

HS2 Context Report

Prepared for Aylesbury Vale District Council

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Preface

Purpose

This Planning Context Report provides an overview of HS2 works that will take place within Aylesbury Vale District (the District) and a programme for making requests for approval under Schedule 17 to the High Speed Rail (London - West Midlands) Act 2017 ("the HS2 Act").

The report has been prepared in fulfilment of the requirements of paragraph 16 (1) (a) of Schedule 17 to the Act, which states:

A planning authority need not consider a request for approval under Part 1 [of Schedule 17 to the Act] unless:

a) the nominated undertaker has deposited with the authority a document setting out its proposed programme with respect to the making of requests under that Part to the authority,

This document accordingly sets out the proposed programme for making requests under Schedule 17 to the HS2 Act. This document also meets the requirement of paragraph 9.2 of the High Speed Rail (London – West Midlands) Planning Memorandum (the "Planning Memorandum"), which states that the '...report is to include an indication of the location of the scheduled and non-scheduled works to which requests for approval are expected to relate.'

Status

This document is deposited for information only. It does not require the approval of the planning authority.

Structure

This document contains three sections:

Section 1: Introduction to HS2

Describes in outline the HS2 project, summarises the planning regime and outlines obligations with respect to mitigation of environmental impacts.

Section 2: HS2 in Aylesbury Vale District

Outlines the proposals within the District, and describes the permanent, preparatory and temporary works.

Section 3: Landscape and Restoration

Outlines landscape and restoration works proposed after construction.

Section 4: Programme for Requests for Approval under Schedule 17

Sets out the programme for submission of requests for approval.

Section 5: Planning Context Report Plans – Construction and Operation

Illustrates the location of permanent and temporary works in the District.

Other Relevant Documents

To understand the full background to the HS2 proposals and to the planning regime under which requests for approval are to be made, reference should be made to the following documents:

- The HS₂ Act;
- The HS2 Environmental Statement; and
- The High Speed Rail (London West Midlands) Environmental Minimum Requirements ("the EMRs").

Annex 1 signposts these and other relevant documents.

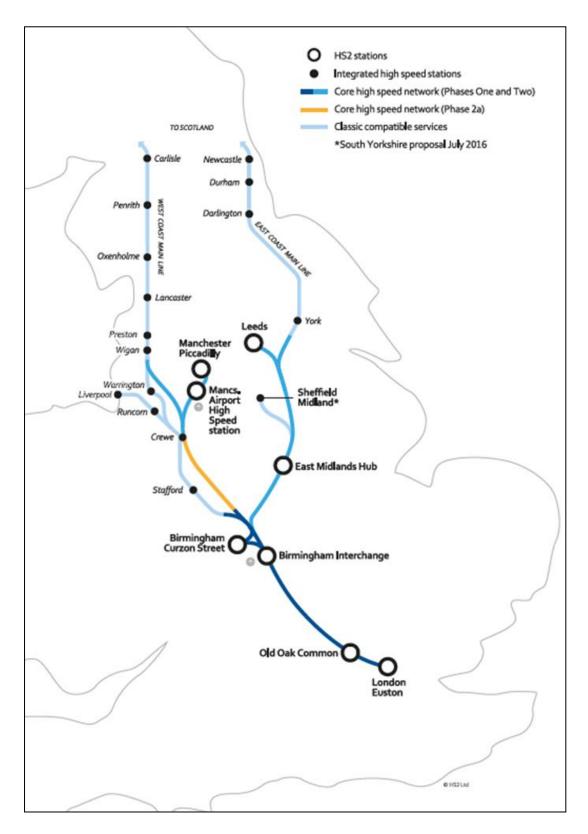
1 Introduction to HS2

The HS₂ Project

- 1.1 HS2 is the Government's proposal for a new, high speed north-south railway. The proposal is being taken forward in two phases: Phase One will connect London with Birmingham and the West Midlands and Phase Two will extend the route to Manchester, Leeds and beyond.
- 1.2 On 23rd February 2017 Royal Assent was granted for Phase One of HS2, which comprises of a new high speed railway between London and the West Midlands with stations at London Euston, Old Oak Common, Birmingham Interchange, and Birmingham Curzon Street. Figure 1 illustrates the Phase One route between London West Midlands and Phase Two proposals.



Figure 1: HS2 route map





Control of Environmental Impacts

- 1.3 The environmental impacts of the construction, maintenance and operation of HS2 will be controlled in three ways:
 - Controls within the HS2 Act such as approvals for designs and construction arrangements;
 - Policies, commitments and undertakings entered into outside of the Act, including the EMRs; and
 - Existing legislation, unless expressly or impliedly dis-applied or modified by the Act.
- 1.4 These controls are summarised below.

Environmental Statement

- 1.5 The HS2 Phase One Environmental Statement (ES) was published in November 2013. It has been supplemented by a number of additional volumes as further information has become available, and in light of proposed changes to the project¹.
- 1.6 The ES identifies the likely significant effects that will arise from the construction and operation of HS2 and identifies the range of mitigation measures that could be used to reduce or eliminate these effects. The assessment is based on a number of assumptions about design and construction practices.
- 1.7 As the project is taken forward to detailed design and construction there may be changes to assumed construction methods and design, subject to the requirements of the Act, the EMRs, and any approvals required from consent granting bodies, and in response to the requirements of any relevant Undertakings or Assurances.

Controls in the Act

The Planning Regime

- 1.8 Section 20 to the HS2 Act grants deemed planning permission under Part 3 of the Town and Country Planning Act 1990 ("the TCPA") for the works authorised by the HS2 Act. This permission is subject to the requirement that certain approvals need to be obtained from the relevant planning authorities under the planning regime established by Schedule 17 to the Act. The conditions in Schedule 17 are enforceable by the planning authority in accordance with the TCPA.
- 1.9 The principal works authorised by the HS2 Act are described in Schedule 1 (the "scheduled works"). The descriptions in Schedule 1 to the HS2 Act set out the type of work and their location, for example:

Work No.1/1 – A railway (23.48 kilometres in length) partly in tunnel, commencing at a point 235 metres east of the junction of North Gower Street with Drummond Street passing north-westwards and terminating beneath a point 80 metres north-west of the bridge carrying Ickenham Road over the Marylebone to Aylesbury Railway. Work No. 1/1 includes shafts at Coburg Street, Mornington Street, Granby terrace, Parkway, Adelaide Road, Alexandra Place, Canterbury Works and Greenpark Way, a station at Old Oak Common and a Crossover Box at Victoria Road.

- 1.10 The scheduled works must be constructed in the locations and to the levels relevant to each scheduled work shown on the deposited plans and sections (the 'Limits of Deviation'). The scheduled works may deviate vertically downwards from the levels shown to any extent, and may deviate upwards up to 3 metres subject to the upper limits defined for certain works such as stations, depots or shafts.
- 1.11 Section 2 to the HS2 Act authorises, within the Act limits, the construction and maintenance of a wide range of other development for the purposes of or in connection with the scheduled works, or otherwise for Phase One purposes. Section 2 also authorises, within the Act limits, the carrying out and maintenance of landscaping and other works to mitigate adverse effects of the construction, maintenance or operation of the works and to carry out and maintain works for the benefit or protection of land affected by the works.
- 1.13 Such ancillary works may be constructed within Act limits as defined on the deposited plans. The HS2 Act only grants deemed planning permission for the construction of works which are not scheduled works if they are with the scope of the ES that accompanies the HS2 Act.
- 1.14 Schedule 2 to the Act authorises further works, including surveys and investigation of land, support of buildings, works to trees, discharge of water, and temporary works to certain waterways.
- 1.15 Schedule 17 to the Act defines the detailed planning regime which will apply to the planning authority affected by works to construct and operate HS2.
- 1.16 The planning regime under Schedule 17 is different to that of the TCPA. It differs from the TCPA process in how it defines the matters that require approval and the grounds that the planning authorities can have regard to in determining requests for approval. The grounds for the imposition of conditions and/or the refusal of Schedule 17 submissions are limited in comparison to the TCPA process. This is because the works already have deemed planning permission through the Act and there are other complementary controls imposed through the HS2 Act and EMRs.
- 1.17 Schedule 17 requires the nominated undertaker to submit the following details to planning authorities, for approval or agreement:
 - Plans and specifications of certain works;

¹ An Environment Statement has been published with the Additional Provision tabled by the Promoter in September 2014. In addition, Supplementary Environmental Statements and Additional Provision Environmental Statements were published and tabled by the Promoter in July 2015, September 2015, October 2015 and December 2015.



- Matters ancillary to development ("construction arrangements");
- Road Transport (lorry routes);
- Bringing into use; and
- Site restoration schemes.
- 1.18 Planning authorities who have given the Secretary of State undertakings, as set out in the Planning Memorandum, with respect to the handling of planning matters under Schedule 17, have become 'qualifying authorities'. The main provisions of the Planning Memorandum are summarised in Section 1.51 below.
- 1.19 The District has become a qualifying authority.
- 1.20 In relation to qualifying authorities, the operations or works for which plans and specifications will be submitted for approval are identified in Table 1.

Table 1: Operations or works requiring approval of plans and specifications

PLANS AND SPECIFICATIONS	
BUILDING WORKS (paragraph 2 of Schedule 17)	The erection, construction or alteration of any building, other than a temporary building.
OTHER CONSTRUCTION WORKS (paragraph 3 of Schedule 17)	Road vehicle parks; Earthworks; Sight, noise or dust screens;
	Transformers, telecommunication masts or pedestrian accesses to railway lines;
	Fences or walls, and Lighting equipment.
WASTE AND SPOIL DISPOSAL AND EVGAVATION	
WASTE AND SPOIL DISPOSAL AND EXCAVATION (Paragraph 7 of Schedule 17)	Disposal of waste or spoil. Excavations of bulk materials from borrow pits.

- 1.21 In relation to qualifying authorities, development must be carried out in accordance with matters ancillary to development (construction arrangements) approved by the relevant planning authority (paragraph 4 of Schedule 17).
- 1.22 Schedule 17 enables the Secretary of State to make a class approval for construction arrangements, except in relation to construction camps (paragraph 5 of Schedule 17). A class approval was made by the Secretary of State on 24th March 2017, following consultation with the planning authorities affected, for the following generic construction arrangement matters: handling of re-usable spoil and topsoil; storage sites; site screening; artificial lighting; suppression

- of dust; road mud control measures. The approval of construction camps is not included in the class approval.
- 1.23 Where lorry movements exceed 24 to/from a construction site, the lorry route must be approved (paragraph 6 of Schedule 17) by the relevant qualifying authority.
- 1.24 The relevant qualifying authority approves a bringing into use request for approval (paragraph 9 of Schedule 17), for most scheduled works, apart from any which are below ground, and maintenance depots. The purpose of bringing into use requests is to ensure that appropriate mitigation has been incorporated, and no such work can be brought into use without such approval.
- 1.25 A site restoration scheme will be submitted for agreement with the relevant planning authority in accordance with paragraph 12 of Schedule 17.
- 1.26 The planning authority must have regard to statutory guidance issued by the Secretary of State in accordance with paragraph 26 of Schedule 17 to the HS2 Act.

Other Consents in the Act

1.27 In addition to the planning regime described above, Schedules 4 and 33 to the HS2 Act contain provisions setting out the protections to be provided for various bodies with statutory responsibilities likely to be affected by the works.

Schedule 4 – Accesses to highways affecting traffic

1.28 To control the impact of constructing new or altering existing accesses onto the local road network, local highway authorities have an approval role. For the opening of an access onto, or the alteration of, a road at a place shown on the deposited plans the works must be carried out in accordance with plans and specifications approved by the highway authority. In addition the local highway authority may require the access to be moved elsewhere within the Act limits where that is reasonably capable of being done. If an access is required at a location other than that shown on the deposited plans, the consent of the highway authority is required, subject to its approval of plans and specifications.

Schedule 4 – Stopping up, diversion and interference with the highway

1.29 During construction the temporary closure, diversion or interference with highways will be required. In order to address local impacts the Act provides for highway authority input. Where a highway is specified within the Act, the nominated undertaker must consult the highway authority about the exercising of the powers before doing so. Where the powers are to be exercised in relation to a highway not specified within the Act the nominated undertaker must obtain the consent of the highway authority.



Schedule 33 – Highways

- 1.30 Part 1 of Schedule 33 requires the nominated undertaker in exercising the powers in the Act in relation to highways to have regard to the potential disruption of traffic and to seek to minimise such disruption so far as reasonably practicable, and gives highway authorities rights of approval over various matters concerning details of the works affecting highways.
- 1.31 Additional controls are contained in Schedule 4. Where the nominated undertaker constructs a new or alters an existing highway, the construction or alteration must be completed to the reasonable satisfaction of the highway authority, who shall certify that fact in writing to the nominated undertaker.
- 1.32 Where the nominated undertaker constructs or realigns a highway that is constituted or comprises a carriageway, it must be carried out in accordance with plans, sections and specifications approved by the highway authority.

Schedule 33 – Water

- 1.33 The construction of HS2 will have impacts on inland waterways and land drainage, flood defences, water resources and fisheries. In order to address these impacts the Act includes a range of controls for the relevant authorities.
- 1.34 The impacts on inland waterways are addressed in Part 4 of Schedule 33, this gives the Canal and River Trust the power to approve plans and specifications for works affecting waterways for which it is responsible.
- 1.35 Part 5 of Schedule 33 states that before beginning to construct any "specified work" (in the main, those affecting drainage, flood storage and flood defence, the flow or purity of water and conservation of water resources), the nominated undertaker will submit plans, including method statements, for the works to the Environment Agency or local drainage authorities (i.e. lead local flood authorities, or internal drainage boards) for approval. Works will be constructed in accordance with the approved plans.
- 1.36 The Environment Agency or local drainage authorities may, amongst other matters, make conditions requiring the nominated undertaker at its own expense to construct such protective works as are reasonably necessary to safeguard any drainage work against damage or to ensure its efficiency for flood defence purposes is not impaired during the construction of the specified works.
- 1.37 These provisions have effect instead of the normal consenting regime which would apply, for example, under the Land and Drainage Act 1991, or the Environmental Permitting Regulations 2010.

Schedule 33 - Other Controls

1.38 Schedule 33 – Protective provisions also include the requirement for consultations and agreements from statutory utilities undertakers.

Schedule 18 – Listed Buildings

- 1.39 The HS2 Act disapplies the normal controls requiring conservation area consent and listed building consent under the Planning (Listed Building and Conservation Areas) Act 1990, for the demolition, alteration or extension of listed buildings and unlisted buildings. The disapplication applies to the extent specified in Schedule 18 to the Act.
- 1.40 In recognition of the removal of the requirement for listed building consent, heritage agreements have been entered into between the nominated undertaker, Historic England and relevant local authorities. These agreements require approvals to detailed method statements in relation to the works subject to the disapplication of the normal listed building controls.

Environmental Minimum Requirements

- 1.41 There are a variety of control mechanisms and mitigation strategies outside of the HS₂ Act. These are captured in the EMRs.
- 1.42 The EMRs are a suite of documents that have been developed in consultation with local authorities and other relevant stakeholders. The nominated undertaker is contractually bound to comply with the controls set out in the EMRs, through the Development Agreement with the Secretary of State.
- 1.43 The controls contained in the EMRs, along with powers contained in the HS2 Act and the Undertakings given by the Secretary of State, will ensure that impacts which have been assessed in the ES will not be exceeded, unless any new impact or impacts in excess of those assessed in the ES:
 - results from a change in circumstances which was not likely at the time of the ES²;
 - would not be likely to be environmentally significant³;
 - results from a change or extension to the project, where that change or extension does not itself require environmental impact assessment (EIA) under either (i) article 4(1) of and paragraph 24 of Annex 1 to the EIA Directive⁴; or (ii) article 4(2) of and paragraph 13 of Annex 2 to the EIA Directive⁵; or
 - would be considered as part of a separate consent process (and therefore further EIA if required).

 $^{^{\}rm 2}$ i.e. a situation that could not reasonably have been anticipated at the time of the ES.

 $^{^{3}}$ This covers all effects (both positive and adverse) where those effects are simply of no environmental significance.

^{4 2011} consolidated EIA Directive (2011/92/EU).

⁵ Broadly, this would not allow those changes or extensions to the project which would give rise to adverse environmental effects within the EIA.



- 1.44 In addition to general principles, the EMRs comprise:
 - a number of specific requirements, including that the nominated undertaker will use reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts caused by HS2, insofar as these mitigation measures do not add unreasonable costs to the project or unreasonable delays to the construction programme;
 - the undertakings and assurances given to Parliament and petitioners by the Secretary of State during the passage of the High Speed Rail (London West Midlands) Bill (the Bill); and
 - the Code of Construction Practice, Planning Memorandum, Heritage Memorandum, and Environmental Memorandum.

Undertakings and Assurances

1.45 During the passage of the Bill through Parliament, the Secretary of State entered into a range of undertakings and assurances. The HS2 Act Register of Undertakings and Assurances contains all the undertakings and assurances given to petitioners and to Parliament before and during the passage of the Bill. The register forms part of the EMRs and as a result the nominated undertaker is contractually bound to deliver them.

Code of Construction Practice

- 1.46 The Code of Construction Practice (CoCP) is Annex 1 of the EMRs. It sets out specific details and working practices in relation to site preparation (including site investigation and remediation, where appropriate), demolition, material delivery, excavated material disposal, waste removal and all related engineering and construction activities.
- 1.47 The CoCP sets out the measures that nominated undertaker and contractors are required to implement in order to limit disturbance from construction activities, as far as reasonably practicable:
 - General requirements related to community relations, hours of work, pollution incident control and security, etc;
 - Agriculture, forestry and soils;
 - Air quality;
 - Cultural heritage;
 - Ecology;
 - Ground settlement;
 - Land quality;
 - Landscape and visual;
 - Noise and vibration;

- Traffic and transport; and
- Water resources and flood risk.
- 1.48 Local Environmental Management Plans (LEMPs) will be prepared for each local authority area.
- 1.49 The LEMPs will include a number of specific measures by topic, as relevant to each local authority area. The LEMPs will build on the general environmental requirements contained in the CoCP and will set out how the project will adapt and deliver the required environmental and community protection measures within each relevant local authority area.
- 1.50 The nominated undertaker and/or its contractors will engage with the local communities, local authorities and other stakeholders in order to develop the LEMPs.

Planning Memorandum

1.51 The Planning Memorandum is Annex 2 of the EMRs. It sets out in detail the responsibilities and requirements in relation to planning matters for those authorities that choose to become qualifying authorities. It also sets out requirements for the nominated undertaker in the implementation of Schedule 17 of the HS2 Act.

Heritage Memorandum

1.52 The Heritage Memorandum is Annex 3 of the EMRs. It provides a framework for the nominated undertaker, Historic England, local authorities and other stakeholders to work together to ensure that the design and construction of Phase One is carried out with proper regard to the historic environment.

Environmental Memorandum

1.53 The Environmental Memorandum is Annex 4 of the EMRs. It provides a framework for the nominated undertaker and representatives of the National Environment Forum to work together to ensure that the design and construction of the HS2 Phase One is carried out with due regard for environmental considerations.

Planning Forum

- 1.54 The HS2 Phase One Planning Forum was established to help co-ordinate and secure the expeditious implementation of the planning provisions in the Act. The primary objectives and functions of the Planning Forum are:
 - To prepare notes on related matters, which will set out standards and practices to be followed by those implementing the planning regime.
 - To consider common design items for certain structures associated with the railway (such as bridges, acoustic barriers or retaining walls).



- 1.55 The Planning Forum has a number of sub-groups:
 - Highways Subgroup.
 - Environmental Health Subgroup;
 - Heritage Subgroup; and
 - Flood Risk and Drainage Subgroup.

Environmental Management System

- 1.56 As part of the sustainability policy, the nominated undertaker will develop an environmental management system (EMS) in accordance with BS EN ISO 14001. The EMS provides the process by which environmental management, both within its organisation and in relation to its operations, is undertaken to ensure the relevant findings of the ES are addressed through the construction phase.
- 1.57 The nominated undertaker will require each of its main contractors to have an EMS certified to BS EN ISO14001. Their EMS will include roles and responsibilities, together with appropriate control measures and monitoring systems to be employed during planning and constructing the works for all relevant topic areas. Where the lead contractor is a joint venture, the EMS will be certified to cover the activities of the joint venture.

Management of Construction Traffic

- 1.58 The HS2 Routewide Traffic Management Plan (RTMP) describes the principles and objectives for the management of transport, highways and traffic during the delivery of the works. It codifies the discussions held with the highway authorities along the HS2 Phase One route via the Highway Subgroup to the Planning Forum and takes into account the best practice used during the delivery of similar large construction projects.
- 1.59 The RTMP document will be supplemented with a series of Local Traffic Management Plans (LTMPs) along the route. LTMPs will set out the full range of local controls, significant works programmes for highways and other appropriate matters.
- 1.60 Regular local Traffic Liaison Group (TLG) meetings have been established with local highway authorities so that matters such as LTMPs and site specific traffic management schemes can be reviewed prior to submission or approval and the implementation of schemes reviewed and other monitoring reported, along with other matters of interest discussed and co-ordinated.

Excavated Material & Waste Management

1.61 Measures to reduce potential impacts from waste management are described in section 15 of the CoCP. An integrated design approach has been developed to use excavated material to satisfy the fill material requirements wherever reasonably practicable. This approach will reduce the need for imported materials and reduce the amount of excavated material requiring off-site disposal. This includes reuse of all topsoil and agricultural subsoil as close to the point of excavation as practicable.

1.62 All waste generated from the design, construction and operation will be managed in accordance with the waste hierarchy. This places waste prevention as the preferred option at the top, followed by reuse, recycling and other recovery, with landfill disposal at the bottom as the last resort. Information Paper E₃ provides further detail.

Management of Noise and Vibration

- 1.63 The nominated undertaker will obtain consents under Section 61 to the Control of Pollution Act 1974, which will include noise limits and vibration limits where relevant and site specific management and mitigation requirements for noise and vibration, both on and off site.
- 1.64 In relation to the control of construction noise and vibration, Information E23 provides further detail. Information Papers E20, E21 and E22 provide further detail on operational noise from the railway.
- 1.65 Noise and vibration monitoring will be carried out at different times during the lifetime of the railway. Where noise and vibration performance deviates from expected conditions, actions will be taken as described in Information Paper F4.

Existing Legislation and Other Safeguards

1.66 Unless a piece of existing legislation is expressly or impliedly dis-applied or modified by the HS2 Act, it will continue to apply. For example, environmental permits in relation to discharges will still be required and the Control of Pollution Act 1974 (COPA) will continue to apply.

Oversite Development

- 1.67 The HS2 Act does not grant approval for any oversite development. Consent for any such development will be applied for and determined through normal planning processes. However, the HS2 Act does authorise works to enable future oversite development, for example the construction of additional foundations or deck structures.
- 1.68 The HS2 Act also puts in place requirements in respect of the environmental assessment of oversite development. It defines the circumstance where the planning application for such development proposed to replace a building demolished or substantially demolished for HS2 must be accompanied by an environmental impact assessment.

Safety and Security

- 1.69 HS2 will create a railway designed, built and operated with world-class health, safety and security standards. All HS2 infrastructure will be designed in accordance with appropriate standards and policies for public safety. The following are some key design principles that will be applied:
 - Adoption of hostile vehicle mitigation and blast resilient glazing and facades where appropriate;

- Application of Crime Prevention Through Environmental Design principles across all of the HS2 network but with particular emphasis on all publicly accessible spaces;
- Selection of vandal-resistant materials and designs;
- Appropriate use of surveillance systems and lighting;
- Integration of natural way-finding into designs to configure spaces that are easy to navigate and use of signage that is clean and unambiguous.





2 HS2 in Aylesbury Vale District

Introduction

- The route in the District will cover approximately 40km over four sections, interspersed with three short sections, one in Wycombe District and two in Cherwell District.
- 2.2 The four sections in the District are:
 - i. The HS2 line enters District from Chiltern District to the north of the Cottage Farm Accommodation overbridge, north of Great Missenden. The railway then continues north westwards for approximately 7km over the proposed Wendover Dean Viaduct, crosses the A413 and Marylebone-Aylesbury Line on the Small Dean Viaduct, and passes through the Wendover Green Tunnel to the Wycombe District boundary at the Nash Lee Road Overbridge.
- ii. The line re-enters the District for approximately 27km at the ELL/20 overbridge and continues north westwards past the new Stoke Mandeville bypass, to the west of Aylesbury, over the Thame Valley viaduct, the Bicester Road (A41) Overbridge and Station Road overbridge to Calvert, where the Calvert Infrastructure Maintenance Depot will be provided. The line then leaves District at Godlington East viaduct for approximately 250m through Cherwell District.
- iii. The line continues for approximately 3km in District northwest from Godlington West viaduct to the west of Chetwode in the Chetwode cutting before leaving the District at Footpath BHA/2 Overbridge, into Cherwell.
- iv. The final 3km section of the route enters District at Westbury viaduct, in the Turweston cutting to the Turweston Green Overbridge.
- 2.3 Section 5 of this report illustrates the location of works in the District. This section describes the permanent, preparatory and temporary works in the District.
- 2.4 As the project is taken forward to detailed design and construction there may be changes to assumed construction methods and design, subject to the requirements of the Act, the EMRs, and any approvals required from consent granting bodies, and in response to the requirements of any relevant Undertakings or Assurances.

Permanent Works

Cottage Farm Overbridge to Nash Lee Road

2.4 This route section (approximately 7km in length) extends from north of the Cottage Farm Accommodation overbridge to Nash Lee Road overbridge, and is shown on plans S17-OP-035 to -039.

South Heath Cutting

- 2.5 The railway will leave Chiltern District in the South Heath cutting, up to 17m in depth. This short section extends from north of the Cottage Farm Overbridge to south of the Wendover Dean Viaduct, with part of the cutting in Chiltern District.
- 2.6 Key permanent features of this section are shown on Map S17-OP-035 and will include:
 - a new overbridge south of Bowood Lane, approximately 1m above existing ground level, carrying Footpath TLE/2 over the railway (TLE/2 becomes WEN/38 on the west side of the railway) and providing accommodation access;
 - a land drainage area south of Bowood Lane to the west of the railway;
 - a new overbridge south of Strawberry Hill Farm, approximately at ground level, carrying Bowood Lane over the railway; and
 - an area of ecological planting to the north-east of the Bowood Lane overbridge to compensate
 for the loss of ancient woodland at Jones' Hill Wood and to provide ecological connectivity to
 the ancient woodland at Rushmoor Wood. This area will also provide a suitable receptor site for
 great crested newts and reptiles.

Wendover Dean Viaduct and adjacent earthworks

- 2.8 The railway will continue north-west onto Wendover Dean Viaduct. This section of the route extends from north of Bowood Lane to south of Rocky Lane, and is approximately 1.25km in length.
- 2.9 Key permanent features are shown on PlansS17-OP-036 and -037 and will include:
 - an embankment approximately 100m long and up to approximately 9m high.
 - areas of landscape woodland planting and earthworks to the east of the railway, north of Bowood Lane.
 - a balancing pond for railway drainage to the south-west of Wendover Dean Farm, to the west of the railway.
 - a land drainage area south of Durham Farm to the west of the railway.
 - a viaduct at Wendover Dean carrying the railway over Footpath WEN/39. The viaduct will be approximately 500m long and up to 18m above existing ground level.
 - noise fence barriers along the west side of the railway from the start of the embankment to 70m north of the viaduct.
 - diversion of the access to Strawberry Hill Farm to pass underneath the viaduct.



- a land drainage area east of Upper Wendoverdean farm to the west of the route.
- diversion of Footpath WEN/39 and access to Upper Wendover Dean Farm to pass underneath the viaduct.
- an embankment approximately 150m long and up to 8m high.
- a cutting approximately 500m long and up to 7m deep.
- noise mitigation earthworks to the south of Rocky Lane and to the east and west of the railway for approximately 1km.

Small Dean Viaduct and adjacent earthworks

- 2.11 The railway will continue onto Small Dean viaduct and adjacent earthworks. This section extends approximately 2.1km from just south of Rocky Lane to just south of Bacombe Lane on the western edge of Wendover.
- 2.12 Key permanent features of this section are shown on Map S17-OP-037 and will include:
 - an embankment approximately 900m long and up to 11m high.
 - noise fence barriers from the start of the embankment to approximately 210m north of Rocky Lane.
 - noise mitigation earthworks to the west of the railway both north and south of Rocky Lane.
 - Wendover auto-transformer station and associated access track approximately 18om south of Rocky Lane on the west side of the railway.
 - a land drainage area to the south of Rocky Lane and to the east of the railway, with an associated access track from Rocky Lane.
 - a balancing pond for railway drainage to the south of Rocky Lane and to the west of the railway, with an associated access track from Rocky Lane.
 - an underbridge east of the A413, the finished road level of which is approximately 3m below existing ground level, providing a replacement of Rocky Lane.
 - a balancing pond for railway drainage and associated access track along the eastern side of the railway north of Rocky Lane.
 - a linear balancing pond for railway drainage and associated access track north of Rocky Lane to the east of the A413 and to the west of the railway.
 - noise fence barriers along the west side of the railway 40m from the end of the embankment to Small Dean viaduct that continues along the western edge of the Small Dean viaduct.

- a viaduct approximately 500m long at Small Dean, to carry the railway over the A₄13 London Road, the Marylebone to Aylesbury Line and Small Dean Lane. The viaduct rail level will be up to approx. 9m above road level and up to approx. 13m above track level on the Chiltern Line.
- an embankment approximately 700m long and up to 12m high.
- a retaining wall, approximately 50m long, retaining a small length of the embankment to provide space for the Grove Farm access track.
- a balancing pond for railway drainage and associated access track, north-east of Grove Farm to the west of the railway.
- noise fence barriers on the east side of the railway from the end of the viaduct to the Wendover green tunnel southern portal, and on the west side approximately 230m from the end of the viaduct to the tunnel portal.
- a new underbridge west of the A₄13 to provide access to Grove Farm, the nearby drainage areas and the green tunnel portal buildings. The underbridge will be approximately 9m below the railway, although the crossing itself will be up to 2m above the existing ground level.
- a land drainage area north of Grove Farm to the west of the railway.

Wendover Green Tunnel

- 2.13 The railway will continue to the west of Wendover through the Wendover green tunnel for approximately 1.4km, emerging just beyond the western edge of Wendover.
- 2.14 Key permanent features of this section, which is approximately 1.3km long are shown on Map S17-OP-038, 038-R1 and -039 and will include:
 - Wendover green tunnel southern portal south of Bacombe Lane, comprising portal buildings to the south of the railway, with an associated access track.
 - reinstatement of Bacombe Lane on an alternative alignment over the green tunnel, to include the permanent diversions of Footpath WEN/14 and WEN/13A.
 - reinstatement of Ellesborough Road over the green tunnel.
 - reinstatement of Footpaths WEN/11, WEN/6, access to Dobbins Lane and Footpath WEN/55 on alternative alignments over the green tunnel.
 - Wendover green tunnel northern portal just beyond the western edge of Wendover, comprising portal buildings to the east of the railway, with an associated access track.
 - a replacement cricket ground and pavilion to the east of the railway, close to Halton Community Combined School.



- 2.15 The route continues into the Wendover north cutting and Stoke Mandeville south embankment. This section of railway extends from the western edge of Wendover to just north of Footpath ELL/20. Approximately 900m of this section runs through Wycombe District.
- 2.16 Key permanent features of this section, which is approximately 1.8km long are shown on plans S17-OP-039 and 040a and will include:
 - a cutting approximately 1.6 km long and up to 11m deep.
 - noise fence barriers on the east side of the railway, and at the top of the cutting from the B4009 Nash Lee Road for approximately 300m.
 - noise fence barriers approximately 600m long at the top of the cutting on the west side of the railway from approximately 100m south of B4009 Nash Lee Road to approximately 100m before the ELL/20 footbridge.
 - a new overbridge east of Nash Lee, approximately 5m above existing ground level, carrying the realigned B4009 Nash Lee Road over the railway.

Footpath ELL/20 overbridge to Godington East viaduct

2.17 This section runs for approximately 27km from footpath ELL/20 to Godington East viaduct, and is shown on plans S17-OP-040a to -058

Stoke Mandeville South Embankment and Aylesbury South Cutting

- 2.18 The railway will leave Wycombe District at the ELL/20 overbridge north of the Nash Lee Road and heads northwest to north of the Princes Risborough-to-Aylesbury Line on the south-western edge of Aylesbury. The section ends to the West of Aylesbury just to the south of Bridleway SBH19 overbridge.
- 2.19 Key permanent features of this section, which is approximately 3.7km long, are shown on plans S17-OP-040a to -042 and will include:
 - a new overbridge north of Nash Lee Lane approximately 10m above existing ground level, carrying Footpath ELL/20 over the railway.
 - an ecological mitigation area extending into the Stoke Mandeville and Aylesbury area to the east of the railway for the creation of wetland and grassland habitats.
 - a maintenance loop (approximately 1.2km long) will extend from the Dunsmore, Wendover and Halton area. An access track will be provided along either side of the maintenance loop with access/egress from Nash Lee Lane on the east side and B4009 Nash Lee Road on the west side of the railway.
 - Nash Lee Lane Package substation will be located to the south of the existing A4010 Risborough Road at the north end of the maintenance loop.



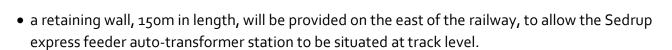
- a replacement floodplain storage area to the east of the railway and to the south of Footpath ELL/20.
- an area of ecological mitigation to the east of the railway, east of Footpath ELL/20 to provide wetland habitat creation to recreate wet grassland/fen habitat and potential grass snake translocation area.
- an area of ecological mitigation to the west of the railway north of Footpath ELL/20 to provide wetland habitat creation to recreate wet grassland/fen habitat and potential grass snake translocation area.
- a replacement floodplain storage area to the west of the railway, west of Stoke Brook.
- a noise fence barrier approximately 1000m long on the east side of the railway from the south of Stoke House to Footpath SMA/9 overbridge; and a noise fence barrier approximately 1200m long on the west side of the railway from the south of Stoke House to Footpath SMA/9 overbridge.
- a balancing pond for railway drainage south of the A4010 Risborough Road to the east of the railway with associated access from the A4010 Risborough Road.
- an underbridge just west of the A4010 Risborough Road, the finished ground level will be approximately 1m below existing ground level, providing a realignment for non-motorised user access to Stoke Mandeville.
- Old Risborough Road will be stopped up at its mid-point. Access to properties on Old Risborough Road will be maintained on either side of the railway.
- a balancing pond for railway drainage, north of Old Risborough Road to the east of the railway with an associated access track from Old Risborough Road.
- a replacement floodplain storage area to the east of the railway just south of Footpath SMA/9, which will be excavated to approximately 1m below existing ground level and re-graded.
- an overbridge west of Stoke Mandeville approximately 9m above existing ground level, providing a realignment of farm access, Footpath SMA/8 and Footpath SMA/9.
- Marsh Lane will be permanently stopped-up on the east side of the railway but access to local properties, including Brook Farm and Moat Farm will be maintained.
- noise fence barriers approximately 800m long will be provided on the east side of the railway from just north of Marsh Lane to the Princes Risborough to Aylesbury rail overbridge;
- an overbridge west of Stoke Mandeville, which will be approximately 6m above existing ground level, providing a new overbridge for the new A4010 Stoke Mandeville bypass and a realignment of Footpath SMA/11.



- a new highway scheme, the A4010 Stoke Mandeville bypass, approximately 2.9km long, will be provided leaving A4010 Risborough Road to the west of the railway, continuing west of the railway and parallel to it in a northerly direction, crossing the railway over the aforementioned overbridge and linking to the B4443 Lower Road to the east of the railway.
- three earth bunds for a total length of 1km and two noise fence barriers along the side of the A4010 Stoke Mandeville Bypass. Hedgerow planting will be provided parallel to the new proposed A4010 Stoke Mandeville bypass to provide landscape integration.
- a balancing pond for highway drainage and associated access track from the A4010 Stoke Mandeville bypass, south of the Princes Risborough to Aylesbury Line to the west of the railway.
- two balancing ponds, associated with Stoke Mandeville bypass and associated access tracks will be located south of the Princes Risborough to Aylesbury Line to the east of the railway.
- an area of ecological mitigation will be provided to the east of the railway north of the Princes Risborough to Aylesbury Line to provide habitat creation for reptile and amphibian species including great crested newts.
- a replacement floodplain storage area, east of the railway and the A4010 Stoke Mandeville bypass overbridge.
- an overbridge west of Stoke Mandeville, approximately 4m above the existing ground level.
- realignment of a section of the Princes Risborough to Aylesbury Line approximately 15m to the north of its current alignment, with an overall length of realignment of approximately 1.82km. The realignment will commence just north of the Marsh Lane level crossing. It will cross over the railway on an overbridge approximately 4m above existing ground level, and re-join the current alignment on the outskirts of Aylesbury. Included in these works will be provision of a dual carriageway underpass approximately 400m north of the HS2 line.
- a noise fence barrier approximately 1.1km long on the east side of the railway from the Princes Risborough to Aylesbury rail overbridge to the end of the Aylesbury south cutting.
- landscape earthworks on the east side of the railway, between Footpath SMA/16 accommodation overbridge and the end of the cutting.
- an overbridge approximately 5m above existing ground level, providing a realignment of Footpath SMA/16.
- a balancing pond and associated pumping station north of the Princes Risborough to Aylesbury Line to the east of the railway, with access from the overbridge north of the Princes Risborough to Aylesbury Line as previously described.
- an area of ecological mitigation to the east of the railway between Footpath SMA/16
 accommodation overbridge and Bridleway SBH/19 overbridge to provide habitat creation for
 reptile and amphibian species, including great crested newts.

