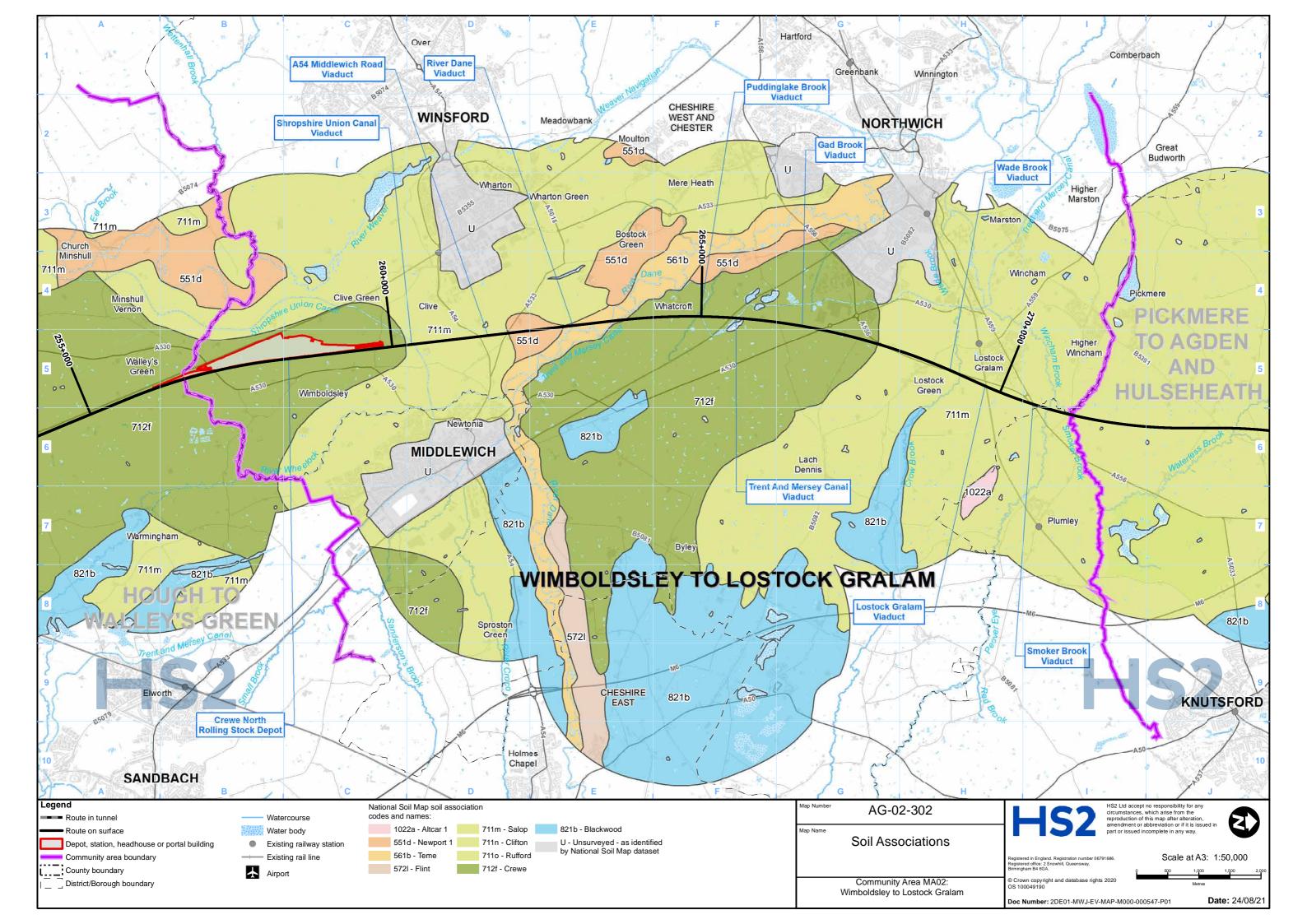


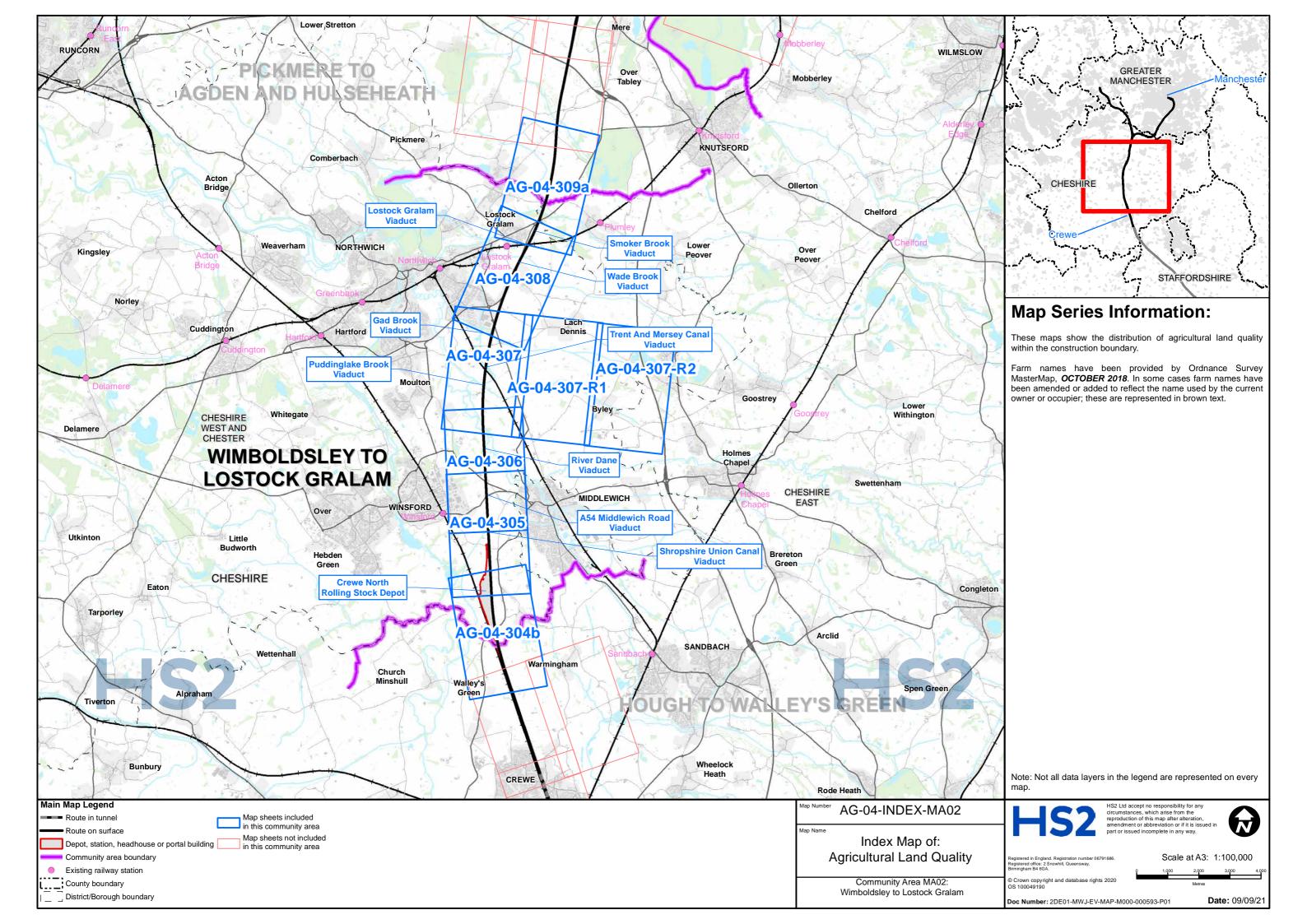


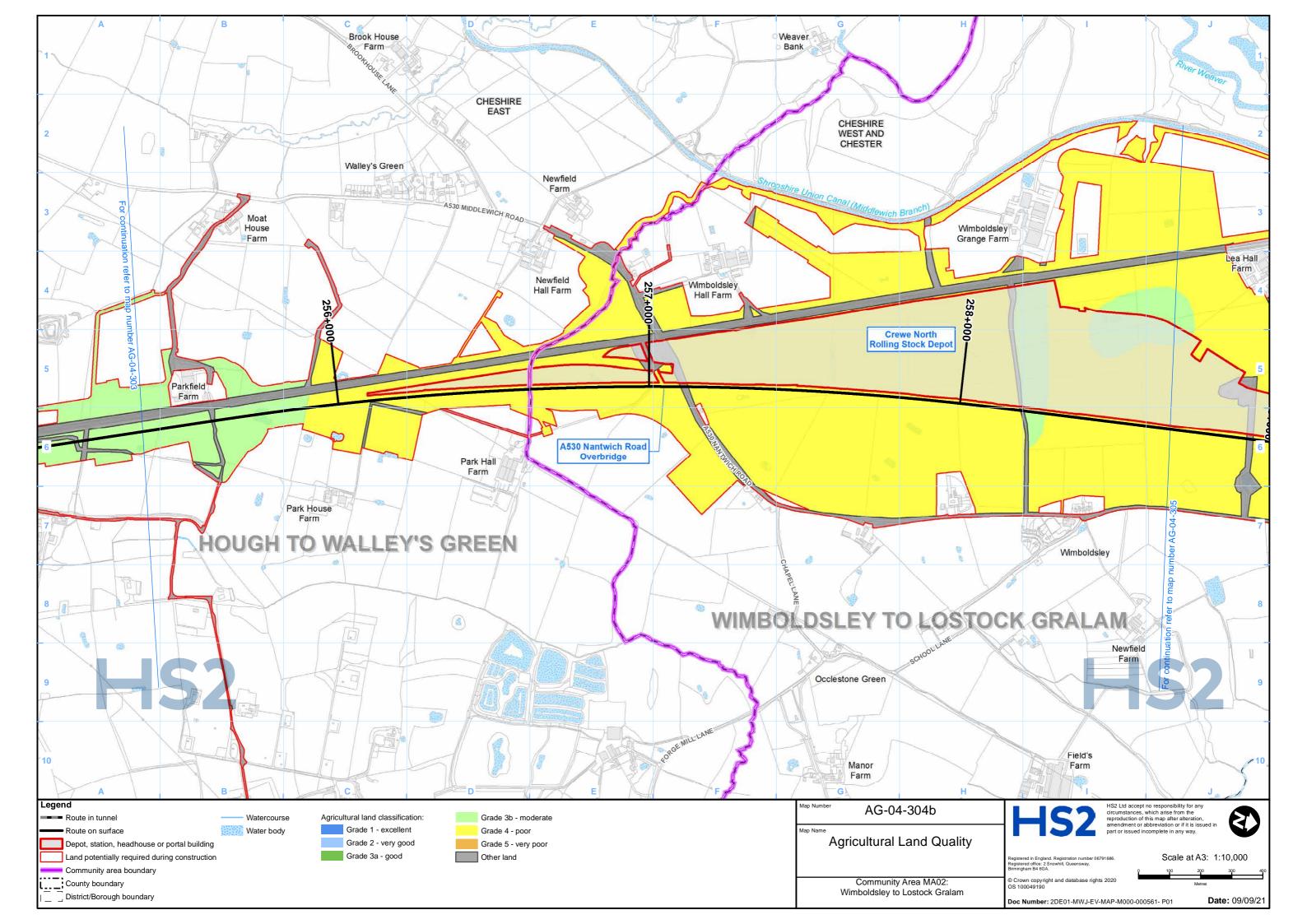


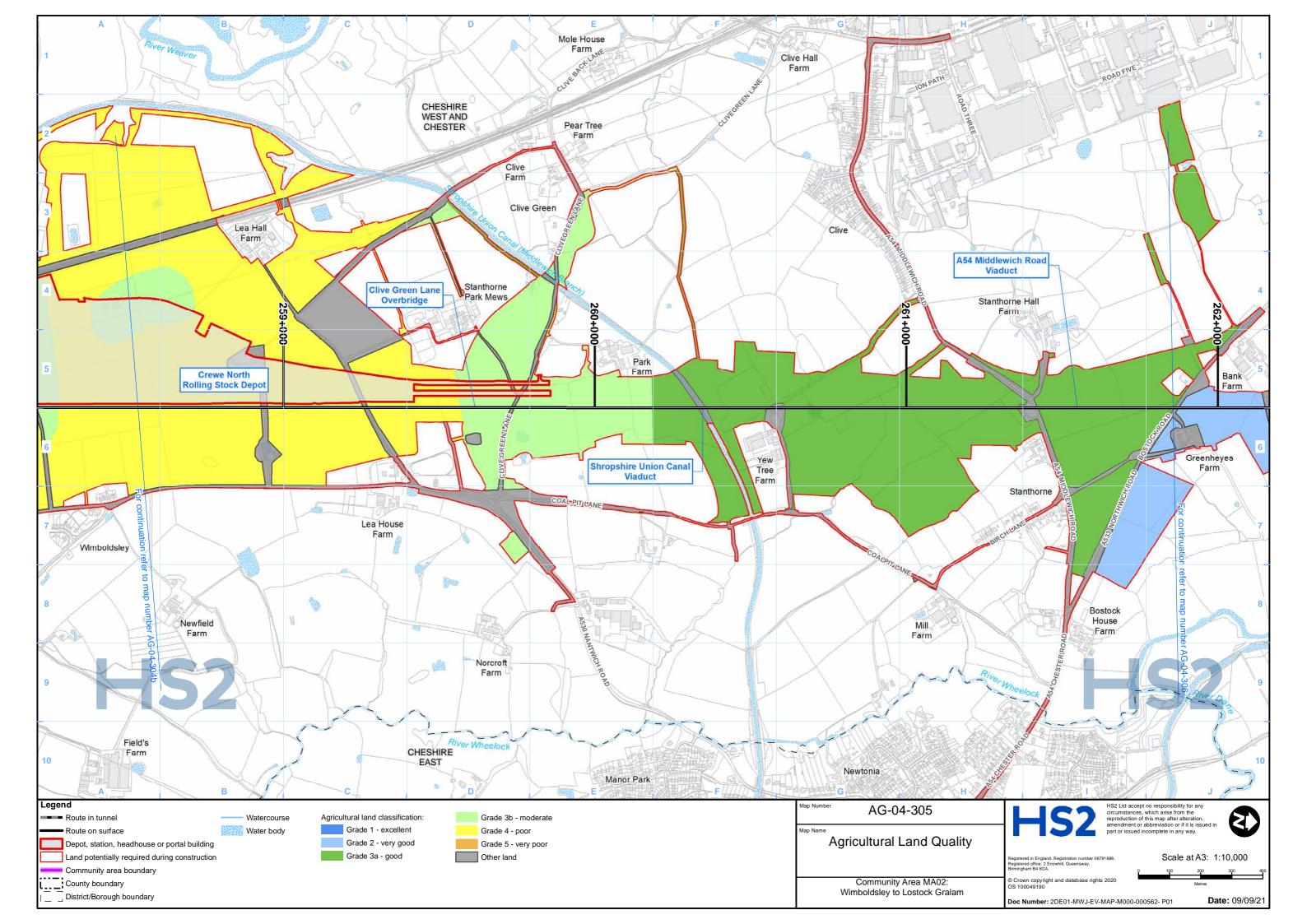


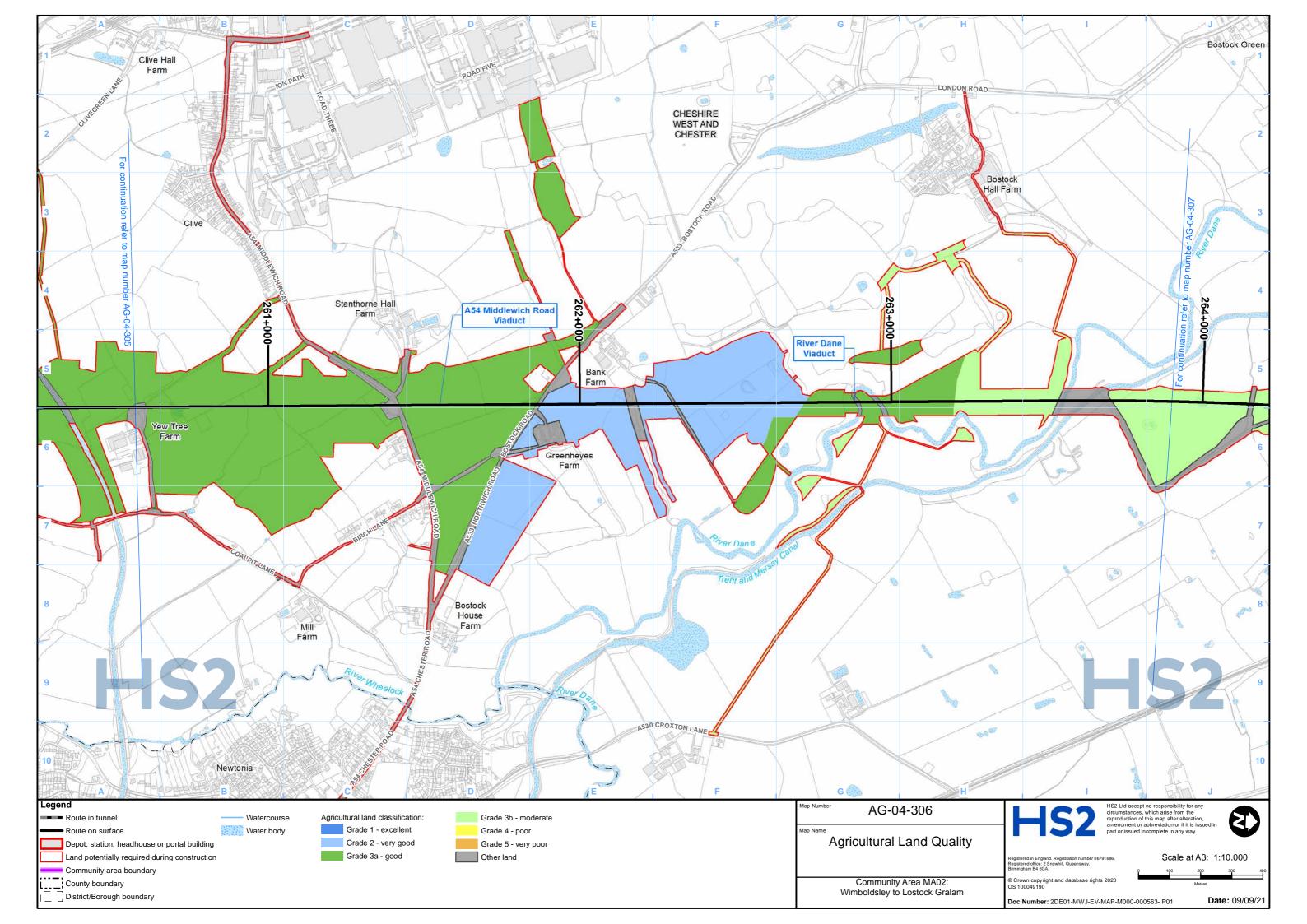


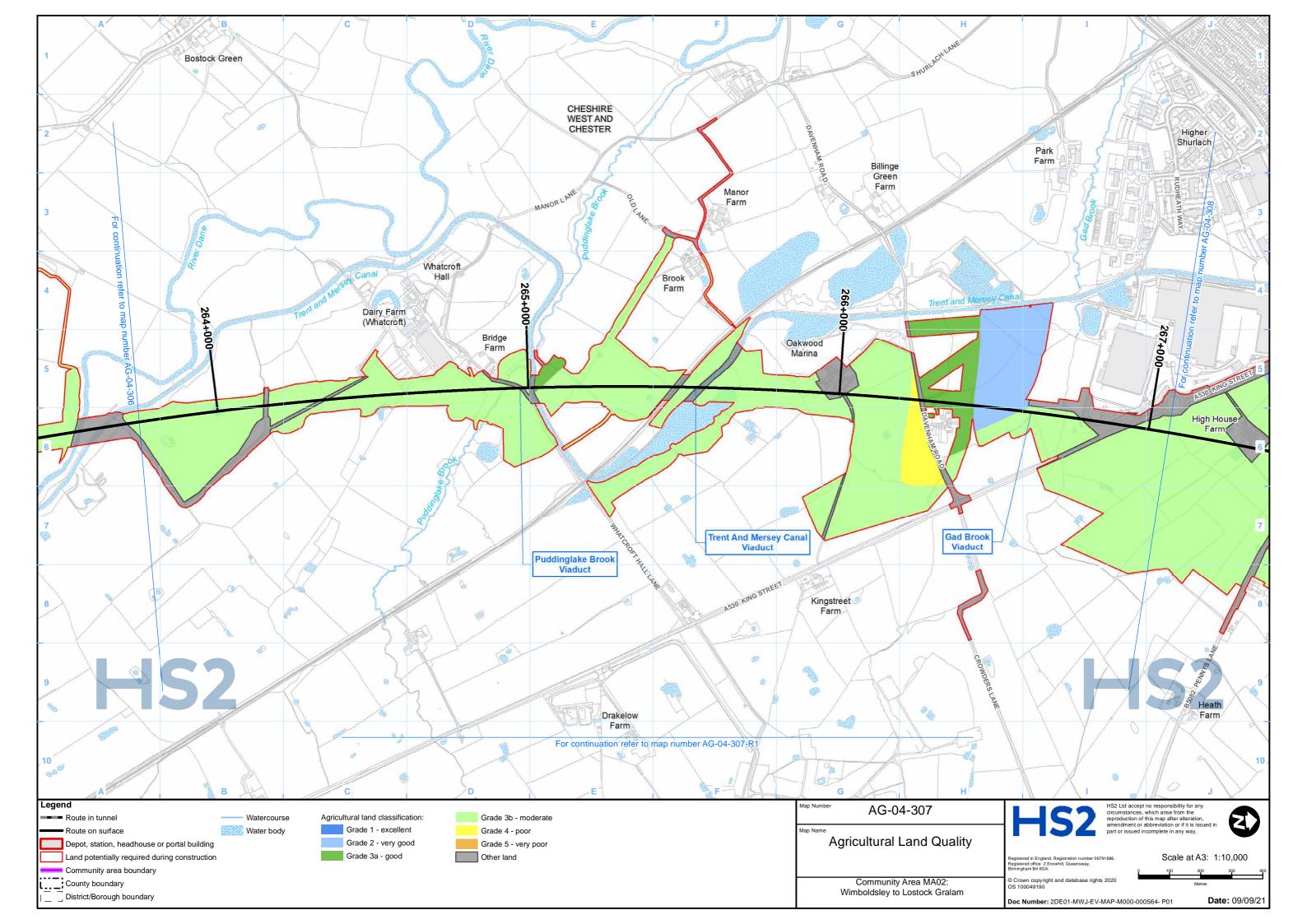


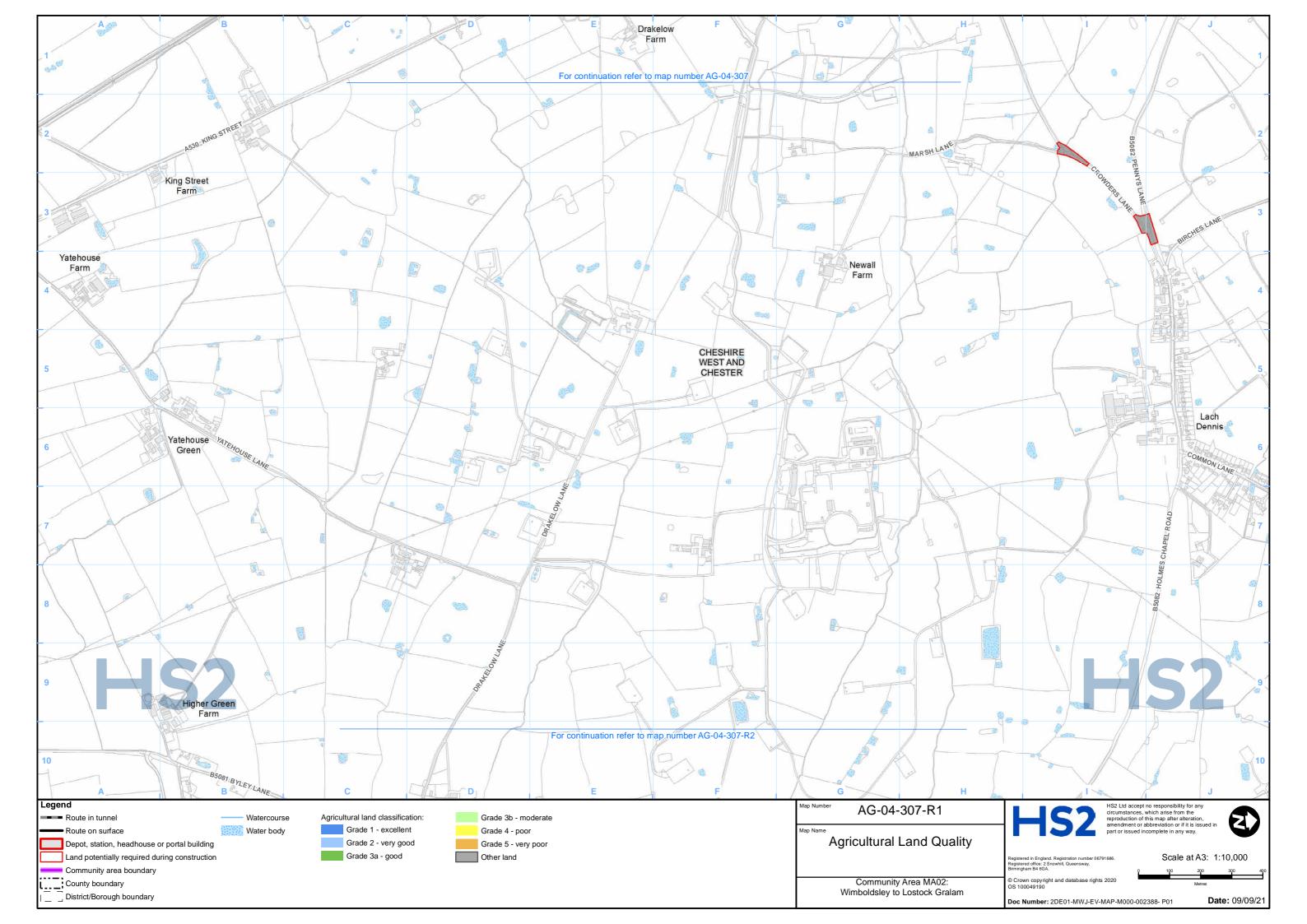


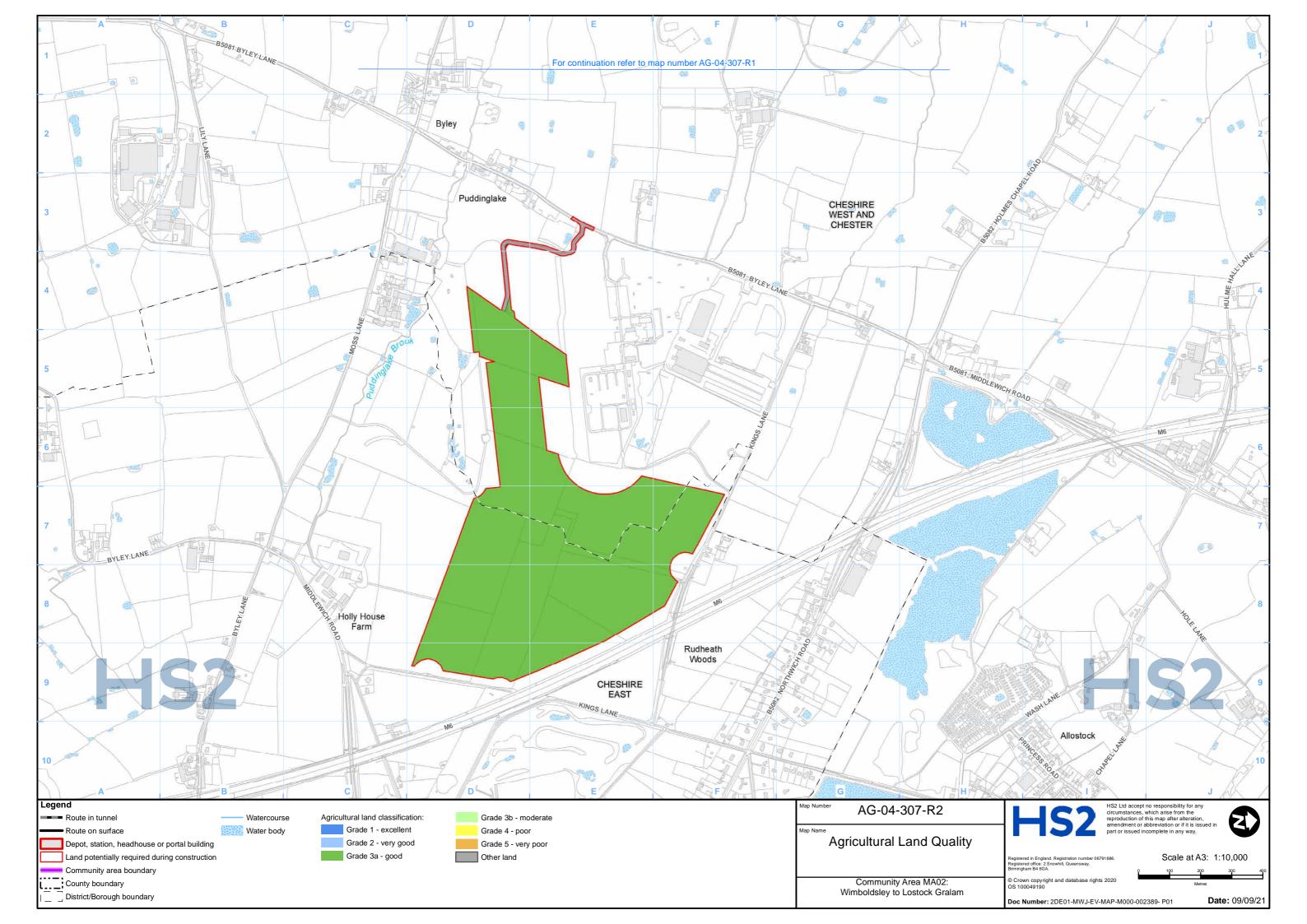


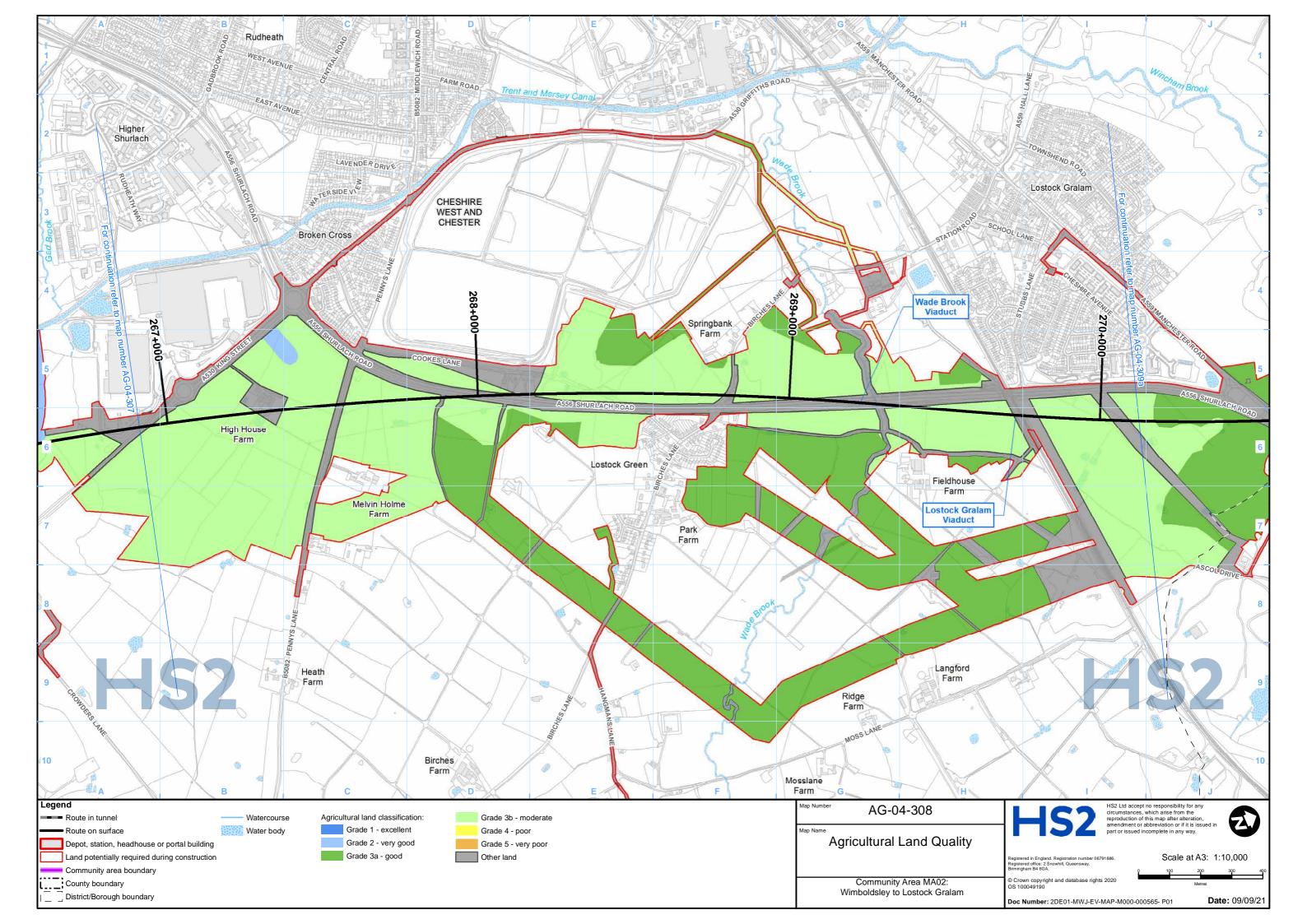


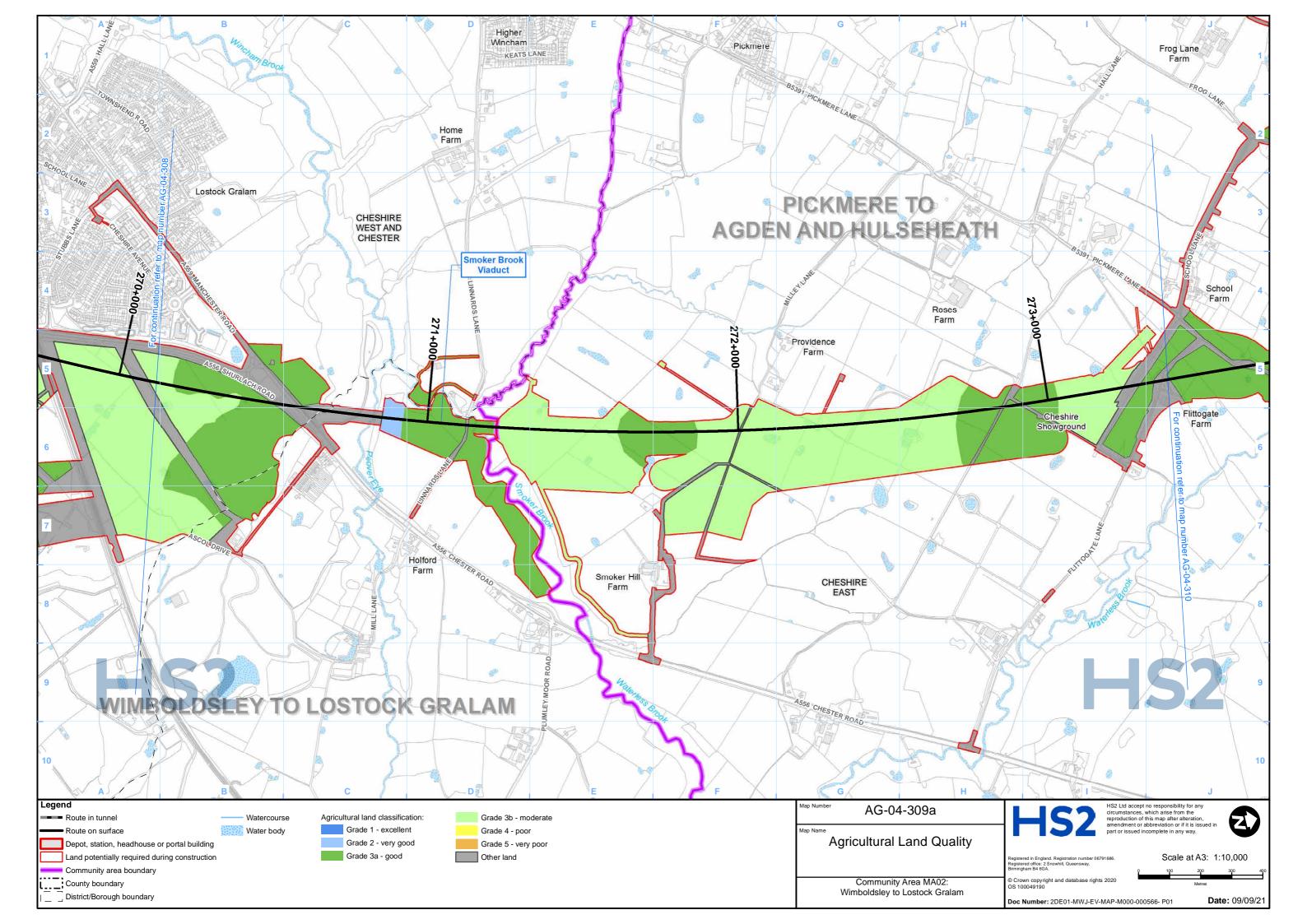














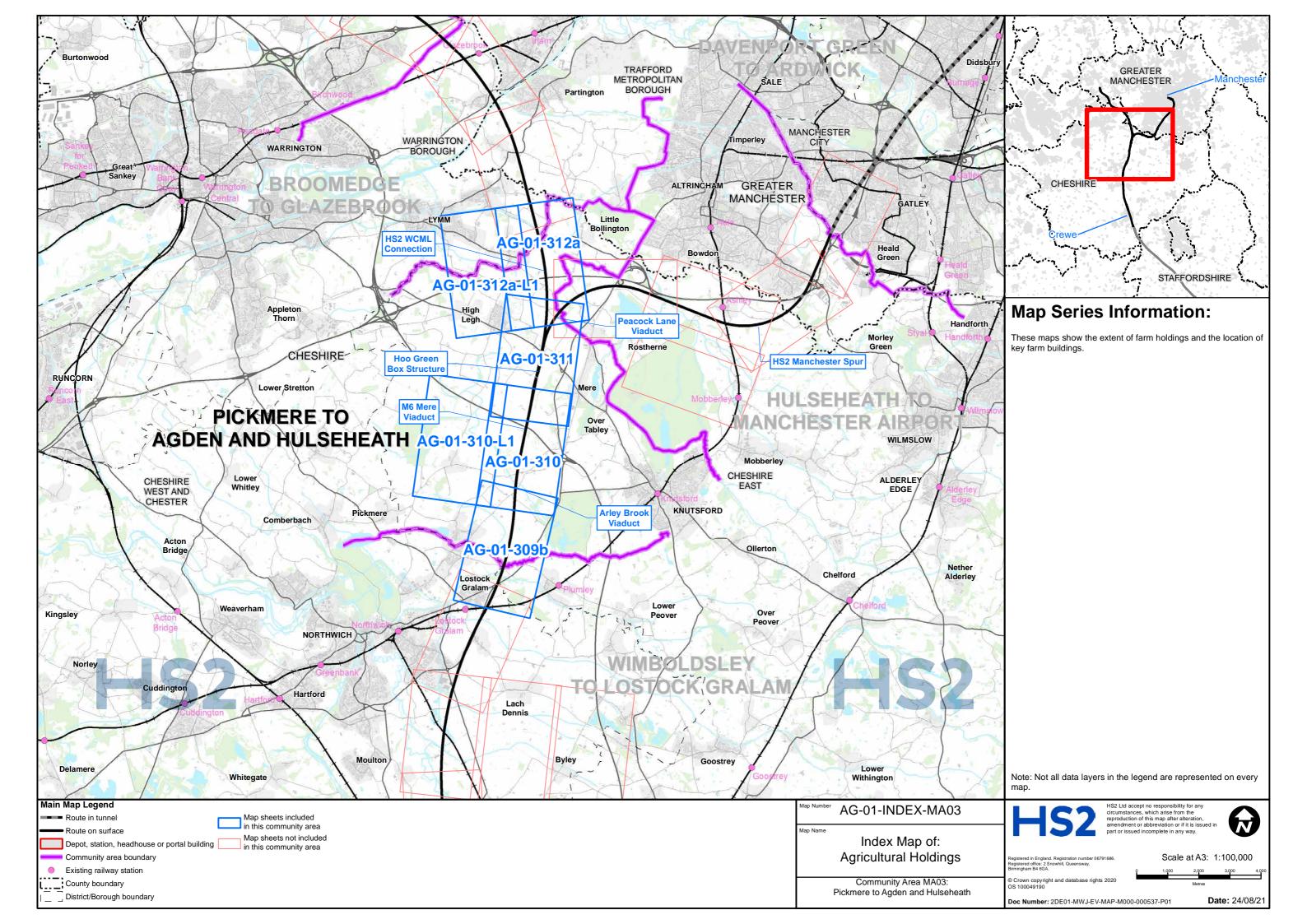
## High Speed Rail (Crewe - Manchester) Environmental Statement

