High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report **Volume 2: Map book CA1: Fradley to Colton**

September 2016 cs590_c7



High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report **Volume 2: Map book CA1: Fradley to Colton**

September 2016





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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 |
|---|--|
| • | These plans show the land potentially required during construction |
| | requirements and infrastructure associated with construction of t |
| CT as Construction Phase | construction phase arrangements for public access using Public R |
| CT-05 – Construction Phase | The design of the Proposed Scheme will be informed through sta |
| | and environmental studies. |
| | The base mapping shown on the plans is reflective of 2016 Ordna |
| | These maps show permanent features, infrastructure, restored la |
| | ecological mitigation associated with the Proposed Scheme. |
| CT-o6 – Proposed Scheme | The design of the Proposed Scheme will be informed through sta |
| | and environmental studies. |
| | The base mapping shown on the plans is reflective of 2016 Ordna |
| | The Environmental Baseline maps display a range of environment |
| CT-10 – Environmental Baseline | The design of the Proposed Scheme will be informed through cor |
| | environmental studies. |
| | The landscape and visual maps (series LV-11) display landscape cl |
| | in relation to landform (contours), settlements and PRoW. |
| | Landscape character areas are derived from either published sour |
| | site survey in the absence of published data. Viewpoints have bee |
| | Scheme from visual receptors that have the potential to be signif |
| LV-11 – Landscape Character Areas and Viewpoints | operation. |
| | All viewpoints lie within the zone of theoretical visibility of the Pro- |
| | inclusion in the formal EIA. |
| | These maps indicate all viewpoints considered in the assessment |
| | reports only report viewpoints which are considered likely to be s |
| | The design of the Proposed Scheme will be informed through sta |
| | and environmental studies. |
| | SV-01 presents the predicted operational sound from the new rai |
| | The sound levels from the new railway (expressed as LpAeq,T) are |
| | dB steps. There is a panel at the top right of the figure; the left-ha |
| SV-01 — Operational Sound Contour Maps and Likely Significant Effects | communicating the night-time and daytime sound levels represe |
| SV SI Operational Sound Control Maps and Encely Significant Encers | of the same panel contains text explaining how the sound levels p |
| | direct noise impacts and likely significant effects. |
| | The design of the Proposed Scheme will be informed through sta |
| | and environmental studies. |
| | This map series shows surface water features such as rivers, strea |
| | and surface water abstractions as referred to in the working draft |
| WR-01 – Surface Water Baseline | All points where the alignment crosses a watercourse are also sho |
| | These are shown as "Surface water crossing locations". |
| | The design of the Proposed Scheme will be informed through sta |
| | and environmental studies |

tion, the construction features, access of the Proposed Scheme. The plans also show the Rights of Way. takeholder engagement and further engineering nance Survey (OS) data. land, and areas for landscaping, screening and takeholder engagement and further engineering nance Survey (OS) data. ental data layers. consultation and further engineering and character areas and visual assessment viewpoints ources or have been developed through extensive een selected to represent views of the Proposed nificantly affected during either construction or Proposed Scheme, which is being developed for nt of visual effects. The working draft EIA Volume 2 e significantly affected by the Proposed Scheme. takeholder engagement and further engineering railway. are presented in typical noise mapping colours in 5 hand section of this panel contains a key sented by the various colours. The right-hand part s presented on the figure inform the assessment of takeholder engagement and further engineering eams, ponds, canals and reservoirs, flood zones, aft EIA Report. hown and labelled with their reference in the text. takeholder engagement and further engineering

Mapping explanatory notes

Structure of the HS2 Phase 2a working draft Environmental Impact Assessment Report

This document is part of the working draft EIA Report for Phase 2a of the proposed HS2 rail network, between the West Midlands and Crewe. The working draft EIA Report sets out the current design of the Proposed Scheme, the likely environmental impacts (and, where possible, the likely significant environmental effects) of the construction and operation of the Proposed Scheme and proposed mitigation measures. The mapping will be updated for the formal EIA Report to reflect further work on the design and environmental assessment between now and when the hybrid Bill is deposited.

The working draft EIA Report comprises the following documents:

- Non-technical summary. This provides a summary in non-technical language of: the Proposed Scheme and reasonable alternatives considered; the impacts of the Proposed Scheme (and where possible, the likely significant environmental effects), both beneficial and adverse and the proposed means of avoiding, reducing or managing the likely significant adverse effects.
- Volume 1: Introduction and methodology. This provides: a description of HS2, the EIA process and the approach to consultation and engagement; details of the permanent features of the Proposed Scheme and generic construction techniques, based on the current level of design; a summary of the scope and methodology for the environmental topics and a summary of the strategic, route-wide and route corridor alternatives to the scheme and local alternatives considered prior to November 2015.
- Volume 2: Community area reports and map books. These cover the following community areas: 1 Fradley to Colton; 2 Colwich to Yarlet; 3 Stone and Swynnerton; 4 Whitmore Heath to Madeley; and 5 South Cheshire. The reports provide the following for each area: an overview of the area; a description of the construction and operation of the Proposed Scheme within the area, based on the current level of design; a summary of local alternatives considered since November 2015; a description of the environmental baseline; a description of the environmental impacts of the Proposed Scheme (and, where possible, the likely significant environmental effects), both beneficial and adverse and the proposed means of avoiding, reducing or managing the likely significant adverse effects. The maps relevant to each community area are provided in separate Volume 2 map books.
- Volume 3: Route-wide effects. This describes the impacts and effects that are likely to occur at a geographical scale greater than the community areas described in Volume 2.
- Glossary of terms and list of abbreviations. This contains terms and abbreviations, including units of measurement, used throughout the working draft EIA Report. •
- Alternatives report: This describes the evolution of the Proposed Scheme and the reasonable alternatives considered.
- Draft Code of Construction Practice (CoCP): This sets out the measures and standards to provide effective planning, management and control of potential impacts on individuals, communities and the environment during • construction.

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 working draft EIA Report 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 working draft EIA Report have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XX+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 5km intervals. For maps at 1:25,000 scale chainage is shown at 2km intervals. For maps at 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 different 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 right hand side of the page, and Crewe to the left.

The exception to this, is map series LV-11, which presents 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 Crewe to the top.

Map books

In total there are 5 map books which make up the working draft EIA Report, all within volume 2. A list of the titles is provided below for reference.

| Name |
|---|
| Volume 2 Community area map book: CA1 Fradley to Colton |
| Volume 2 Community area map book: CA2 Colwich to Yarlet |
| Volume 2 Community area map book: CA3 Stone and Swynnerton |
| Volume 2 Community area map book: CA4 Whitmore Heath to Madeley |
| Volume 2 Community area map book: CA5 South Cheshire |

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High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report **Data dictionary and definitions**



Data dictionary and definitions

| Legend features | Definition | Source | Copyrig |
|---|---|--|---|
| 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 | |
| Airborne sound study area | This defines the area within which operational airborne sound impacts of the scheme have been quantitatively assessed. This area is defined as within 1km of surface sections of the route in rural areas and within 500m of surface sections of the route in urban areas. | High Speed Two (HS2) Ltd | |
| Ancient Woodland Inventory Sites (AWIS) | Ancient Woodland Inventory. Ancient Woodland is land that has had continuous woodland cover since at least 1600AD. Natural England maintain an inventory of ancient woodlands. Additional woodlands which are considered likely to be ancient, but have not been formally added to the inventory are not included in the mapped data set. | Natural England | © Natur Survey o permissi 1000491 http://w governn |
| Balancing pond | The proposed location and extent of balancing ponds for drainage attenuation and infiltration. Outer boundary represents the perimeter. | High Speed Two (HS2) Ltd | |
| Chainage | Chainage (known as reference chainage) is referenced fromEuston Station, which is 0+000, and the value presented is inmetres. E.g. 192+000 refers to the point, 192,000m, or 192km,from Euston Station. Chainage values increase in intervalsdependant on the map scale. For maps at 1:50,000 scalechainage is shown at 5km intervals. For maps at 1:25,000 scalechainage is shown at 2km intervals. For maps at 1:10,000, 1:5,000and 1:2,500 scale chainage is shown at 1km intervals.Chainage has been included on the maps as a useful tool forcomparing different map sets showing the differentenvironmental themes or engineering plans, due to map setshaving different scales and therefore showing differing amountsof alignment on the map. | High Speed Two (HS2) Ltd | |
| Community area boundary | The working draft EIA Report has been split into 5 sections called Community Areas. | High Speed Two (HS2) Ltd | © Crown Ordnand Publicat |
| Conservation area | Areas considered worthy of preservation or enhancement because of their special architectural or historic interest. Conservation Areas have been captured and digitised from desktop based studies using publically available local authority information. Accuracy of the data is dependent upon that of the individual data source and areas are provided as indicative site boundaries only. | Staffordshire County Council Cheshire Historic Environment Record | © Crown Ordnand Publicat © Staffo © Chesh |
| Construction traffic route | Public highways which may be used for HGV construction traffic. | High Speed Two (HS2) Ltd | |
| County boundary | County boundaries from Ordnance Survey boundary mapping. | Ordnance Survey | © Crown Ordnand Publicat |

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ffordshire County Council

shire Historic Environment Record

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| Legend features | Definition | Source | Copyrig |
|---|---|--------------------------|-----------------------------|
| 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 | © Crow Ordnar Publica |
| Ditches – new | The proposed location and extent of drainage ditches. | High Speed Two (HS2) Ltd | |
| 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 | |
| Electricity substation | Includes all auto-transformers and feeder stations. | High Speed Two (HS2) Ltd | |
| Engineering earthworks | Engineering (structural) earthworks which include railway slopes and crossings (roads etc.). | 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 | |
| Envisaged mitigation to avoid / reduce significant noise effects | Landscaping and/or fence barriers: These lines represent the envisaged mitigation provided specifically to reduce sound levels from the Proposed Scheme at sensitive receptors in order to reduce or remove likely operational significant noise effects. Examples include noise fence barriers or earth bunds (non- engineering earthworks) acting as noise barriers. These features are labelled with the height of the top of the barrier/bund above rail level. Engineering e.g. cuttings (green tunnels marked separately): These lines represent engineering features of the route which reduce sound levels from the Proposed Scheme at potentially significant sensitive receptors. These features, therefore, serve a material purpose in reducing or avoiding likely significant noise effects. Examples include engineering cuttings near to sensitive receptors. These features are labelled with the height of the top of the feature above rail level. | High Speed Two (HS2) Ltd | |
| Envisaged features further reducing noise effects | Other environmental features e.g. landscaping: These lines represent environmental mitigation features provided for reasons other than noise mitigation which also reduce sound levels from the Proposed Scheme to the surrounding environment. These features are not placed specifically to reduce or remove a likely significant noise effect. Examples include landscaping and visual mitigation earthworks (non-engineering earthworks). Engineering e.g. cuttings: These lines represent engineering features which reduce sound levels from the Proposed Scheme to the surrounding environment but are not placed specifically to reduce or remove a likely significant noise effect. Examples include cuttings and safety barriers on viaducts which are not close to sensitive receptors. | High Speed Two (HS2) Ltd | |

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| Legend features | Definition | Source | Copyrig |
|--|--|---------------------------|--------------------|
| Existing public right of way (PRoW) | See Public Rights of Way. | See Public Rights of Way. | See Pub |
| Existing watercourse | See Watercourse. | See Watercourse. | See Wa |
| Flood Zone 2 | National Flood Zone 2 (FZ2). Land assessed, ignoring the presence of flood defences, as having between a 1% and 0.1% annual probability of river flooding. | Environment Agency | © Envir 2016. A |
| Flood Zone 3 | National Flood Zone 3 (FZ3). Land assessed, ignoring the presence of flood defences, as having a 1% or greater annual probability of river flooding. | Environment Agency | © Envir 2016. A |
| Grassed areas | Any other area grassed not included in landscaped earthworks or ecological habitat. | High Speed Two (HS2) Ltd | |
| Grassland habitat creation | Soft landscape design that can include any seeded areas for the purpose of creating grassland except for the engineering earthworks. | High Speed Two (HS2) Ltd | |
| Hedgerow habitat creation | Ecological mitigation to provide new hedgerow planting, connectivity 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 | |
| Historic flooding area | Historic Flood Map is the maximum extent of all recorded individual Historic Flood Events Outlines from river, the sea and groundwater springs and shows areas of land that have previously been subject to flooding in England & Wales. | Environment Agency | © Envir 2016. A |
| HS2 Access road | Access road to HS2 infrastructure such as electricity substations, balancing ponds and maintenance access points to the railway. | High Speed Two (HS2) Ltd | |
| Land drainage area | Provision of land to attenuate or infiltrate overland flows at or beyond the HS2 railway boundaries; for example, where existing land drainage systems are altered by the HS2 works, where the existing landform is reshaped by landscape earthworks or where surface water from third party land is intercepted by the HS2 perimeter drainage system. | High Speed Two (HS2) Ltd | |
| 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. | High Speed Two (HS2) Ltd | |
| Landscape character areas (LCA) | 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 | |
| Landscape earthworks | Landscape earthworks to provide permanent landscape, visual or acoustic mitigation. | High Speed Two (HS2) Ltd | |
| Landscape mitigation planting (scrub / woodland) | Screening planting, using woodland, for visual mitigation and landscape integration purposes. | High Speed Two (HS2) Ltd | |
| Licensed surface water abstraction (excluding public water supplies) | A surface water abstraction licence issued by the Environment Agency, which abstracts more than 20 cubic metres a day. Data supplied as spreadsheet. Digitised within 2km. Excludes the | Environment Agency | © Envir 2016. A |

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Public Rights of Way.

Watercourse.

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| Legend features | Definition | Source | Copyrig |
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| | Security and Environmental Measures Direction 1998. | | |
| Listed building Grade I Listed building Grade II* Listed building Grade II | Buildings and structures in England of special architectural or historic interest. In some instances the source data for individual buildings is grouped under a single grid reference, in these instances the data may have been interrogated further to identify addresses of individual buildings with Listed Building status so that these can be displayed individually on the map. The Listed Building data consists of approximately 375,000 standing structures. The information has been converted from paper records georeferenced to digital mapping. A small percentage of the data was manually located. The data is subject to continuous review and regularly updated as new structures are designated and positional accuracy improves. | Historic England | © Histo data © The His materia publicly can be o |
| Local Nature Reserve (LNR) | A Local Nature Reserve (LNR) is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. Data supplied has the status of Declared. The boundaries are interpreted from material gathered from the local authorities and does not currently cover all LNRs. This national dataset is indicative not definitive. Definitive information can only be provided by individual local authorities and you should refer directly to their information for all purposes that require the most up to date and complete dataset. | Natural England | © Natur Survey o permiss 100049: http://w governr |
| Local Wildlife Site (LWS) - county/metropolitan value Local Wildlife Site (LWS) - less than county/metropolitan value | Local Wildlife Sites (LWSs) are identified and selected for their local nature conservation value. They protect threatened species and habitats acting as buffers, stepping stones and corridors between nationally-designated wildlife sites. Local Wildlife Sites (LWS) are local non-statutory nature conservation sites. They were formerly referred to as County Wildlife Sites. | Staffordshire Ecological Record Cheshire East Council | © Staff © Ches |
| Main construction compound | In some cases Local Wildlife data is not shown as this is still being verified. Main Construction Compounds in which main contractors offices and welfare facilities will be located. | High Speed Two (HS2) Ltd | |
| Main utility works | Represents all new major utility installations and also modifications to existing utilities required to construct the scheme. Includes water, electricity, telecommunications and gas. | High Speed Two (HS2) Ltd | |
| National Nature Reserve (NNR) | A National Nature Reserve (NNR) is the land declared under the National Parks and Access to the Countryside Act 1949 or Wildlife and Countryside Act (1981) as amended. | Natural England | © Natu Survey permiss 100049: http://w governr |
| New, diverted or realigned PRoW | New, realigned or diverted Public Rights of Way (PRoW). | High Speed Two (HS2) Ltd | |
| Noise fence barrier | Denotes fence-style barriers provided as part of the noise mitigation measures. Note that other noise barriers have also been included in the form of landscaping and engineering | High Speed Two (HS2) Ltd | |

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| Legend features | Definition | Source | Copyrig |
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| | cuttings - see the SV map series for more detail on noise mitigation. | | |
| 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-residential receptors identified for assessment | The assessment of sound, noise and vibration considers the likely significant noise and vibration effects arising from the construction and operation of the Proposed Scheme on community facilities such as schools, hospitals, places of worship, and also commercial properties such as offices and hotels, collectively described as 'non-residential receptors'. | High Speed Two (HS2) Ltd | |
| Photomontage location (proposed) | Shows the locations from which verifiable photomontages have been produced. The locations are based on a fully surveyed point. | High Speed Two (HS2) Ltd | |
| Potential noise insulation qualifier | Potential noise insulation qualifier. Further information on noise insulation can be found in Volume 2 reports. | High Speed Two (HS2) Ltd | |
| Public realm/Replacement community facility | Public realm: Specifically provided to show areas to be used for public realm. This layer is mainly associated with station sites and is to be used to indicate general areas for designed soft and hard landscaping. Replacement community facility: Area of land for the provision of a permanent replacement community facility, such as a playground, community centre or activity centre. | High Speed Two (HS2) Ltd | |
| Public Rights of Way | 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. | Staffordshire County Council Cheshire East Council | © Crow Ordnan Publicat © Staff |
| Rail alignment | Longitudinal geometry of the tracks consisting of a series of straights and curves. | High Speed Two (HS2) Ltd | |
| Rail alignment formation | The space required to accommodate the railway infrastructure which typically includes the tracks, overhead line equipment, drainage, lineside access paths and cable routes for electrification and communication systems. | High Speed Two (HS2) Ltd | |
| Registered park or garden | Parks and Gardens of special historic interest. Supplied by Historic England. Of the 1,590 Registered Parks and Gardens, over 91% were captured against the 1:10,000 Ordnance Survey Raster product. 135 records are potentially subject to movement under Positional Accuracy Improvement (PAI) improvements. | Historic England | © Histo data © The His materia publicly can be c |
| Replacement floodplain storage | Provision of storage to replace floodplain occupied by the Proposed Scheme. Equivalent storage is provided for events up to the 1 in 100 (1%) annual probability event with an allowance for | High Speed Two (HS2) Ltd | |

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| ffordshire County Council |
| eshire East Council |
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| Legend features | Definition | Source | Copyrig |
|--|--|--------------------------|--------------------|
| | climate change. | | |
| Returned to suitable development use | Post construction land will be reinstated to enable potential | High Speed Two (HS2) Ltd | |
| i | future development.The Environment Agency's updated Flood Map for surface water | | |
| | gives an indication of the broad extent of areas likely to be at risk | | |
| | of surface water flooding, i.e. areas where surface water would be | | |
| | expected to flow or pond. | | |
| | | | |
| | The uFMfSW will pick out natural drainage channels, rivers, low | | |
| | areas in floodplains, and flow paths between buildings. But it will only indicate flooding caused by local rainfall. It does not show | | |
| | flooding that occurs from groundwater, overflowing | | |
| | watercourses, drainage systems or public sewers caused by | | |
| | catchment-wide rainfall events or river flow. It is therefore very | | |
| Risk of Flooding from Surface Water | important that users apply local knowledge and in particular the | Environment Agency | © Envir 2016. A |
| | 'locally agreed surface water information' held by the lead local | | 2010. A |
| | flood authority to assess how suitable the updated Flood Map for | | |
| | Surface Water is for their needs. | | |
| | The uFMfSW may be suitable for identifying where properties are | | |
| | in areas at risk of flooding for locations where surface water | | |
| | flooding is strongly influenced by topography but should not be | | |
| | used to define the flood risk at an individual property. | | |
| | Two rainfall events, one with a 1 in 30 and the other with a 1 in | | |
| | 100 chance of occurring in any year, are modelled and mapped. | | |
| Route in tunnel | Represents the proposed route of HS2, split into route on surface | High Speed Two (HS2) Ltd | |
| Route on surface | and tunnelled sections. | High speed 1wo (HS2) Ltd | |
| Satellite construction compound | Represents satellite construction compounds which serve local | High Speed Two (HS2) Ltd | |
| | works for major construction elements within a main contract.A schedule has been kept since 1882 of monuments considered to | | |
| | be of national importance by the government. The current | | |
| | legislation, the Ancient Monuments and Archaeological Areas Act | | © Histo |
| | 1979, supports a formal system of Scheduled Monument Consent | | data © |
| Scheduled monument | for any work to a designated monument. The Scheduled | Historic England | The His |
| Schedoled monoment | Monument layer consists of approximately 22,380 monuments | | materia |
| | tied into the Ordnance Survey. The majority of these are fixed; | | publicly |
| | however, a small number of records may be updated as digital | | can be |
| | positional accuracy improves. The data is subject to continuous review and regularly updated as new monuments are designated. | | |
| | | | © Natu |
| | | | Survey |
| Site of Special Scientific Interest (SSSI) | A Site of Special Scientific Interest (SSSI) is the land notified as an | Natural England | permiss |
| | SSSI under the Wildlife and Countryside Act (1981), as amended. | | 100049 |
| | | | http://w govern |
| Stopped-up PRoW | Public rights of way that will be closed due to construction of the | High Speed Two (HS2) Ltd | govern |
| | scheme. | | |
| Surface water crossing location | Locations where the route crosses a watercourse. | High Speed Two (HS2) Ltd | |

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| Legend features | Definition | Source | Copyrig |
|---|---|--------------------------|------------------------------|
| Sustainable placement | Sustainable placement: the on-site placement for disposal of surplus excavated material to avoid causing environmental effects (e.g. transport) that would otherwise be associated with the off-site disposal of that material. "On-site" in this context means within the land required for the purposes of the Proposed Scheme and "off-site" means external land (or landfill site) which is not specifically required for the purposes of the Proposed Scheme. | High Speed Two (HS2) Ltd | |
| Temporary highway diversion / realignment | Indicative temporary highway diversion layouts during the construction phase. | High Speed Two (HS2) Ltd | |
| Temporary material stockpile | Represents temporary stockpiling of topsoil, subsoil and other excavated materials to be used for reinstatement purposes, and also stockpile areas for managing movement of excavated materials during construction. | High Speed Two (HS2) Ltd | |
| Temporary PRoW diversion / realignment | Indicative temporary diversions to public rights of way as a result of construction of the scheme. These will vary depending on construction phase and local conditions. | High Speed Two (HS2) Ltd | |
| Temporary replacement community facility | Area of land for the provision of a temporary replacement community facility, such as a playground, community centre or activity centre, whilst construction works are in progress. | High Speed Two (HS2) Ltd | |
| Tunnel portal | The footprint of a tunnel portal. | High Speed Two (HS2) Ltd | |
| Tunnels external extent | The external excavated extent of each tunnel bore. | High Speed Two (HS2) Ltd | |
| Viewpoint | This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed. | High Speed Two (HS2) Ltd | |
| Water body | Based on Ordnance Survey Vector Map District. | Ordnance Survey | © Crow Ordnan Publicat |
| Watercourse | The Detailed River Network (DRN) is the only large-scale, accurate and fully attributed digital river centreline covering England and Wales. | Environment Agency | © Envir 2016. Al |
| Watercourse diversion | Includes rivers, streams, ditches and other open channels, diversions to these, together with any new culverts required. | High Speed Two (HS2) Ltd | |
| Wetland habitat creation | 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 | |
| Woodland | Woodland areas derived from Ordnance Survey MasterMap data. | Ordnance Survey | © Crow Ordnan Publicat |
| Woodland habitat creation | Ecological mitigation area to provide new woodland planting, connectivity 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 | |