Aylesbury south embankment and Oxford Road embankment

- 2.20 This section, measuring approximately 2.95km, extends from Bridleway SBH/19 to Aylesbury Park Golf Club to the west of Aylesbury. Key permanent features of this section are shown on plans S17-OP-043 to -044 and will include:
 - noise fence barriers approximately 2.9km long on the east side of the railway from the start of the embankment to the end of the section.
 - Aylesbury south embankment and Aylesbury north cutting section comprises an embankment approximately 1.3km long and up to 6m high, and a cutting, approximately 75om long and up to 5m deep.
 - an overbridge west of Aylesbury, approximately 10m above existing ground level, providing a realignment of Bridleway SBH/19.
 - a land drainage area will be provided south of Footpath SBH/27 to the west of the railway.
 - an overbridge west of Aylesbury, approximately 13m above existing ground level, providing a realignment of Footpath SBH/27.
 - two balancing ponds for railway drainage north of Footpath SBH/27 and to the west of the railway, with access from the A418 Oxford Road.
 - two land drainage areas, north of Footpath SBH/27 and to the west of the railway, with access from the A418 Oxford Road.
 - an area of reed bed, to control contaminated leachate from the nearby landfill area, to the west of the railway north of Footpath SBH/27.
 - noise fence barriers approximately 2.1km long on the west side of the railway from Footpath SBH/27 to the end of this section.
 - a balancing pond for highway drainage south of Footpath SBH/34 to the east of the railway with access from A418 Oxford Road.
 - an overbridge west of Aylesbury, approximately 7m above existing ground level, providing a reinstatement of Footpath SBH/34.
 - a cap for the nearby landfill area to trap potential contaminants leaching out, to the west of the railway and to the south of the A418 Oxford Road.
 - Sedrup express feeder auto-transformer station and associated access track located approximately 200m south of A418 Oxford Road on the east side of the railway, with access from the A418 Oxford Road.



- a balancing pond for highway drainage south of A418 Oxford Road to the west of the railway, with access from A418 Oxford Road.
- an overbridge west of Aylesbury, approximately 4m above existing ground level, providing a realignment of the A418 Oxford Road.
- an overbridge west of Aylesbury Park Golf Club, approximately 12m above existing ground level, providing a reinstatement of Footpath SBH/32 approximately 70m northwards. The approaches to the overbridge will be planted to integrate the structure into the landscape.
- a replacement floodplain storage area to the east of the railway to the north of Footpath SBH/32, which will be excavated to approximately 1m below existing ground level and re-graded.
- two replacement floodplain storage areas to the west of the railway to the north of Footpath
 SBH/32, which will be excavated to approximately 1m below existing ground level and re-graded.
- a land drainage area north of Footpath SBH/32 to the west of the railway.
- a balancing pond for railway drainage and associated access track north of Footpath SBH/32, to the east of the railway.

Whaddon Hill Cutting, Thame Valley viaduct and Putlowes cutting

- 2.21 The railway will continue through the Whaddon Hill Cutting on to the Thame Valley viaduct, which extends from the Aylesbury Park Golf Club, west of Aylesbury, to north of the River Thame.
- 2.22 Key permanent features of this section, which is approximately 3km long, are shown on plans S17-OP-044 to -046 and will include:
 - noise fence barriers will extend along the east side of the railway for approximately 1km, from the start of the section to the start of the viaduct.
 - an overbridge north of Aylesbury Park Golf Club, approximately 5m above existing ground level, providing a realignment of Bridleway SBH/2.
 - an area of ecological mitigation to the south-west of the Aylesbury Sewage Works, to the east of the railway to provide habitat creation, including wetland and fen habitat suitable for amphibian and reptile species.
 - a balancing pond north of Bridleway SBH/2 to the west of the railway, with access from Lower Hartwell.
 - a replacement floodplain storage area to the west of the railway, which will be excavated to approximately 1m below existing ground level and re-graded.
 - a viaduct approximately 1km long and up to 6m above ground level to carry the railway over the River Thame.



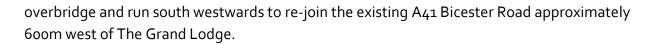
- a balancing pond for railway drainage south of Putlowes to the west of the railway, with access from Putlowes.
- a replacement floodplain storage area to the east of the railway, which will be excavated to approximately 1m below existing ground level and re-graded.
- an overbridge west of Putlowes, approximately 7m above existing ground level, providing a realigned farm access.
- a land drainage area west of Putlowes and to the west of the railway.

Bicester Road Embankment

- 2.23 The railway will continue onto the Bicester Road embankment, which is 1.2km long and up to 3m high. The embankment extends from north of the River Thame to just south of the A41 Bicester Road to the east of Waddesdon.
- 2.24 Key permanent features of this approximately 3km long section are shown on plans S17-OP-046 to -047a and will include:
 - an area of ecological mitigation to the north of Putlowes, west of the railway to provide habitat creation, including pond and grassland creation, for species including great crested newts and reptiles.
 - a land drainage area west of Fleet Marston, to the west of the railway.
 - a replacement floodplain storage area to the west of the railway, which will be excavated to approximately 1m below existing ground level and re-graded.
 - an overbridge west of Fleet Marston, which will be approximately 11m above existing ground level, providing a realignment of farm access and Bridleway FMA/1 and Footpath FMA/2.
 - a land drainage area to the south of Footpath FMA/2, to the west of the railway.
 - two areas of ecological mitigation to the south of the A41 Bicester Road, east of the railway, to provide habitat creation, including pond and grassland creation, for species including great crested newts and reptiles.

A41 Bicester Road Realignment and Overbridge

- 2.25 The railway will continue from the Stoke Mandeville and Aylesbury area on an approximately 950m long and up to 3m high embankment, running to approximately 600m past the existing A41 Bicester Road. The railway will then continue north-west in a cutting up to 14m deep for approximately 450m. The A41 Bicester Road will be realigned to the north of its present alignment for a length of approximately 1.3km.
- 2.26 The realigned road will run parallel and to the north-east of the route between Hunters Farm and Wayside Farm. It will then cross over the railway, which will be in cutting at this point, on an



- 2.27 Key features of this section, which is approximately 1.4km long, are shown on plans S17-OP-047a and -048 and will include:
 - a replacement floodplain storage area to the west of the railway, which will be excavated and regraded to approximately 1m below existing ground level.
 - Putlowes auto-transformer station, with access along the existing A41 Bicester Road.
 - two balancing ponds, one for highway drainage and one for railway drainage, to the east of the railway.
 - new private access to Lower Blackgrove Farm and Lower Blackgrove Farm cottages from the realigned A41 Bicester Road.
 - downgrading of the existing A41 Bicester Road on the west side of the railway between The Grand Lodge and Cranwell Farm to provide a private access.
 - a land drainage area on the west side of the railway between the landscape earthworks and the existing A41 Bicester Road.
 - an ecological mitigation area to provide habitat compensation to the west of the railway.
 - removal of a length of the existing Blackgrove Road to the east of the railway for approximately 300m. The remaining land will be treated in such a way that will be consistent with its end-use.
 - an overbridge to take the A41 Bicester Road over the railway. The northern approach to the crossing will incorporate a lit roundabout connecting the realigned A41 to Blackgrove Road. The overbridge and roundabout will be up to 3m above existing ground level. On the west side of the overbridge the realigned road will connect to the existing A41 to the south of Waddesdon and west of The Grand Lodge.
 - a T-junction to provide access to the existing A41 alignment past The Grand Lodge, providing local access.
 - diversion of Footpath WAD/5 so that it follows the realigned Blackgrove Road and crosses the railway via the A41 Bicester Road overbridge.
 - a balancing pond for highway drainage on the west side of the railway to the south of the realigned A41 Bicester Road.

Waddesdon south cutting, embankment, and north cutting

2.27 The route will continue north-west in a cutting for approximately 1.1km from the A41 Bicester Road overbridge through farmland east of Waddesdon to the Waddesdon sewage treatment works. The cutting will be up to 16m deep. Curving gently towards the northwest, the railway will



- then pass out of the cutting and on to an embankment, approximately 400m long and up to 3m high and then continue north-west in a further cutting, up to 5m deep for approximately 400m.
- 2.28 Key features of this section, which is approximately 1.9km long are shown on plans S17-OP-048 and -049 and will include:
 - Footpath WAD/4 accommodation overbridge will provide public right of way (PRoW) connectivity and access for Glebe Farm over the railway. The overbridge will be up to 4m above existing ground level.
 - noise fence barriers approximately 200m long at the base of the cutting, on the west side of the railway to the east of Glebe Farm.
 - Footpath WAD/3 accommodation underbridge to provide PRoW connectivity, access for Glebe Farm and access to the Waddesdon sewage treatment works below the railway. The crossing will be up to 3m below existing ground level.
 - a pumping station, land drainage area and culvert immediately south of Footpath WAD/3 accommodation underbridge. The land drainage will discharge into an unnamed watercourse to the north-east of the Aylesbury Link railway line and will require a 500m long drainage channel and culvert through the existing railway embankment.
 - an ecological mitigation area to provide habitat compensation to the west of the railway.

Quainton South and Doddershall Embankments

- 2.29 The railway will then continue onto embankment, up to 3m high, for approximately 1.2km to the Station Road overbridge to the west of the Buckinghamshire Railway Centre at Quainton. The railway will proceed into an approximately 55om long cutting, up to 3m deep, until it converges with the existing Aylesbury Link railway line corridor. The two railways will then run parallel on an embankment up to 5m high and approximately 1.5km long.
- 2.30 Key features of this section, which is approximately 3.2km long are shown on plans S17-OP-049 to -051 and will include:
 - land drainage areas on both sides of the railway, south-east of Needles Farm accommodation overbridge.
 - a replacement floodplain storage area south-east of Needles Farm accommodation overbridge, which will be excavated to approximately 1m below existing ground level and re-graded.
 - noise fence barriers approximately 1km long, on the east side of the railway at the top of the embankment, running from south of the Needles Farm accommodation overbridge to the Station Road overbridge.



- Needles Farm accommodation overbridge to provide access to the land south of the Buckinghamshire Railway Centre. The overbridge will be up to 10m above existing ground level.
- a land drainage area to the east of the railway south-east of the existing Station Road.
- closure of a section of Station Road on either side of the crossroads with Quainton Road and provision of a turning head for access to the Buckinghamshire Railway Centre for long vehicles.
- seven replacement floodplain storage areas to the east and west of the railway between the existing and realigned Station Road; these will be excavated and re-graded to approximately 1m below existing ground level.
- two balancing ponds for railway drainage to the west side of the railway, north of the existing Station Road.
- an area of ecological mitigation to provide habitat compensation to the west of the railway between the existing Station Road and the Station Road overbridge.
- two overbridges to take the realigned Station Road over the railway and the Aylesbury Link railway line. The overbridges will be up to 10m high.
- realignment of Station Road up to approximately 450m north of its existing alignment, to the east and west of the railway, to connect the proposed Station Road overbridges to Quainton Road, Fidlers Field Road and Station Road.
- three balancing ponds for drainage of the realigned highway.
- removal of a length of the existing Fidlers Field Road to the east and west of the railway for approximately 450m. This section of road will be replaced by the new road realignments.
- a diverted access road to Doddershall House and Upper and Lower South Farms.
- a balancing pond for railway drainage to the east of the railway with associated access track from Fidlers Field Road.
- an area of ecological mitigation, which will provide habitat compensation for the loss of land at Grendon and Doddershall Meadows, on both sides of the railway at the proposed Bridleway QUA/28A overbridge.
- Bridleway QUA/28A overbridge, to provide PRoW connectivity over the railway. The overbridge will be up to 12m above existing ground level.
- a land drainage area to the west and two balancing ponds for railway drainage to the east of the railway, with an associated access track from Edgcott Road (also known as Shipton Lee Road).
- a replacement floodplain storage area on the east side of the railway, to the east of the Aylesbury Link railway line, which will be excavated and re-graded to approximately 1m below existing ground level.

• Footpath QUA/26 accommodation underbridge to provide PRoW connectivity and farm access under the railway. The crossing will be up to 2m below existing ground level.

Grendon Underwood Embankment and Woodlands Cutting

- 2.30 The railway will continue to run parallel to the Aylesbury Link railway line on its west side. The railway will be at approximately the same level as the Aylesbury Link railway line, on a series of embankments and cuttings. It will cross the River Ray approximately 7m above existing ground level. At the northern end of the section the railway will run between the Calvert Landfill site, to the west, and Sheephouse Wood, to the east, for approximately 800m. Alongside Sheephouse Wood the Aylesbury Link railway line will be realigned to the east by up to 3m.
- 2.31 Key features of this section, which is approximately 3.6km long is shown on plans S17-OP-051 to 053 and will include:
 - landscape earthworks on the west side of the railway from the start of this section to approximately 250m north of the Edgcott Road overbridge, to integrate the railway into the landscape and provide visual screening.
 - Quainton auto-transformer feeder station to convert power from the adjacent National Grid substation to traction power for the high speed railway line, to the east of the railway, south of Edgcott Road. The power lines from the auto-transformer feeder station will cross the Aylesbury Link railway line.
 - a National Grid sub-station to the north-east of the Edgcott Road overbridge and east of the meadow section of Finemere Wood nature reserve.
 - relocation of an overhead electricity pylon and diversion of overhead power lines to accommodate the railway and provide a connection to the proposed National Grid sub-station.
 - Edgcott Road overbridge on the south-east side of the current road alignment. The overbridge will be up to 6m above existing ground level.
 - a realigned access into the meadow section of Finemere Wood nature reserve.
 - a replacement floodplain storage area to the south-east of Woodlands Farm, which will be excavated and re-graded to approximately 1m below existing ground level.
 - a land drainage area to the west of the railway adjacent to Woodlands Farm Cottages.
 - enhancement of the existing vegetation along the banks of the River Ray to reinforce the existing wildlife corridor.
 - Adam's accommodation underbridge extending the existing underbridge under the Aylesbury Link railway line to maintain farm access under the railway and maintain and enhance existing habitat links across the railway for bats and other wildlife. The crossing will be up to 2m below

existing ground level. The existing culvert for the River Ray which crosses under the railway via the accommodation access underbridge will be extended.

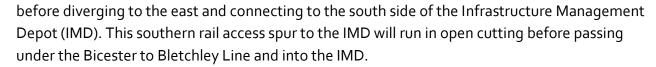
- a vegetation management zone along the eastern side of the Aylesbury Link railway line from the River Ray to the Footpath CAG/2 underbridge south of Sheephouse Wood, and along the western side of the railway from just south of Bridleway GUN/28 accommodation green overbridge to beyond the Waddesdon to Quainton area boundary. Existing vegetation will be removed in these zones as part of the mitigation approach for ecology.
- Bridleway QUA/36 accommodation green overbridge, a replacement of the existing crossing over the Aylesbury Link railway line to provide a multi-use crossing as a footpath and farm access, and to maintain and enhance existing habitat links across the railway for bats and other wildlife. The overbridge will be up to 9m above existing ground level, and include a diversion of its access road alongside the west of the railway.
- Bridleway GUN/28 accommodation green overbridge, a replacement of the existing crossing over the Aylesbury Link railway line to provide a multi-use crossing point for a bridleway, footpath farm access, and to maintain and enhance existing habitat links across the railway for bats and other wildlife. The overbridge will be up to 10m above existing ground level.
- diversion of a section of the Energy for Waste Facility access road, parallel to the railway, between Bridleway QUA/36 and GUN/28 accommodation green overbridges.
- realigned Bridleway GUN/25 along the western edge of the existing drainage ditch.
- a balancing pond for railway drainage with maintenance access tracks to the west of the railway, north of Oak Tree Farm.
- a balancing pond for railway drainage to the east of the railway, south of Sheephouse Wood.
- realigned Footpath GUN/30 around the balancing pond and to the existing bridge under the Aylesbury Link railway line and the Footpath CAG/2 underbridge. The existing level crossing over the Aylesbury Link railway line will be stopped up.
- a replacement floodplain storage area to the south of Sheephouse Wood, which will be excavated and re-graded to approximately 1m below existing ground level.
- Footpath CAG/2 underbridge located adjacent to the existing underbridge on the Aylesbury Link railway line, to maintain and enhance existing habitat links under the railway for bats and other wildlife. The crossing will be up to 1m below existing ground level and will also provide a maintenance access railway to the balancing pond to the east of the railway.
- extension of an existing flood relief culvert approximately 20m north of Footpath CAG/2 underbridge and of the Muxwell Brook culvert, which will both cross under the Aylesbury Link railway line.



- Sheephouse Wood bat mitigation structure will extend from the south of Sheephouse Wood to its northern extent at Footpath SCL/13 green overbridge, a distance of approximately 800m.
- the single existing track of the Aylesbury Link railway line will be realigned eastwards, leaving space for the addition of a second NR track in the future within the existing railway boundary and providing space for the Sheephouse Wood mitigation structure. The track will be realigned by approximately 3m from 200m south of Footpath CAG/2 underbridge to the northern end of Sheephouse Wood.

Calvert Cutting

- 2.31 The railway will leave the Waddesdon and Quainton area on an embankment. It will run parallel to, and to the west side of, the existing Aylesbury Link railway line which runs along the former Great Central Main Line corridor, with Sheephouse Wood located to the east and Calvert Landfill to the west. To accommodate the railway and the associated Sheephouse Wood bat mitigation structure (described above) in this area the Aylesbury Link railway line will be realigned by up to 3m eastwards between Sheephouse Wood and the Bicester to Bletchley Line. After the railway passes under the Bicester to Bletchley Line, it will ascend and diverge from the former Great Central Main Line in cutting. Through this section, the railway will run in the Calvert cutting, which is approximately 4.1km long. The cutting runs along the western side of the realigned Aylesbury Link railway line for approximately 2.2km, before continuing north-west parallel to the former Great Central Main Line rail corridor for approximately 1.8km.
- 2.32 Key permanent features of the railway in this section are shown on plans S17-OP-054 to -056 and will include:
 - the HS2 tracks will run at approximately the same level as the Aylesbury Link railway line for approximately 200m just to the north of Sheephouse Wood, before descending into the Calvert cutting which will be retained on both sides to 600m north of School Hill, to reduce the extent of earthworks. North of this point the railway will continue in a cutting, which will be retained only on the west side adjacent to the nature reserve at Calvert Jubilee lake.
 - a green overbridge spanning the Aylesbury Link railway line and the railway, to provide a crossing for Footpath SCL/13 and to maintain existing habitat links across the route for bats and other wildlife. The overbridge will be up to 10m above existing ground level.
 - Calvert green overbridge spanning the Aylesbury Link railway line and the HS2 route, to provide
 an access road to maintain existing habitat links across the railway for bats and other wildlife. The
 overbridge will be up to 6m above existing ground level. The approach embankments on the west
 side will incorporate additional earthworks to support the rerouted public Bridleway SCL/18 which
 runs approximately parallel to the railway.
 - north of Calvert green overbridge HS2 will comprise a three track arrangement for about 1km, with two mainlines and a rail access spur which will run parallel to the mainlines past School Hill



- noise fence barriers on the west side of the railway on top of a retaining wall, approximately 1km in length, continuing north up to School Hill green overbridge.
- a pumping station and associated access track from Brackley Lane, to convey a watercourse and land drainage area under the railway to an outlet at an existing watercourse on the east side.
- School Hill green overbridge spanning the Aylesbury Link railway line and the HS2 line for the
 realignment of School Hill 25m to the east, and to maintain existing habitat links across the
 railway for bats and other wildlife. The overbridge will be up to 7m above existing ground level.
- a pumping station and balancing pond for railway drainage to the east of the railway and the Aylesbury Link railway line with associated access track from School Hill.
- an inverted siphon to convey an existing watercourse under the retained section of the Calvert cutting, with access tracks from School Hill.
- Portway Farm auto-transformer station located to the west of the railway on a section of railway corridor which will become redundant following the realignment of the Bicester to Bletchley Line.
- East West Rail overbridge to carry the realigned Bicester to Bletchley Line over the HS2 railway. The overbridge will be approximately 4m above existing ground level.
- a balancing pond for IMD drainage to the east of the railway.
- Perry Hill overbridge to take the realigned Perry Hill over the IMD northern access spur and to provide an accommodation access. The overbridge will be 8m above existing ground level and will incorporate a separate farm accommodation track for Portway Farm on the north side of the highway.
- 2.33 On 9th August 2016, HS2 Ltd submitted an application to the Secretary of State for Transport to construct railway sidings and associated works for the transfer of spoil and waste material adjacent to the Aylesbury Link Railway and the Greatmoor Energy from Waste Facility, by way of a Transport and Works Act Order (TWAO) 'High Speed Rail (London West Midlands) (Greatmoor Railway Sidings Etc). Order'. The works would replace existing railway sidings and facilities for the transfer of spoil and waste located near the village of Calvert.
- 2.34 If the TWAO is made, the location of the FCC sidings described in the report would change. Related material can be found at: https://www.gov.uk/government/collections/greatmoor-railway-sidings-transport-and-works-act-order-twao-application

Aylesbury Link railway line realignment

2.35 The realignment of the Aylesbury Link railway line commences in the Waddesdon and Quainton area and covers approximately 3.5km in total: 900m in the Waddesdon and Quainton area and



- 2.6km in the Calvert, Steeple Claydon, Twyford and Chetwode area. At the start of this section, the railway will run at the same height as the realigned Aylesbury Link railway line for approximately 200m before descending into a cutting, with the Aylesbury Link railway line remaining at approximately its existing level.
- 2.36 Key permanent features of the realigned Aylesbury Link railway line, will include:
 - a single existing track realigned eastwards with the space for provision of an additional track in the future within NR boundaries. The track will be realigned by approximately 3m adjacent to Sheephouse Wood and up to 5om at School Hill. This will include a widened cutting for approximately 2km northwards from Sheephouse Wood.
 - north of School Hill, the Aylesbury Link railway line will curve to the east on a new low embankment, approximately 65om long, to connect to the Bicester to Bletchley Line, passing through Shepherd's Furze Farm.
 - adjacent to Sheephouse Wood, the railway corridor will comprise three lines two lines for HS2 and one for the Aylesbury Link railway line with space to allow for its future twin tracking.
 - between Calvert green overbridge and School Hill green overbridge, the railway corridor will comprise six lines two for the waste transfer sidings, one for the Aylesbury Link railway line with space to allow for its future twin tracking, two lines for HS2 and one for the HS2 southern access spur into the IMD.
 - Relocation of the existing Calvert Landfill waste transfer sidings and gantries to the east side of
 the realigned Aylesbury Link railway line to the north of Decoypond Wood, to allow sufficient
 space for construction of the railway. These will provide train stabling and offloading facilities for
 Calvert Landfill site.

Calvert Infrastructure Maintenance Depot (IMD) and Bicester to Bletchley Line realignment

- 2.37 The Calvert IMD will occupy land to the north-east of the intersection of the railway and the Bicester to Bletchley Line. The Bicester to Bletchley Line will be realigned up to 30m to the north and will run alongside the IMD, crossing over the railway at the western end. The tracks within the IMD will run east-west, parallel to the Bicester to Bletchley Line for approximately 3km, extending from the East West Rail overbridge to west of the Queen Catherine Road level crossing. Rail access spurs will connect the HS2 line to the IMD to the South and north.
- 2.38 Key features of the railway in this section, which is approximately 3.5km long are shown on plans S17-OP-055, -055R1, -055R2, and -056 and will include:
 - a pumping station, balancing pond and reed bed for highway drainage of Perry Hill to the north of the realigned Bicester to Bletchley Line, west of the mainline.



- Charndon Lodge underbridge to reinstate Perry Hill underneath the realigned Bicester to Bletchley Line. The realigned road will be up to 9m below existing ground level.
- relocation of a gas pumping station which currently occupies the area between the Bicester to Bletchley Line, the former GCML and Perry Hill, to the north of the IMD, 250m from the route.
- realignment of the Bicester to Bletchley Line, which will run parallel to and to the north of the existing Bicester to Bletchley Line, will comprise:
- an embankment to the north of the existing railway, beginning to the west of Addison Road and ascending westwards for approximately 1.1km at a height of up to 7m above existing ground level.
- IMD southern access overbridge, at a height of approximately 7m above existing ground level, to take the Bicester to Bletchley Line over the southern rail access spur.
- East West Rail overbridge to take the Bicester to Bletchley Line over the railway, which is in cutting below existing ground level. The overbridge will be up to 4m above existing ground level.
- an embankment descending from east to west for approximately 600m, with a maximum height of up to 3m, before re-joining the existing alignment.
- the Calvert IMD, a permanent maintenance depot covering approximately 37ha of land, extending 3km to the east of the railway. The depot will operate as a base for maintenance activities to support the railway infrastructure and will be approximately 35om wide at the western end and 100m wide at the eastern end. It will comprise:
- a depot building, to store and maintain maintenance vehicles, up to 13m high and with a covered roof area of approximately 6300 sq.m.
- a covered storage and light maintenance workshop area of approximately 5500 sq.m. and up to 13m high.
- accommodation and office buildings with an area of approximately 2500 sq.m. and up to 13m high, with parking for IMD staff.
- a main workshop building of approximately 2400 sq.m. and up to 13m high.
- a series of sidings to allow the handling and storage of rail infrastructure replacement materials and maintenance trains.
- rail access spurs from the IMD connecting to the HS2 lines to allow maintenance of the railway to the north and south of Calvert.
- connections to the Bicester to Bletchley Line to allow maintenance materials to be delivered by rail.
- a training area and car park.
- an approximately 200m long retaining wall to separate the through tracks from the southern access track to the IMD.

- a balancing pond for railway drainage to the south of the railway with an access track from the existing Shepherd's Furze Farm accommodation access track off Addison Road.
- two pairs of parallel culverts, one on the west and one on the east of Addison Road carrying unnamed watercourses under the IMD. These culverts will be extensions of the existing culvert under the Bicester to Bletchley Line, 120m and 200m long respectively.
- re-location of an electricity sub-station to accommodate the IMD sidings.
- a new Addison Road overbridge, realigning the road to the east of its existing position. The new overbridge will span the Bicester to Bletchley Line and the IMD sidings at a height of around 9m above existing ground level.
- a footbridge to take Footpath SCL/8 and other PRoW south of Steeple Claydon across the realigned Bicester to Bletchley Line and the Calvert IMD sidings at a height of 7m above existing ground level.
- a replacement floodplain storage area and balancing ponds to the north of the Calvert IMD, which will be excavated and regraded to approximately 1m below existing ground level.
- a land drainage area to the north of the IMD.

Twyford Viaduct and adjacent earthworks

- 2.38 The railway will diverge eastwards away from the alignment of the former GCML, which is disused north of the crossing of the Bicester to Bletchley Line. The railway will continue south-east to north-west, rising out of a cutting north of West Street and onto an embankment, up to 4.5m high for approximately 2km, passing east of Twyford and crossing the Padbury Brook on a viaduct. The railway will then descend into a cutting, up to 5m deep, for approximately 1km to the end of this section. A third rail line, which provides access between the HS2 main lines and the IMD, extends northwards from the IMD for 1.3km along the eastern side of the HS2 main lines.
- 2.39 Key features of this section, which will be approximately 2.4km long, are shown on plans S17-OP-056 and -057 and will include:
 - a replacement floodplain storage area to the north-west of Perry Hill overbridge, excavated and regraded to approximately 1m below existing ground level.
 - a balancing pond for highway drainage off the proposed West Street overbridge and associated access track between the former GCML and the railway.
 - West Street overbridge to reinstate West Street up to 10m above existing ground level. The
 overbridge will be approximately 100m north-east of the existing bridge crossing the former
 GCML. The existing bridge will be retained in order to maintain farm access under West Street.



- retention and enhancement of existing vegetation along the former GCML corridor to provide visual screening.
- two replacement floodplain storage areas to the east between the railway and Perry Hill, which will be excavated and regraded to approximately 1m below existing ground level.
- a balancing pond for railway drainage to the east and a land drainage area to the west, adjacent to Twyford sewage treatment works.
- two replacement floodplain storage areas to the west of the railway, east of Twyford, which will be excavated and regraded to approximately 1m below existing ground level.
- a balancing pond for railway drainage to the east and a land drainage area on the west to the east of Twyford.
- Twyford viaduct to carry the railway over the Padbury Brook. The viaduct will be approximately 5m above existing ground level.
- a balancing pond for railway drainage to the east of the railway.
- watercourse diversions at Mill Stream, under Twyford viaduct, and Cowley Old House.
- a replacement floodplain storage area to the west of the former GCML, which will be excavated and regraded to approximately 1m below existing ground level.
- Footpath PBI/6 is to be diverted south under the Twyford viaduct.
- an overbridge to provide farm access and PRoW (restricted byway PBI/5A) connectivity over the railway.
- an area of ecological mitigation to the west of the railway to provide habitat compensation.

Godington East and West Viaducts and adjacent embankments

- 2.40 To the north of Godington, the railway will pass along a series of embankments and two viaducts as the railway crosses a meander of the Padbury Brook into part of Oxfordshire (Cherwell District) and returns into Buckinghamshire.
- 2.41 Key features of this section, which will be approximately 1.1km long are shown on plans S17-OP-057 to -058 and will include:
 - noise fence barriers will extend along the east side of the railway for the length of this section, up to the Godington east and west viaducts. These viaducts will span a meander of the Padbury Brook and floodplain. The viaducts will be approximately 5.5m above existing ground level.
 - upgrading and widening of bridleways CHW/24 and 225/4 to provide passing points.
 - two replacement floodplain storage areas on the west side of the railway adjacent to the Padbury Brook, which will be excavated and regraded to approximately 1m below existing ground level.

- a balancing pond for railway drainage to the north of Bridleway CHW/24. Maintenance access to the pond will be from the existing accommodation track.
- an area of ecological mitigation to the east of the balancing pond to provide habitat compensation.

Godington West viaduct to BHA2 overbridge

2.42 This section of the HS2 line in District runs for approximately 3.3km from Godington West viaduct to the BHA/2 overbridge south of A4421 Buckingham Road, and is shown on plans S17-OP-058 to -060a

Chetwode Cutting and Barton Hartshorn Embankment

- 2.43 The railway will pass to the west of Chetwode in a cutting approximately 1.9km long and up to 10.5m deep. The railway will exit the cutting to re-join the railway of the former GCML on embankment at the county boundary of Buckinghamshire and Oxfordshire, to the west of Barton Hartshorn.
- 2.44 Key features of this section, which will be approximately 2.7km long are shown on plans S17-OP-058 and include:
 - an area of ecological mitigation to the west of the railway to provide habitat compensation.
 - landscape earthworks on the east side of the railway south of Rosehill Farm to integrate the cutting into the landscape and provide noise mitigation.
 - a land drainage area to the east of the railway, south-east of Rosehill Farm.
 - noise fence barriers along the east side of the railway at the bottom of the cutting approximately 2.15km in length, continuing north past Chetwode.
 - realignment of The Green (road) to accommodate the railway.
 - Chetwode auto-transformer station to the west of the railway, south-east of Manthorn Farm.
 - an overbridge to replace the private access to Manthorn Farm and take the realigned Footpath CHW/18 and maintenance access over the railway. The over bridge will be up to 3m above existing ground level.
 - landscape earthworks on the east side of the railway from Sunflower Farm to the Hermitage, to integrate the cutting into the landscape and provide visual screening.
 - landscape earthworks on the west side of the railway between Manthorn Farm and north of School End Road to integrate the cutting into the landscape and provide visual screening.



- a noise fence barrier along the east of the HS2 route from Rosehill Farm to The Hermitage, Chetwode, a length of approximately 1km.
- a land drainage area and associated access track on the west side of the railway north of Manthorn Farm.
- landscape earthworks on the east side of the railway between The Hermitage and north of School End Road to provide noise mitigation.
- School End overbridge for reinstatement of the existing road. The overbridge will also provide connectivity for Footpath CHW/11 over the railway. The overbridge will be up to 1m above existing ground level.
- a replacement floodplain storage area to the west of the railway, which will be excavated and regraded to approximately 1m below existing ground level.
- three balancing ponds for railway drainage and two land drainage areas with associated access tracks from School End (on each side of the railway).
- a replacement floodplain storage area to the east of the railway, which will be excavated and regraded to approximately 1m below existing ground level.
- an area of ecological mitigation to the north of Barton Hartshorn Railway Wood LWS to provide woodland habitat compensation.
- landscape earthworks on the both sides of the railway to provide noise mitigation on the west side and visual screening on the east side of the railway.
- land drainage areas on both sides of the railway, with a reed bed adjacent to the land drainage area on the east side of the railway.
- an overbridge providing Footpath BHA/2 connectivity between Barton Hartshorn and Newton Purcell

Westbury viaduct to Turweston cutting

2.45 This 3km section of the route enters District area at Westbury viaduct, spanning the River Great Ouse, and proceeds into the Turweston cutting including a green overbridge.

Westbury Viaduct and Embankments

- 2.46 The railway will re-enter the District on the Westbury viaduct approximately 300m long and up to 12m high. Key permanent features of this section are shown on plans S17-OP-064 and will include:
 - a viaduct to carry the railway over the River Great Ouse, west of Westbury. The viaduct will be approximately 10m to 12m above ground level.
 - noise fence barriers will extend along the east side of the railway past Westbury, for a distance of approximately 750m, including along the eastern edge of the Westbury viaduct.

- a balancing pond for railway drainage and associated access track to the west of the railway, just south of the River Great Ouse.
- a replacement floodplain storage area, to the west of the railway, excavated to approximately 2m below existing ground level and regraded.
- a balancing pond for railway drainage and associated access track to the east of the railway, just north of the River Great Ouse.
- land drainage areas to the east and west of the railway, just north of the River Great Ouse.

Turweston Cutting

- 2.47 The railway will continue into the Turweston cutting, which is approximately 2.35km long and up to 20m deep. This section of the route extends from north of the River Great Ouse near Westbury to south of the River Great Ouse near Turweston.
- 2.48 Key permanent features of this section are shown on plans S17-OP-064 and -065 and will include:
 - an overbridge at approximately existing ground level, a realignment of Footpath WBB/17 and accommodation access.
 - an overbridge approximately 2m above existing ground level, a realignment of the A422 Brackley Road.
 - realignment of the private access to Oatleys Farm to the east of the railway.
 - an area of ecological woodland mitigation on both sides of the railway, to the north of the A422 Brackley Road.
 - realignment of Footpath TUW/3 to the east of the railway to the Turweston green overbridge.
 - Turweston green overbridge, approximately 100m wide and broadly at existing ground level, a replacement of a private access, Bridleways TUW/4 and TUW/9 and Footpath TUW/3.
 - undergrounding of the existing overhead powerlines to the west of the railway where they cross the Turweston playing fields.
 - an access track to the east of the railway, leading to balancing ponds by the Turweston viaduct.
 - replacement Turweston Playing Fields between Turweston and noise fence barriers approximately 3m high on the west side of the railway from approximately 25om north of Turweston green overbridge and continuing past the end of the cutting.
 - an area of ecological grassland mitigation on the eastern side of the railway, to the south of the River Great Ouse.



Preparatory and Temporary Works

- 2.49 Building and preparing the railway for operation will comprise the following general stages:
 - advance works, including: site investigations; site surveys; preliminary mitigation works; preliminary enabling works;
 - diverting utilities;
 - civil engineering works, including: establishment of construction compounds;
 - site preparation and enabling works including demolition, site clearance; main earthworks and structural works;
 - railway installation works, including: infrastructure installation; connections to utilities; and changes to the existing rail network;
 - site restoration; and
 - system testing and commissioning.

Primary Utility Works

- 2.50 Numerous utilities will need to be diverted for the works, the principal works and diversions in this area include:
- a new National Grid supply point near Quainton, including the 400kV overhead lines (with associated pylons) to be re-aligned and the diversion of several major gas mains.
- a relocation of a Western Power Distribution sub-station and an Orange mobile phone mast near Calvert.
- Relocation of a SGN pressure reduction station and further major gas main diversion close to Calvert.
- 2.51 In addition to these diversions there are other smaller overhead power lines and British Telecom line diversions. Many of the other utilities will be diverted under the new HS2 railway at determined locations or incorporated into new railway overbridges which are due to be built.

Worksites and Compounds

- 2.52 Engineering works will take place along the entire length of the route, and within land adjacent to the railway. This will comprise two broad types of activity:
 - civil engineering works, such as earthworks and erection of bridges and viaducts; and/or
 - railway installation works, such as laying ballast or slabs and tracks, and/or installing power supply and communications features.
- 2.53 Construction will be subdivided into sections, each of which will be managed from compounds.

 The compounds will act as the main interface between the construction work sites and the public highway, as well as performing certain other functions. Compounds will either be main

compounds or satellite compounds, which are generally smaller. Some compounds will be used for civil engineering works and others for railway installation works, and in some cases for both.