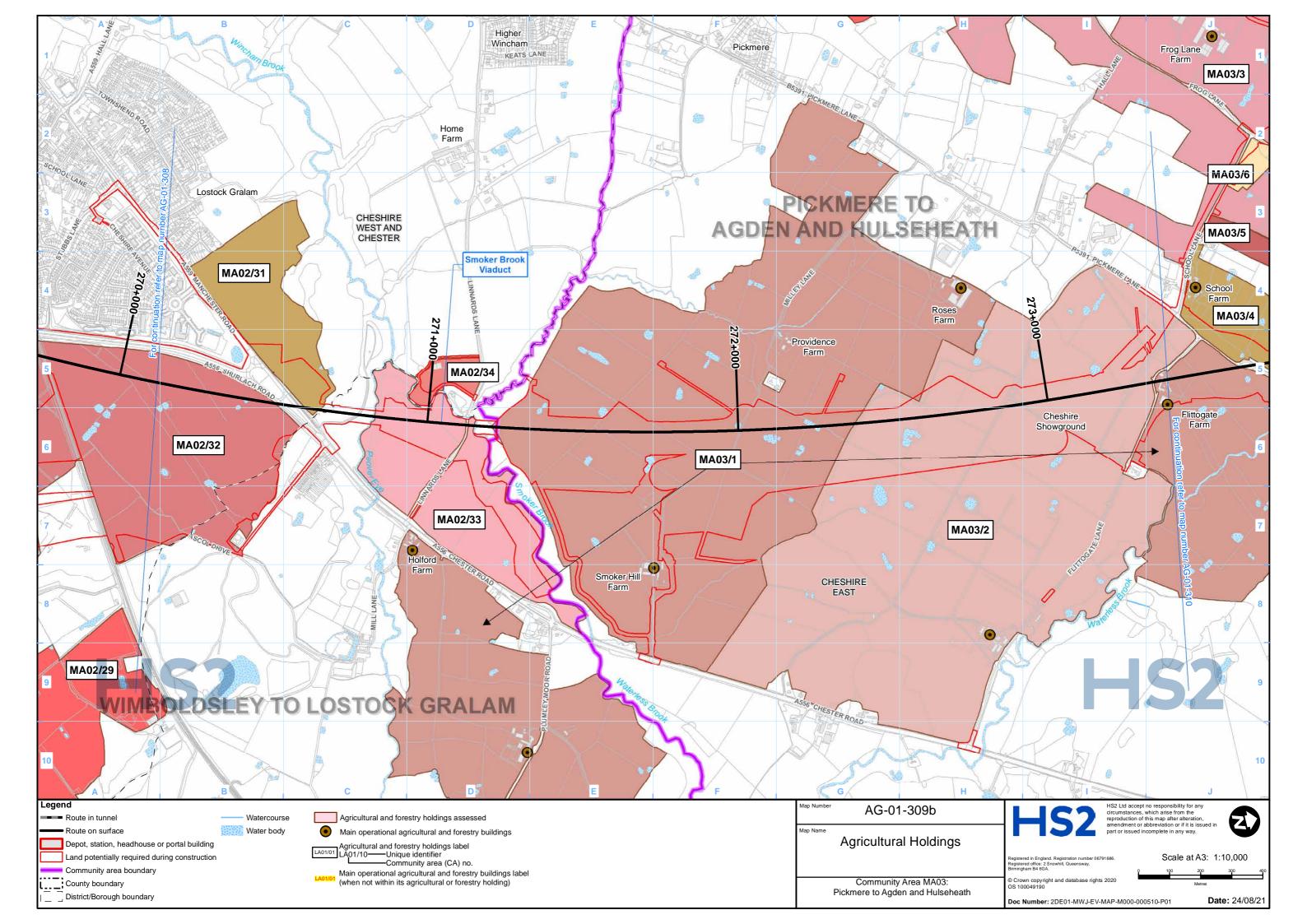
MA03: Pickmere to Agden and Hulseheath

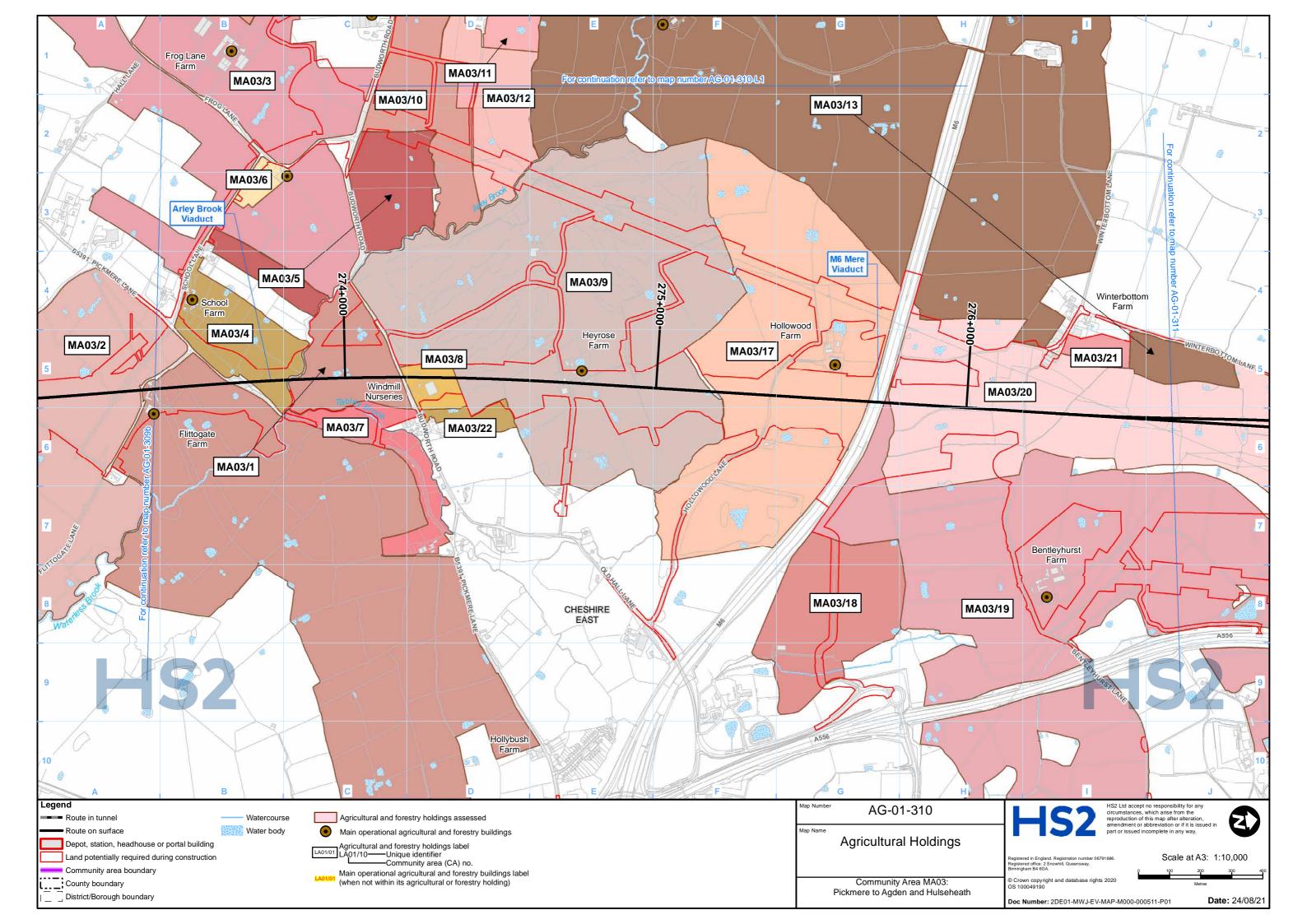
AG-01 - Agricultural Holdings

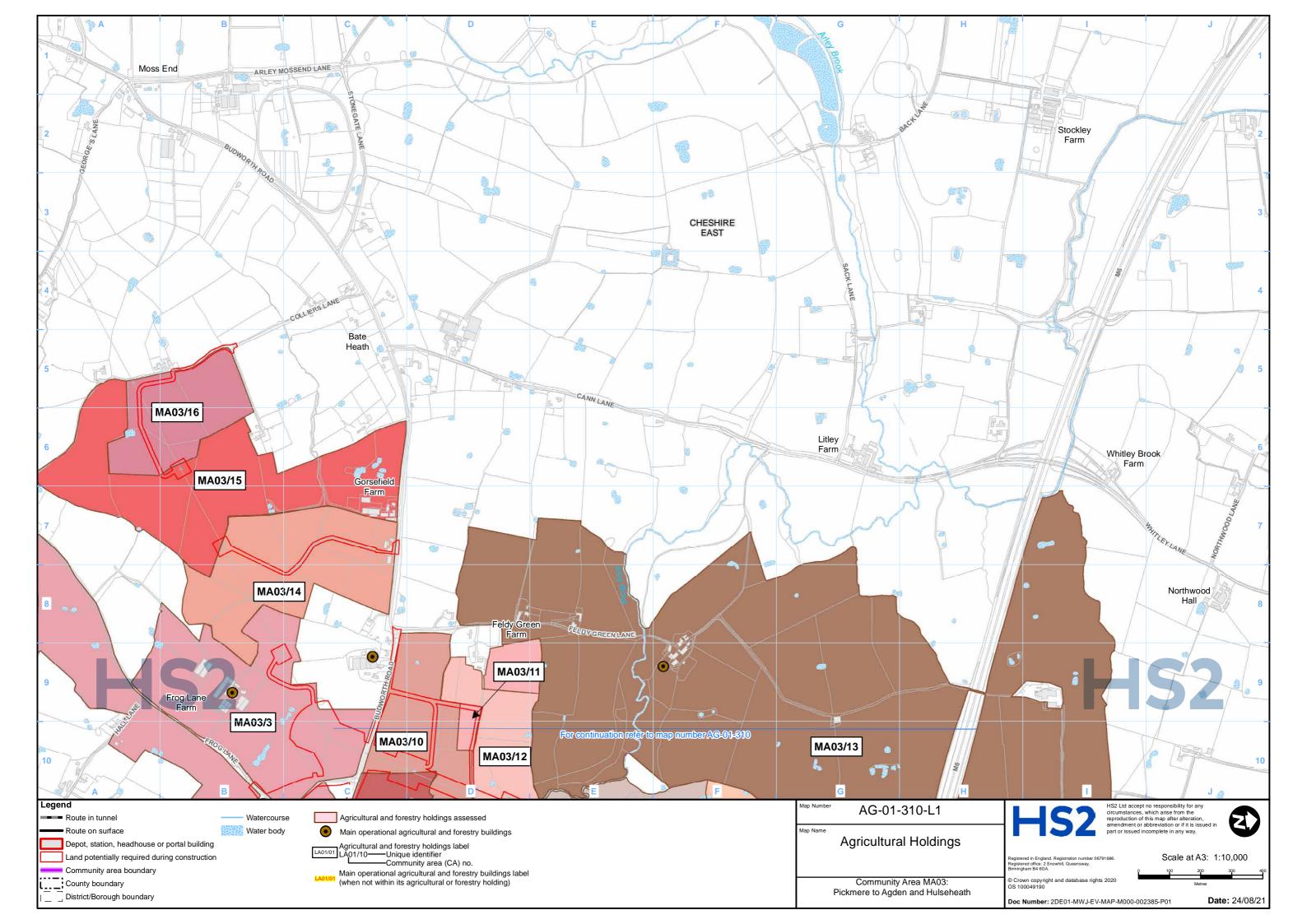
AG-02 - Soil Associations

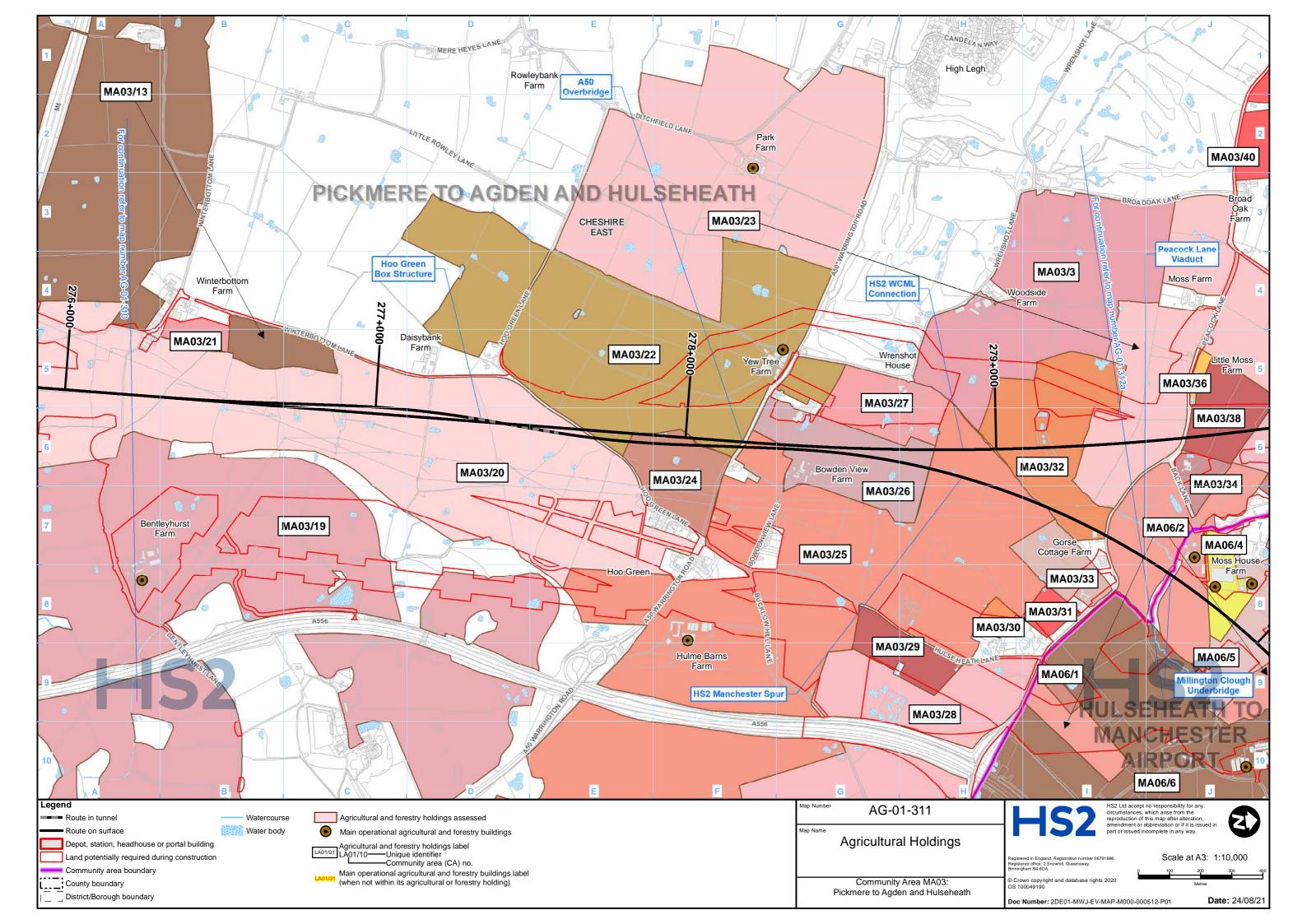
AG-04 - Agricultural Land Quality

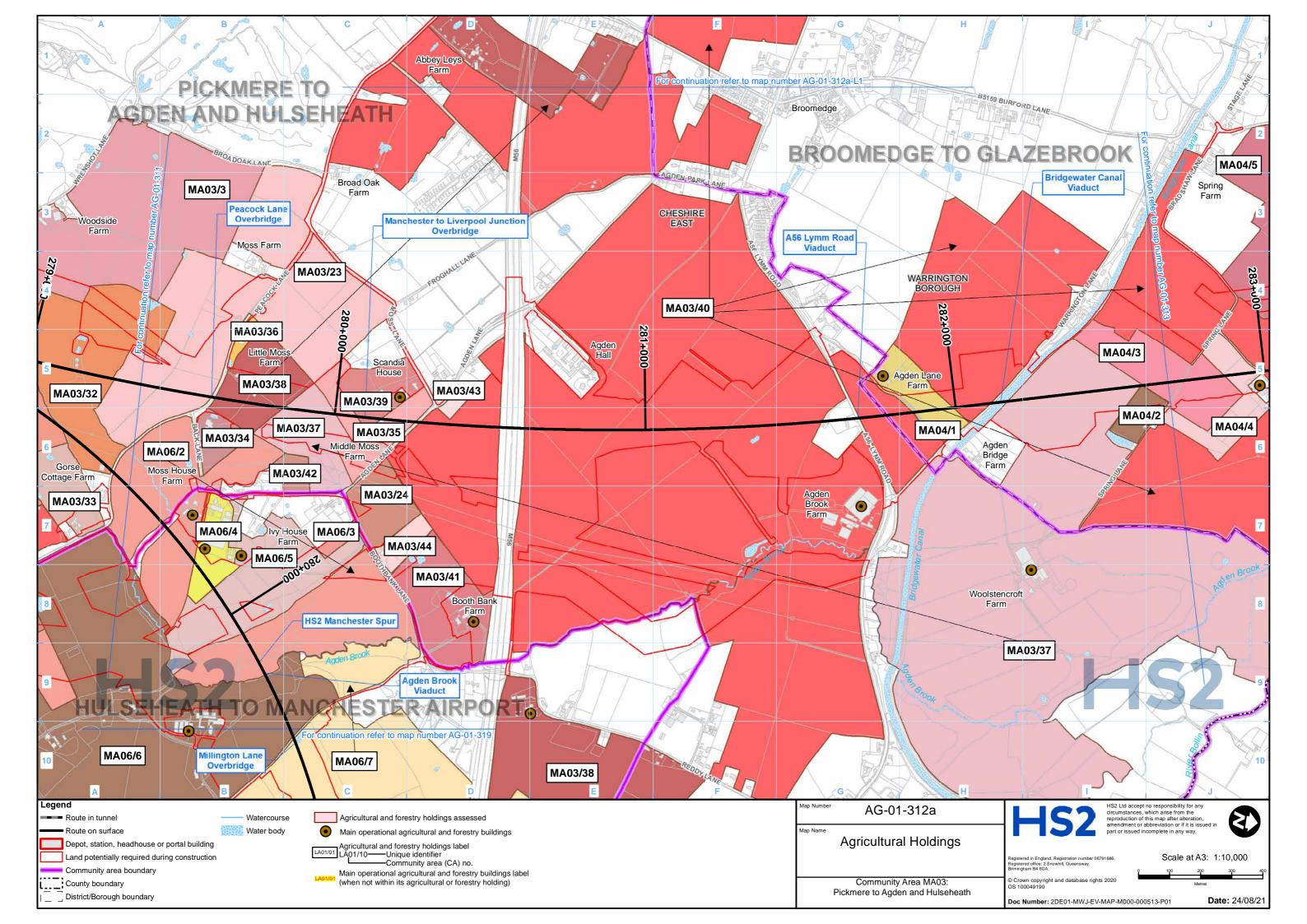


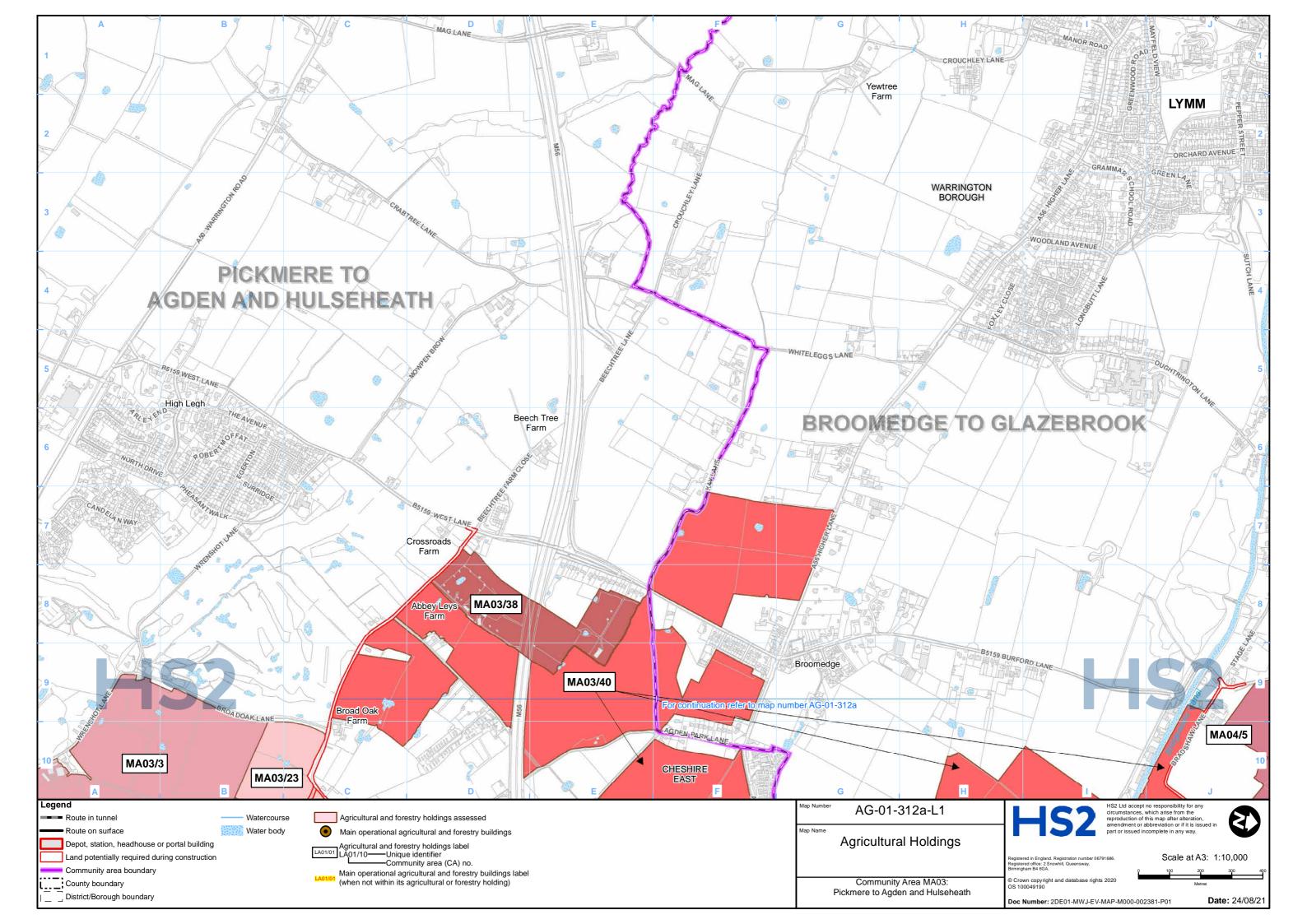


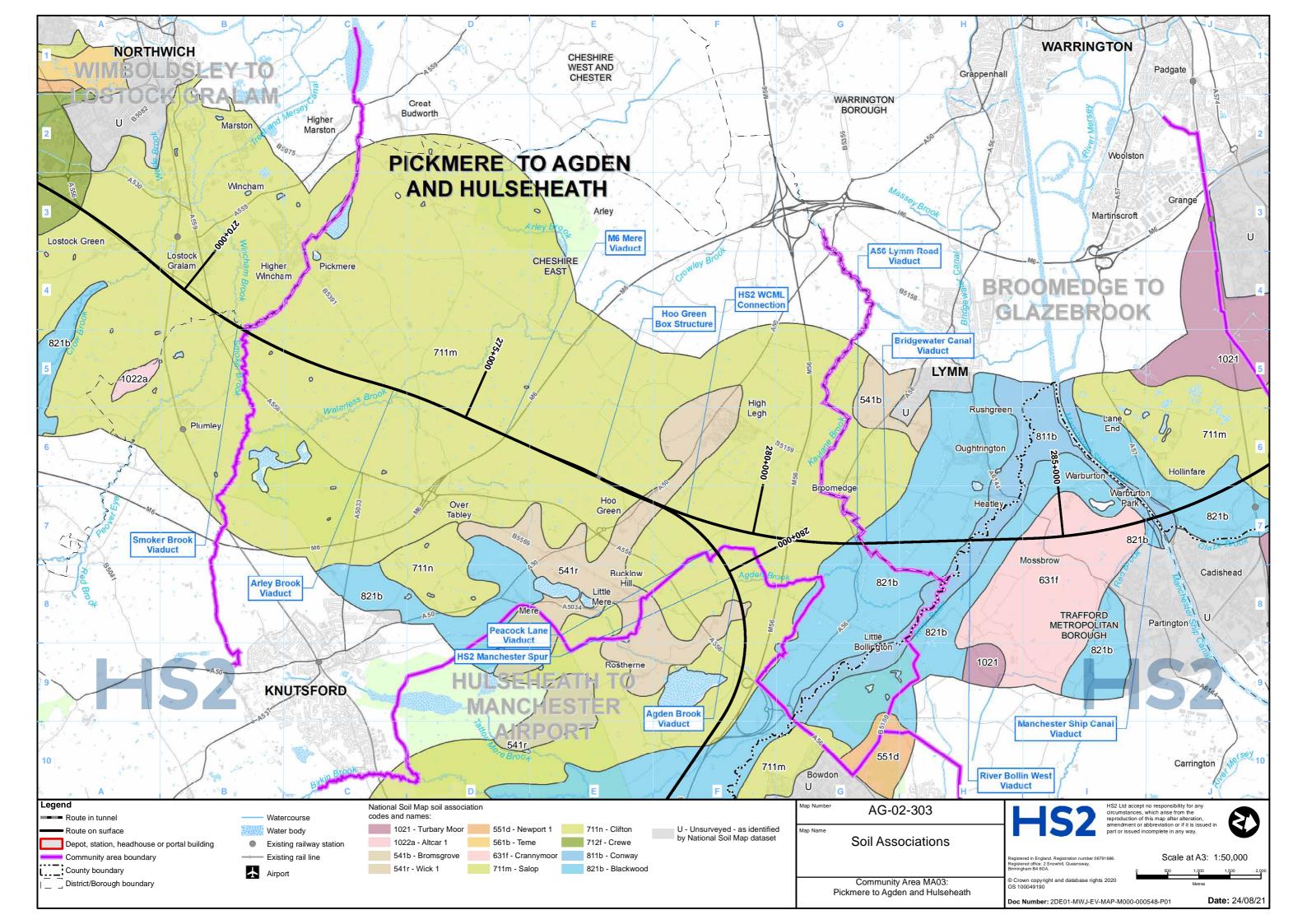