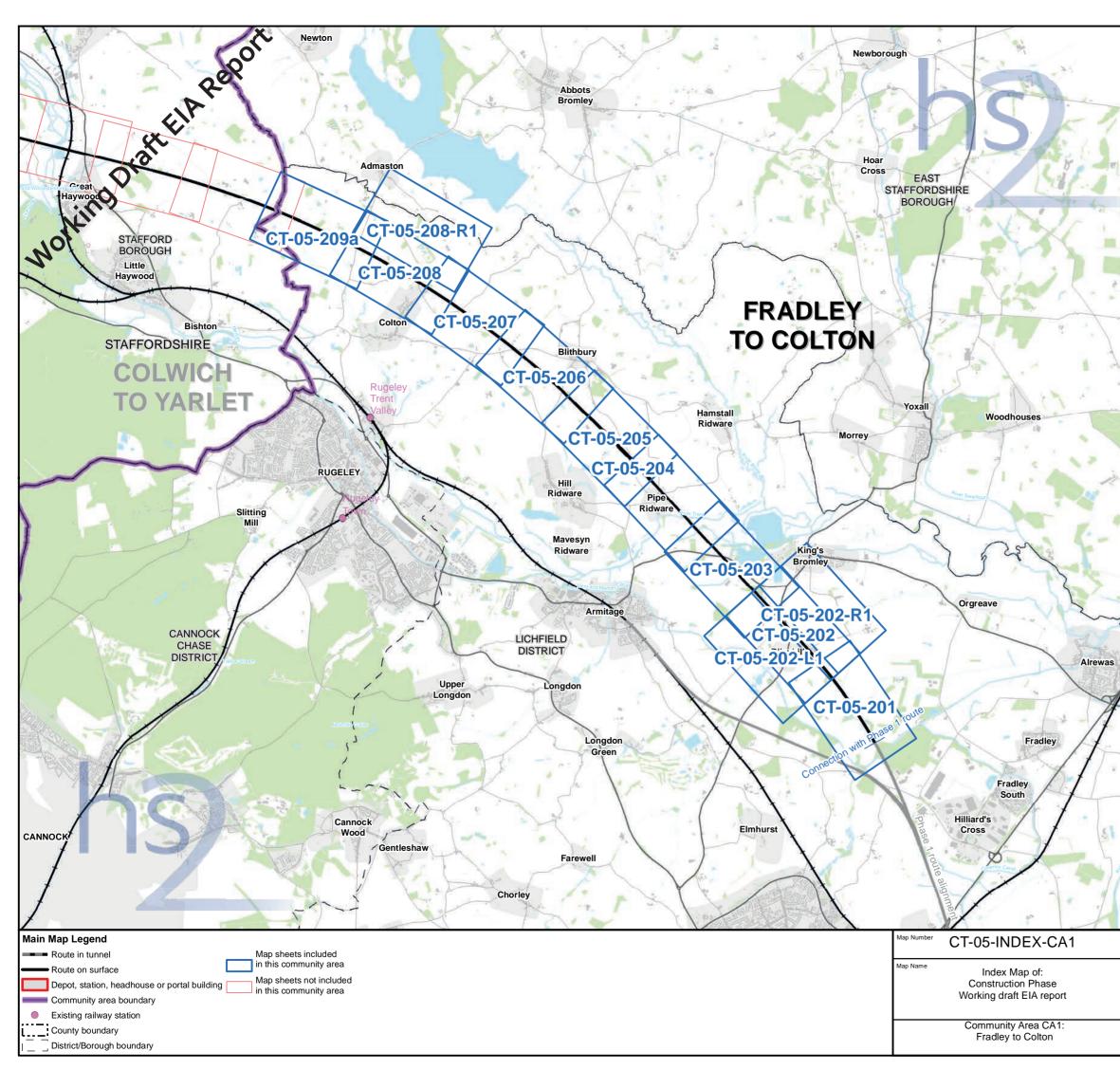
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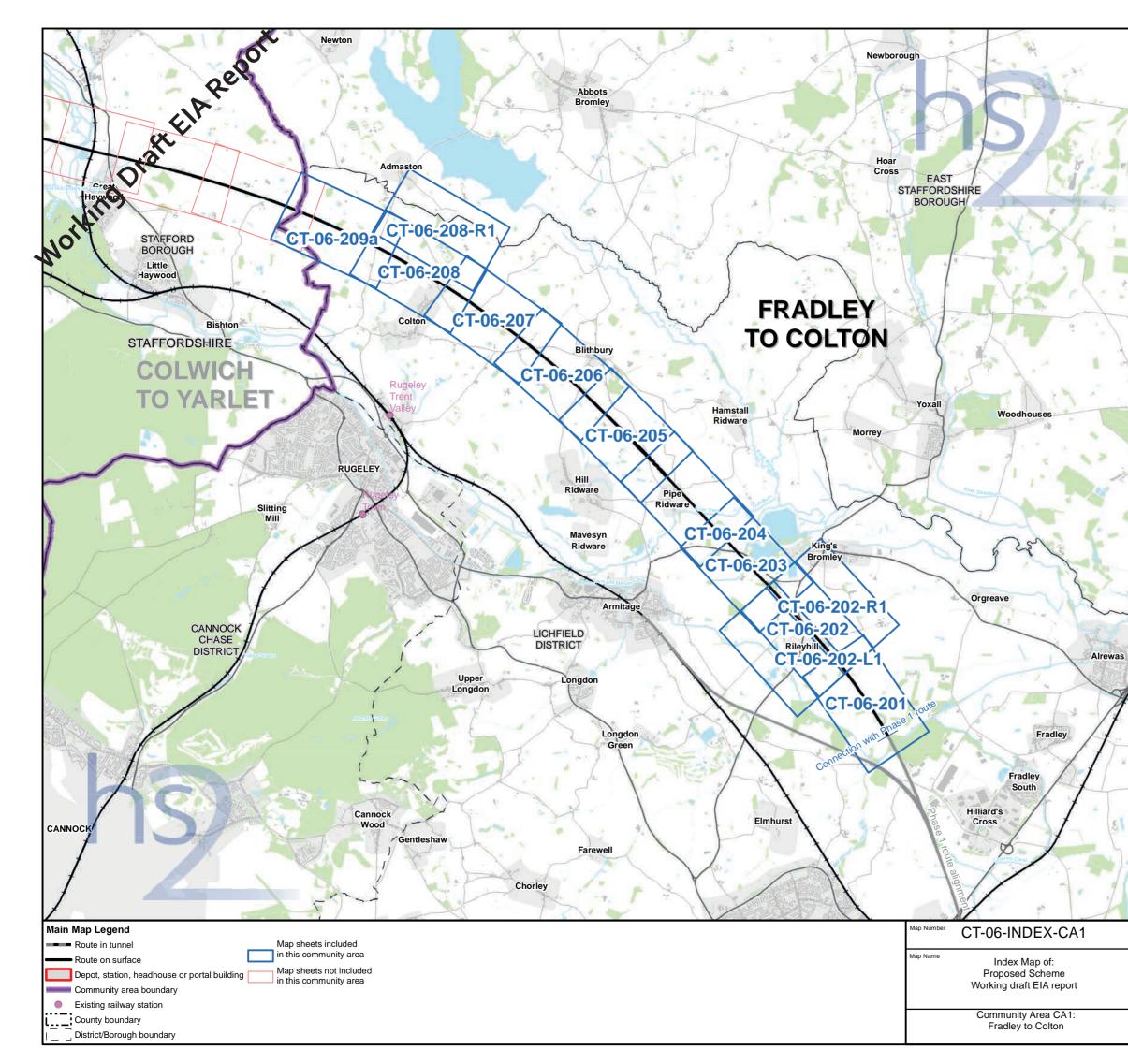
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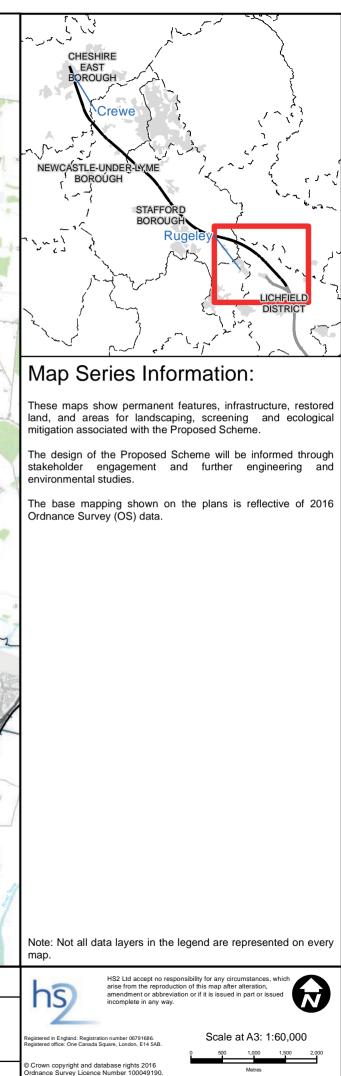
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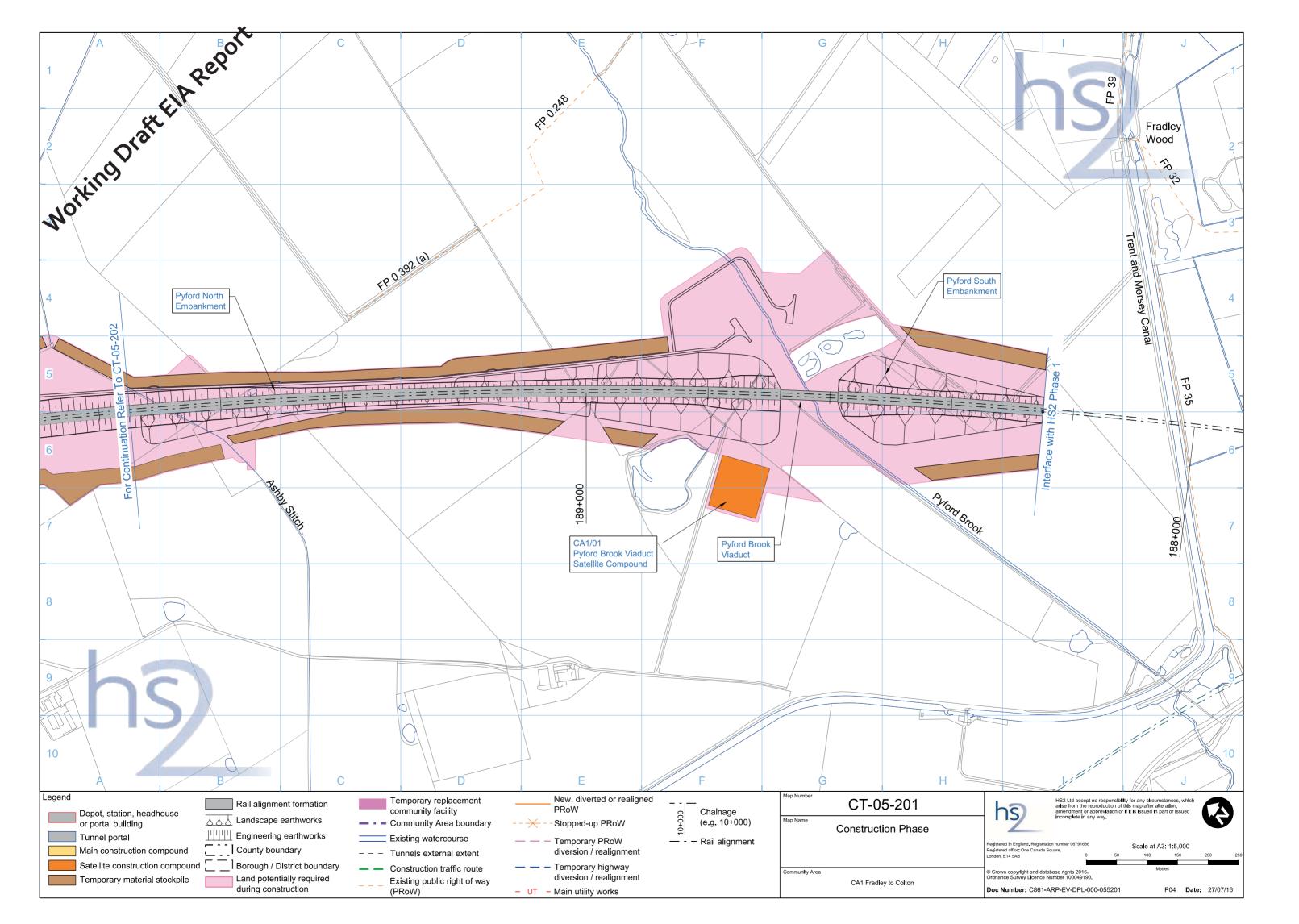
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| Y | Map Series Information: |
| 1 | These plans show the land potentially required during construction, the construction features, access requirements and |
| 1 | infrastructure associated with construction of the Proposed Scheme. The plans also show the construction phase |
| ~ | arrangements for public access using Public Rights of Way. |
| - and | The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and |
| | environmental studies. |
| | The base mapping shown on the plans is reflective of 2016 Ordnance Survey (OS) data. |
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| | Note: Not all data layers in the legend are represented on every |
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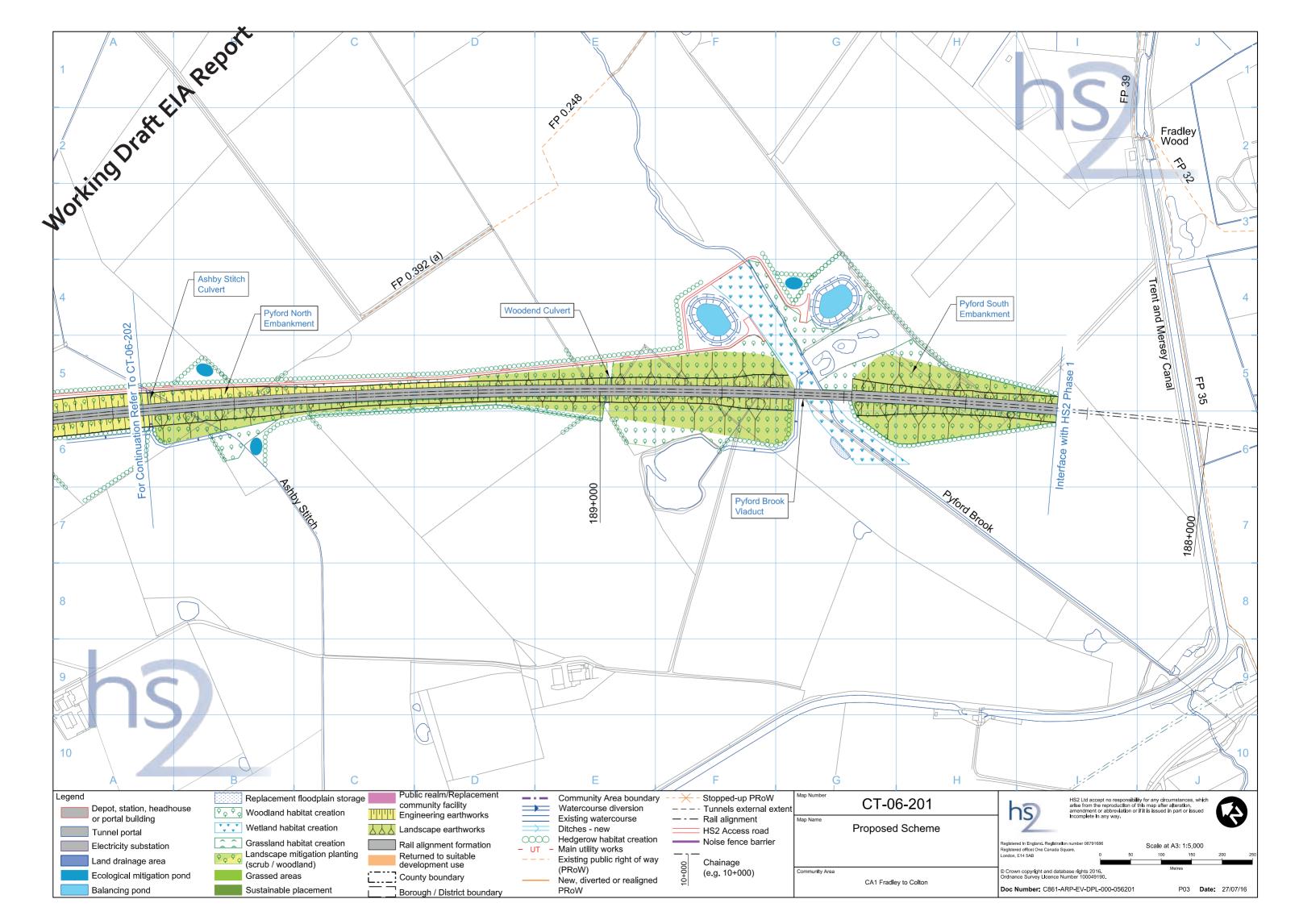


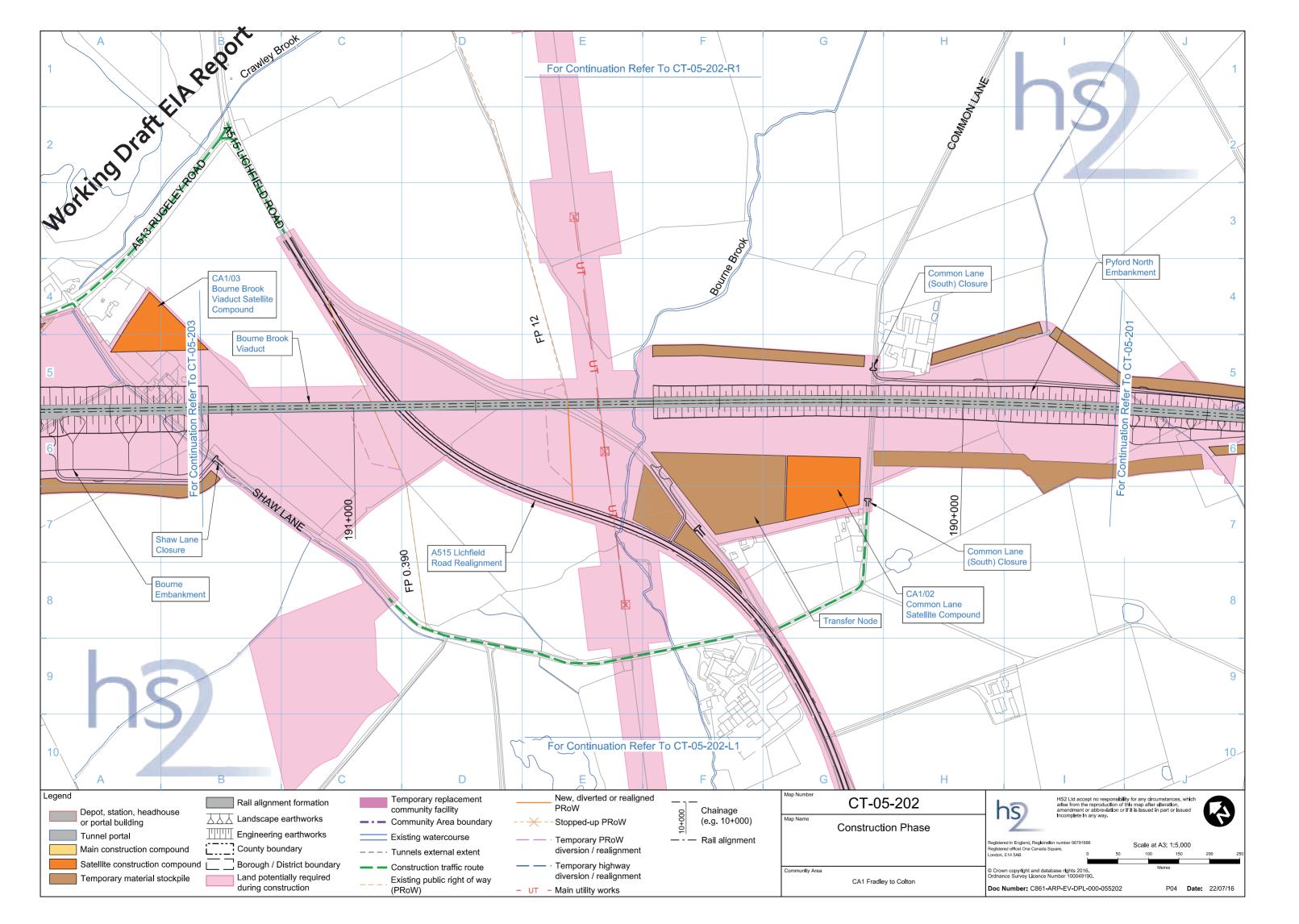


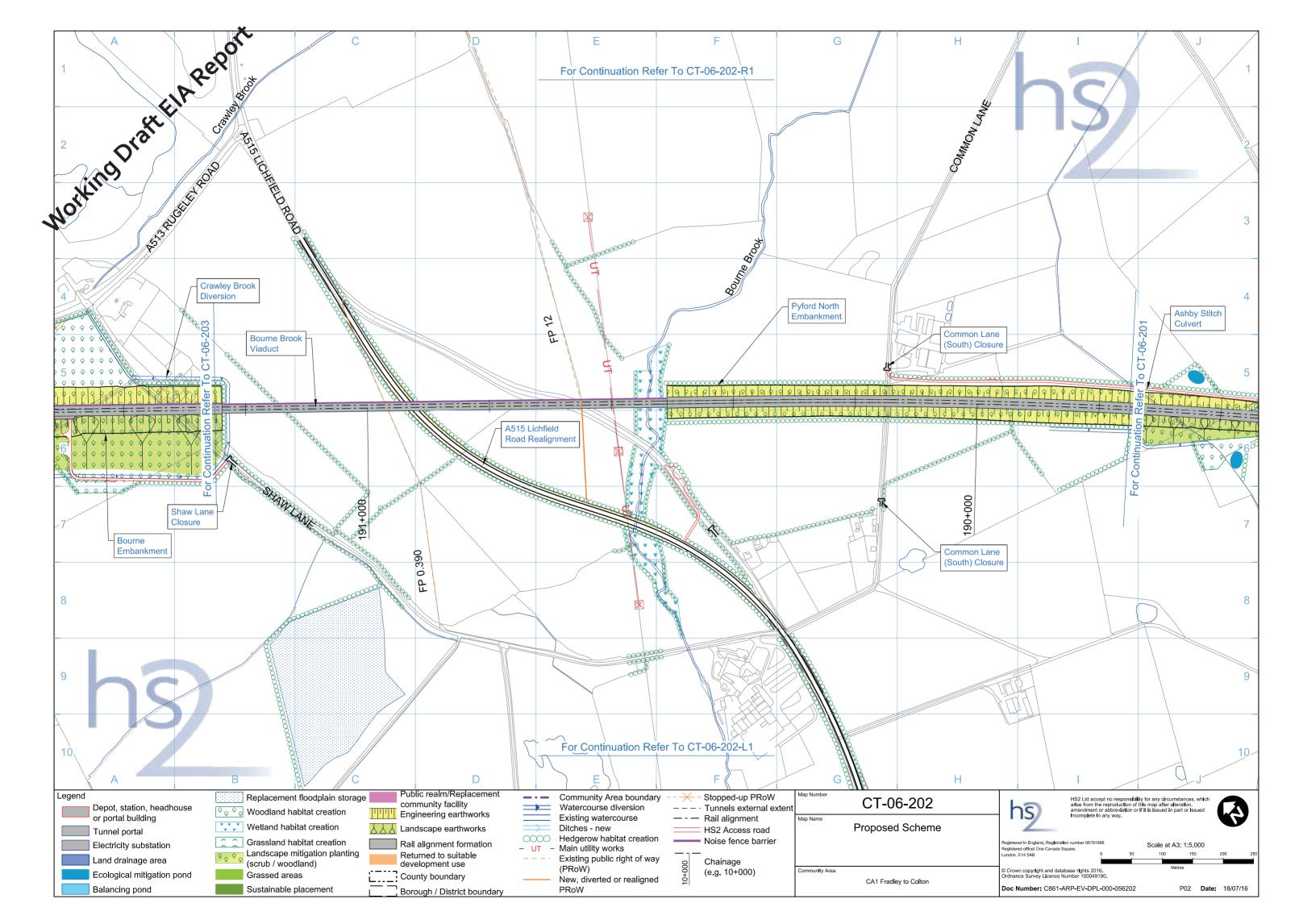
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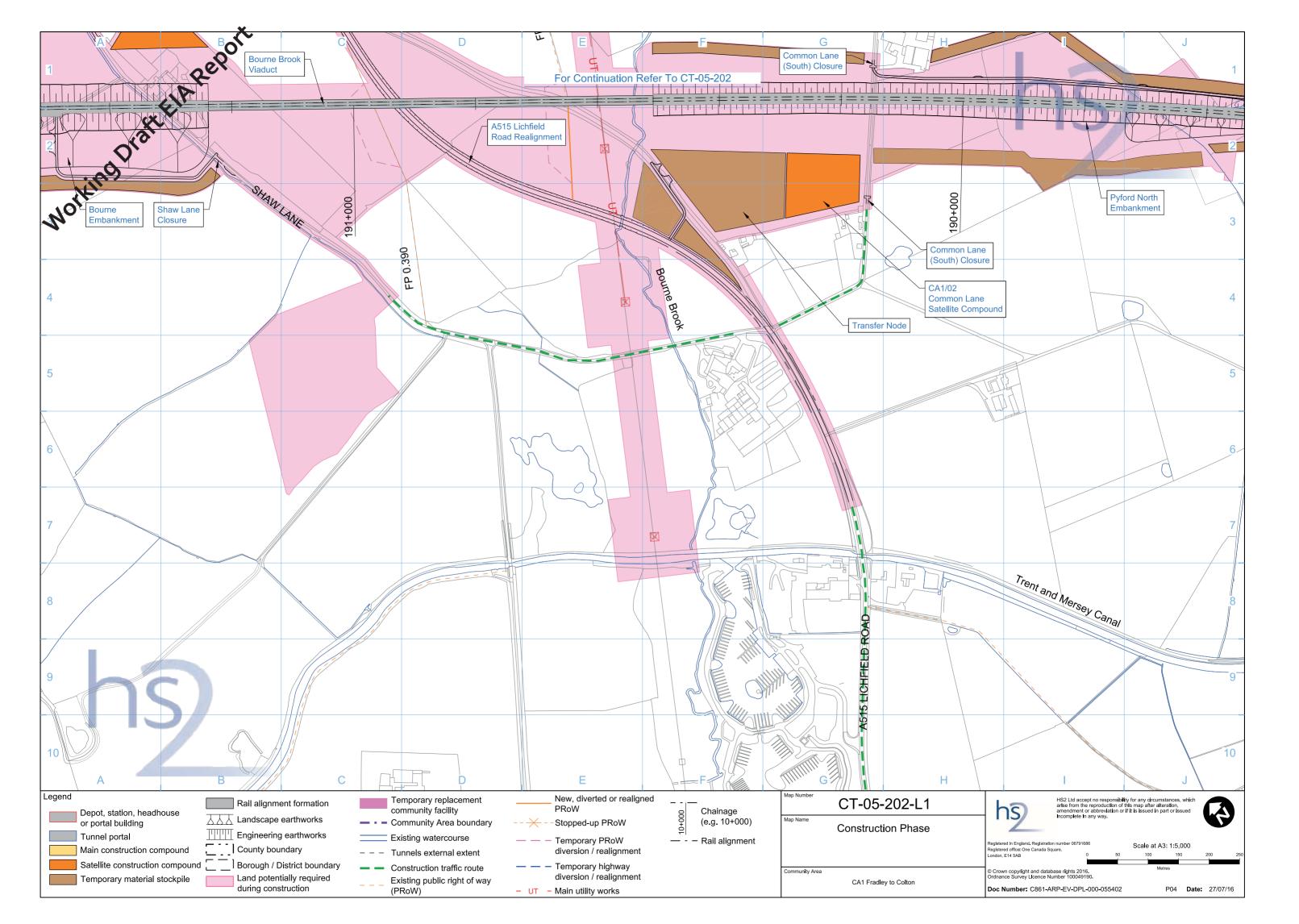
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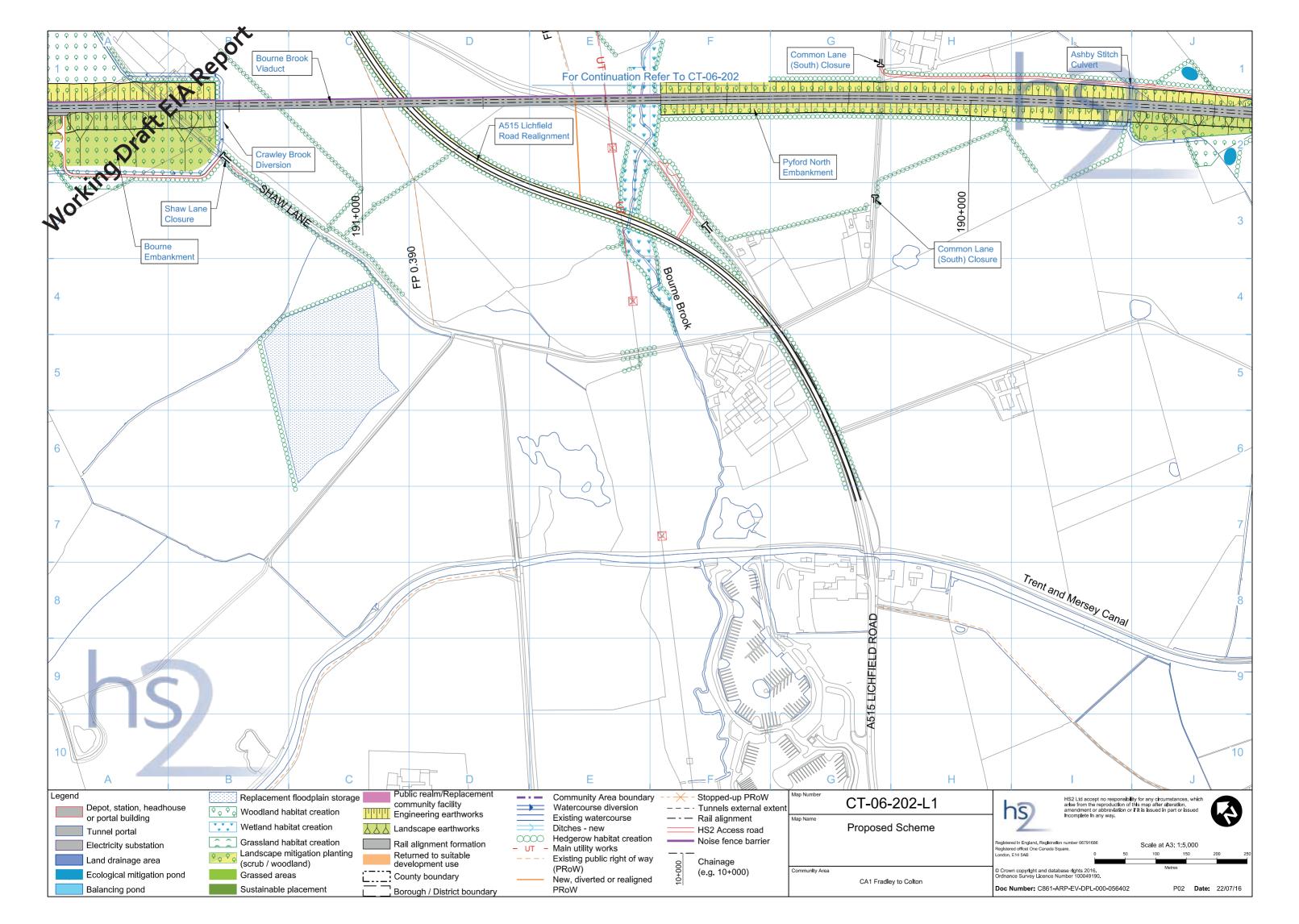