2.54 The principal activity to be carried out from each of the compounds is shown in the table below:

Table 2: Construction compounds and activities

Compound	Principal Activities
Wendover Dean Viaduct Satellite construction compound	The compound will be used to manage construction of the Wendover Dean viaduct and adjacent earthworks that will take approximately two years to complete.
Rocky Lane Underbridge Satellite construction compound / Renamed Wendover ATS Satellite construction compound & Small Dean Viaduct Launch Satellite construction compound	Rocky Lane underbridge and Small Dean viaduct launch satellite compounds will be used to manage construction of the Small Dean viaduct and its approach embankments and will take approximately two years to complete. Rocky Lane underbridge satellite compound will reduce in size to become the Wendover autotransformer station satellite compound for rail systems infrastructure.
Small Dean Viaduct Main construction compound	Provide main compound support to eight satellite compounds. Provide living accommodation for between 170 to 240 people for an estimated period of 45 months, with the accommodation occupying the western part of the compound.
Wendover Green Tunnel (South) & (North) Satellite construction compounds	Satellite compounds to manage construction of the Wendover green tunnel that will take approximately three years to complete.
Wendover Green Tunnel South Portal Satellite construction compound	Utilised specifically for rail systems infrastructure only and operational for approximately 15 months.
Risborough Road Satellite construction compound	This compound will be used for civil engineering works only, between south of Stoke Mandeville to Aylesbury. The compound will be used to manage construction of Stoke Mandeville south embankment and Aylesbury south cutting, which will take approximately three years and will include the A4010 Stoke Mandeville Bypass and overbridge, which will take one year and nine months.
Princess Risborough to Aylesbury Rail Overbridge Satellite construction compound	This compound will be used for civil engineering and railway installation works, to the west of Stoke Mandeville and adjacent to the Princes Risborough to Aylesbury Line. The compound will be used to manage construction of the Princes Risborough to Aylesbury rail overbridge (including rail realignment works), which will take approximately two years and nine months to construct.
Princess Risborough to Aylesbury Rail Overbridge (East) & (West) Satellite construction compounds	Both compounds will be utilised specifically for EWR realignment activity.
A418 Oxford Road Overbridge Satellite construction compound / Renamed Sedrup ATS Satellite construction compound	This compound will be used for civil engineering and railway installation works, adjacent to the west of Aylesbury. The A418 Oxford Road overbridge satellite compound will be used to manage construction of Aylesbury south embankment and Aylesbury north cutting, which will take approximately two years and nine months. After the civil engineering works are completed, the A418 Oxford Road overbridge satellite compound will reduce in size to form the Sedrup express feeder

Compound	Principal Activities
	auto-transformer station satellite compound for the railway installation works.
Thame Valley Viaduct Satellite construction compound.	This compound will be used for civil engineering works only to the north-west of Aylesbury and be managed from the A41 Bicester Road embankment main compound. The Thame Valley viaduct satellite compound will be used to manage construction of the Thame Valley viaduct and adjacent earthworks, which will take approximately two years and six months.
A41 Bicester Road Embankment Main construction compound (Renamed Putlowes AT Satellite construction compound)	This compound will be used for civil engineering and railway installation works, between north-west of Aylesbury and the A41 Bicester Road. The compound will be used to manage construction of the A41 Bicester Road embankment, which will take approximately two years and six months. Provide main compound support to five satellite compounds for the civil engineering works. After the civil engineering works are complete, this main compound will reduce in size to form the Putlowes auto -transformer station satellite compound for the railway installation phase of works. Provide living accommodation for between approximately 60 to 200 people for an estimated period of three years and six months.
A41 Bicester Road Overbridge Satellite construction compound	This compound will be used for civil engineering works only, between approximately the existing A41 Bicester Road and north of Waddesdon. The compound will be used to manage construction of the Waddesdon south and north cuttings and the A41 Bicester Road overbridge, which will take approximately three years to complete.
Station Road Overbridge, Woodlands Cutting (renamed Quainton ATFS) Satellite construction compounds	These compounds will be used for civil engineering and railway installation works, working together on key works from north of Waddesdon to the south of Sheephouse Wood. Station Road overbridge and Woodlands cutting satellite compounds will be used to manage construction of the Quainton south and Doddershall embankments, which will take approximately three years and nine months to complete. Woodlands cutting satellite compound (and School Hill green overbridge satellite compound) will manage construction of the Grendon Underwood embankment and the Woodlands cutting, which will take approximately three years and six months to complete. Following the civil engineering works, the Woodlands cutting satellite compound will become the Quainton auto-transformer feeder station satellite compound for the rail installation works.
School Hill Green Overbridge Satellite construction compound	This compound will be used for civil engineering and railway installation works, between approximately Sheephouse Wood and Calvert. The compound will be used to manage construction of Calvert cutting, which will take approximately five years to complete and the Aylesbury Link railway line realignment which will take approximately six months to complete for the civil engineering works.
IMD Reception Sidings & Bicester to Bletchley Rail Satellite construction compounds	Both compounds will be utilised specifically for EWR realignment activity.
Aylesbury Link Line Satellite construction compound	Dual use for both MWCC and EWR realignment works.
Calvert Rail Head Main construction compound	Calvert Railhead Main construction compound for use by Rail Systems. The Railhead is required to build the railway infrastructure at the Calvert IMD; including receiving and storing of construction material for the installation of rail systems



Compound	Principal Activities											
	track in the vicinity of Calvert.											
West Street Overbridge Main construction compound	Main compound used to manage and support construction activity in the vicinity of Calvert, which will provide living accommodation for approximately 65 workers for an estimated period of six years, increasing to 195 workers during the peak period of activity. The accommodation will occupy the eastern part of the construction site.											
Chetwode AT Satellite construction compound	This compound will be used for railway installation works only, to the south of Chetwode.											
Chetwode Cutting Satellite construction compound	The compound will be used to manage construction of the Chetwode cutting and Barton Hartshorn embankment, which will take approximately two years and nine months to complete.											
Westbury Viaduct Satellite construction compound	The compound will be used to manage construction of the Westbury viaduct and embankments, which will take approximately two years to construct.											
A422 Brackley Road Overbridge & Turweston Green Overbridge Satellite construction compounds	The A422 Brackley Road overbridge satellite compound and the Turweston green overbridge satellite compound will be used to manage construction of the Turweston cutting (including the A422 Brackley Road overbridge and Turweston green overbridge), which will take approximately three years to construct.											

Roadheads and Material Stockpile Areas

- 2.55 Roadheads will be used for the storage, loading and unloading of bulk earthworks material which is moved to and from the site on public highways. Roadheads will be operational for the duration of the civil engineering works. In the District the following roadheads will be utilised:
 - Rocky Lane, Wendover Dean
 - A418 Oxford Road, Aylesbury
 - A41 Bicester Road, Aylesbury
 - Blackgrove Road, Aylesbury
 - Perry Hill Road, Calvert (West)
 - A422 Brackley Road, Brackley (East)
- 2.56 Additional temporary material stockpile sites may be required during work on particular elements of the railway in multiple locations along the route. These sites will be adjacent to the works within the existing area of land required for construction.

Demolitions

2.57 Demolitions of buildings and structures will need to occur at the following locations:

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hs engine for growth

- Durham farm
- Road Barn Farm
- A railway bridge between A413 and Small Dean Lane
- Ellesborough Road
- Wendover Cricket Club
- Hunters Leaze
- The former site of the Church of St Mary's
- Whitehorn Close
- Whitehorn Farm
- 30 Lower Road
- Glebe House
- Partial demolition of the Hartwell House site boundary wall
- Fidlers Field Road
- Railway bridge over Aylesbury Link railway line
- The Lodge, Doddershall
- Woodlands Farm, off Edgcott Road
- Railway Bridge, Lawn Hill
- Railway Bridge, Greatmoor
- Shepherd's Furze Farm
- Portway farm
- Pond Road Overbridge and Charndon Lane Overbridge, both crossing Bicester-Bletchley line
- Western Power electrical sub-station
- Southern gas network pumping station
- Disused railway bridges over the former GCML
- Station house at School Hill, Calvert
- Calvert Station overbridge crossing the Aylesbury Link railway line
- 12a and 12b Brackley Lane
- Gas pumping station at Perry Hill
- Properties adjacent to The Green, Chetwode
- Shelswell Estate

- Widmore Farm, Warren Farm and Oaks Farm, and 3 rail overbridges in their vicinity.
- Ballabeg stables
- Ilets Farm
- Parkside and associated outbuilding

Archaeology

- 2.58 HS2 Ltd has sought to design the railway and to approach the task of construction in ways that reduce the impact on archaeological remains, as far as is reasonably practicable.
- 2.59 In accordance with the requirements of Heritage Memorandum and Code of Construction Practice, the nominated undertaker will develop an integrated investigation programme to deliver all archaeological works identified in the ES and as developed during the detailed design process. The programme will set out the key stages of investigation, for example:
 - detailed desk-based assessment (where appropriate to inform location specific mitigation);
 - field evaluation (where appropriate to inform location specific mitigation); and
 - location specific mitigation (for example preservation in situ or archaeological excavation).
- 2.60 The investigation programme will be developed in light of, and in conjunction with, the overall construction programme and will be reviewed and updated, as necessary. The programme will aim to undertake as much of the work as possible in advance of any construction activities.

Geotechnical Investigations

2.61 Geological investigations and intrusive site investigations (involving boreholes and trial pits) will be undertaken where necessary, to inform the detailed design.



3 Landscape and Restoration

- 3.1 Different landscape types will be incorporated into HS2 works at various stages of the project. Some early landscape works may be proposed for example new planting to compensate for the loss of prior habitat or to help integrate HS2 into the surrounding landscape. Planting and landscape techniques will be used for different purposes for example to visually screen the railway, new structures or to reduce railway noise. Where possible, screen planting will be incorporated into the design along new embankments or cuttings in order to provide a combination of landscape integration, visual screening, and or ecological habitat connectivity.
- 3.2 New areas of woodland will be created along the route. This includes woodland to compensate for the loss of habitat and new planting to help integrate HS2 into the surrounding landscape.

 Certain areas of grassland will be created specifically to compensate for habitat loss resulting from the scheme.
- Upon completion of construction works, land that is not required for operation of the railway will be restored. At this early stage of the design of the project, the presumption is that land would be restored as far as possible to its pre-existing condition. This will include reinstatement of field boundaries and hedgerows where possible. Hedgerows will be used to replace existing hedgerows removed during construction, to mitigate the impacts on wildlife or to create new visual screens. Any new planting, grassland and habitat creation will be maintained to ensure they become established and are properly maintained.

4 Schedule 17 Requests for Approval – Programme

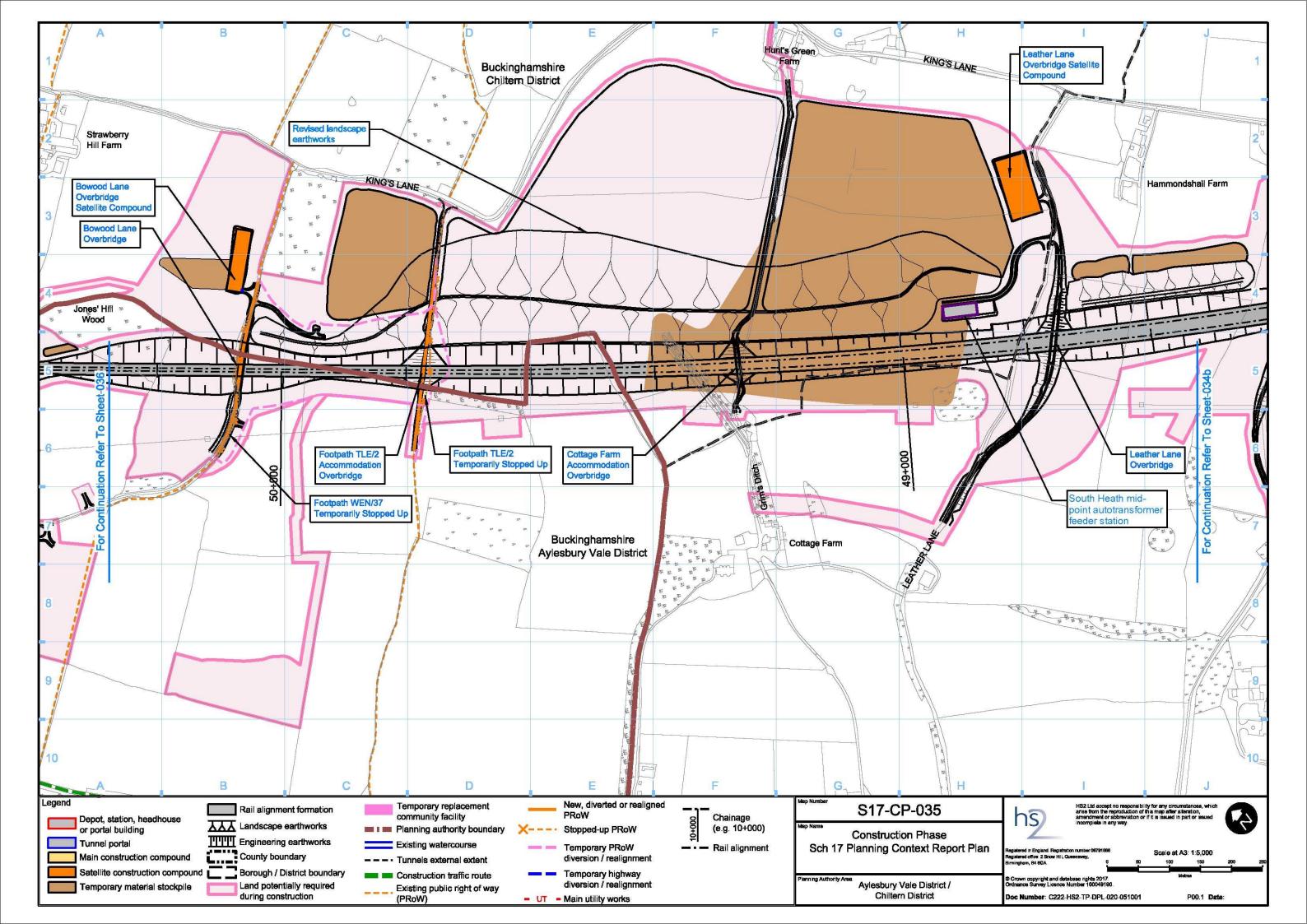


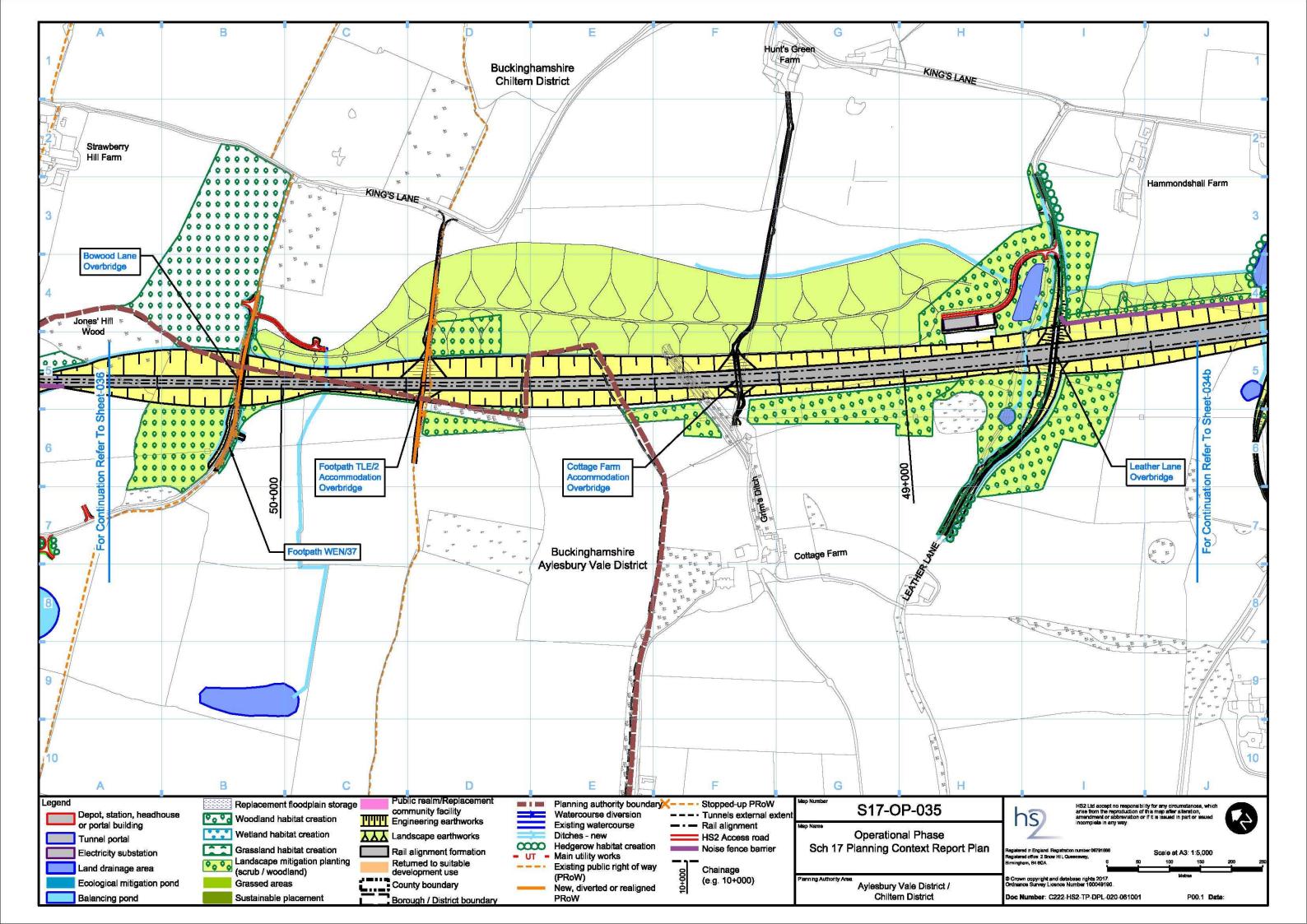


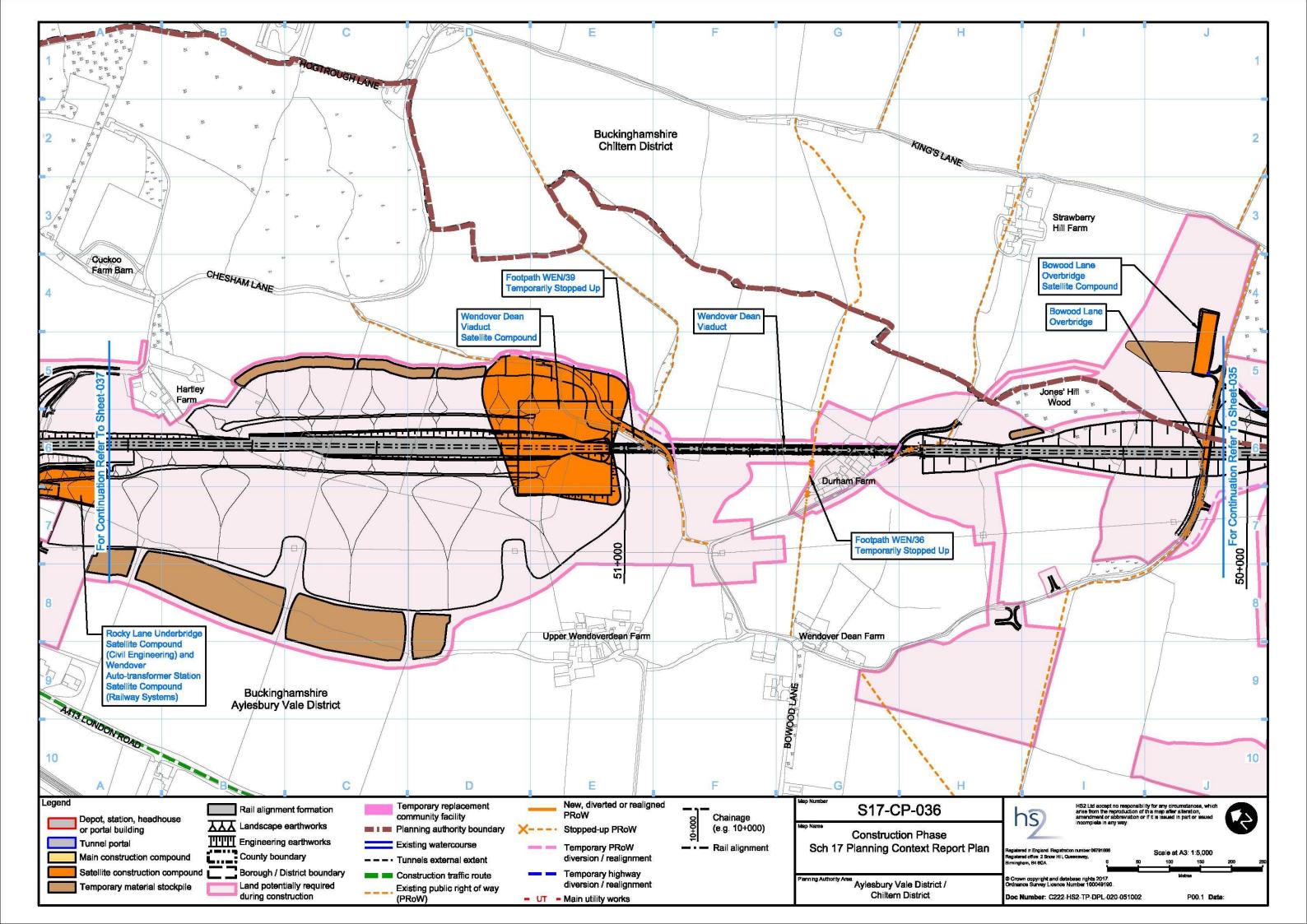
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Bringing into Use			1										_					1				4										1										
Lorry route submissions																																										
Class Approval																																									<u> </u>	
Small Dean viaduct construction camp																																										

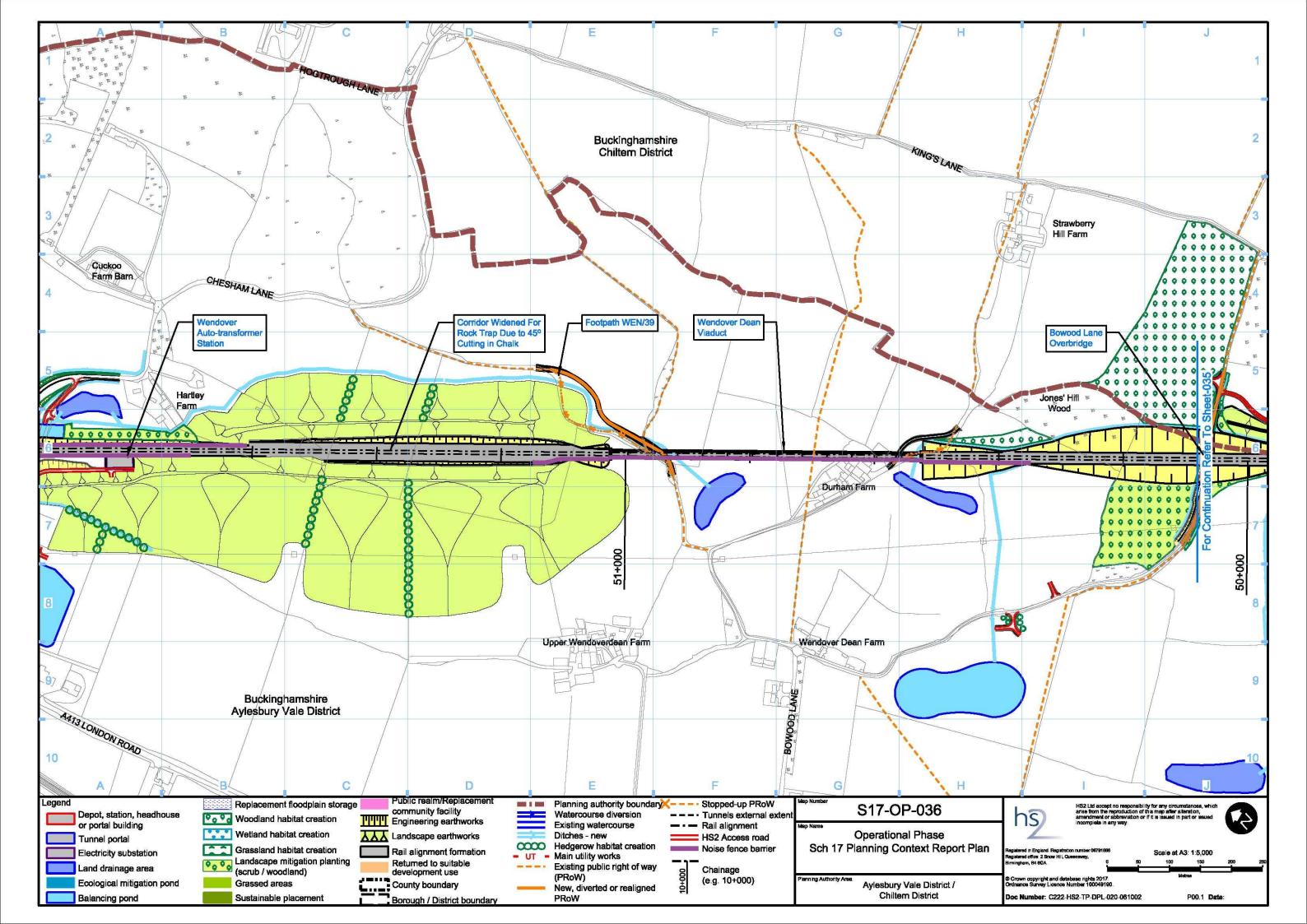


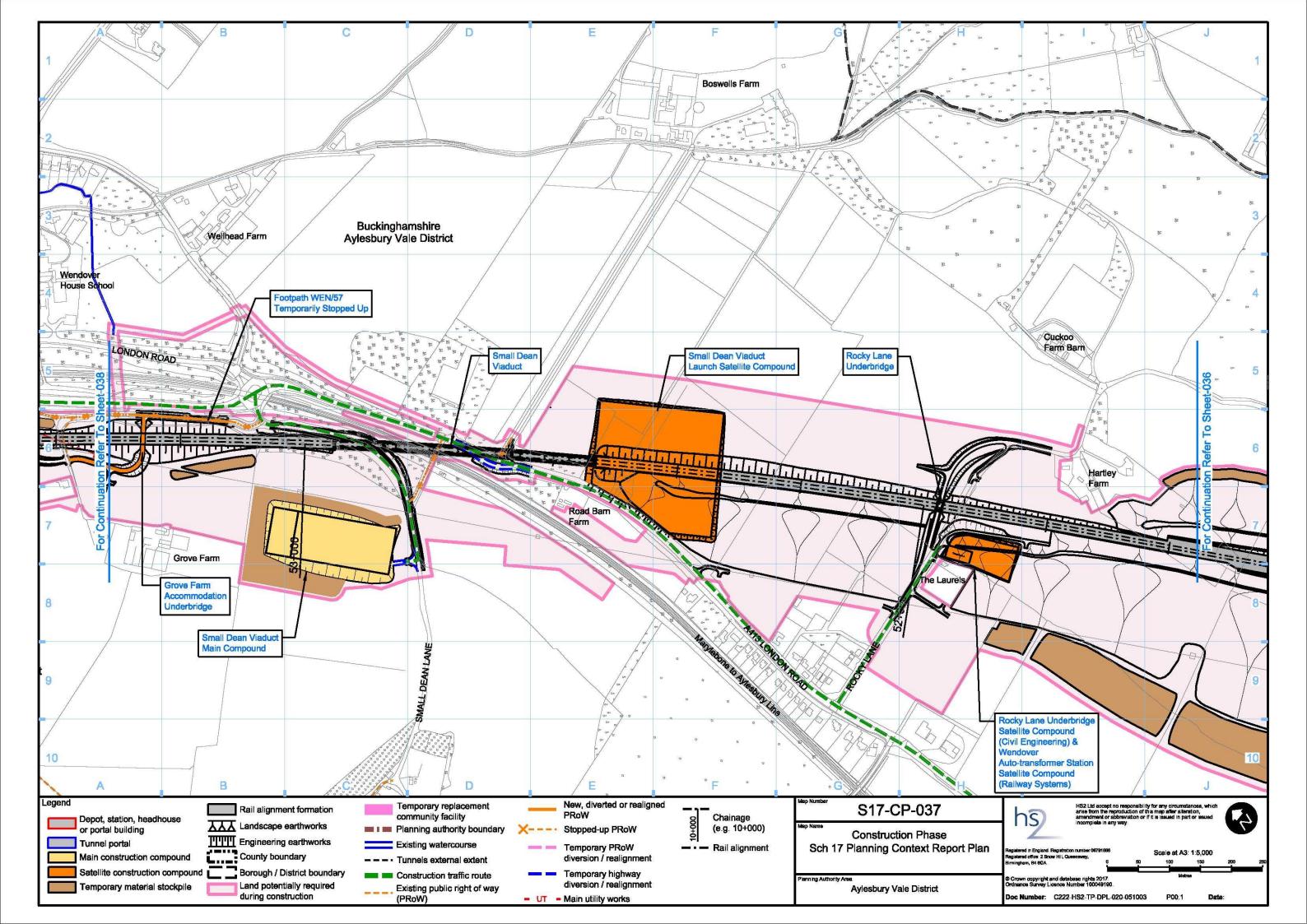
5 Planning Context Report Plans – Construction and Operation