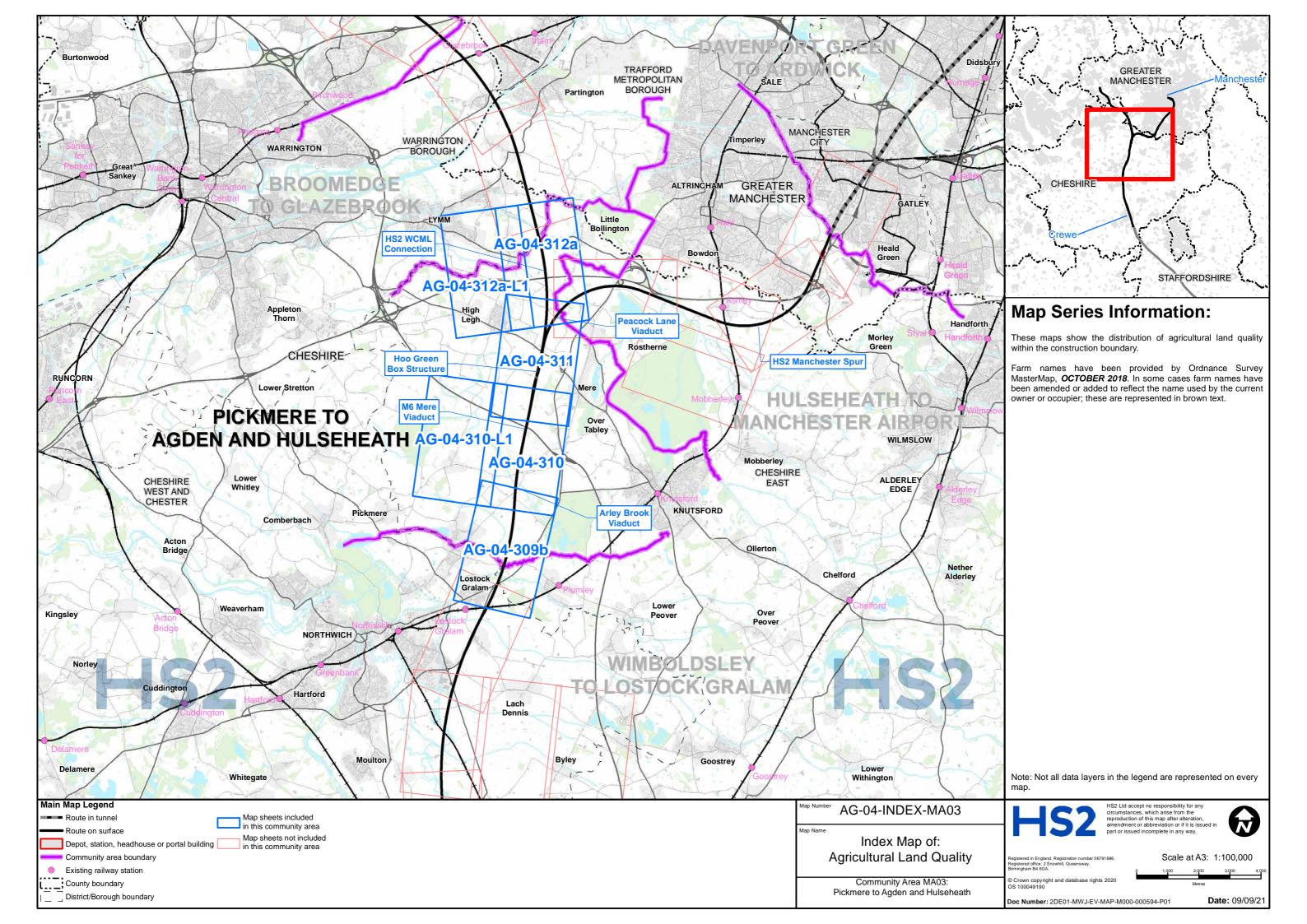


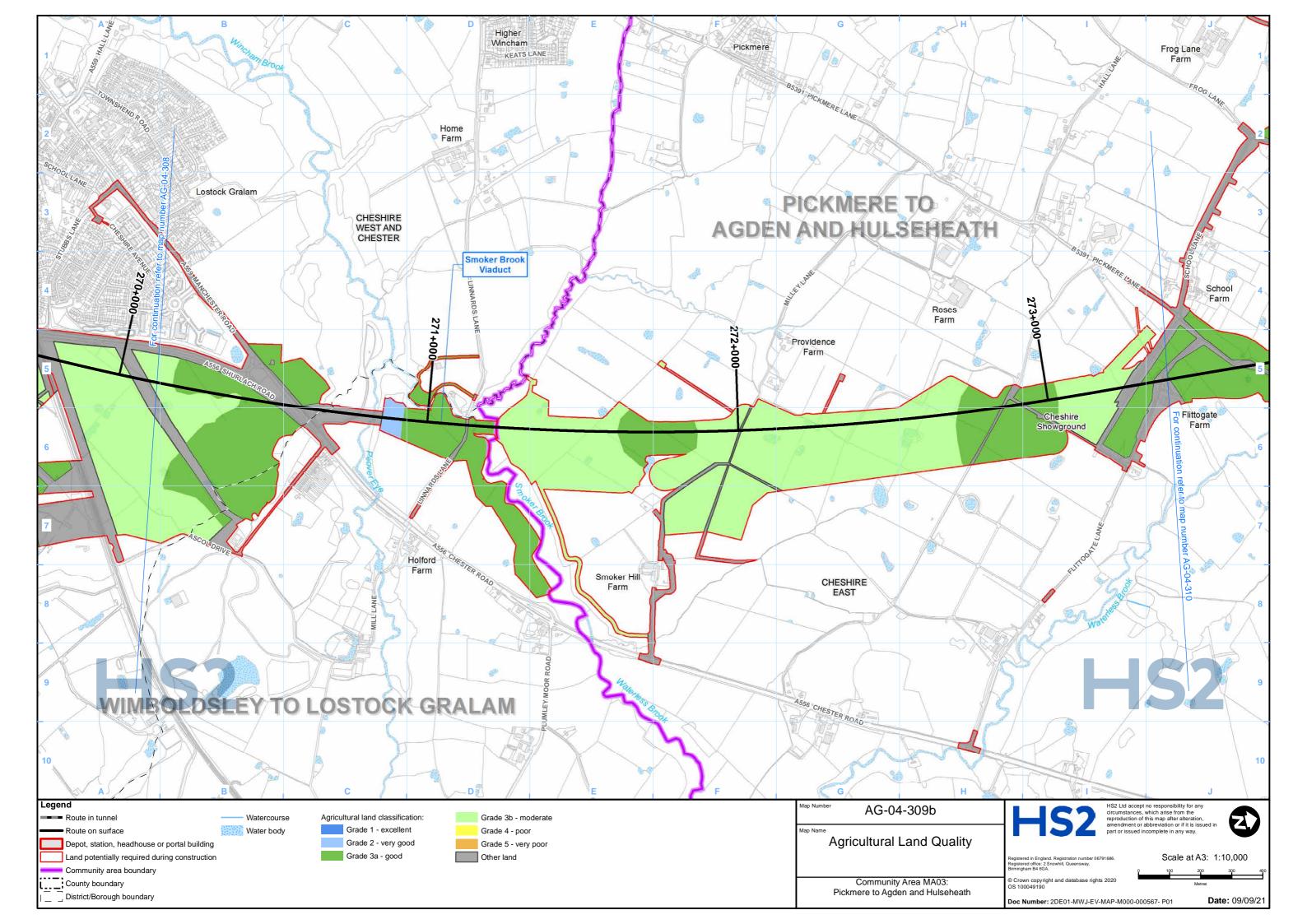


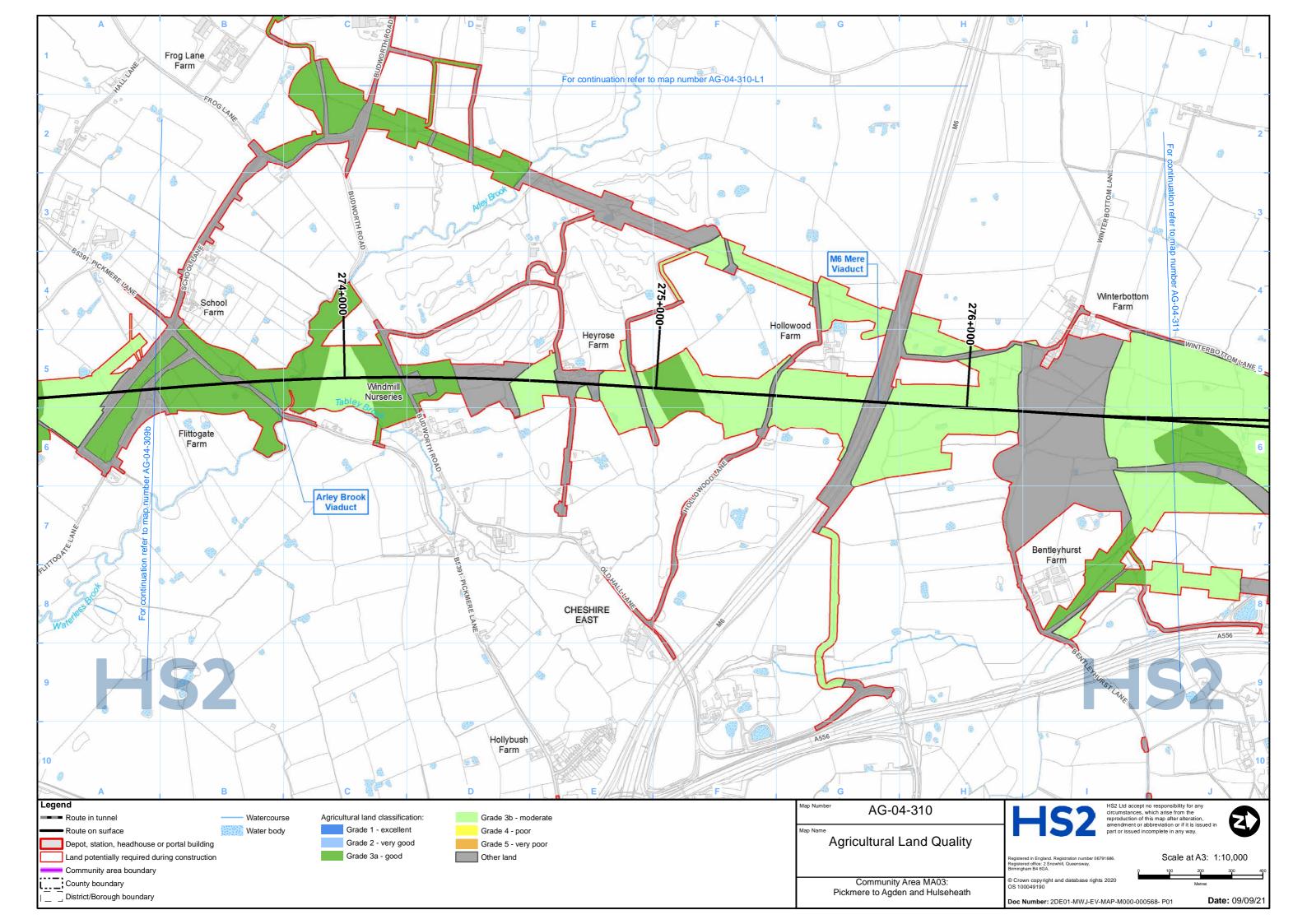


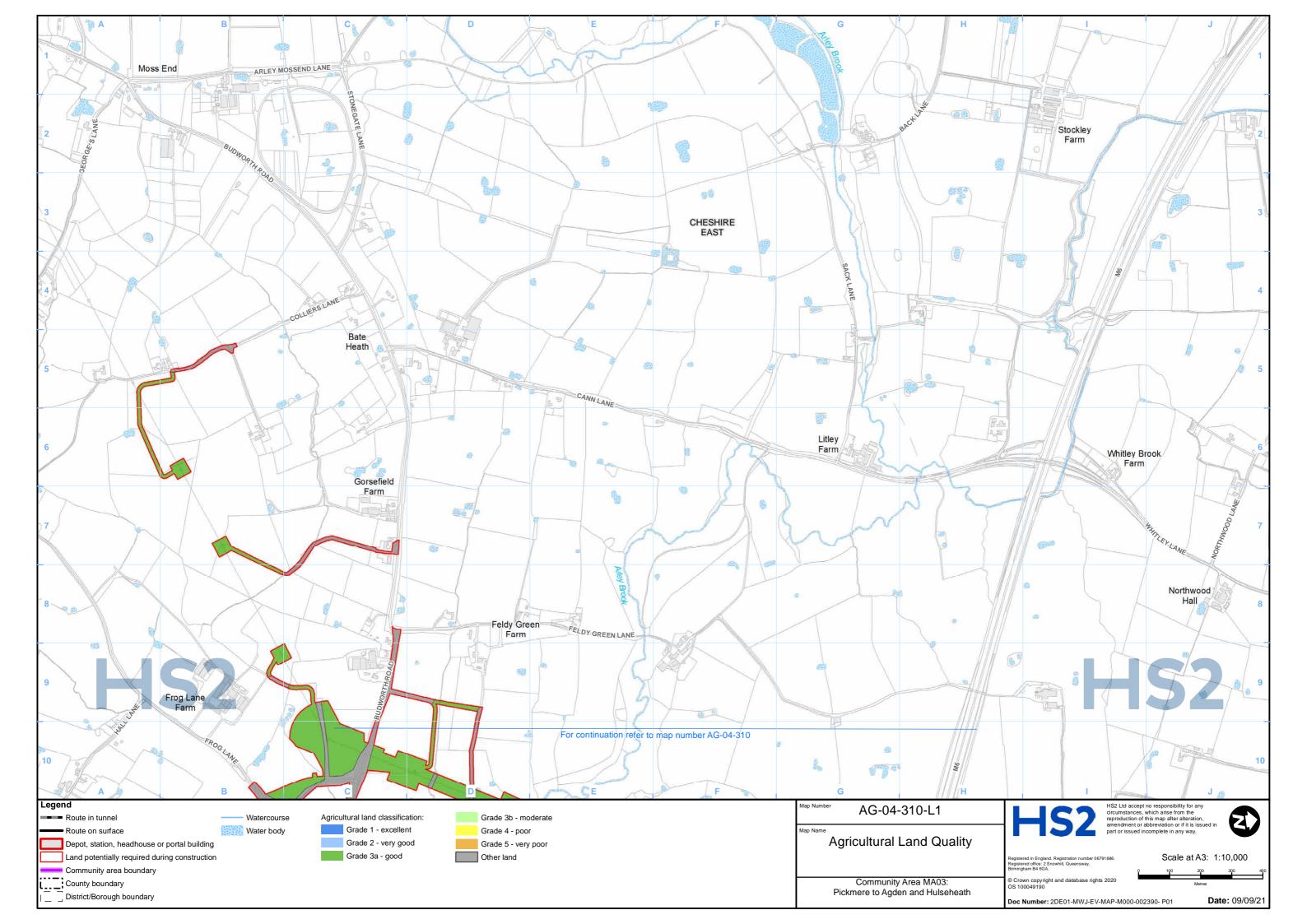


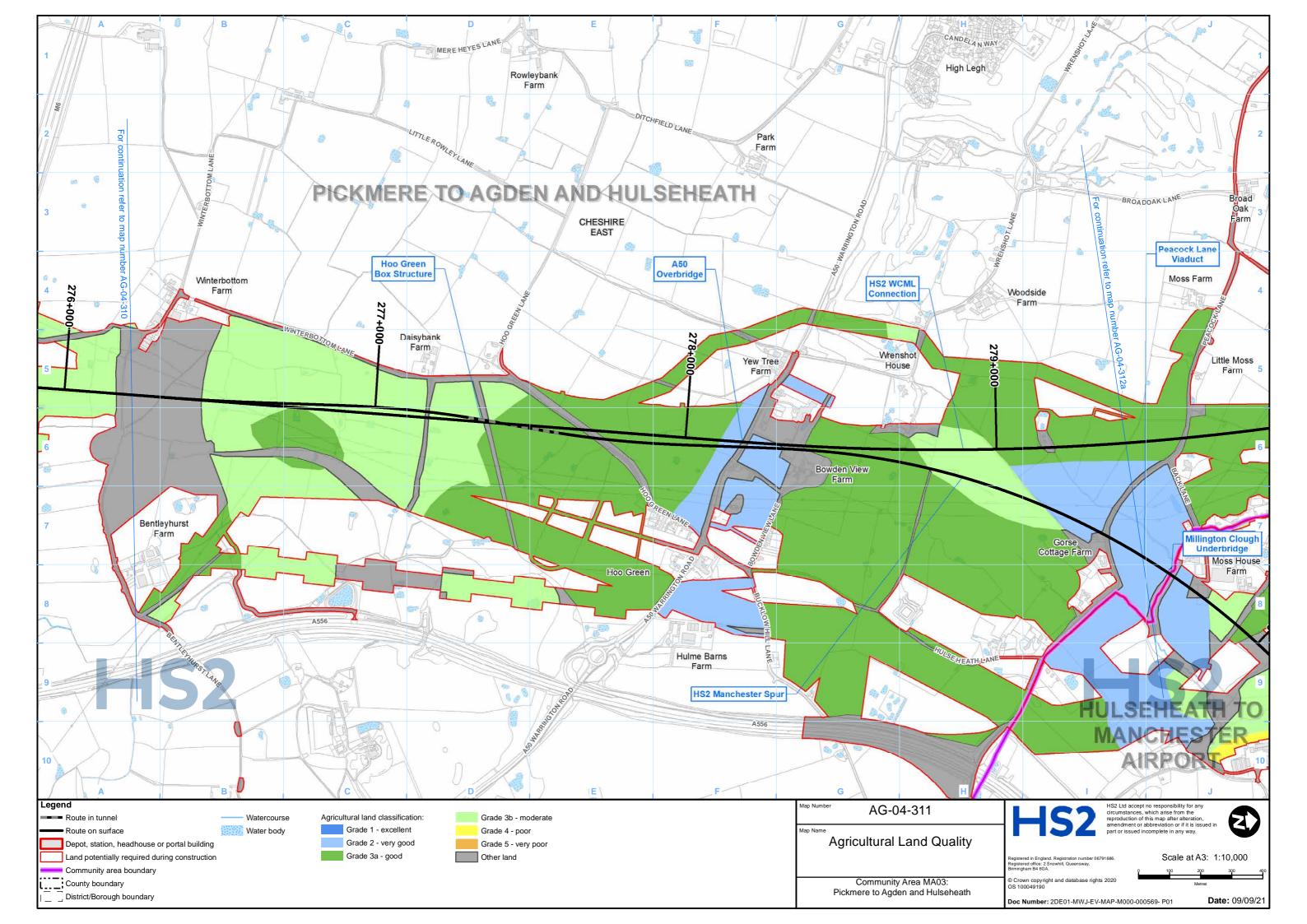


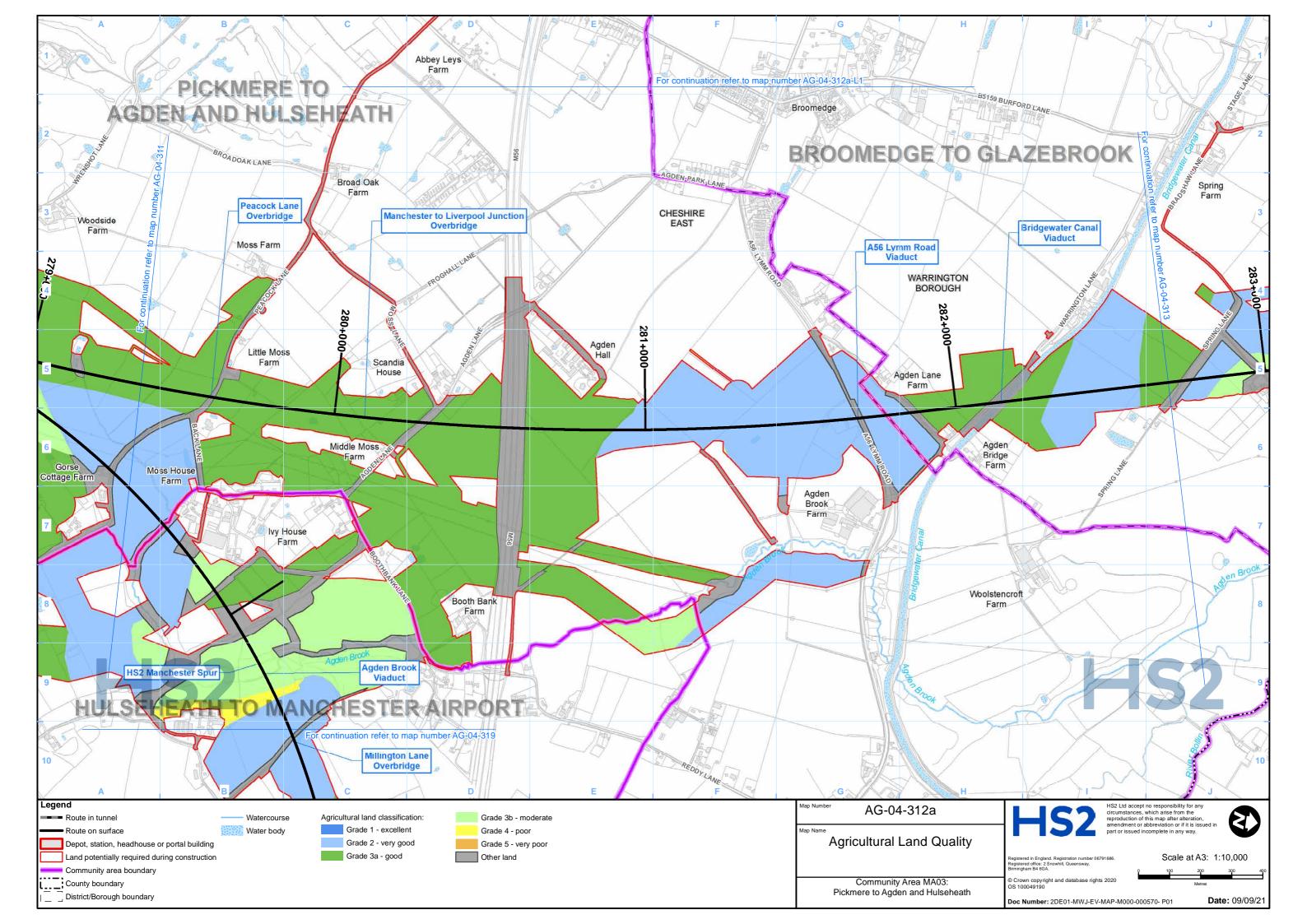


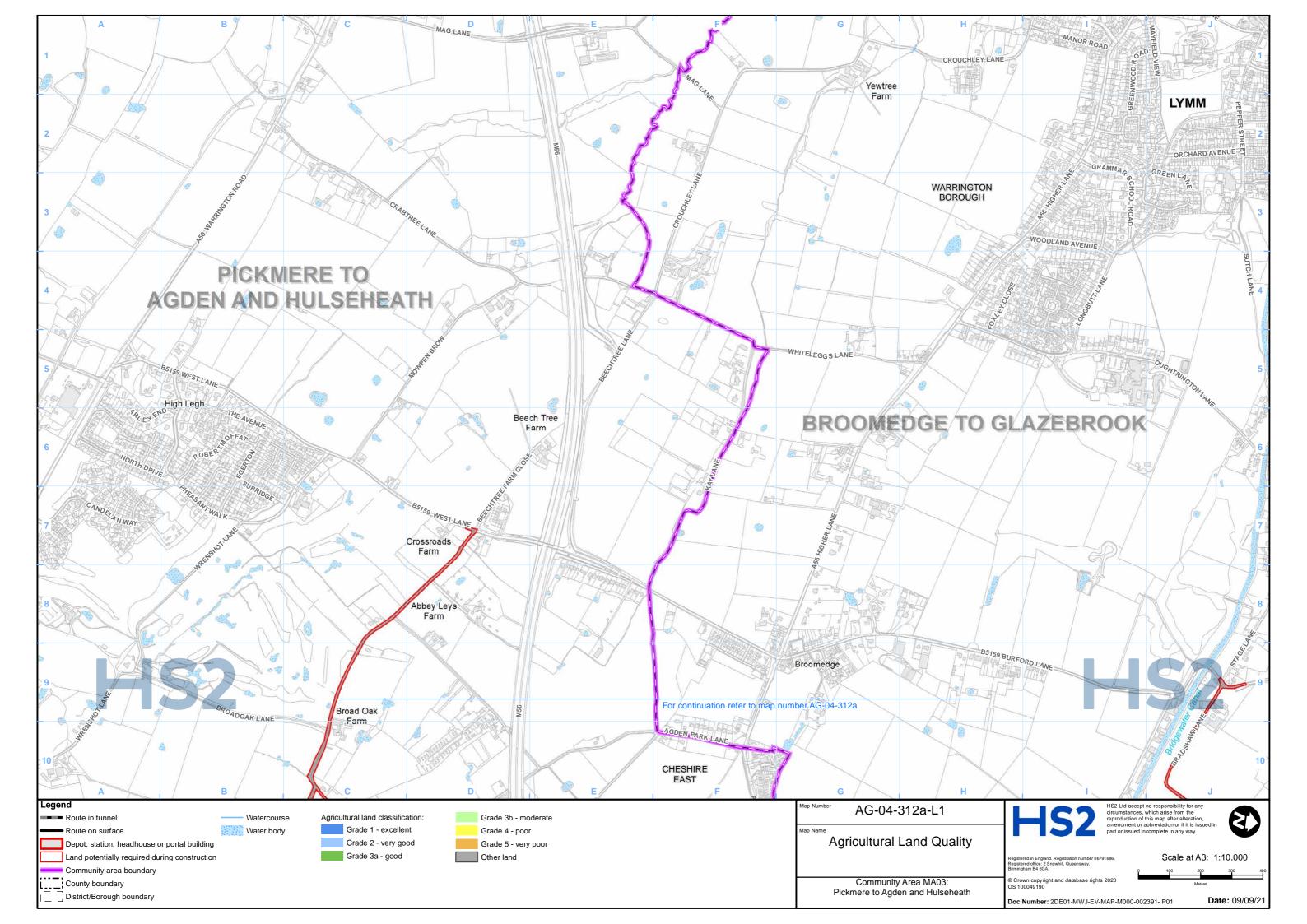














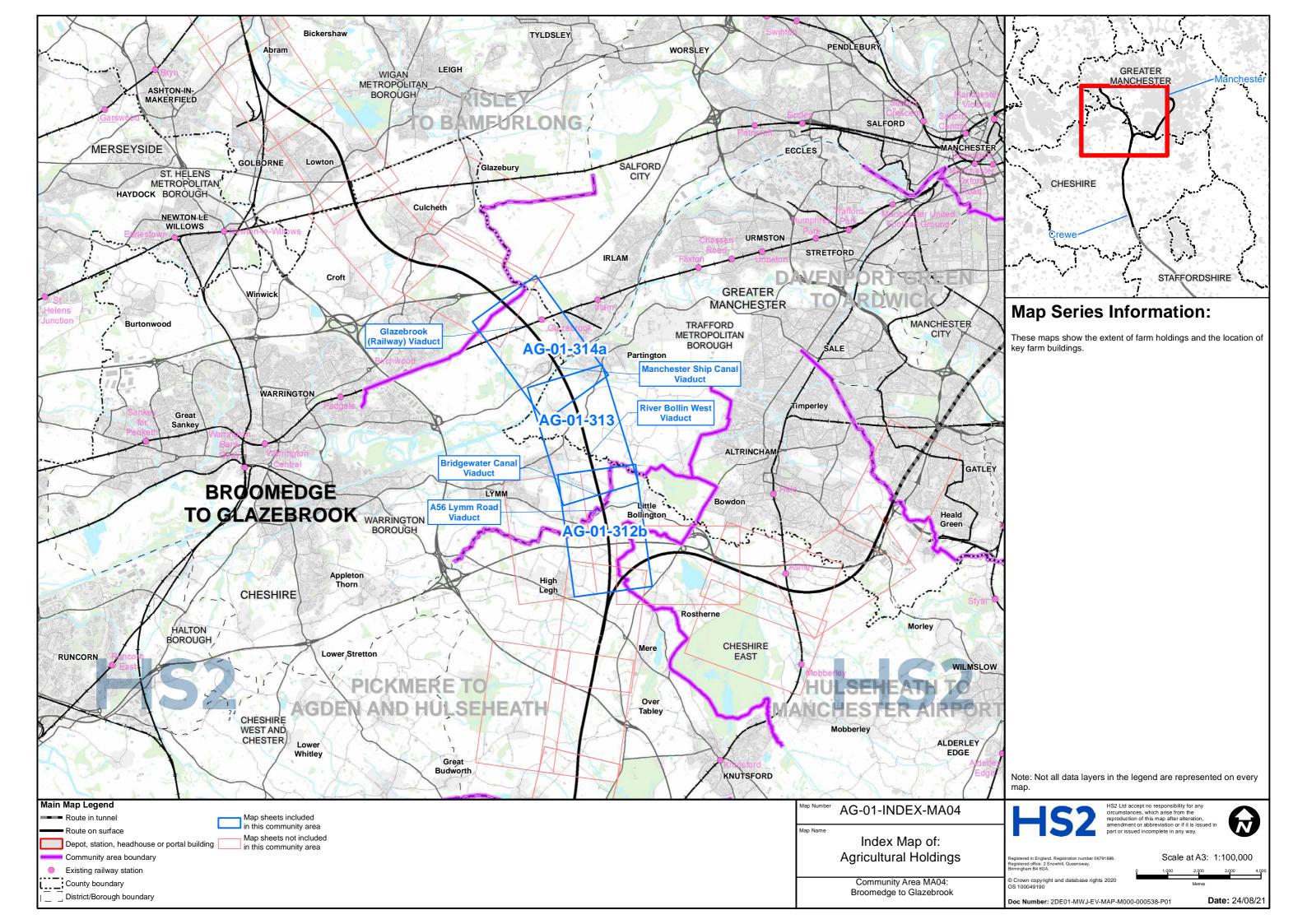
## High Speed Rail (Crewe - Manchester) Environmental Statement