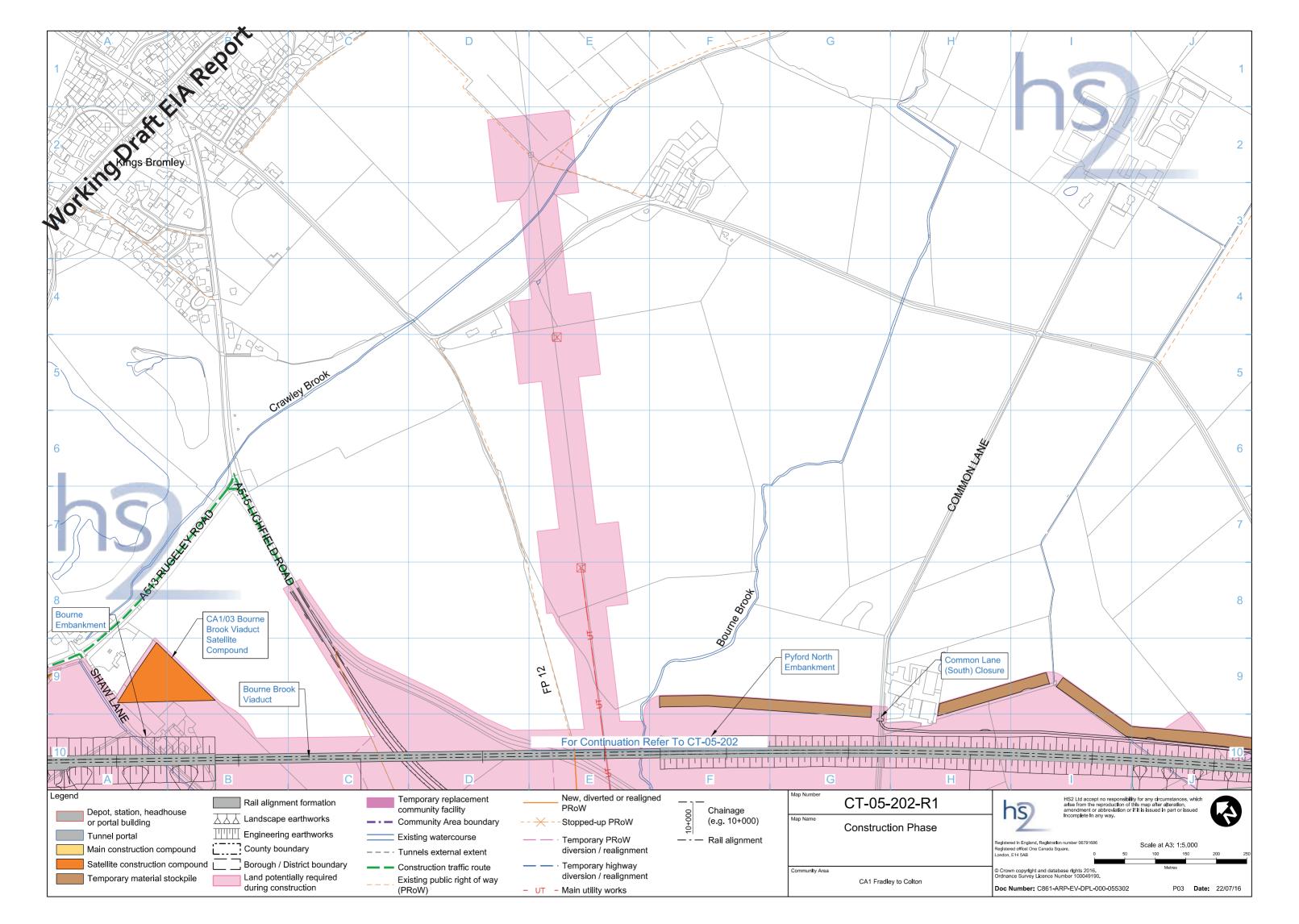


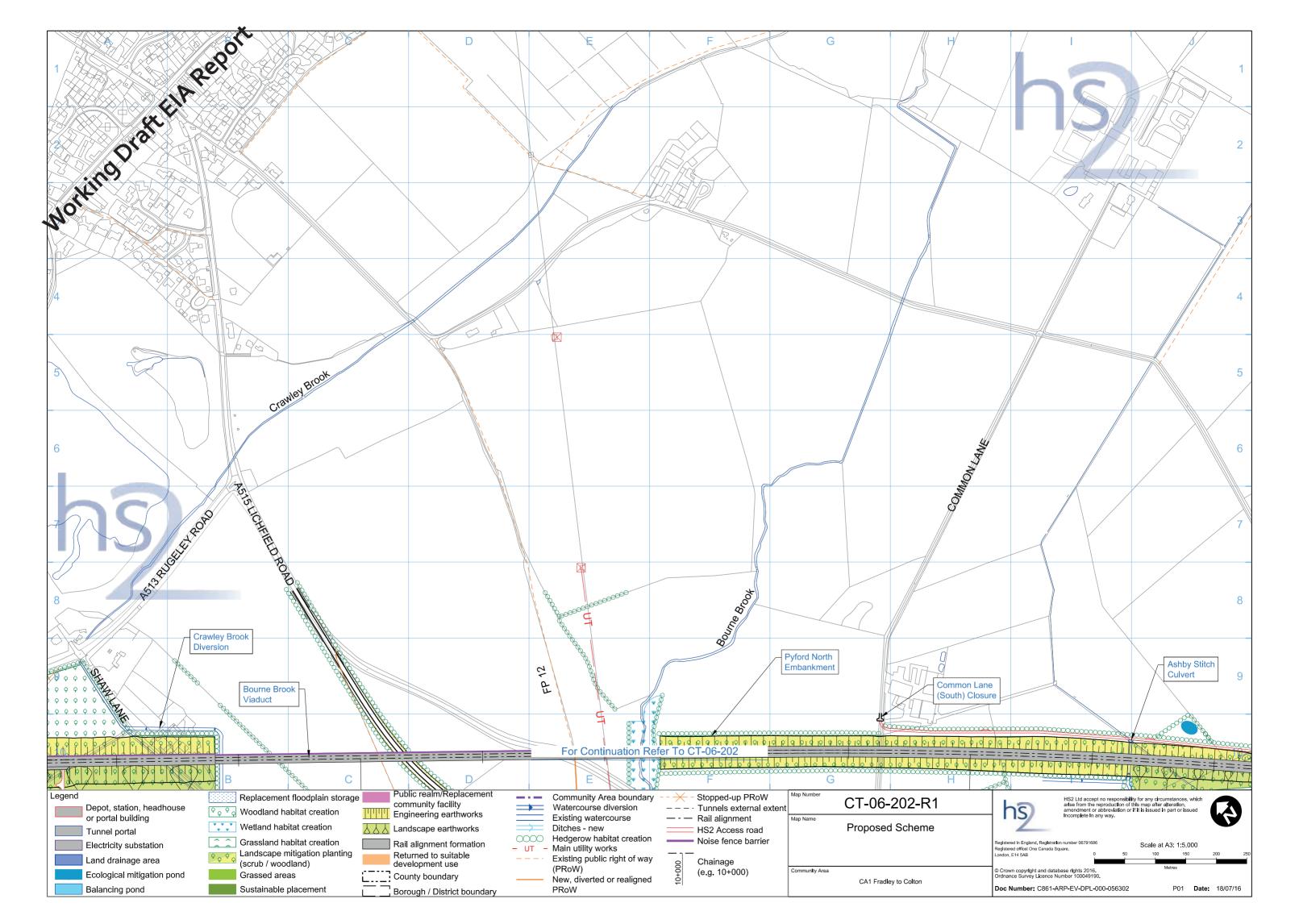


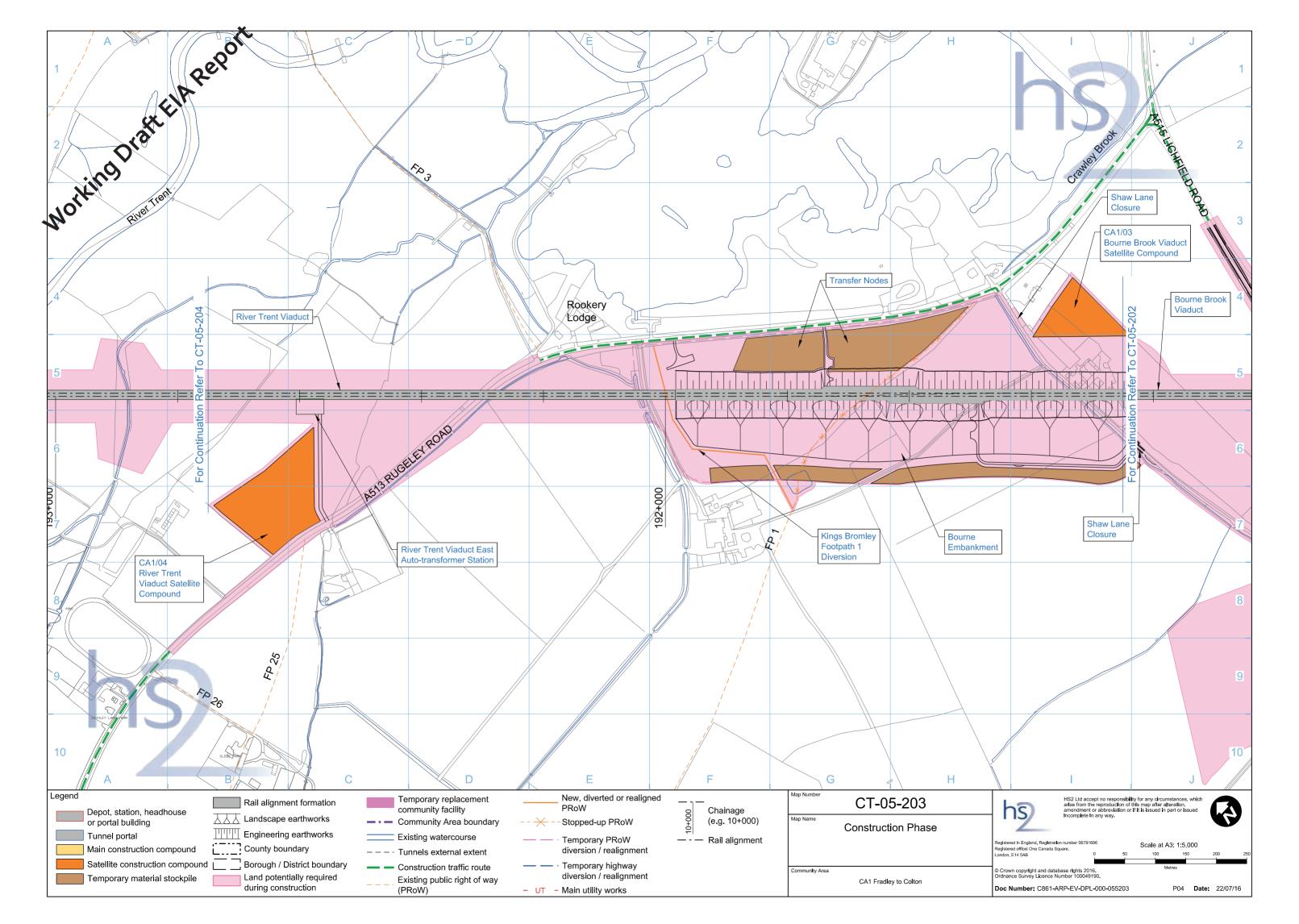


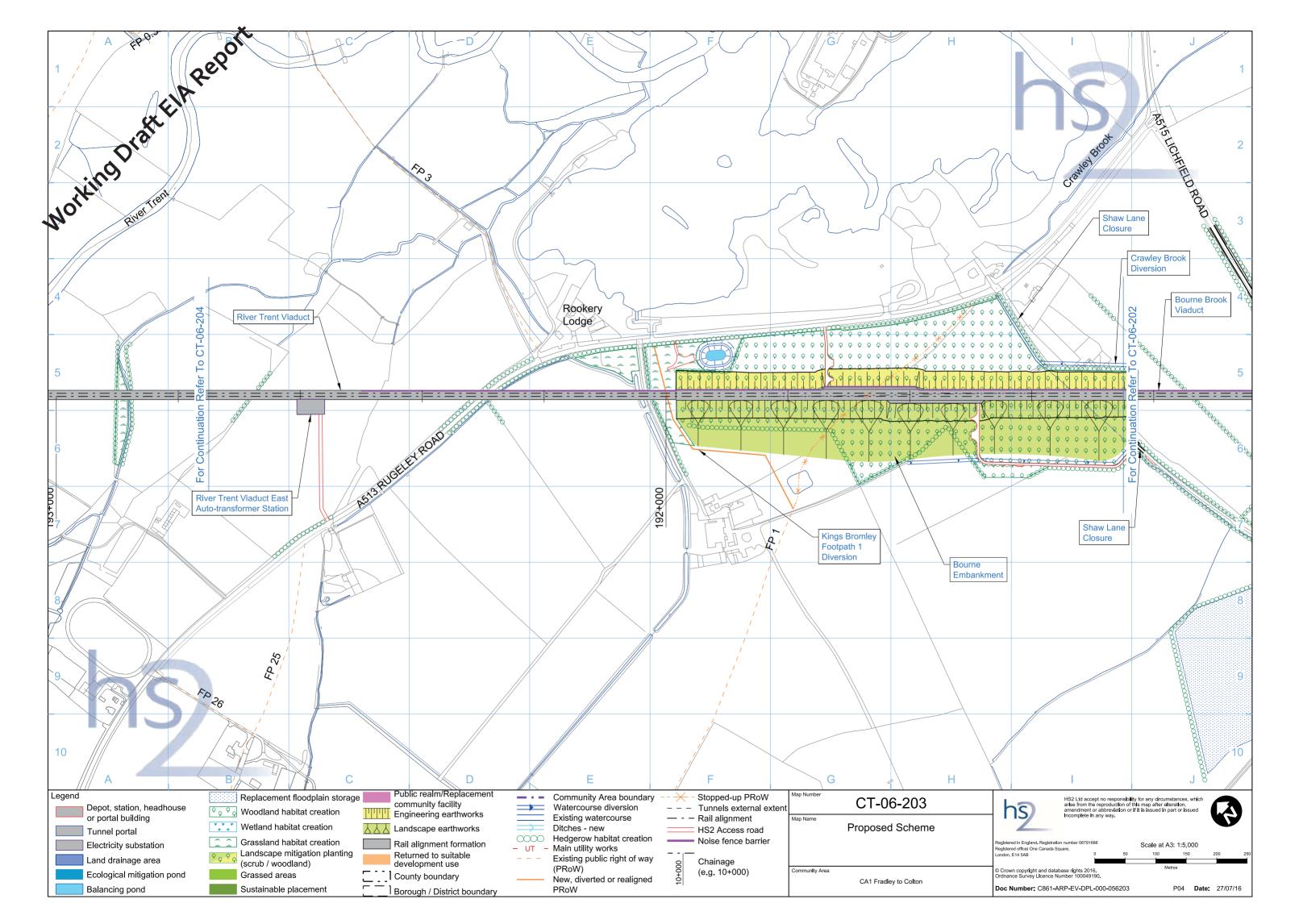


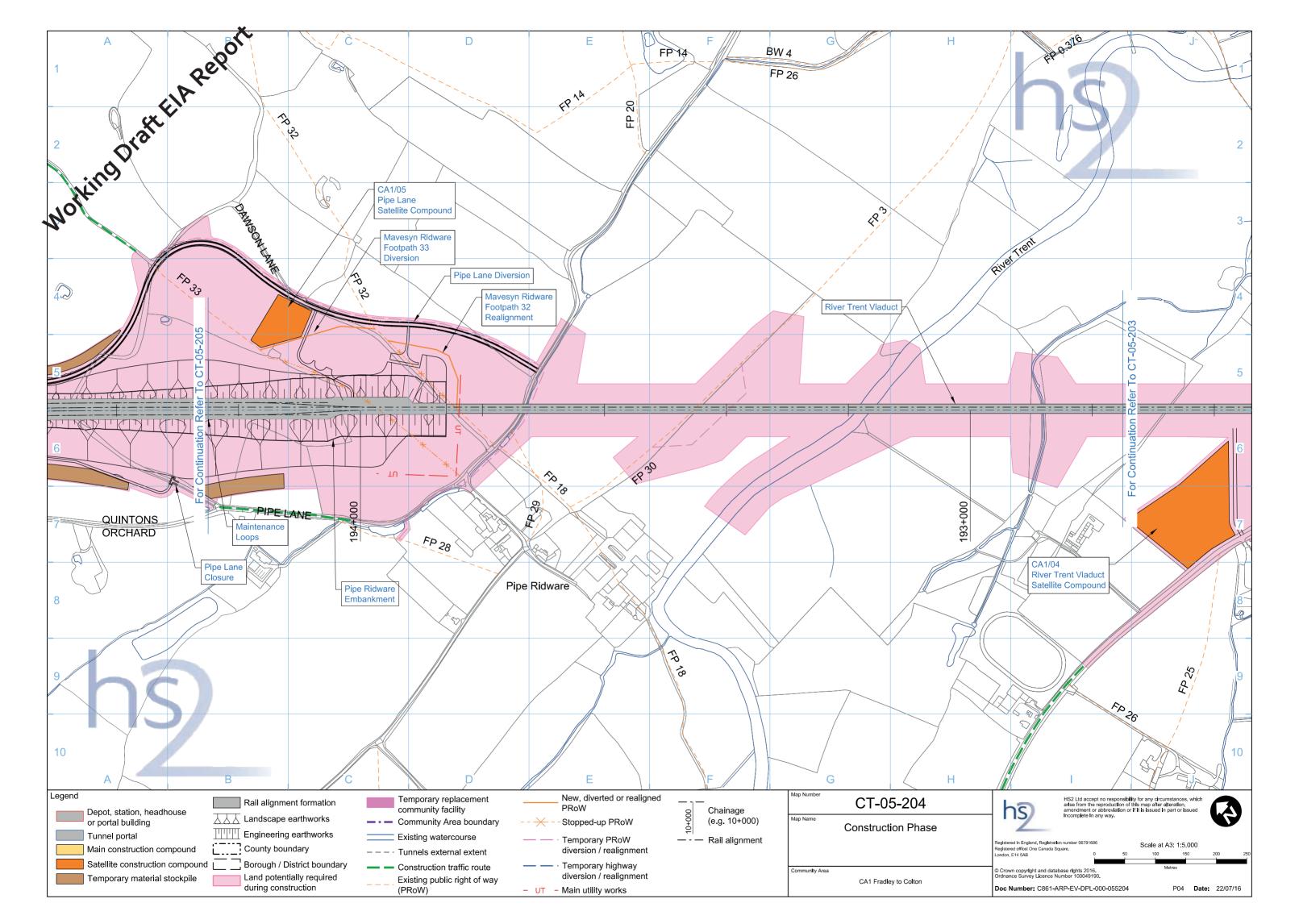


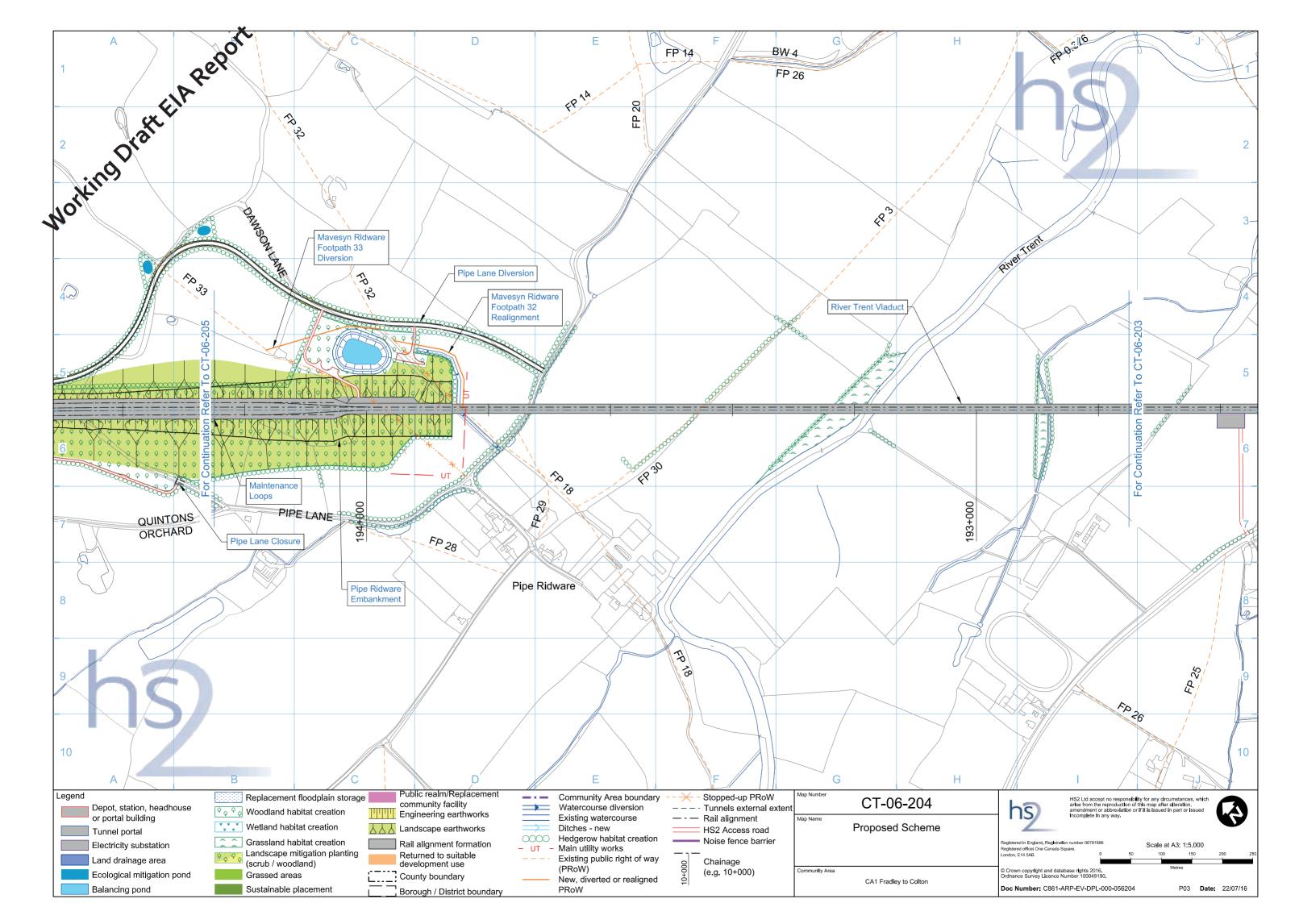


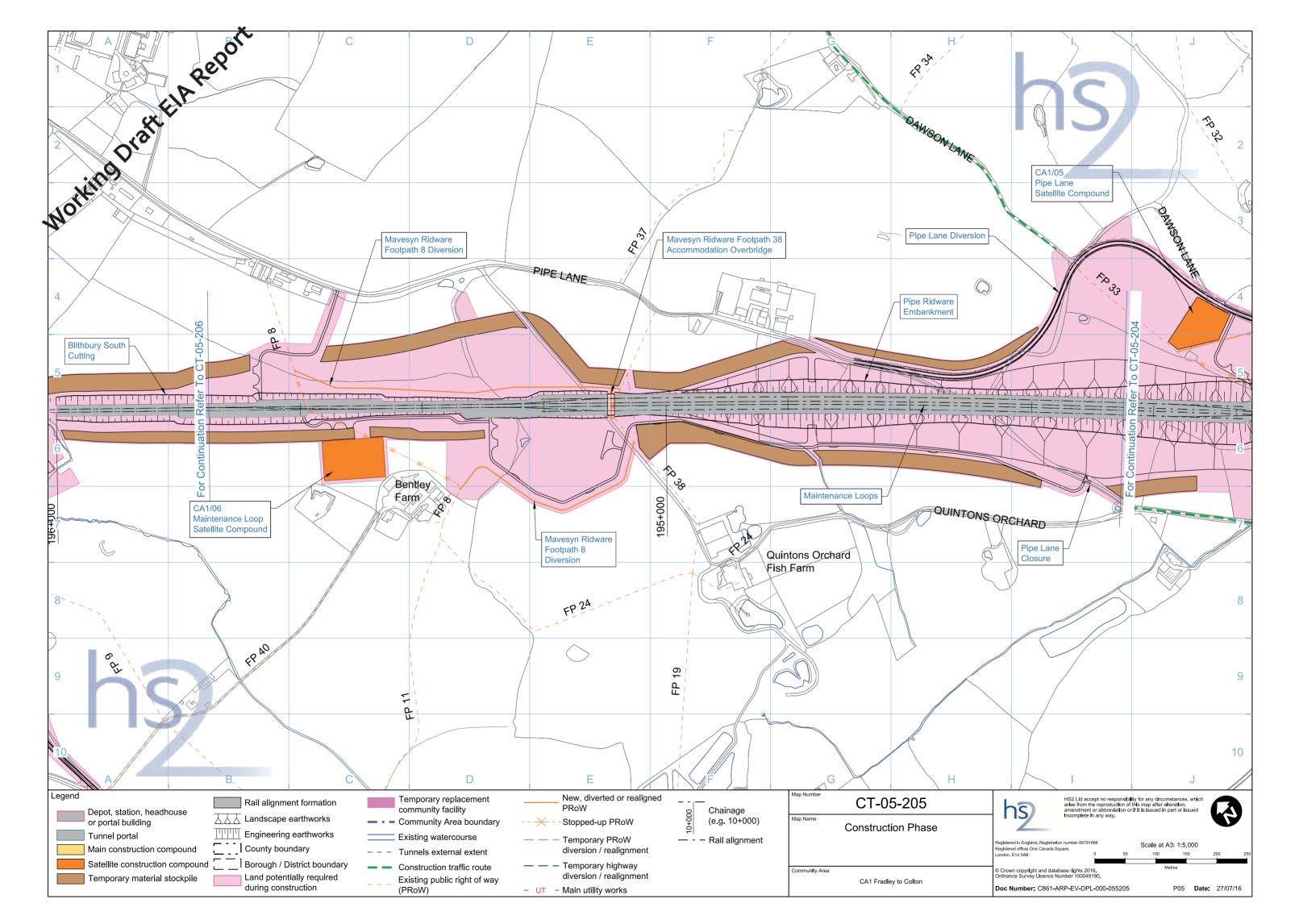


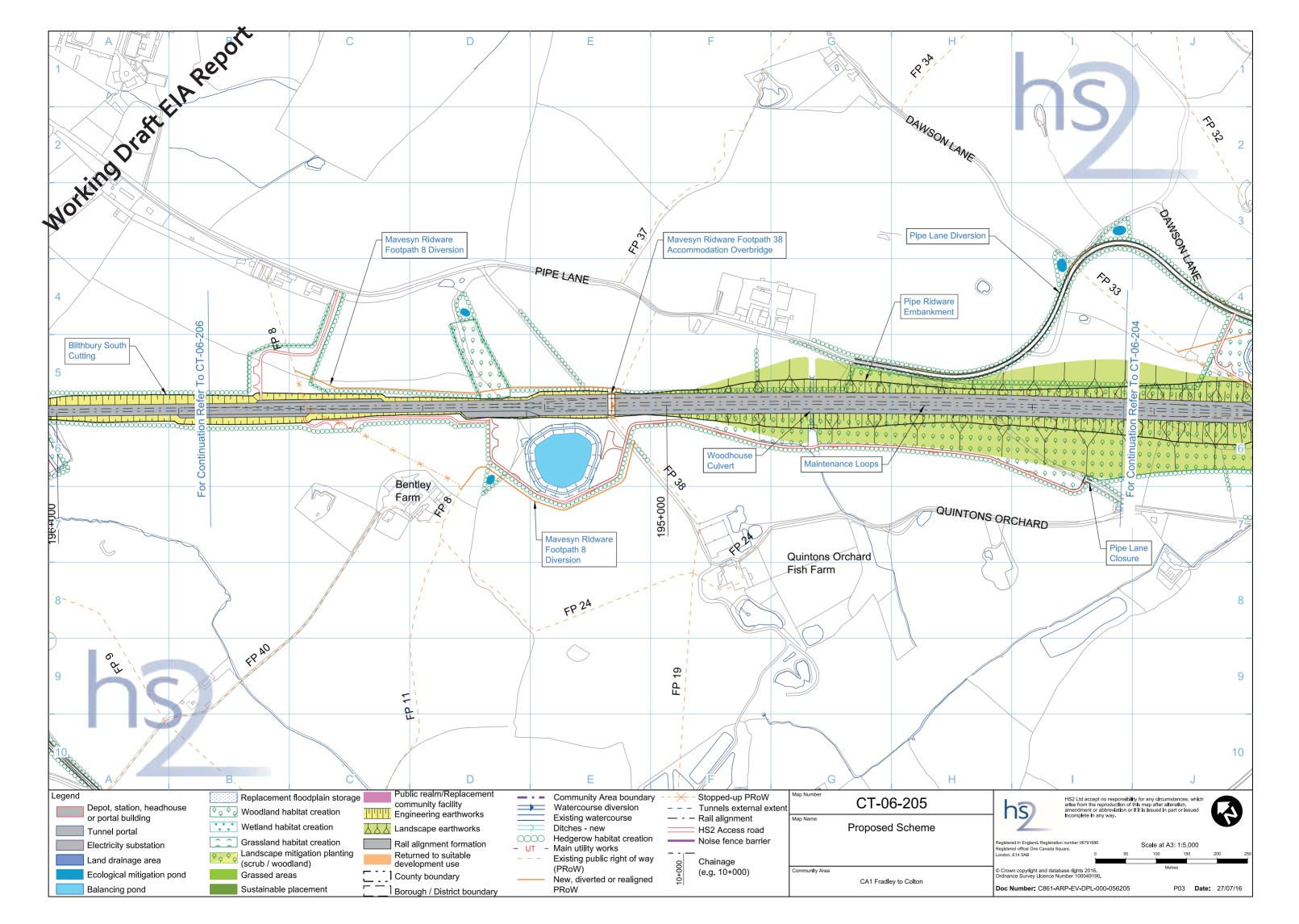


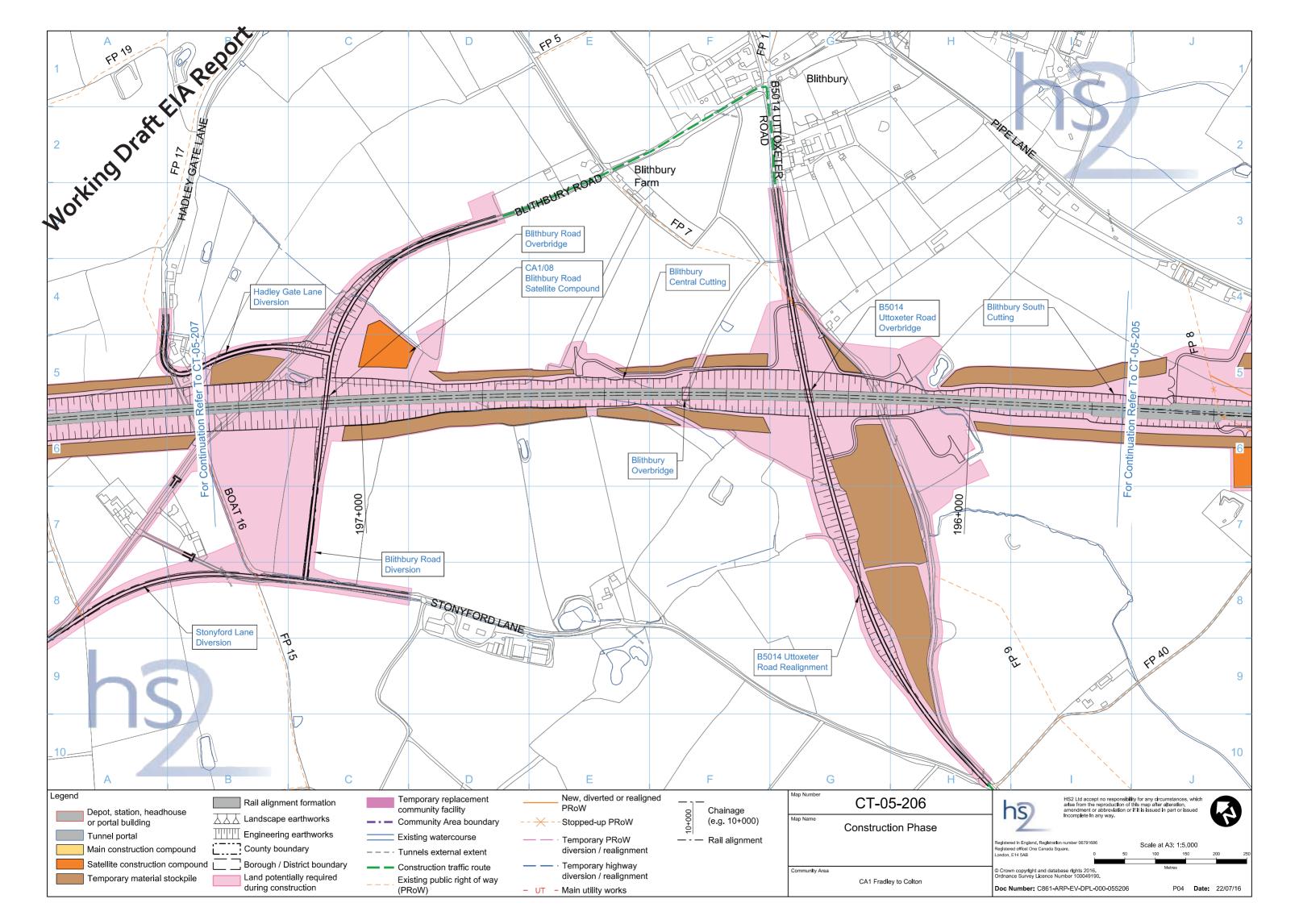