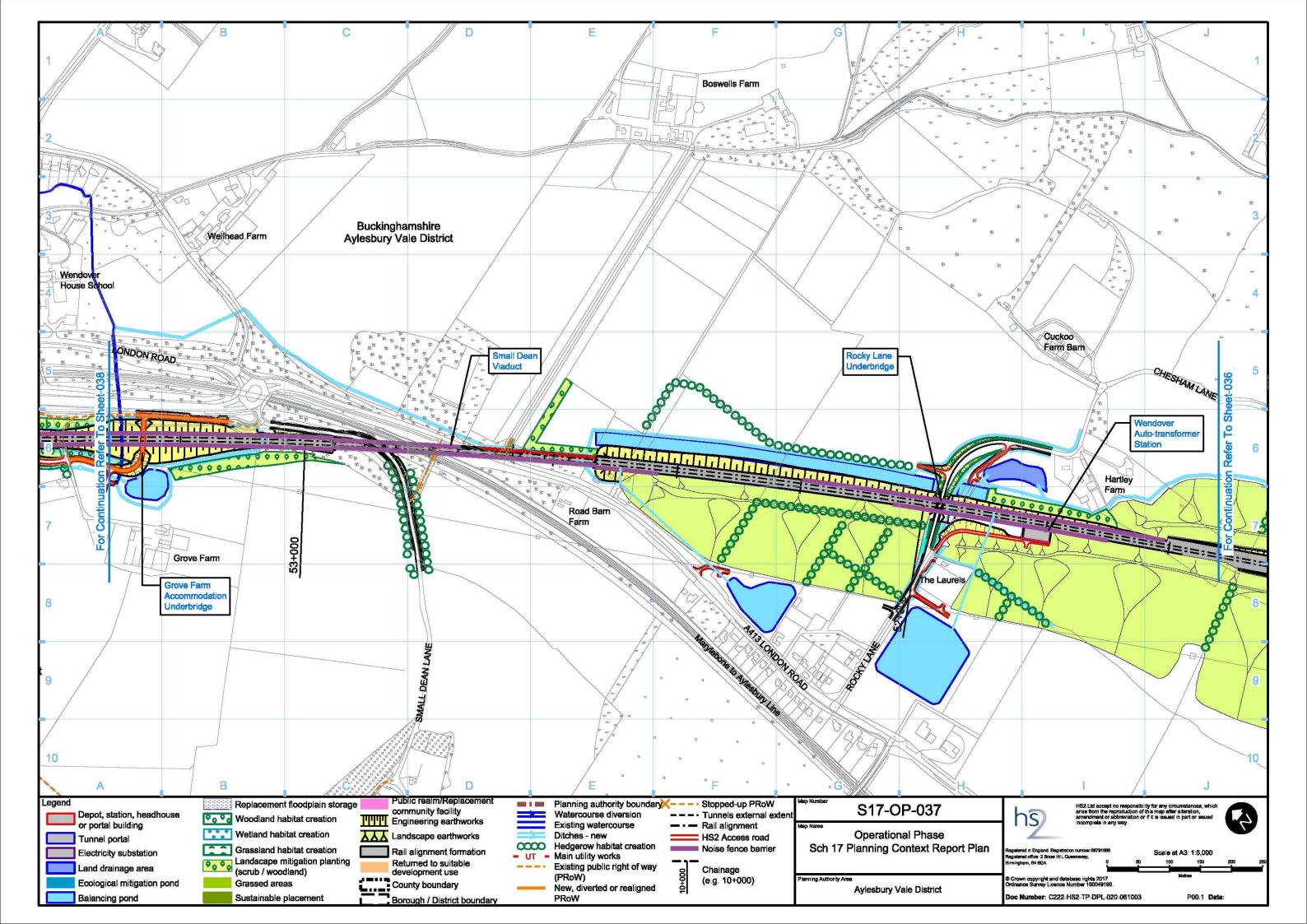


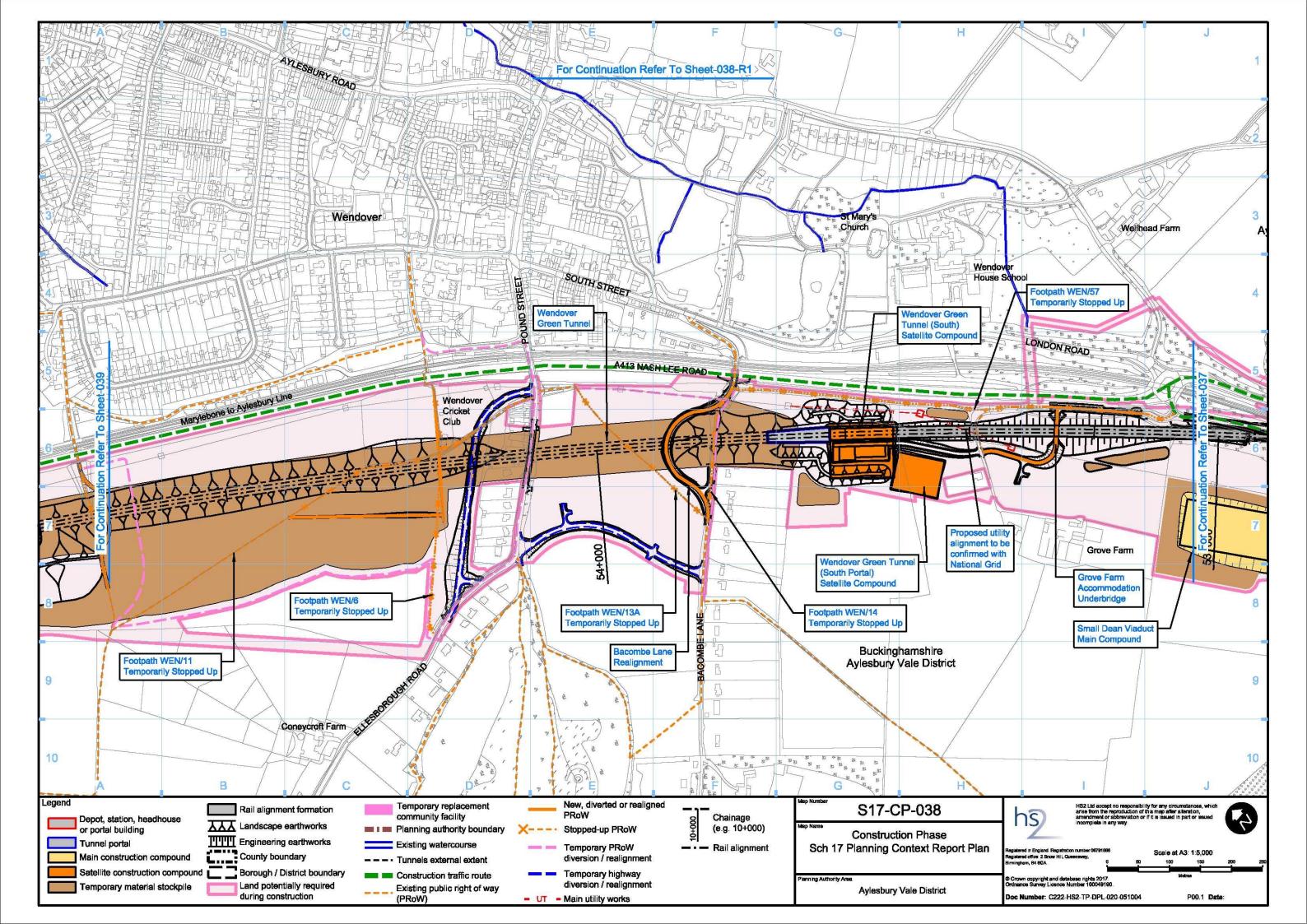


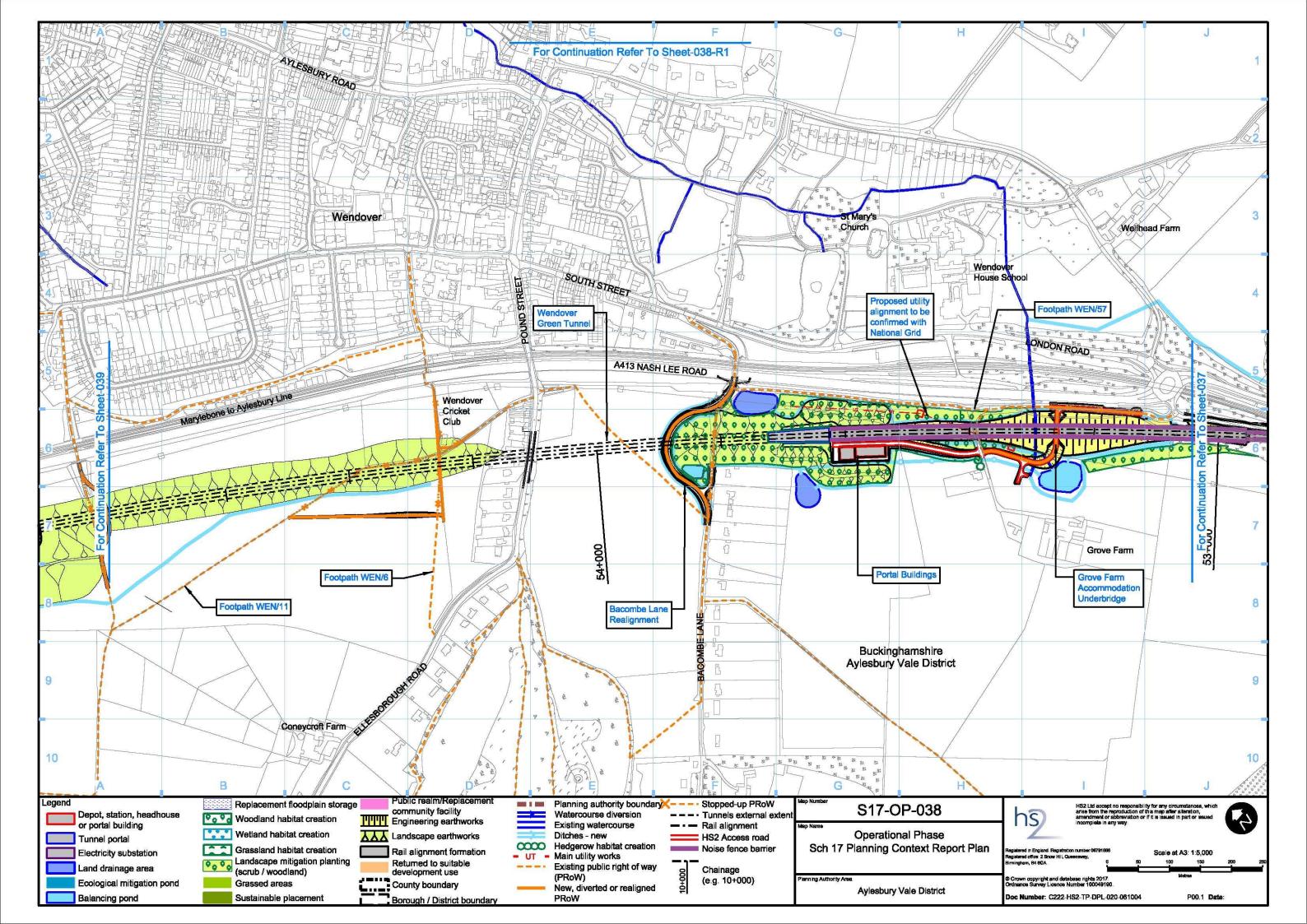


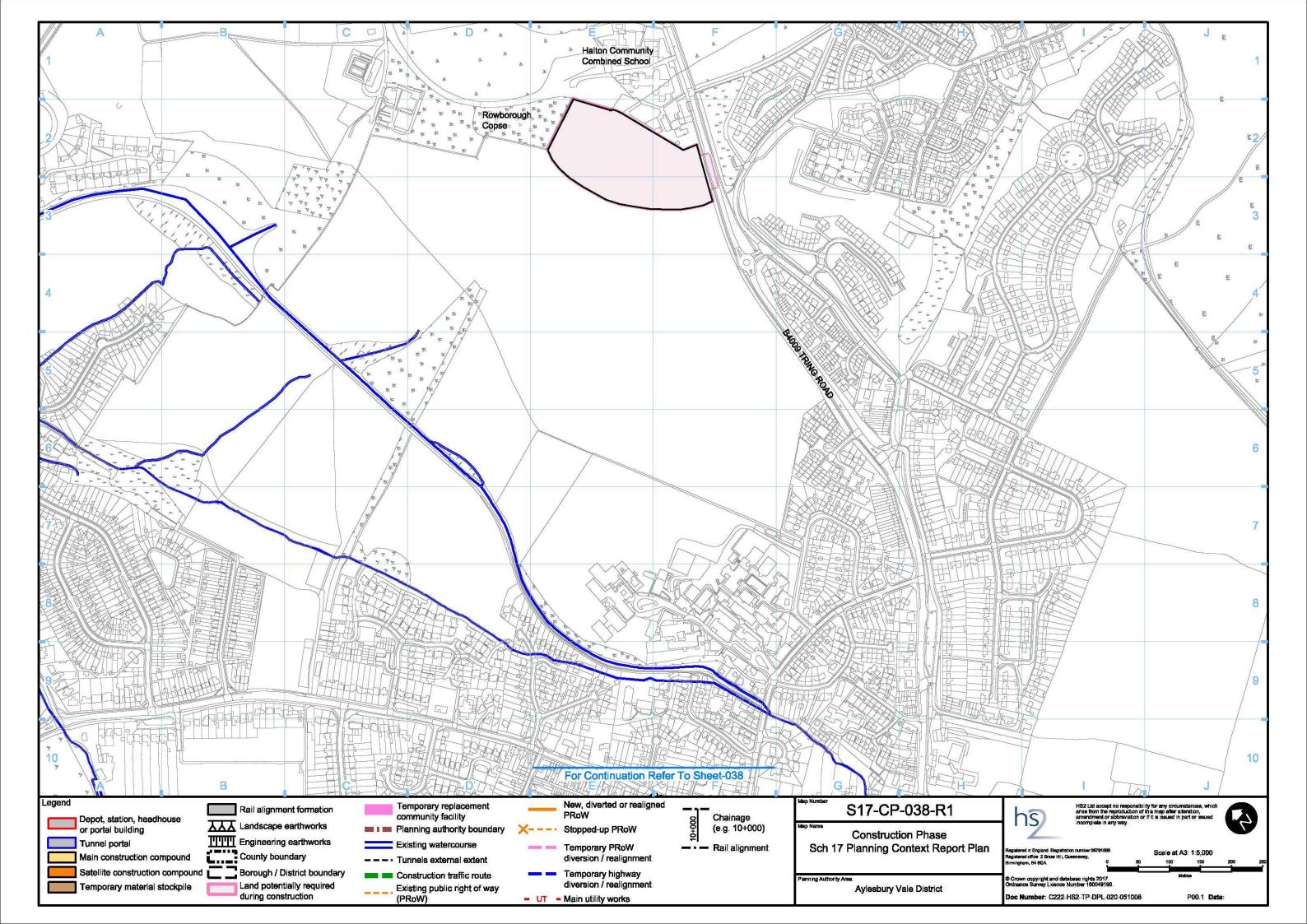


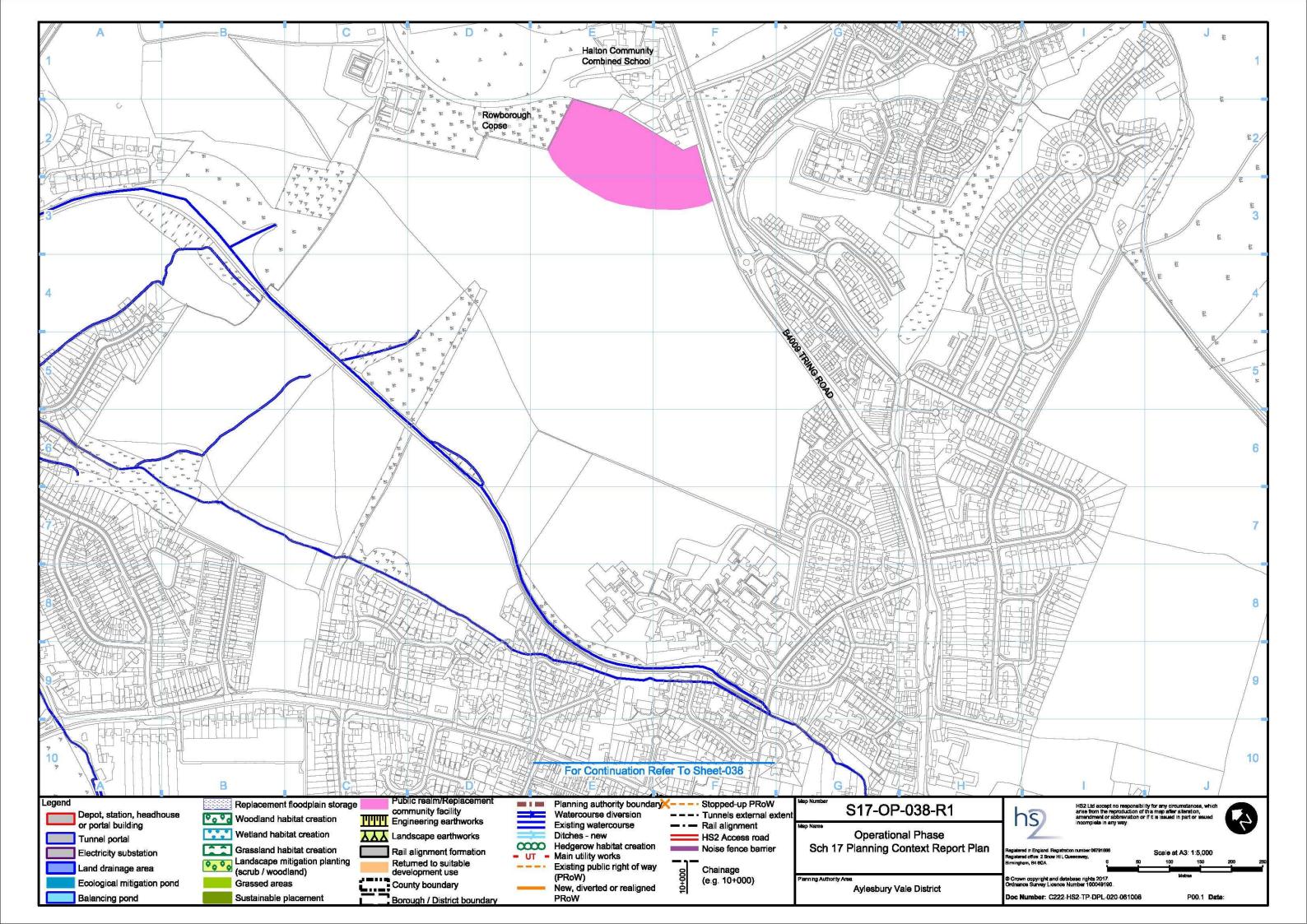


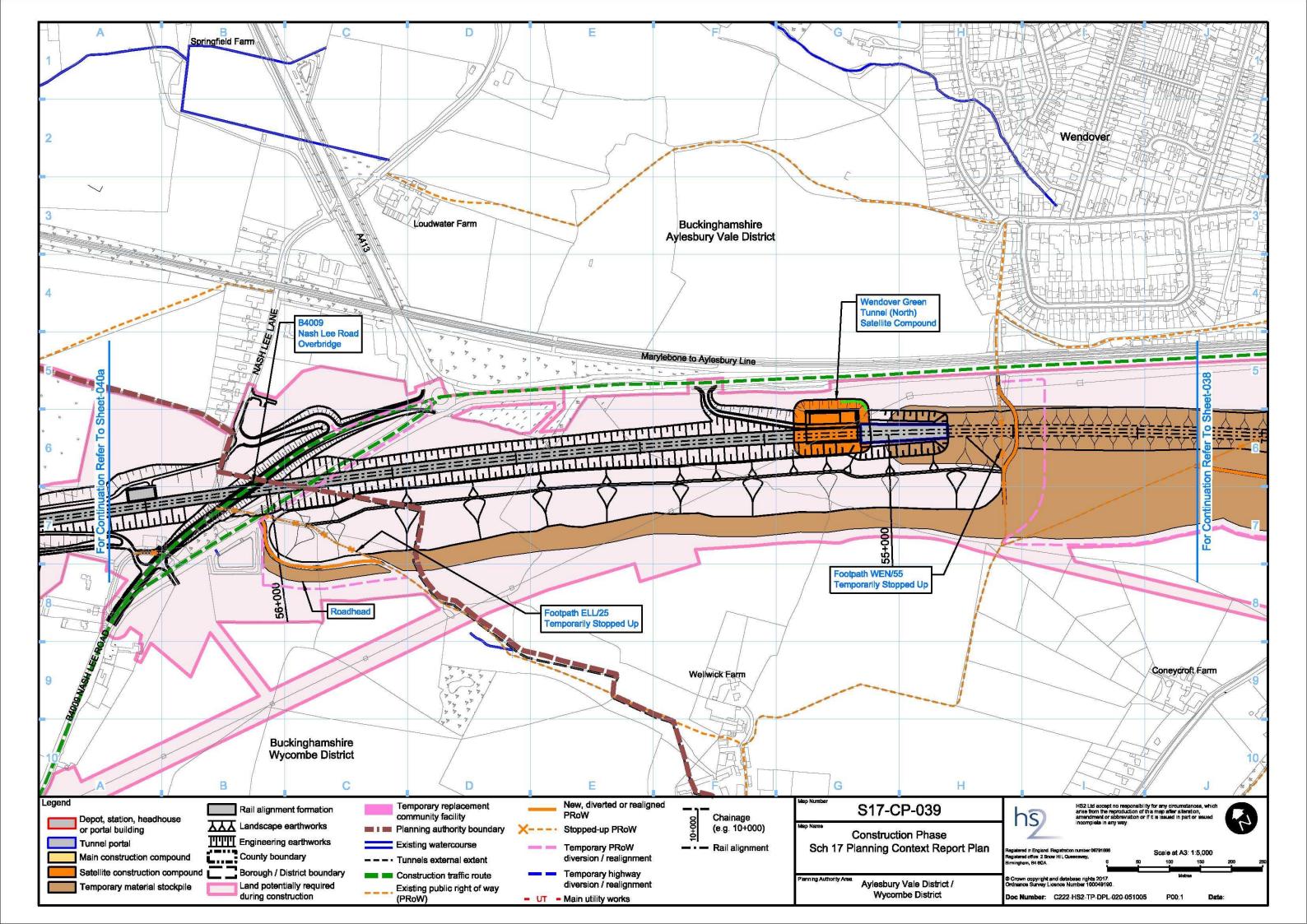


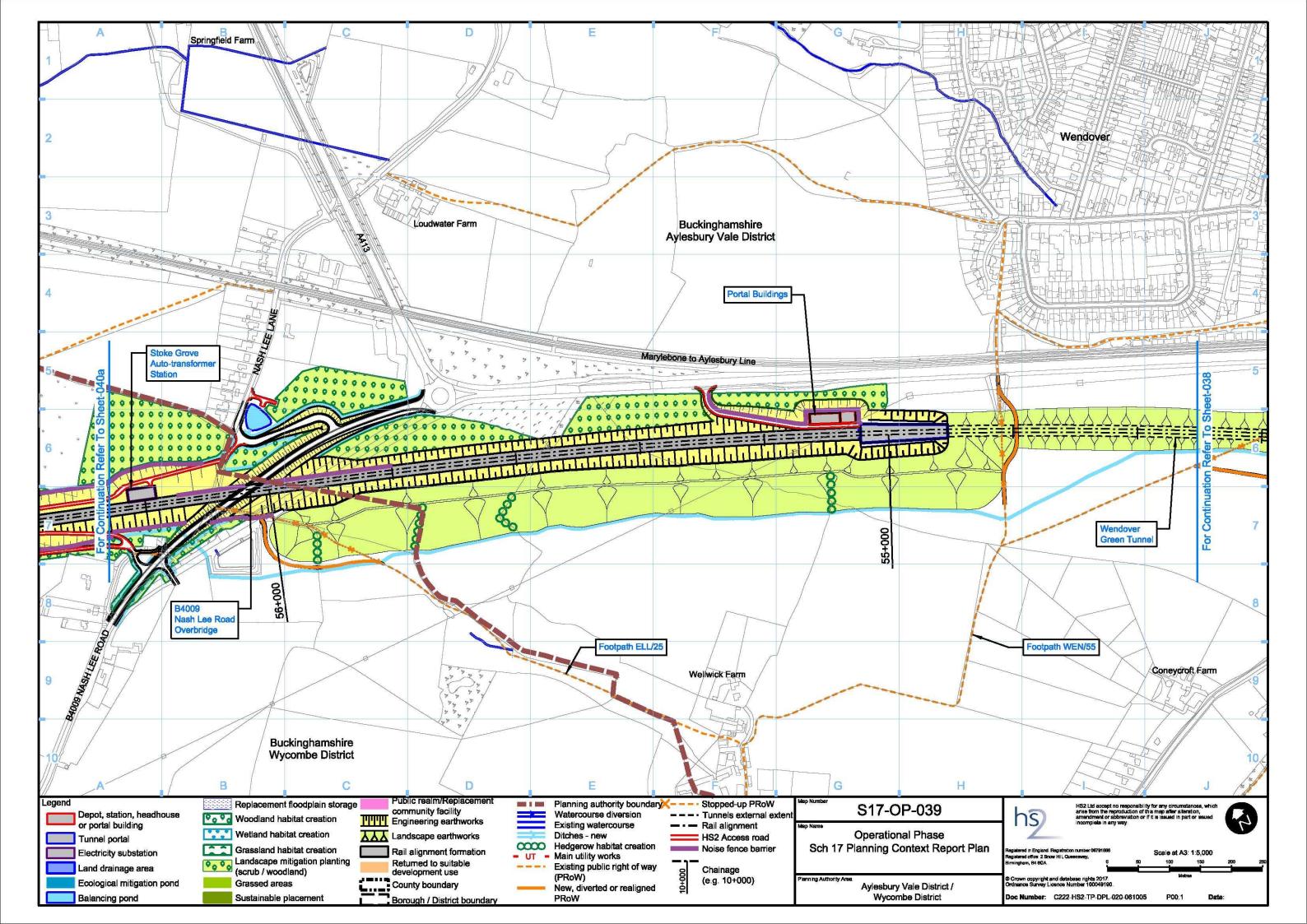


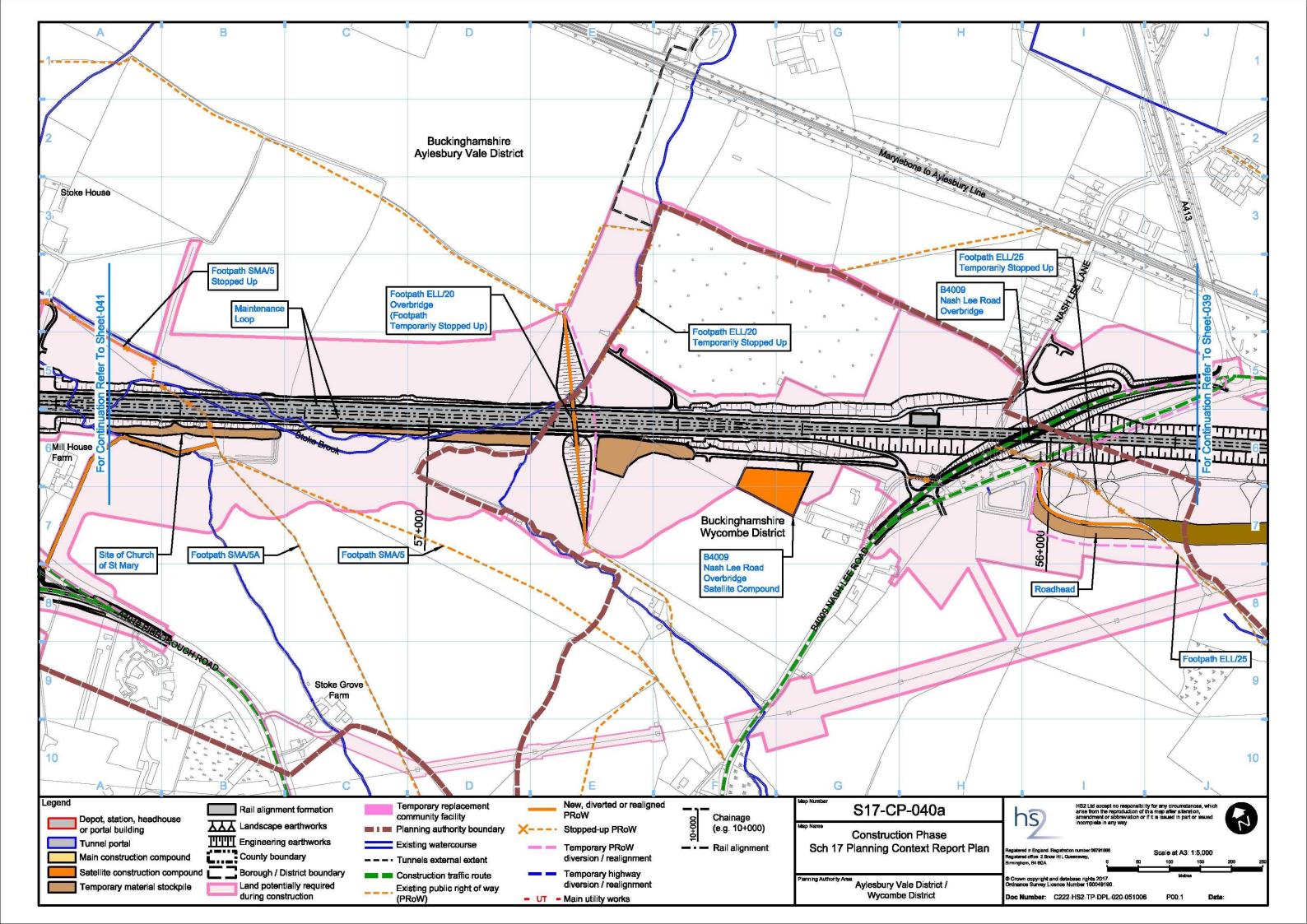


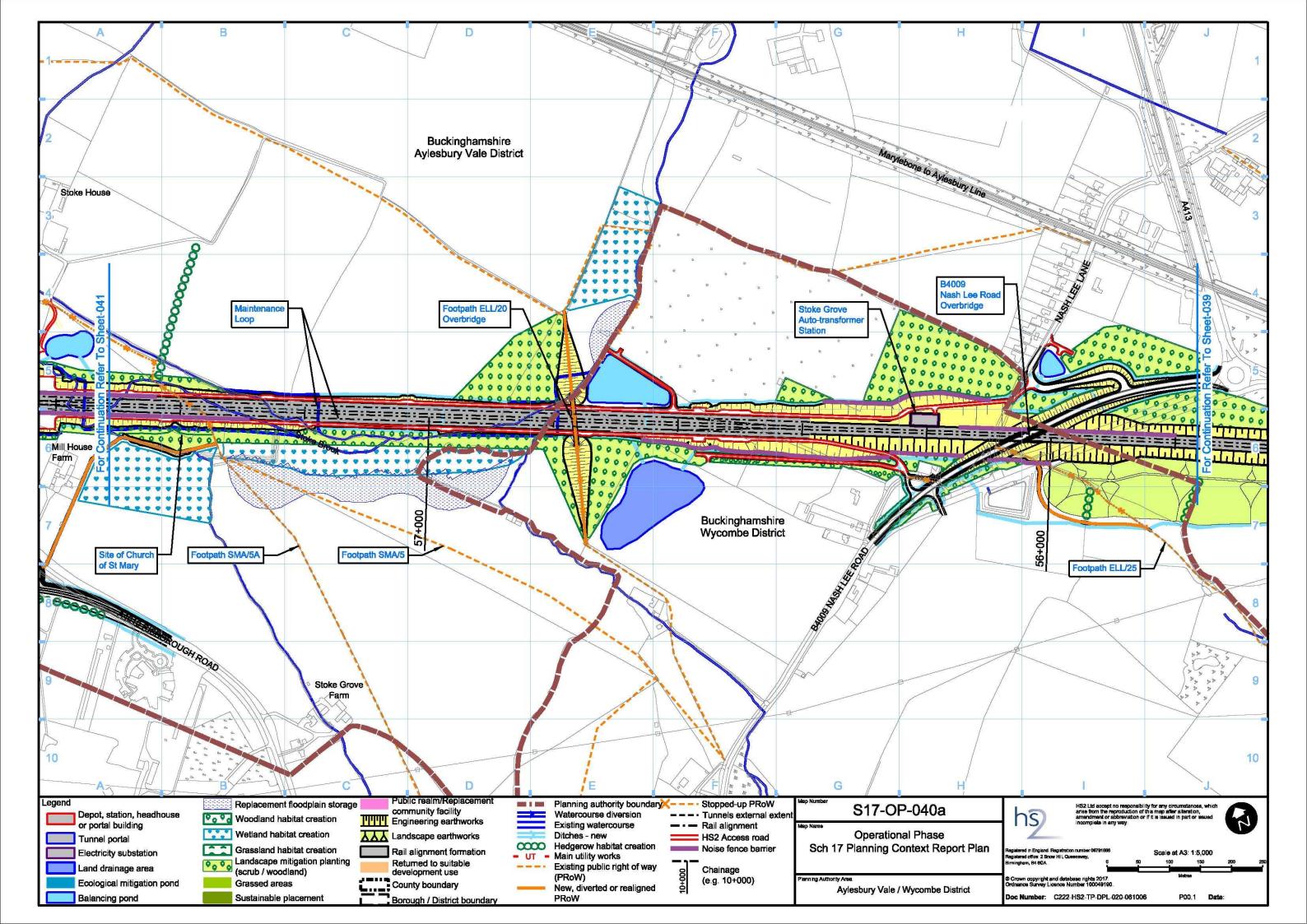


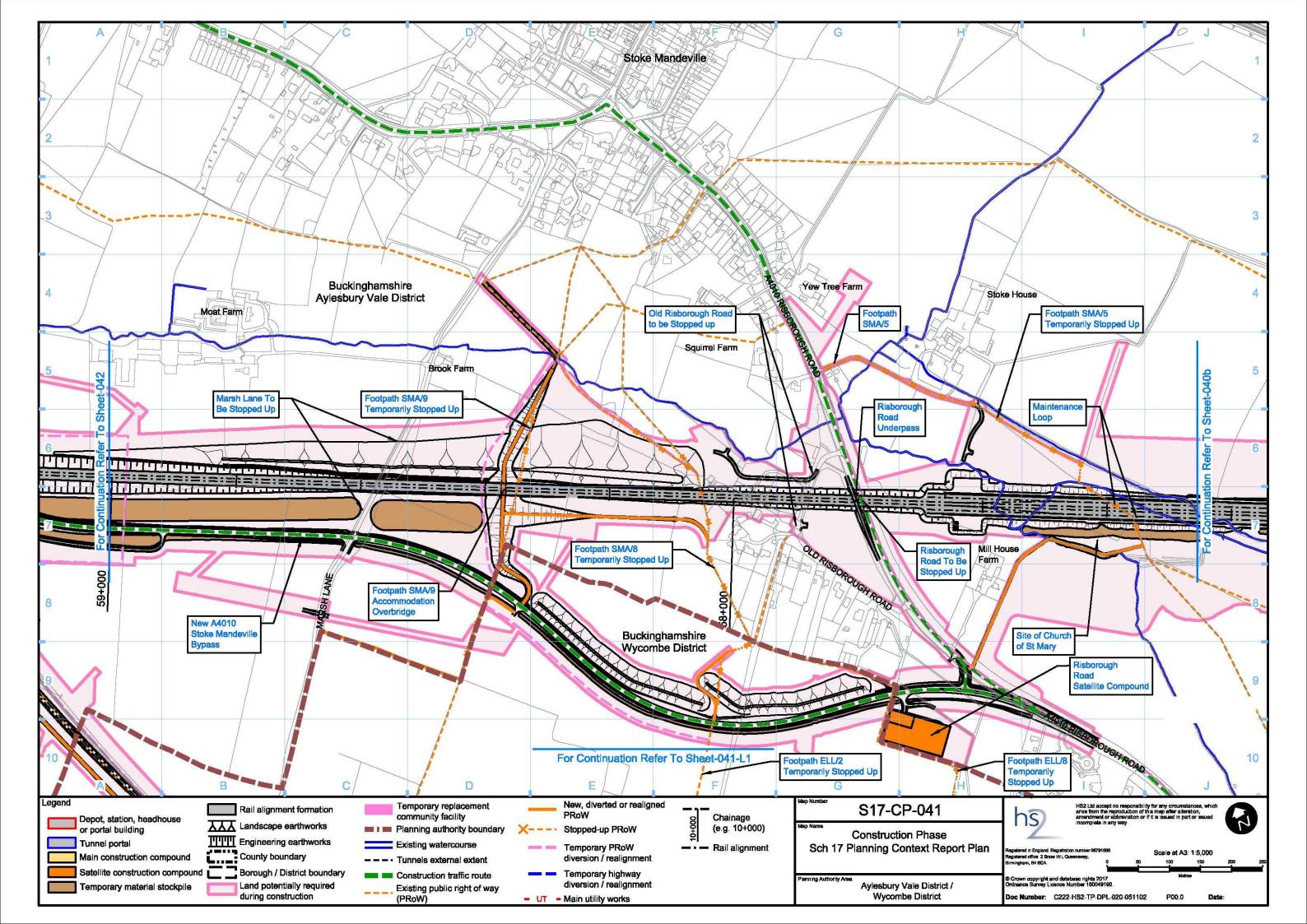


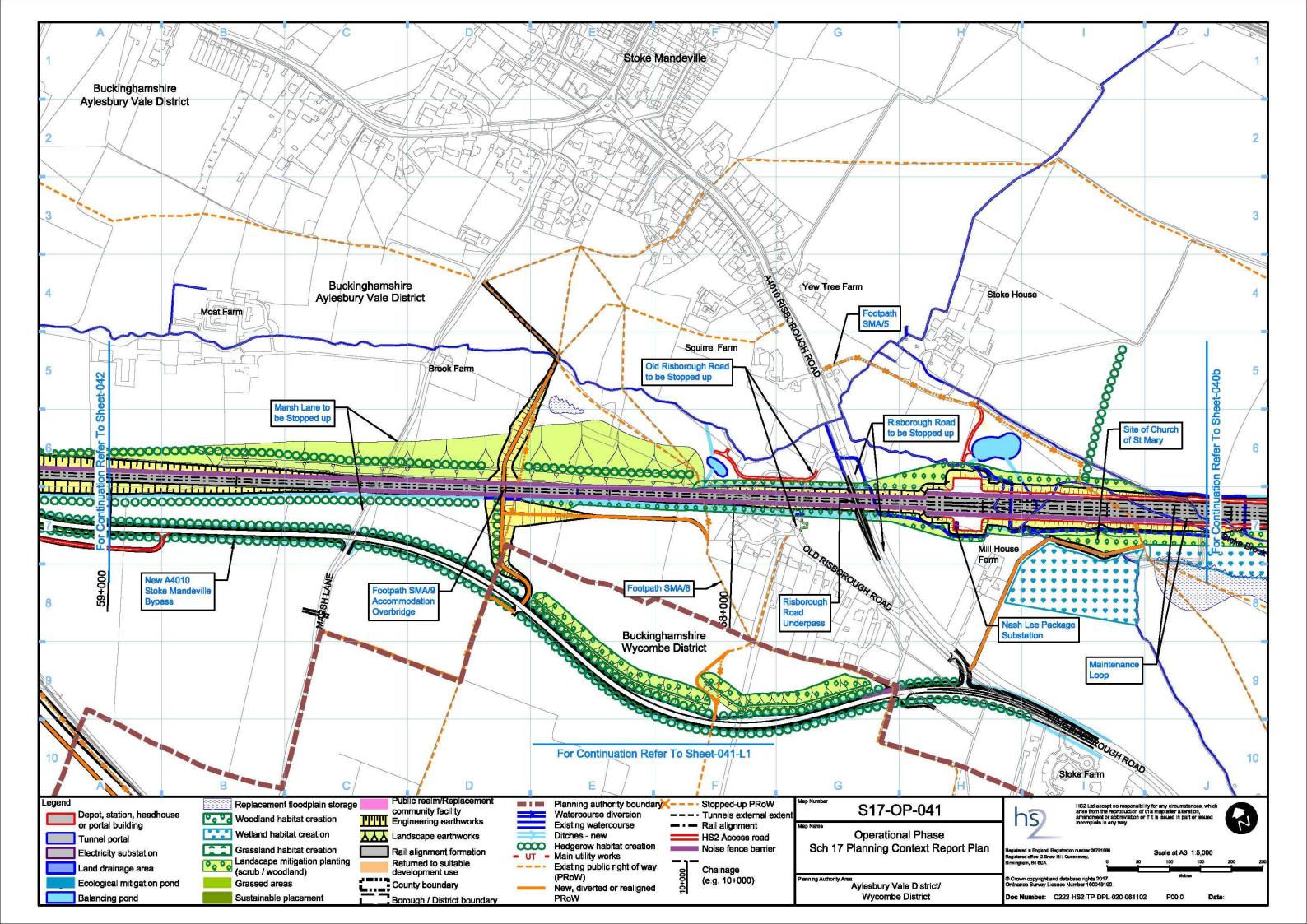