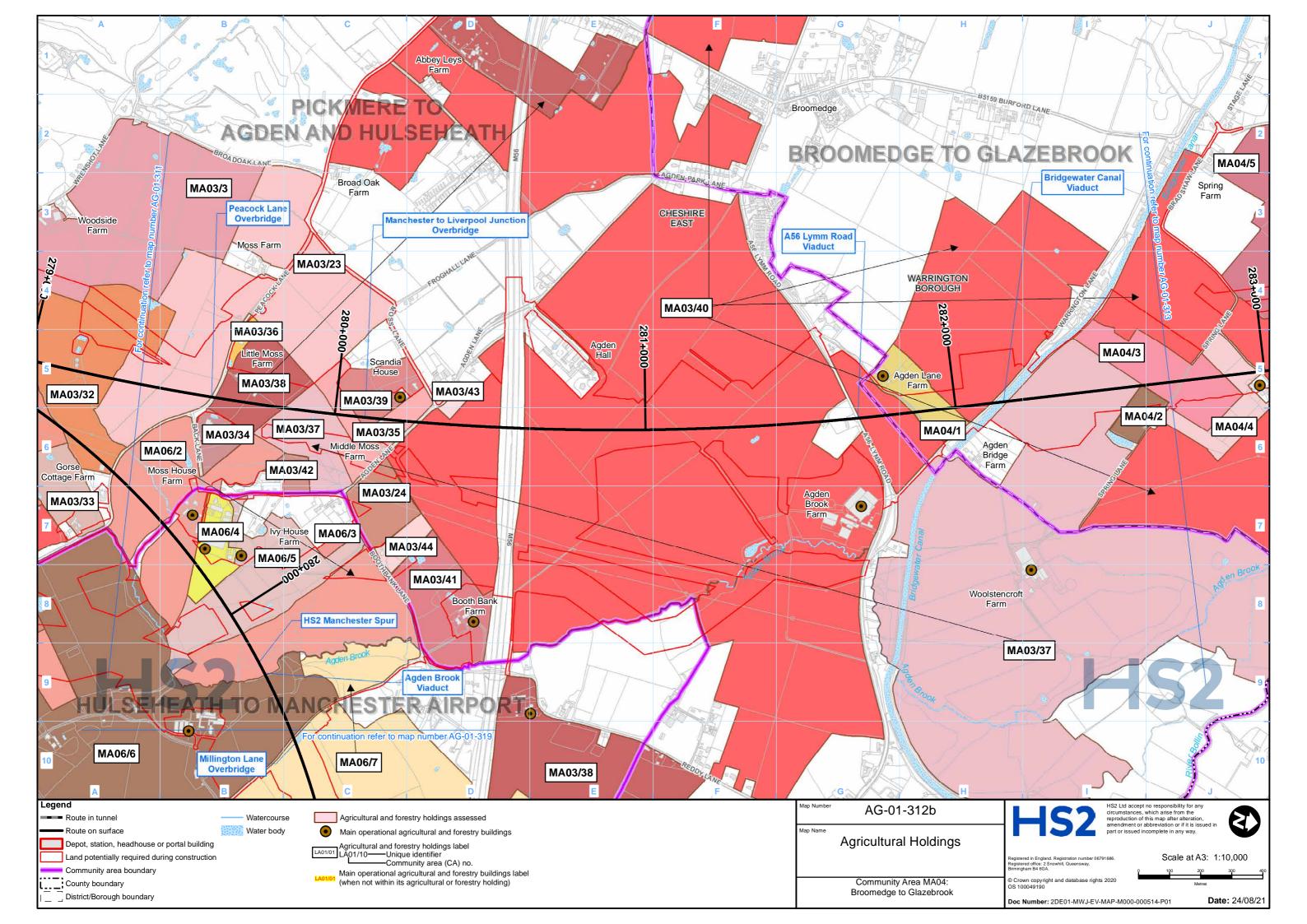
MA04: Broomedge to Glazebrook

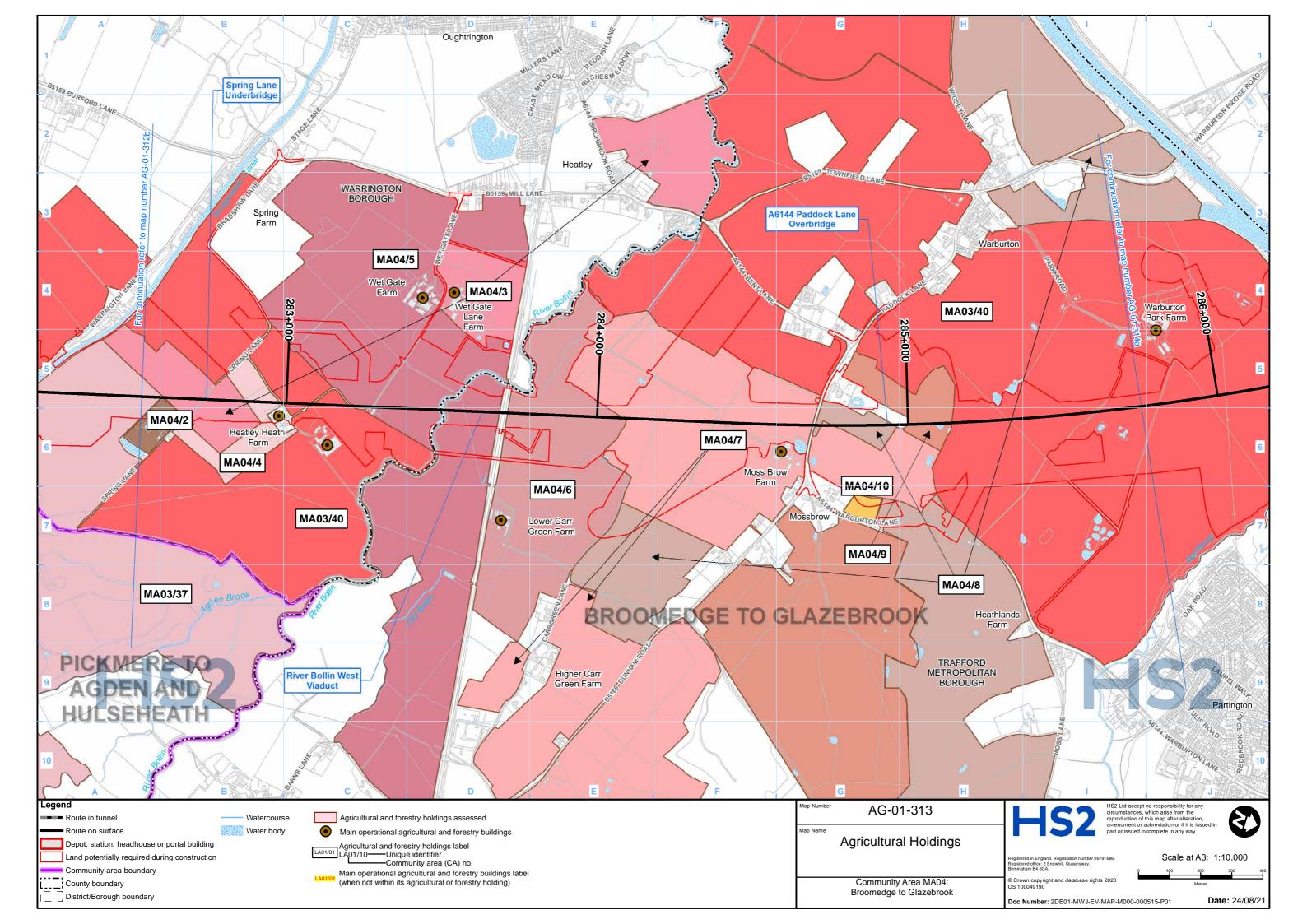
AG-01 - Agricultural Holdings

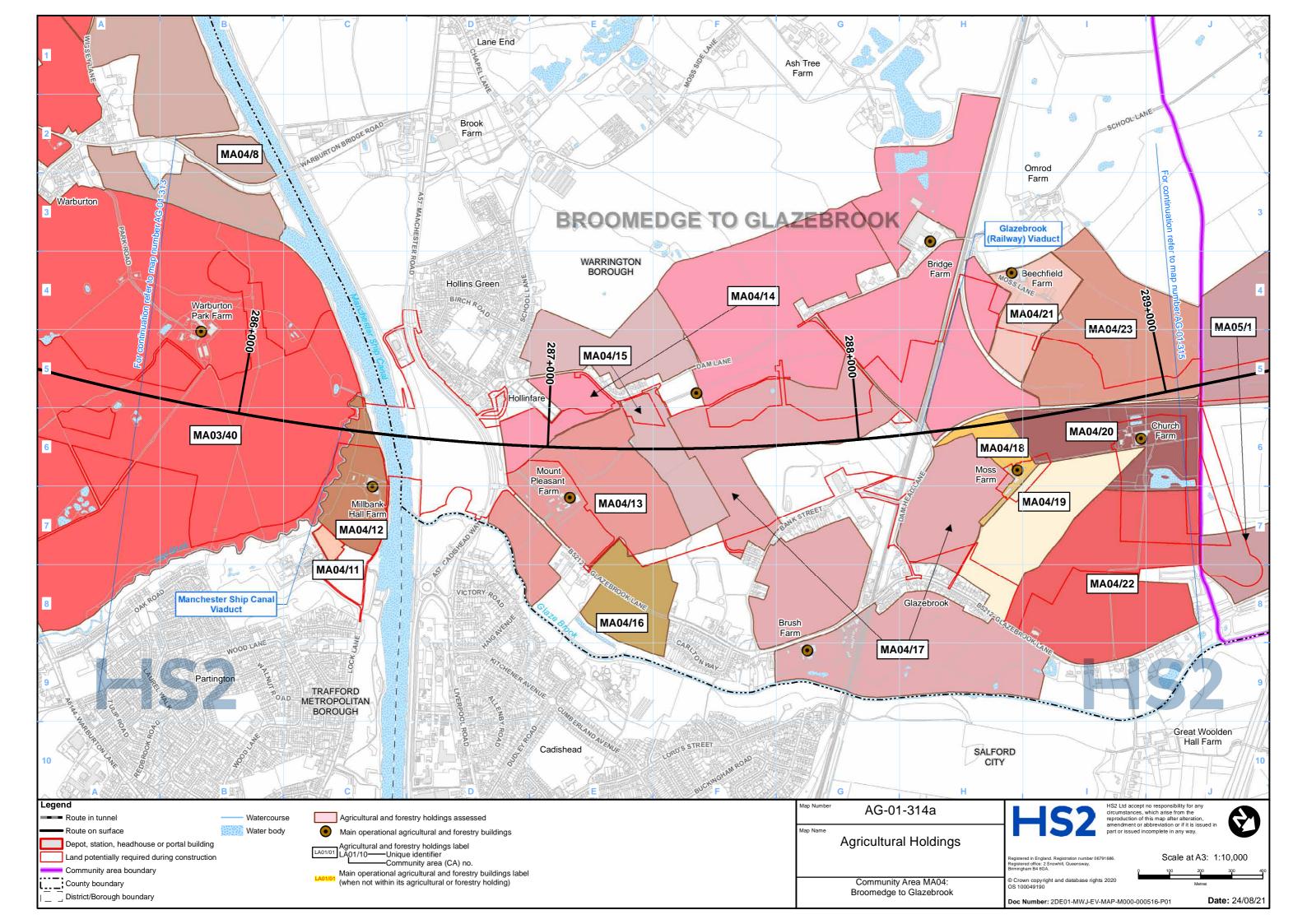
AG-02 - Soil Associations

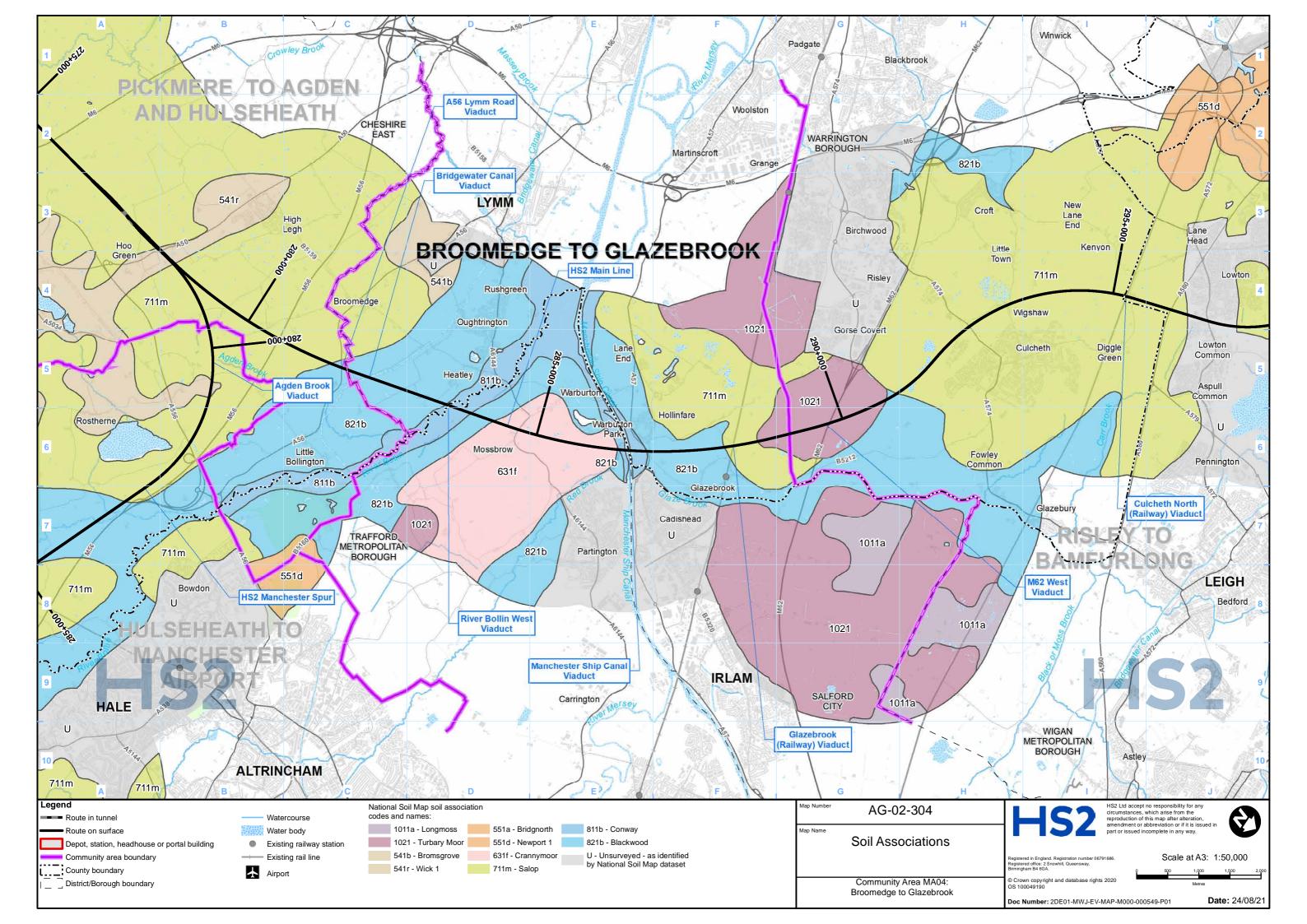
AG-04 - Agricultural Land Quality





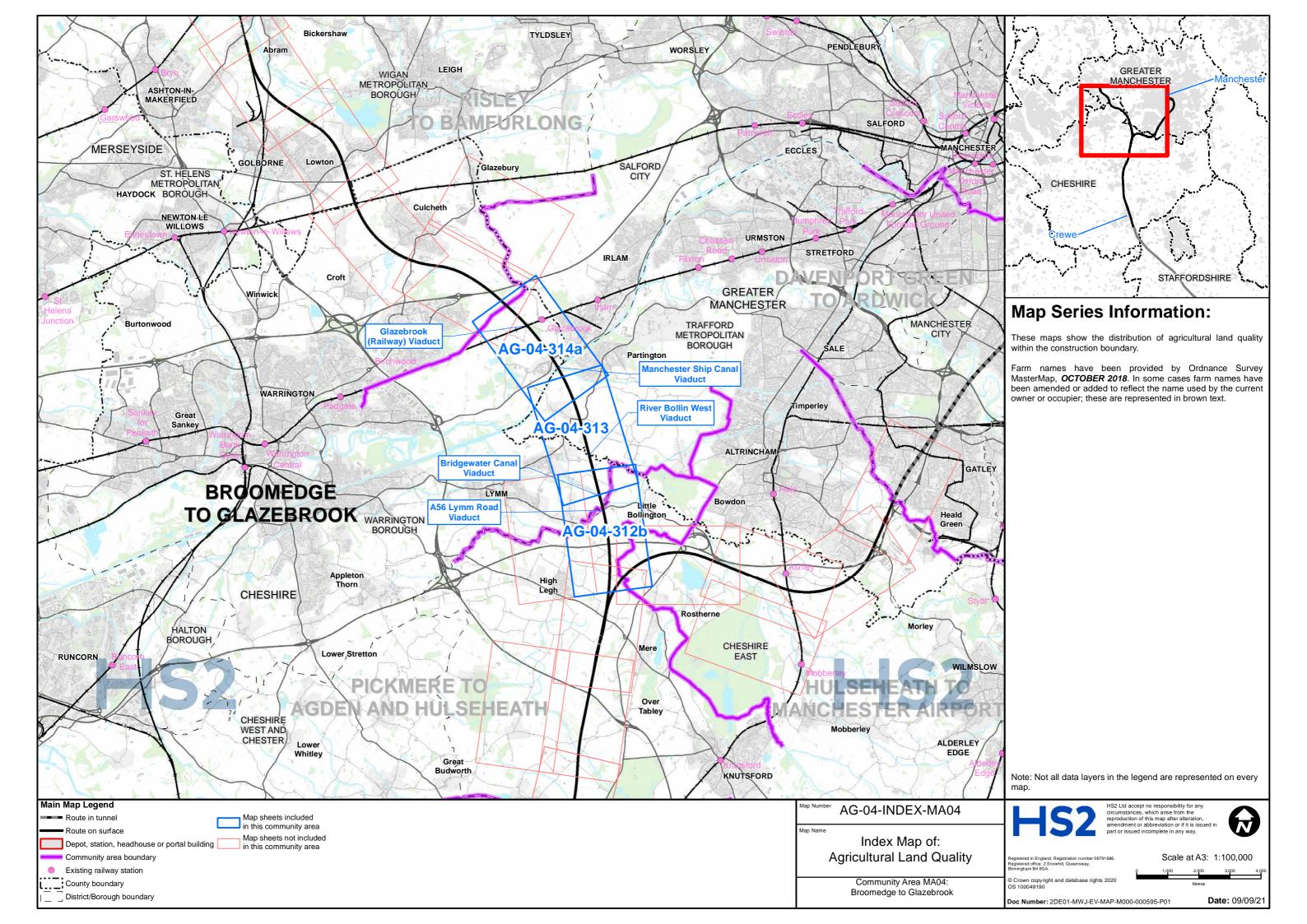


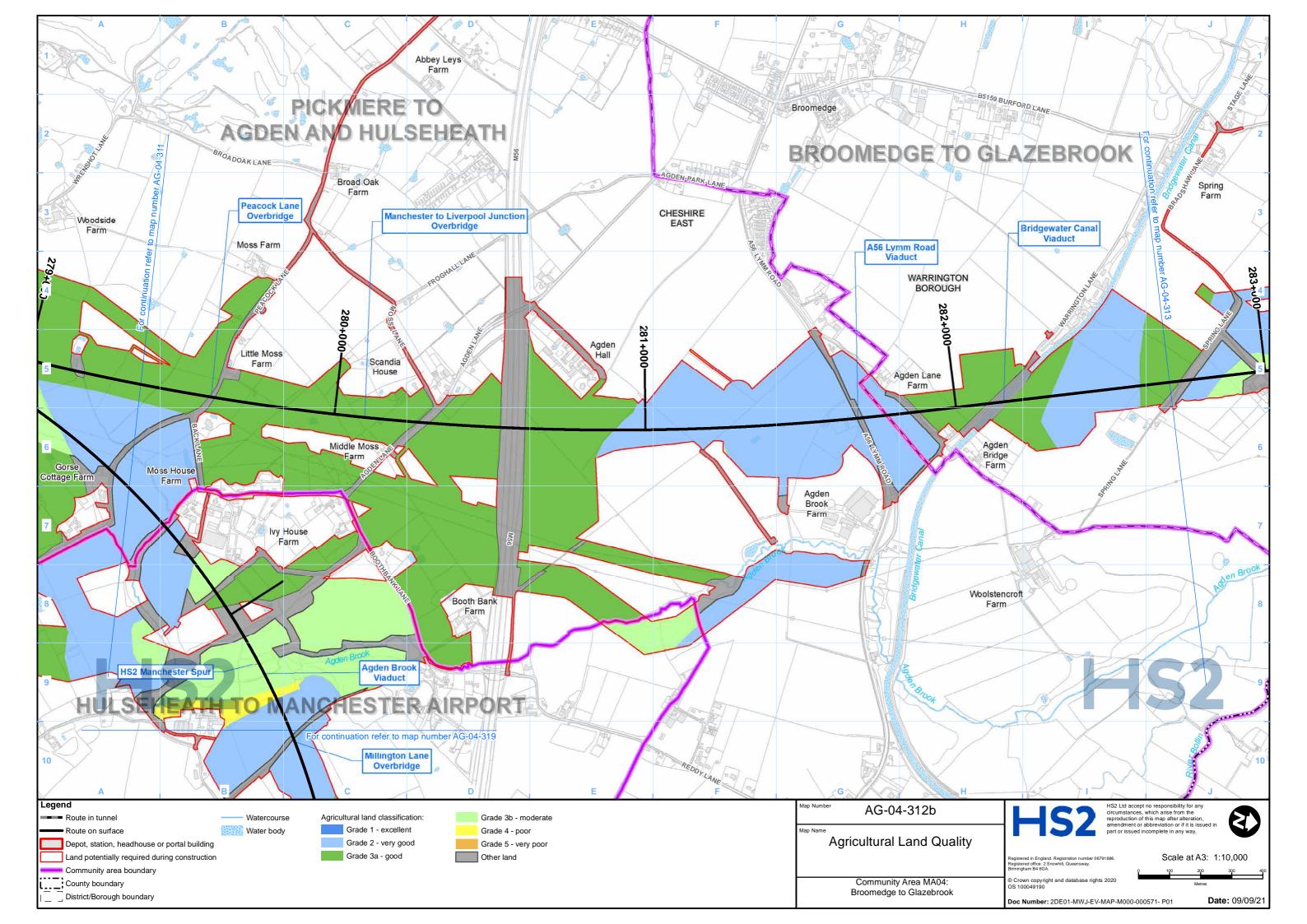


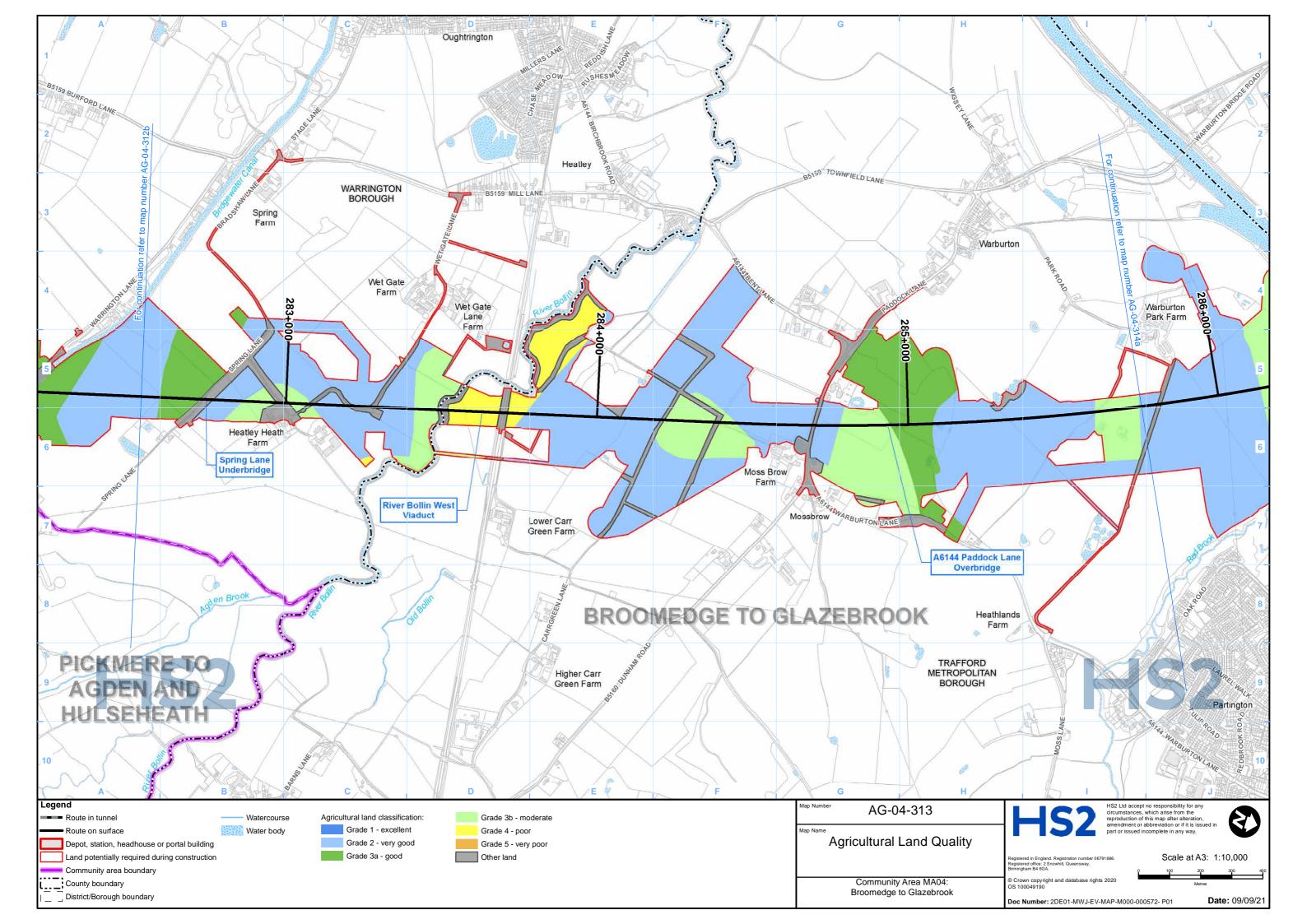


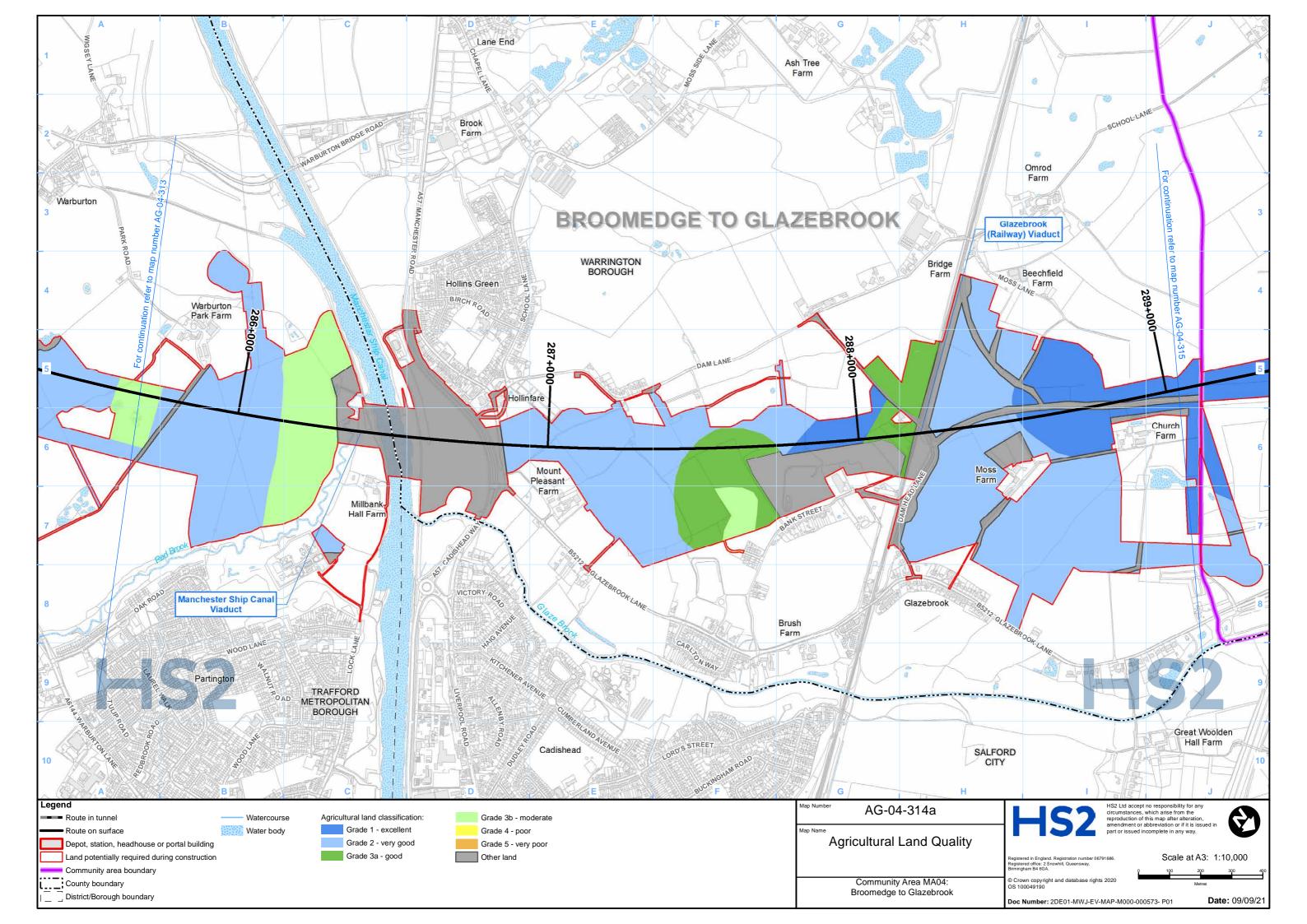
## HS2

This page is intentionally blank









# HS2

This page is intentionally blank



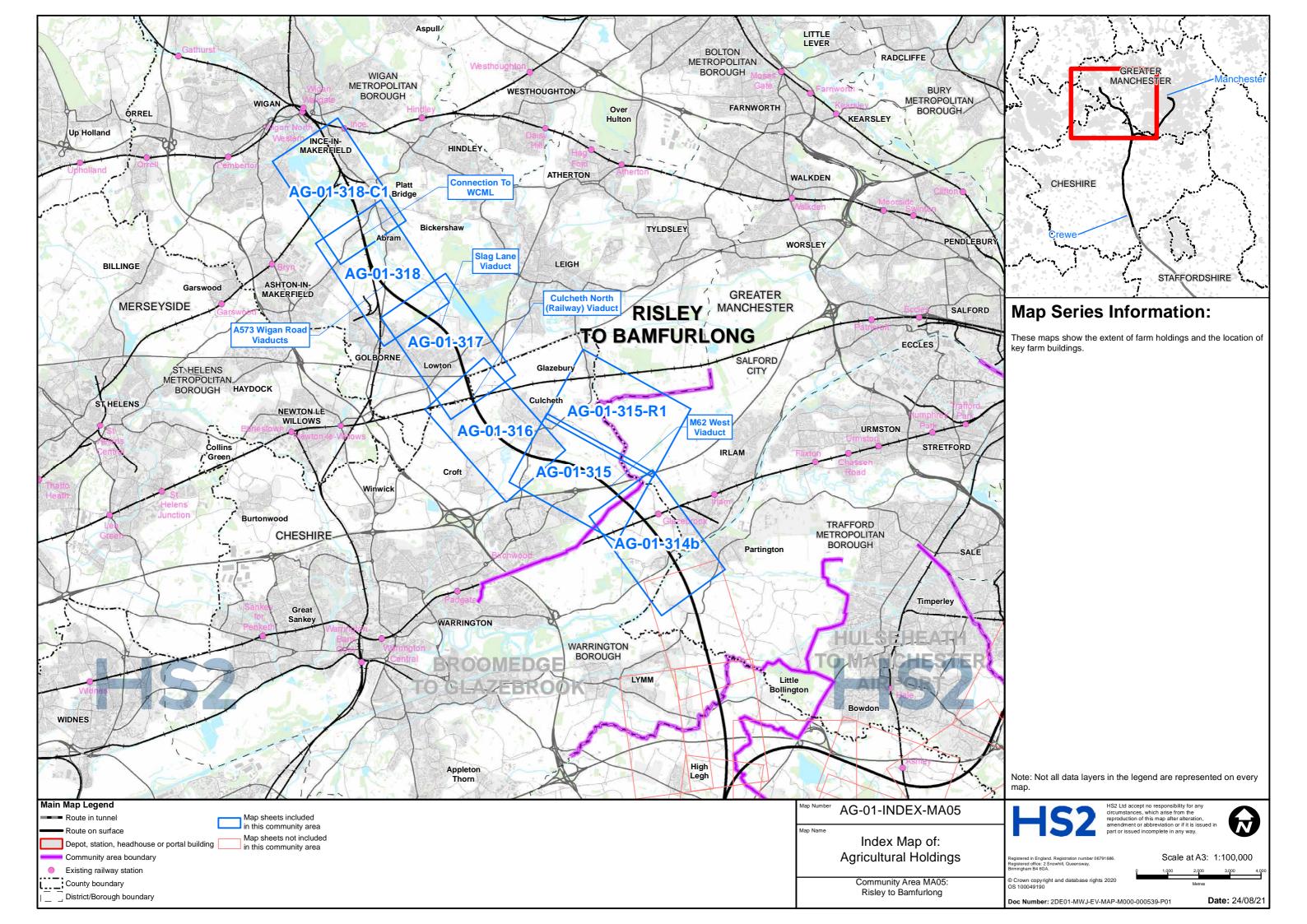
### High Speed Rail (Crewe - Manchester) Environmental Statement