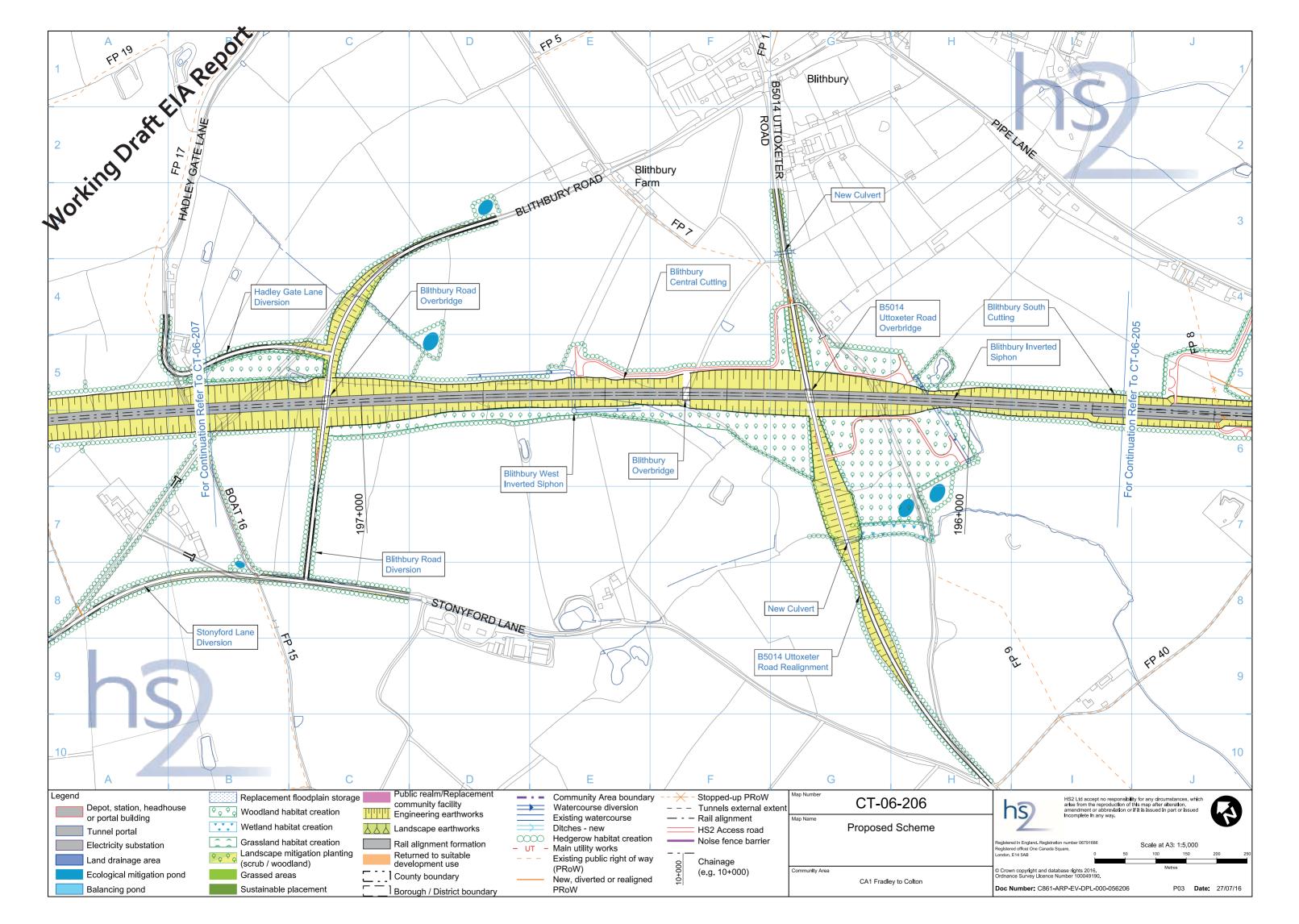


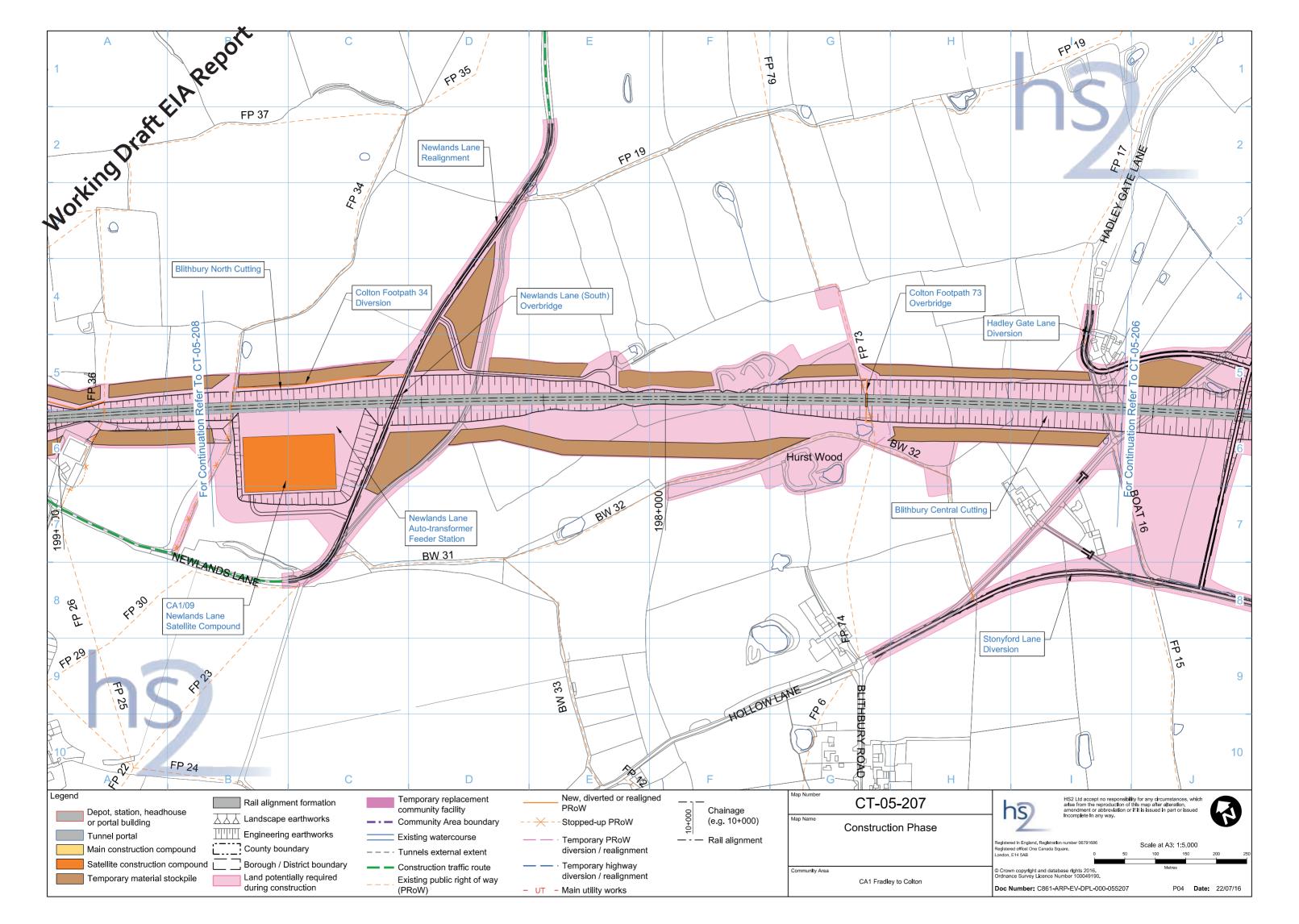


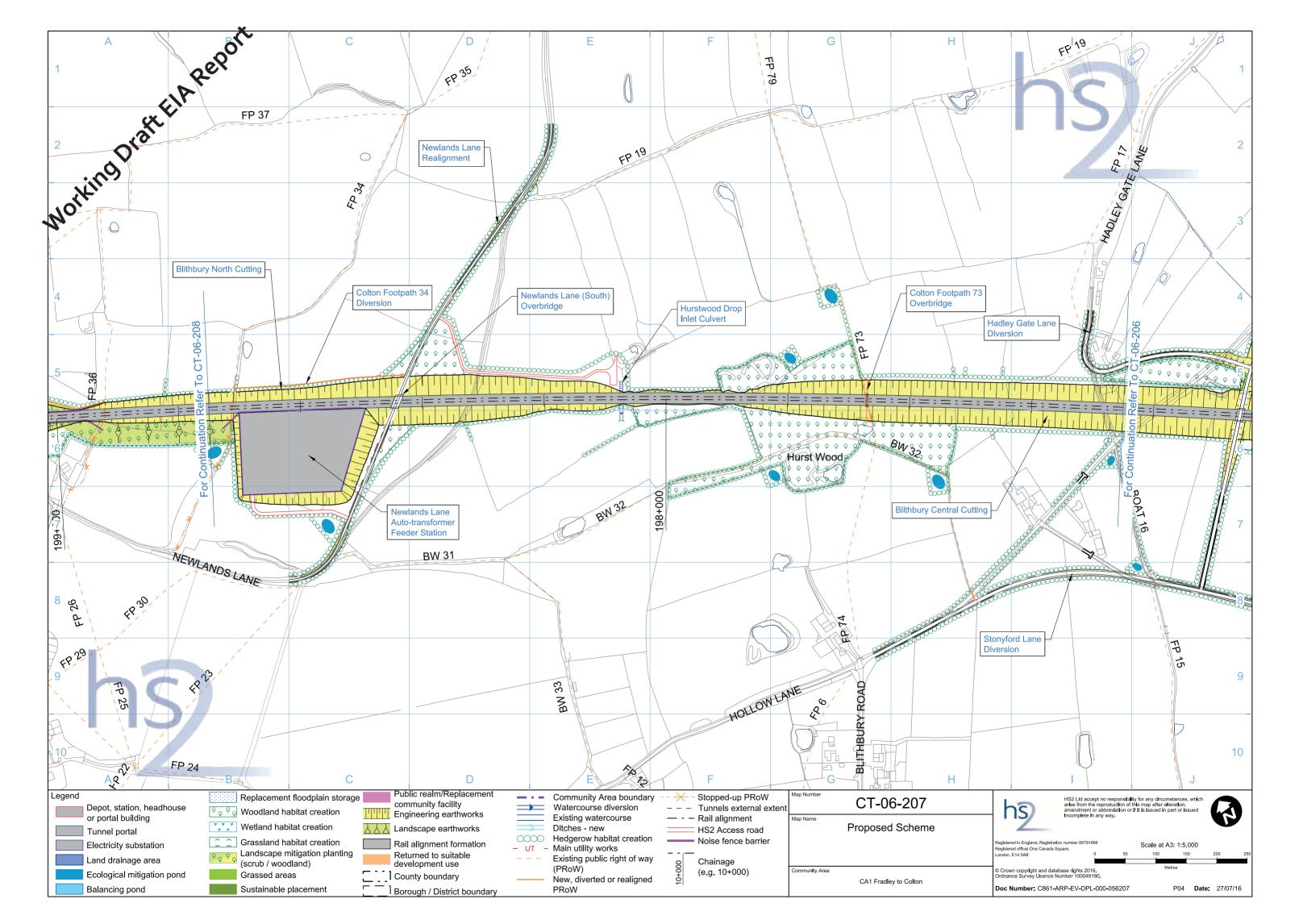


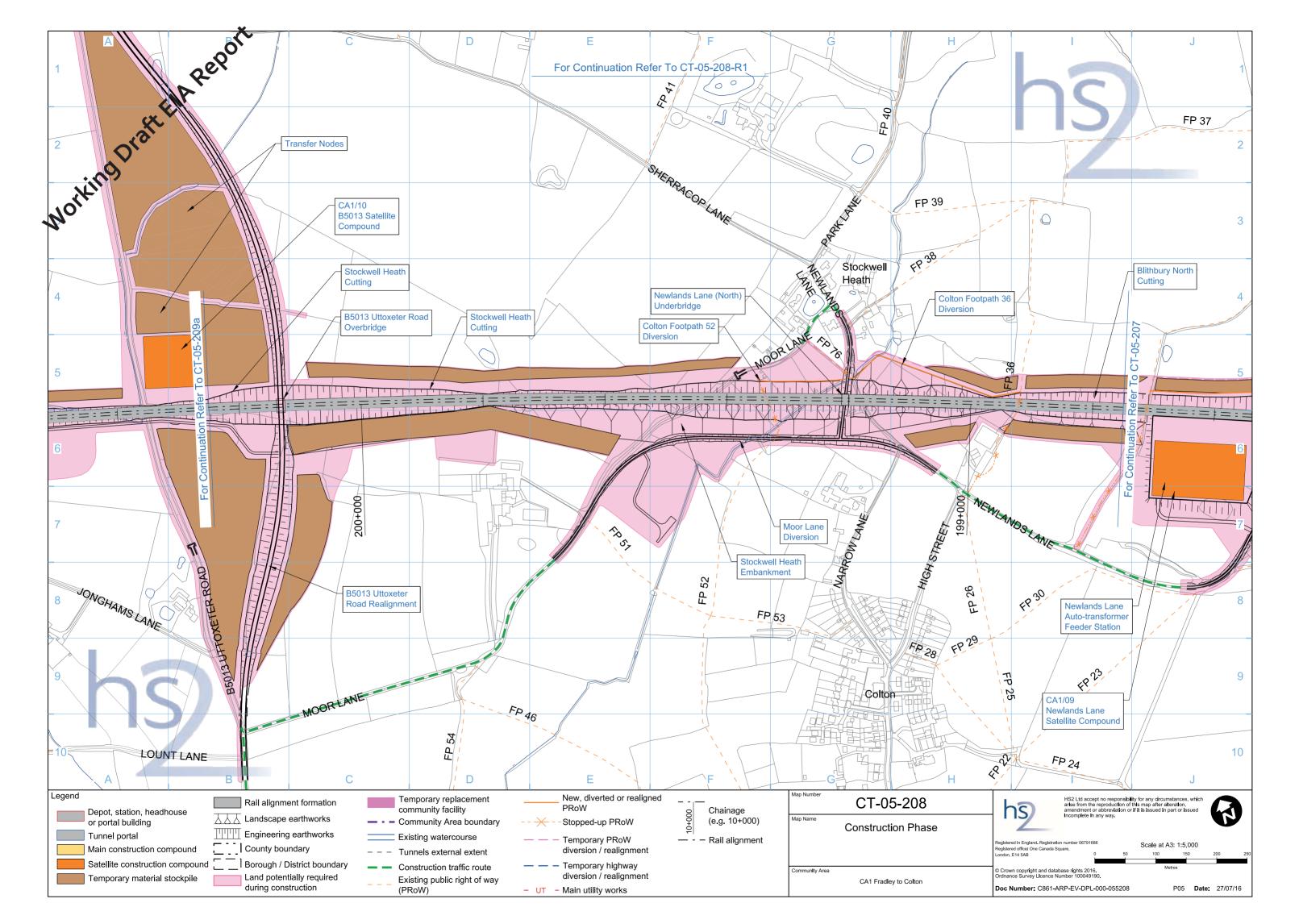


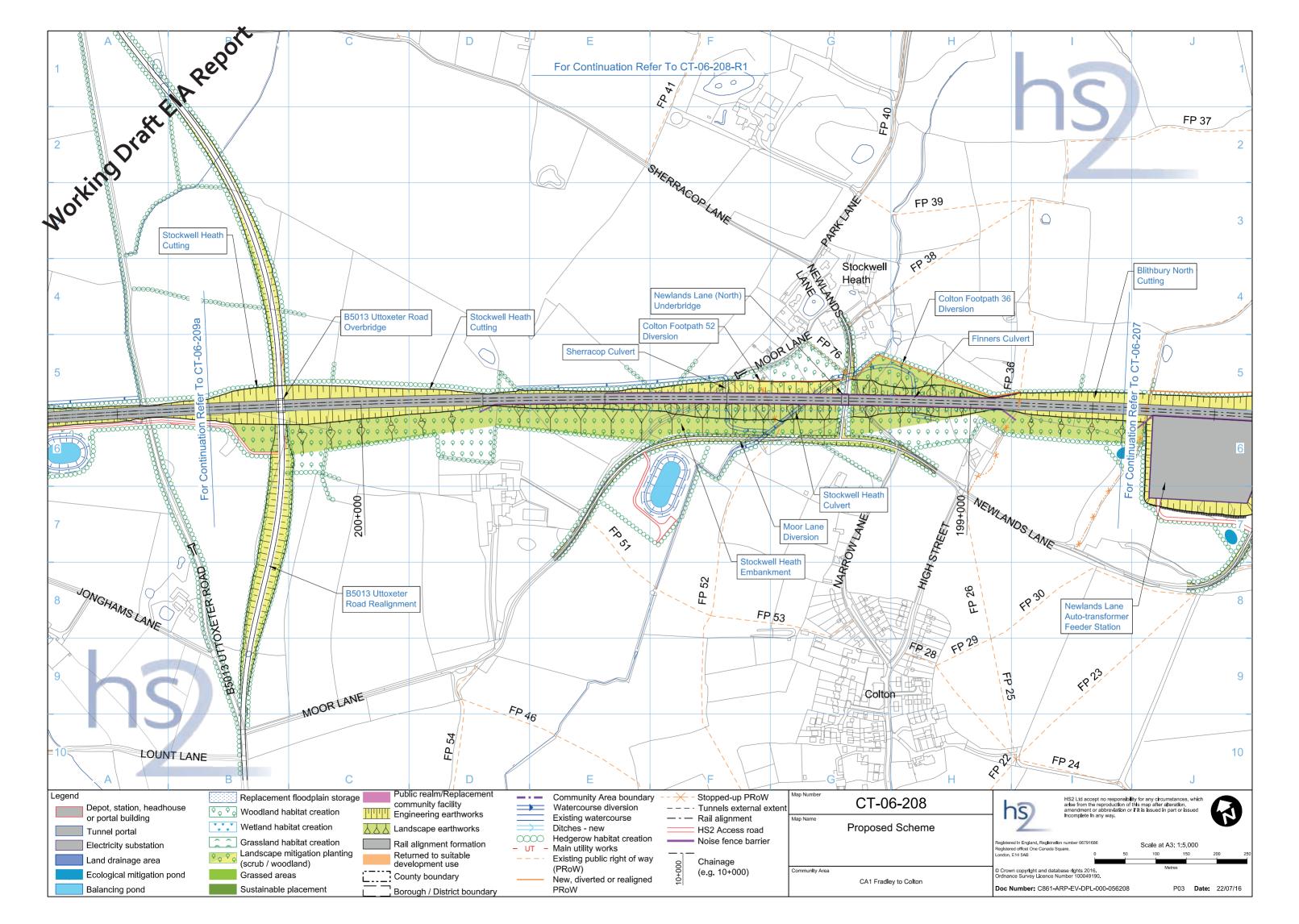


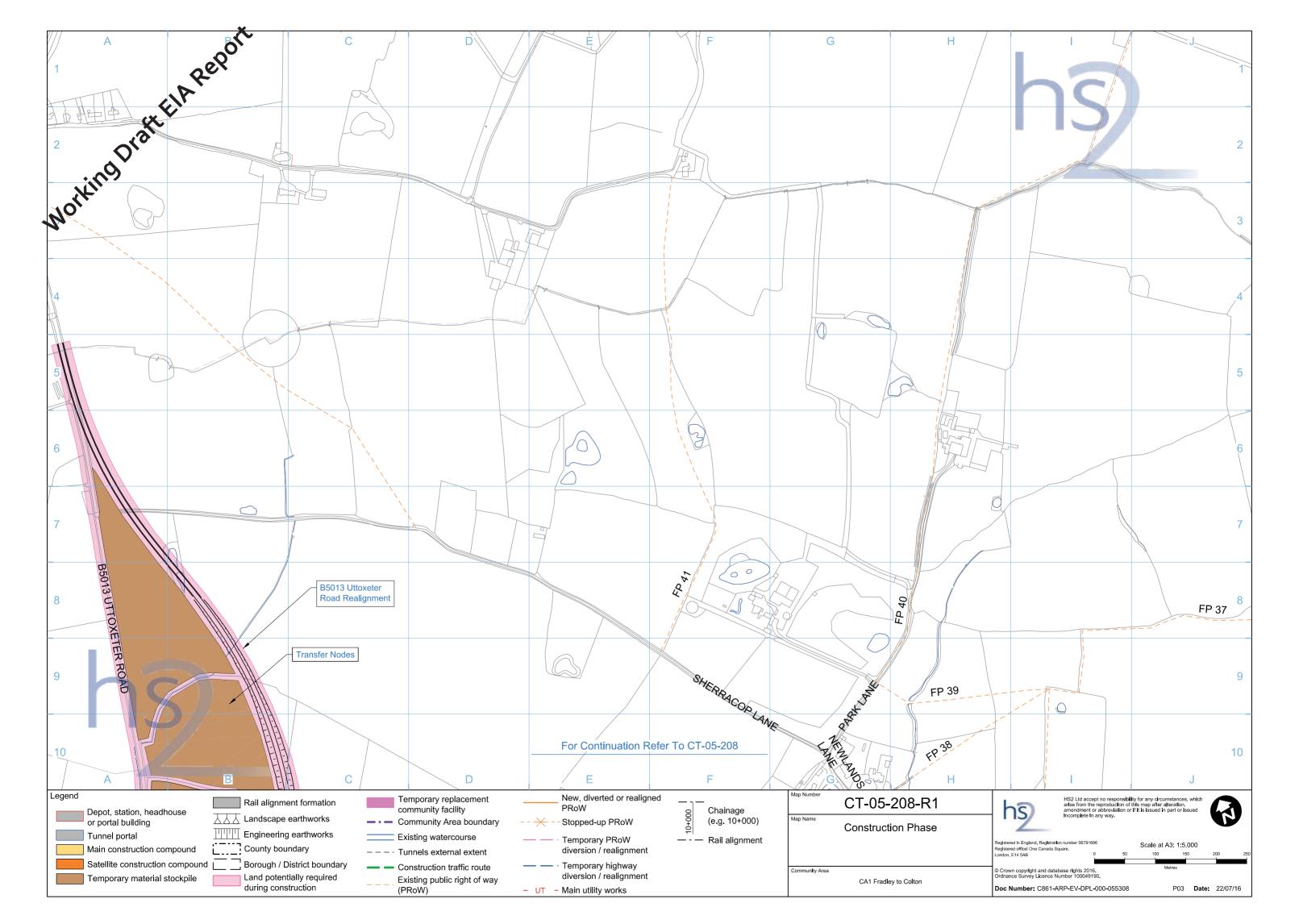


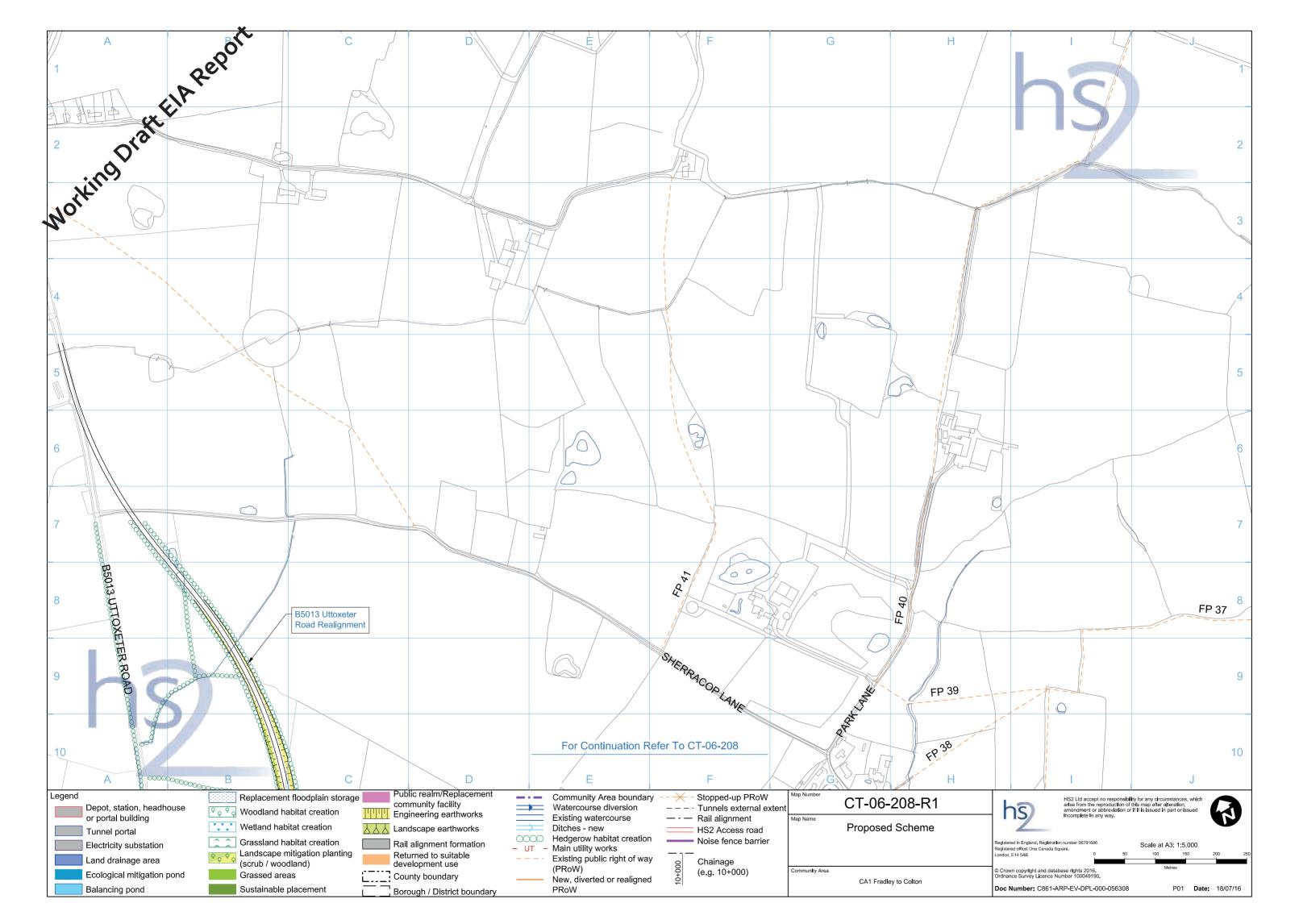


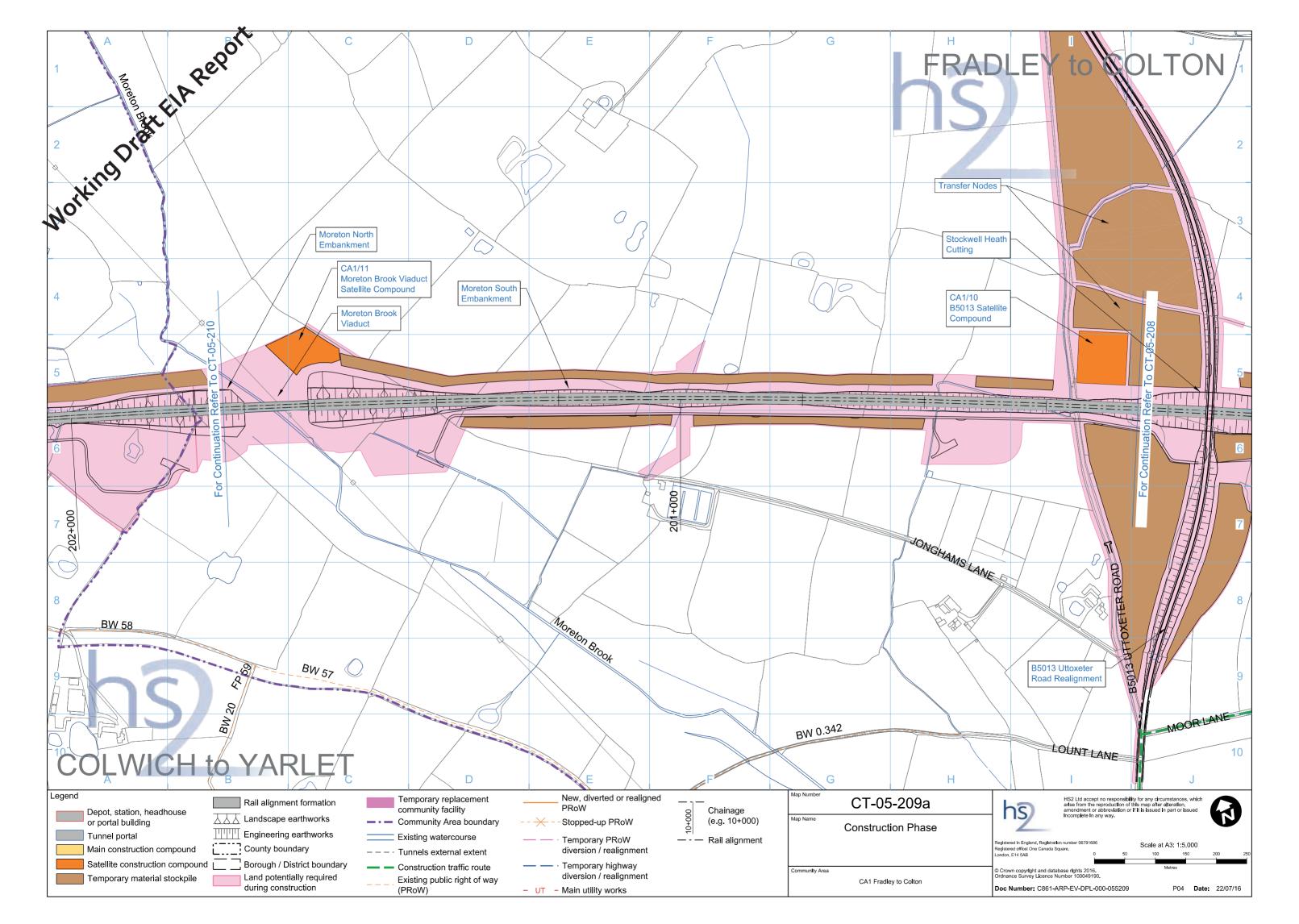