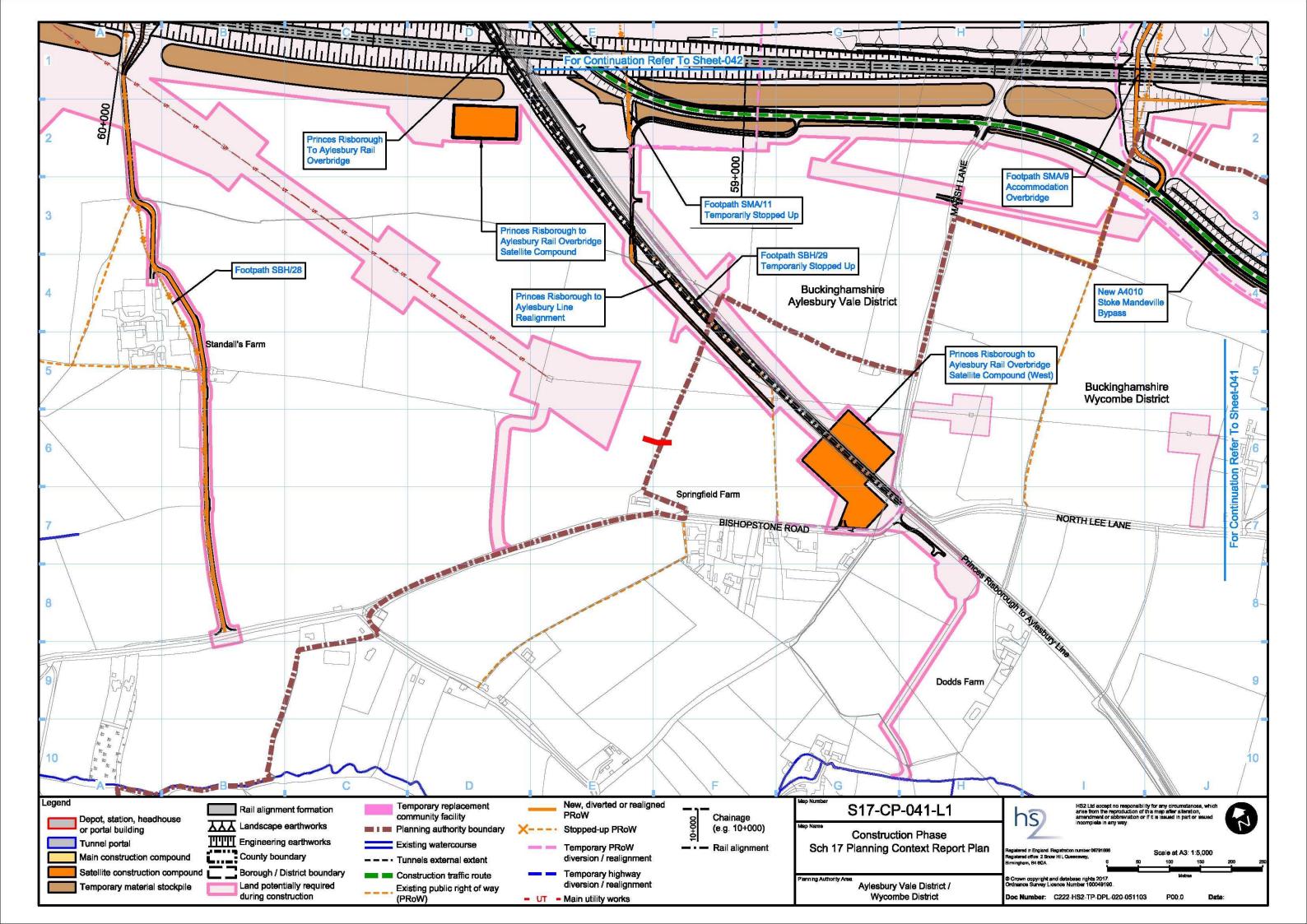


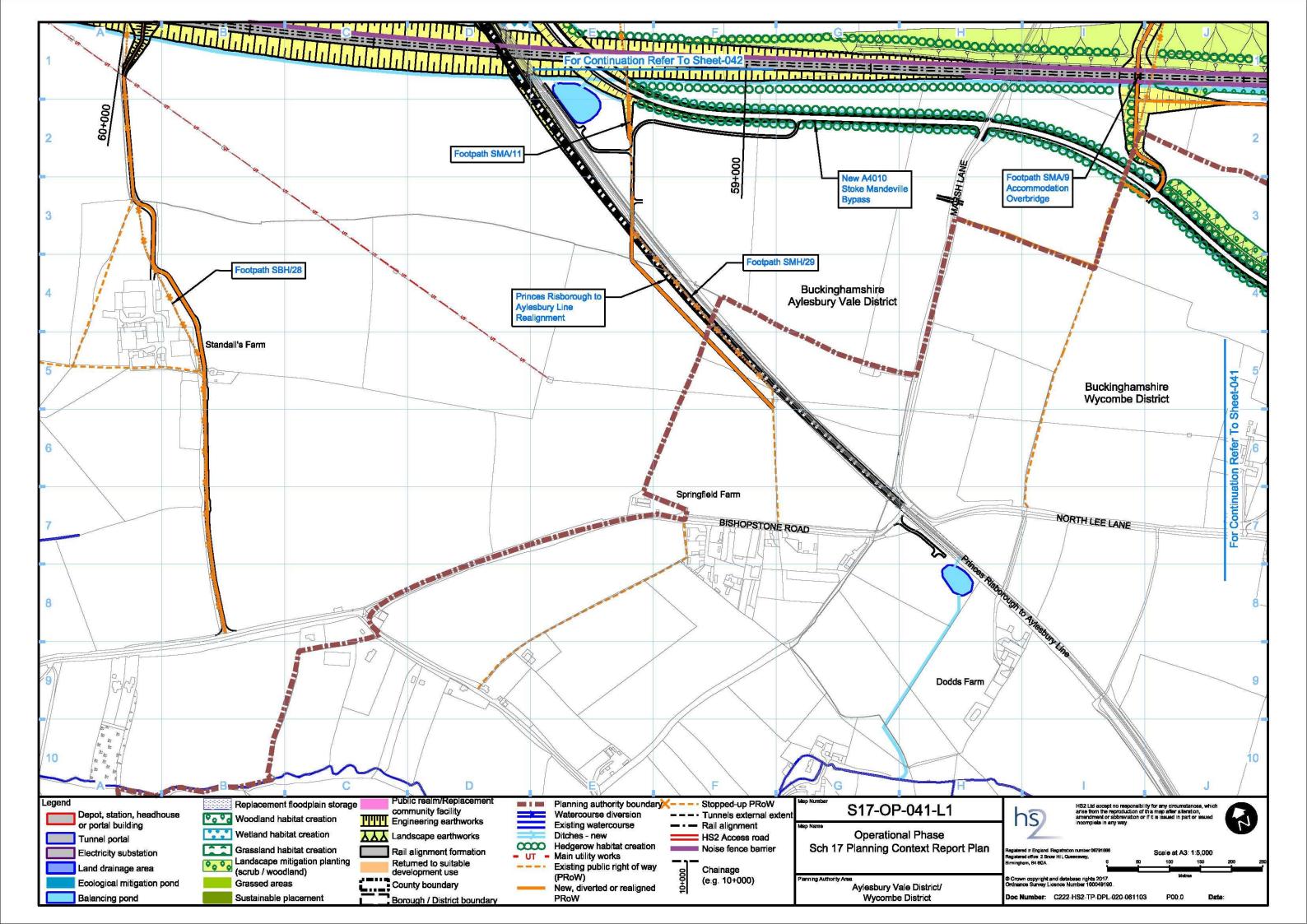


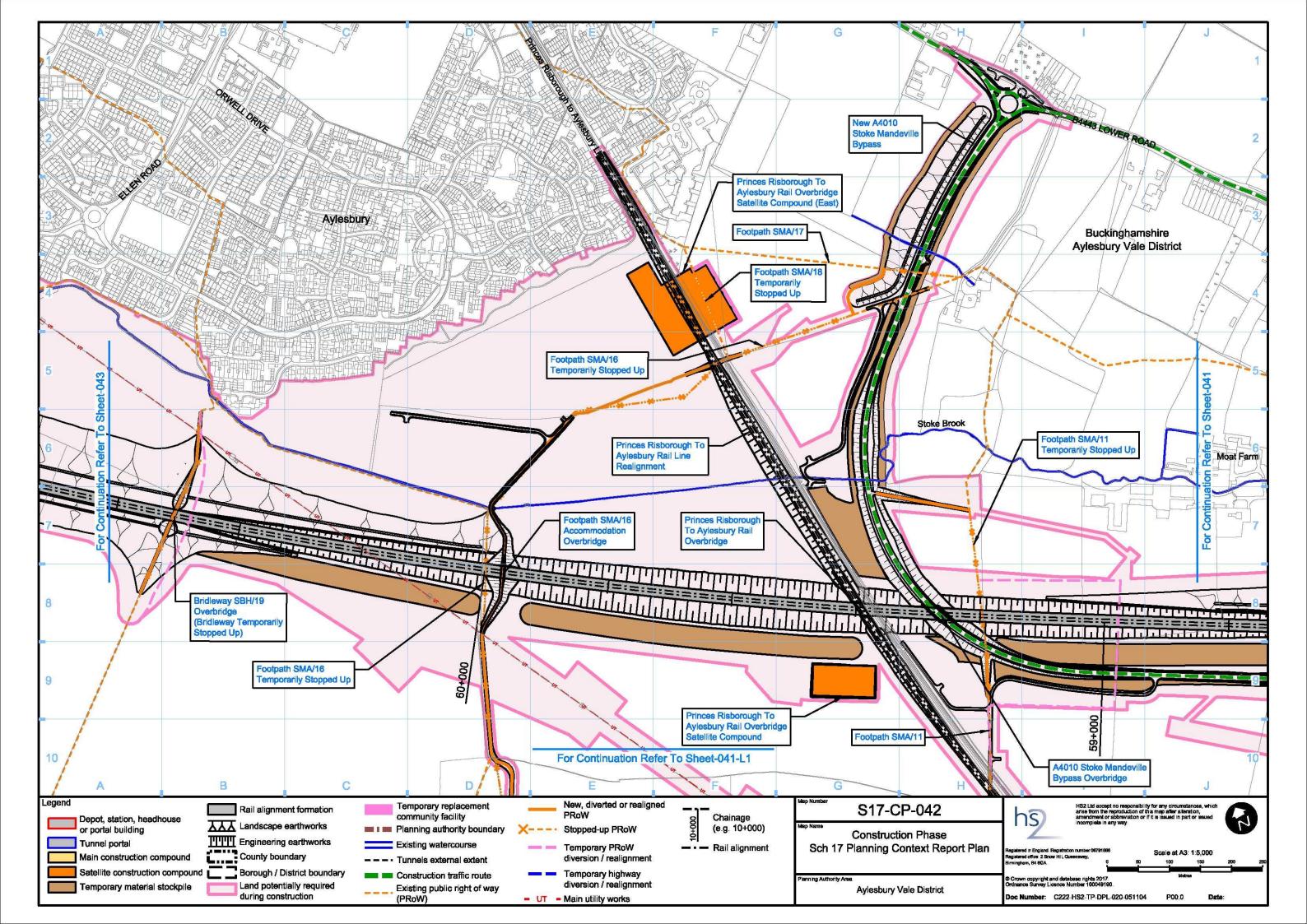


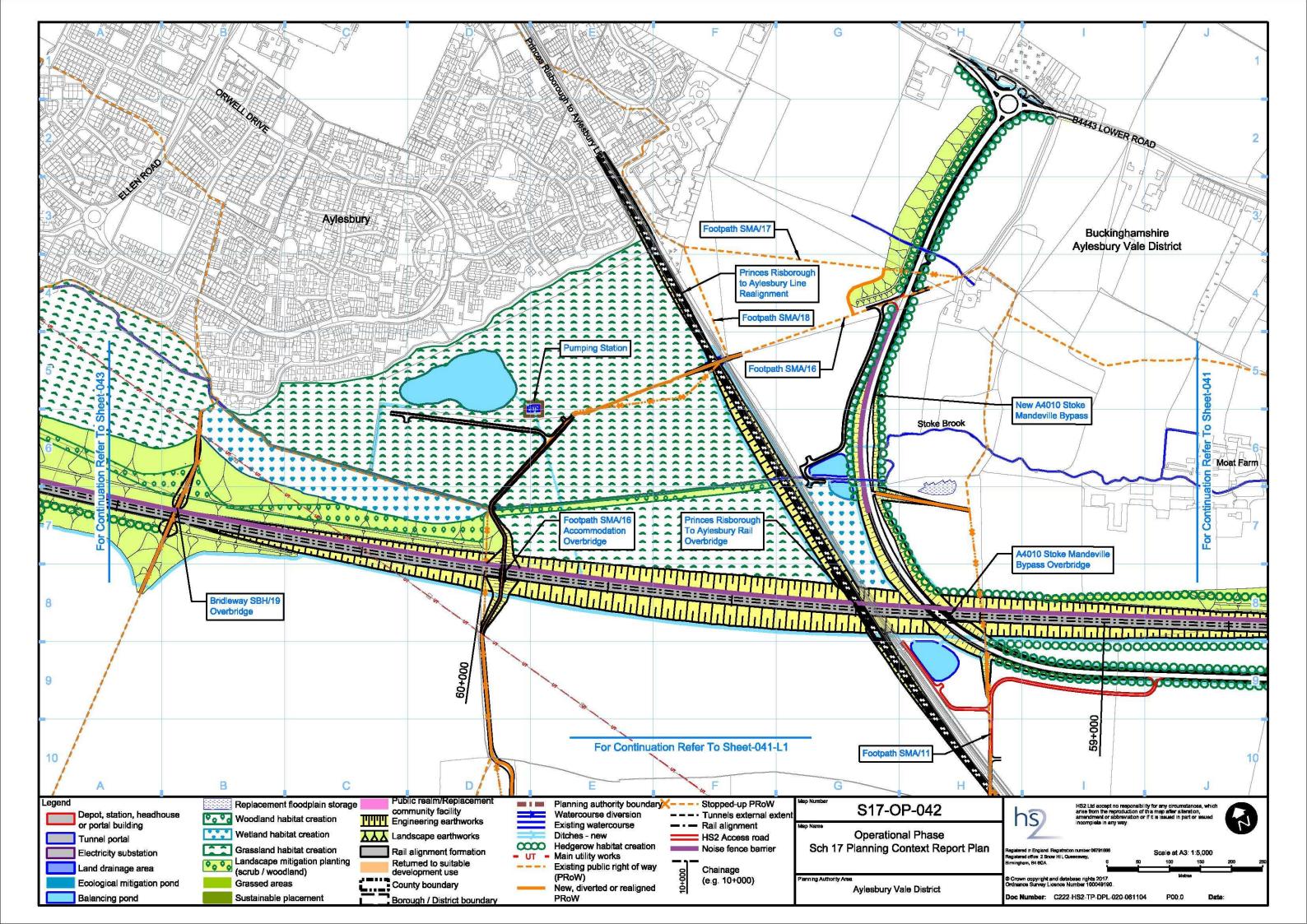


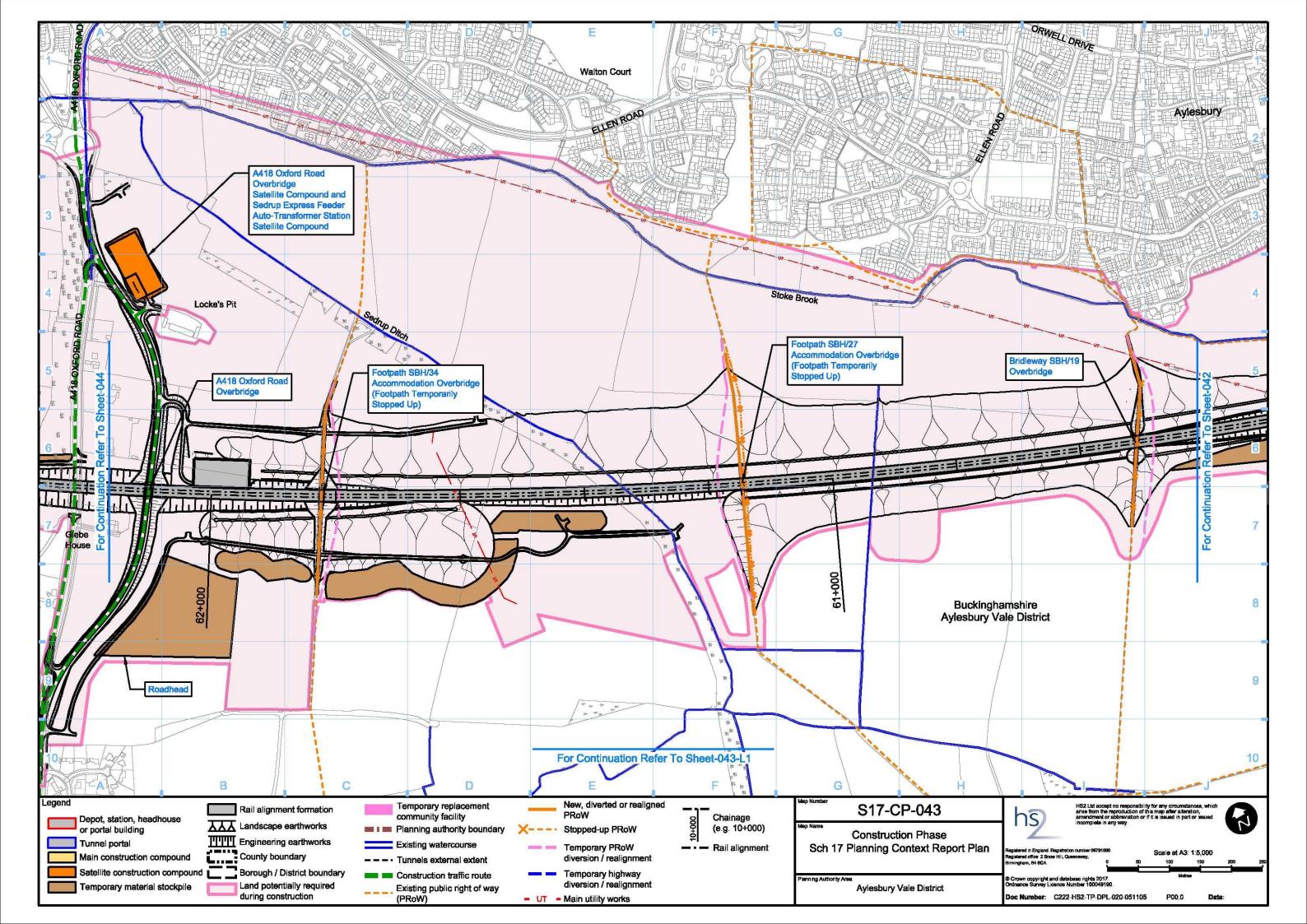


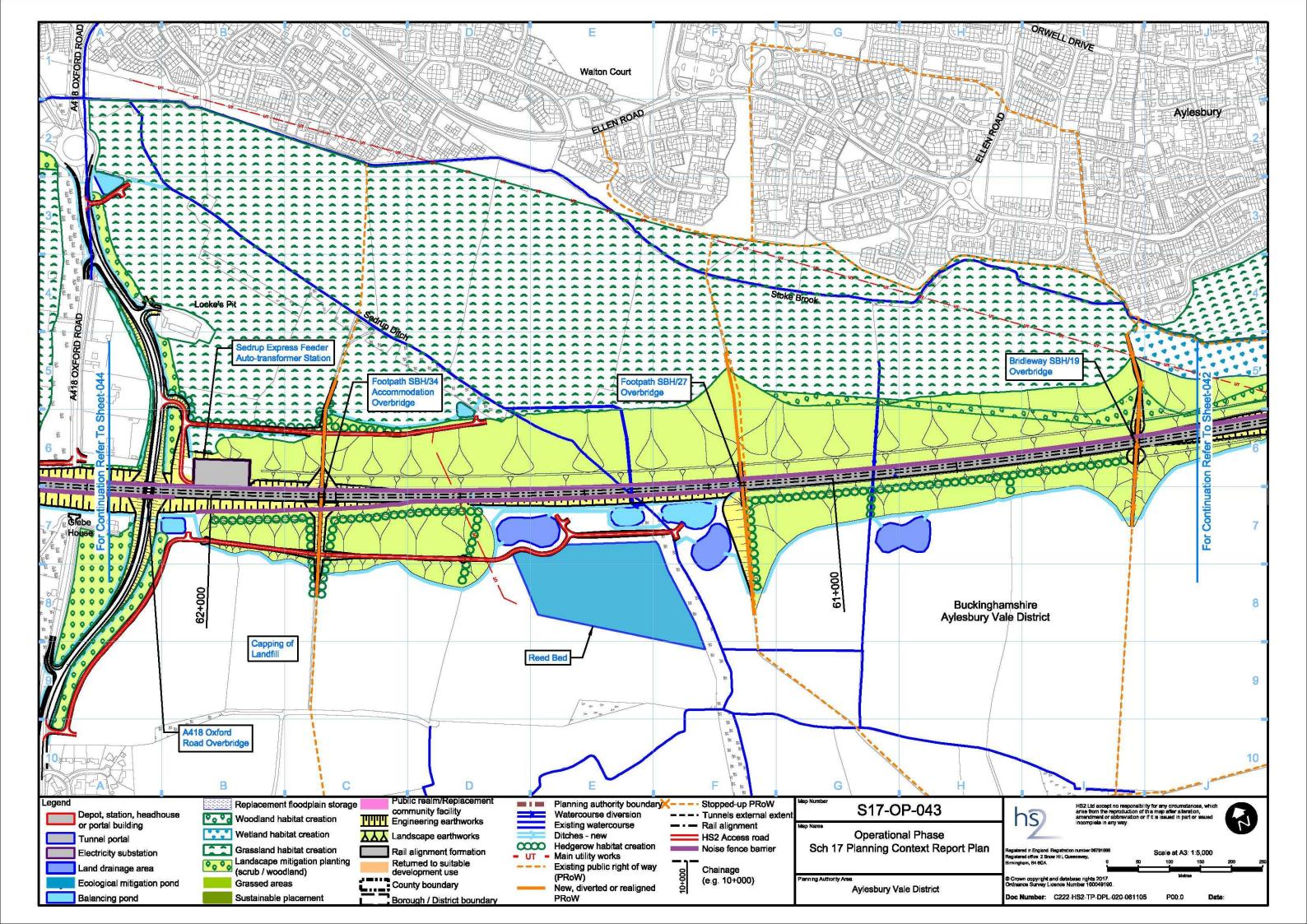


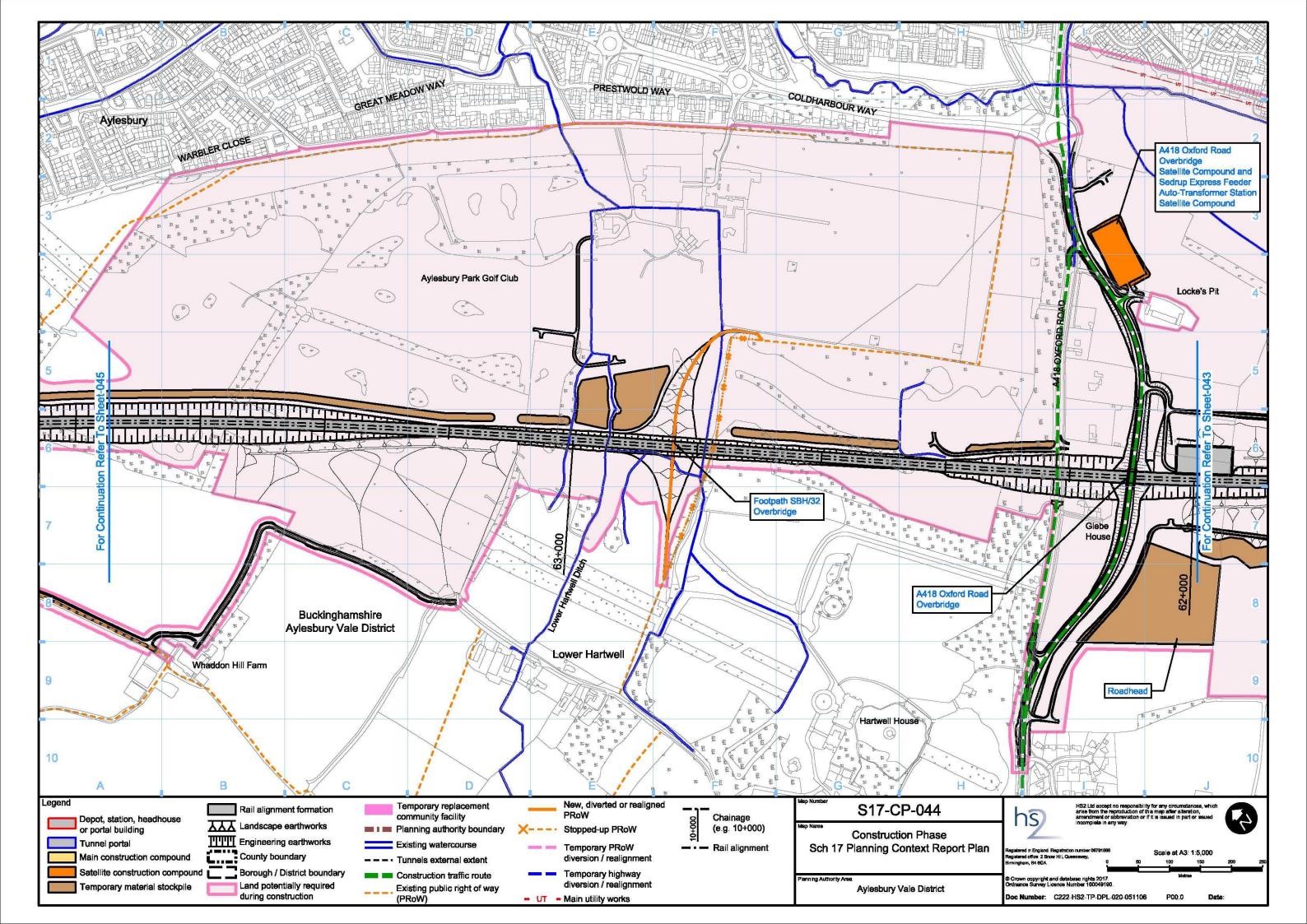


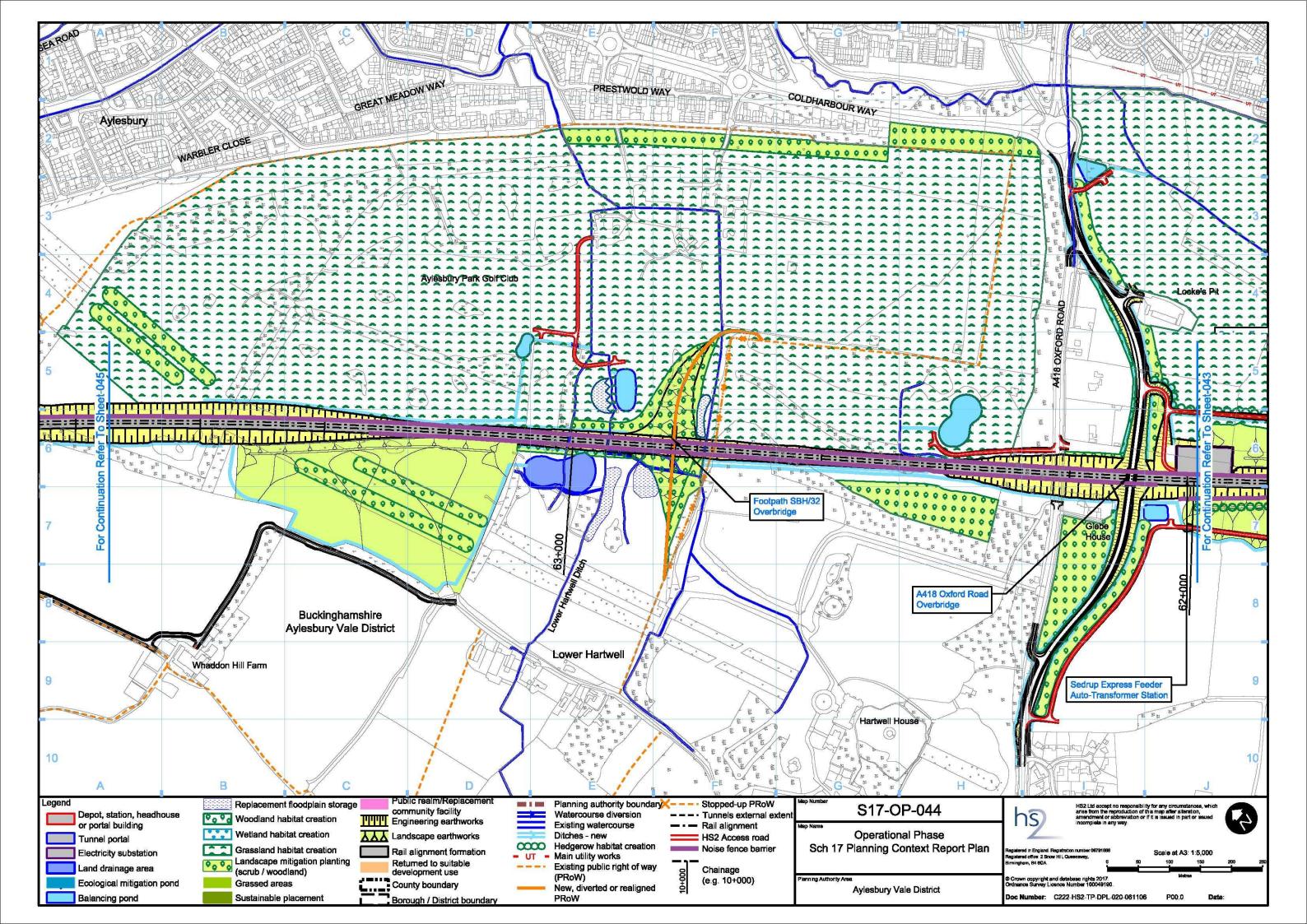


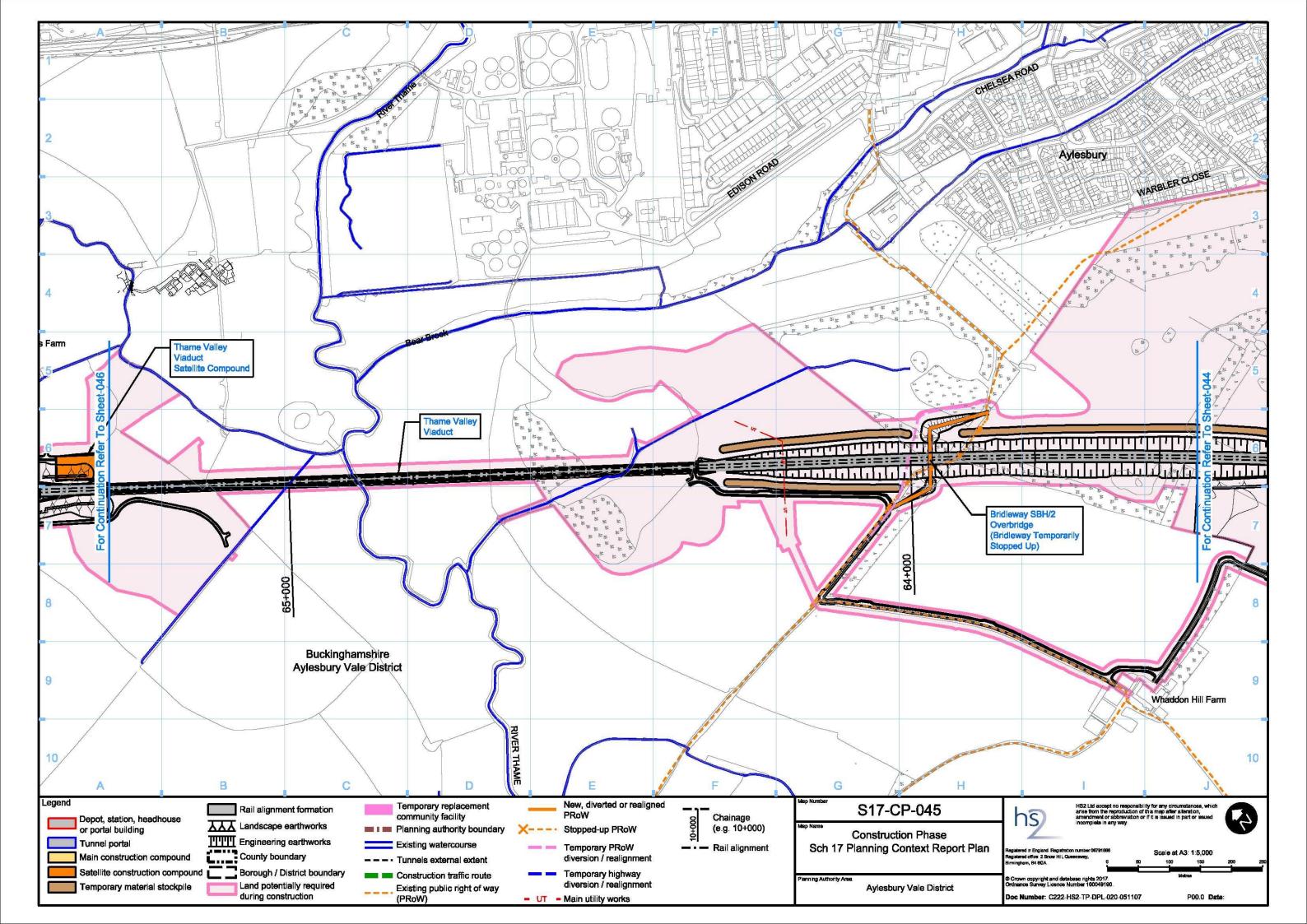


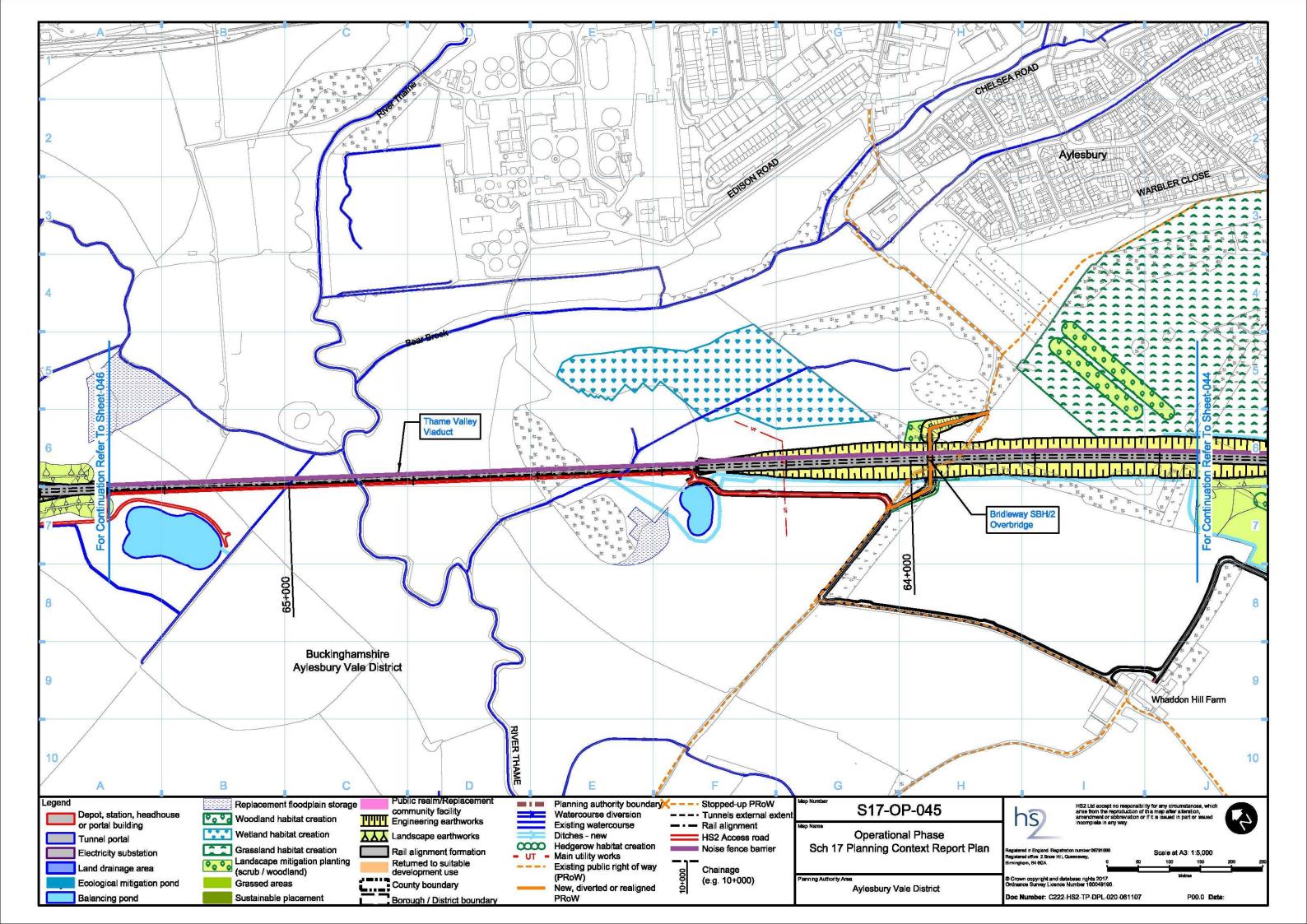