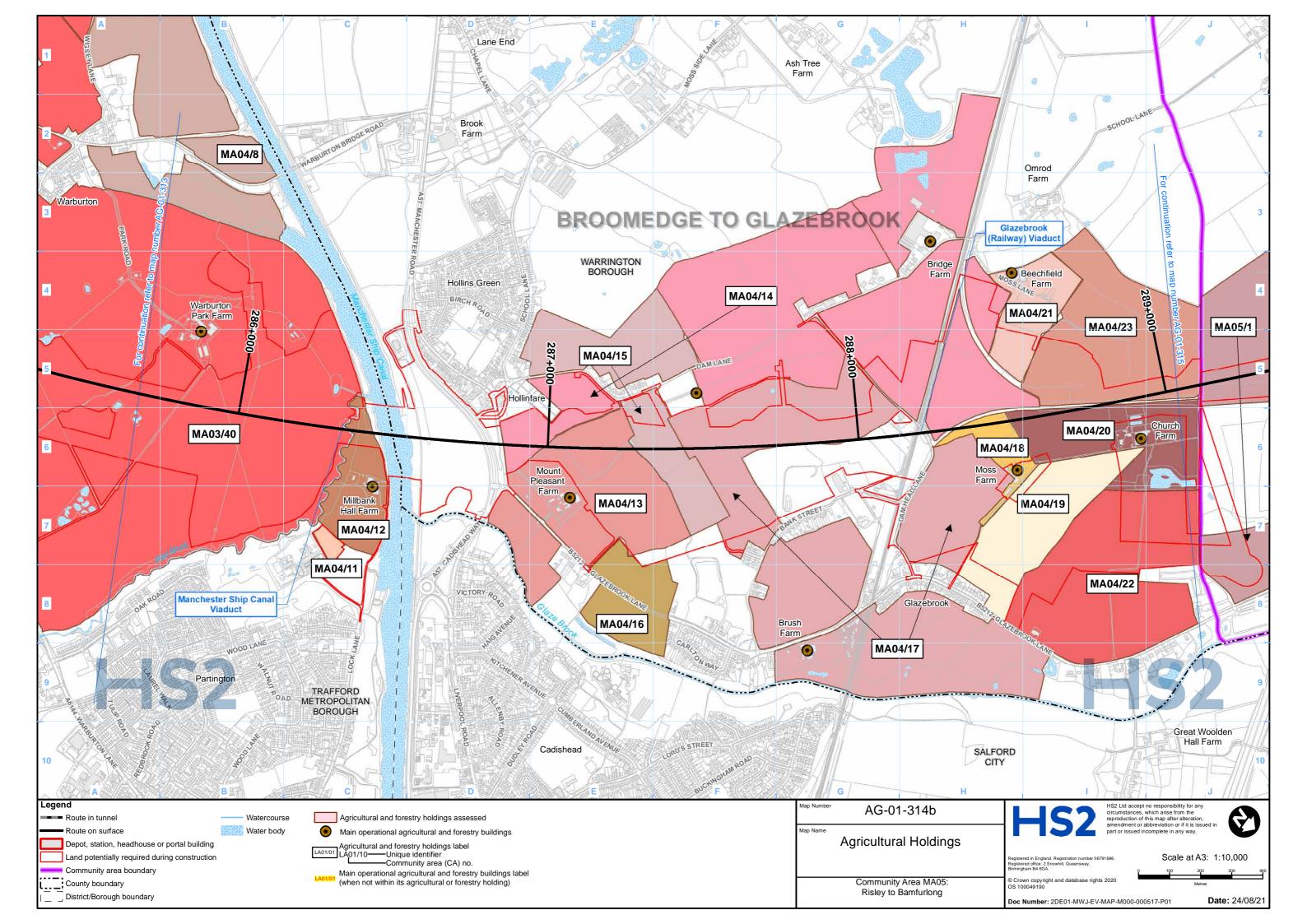
MA05: Risley to Bamfurlong

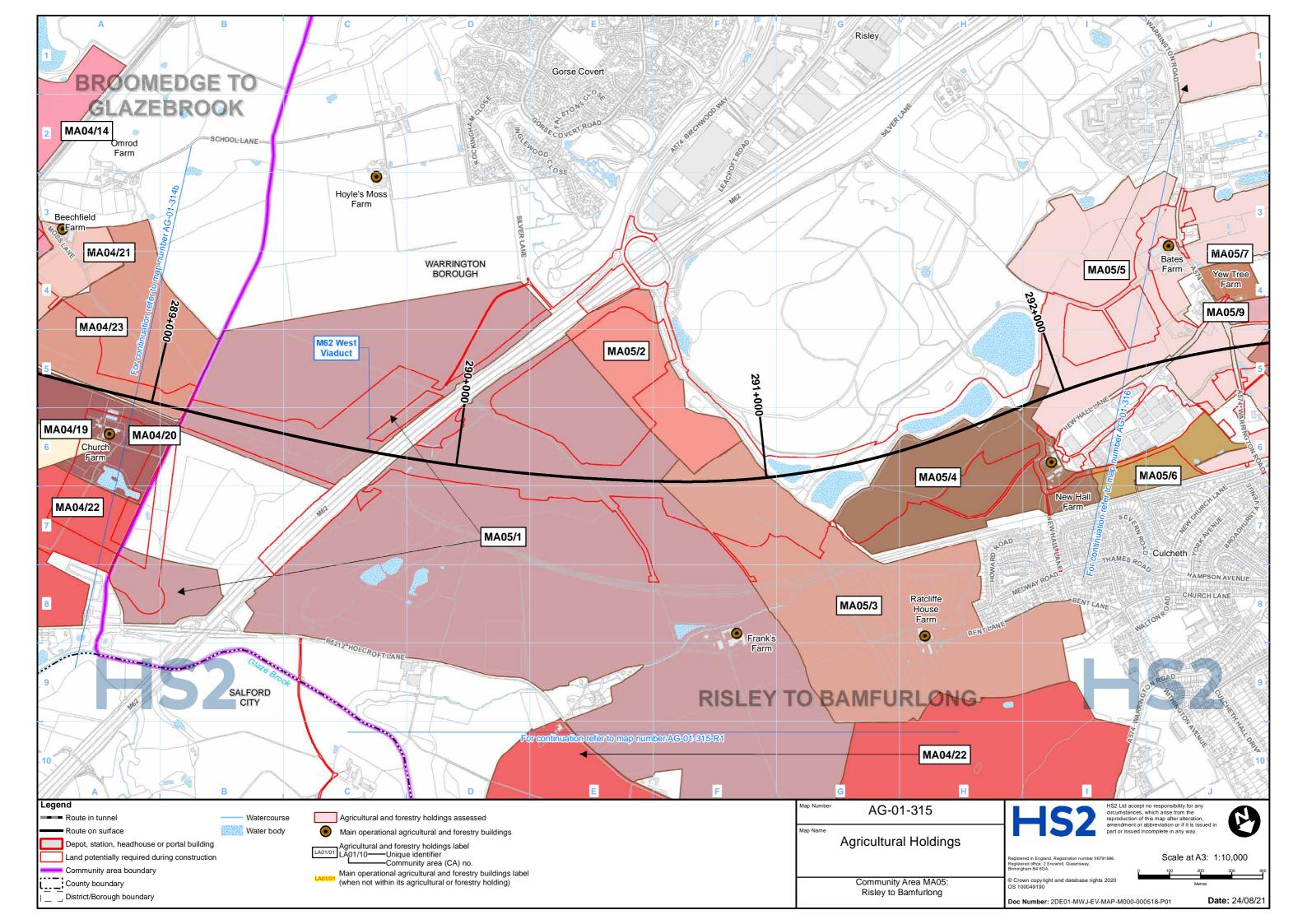
AG-01 - Agricultural Holdings

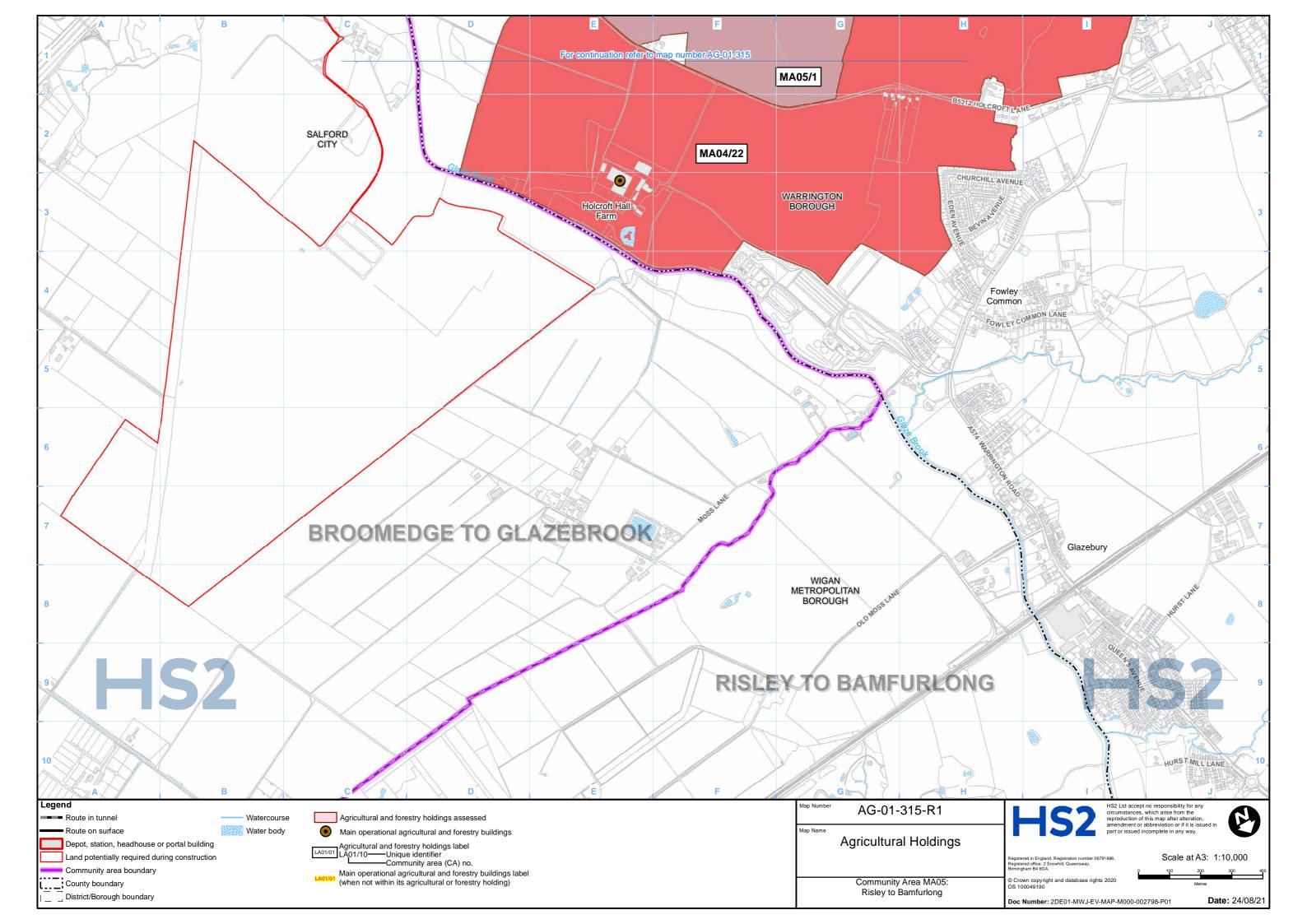
AG-02 - Soil Associations

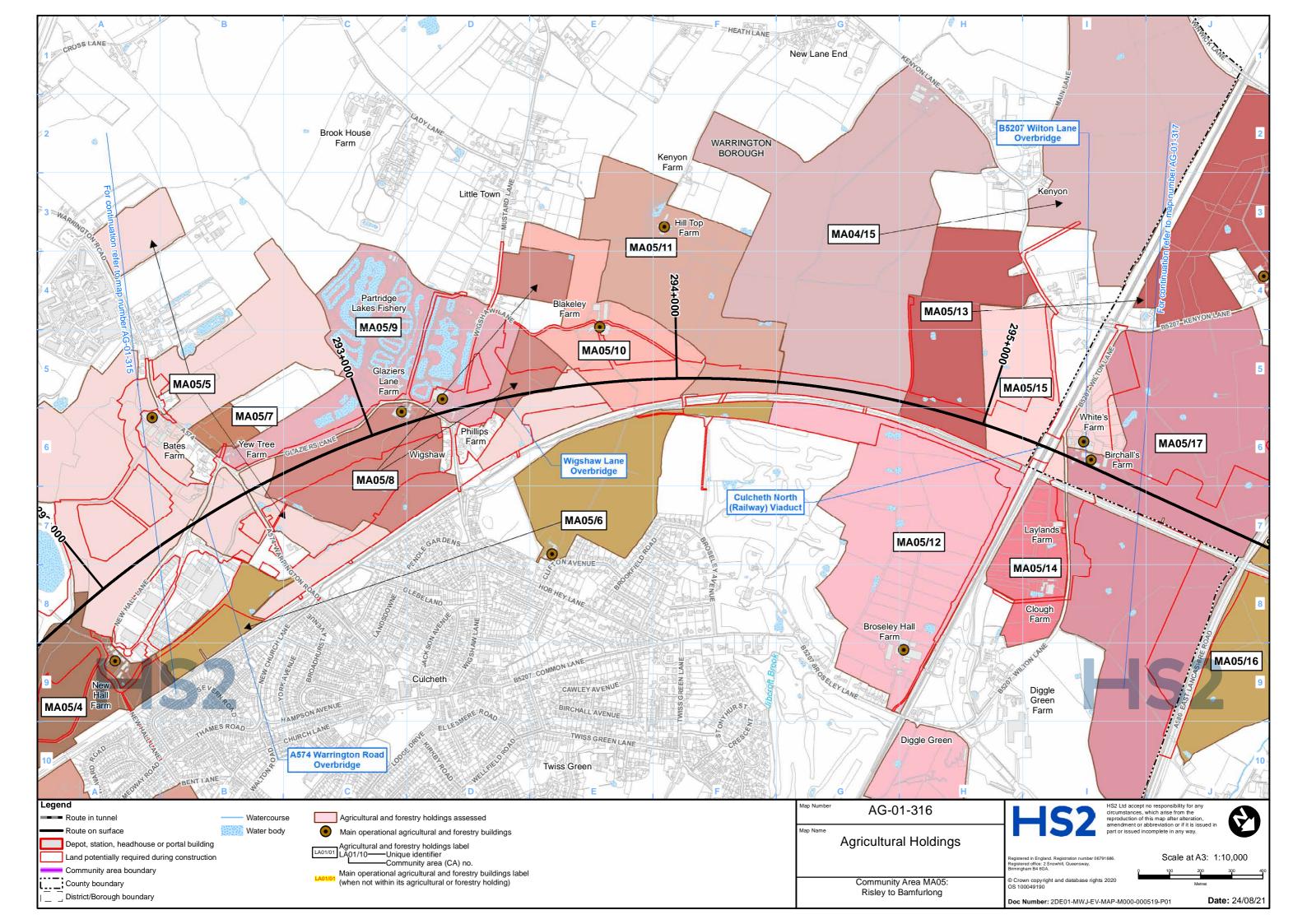
AG-04 - Agricultural Land Quality

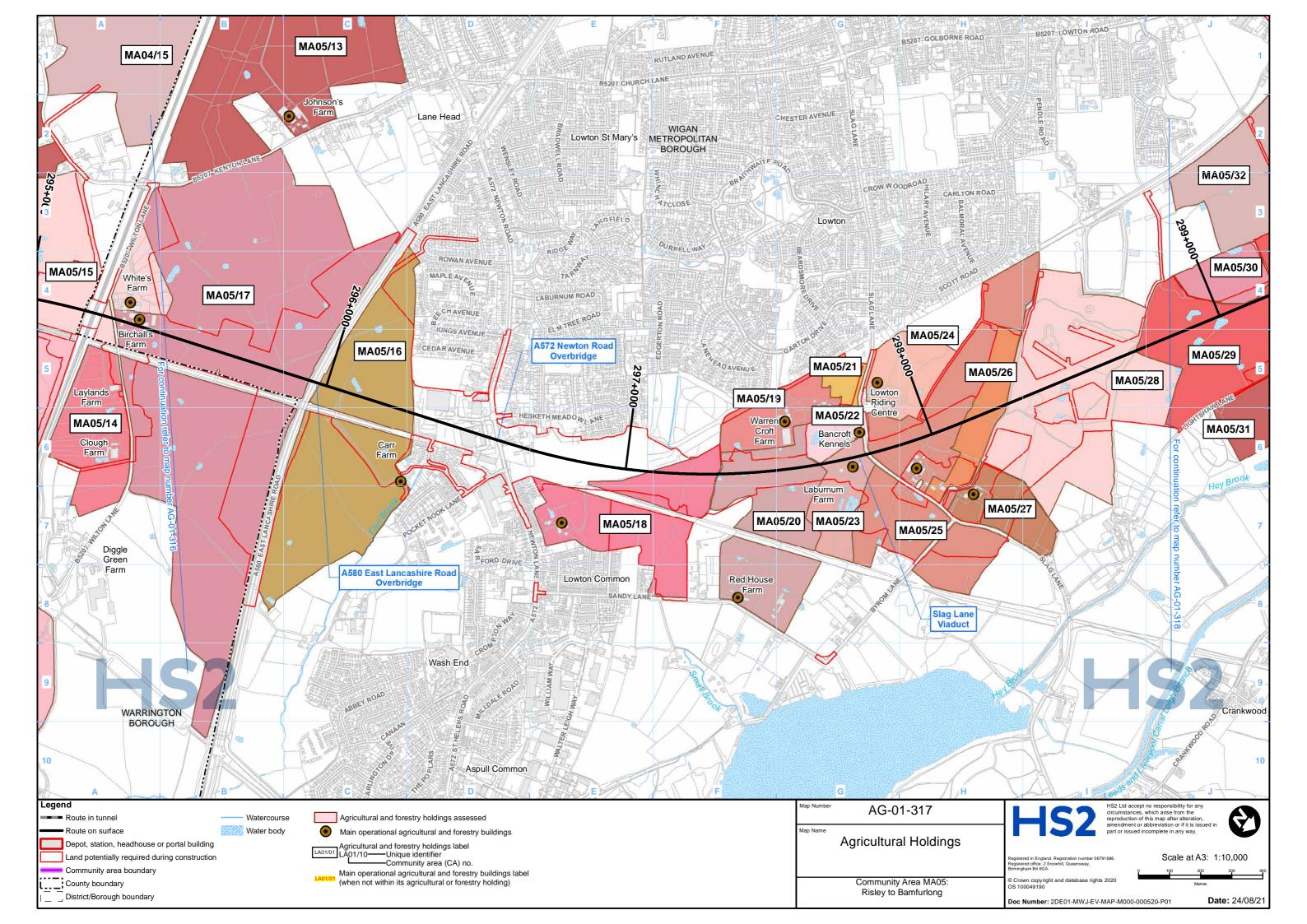


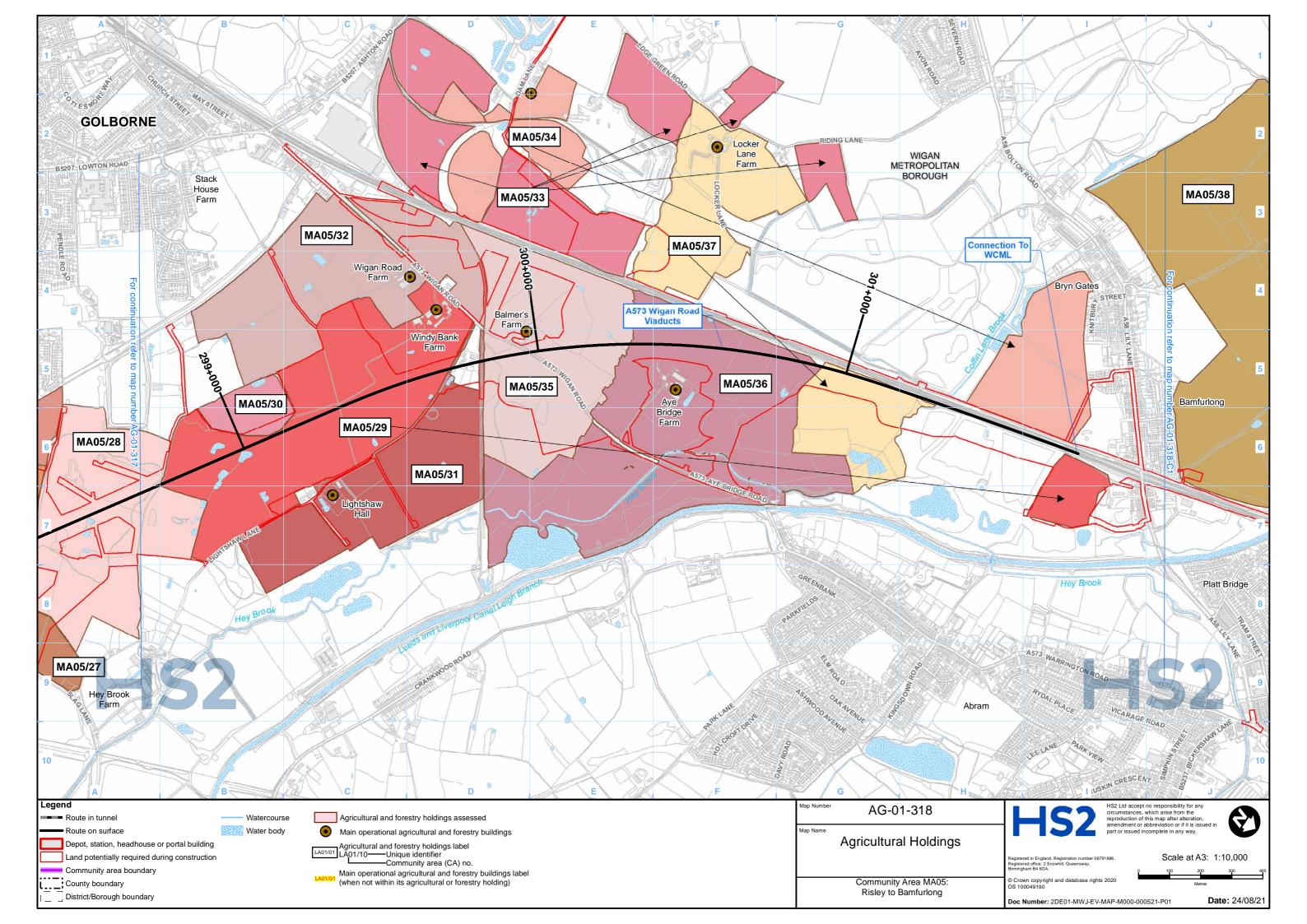


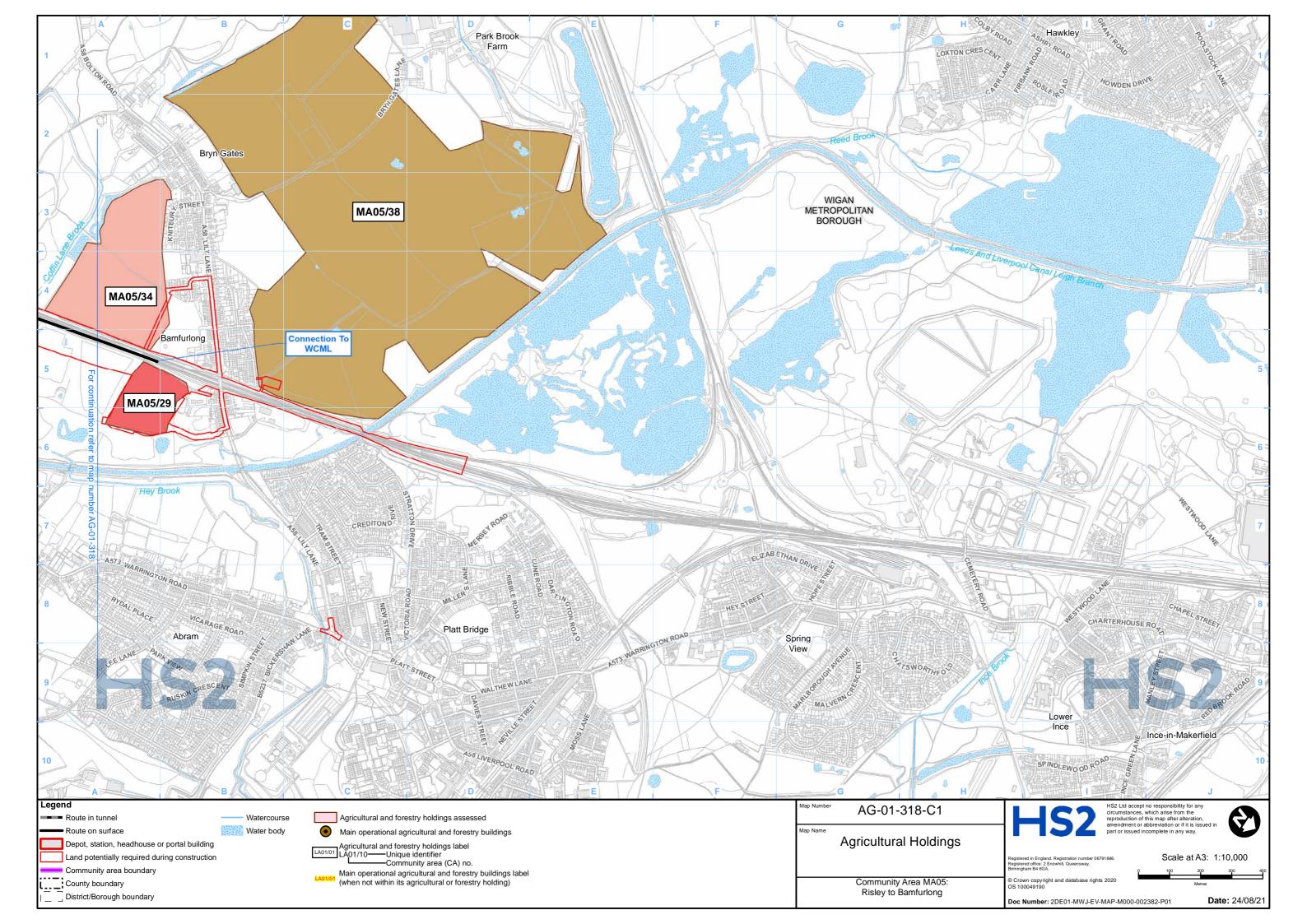


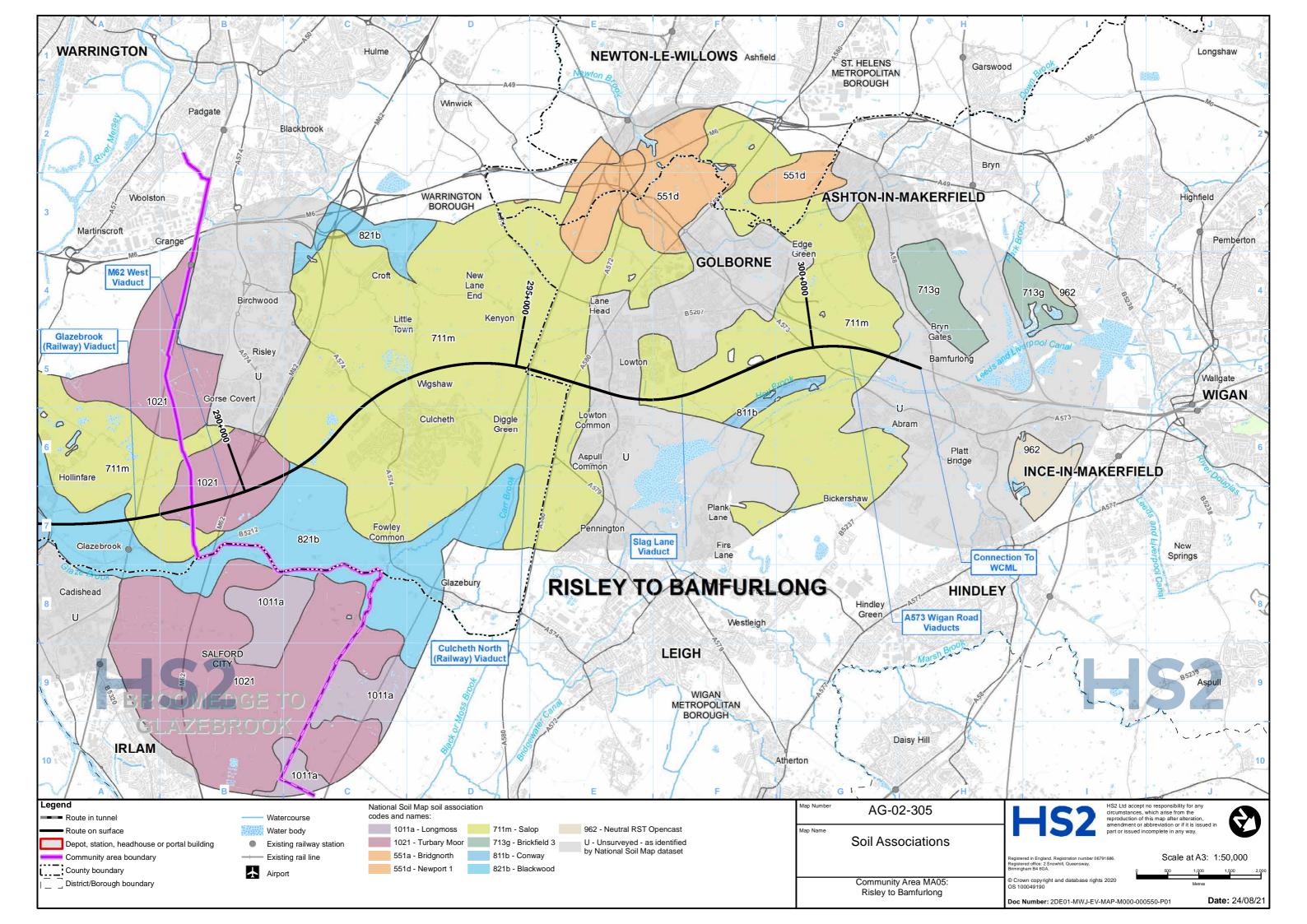






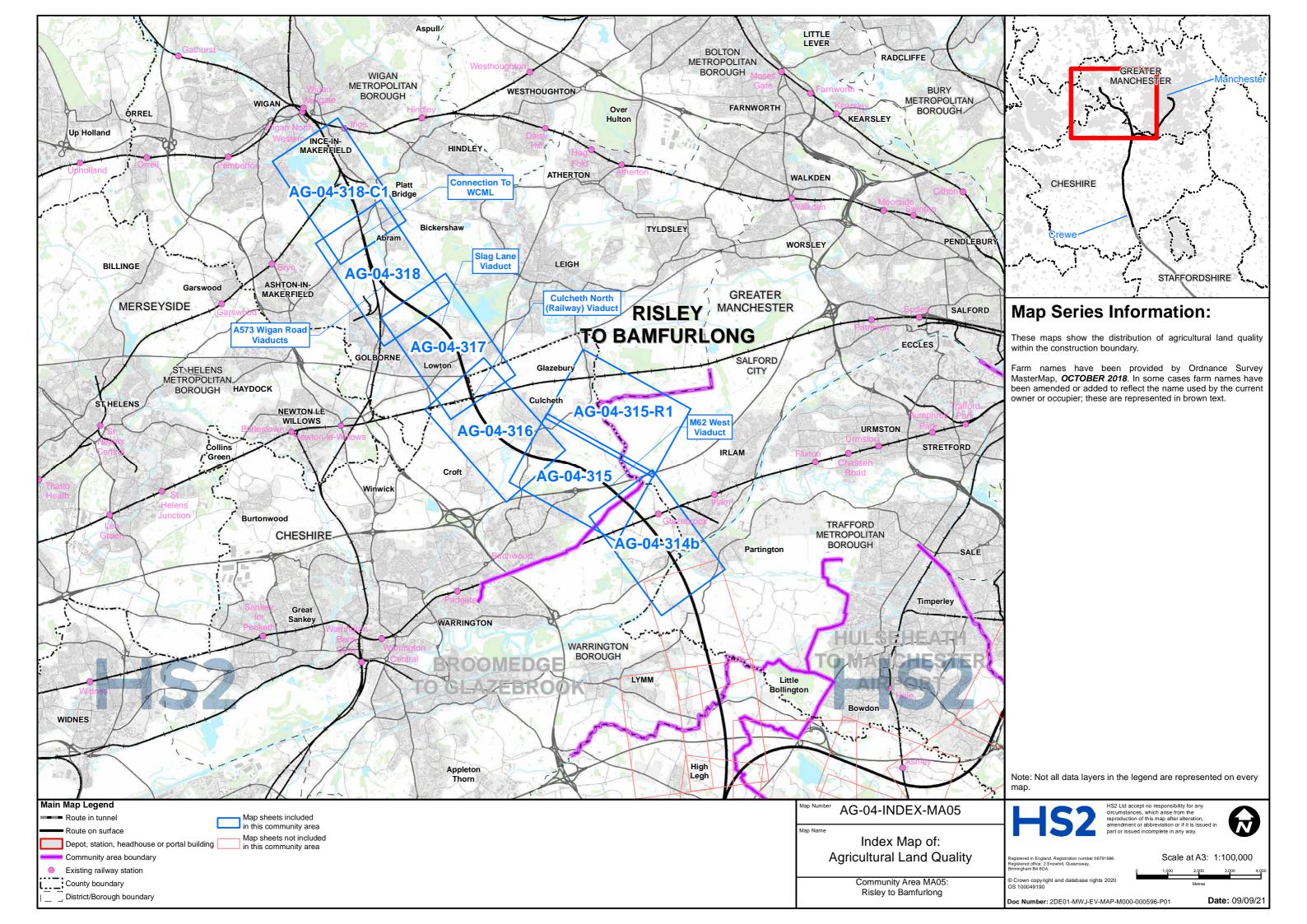