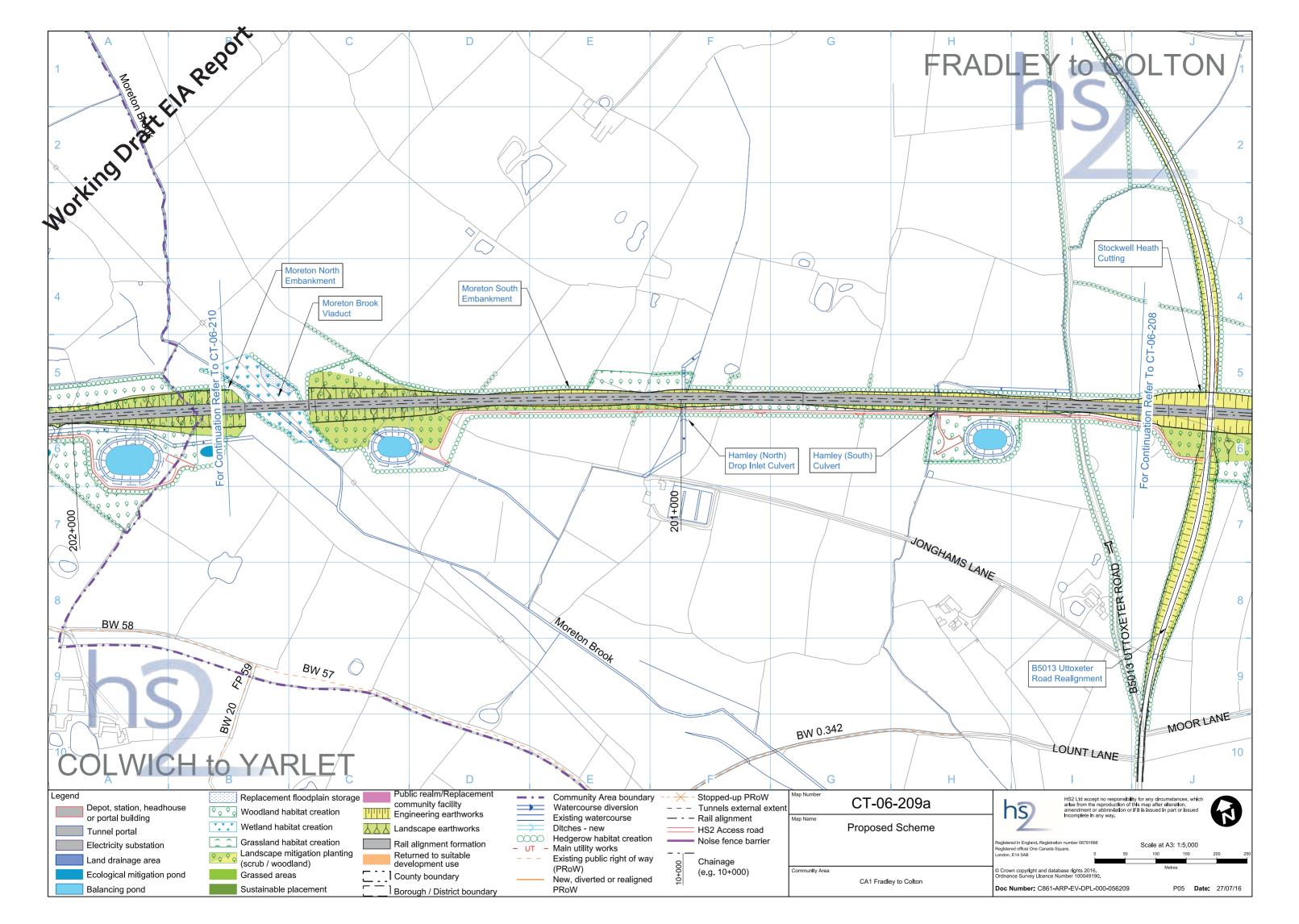








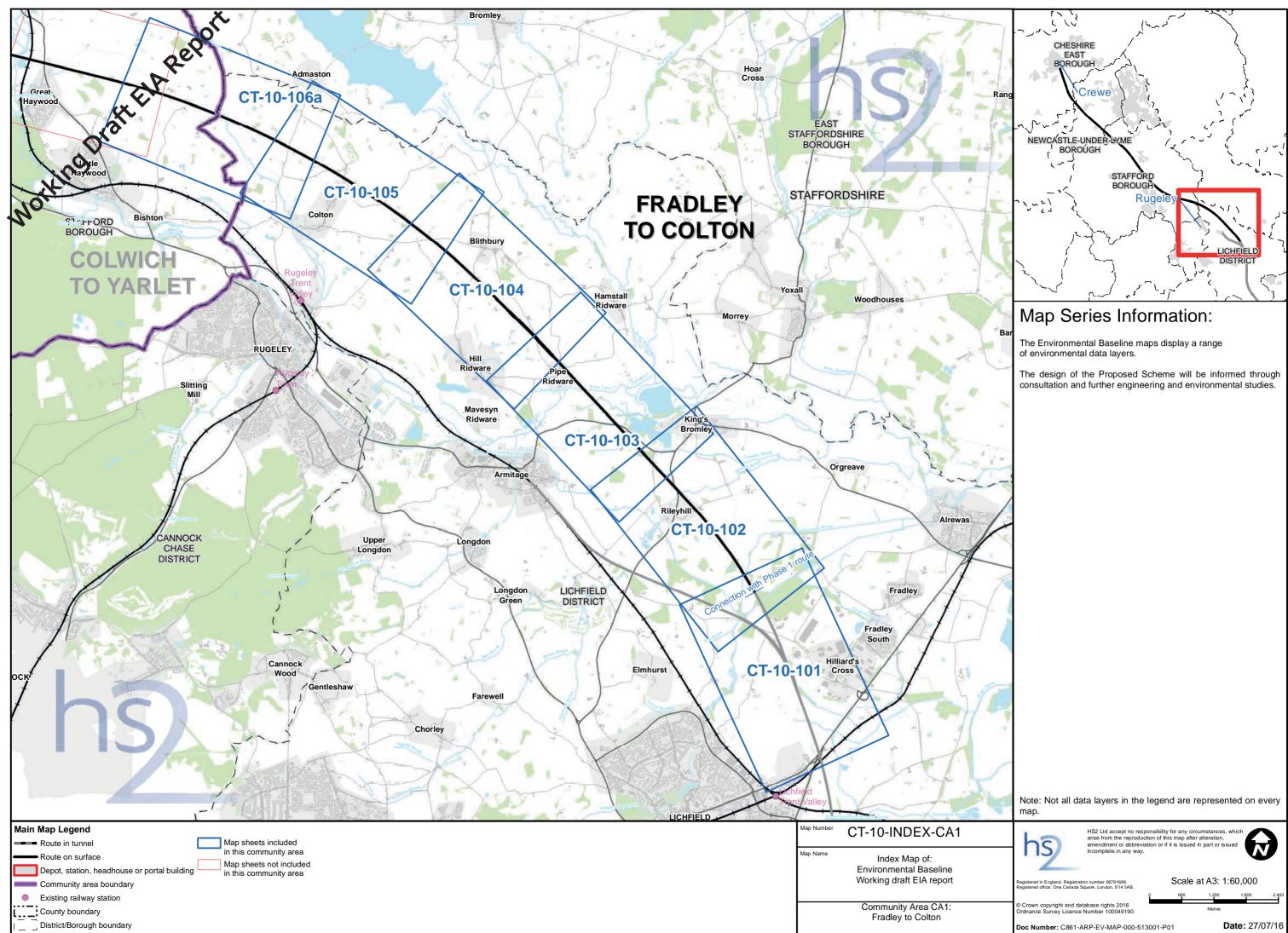


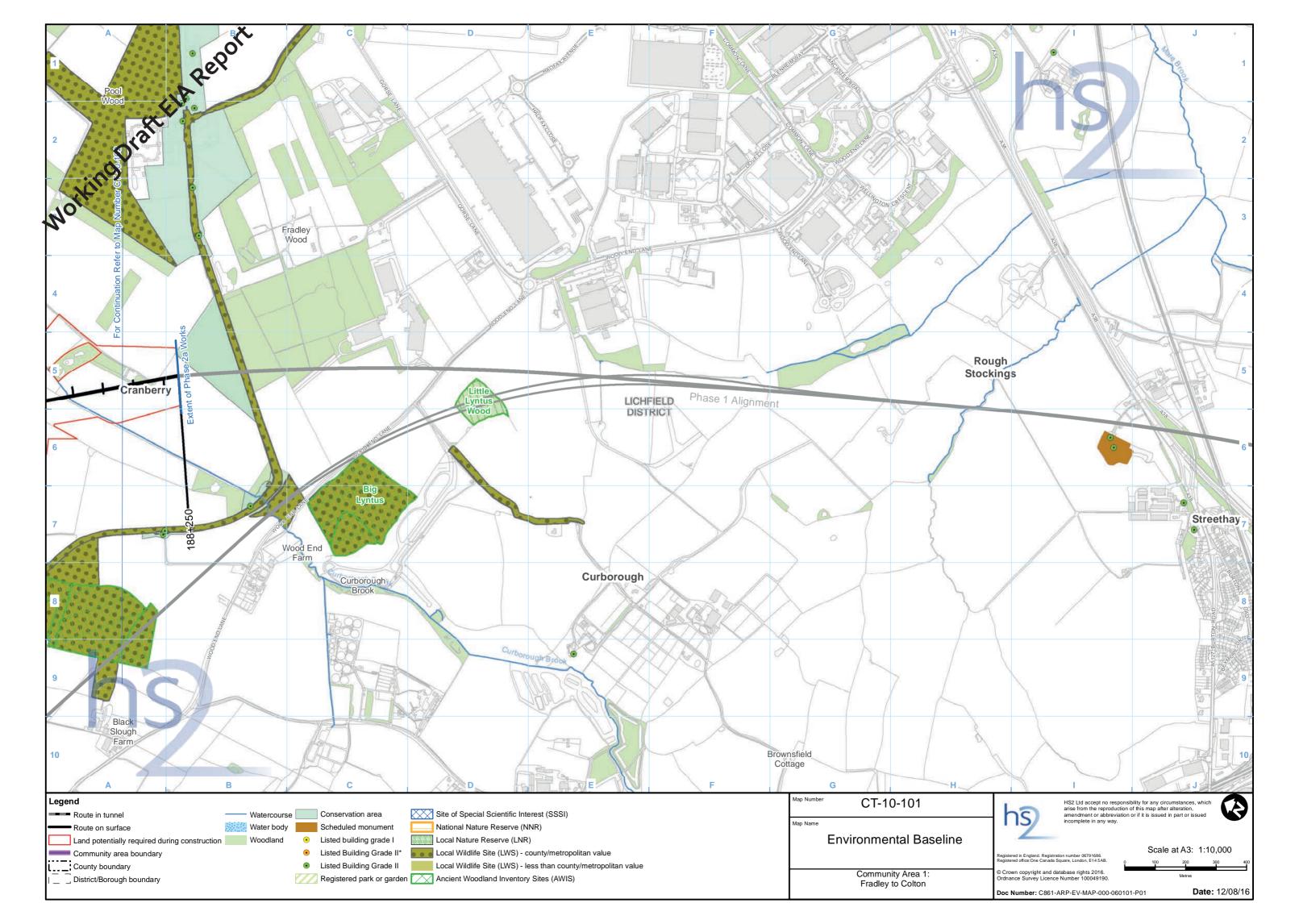


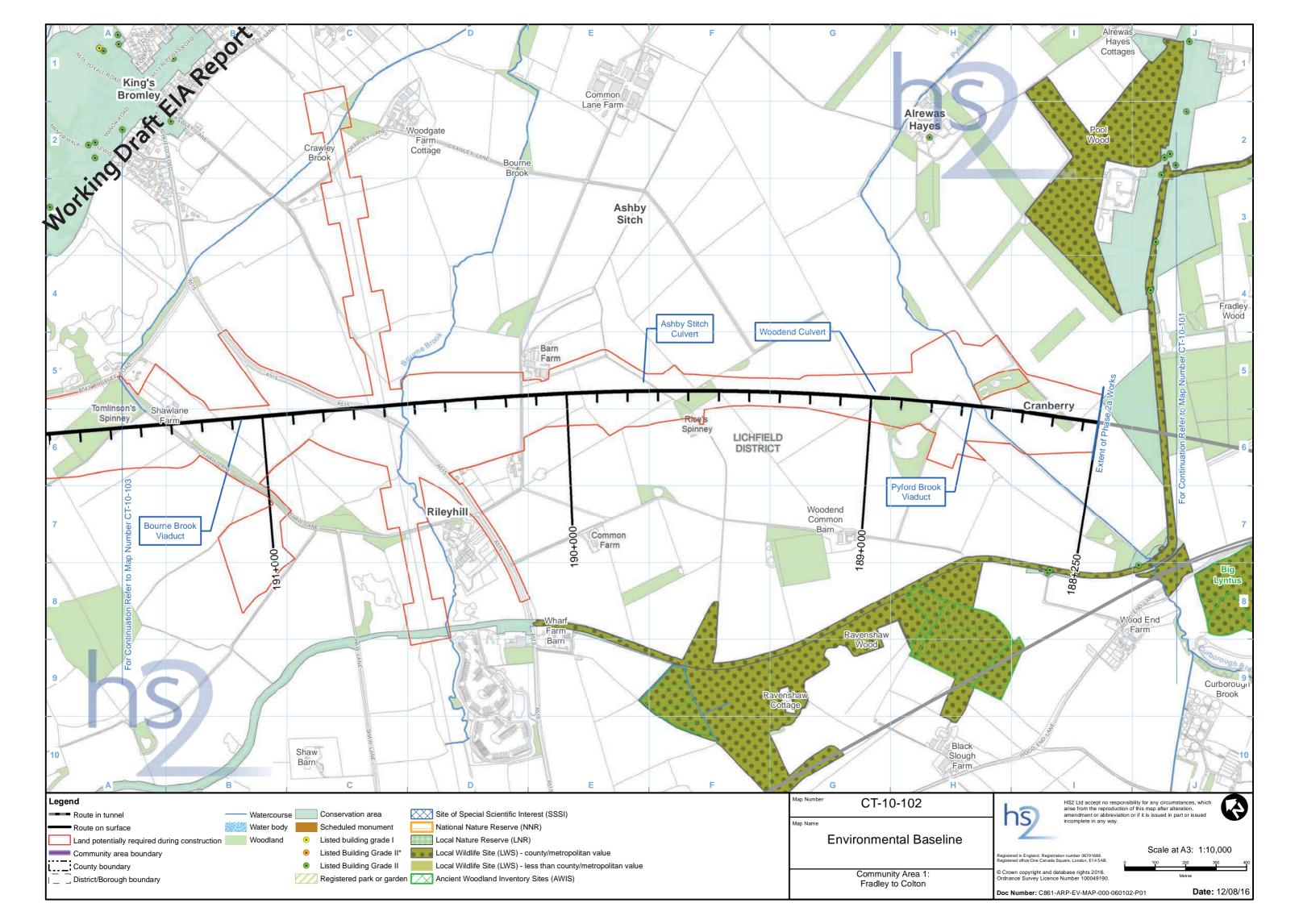
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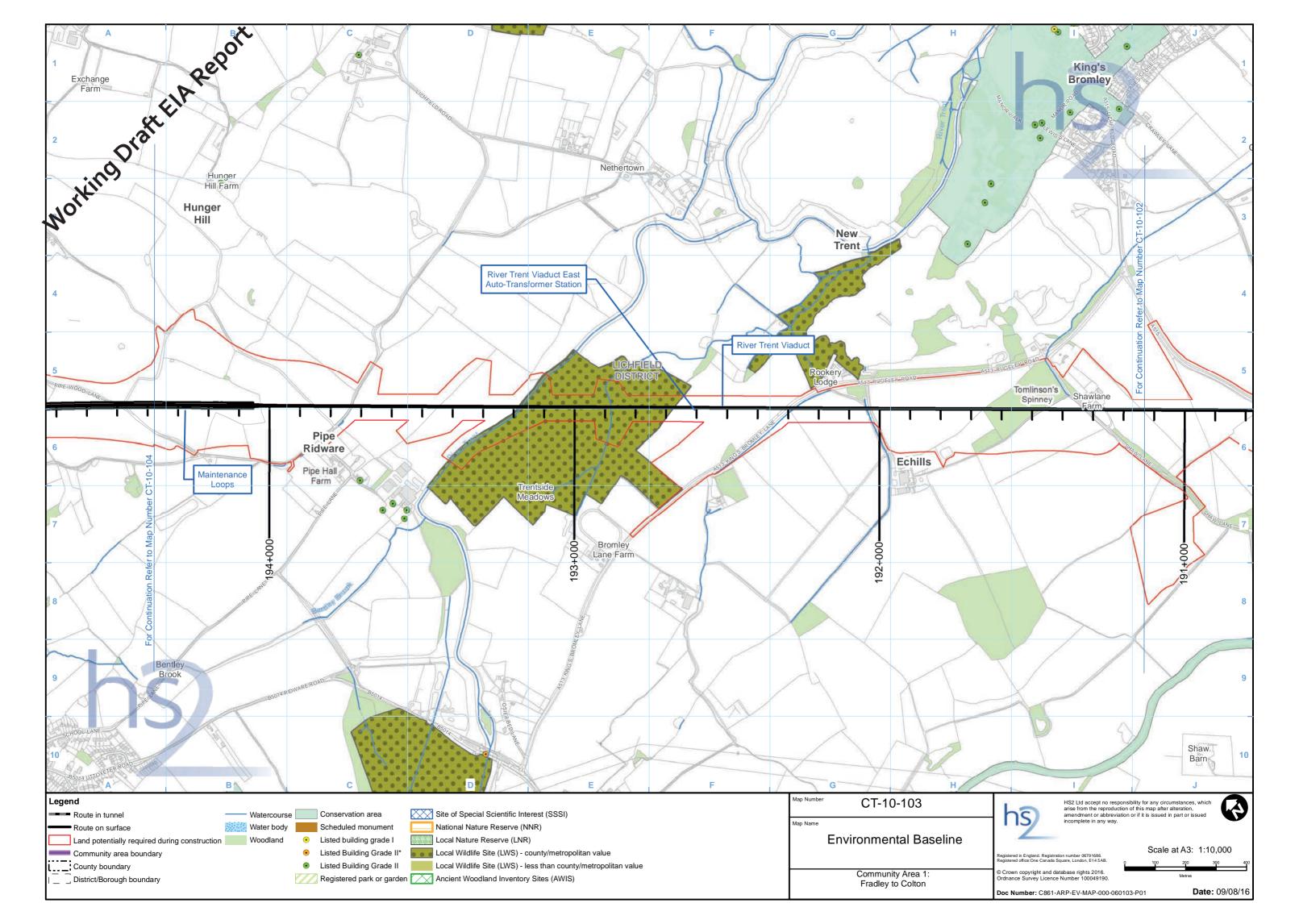
High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report **CT-10 – Environmental Baseline**