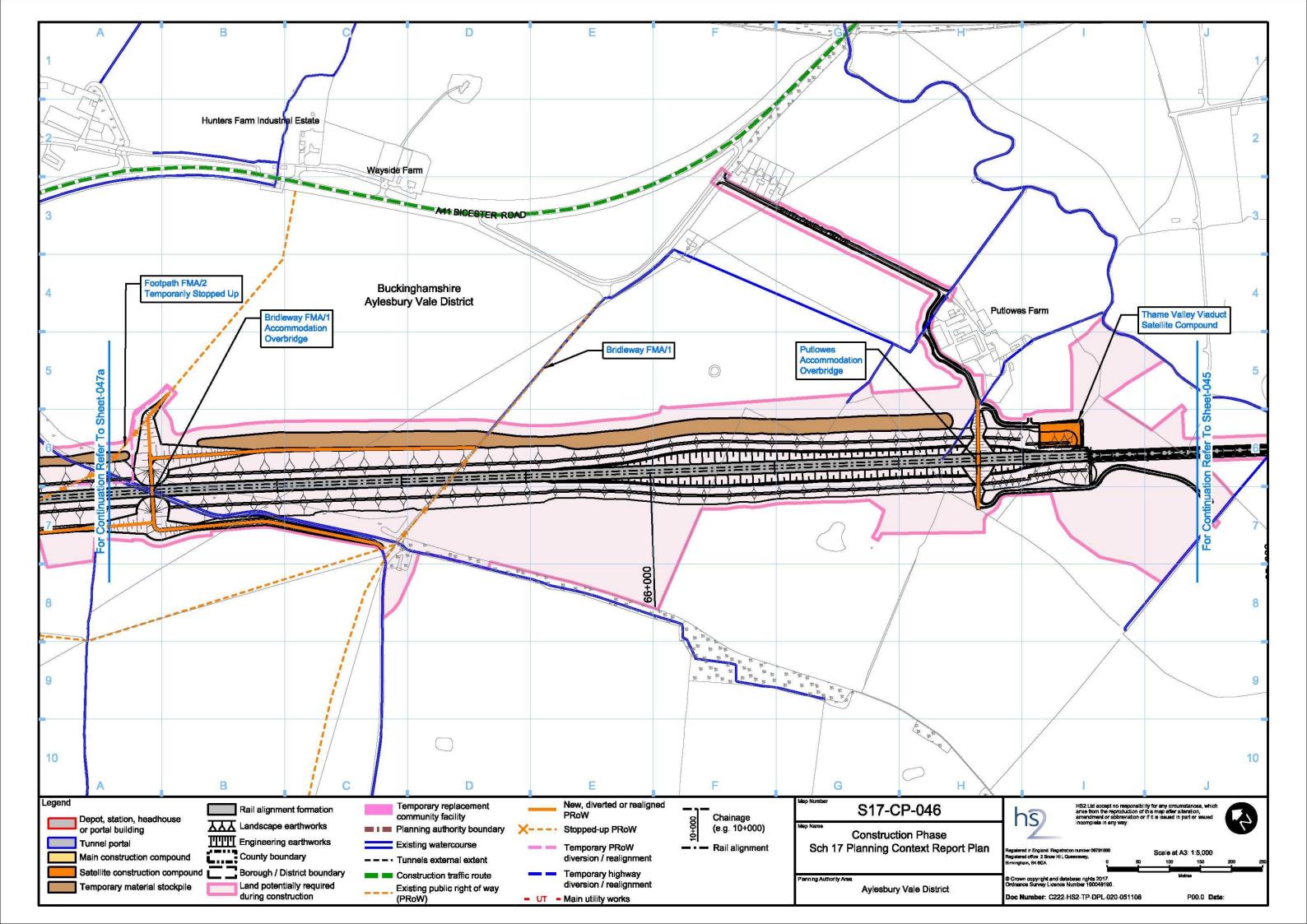


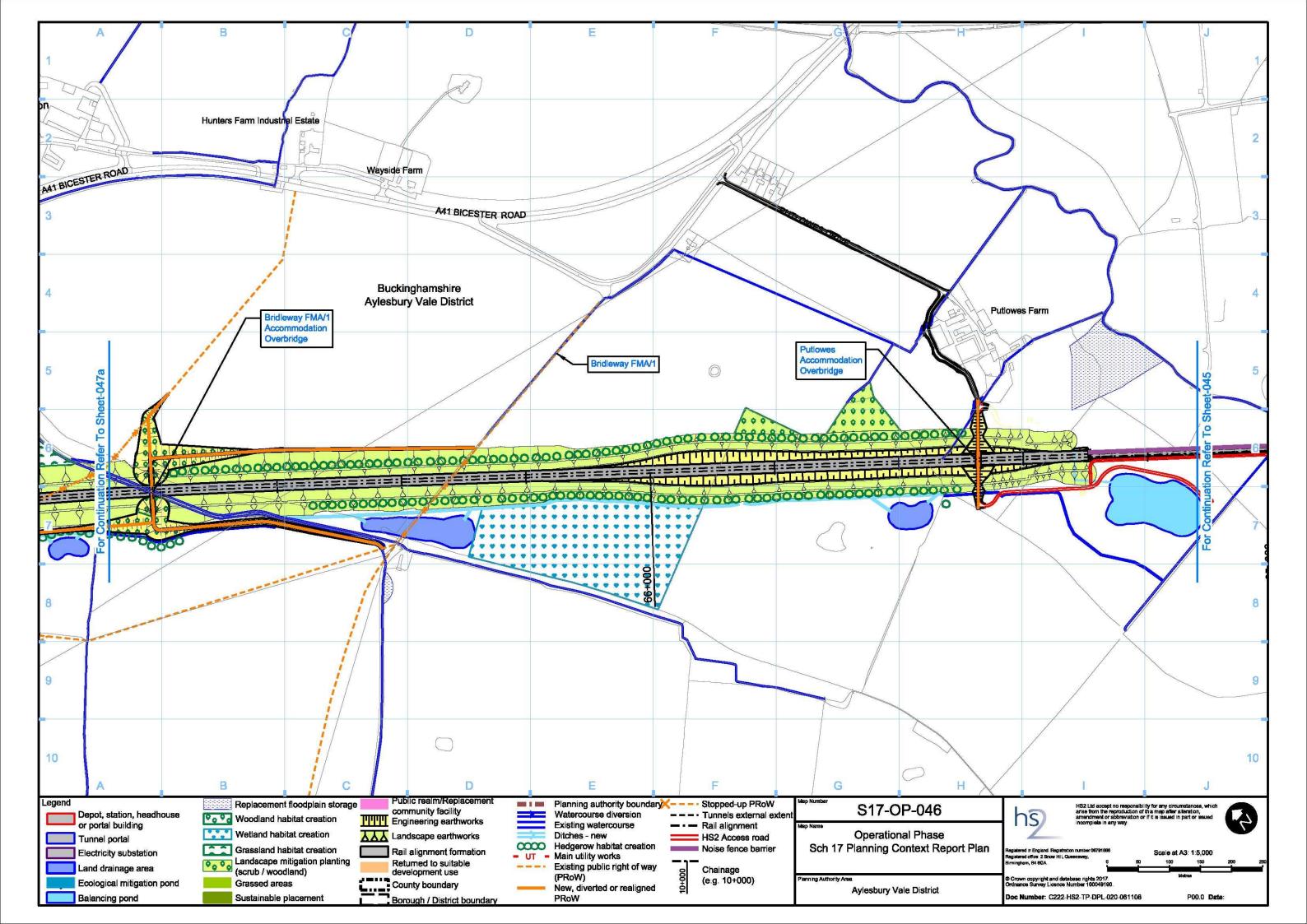


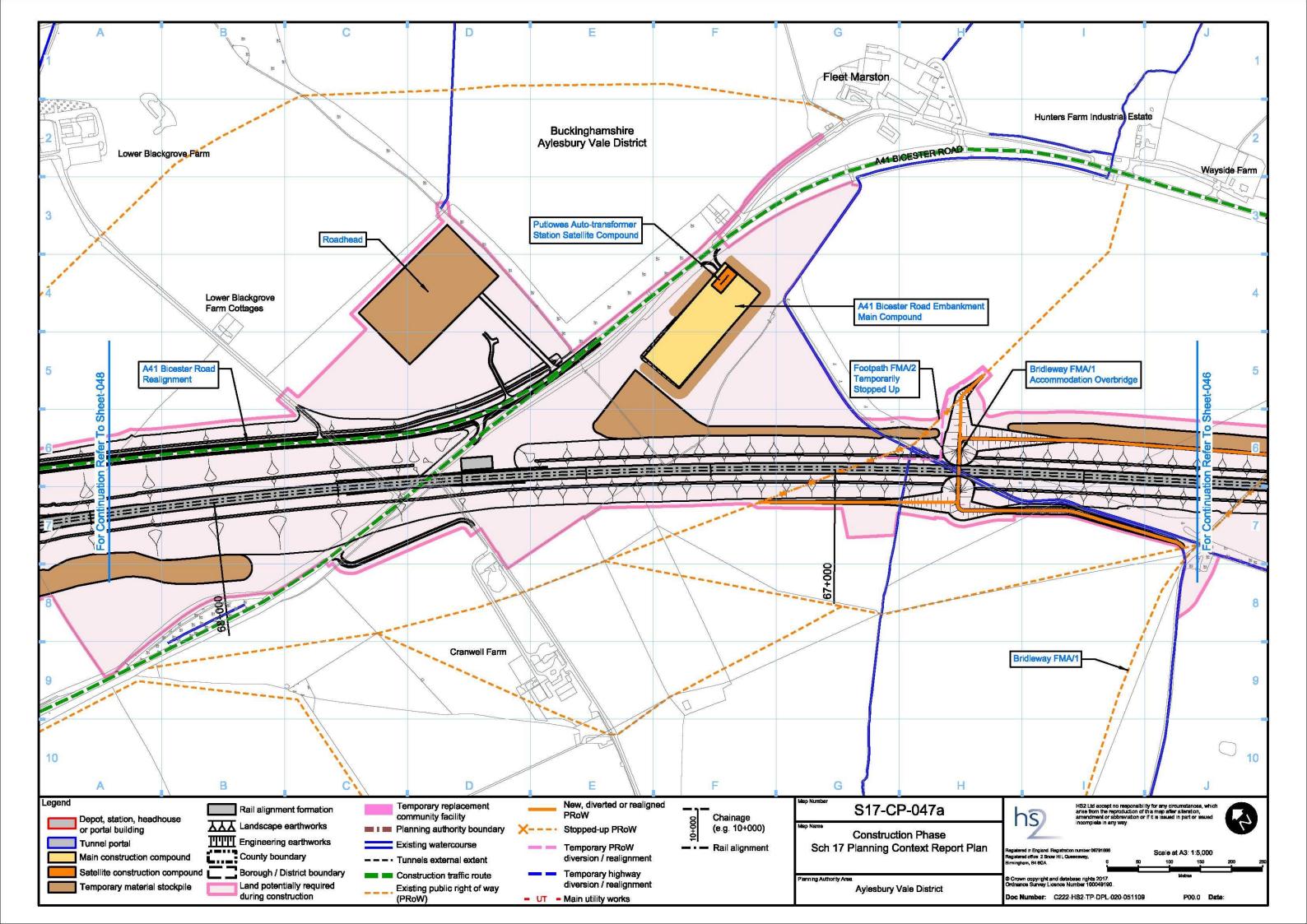


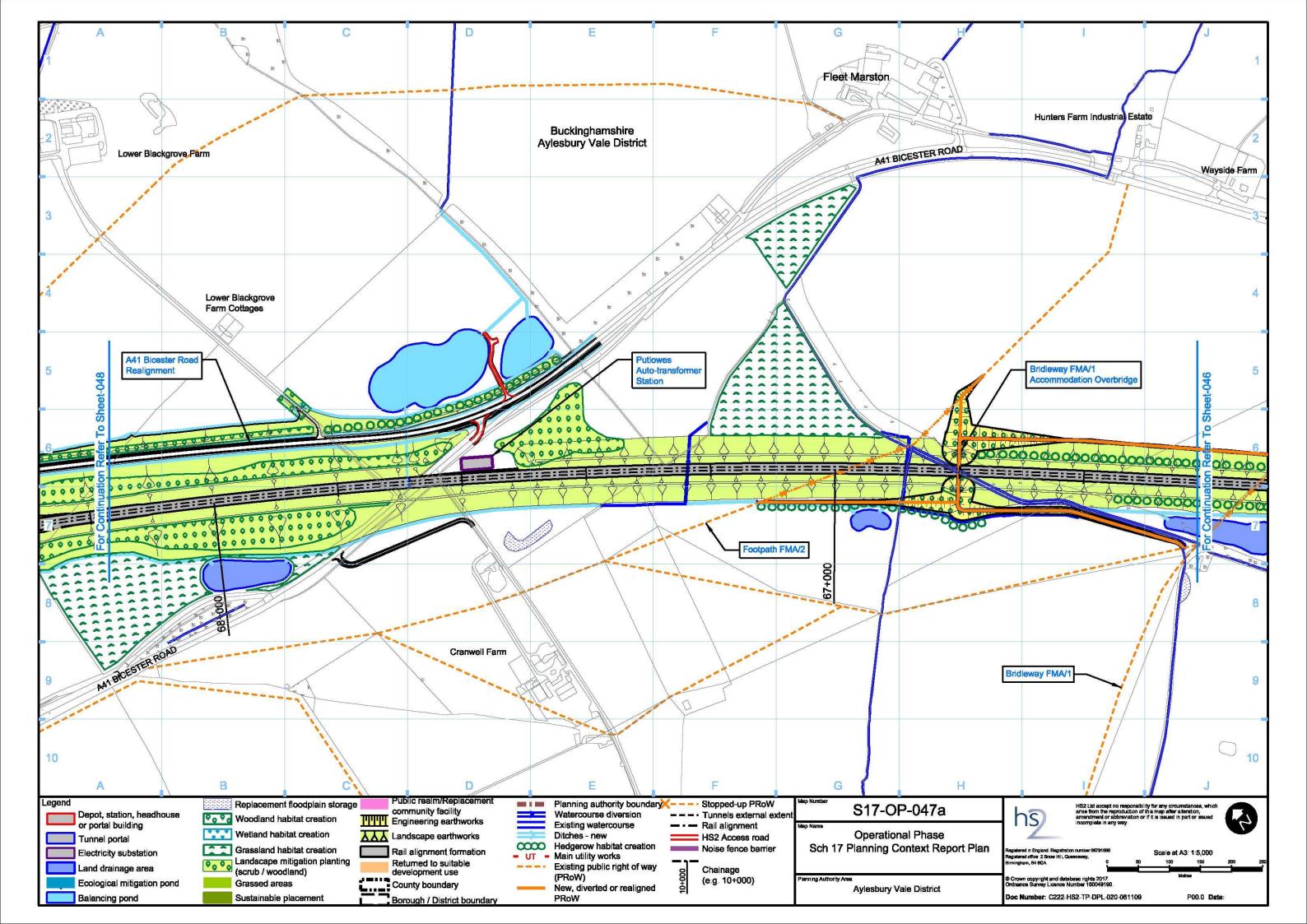


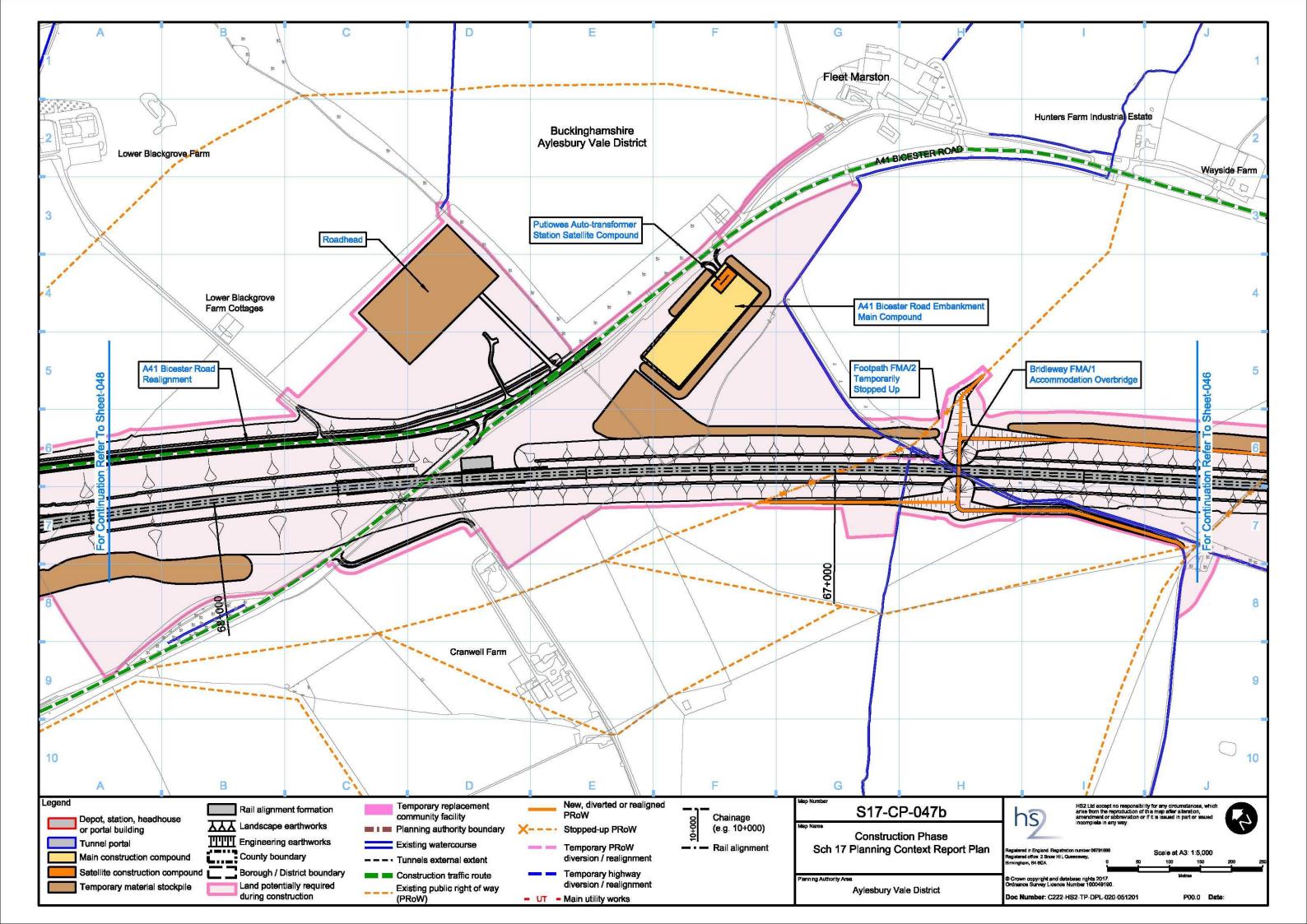


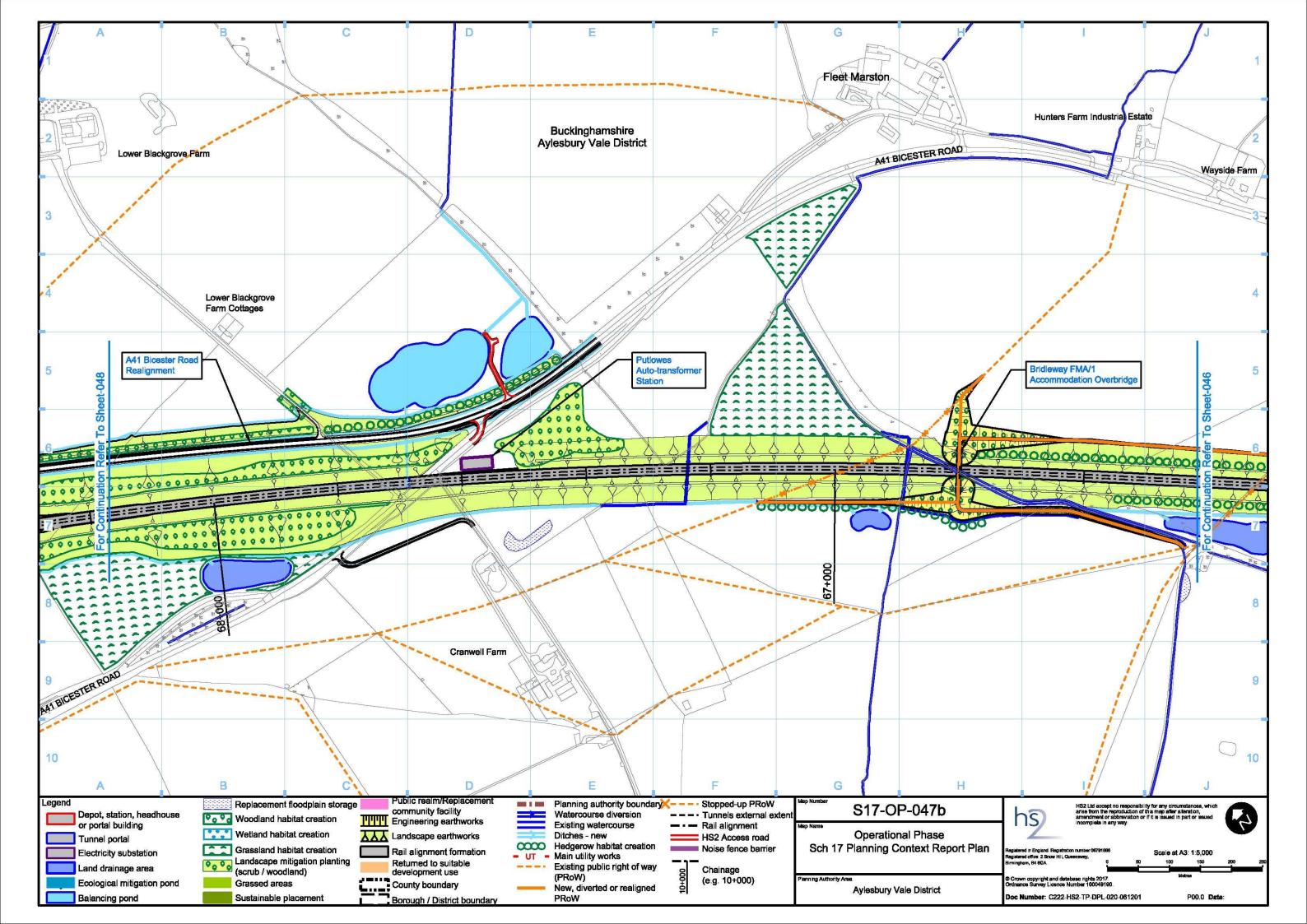


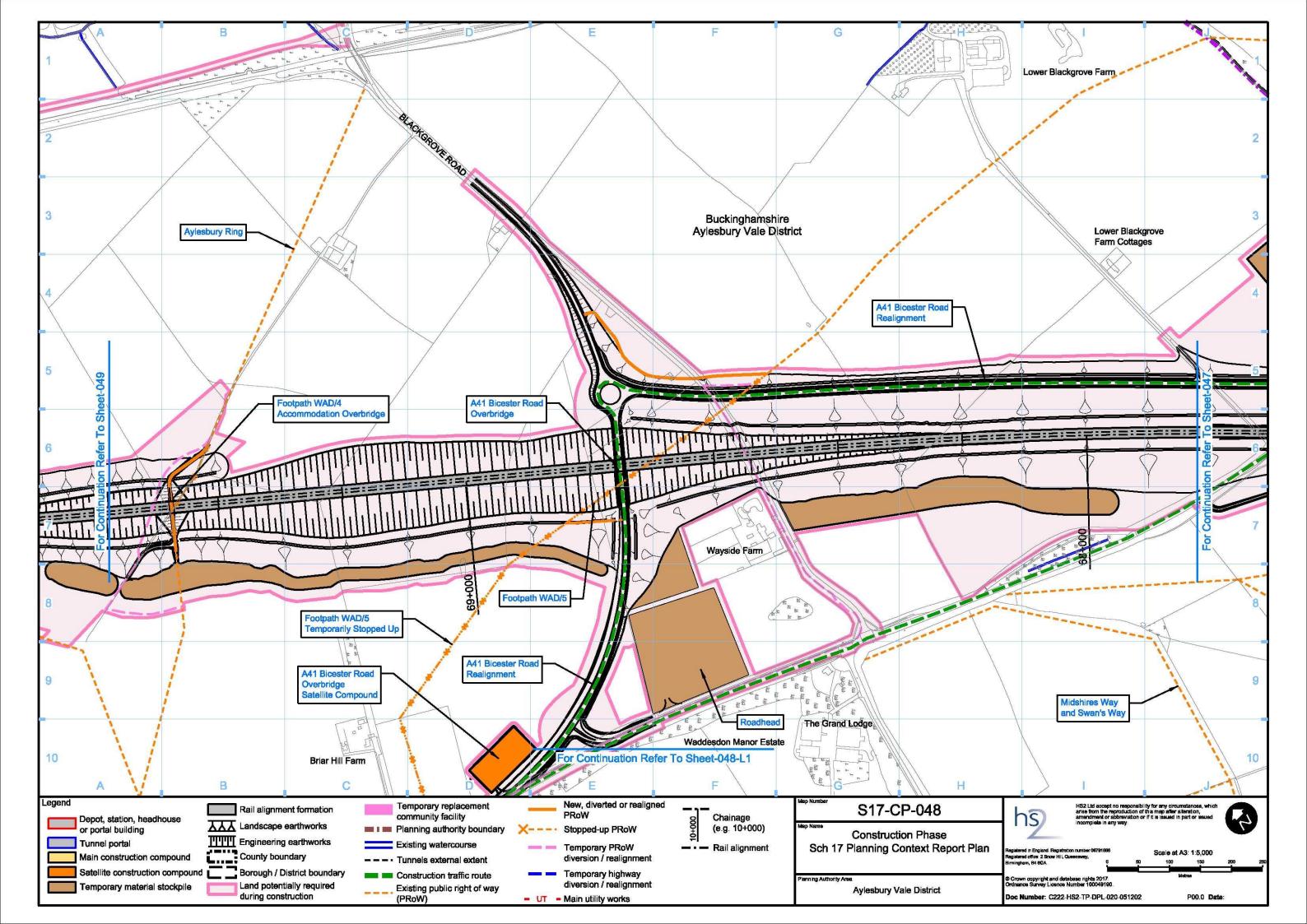


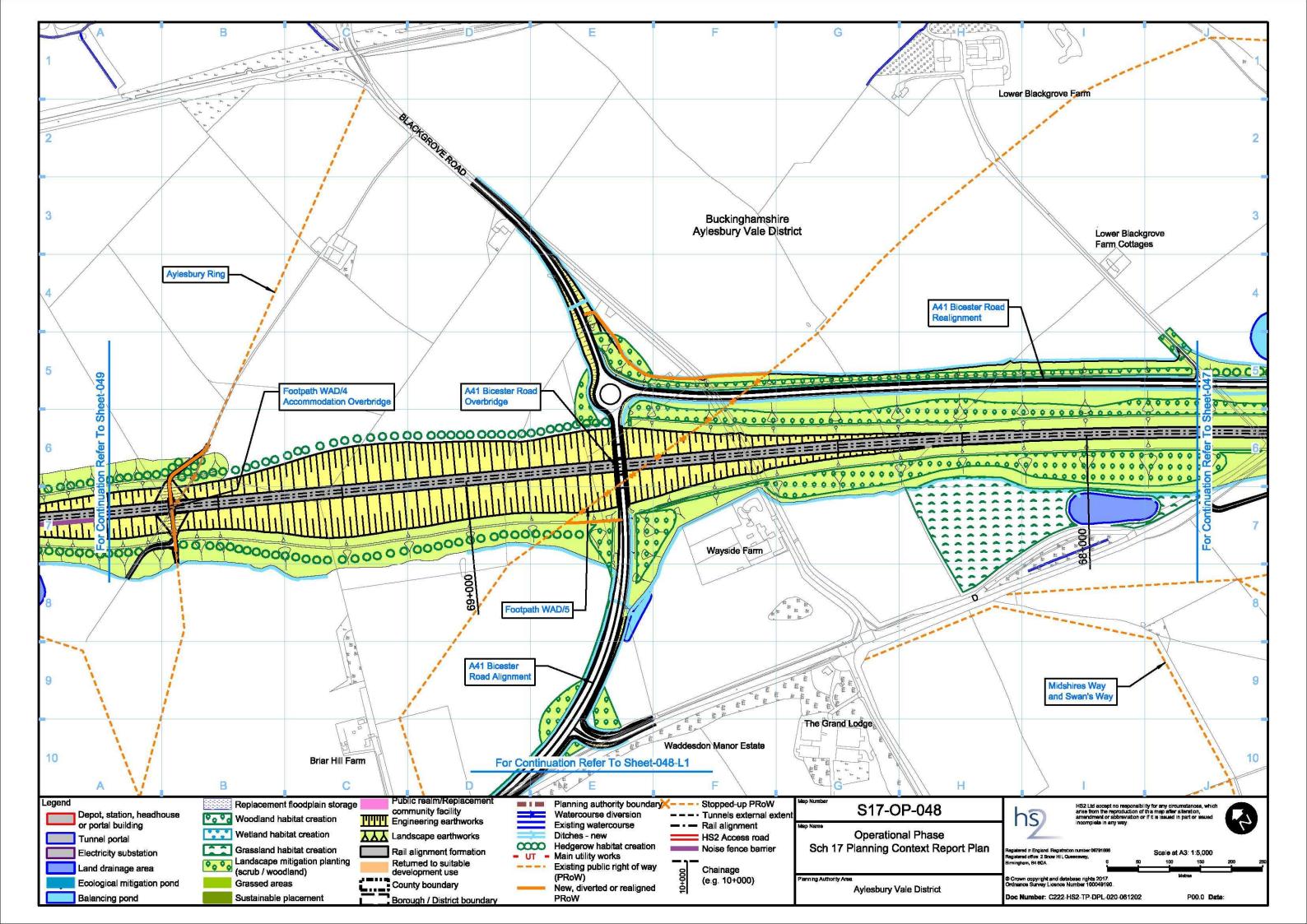


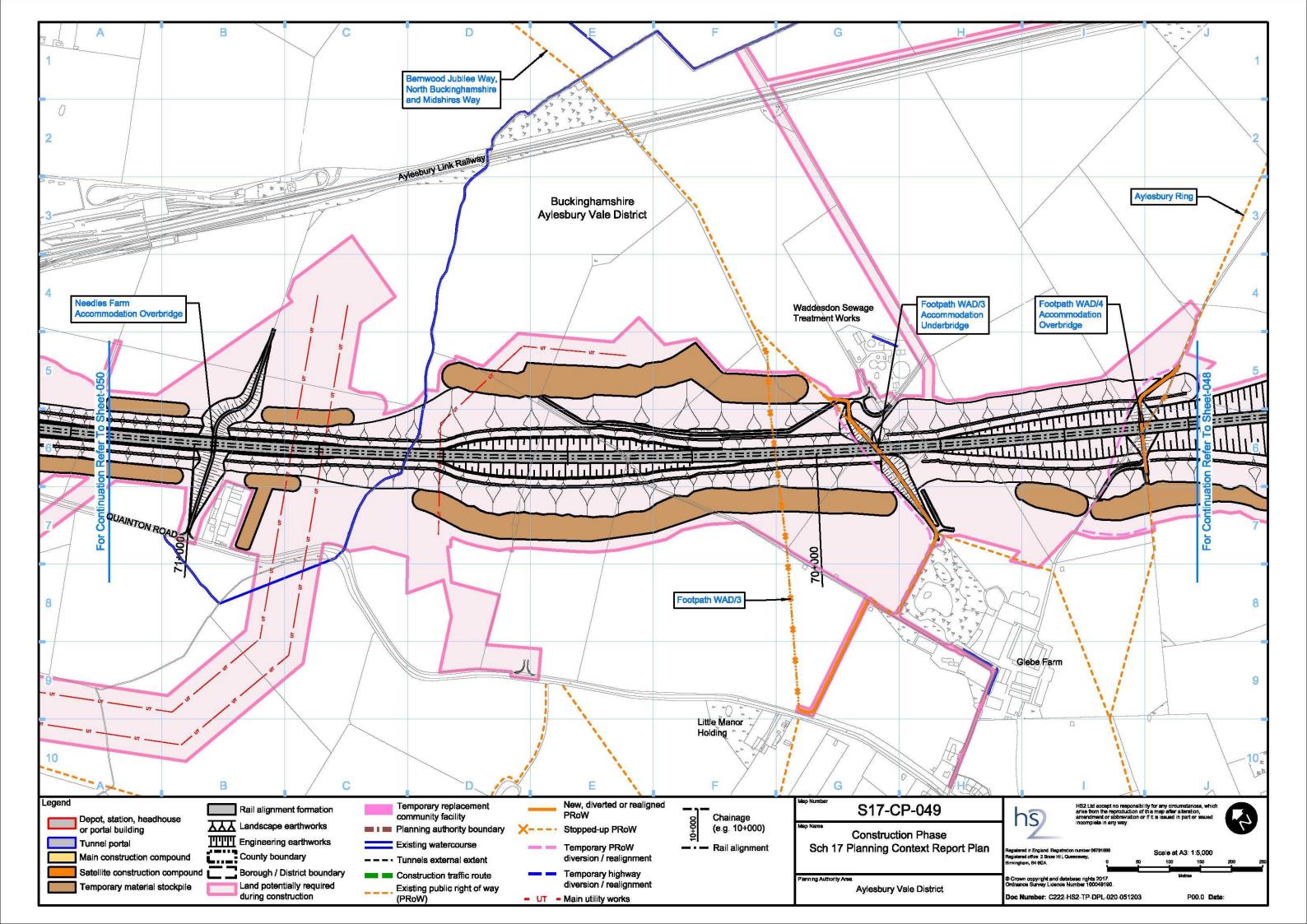


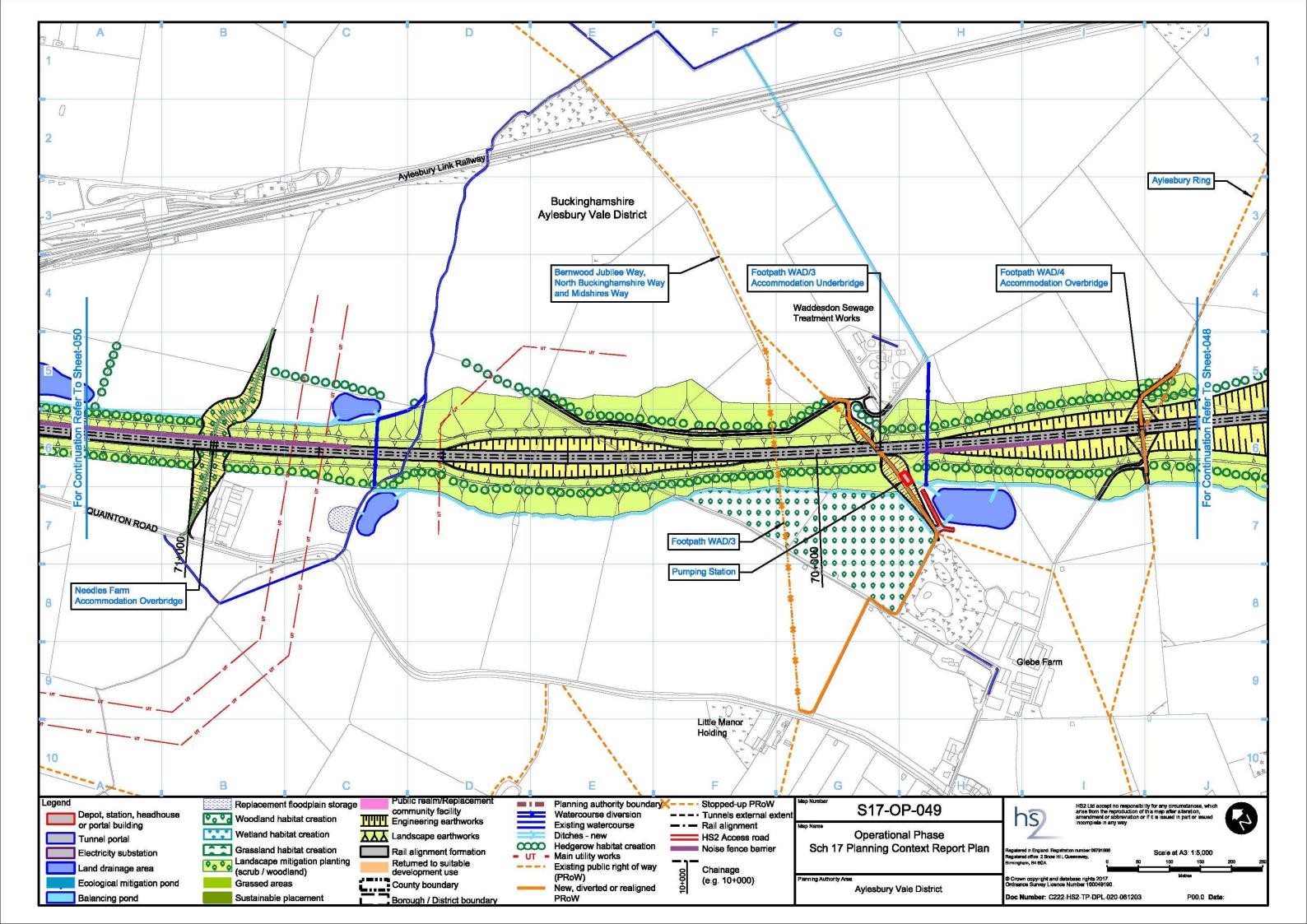


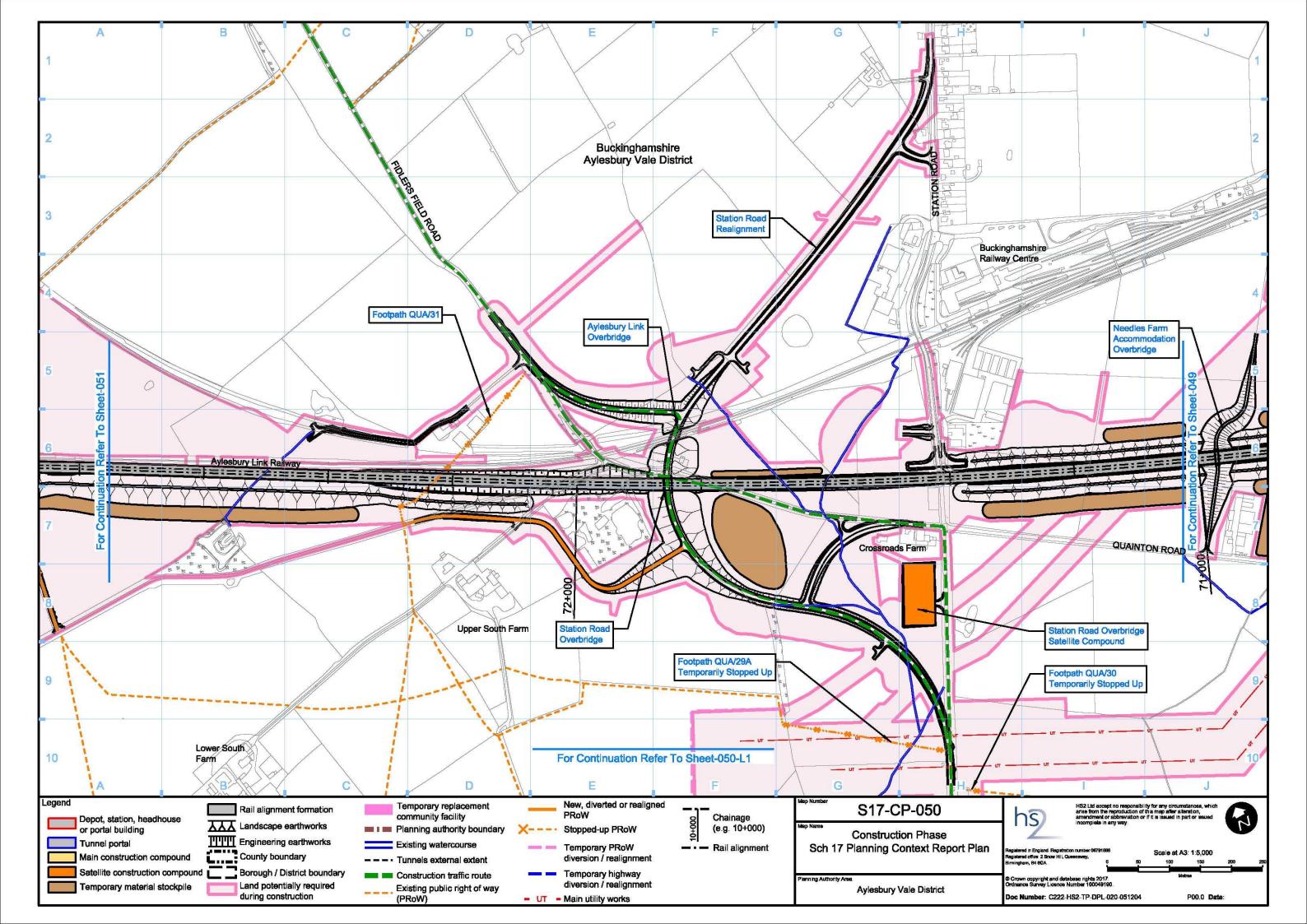