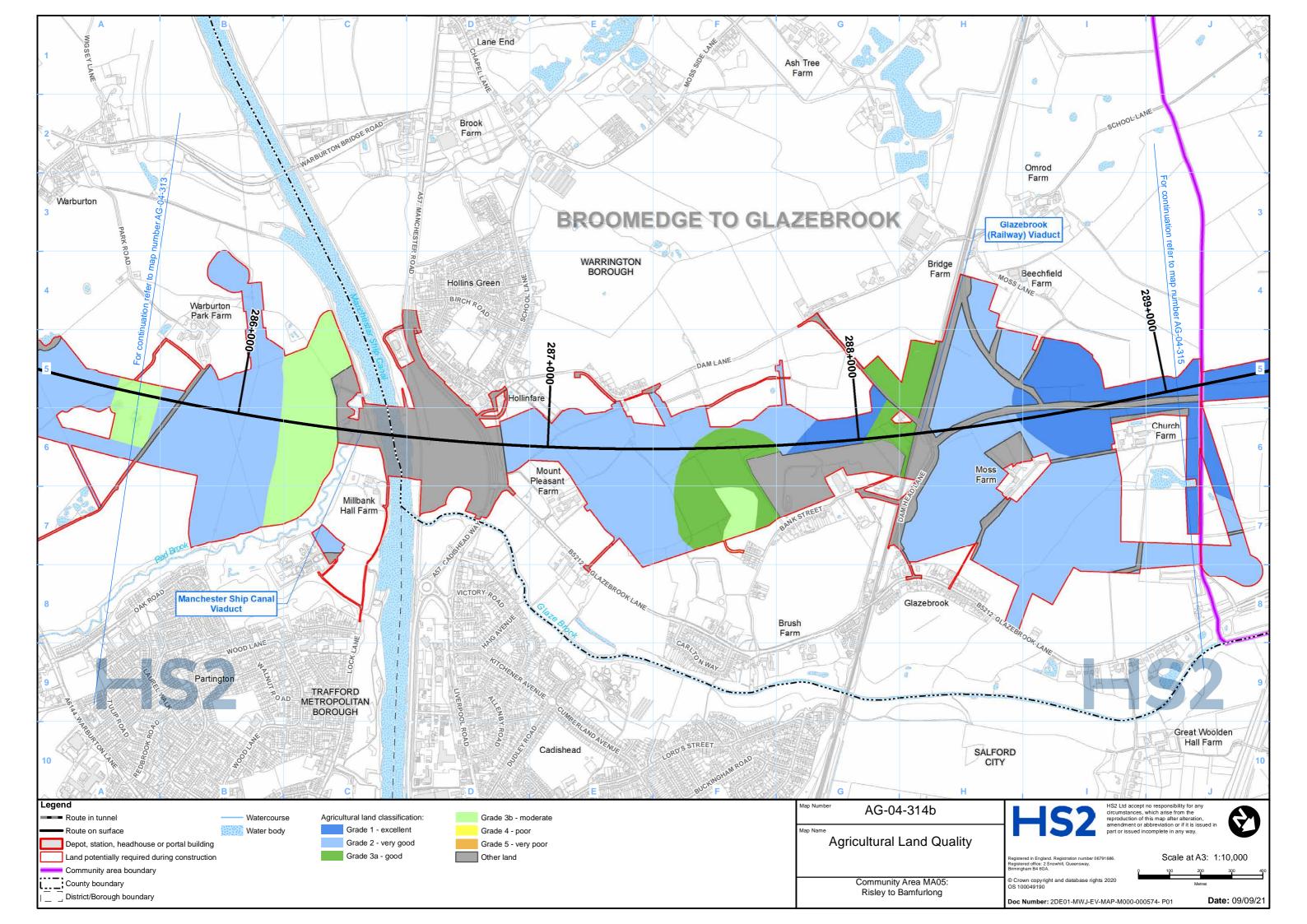


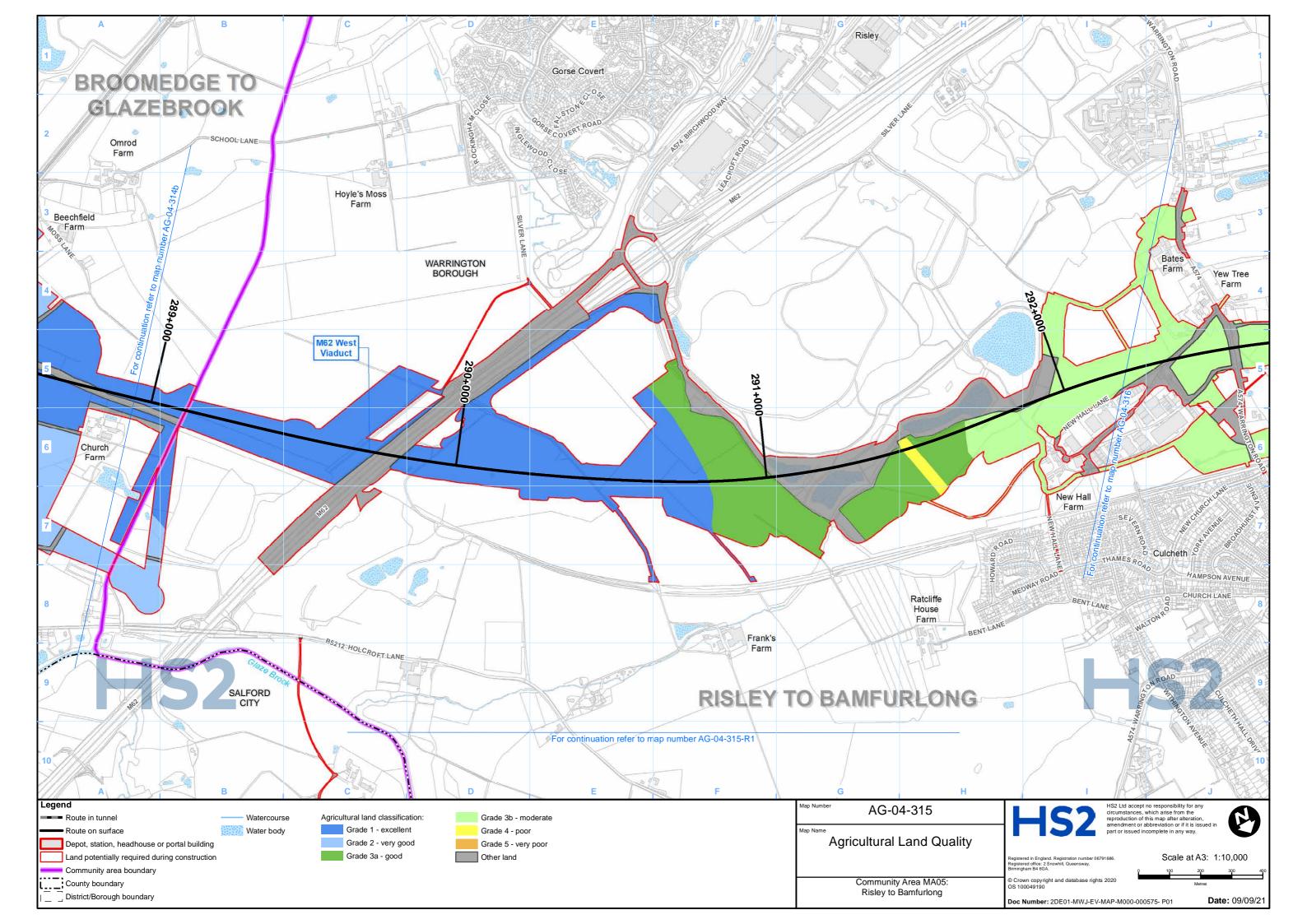


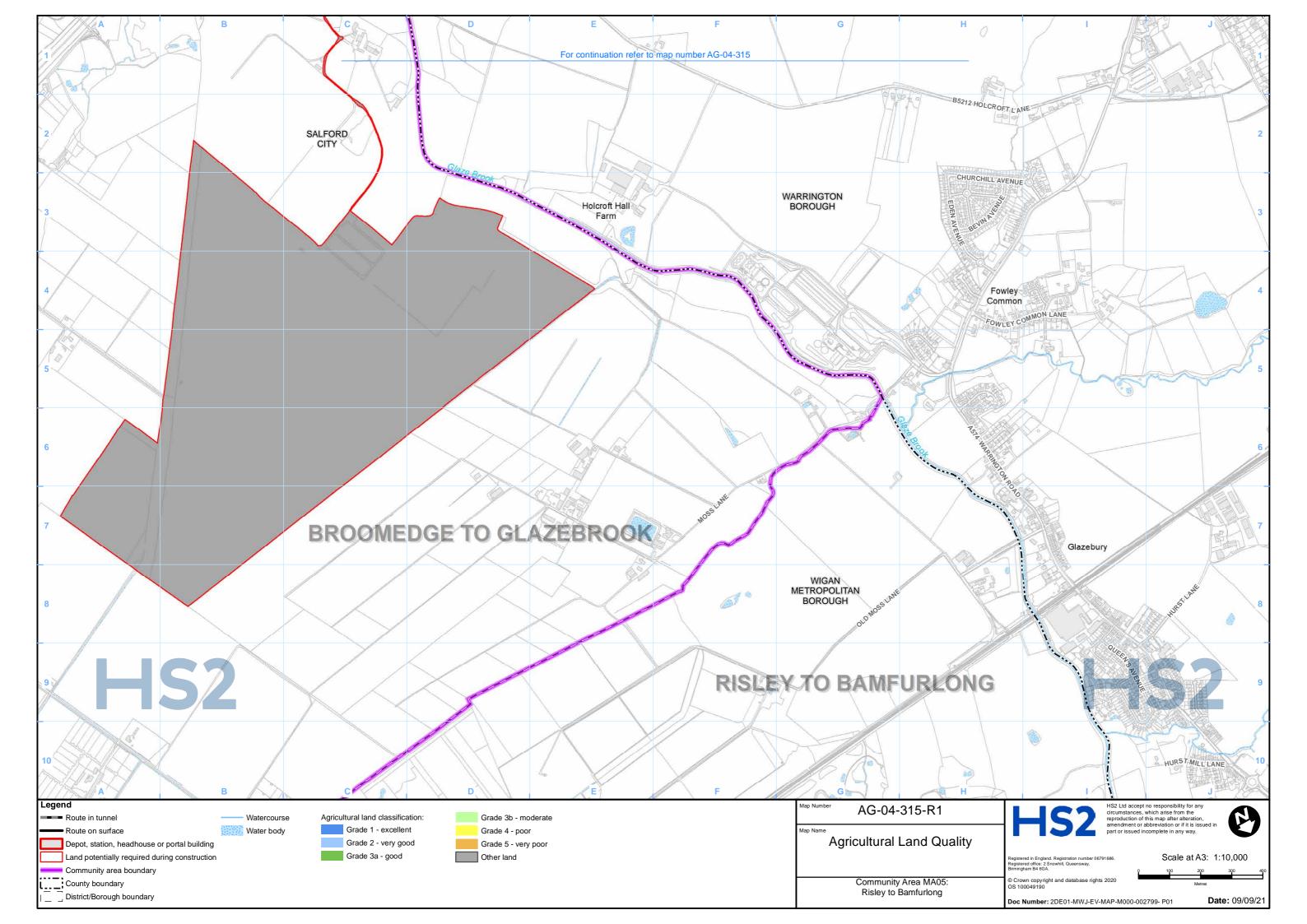
# HS2

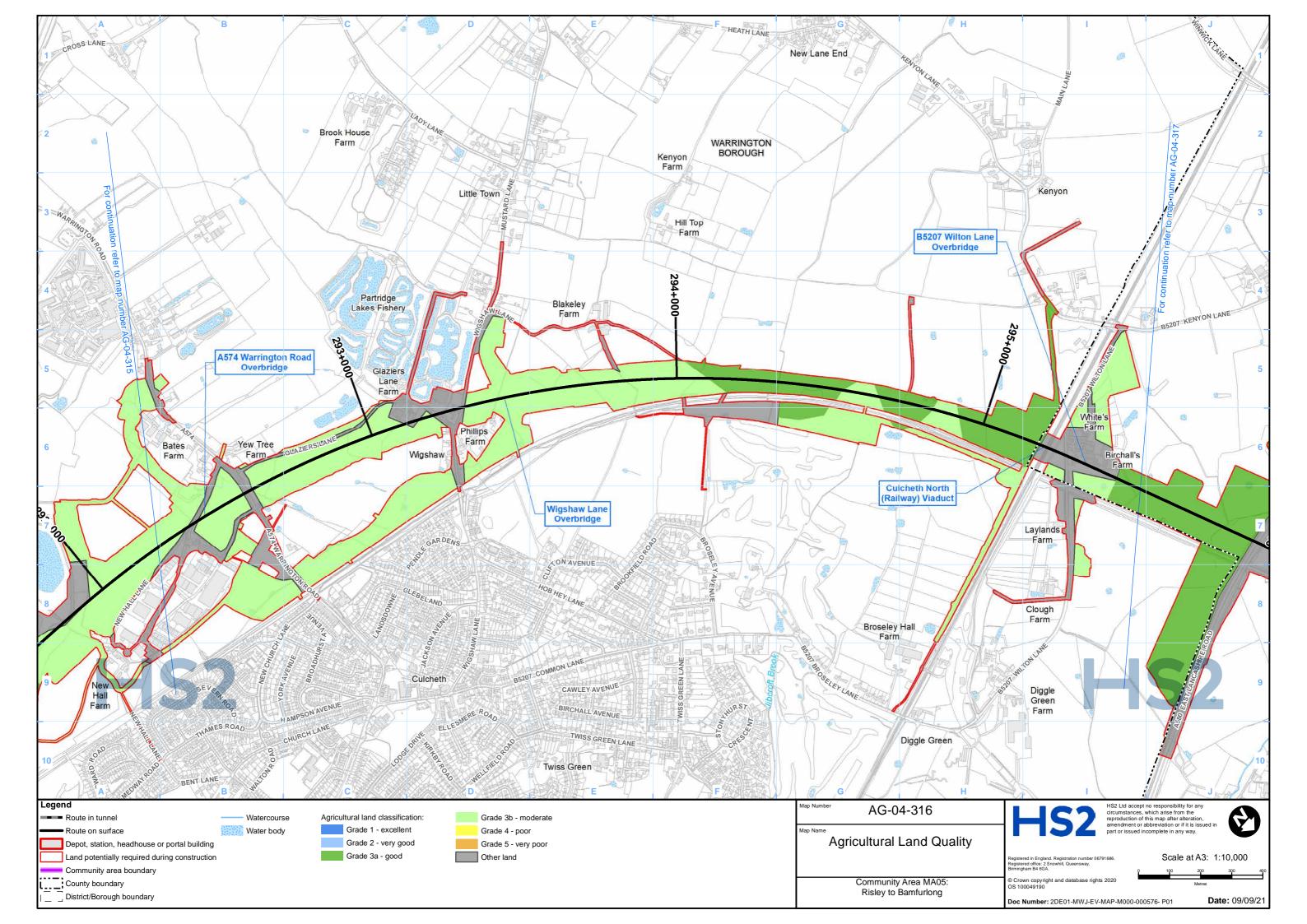
This page is intentionally blank

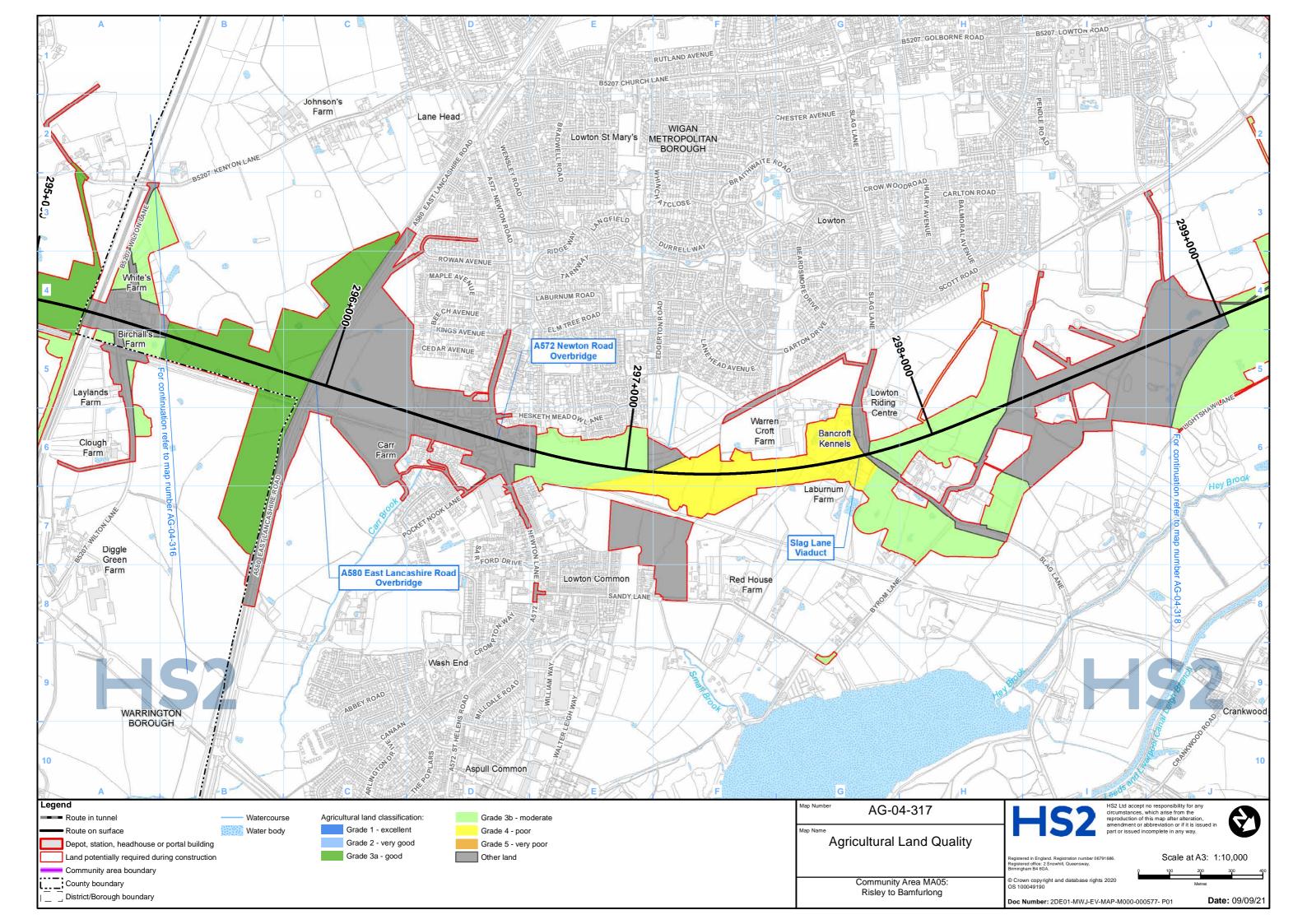


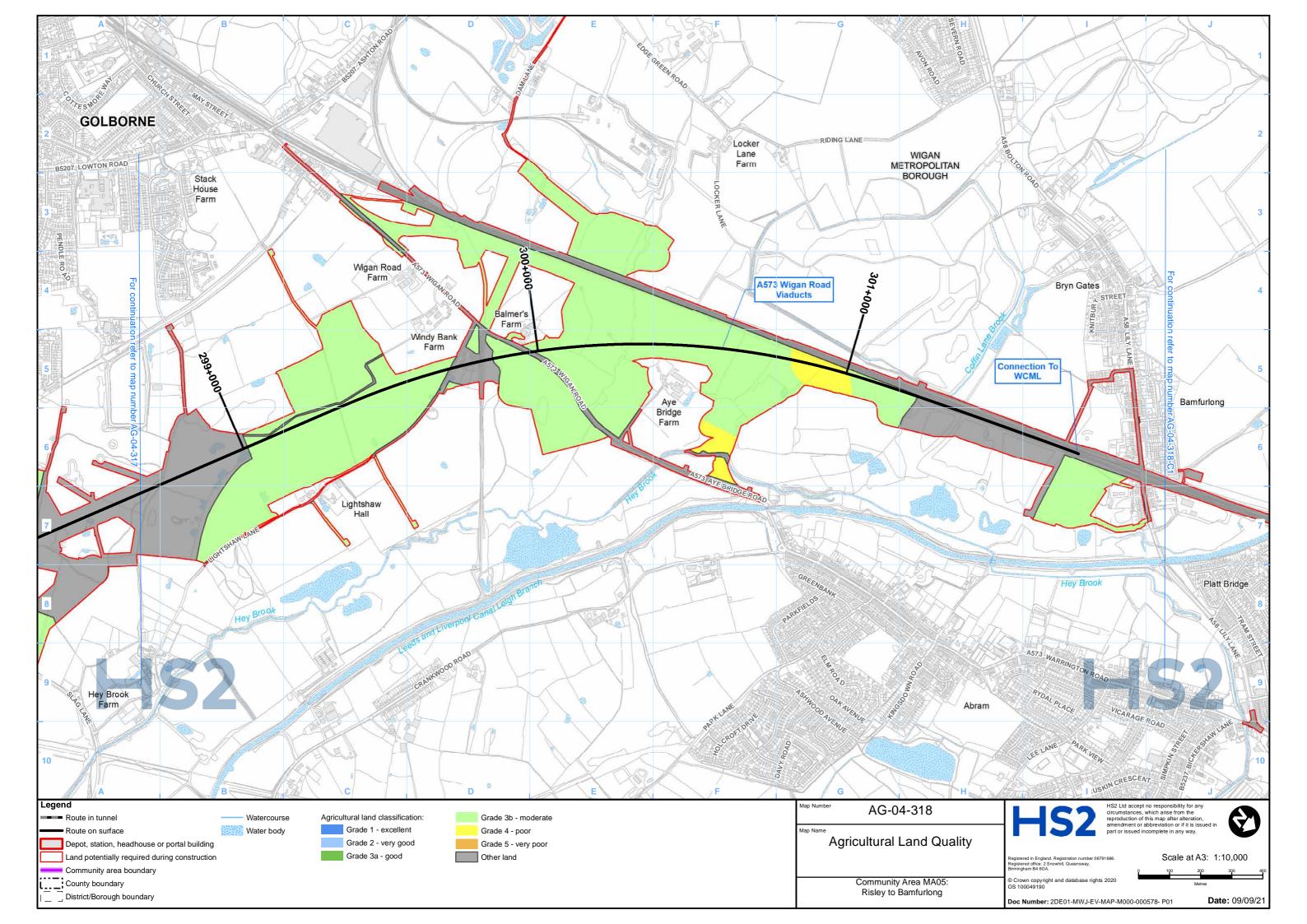


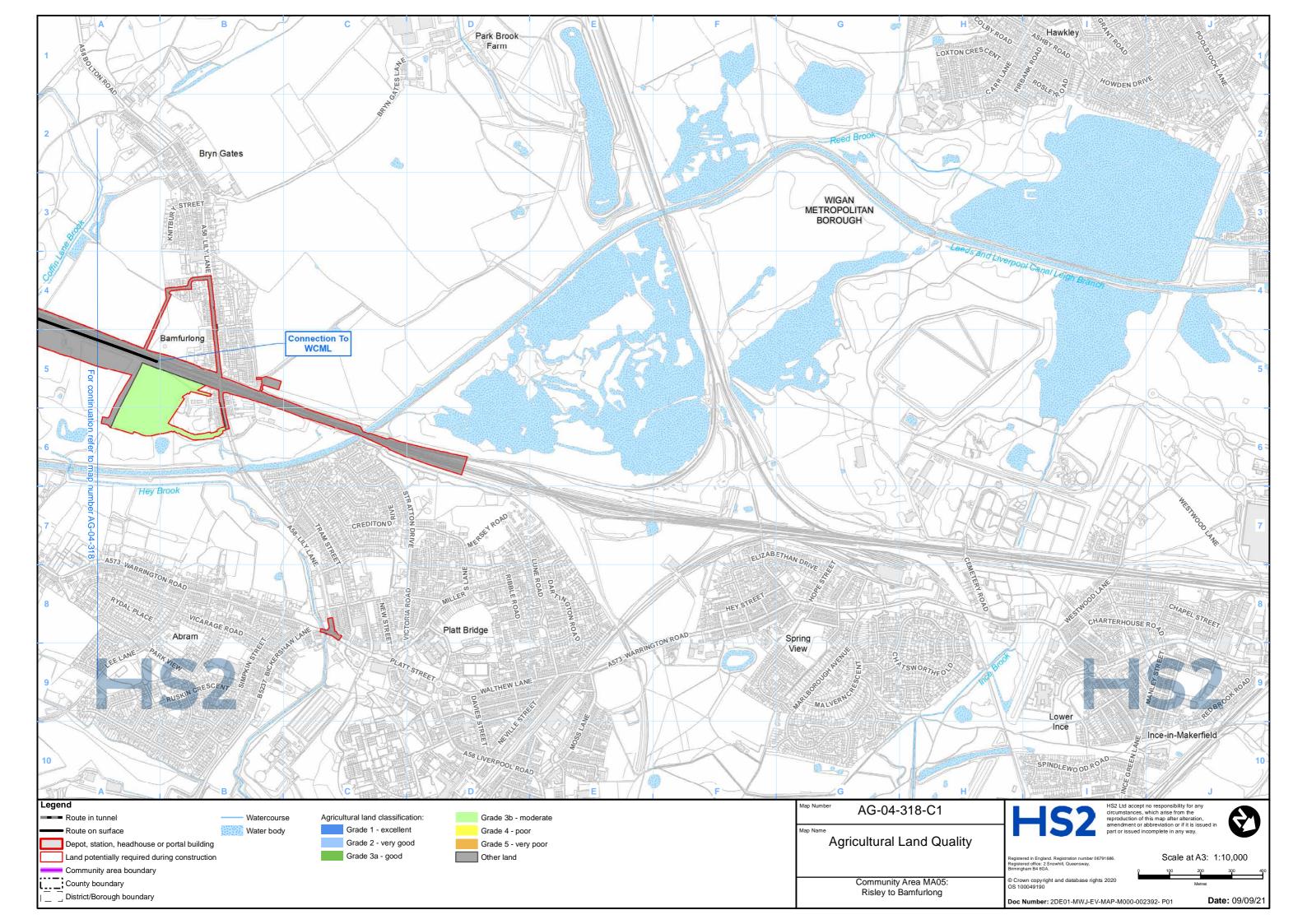












# HS2

This page is intentionally blank



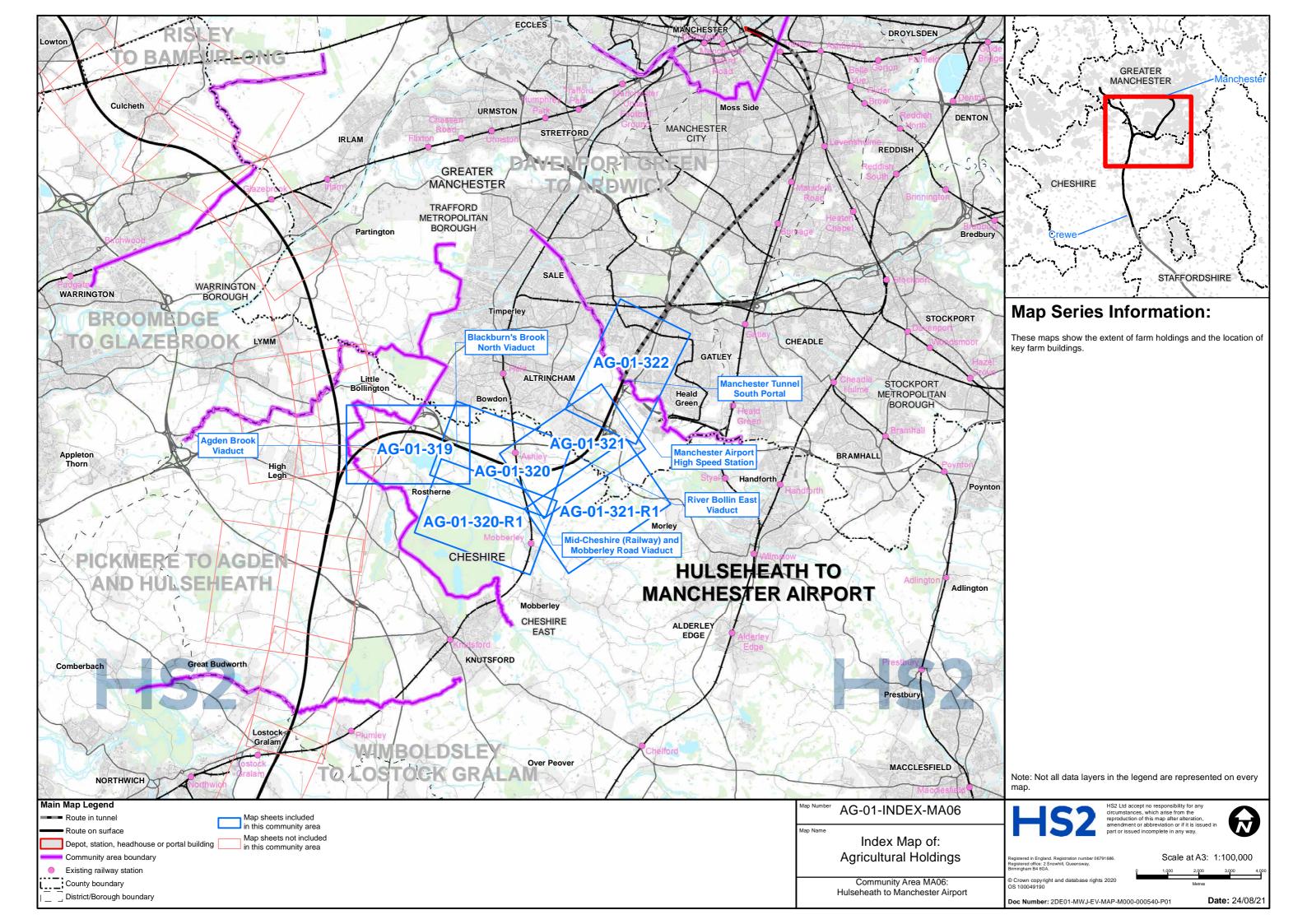
### High Speed Rail (Crewe - Manchester) Environmental Statement