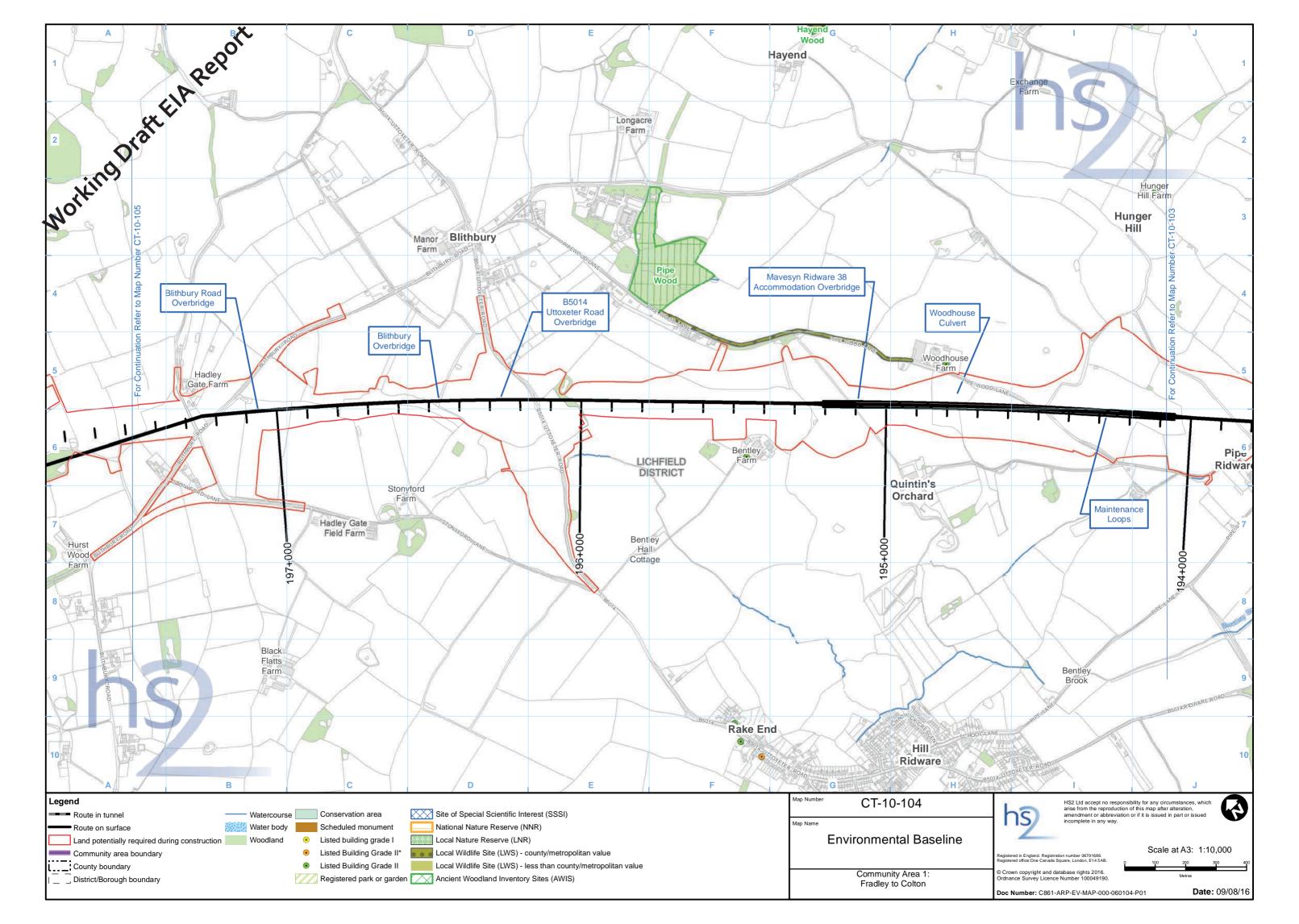


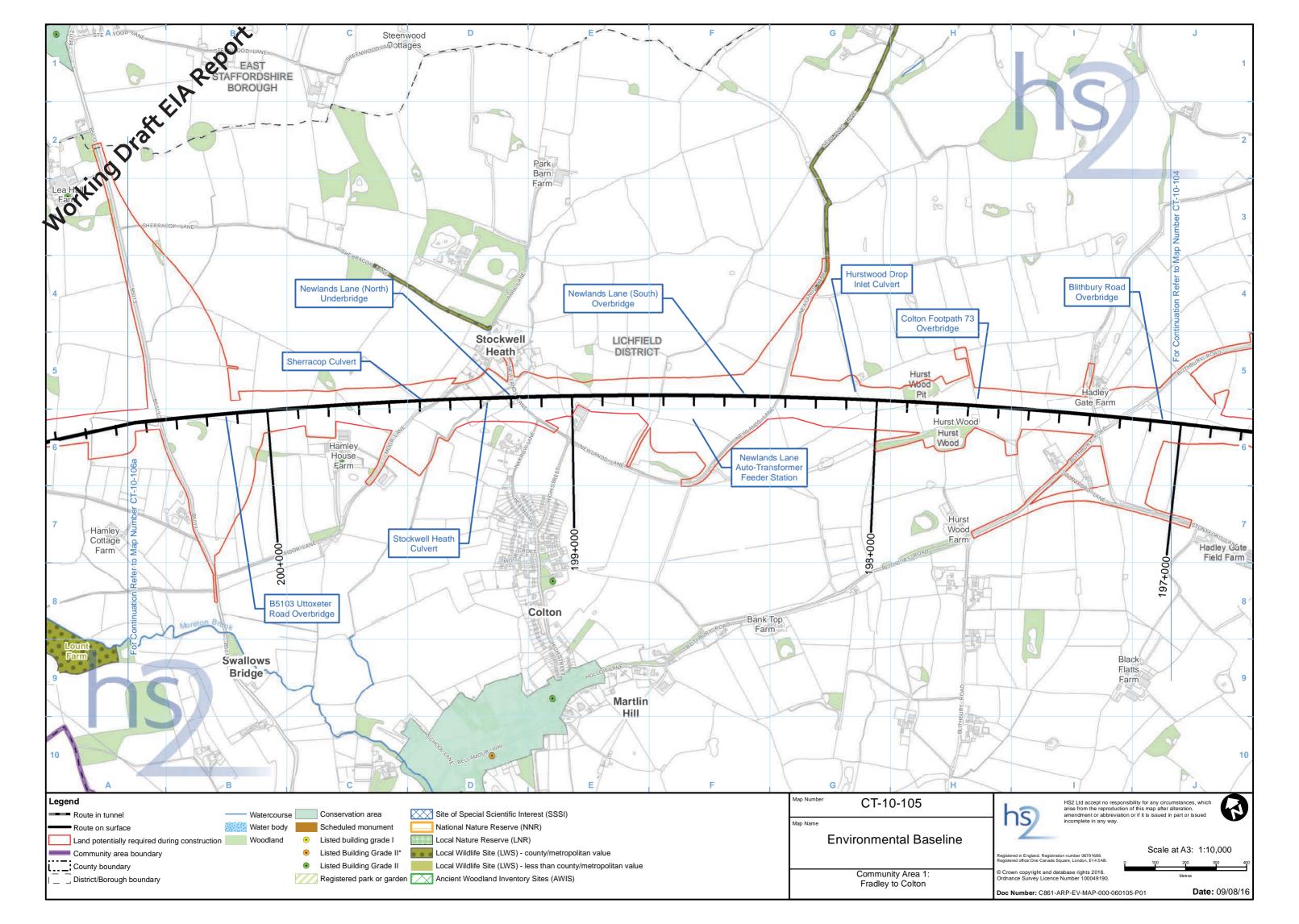


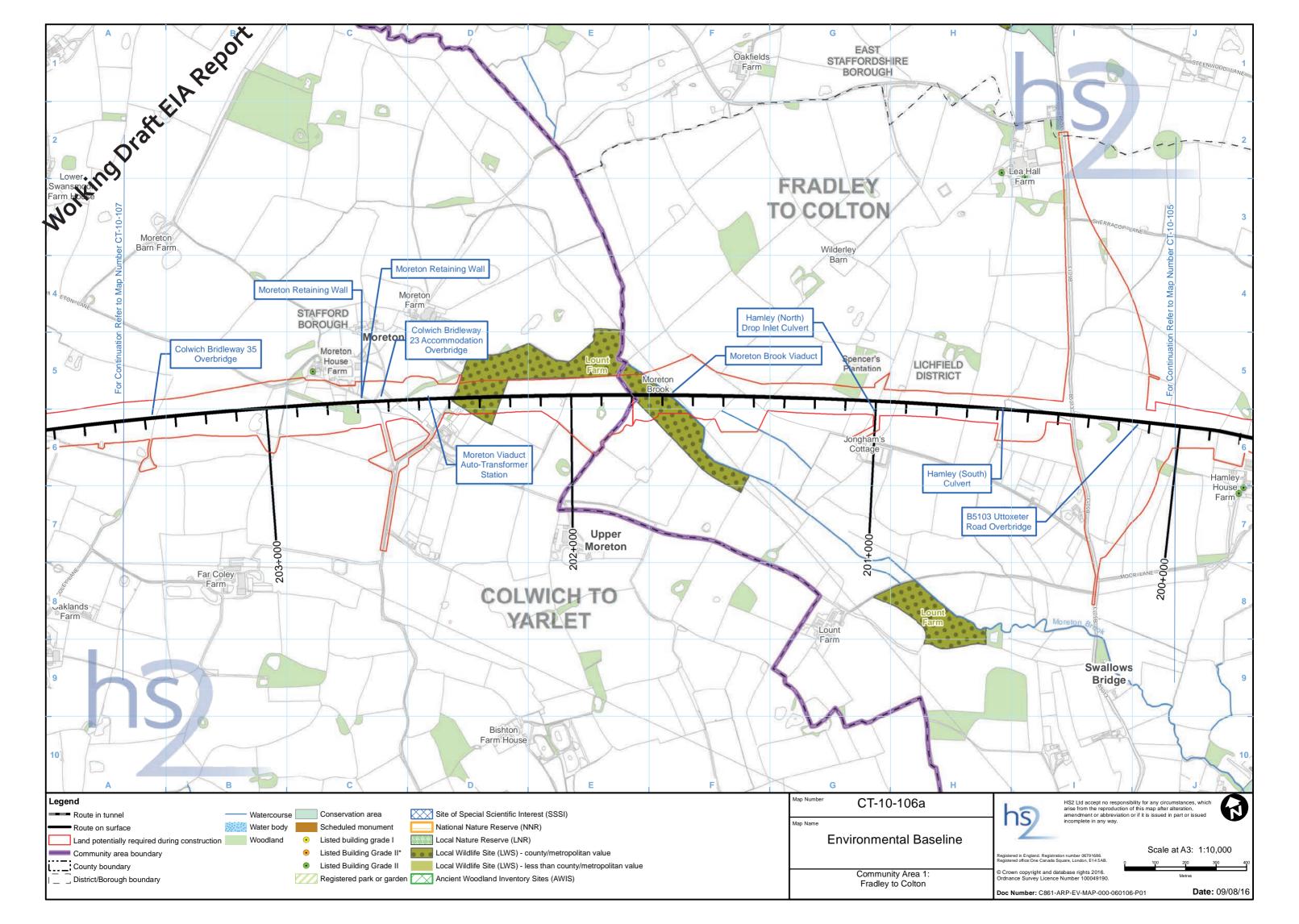






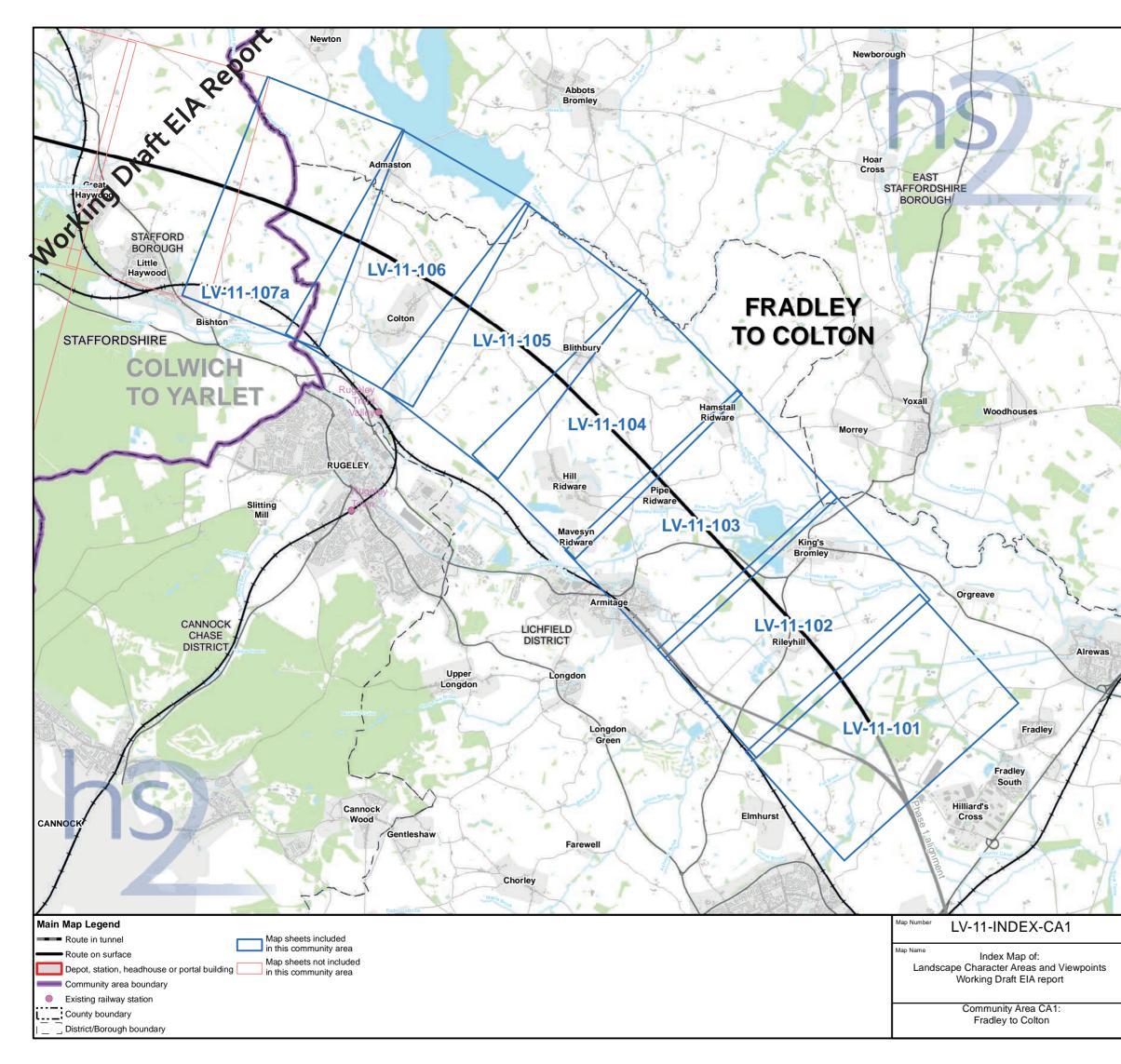


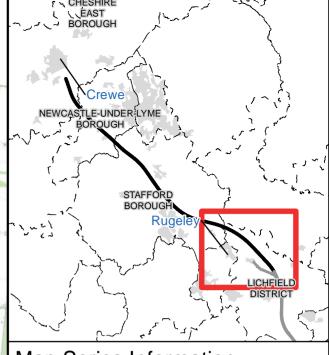




High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report LV-11 – Landscape Character Areas and Viewpoints







Map Series Information:

The landscape and visual maps (series LV-11) display landscape character areas and visual assessment viewpoints in relation to landform (contours), settlements and PRoW.

Landscape character areas are derived from either published sources or have been developed through extensive site survey in the absence of published data. Viewpoints have been selected to represent views of the Proposed Scheme from visual receptors that would be significantly affected during either construction or operation.

All viewpoints lie within the zone of theoretical visibility of the Proposed Scheme, which is being developed for inclusion in the formal EIA.

Viewpoints have been selected to represent views of the Proposed Scheme from visual receptors that have the potential to be significantly affected during construction or operation. These maps indicate all viewpoints considered in the assessment of visual effects. The working draft EIA Volume 2 reports only report viewpoints which are considered likely to be significantly affected by the Proposed Scheme.

The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

Note: Not all data layers in the legend are represented on every map.