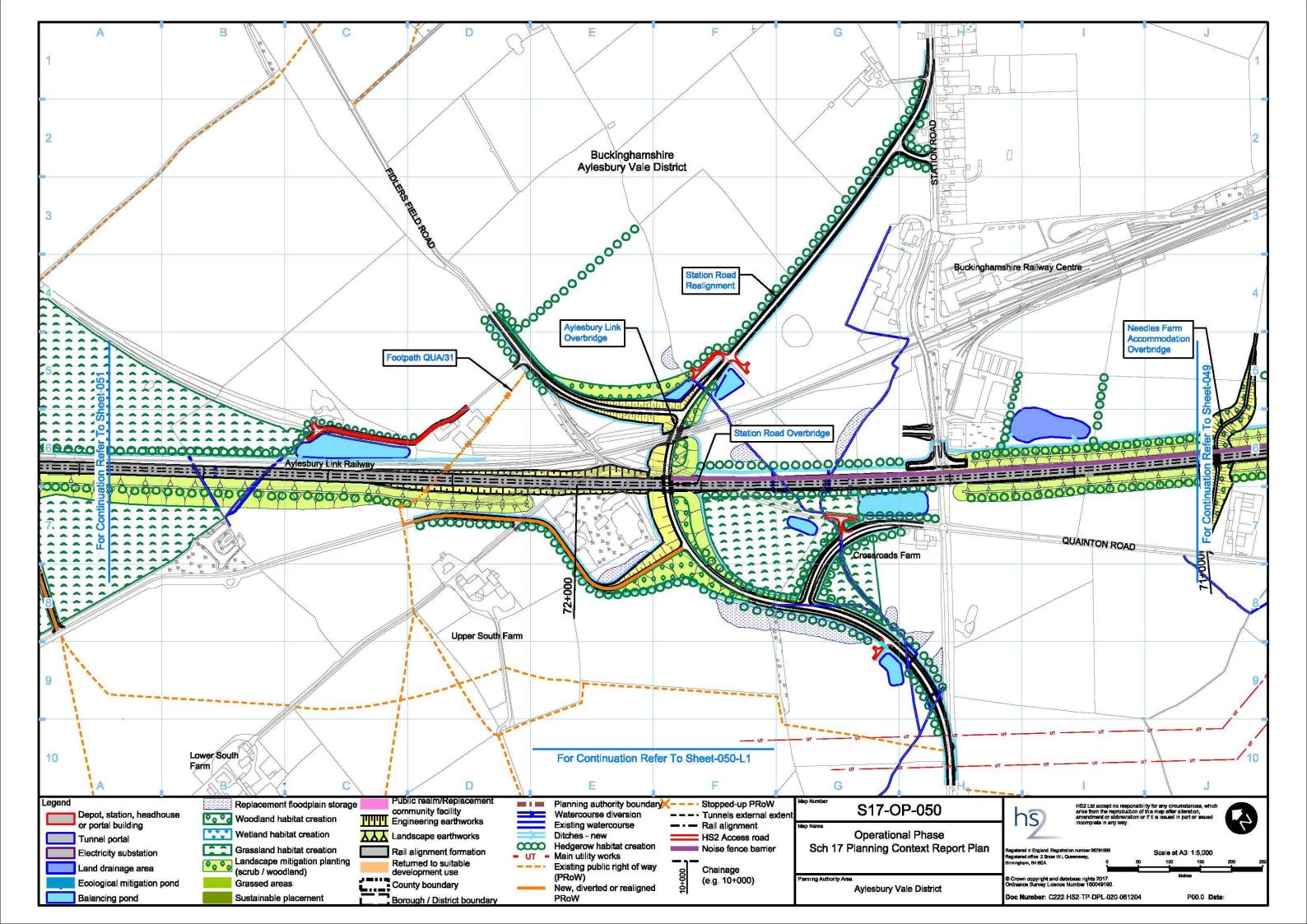


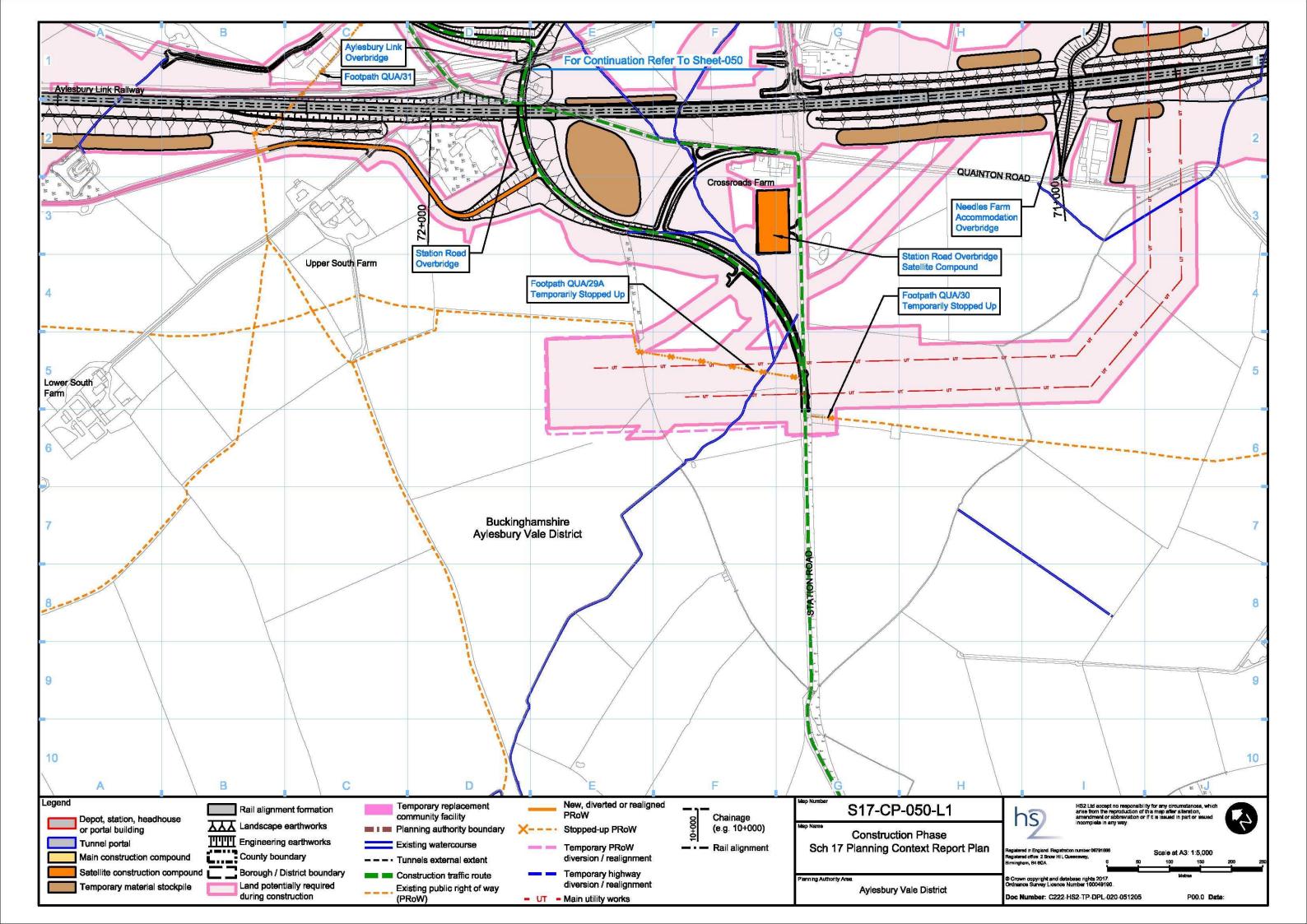


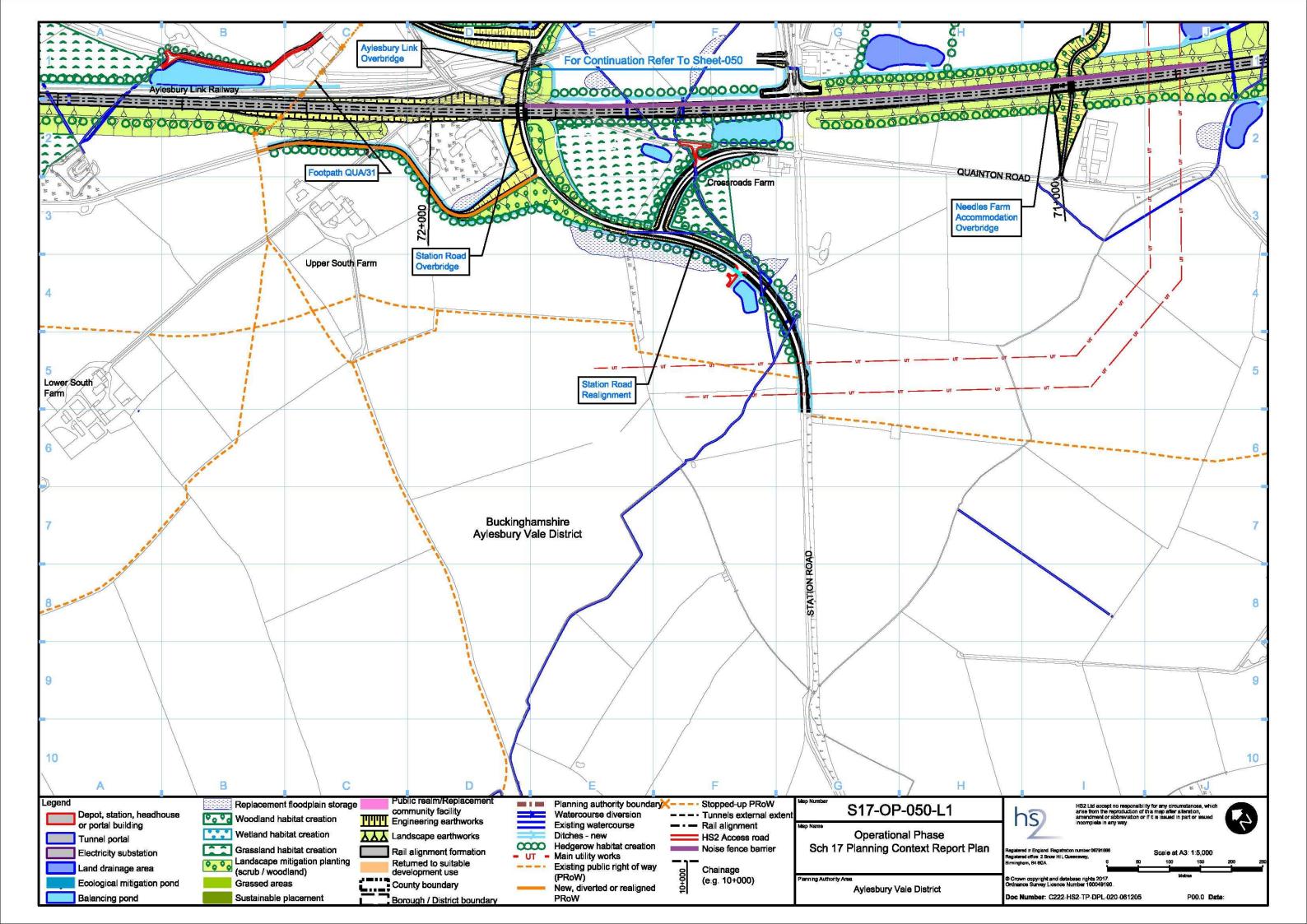


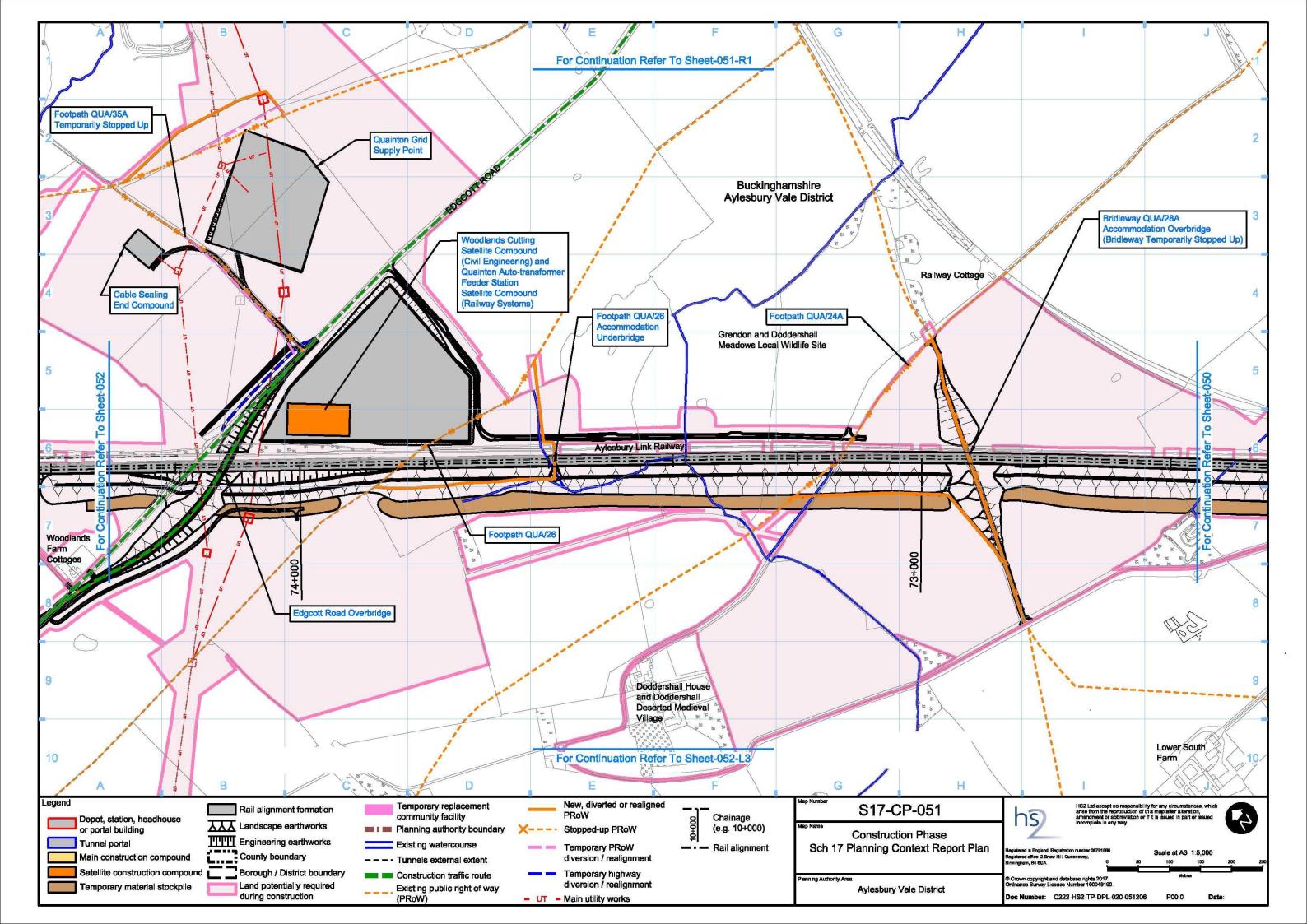


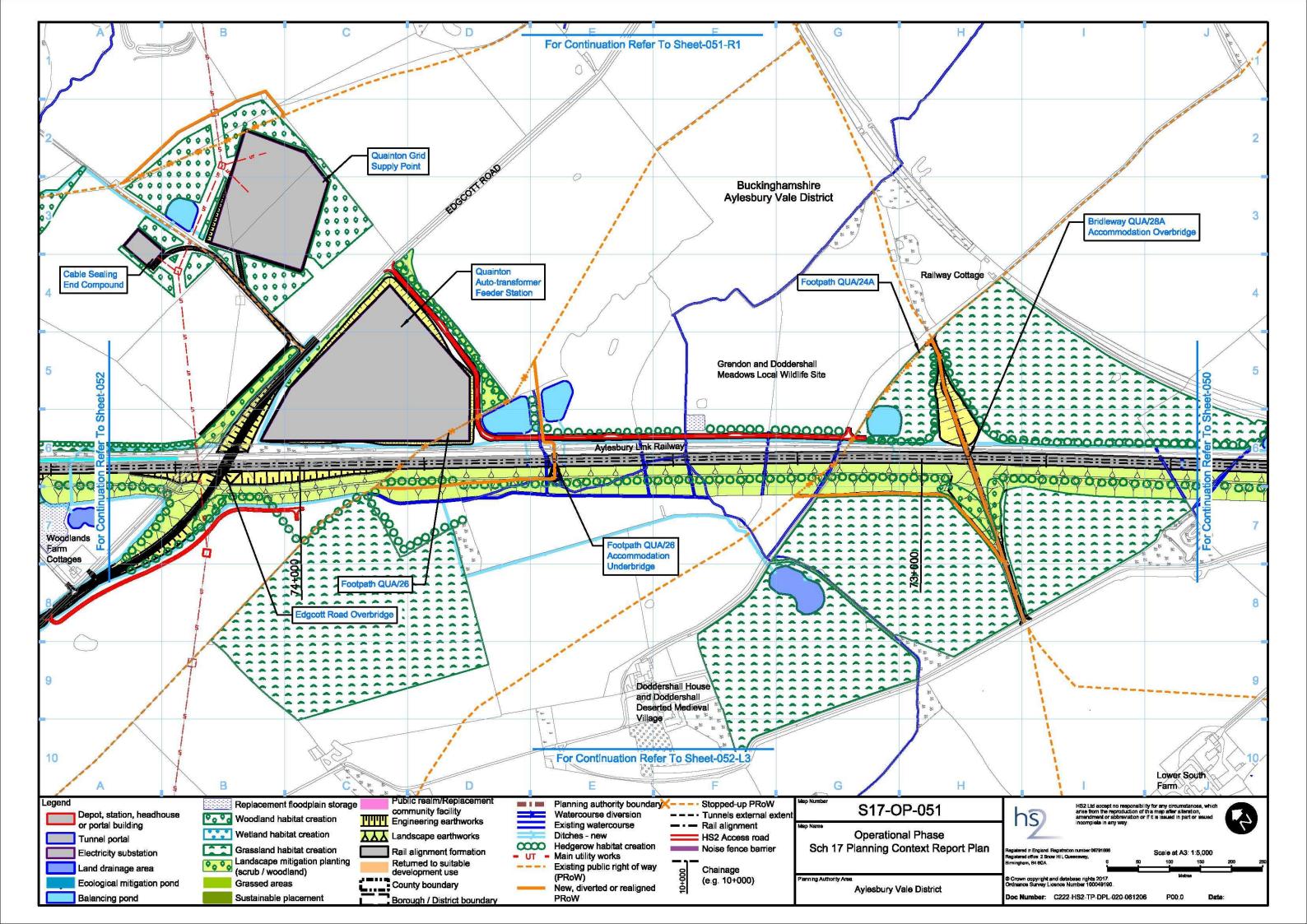


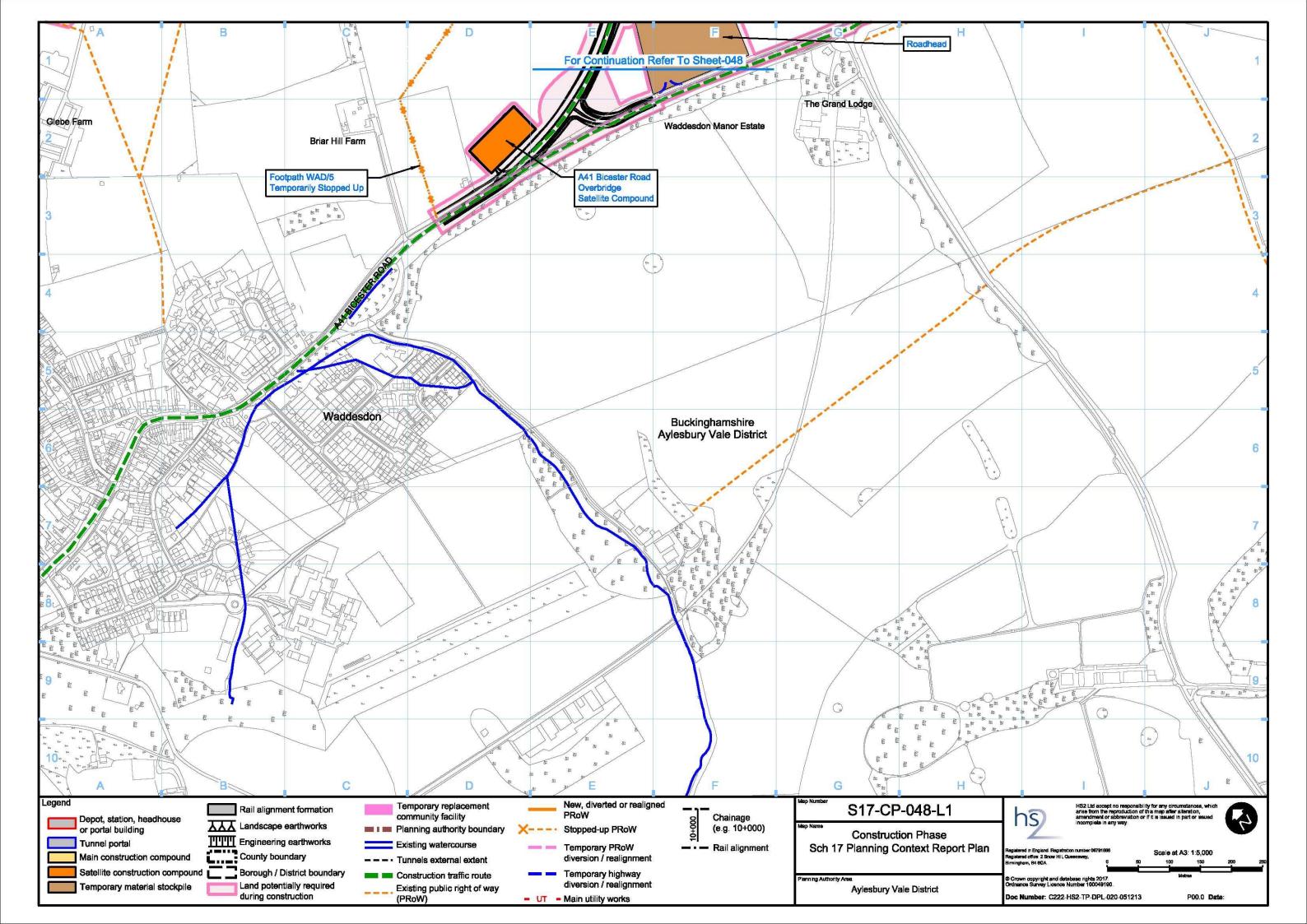


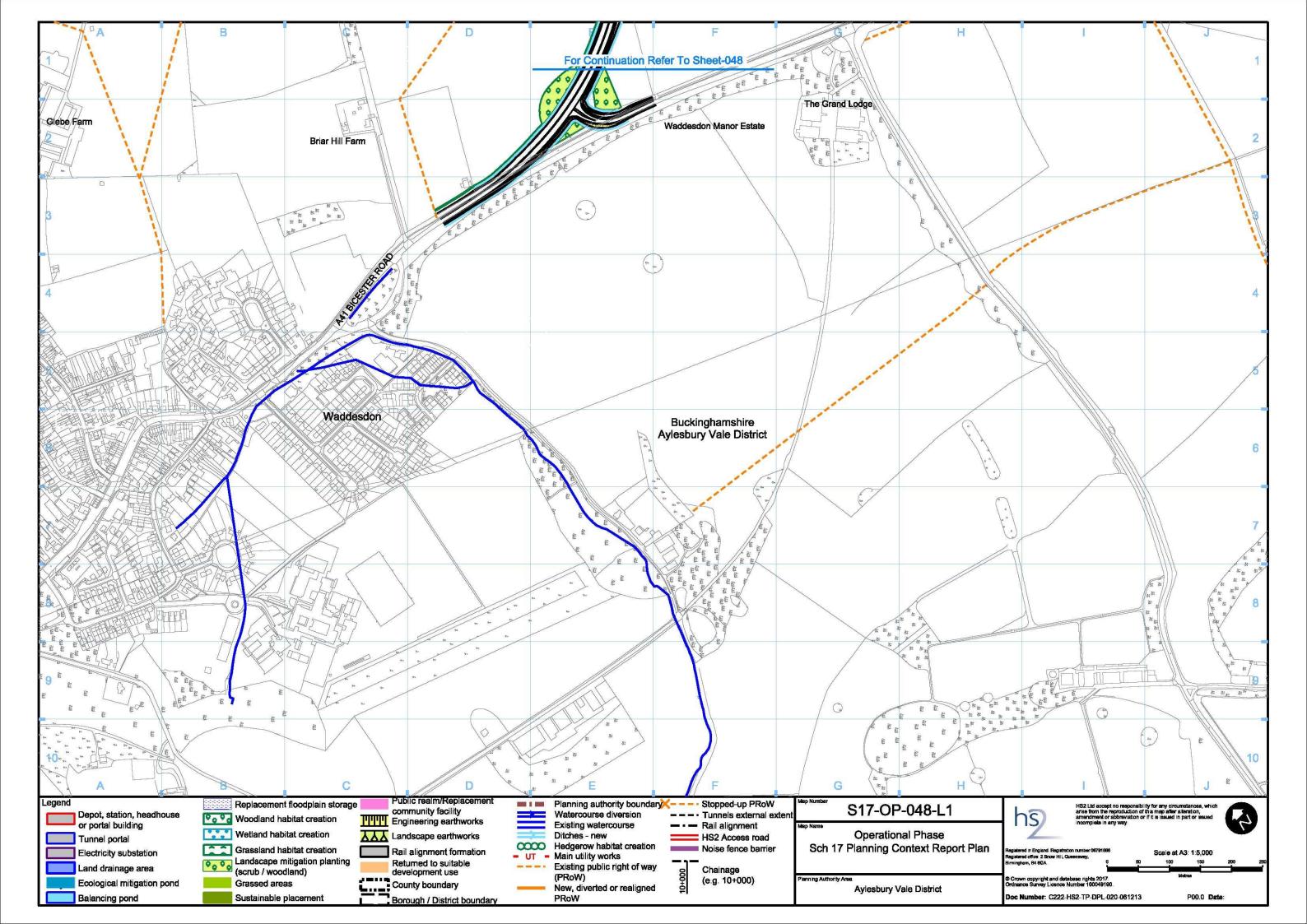


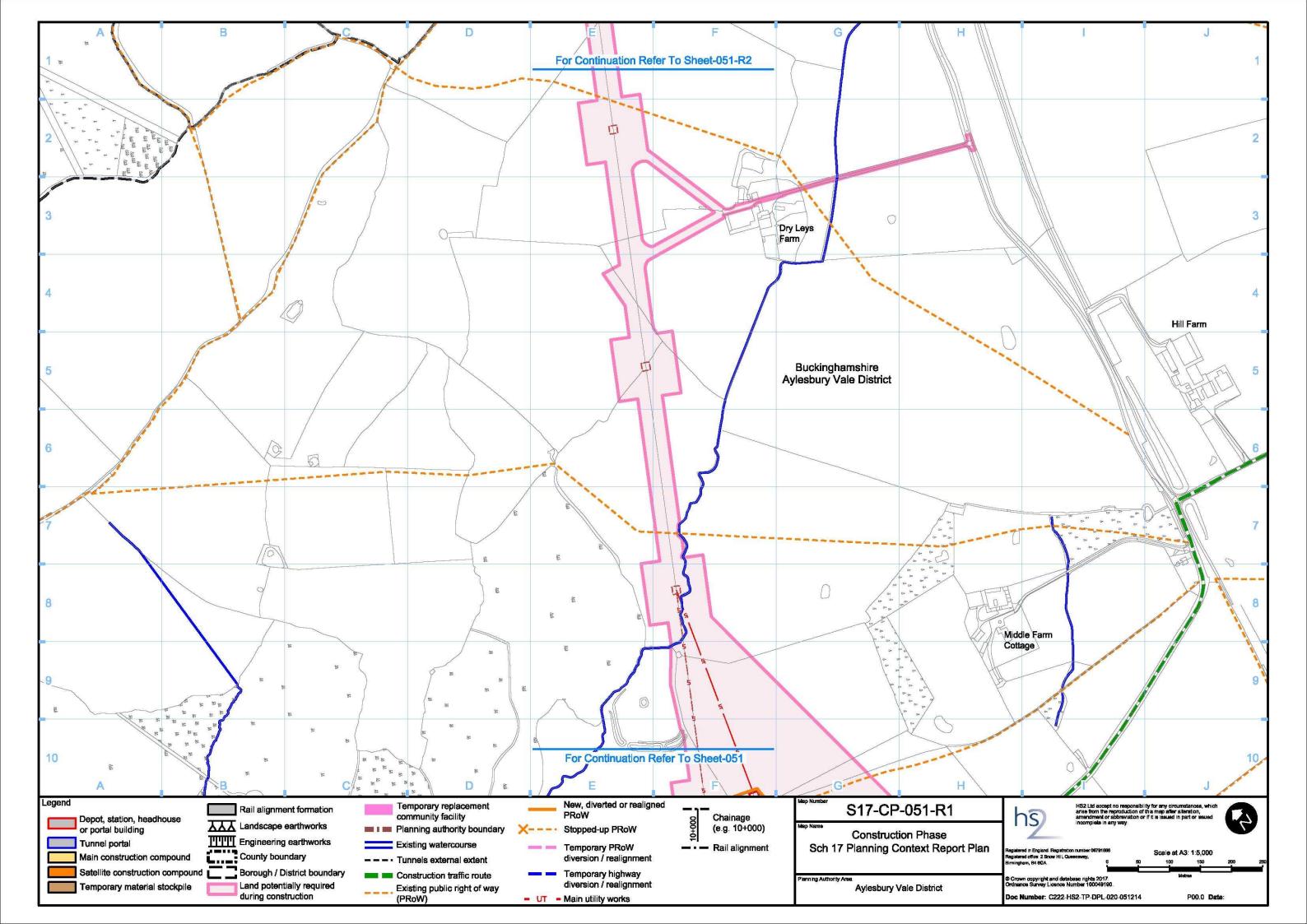


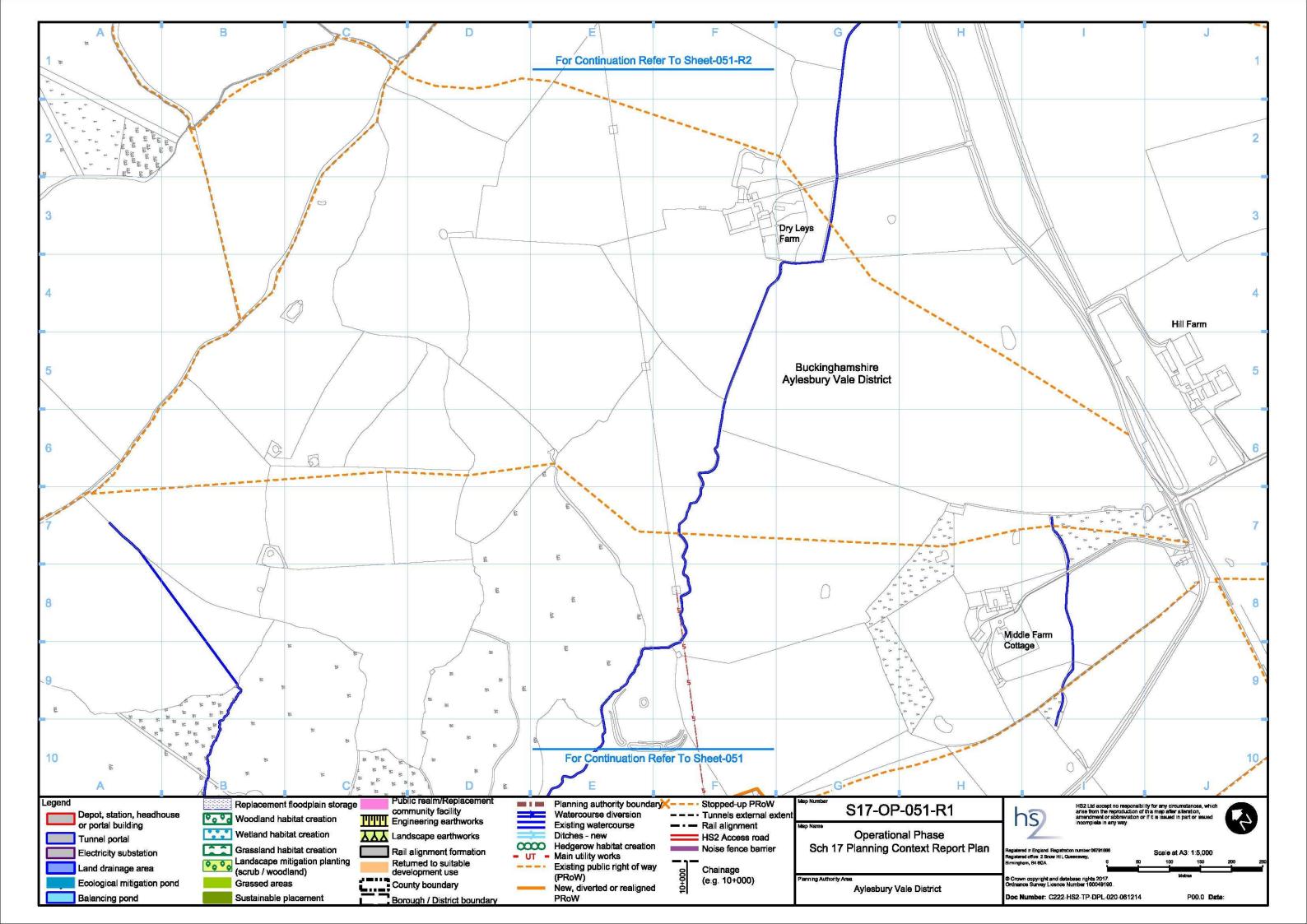


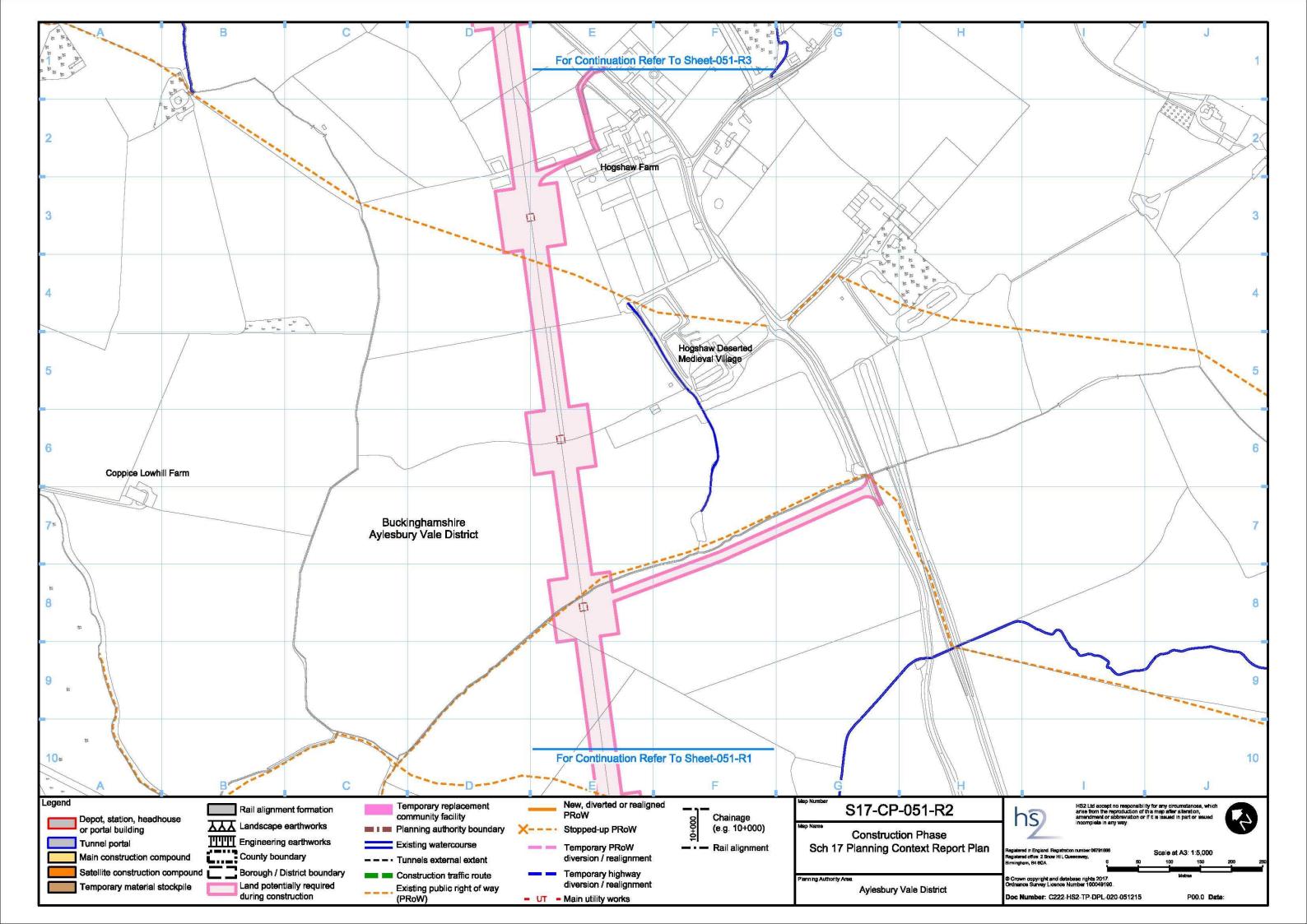