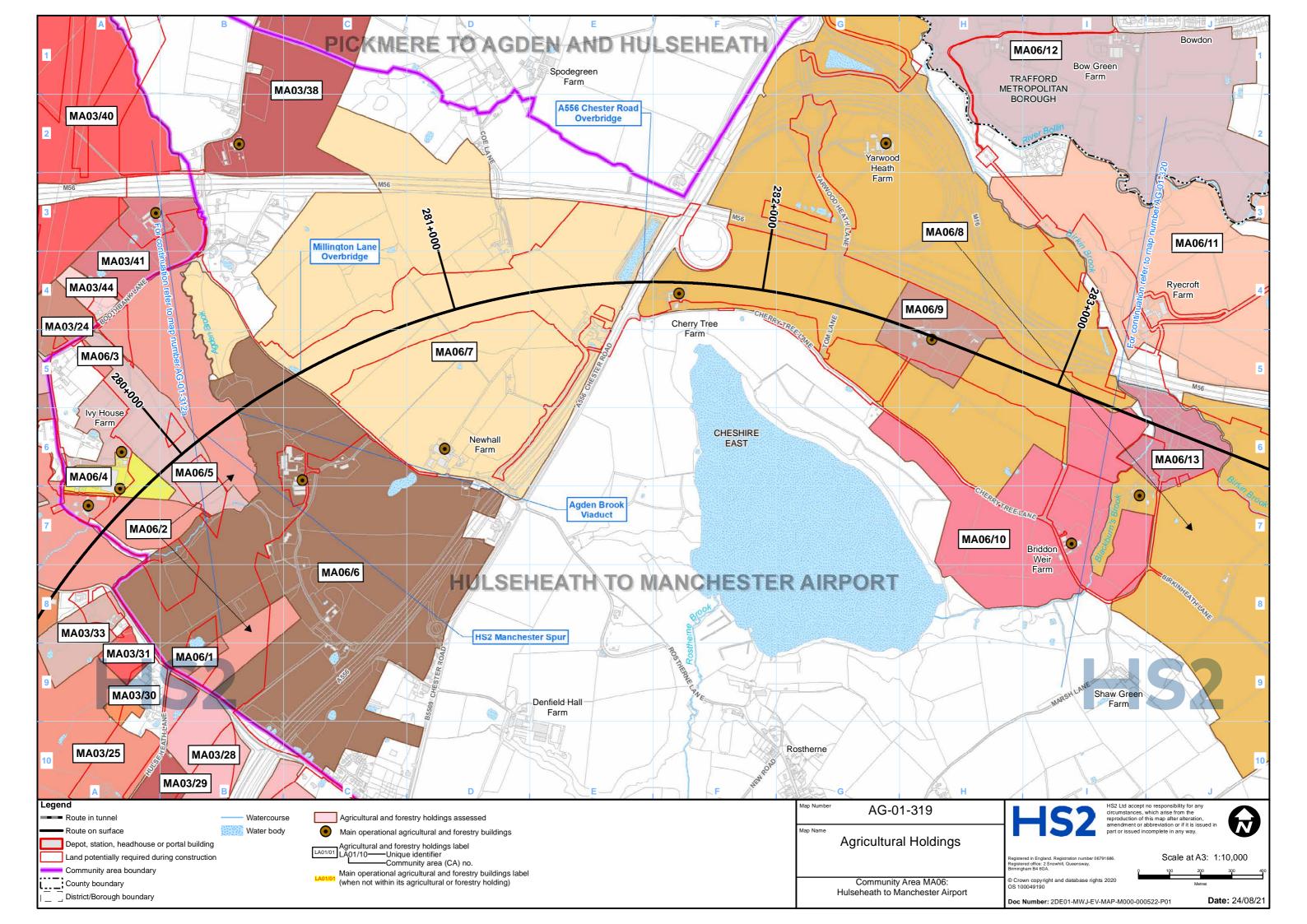
MA06: Hulseheath to Manchester Airport

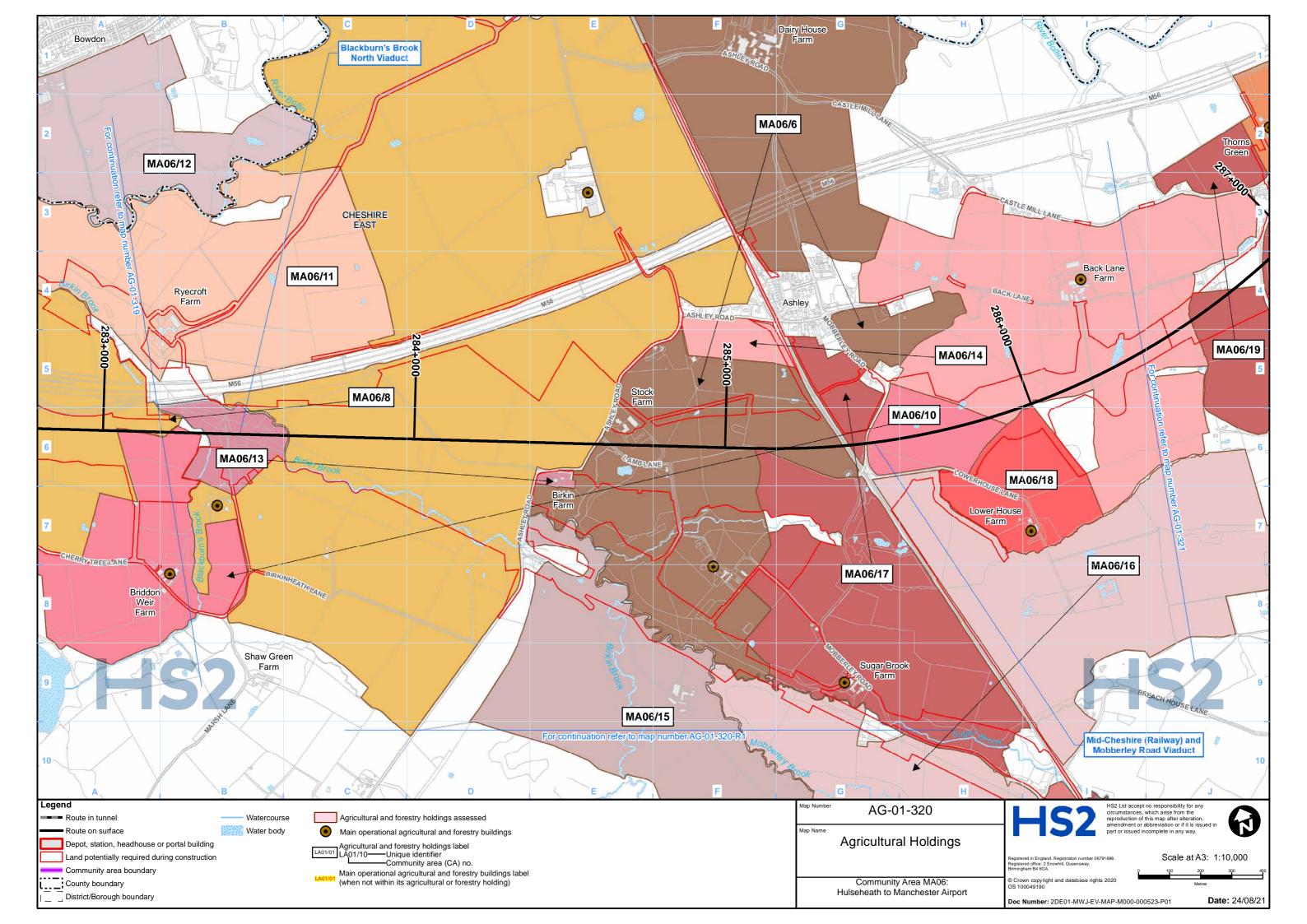
AG-01 - Agricultural Holdings

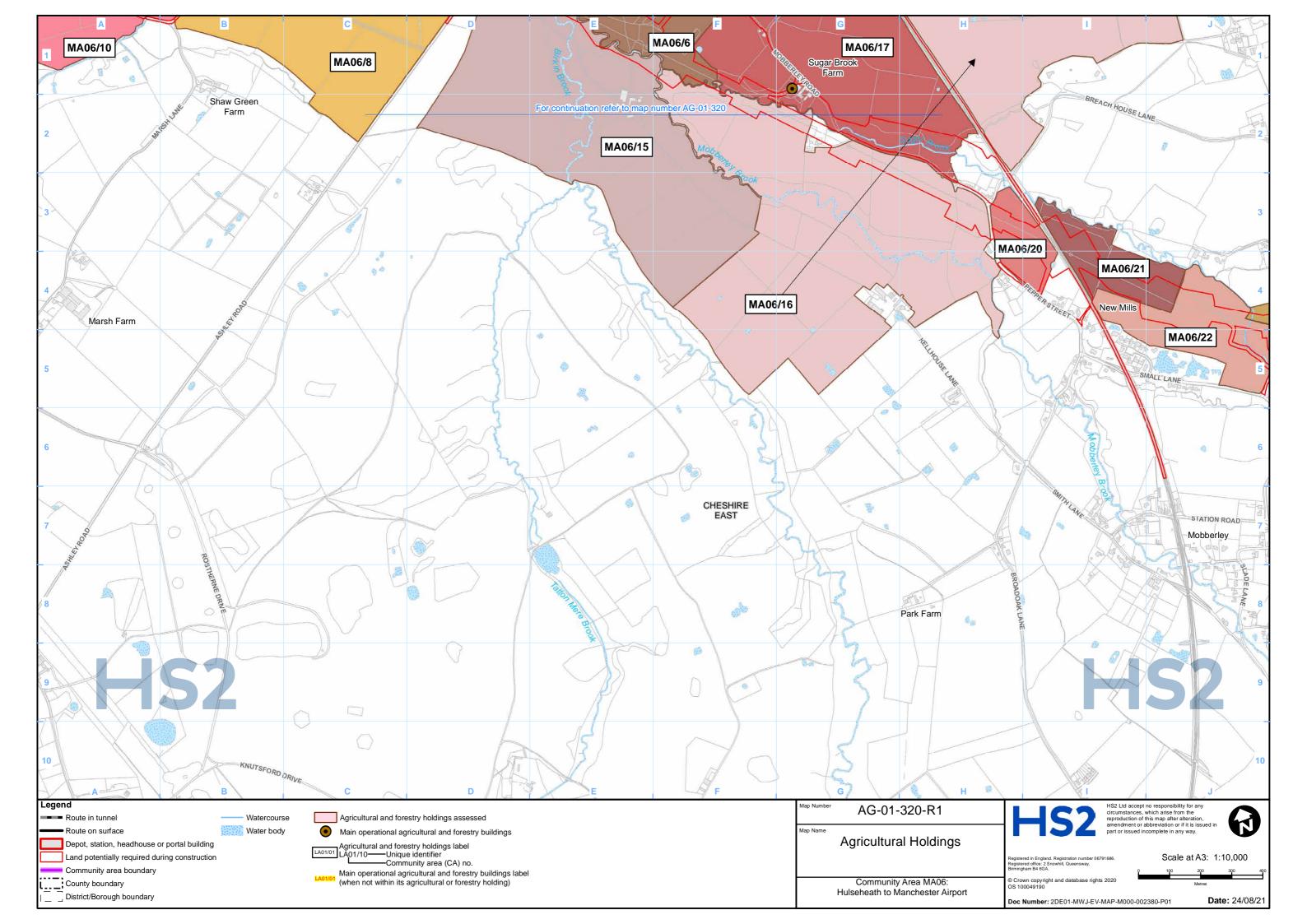
AG-02 - Soil Associations

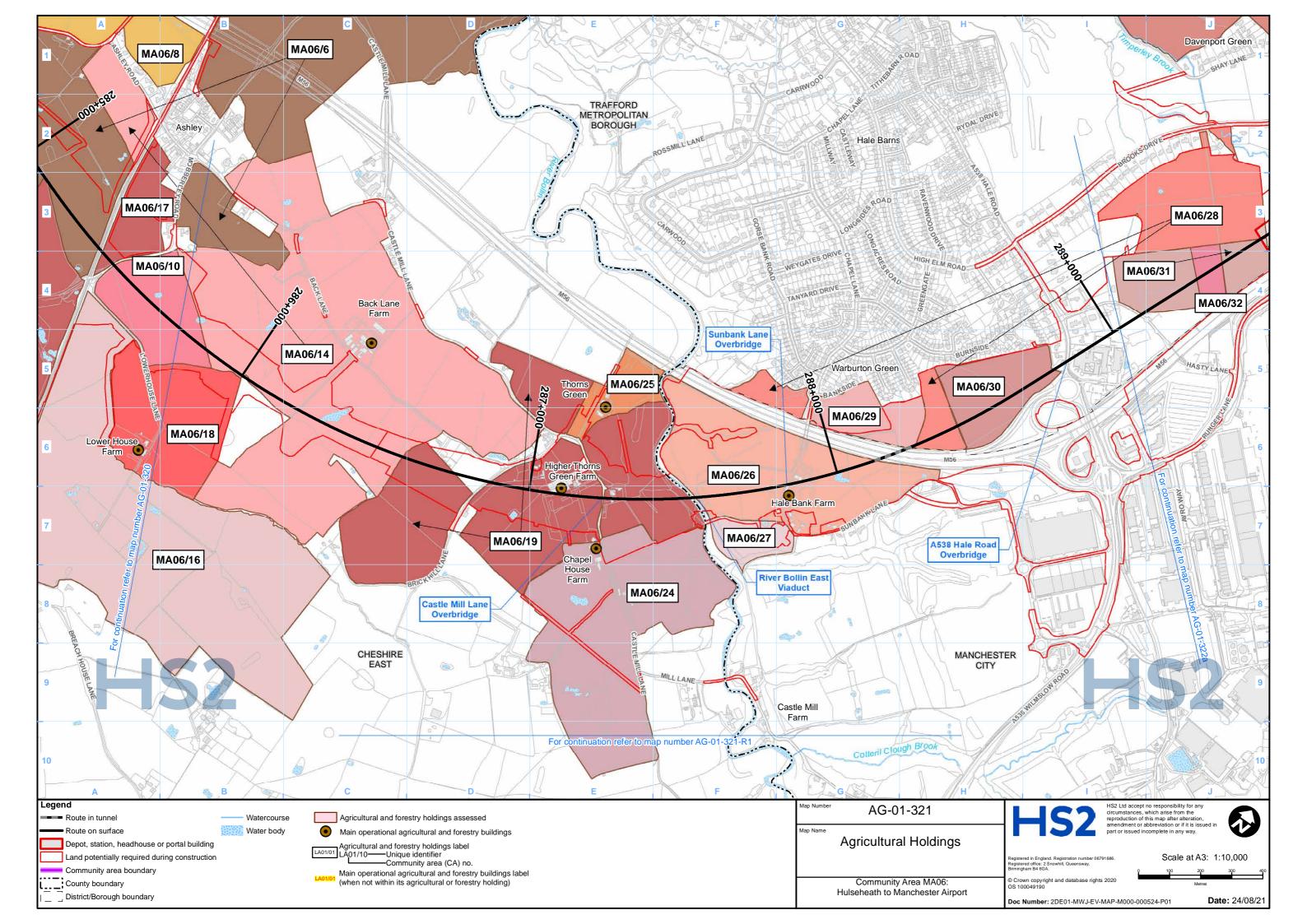
AG-04 - Agricultural Land Quality

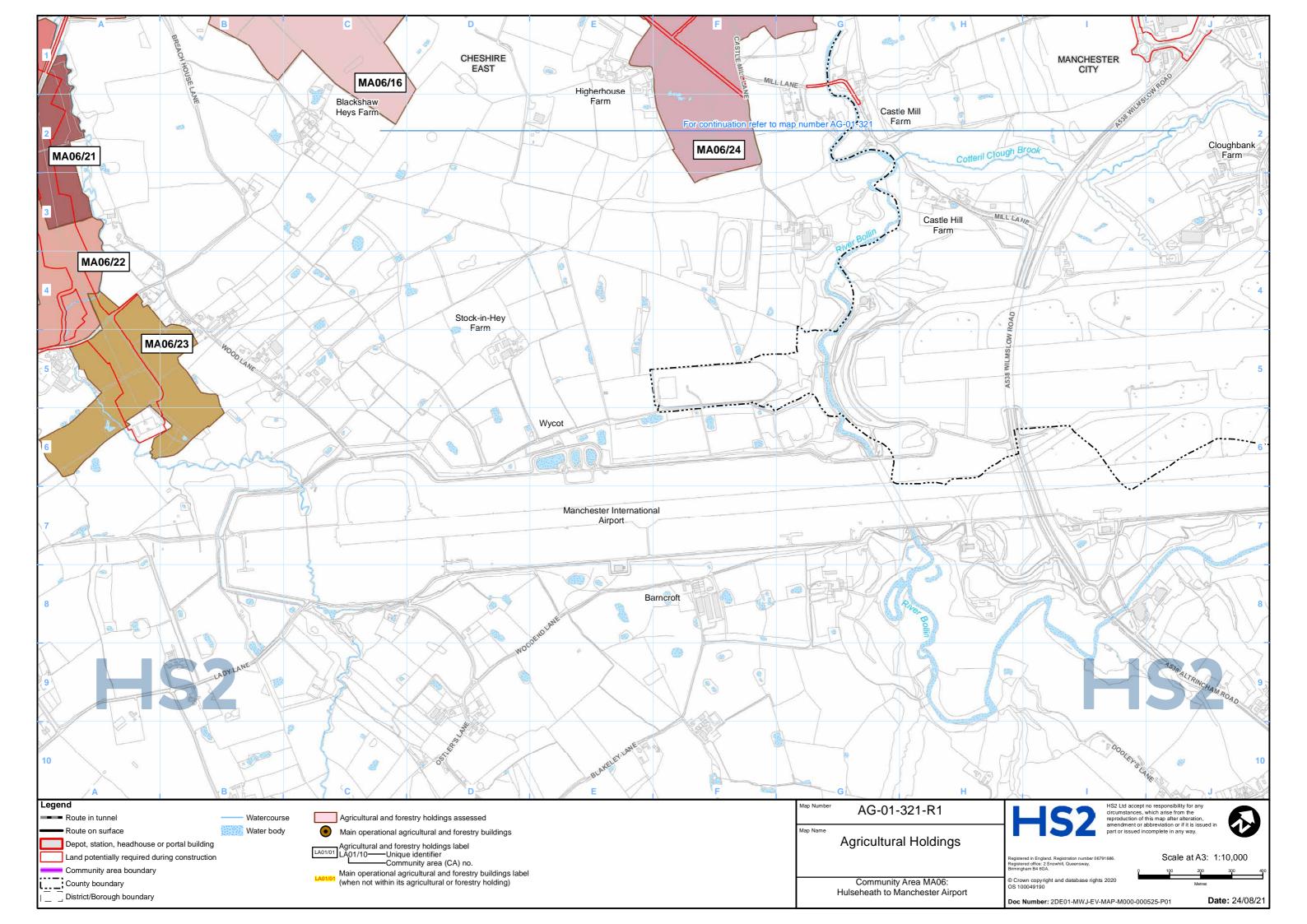


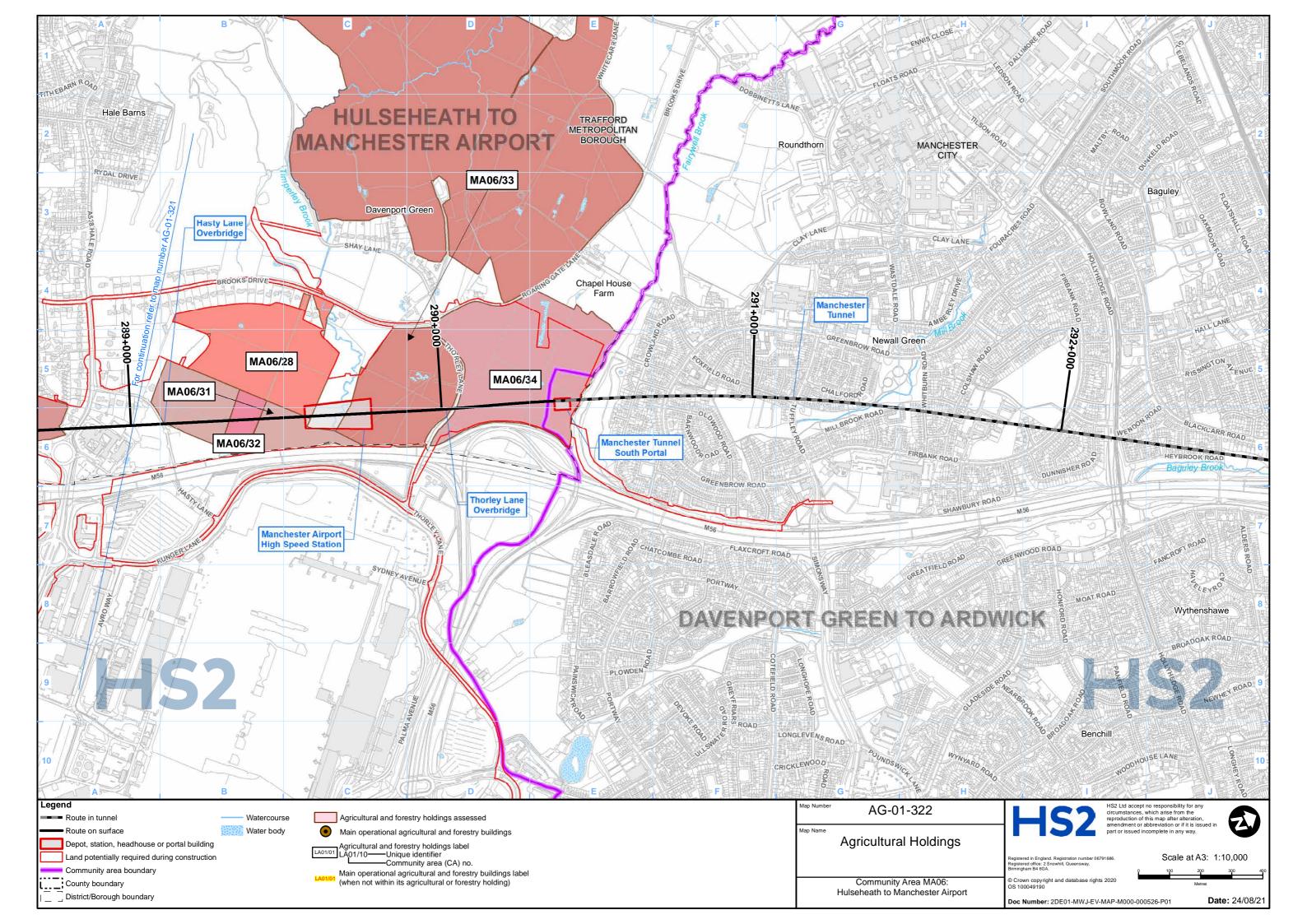


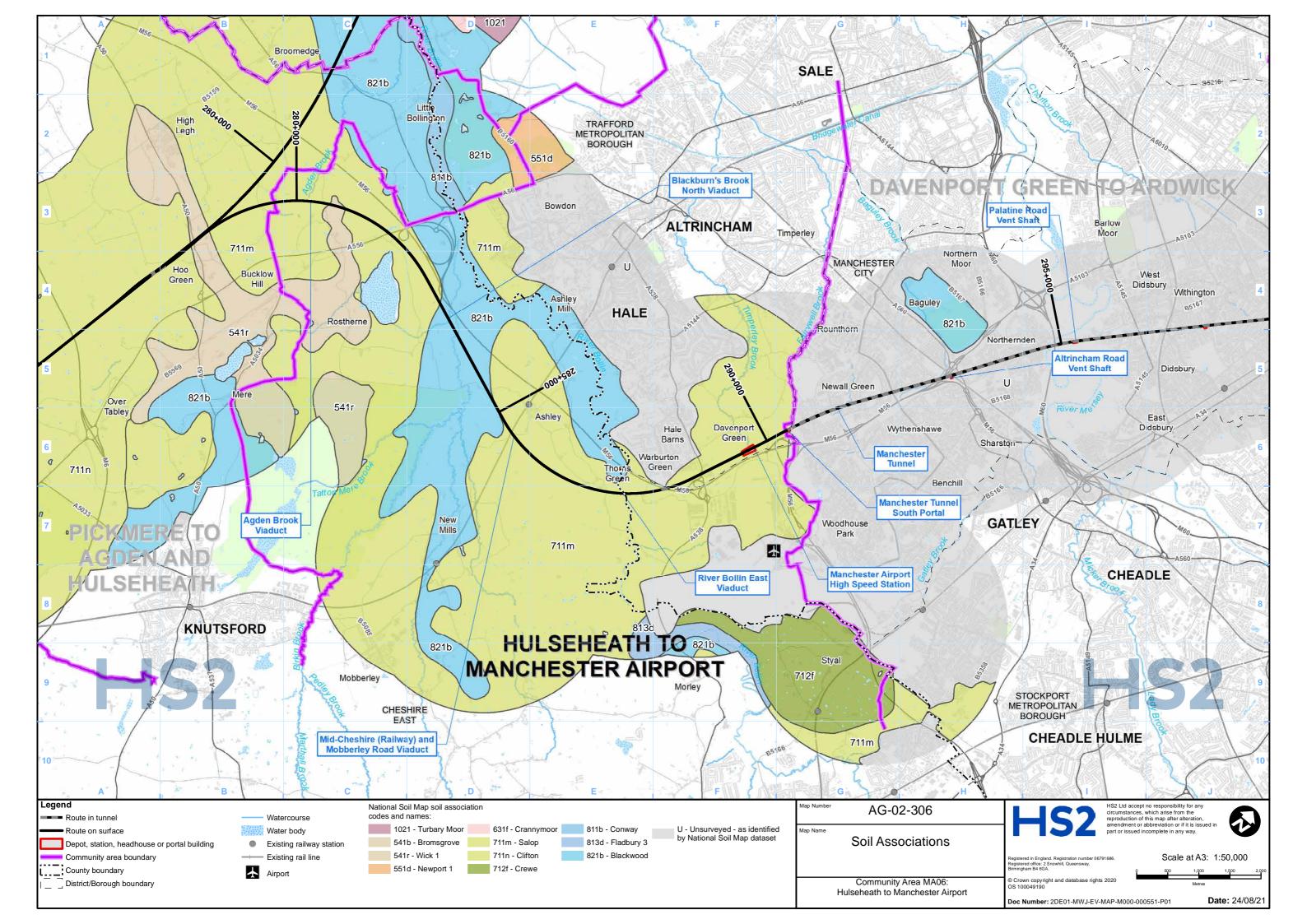


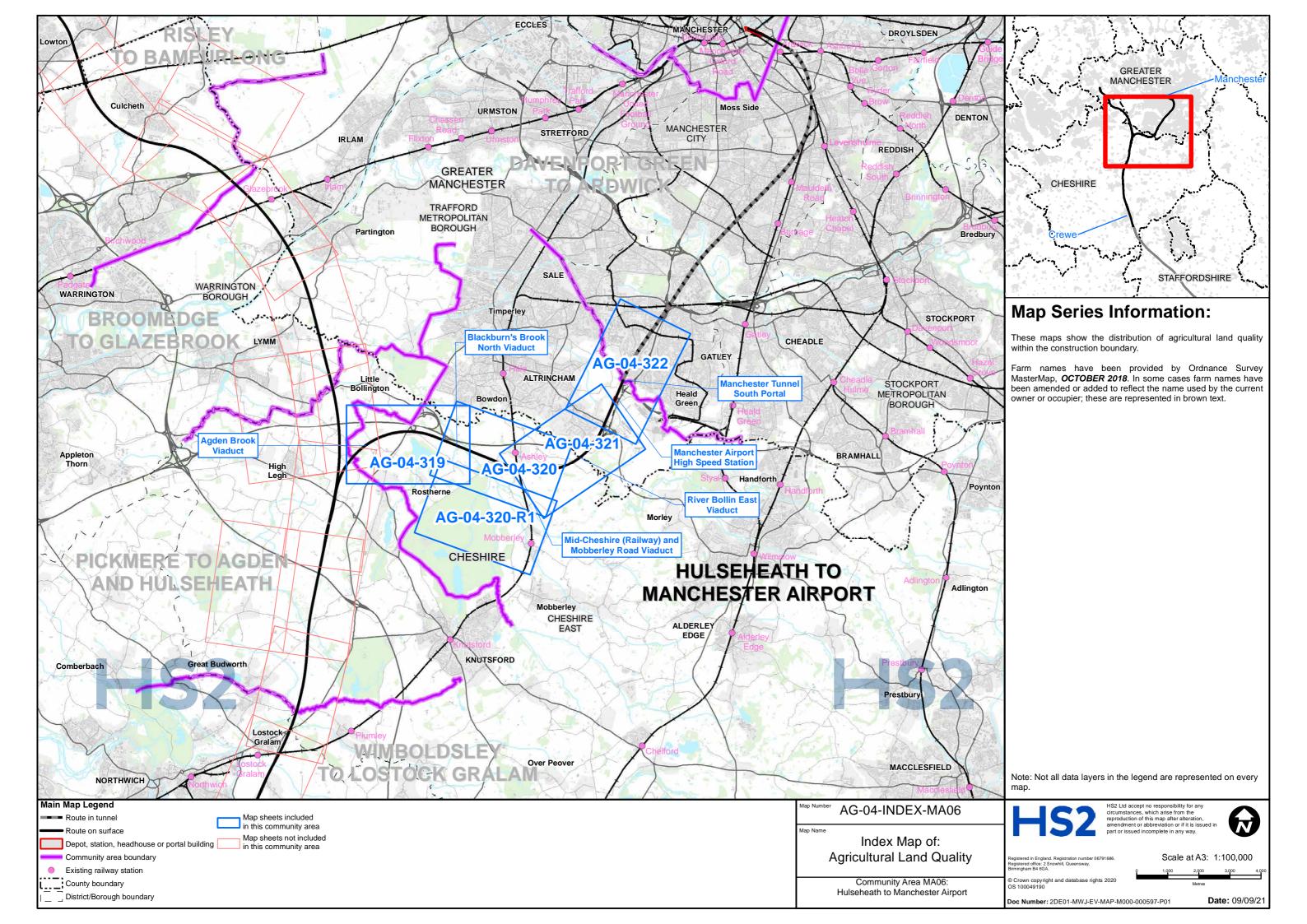