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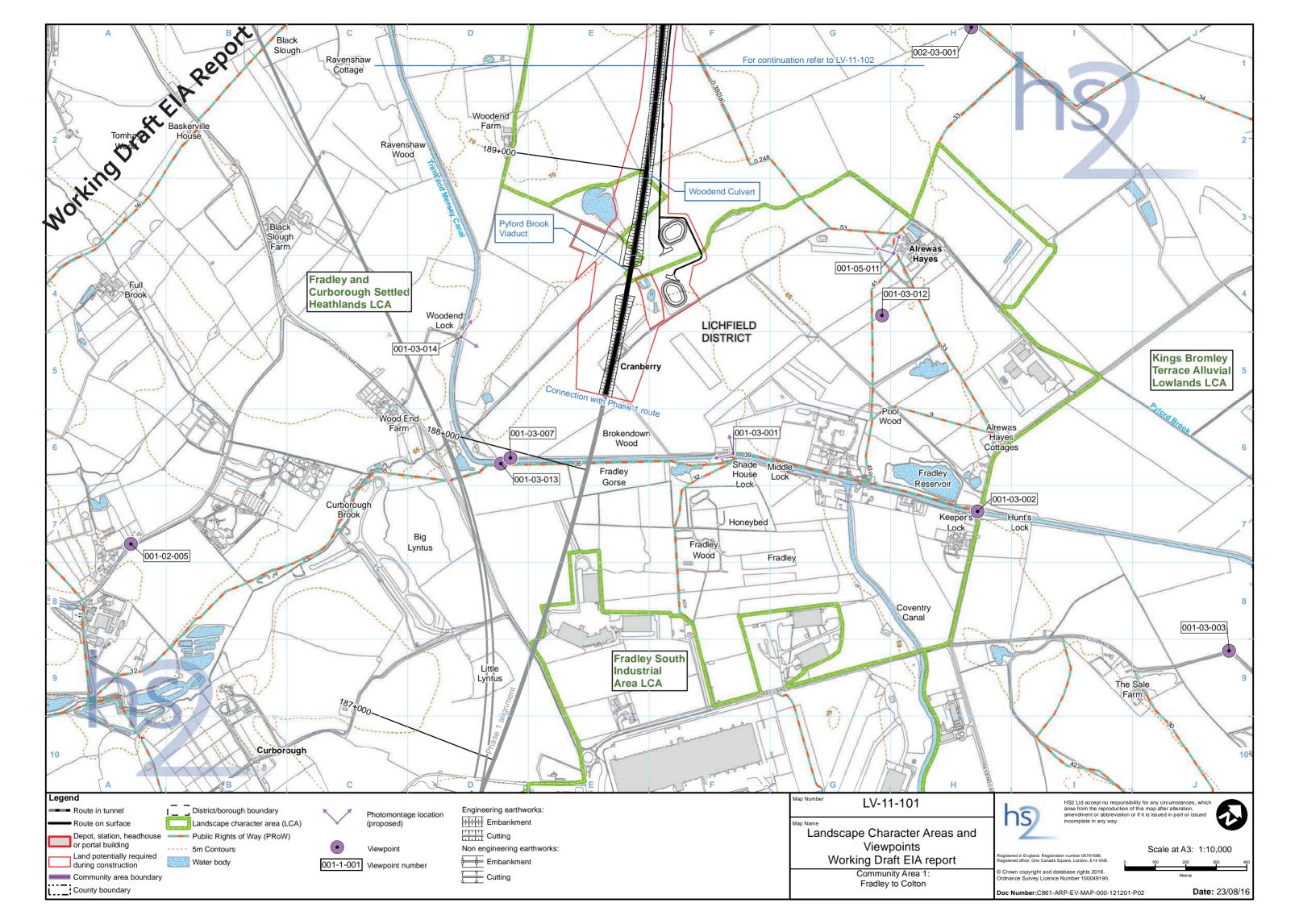
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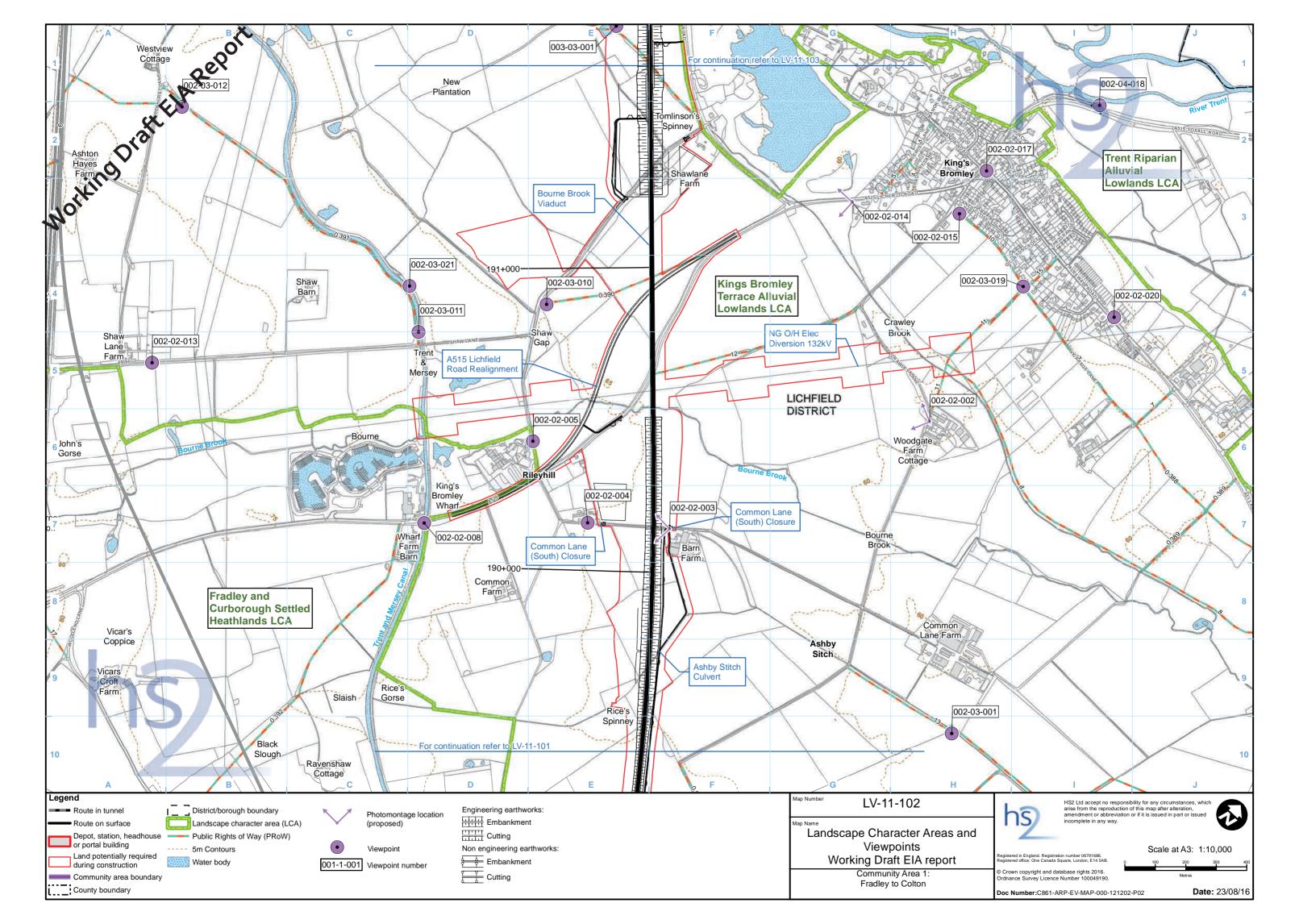
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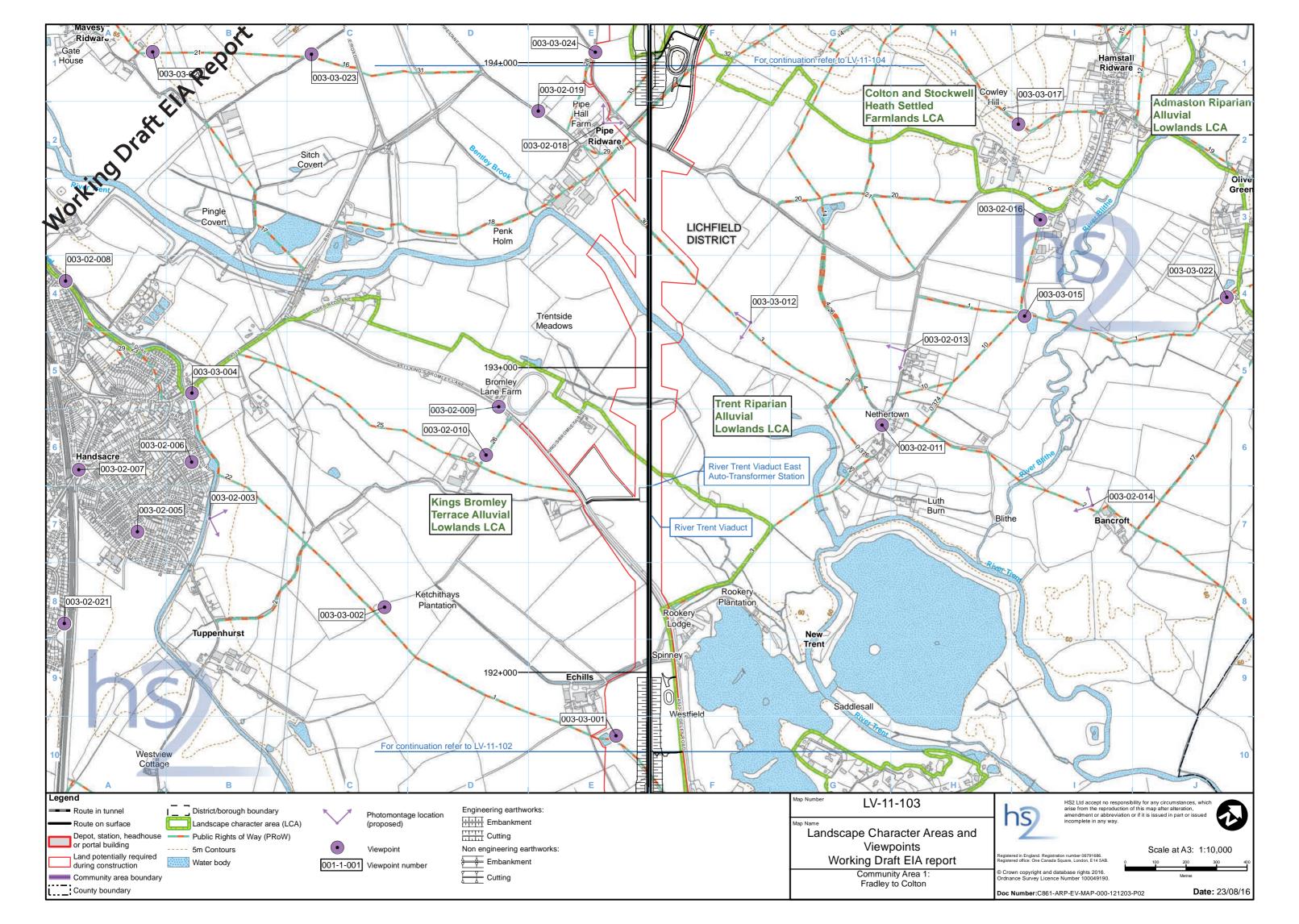
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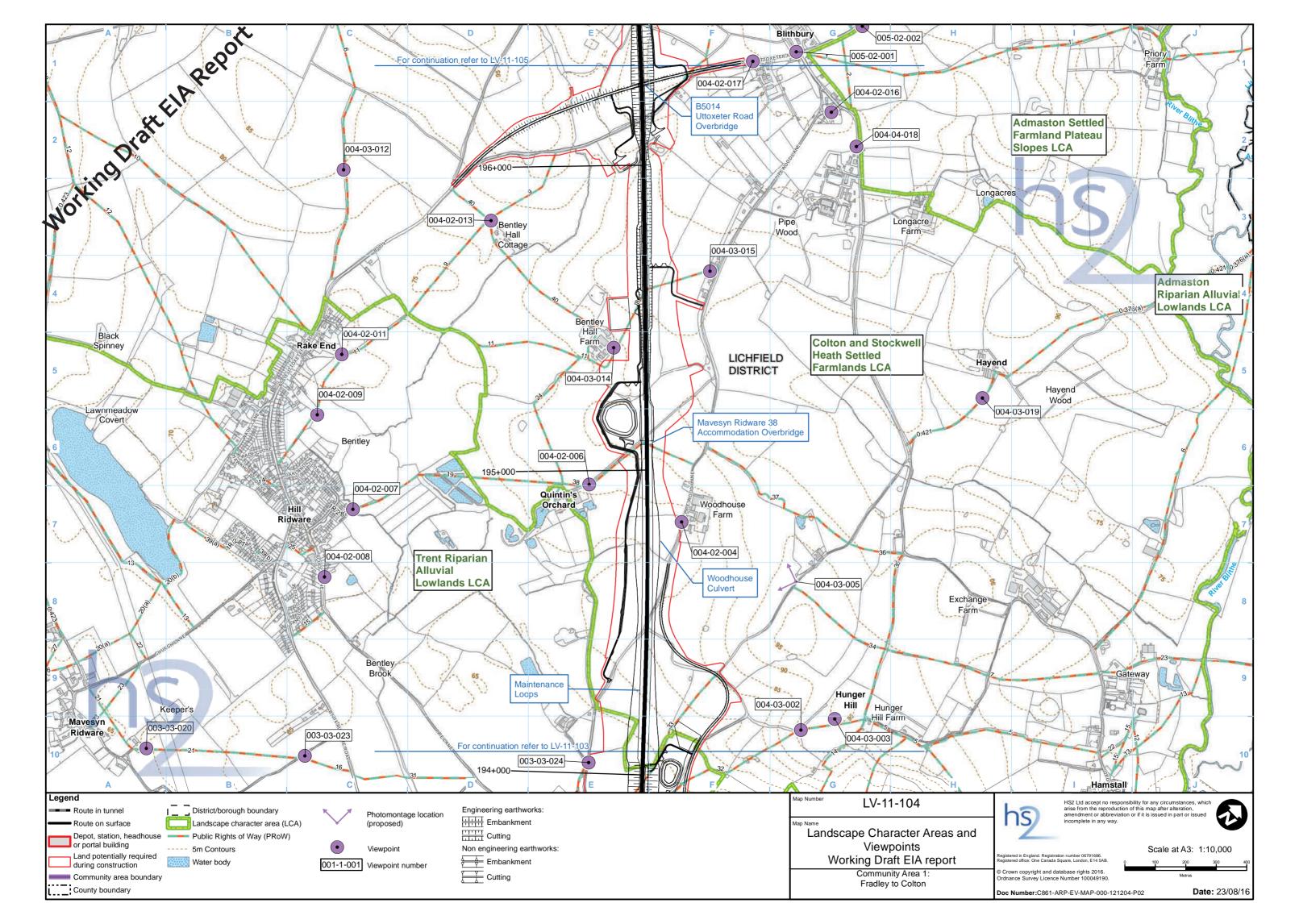
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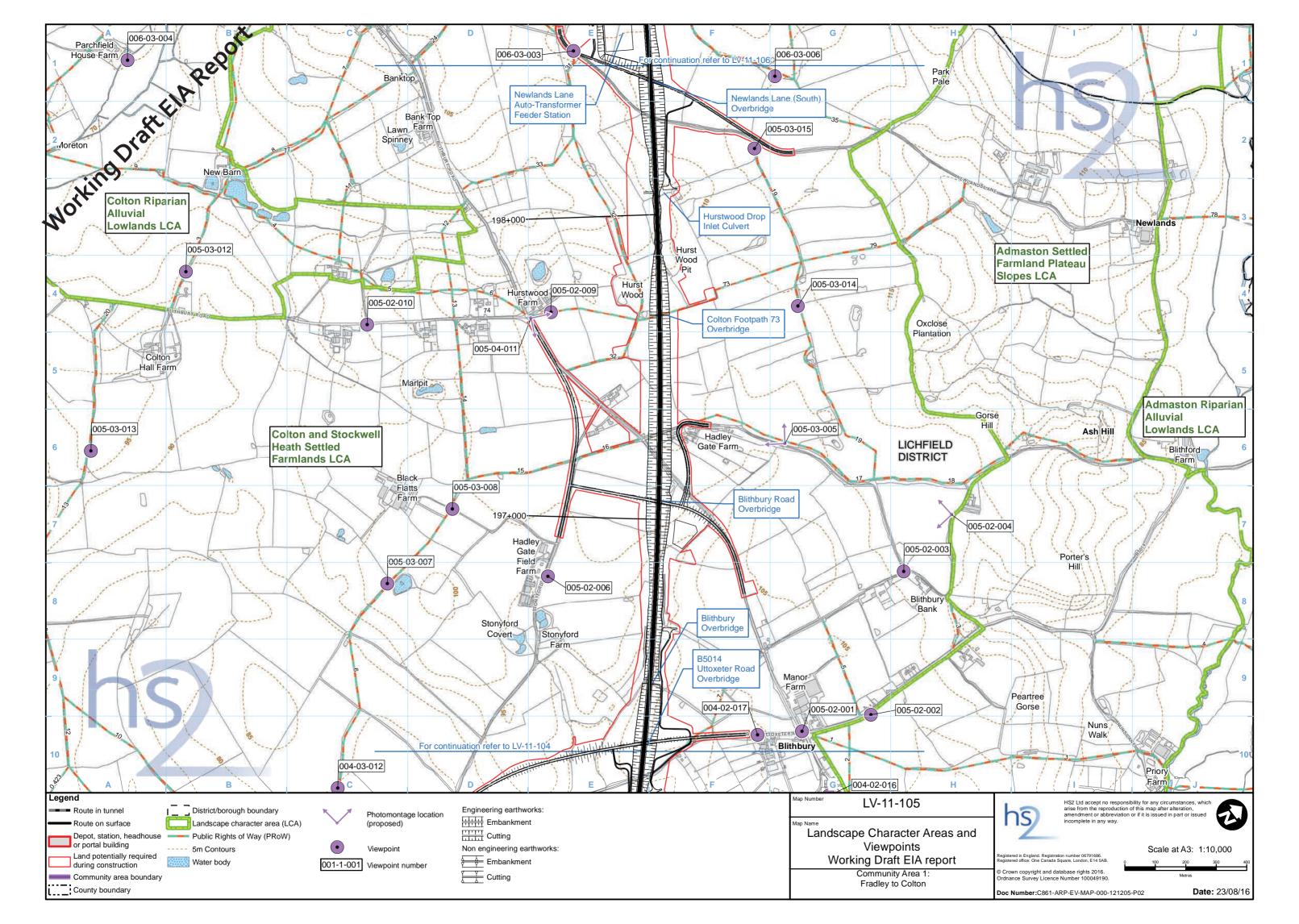
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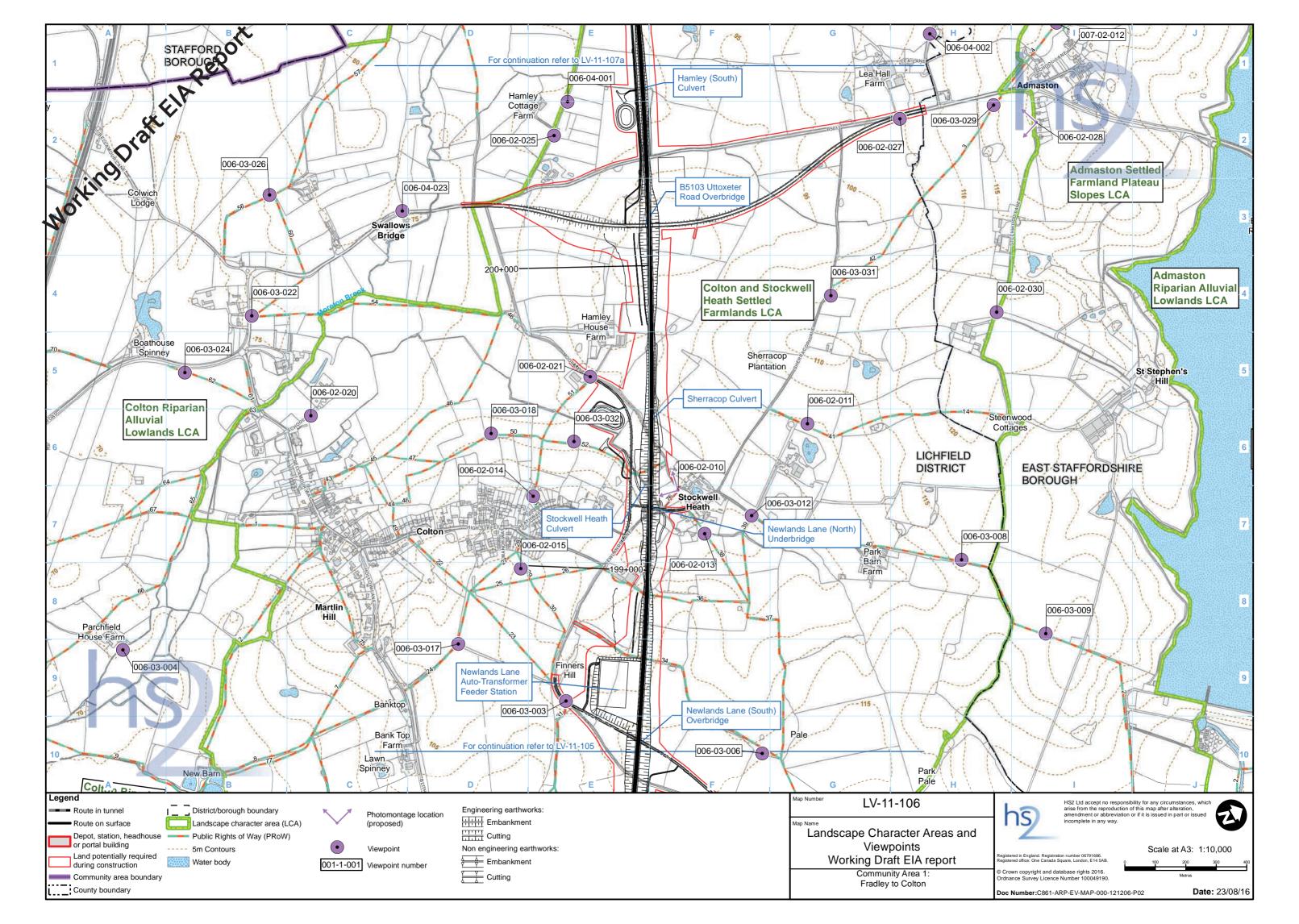


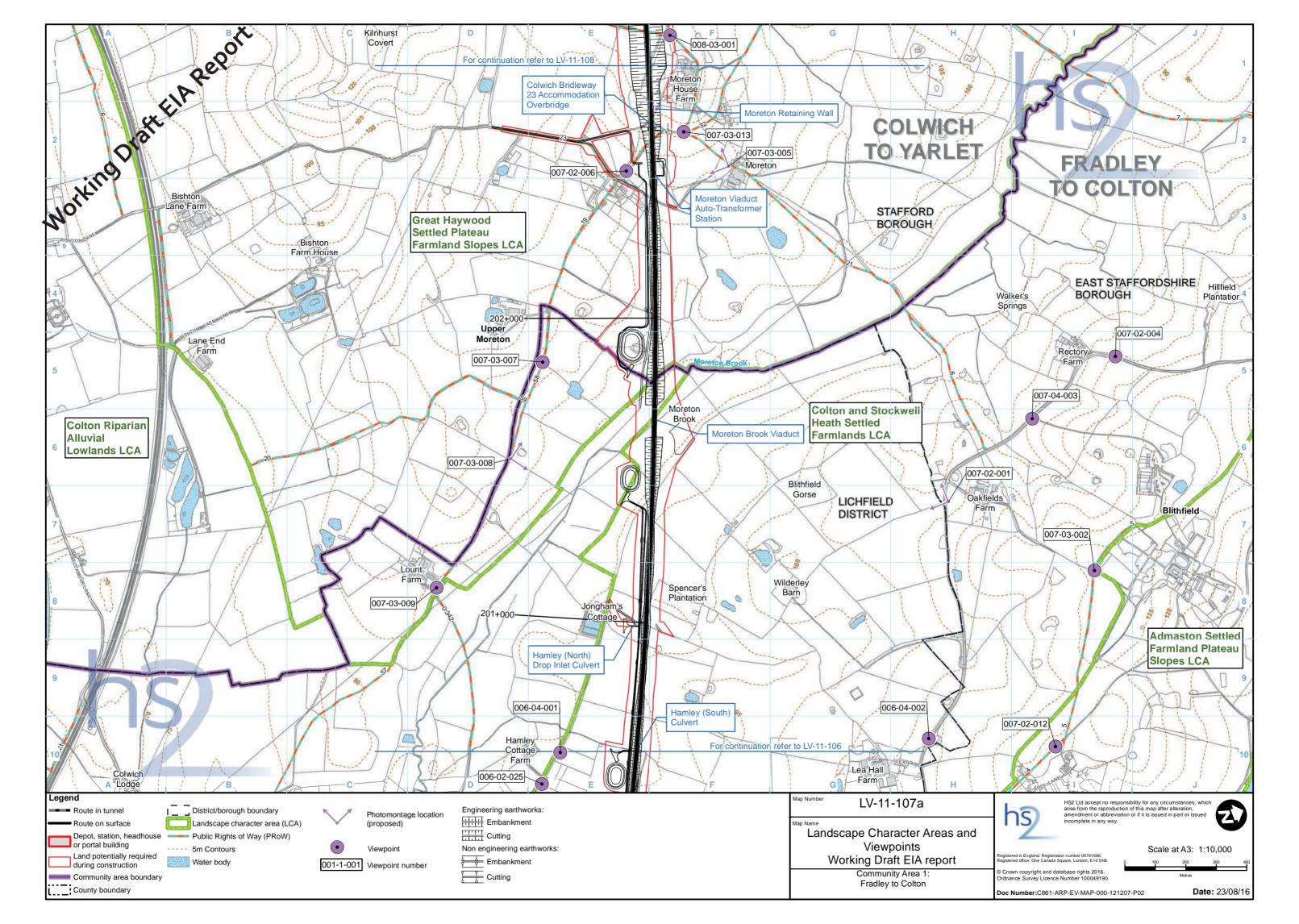








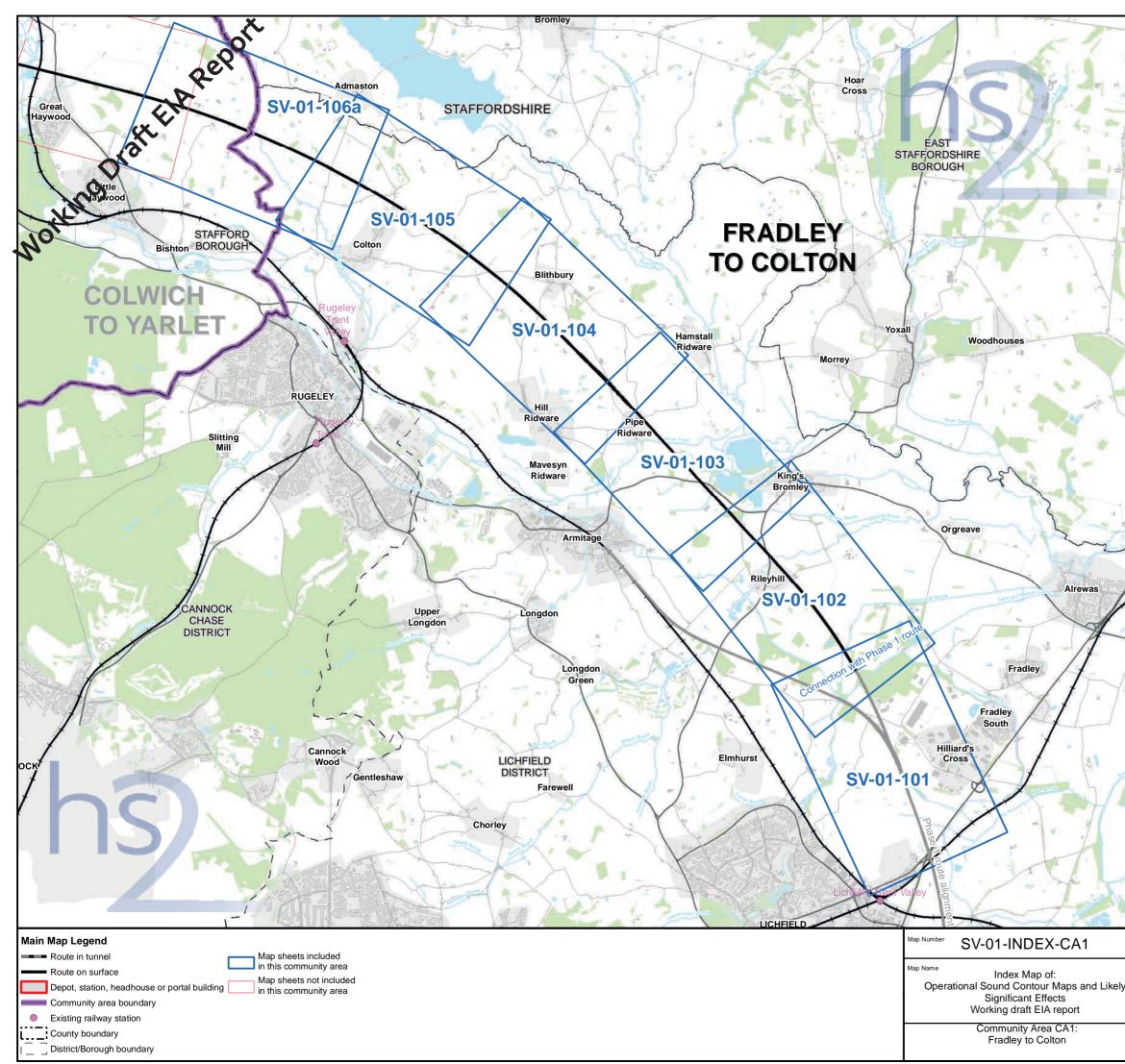


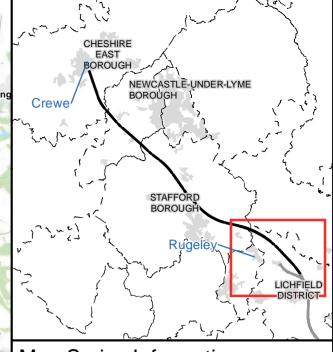


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High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report SV-01 – Operational Sound Contour Maps and Likely Significant Effects







Map Series Information:

 $\ensuremath{\mathsf{SV-01}}$ presents the predicted operational sound from the new railway.

The sound levels from the new railway (expressed as $_{LpAeq,T}$) are presented in typical noise mapping colours in 5 dB steps. There is a panel at the top right of the figure; the left-hand section of this panel contains a key communicating the night-time and daytime sound levels represented by the various colours. The right-hand part of the same panel contains text explaining how the sound levels presented on the figure inform the assessment of direct noise impacts and likely significant effects. A corresponding and similar panel is found on SV-02, along with the key sound contours that were used within the environmental assessment.

Also presented on SV-01 are the following (which are also included on SV-02):

• A representation of the Proposed Scheme, including the railway alignment (indicating whether it is on the surface or in tunnel), any new and altered roads and all associated engineering and environmental mitigation earthworks;

 blue and green lines representing the wayside airborne noise mitigation measures included in the Proposed Scheme;

 symbols representing buildings that would potentially qualify for noise insulation;

 \bullet labels identifying the residual likely significant noise effects of the Proposed Scheme, and

• the extent of the study area within which the direct impacts and effects of the scheme have been quantitatively assessed.

A more detailed explanation of each legend item included on the figures can be found in the data dictionary.

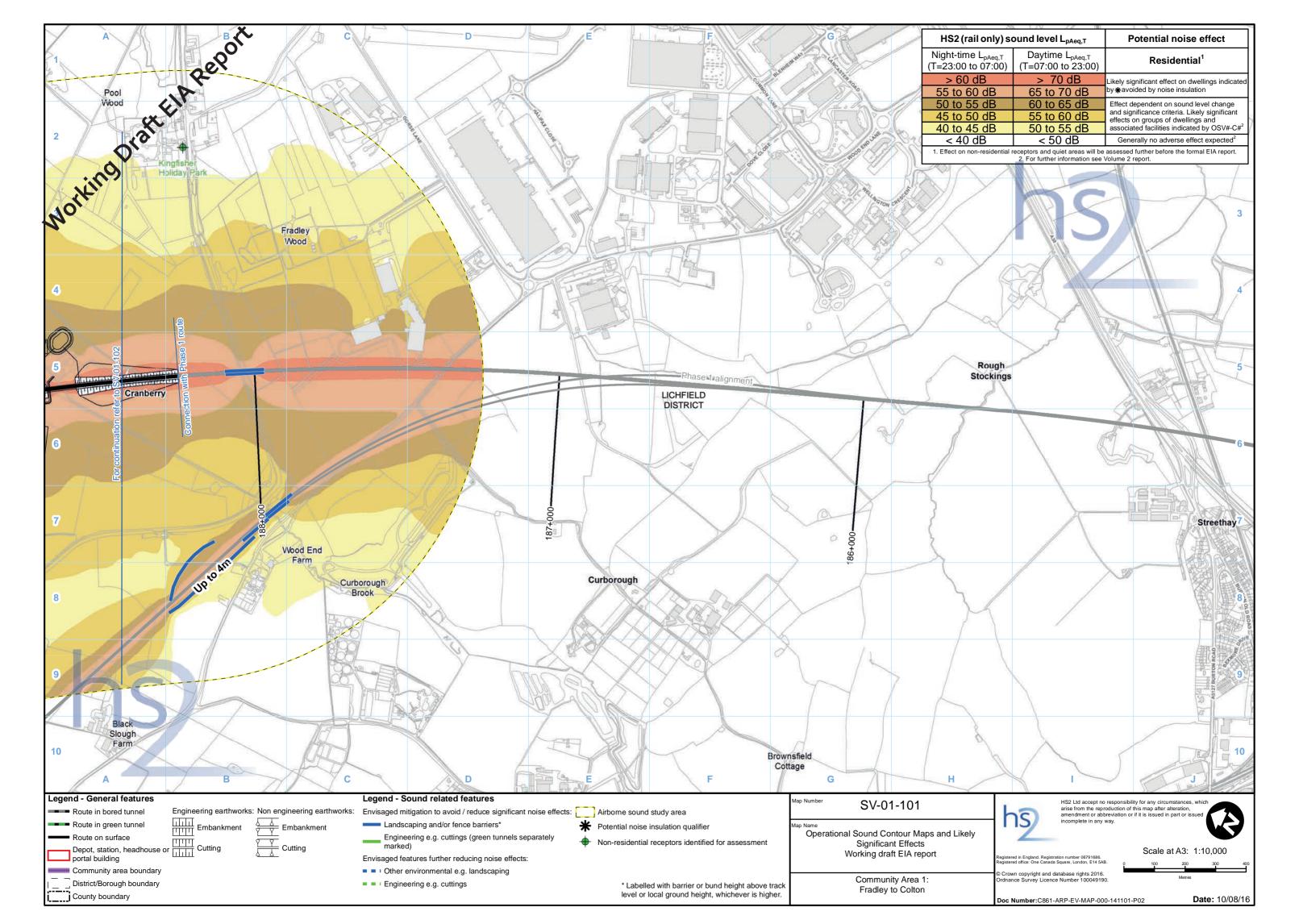
The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

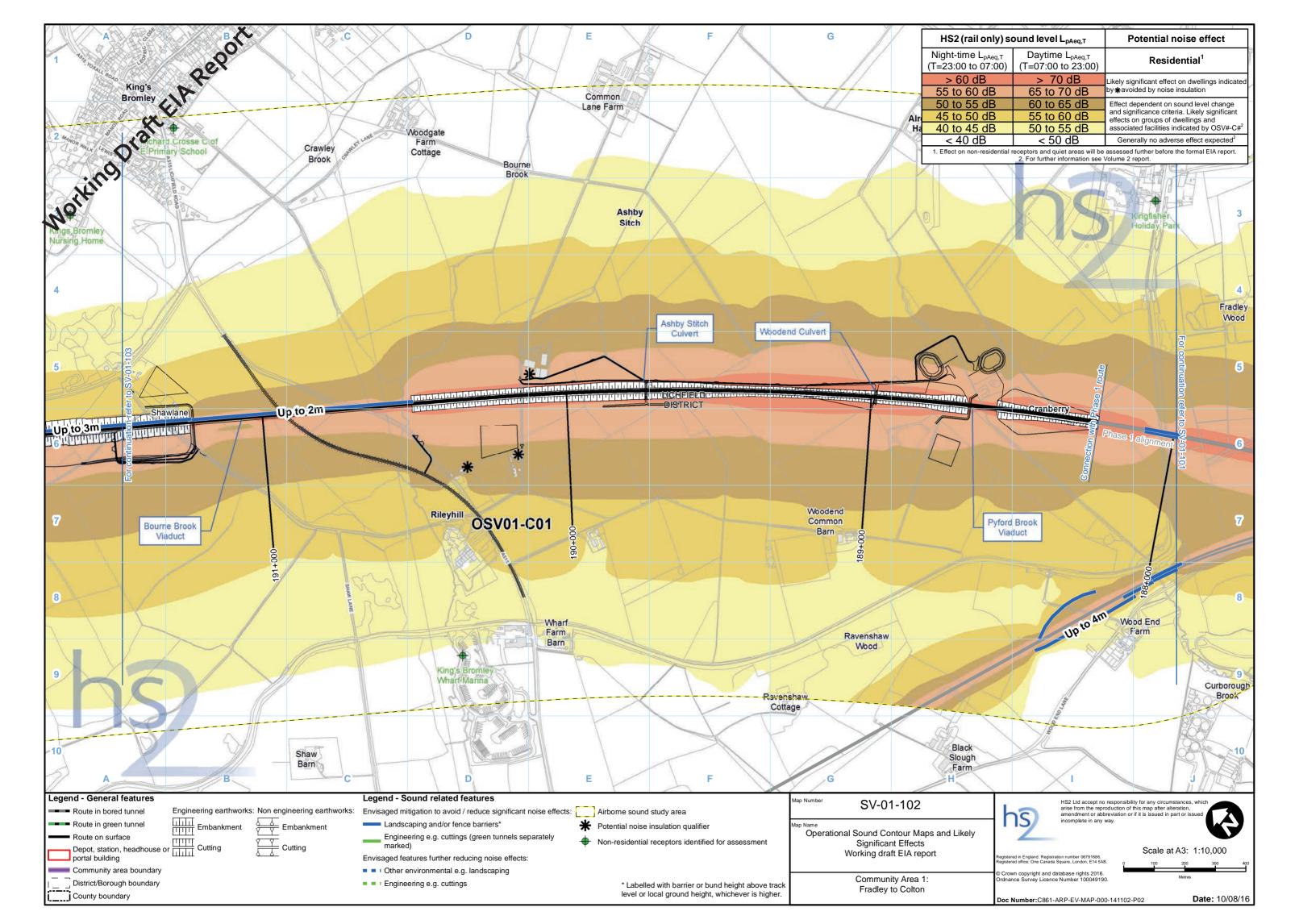
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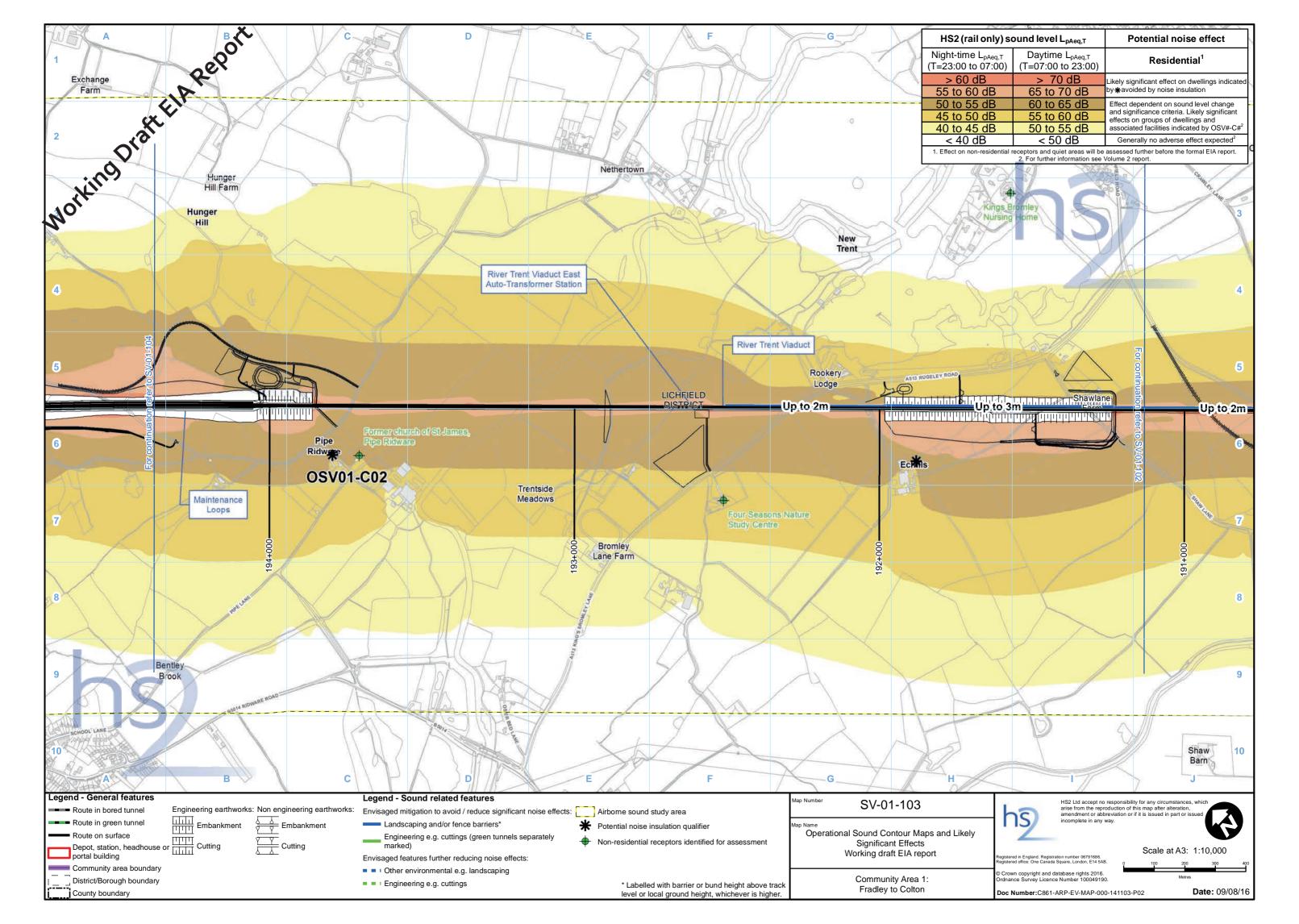
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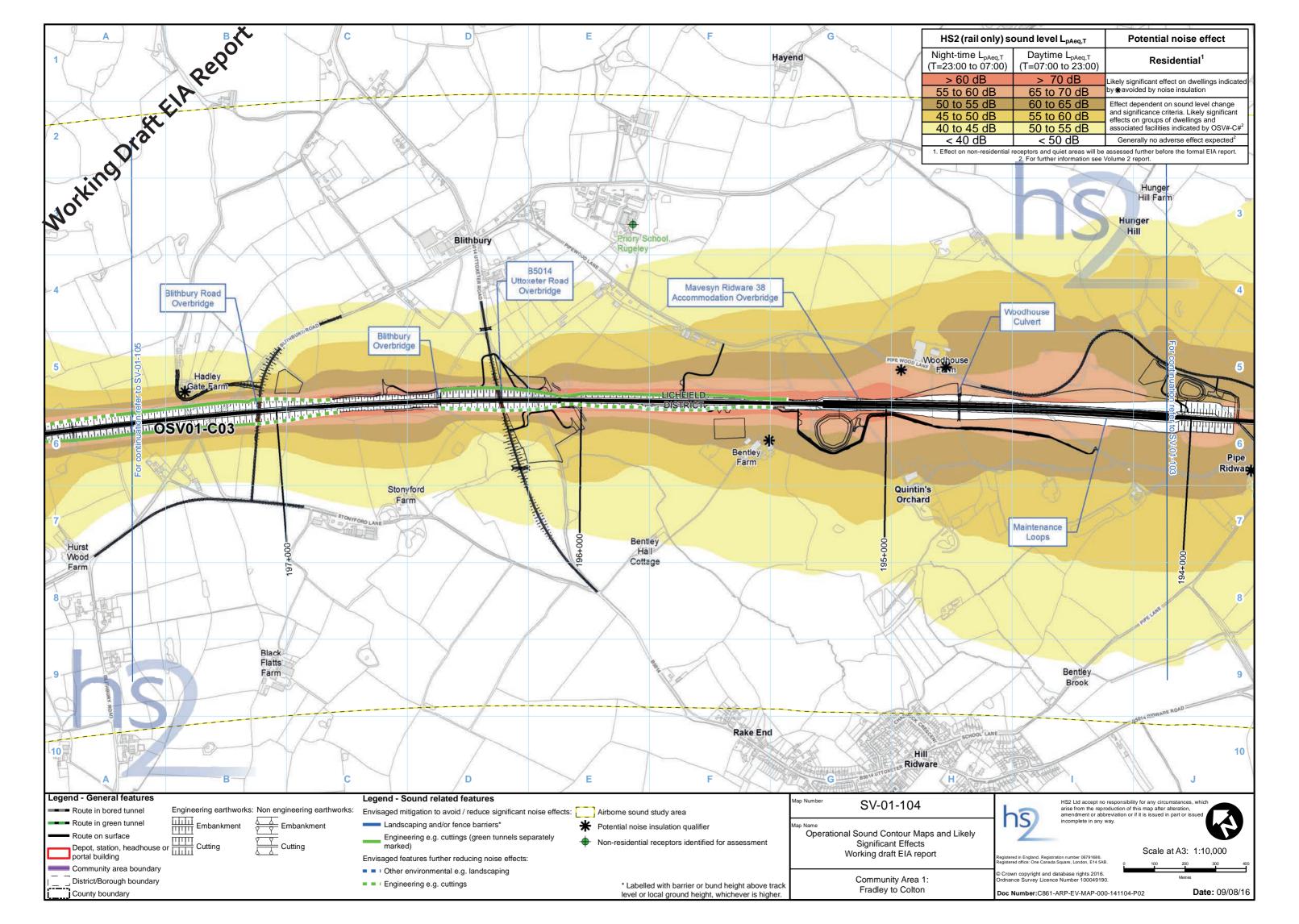
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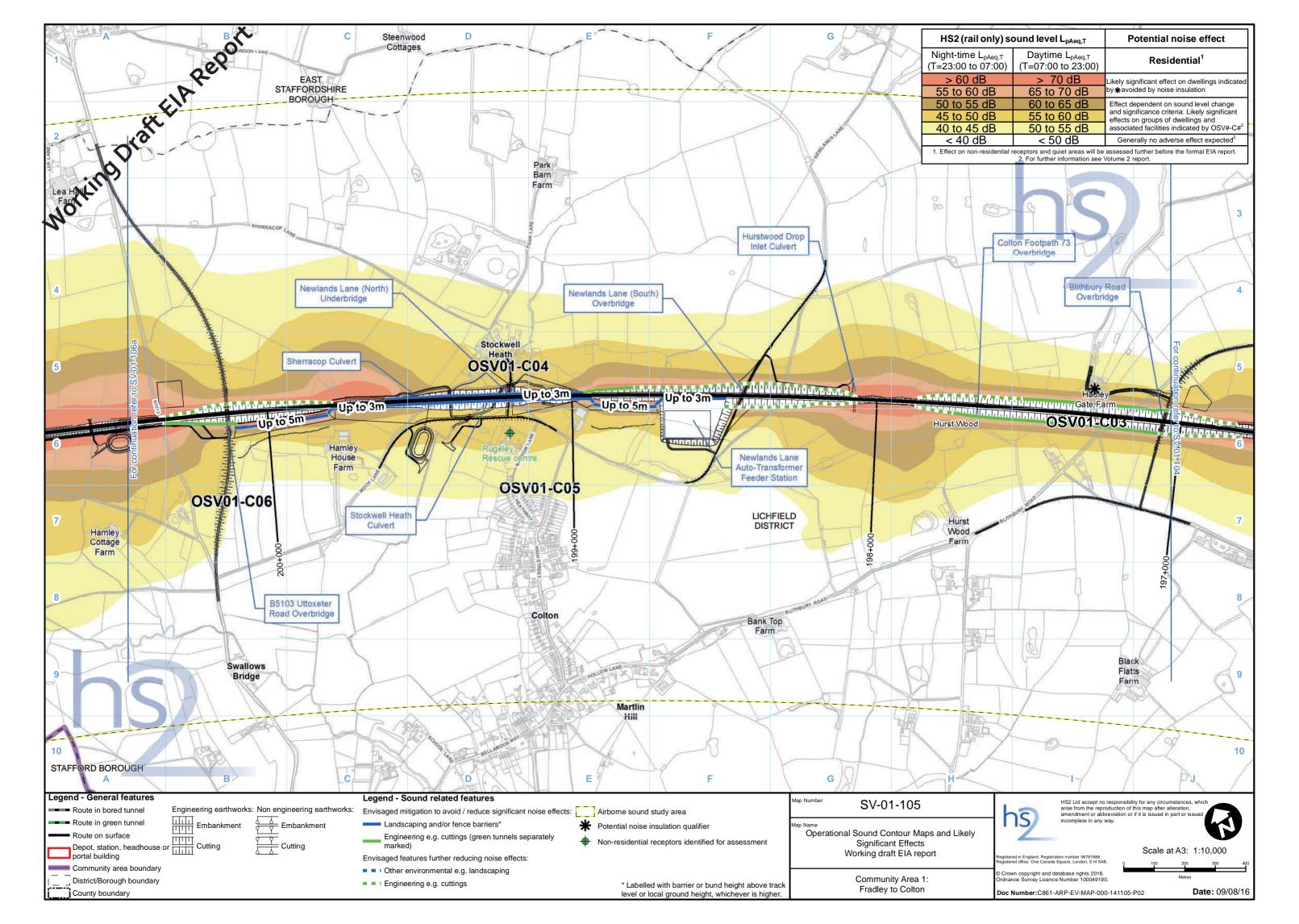
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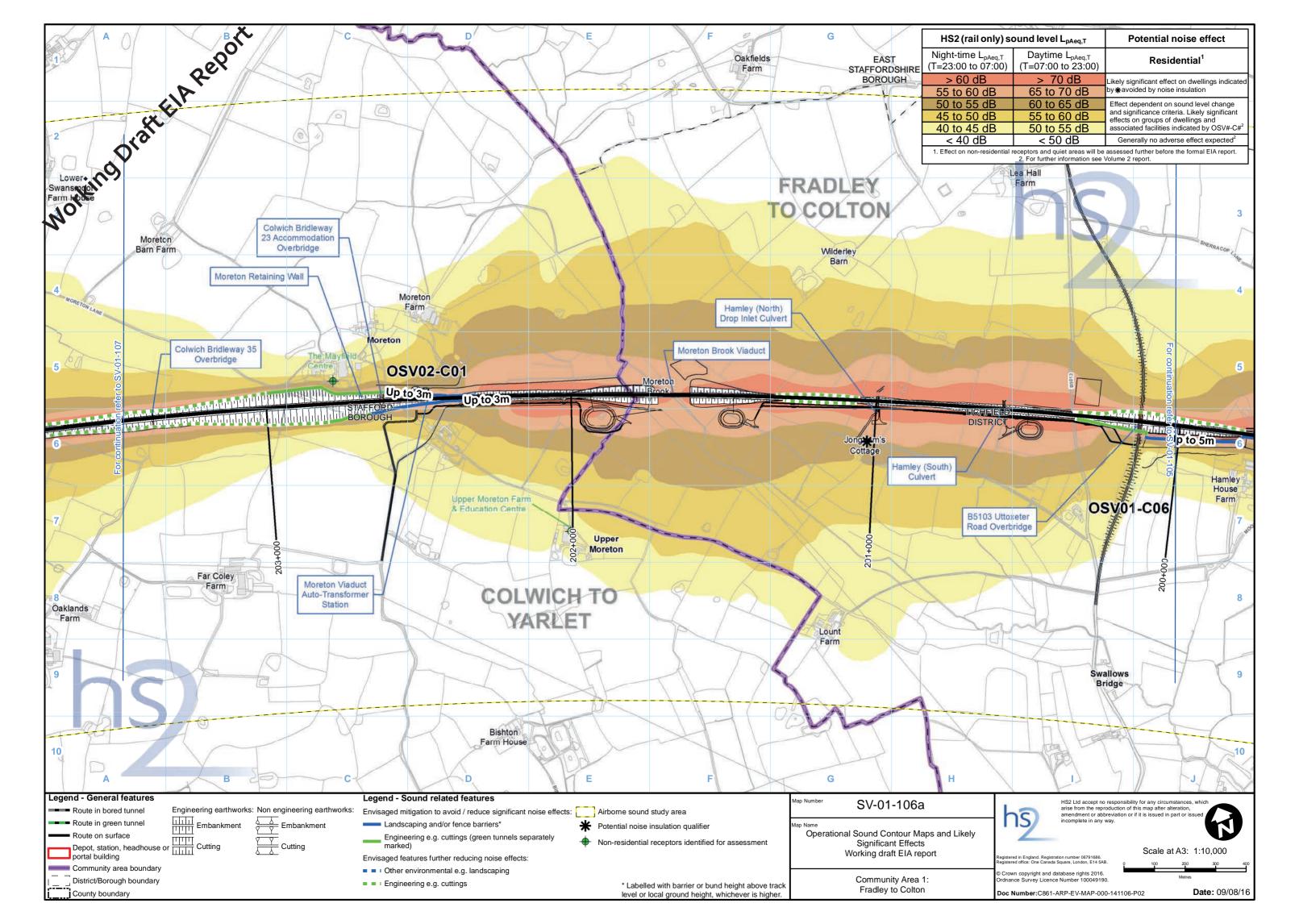






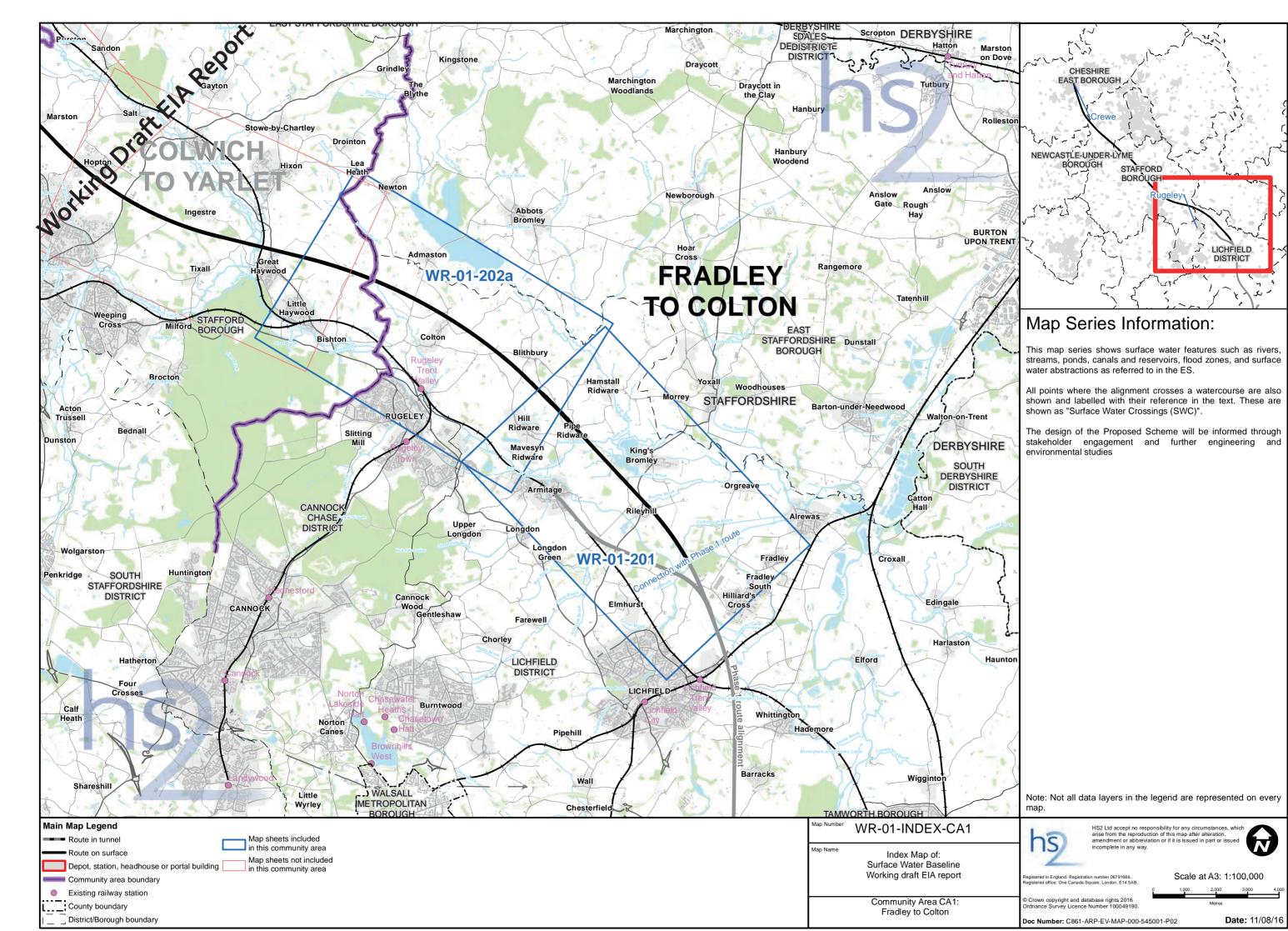




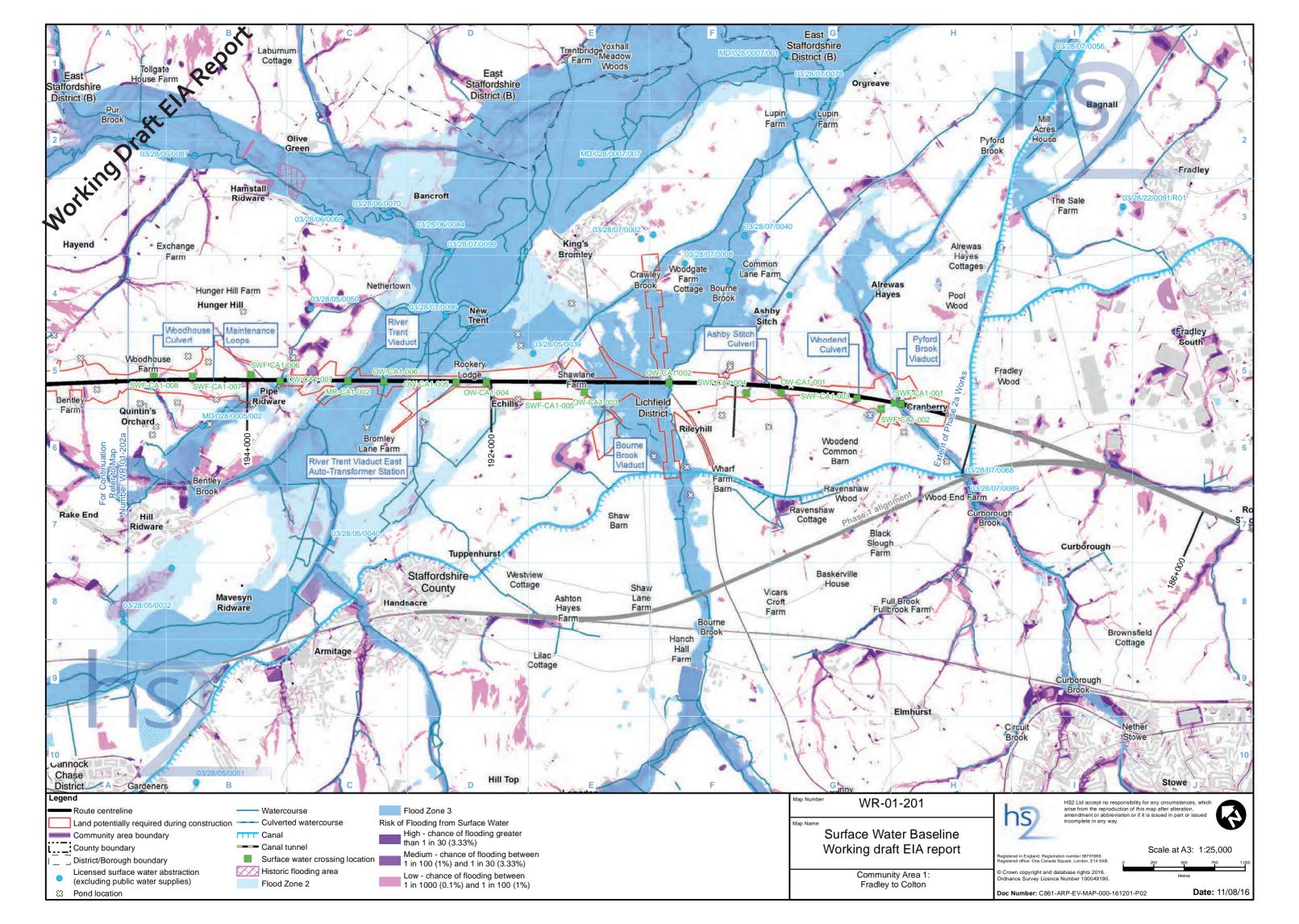


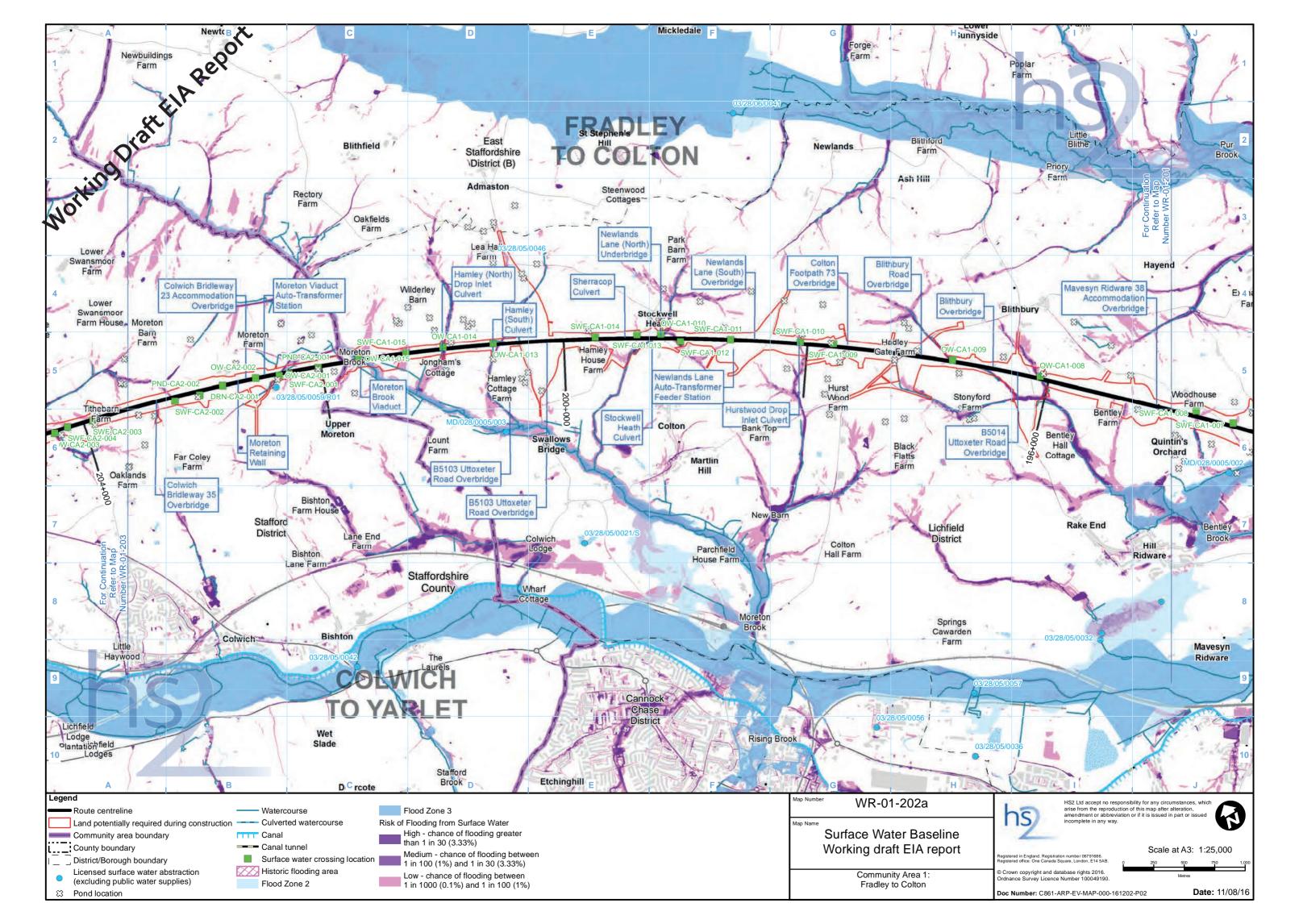
High Speed Two Phase 2a: West Midlands to Crewe Working Draft Environmental Impact Assessment Report **WR-01 – Surface Water Baseline**





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High Speed Two (HS2) Limited One Canada Square Canary Wharf London E14 5AB

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