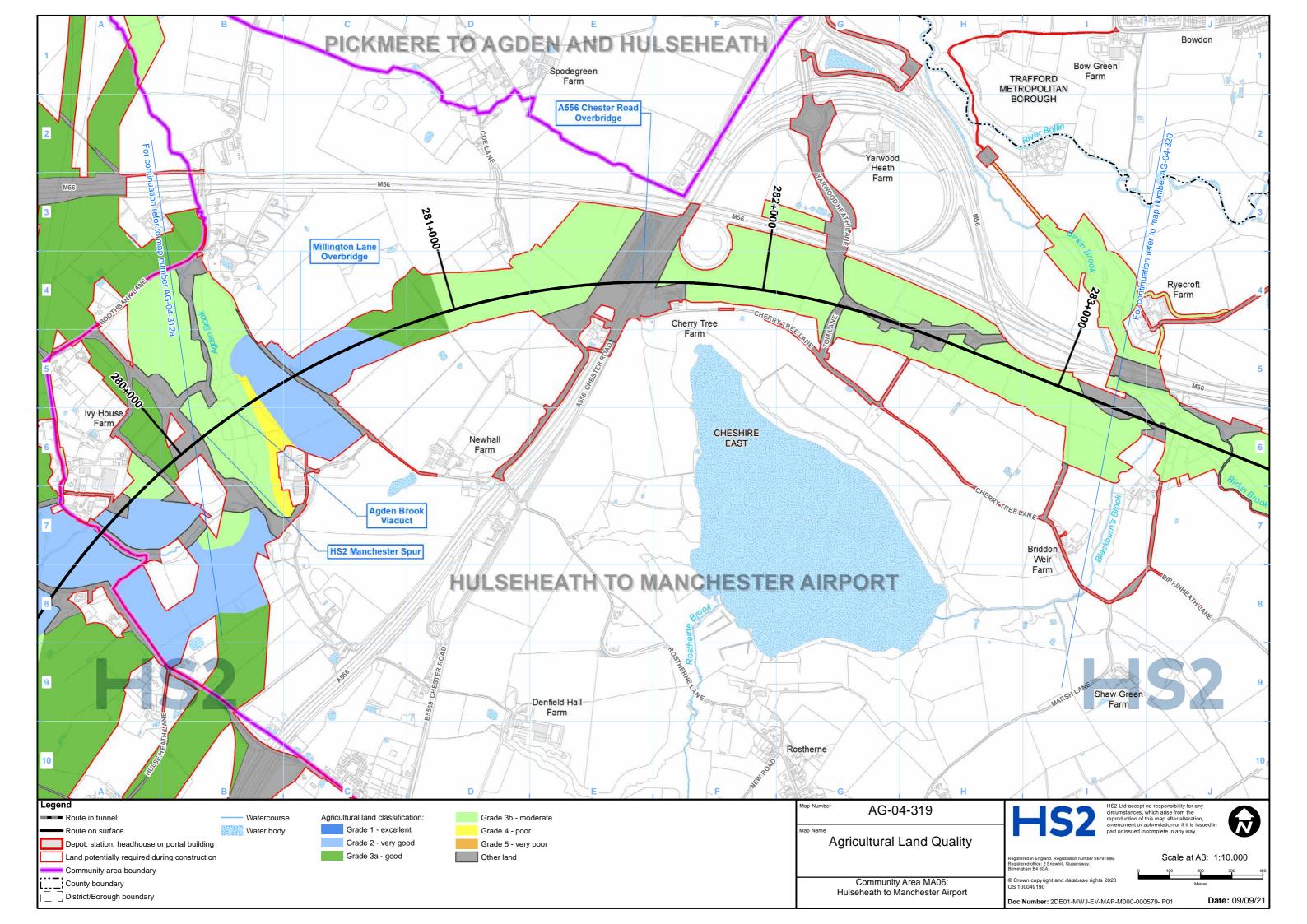


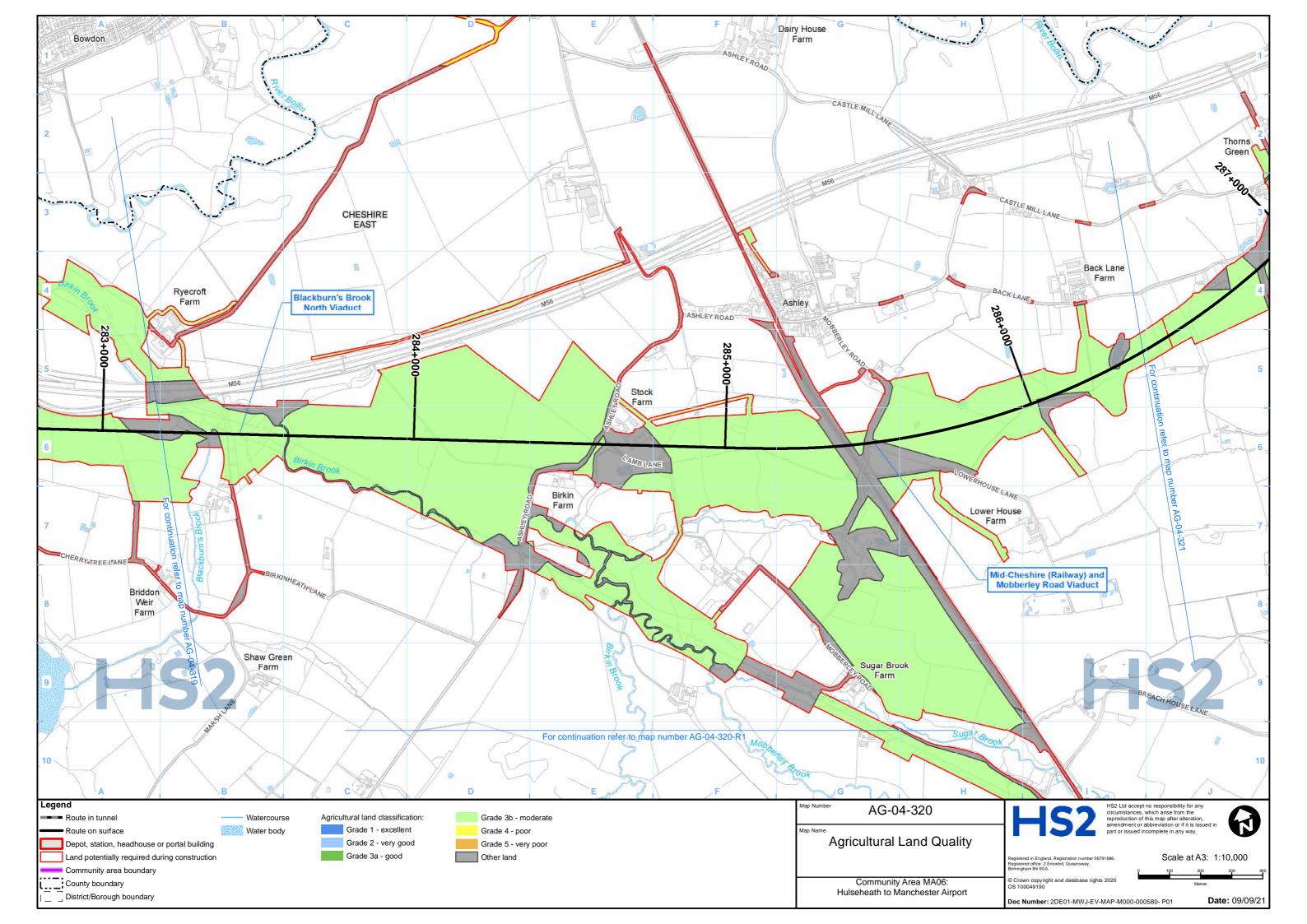


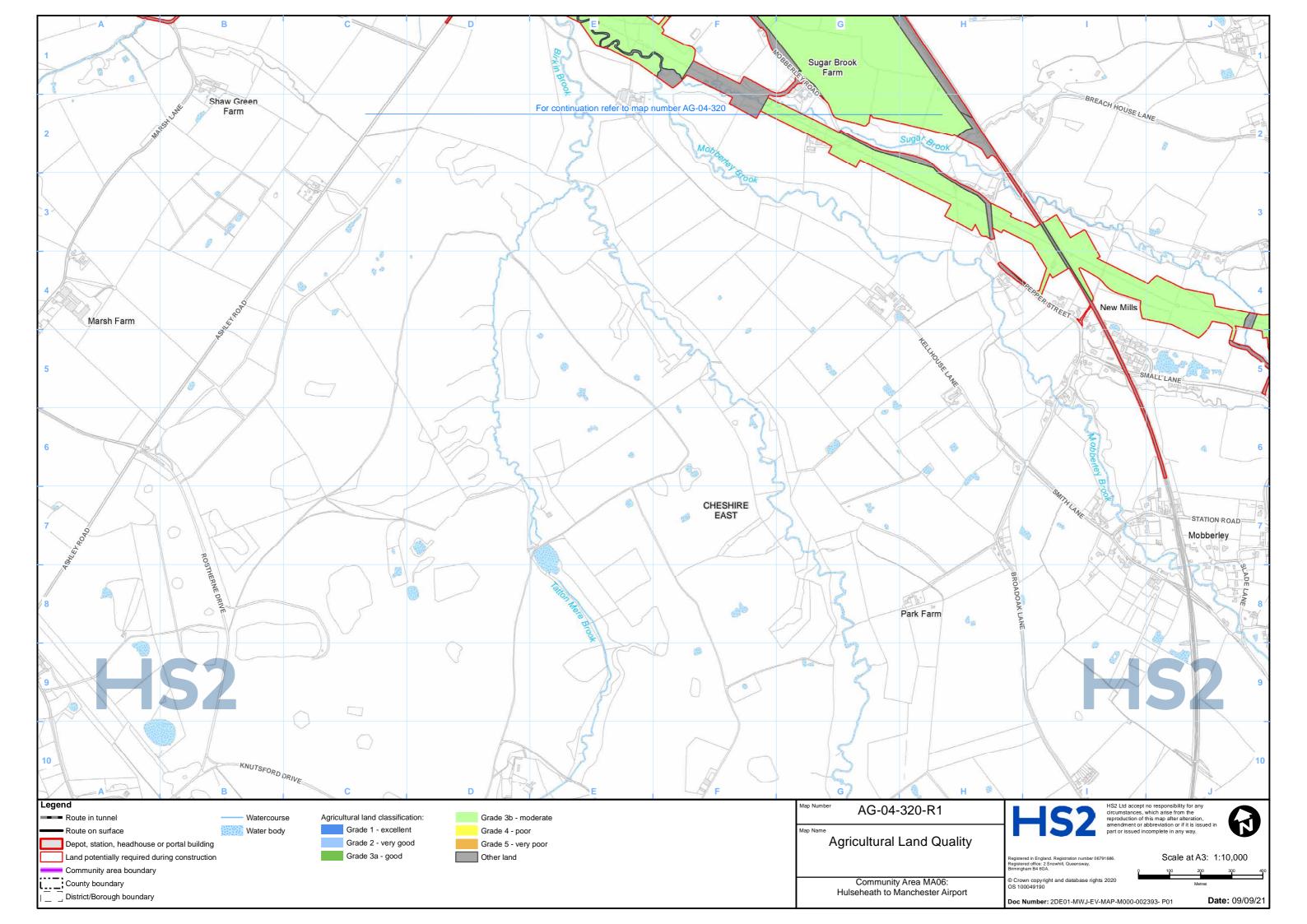


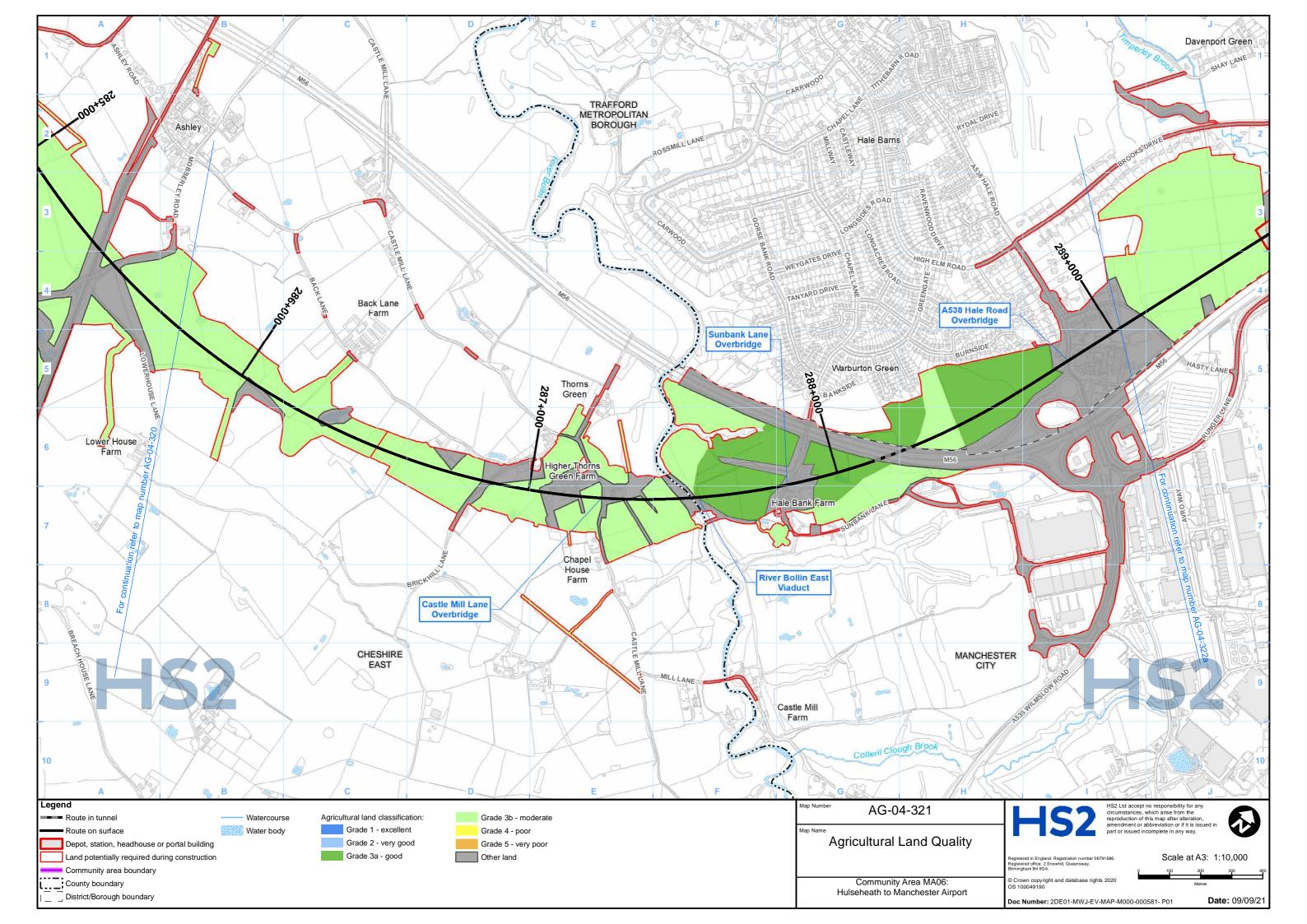


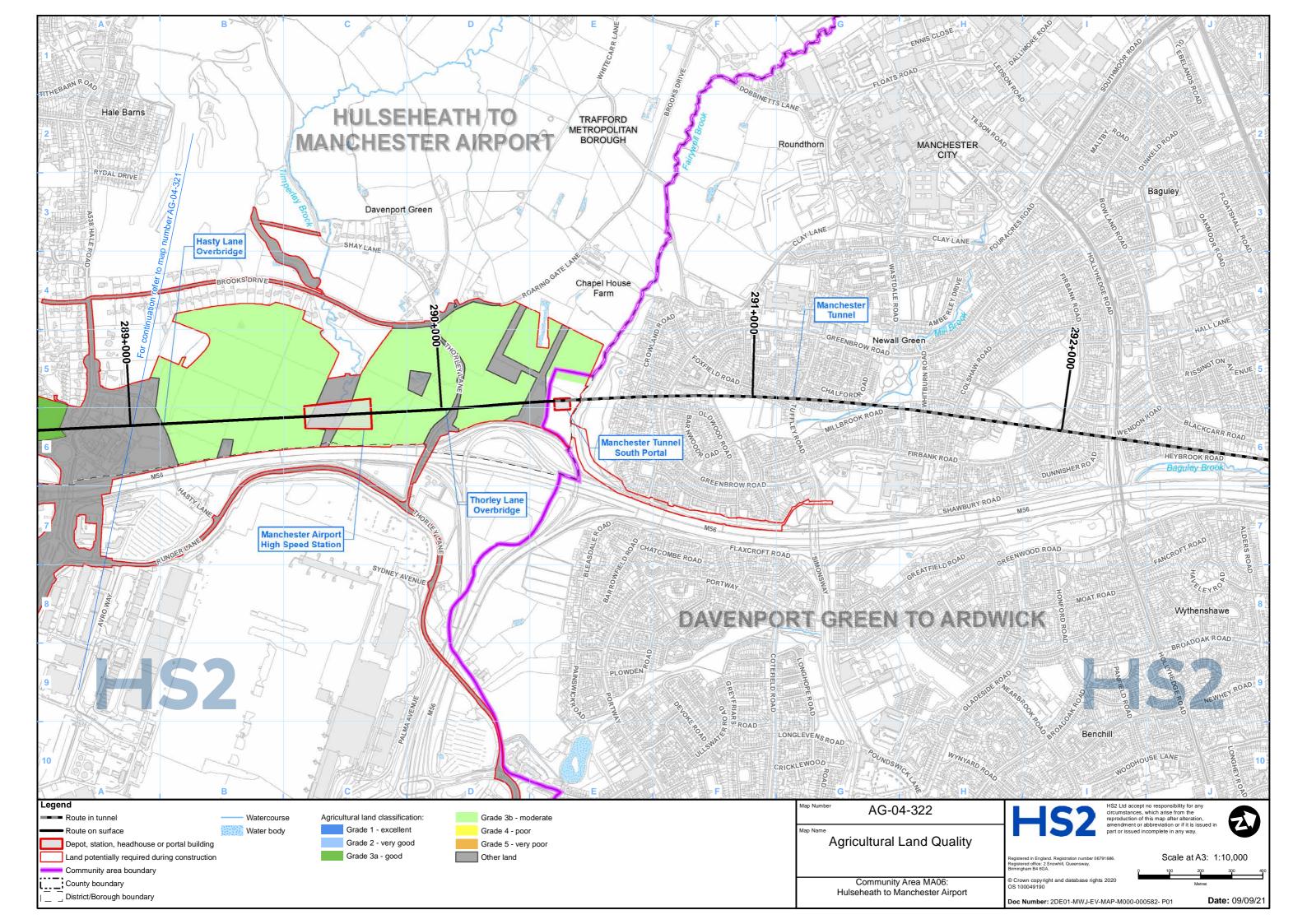












## HS2

This page is intentionally blank



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

OR003: Annandale Depot

AG-01 - Agricultural Holdings

AG-02 - Soil Associations

AG-04 - Agricultural Land Quality