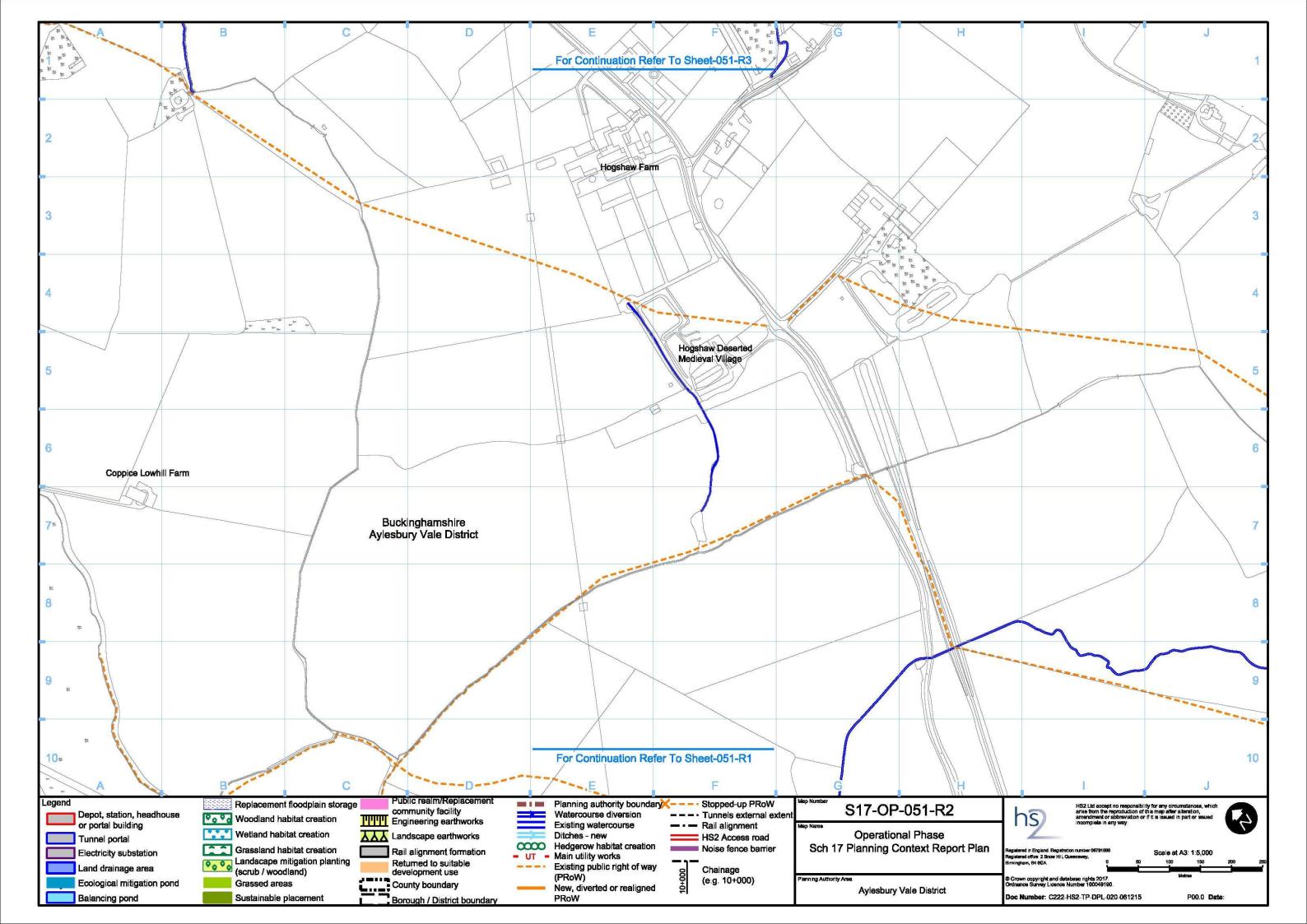


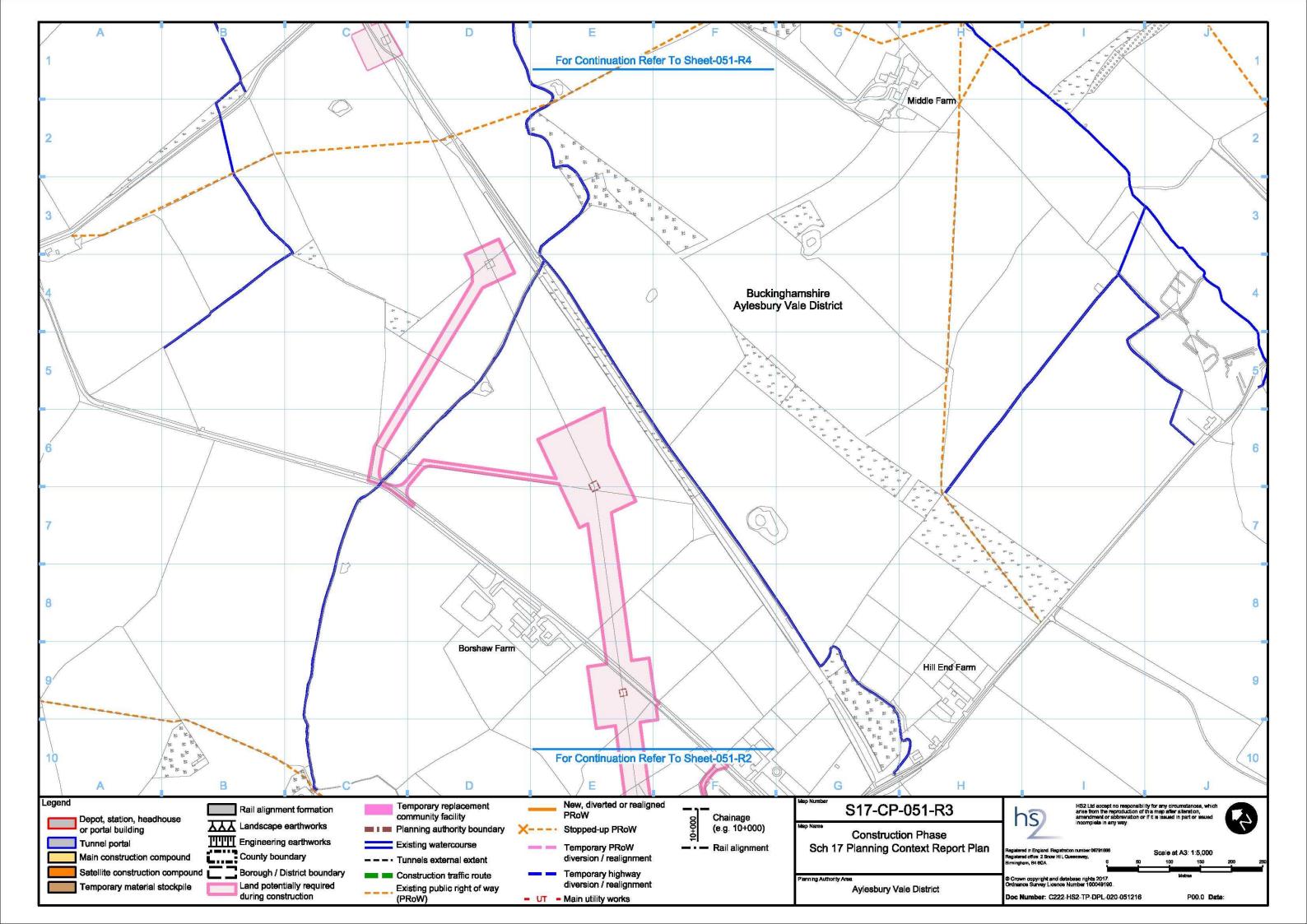


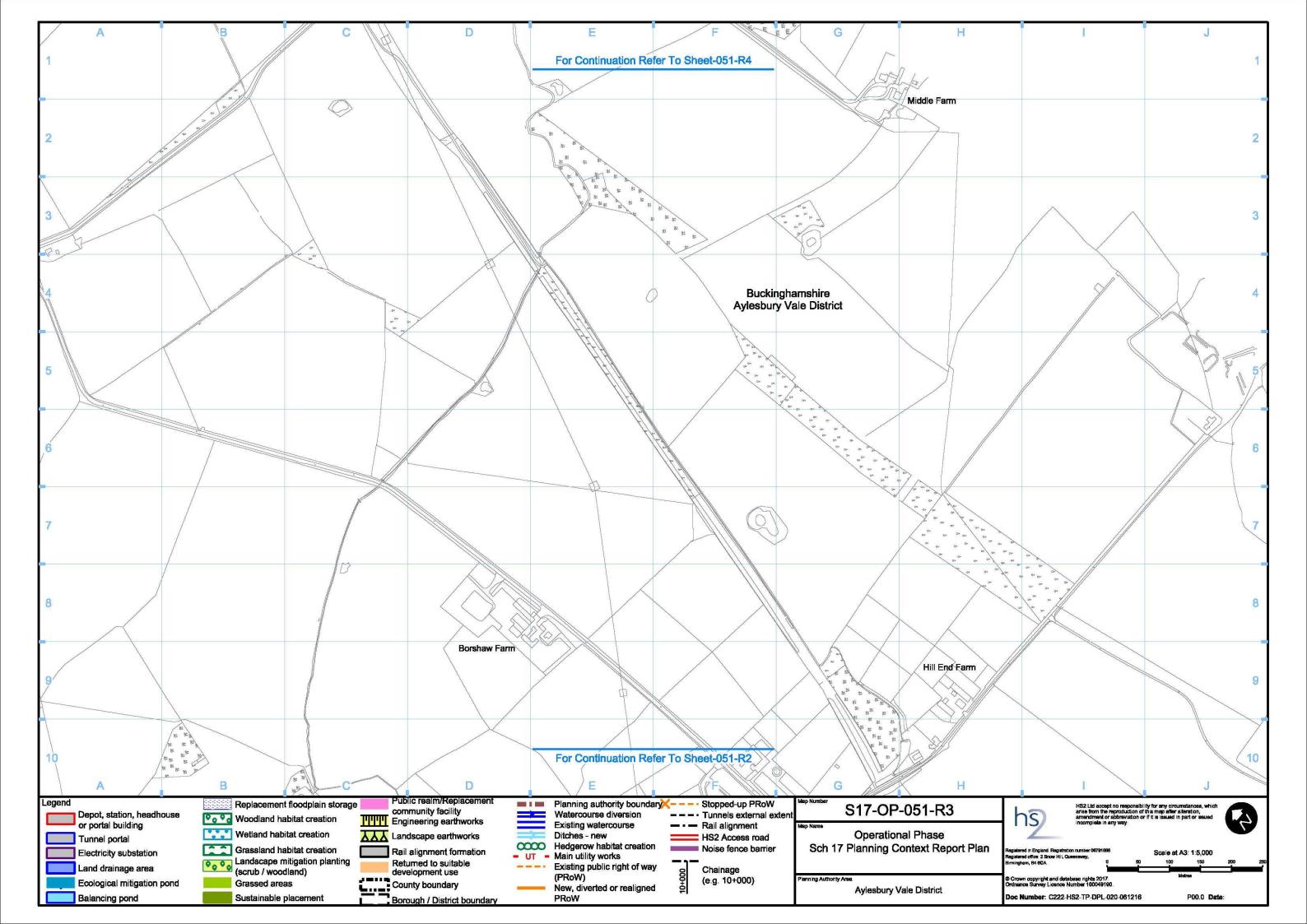


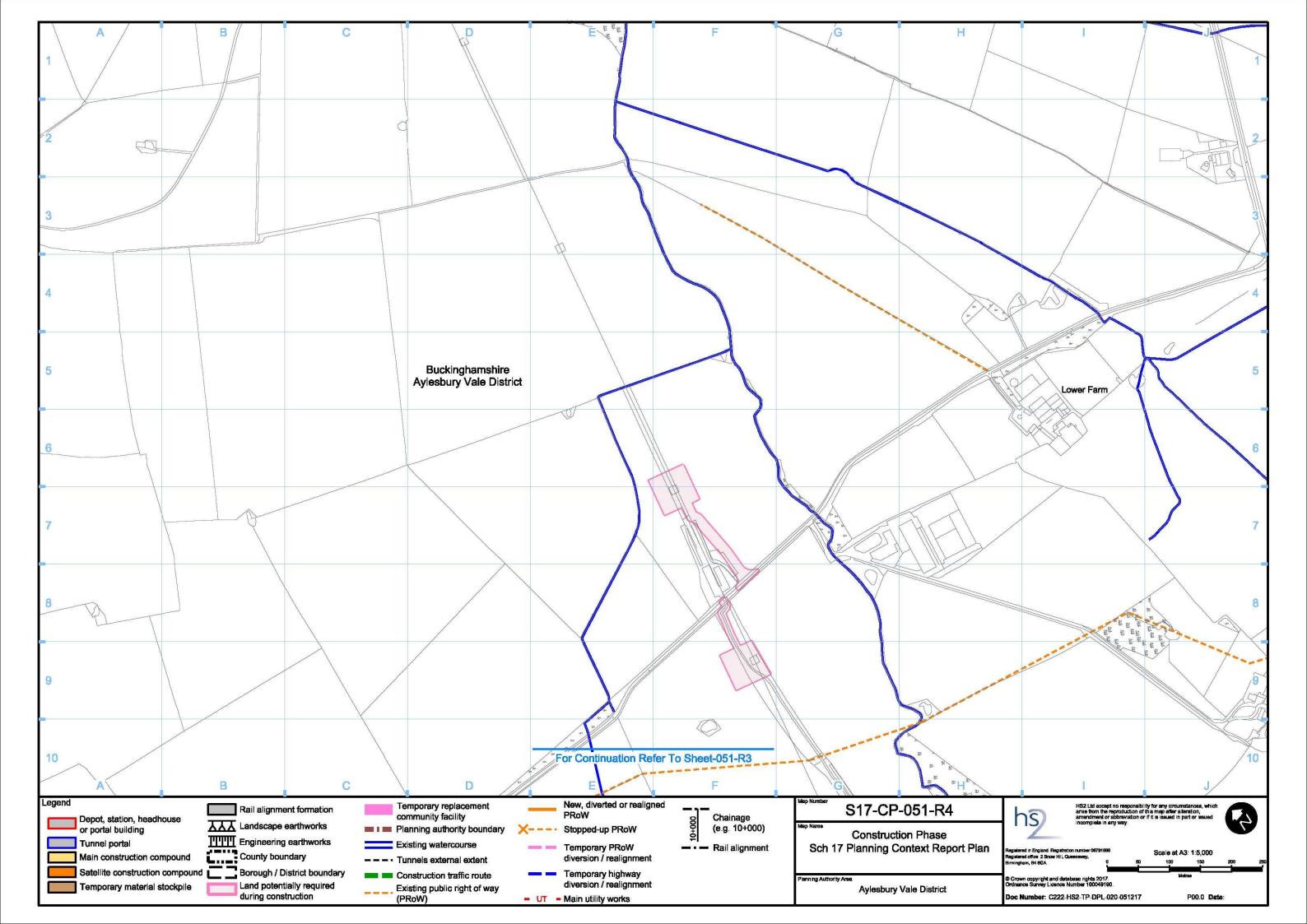


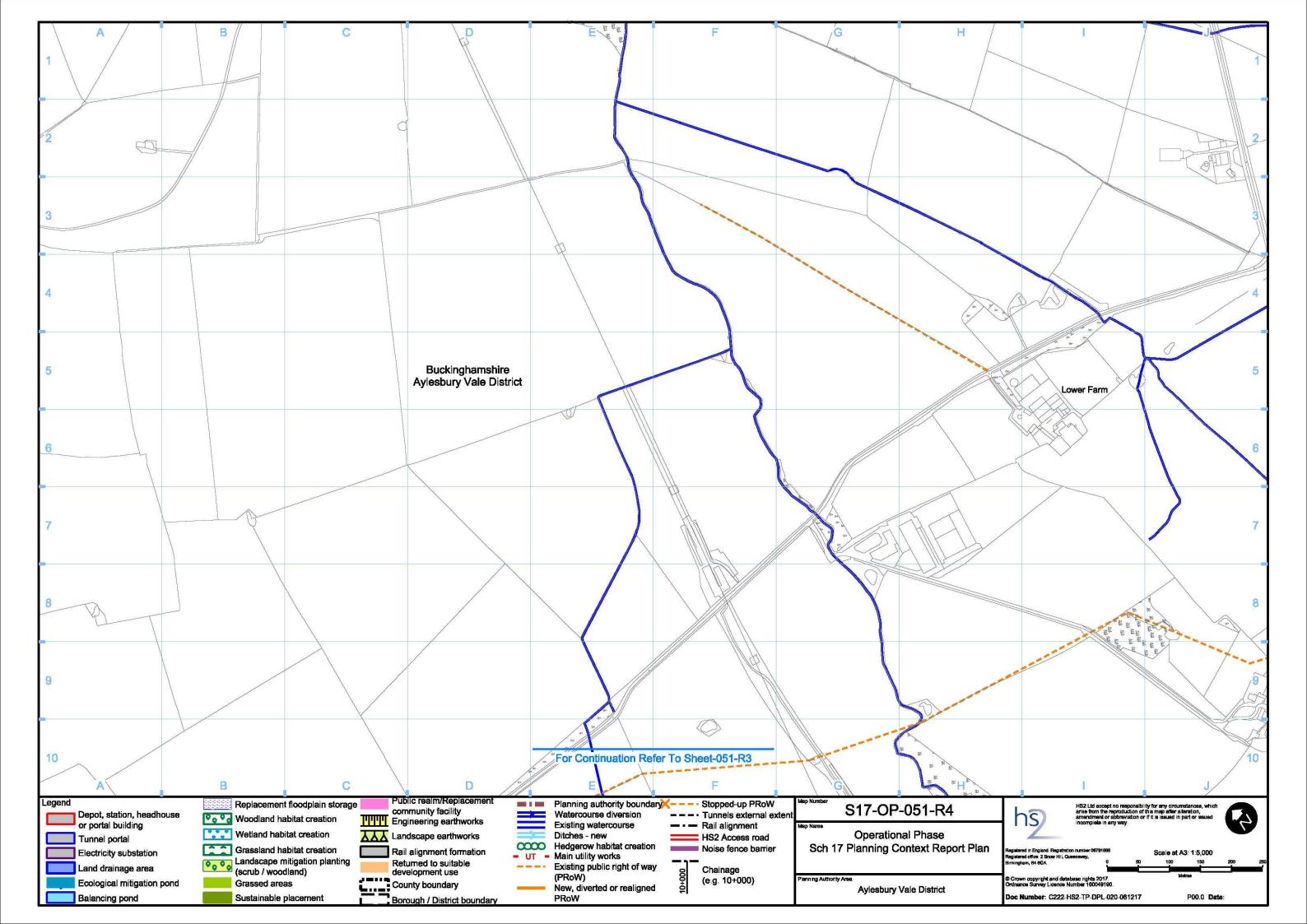


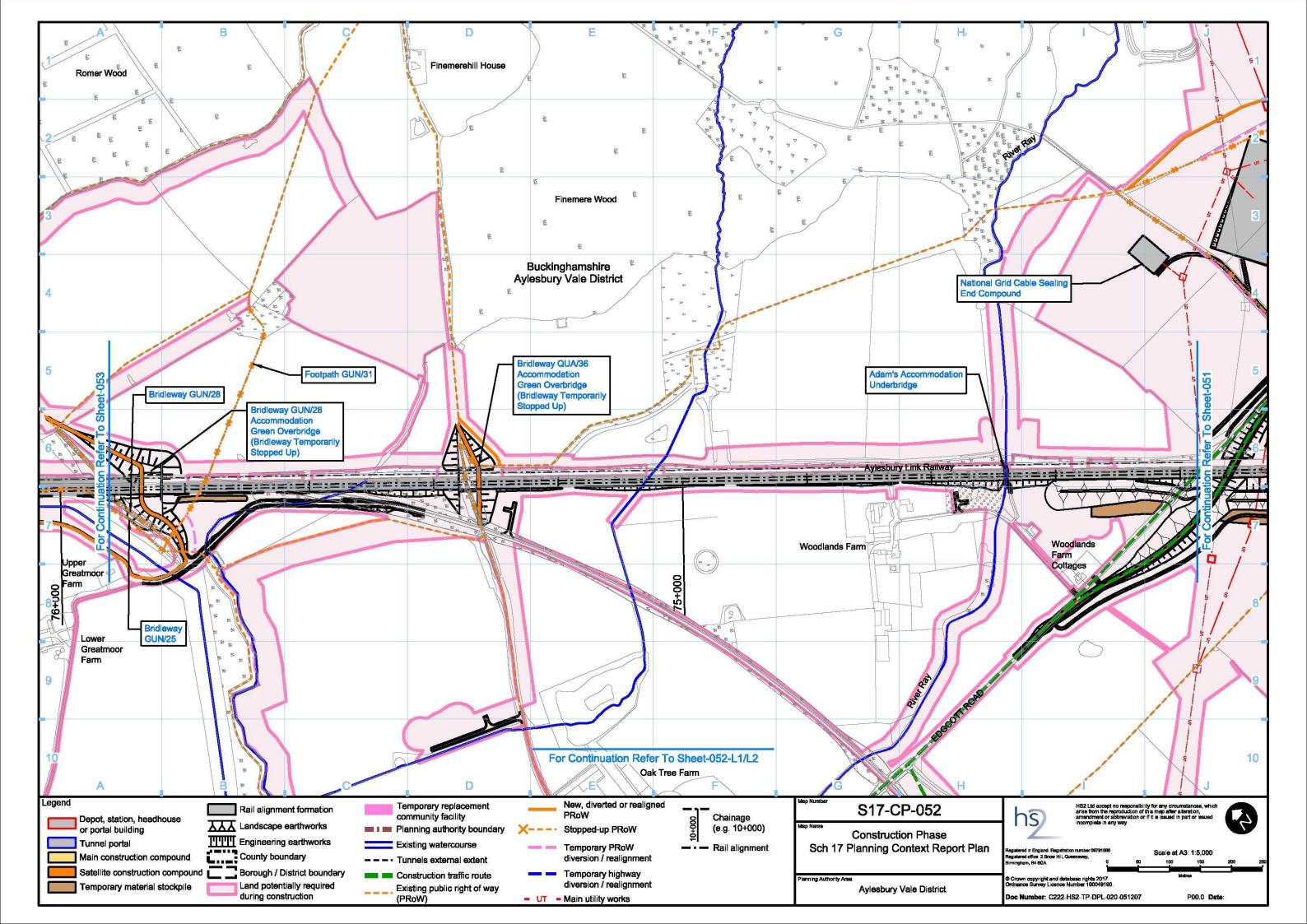


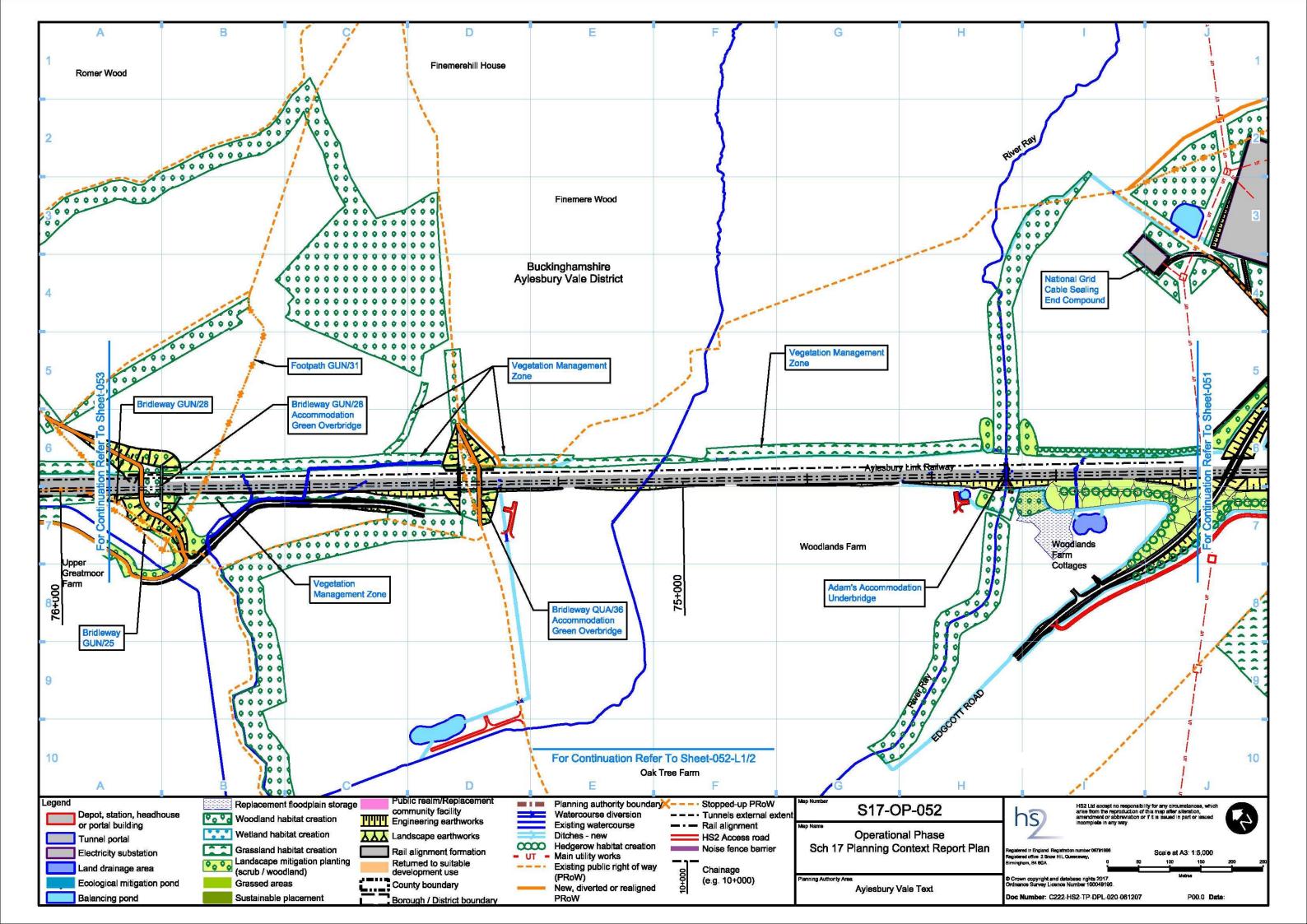


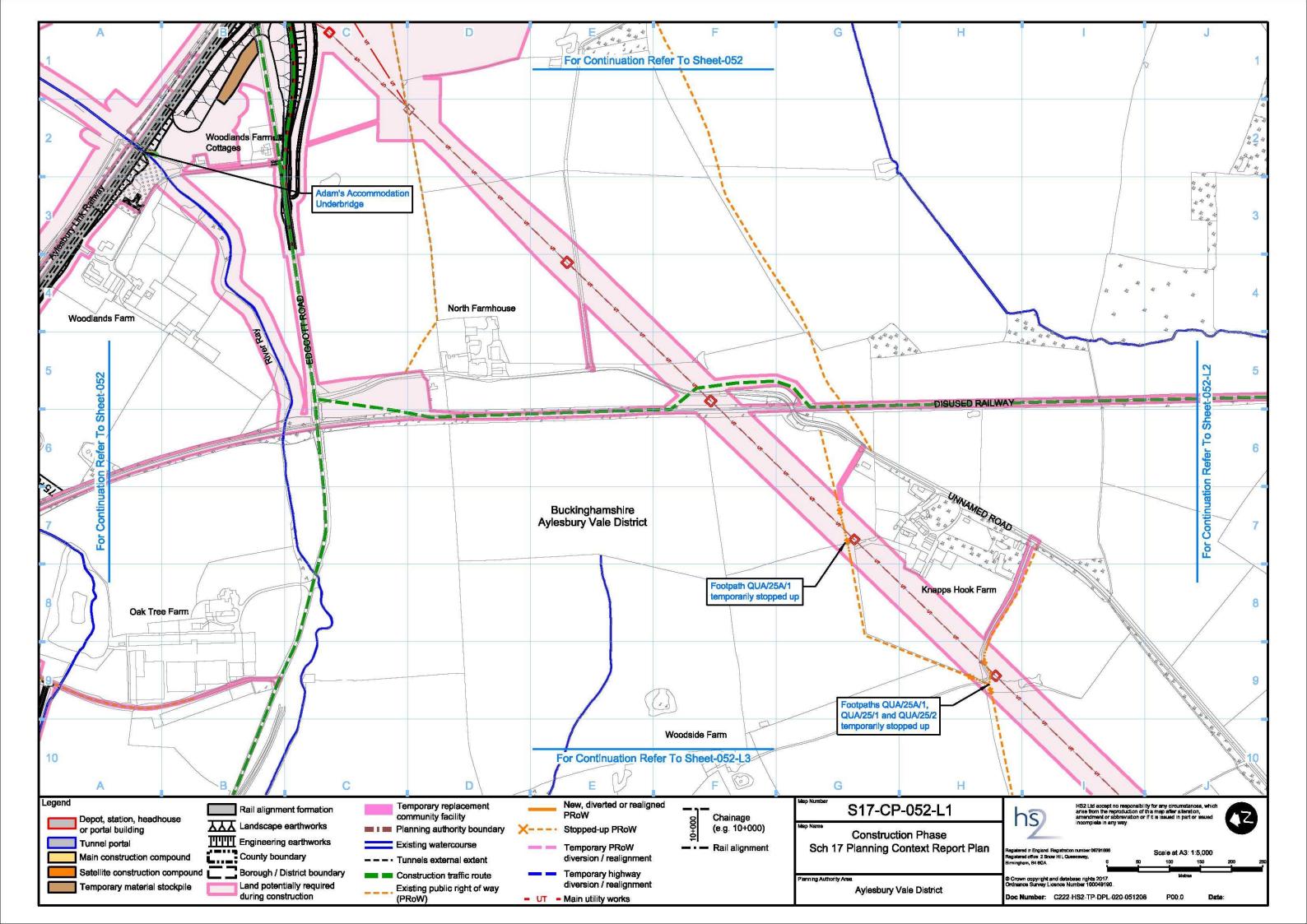


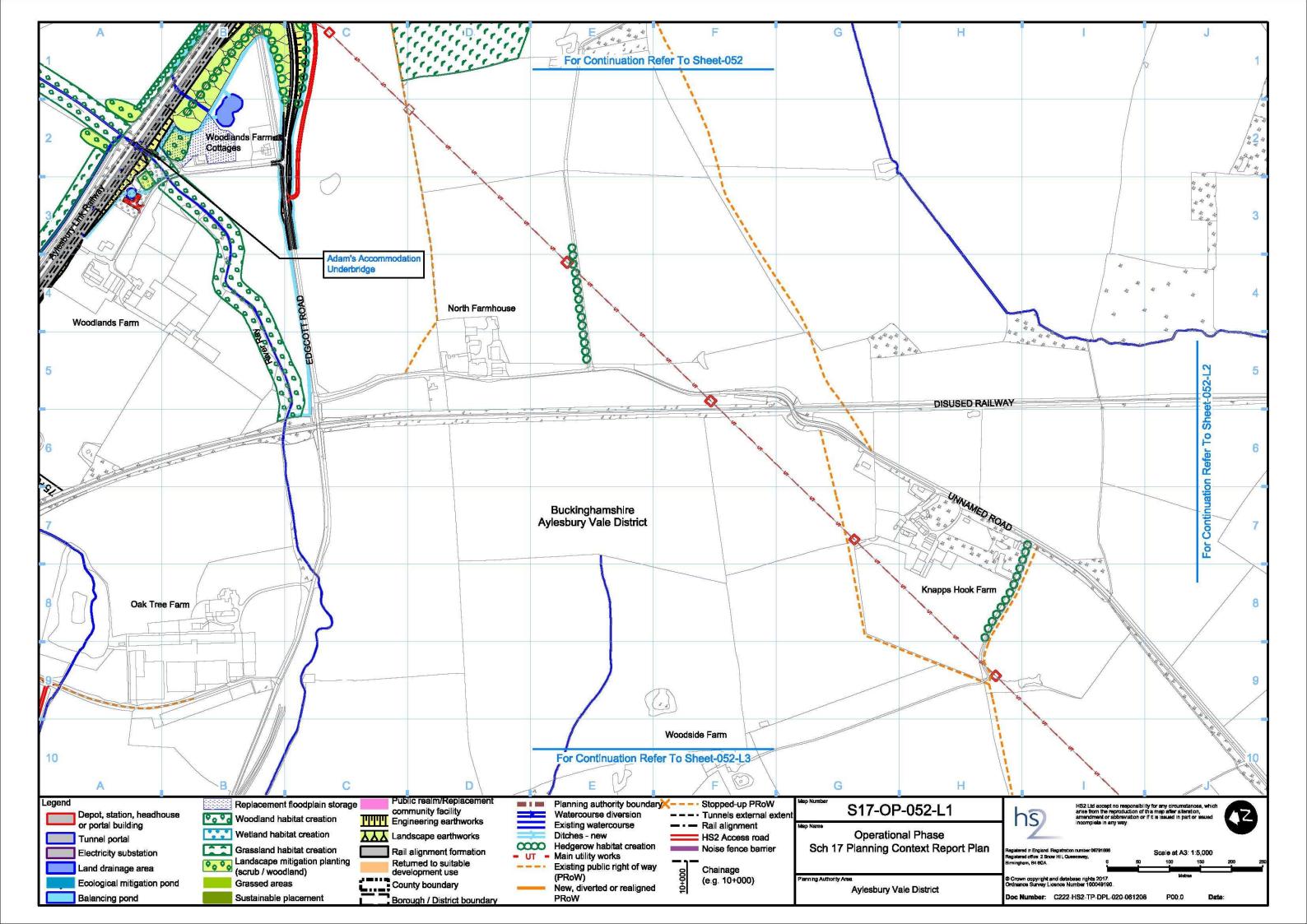


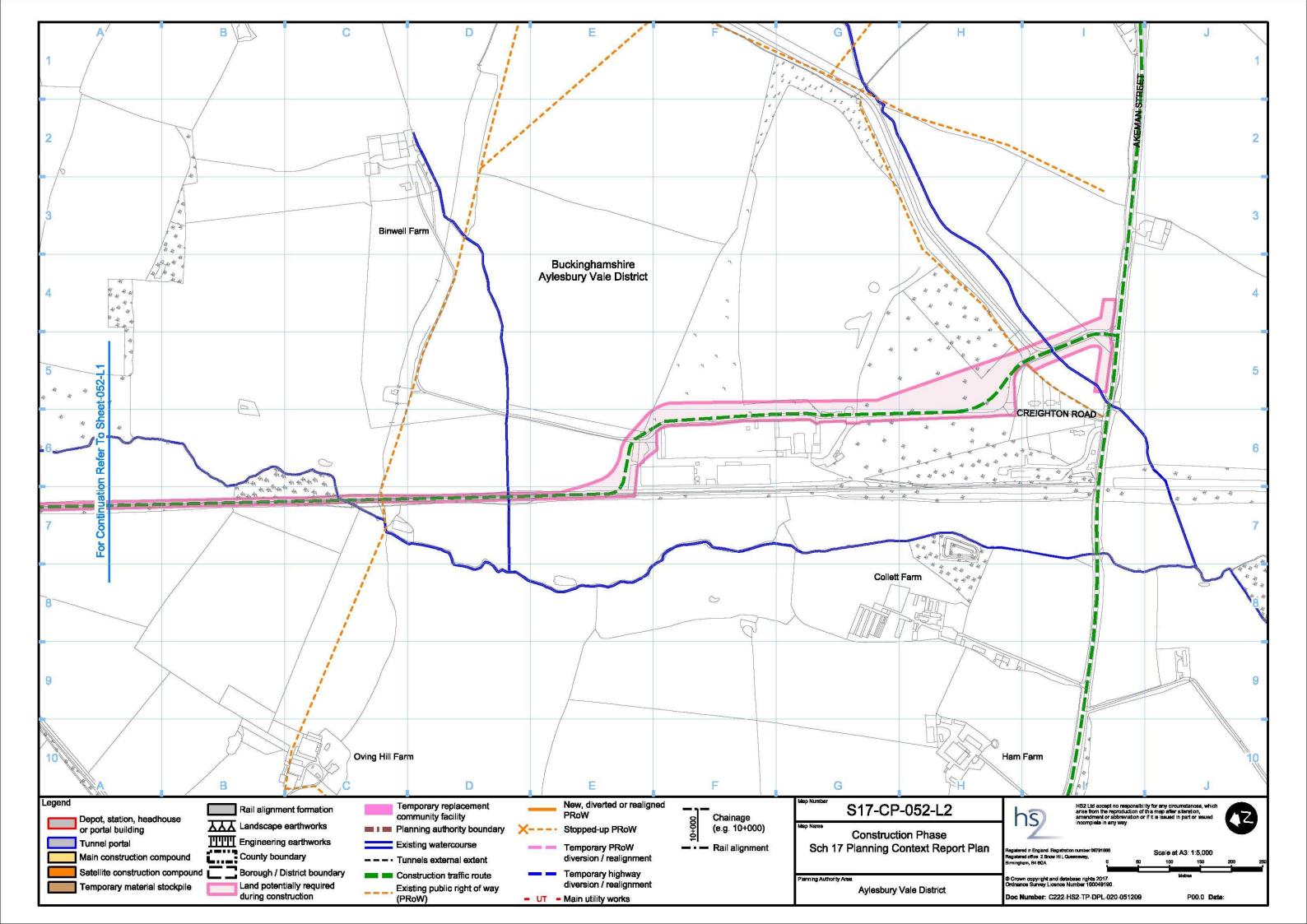


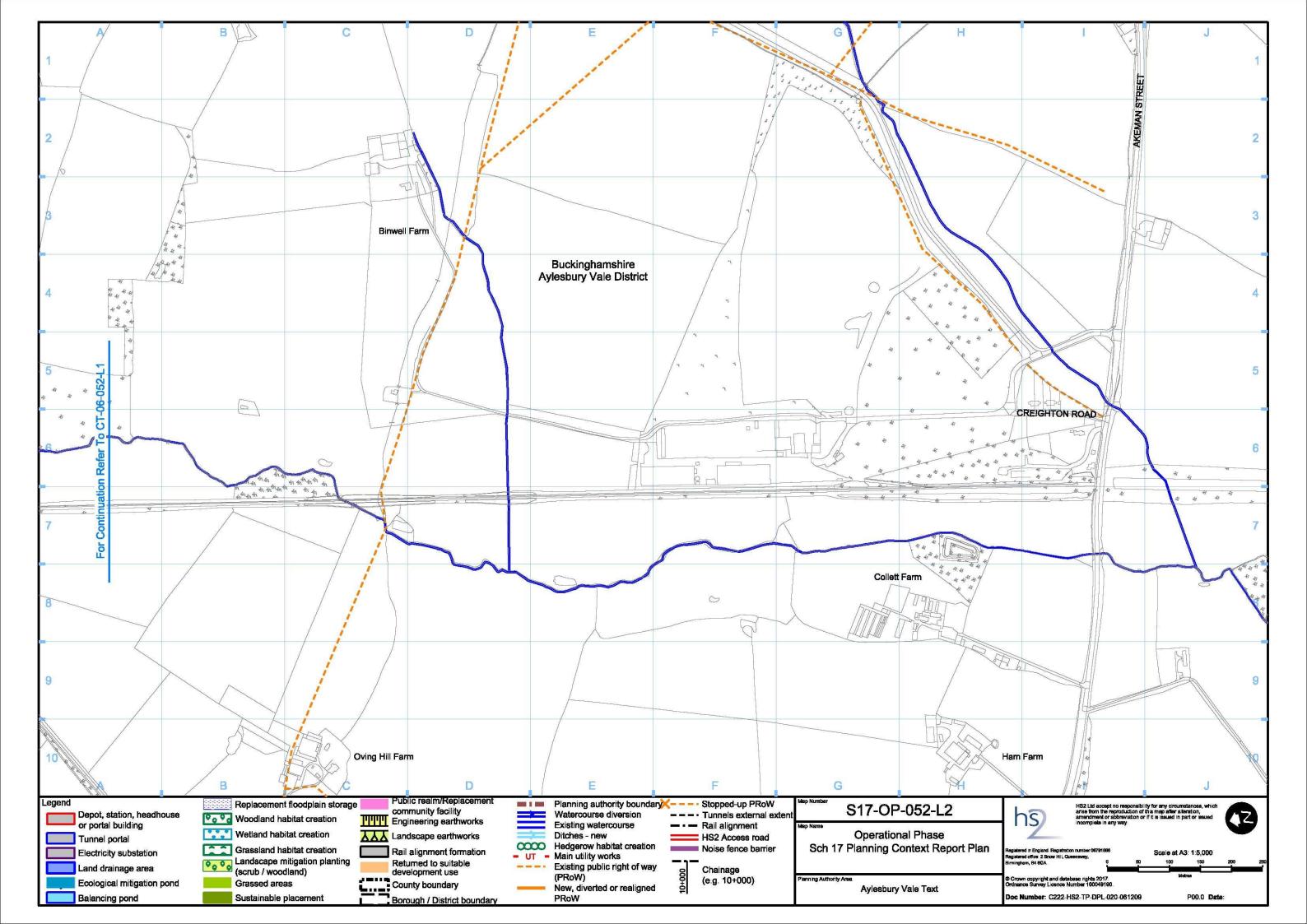


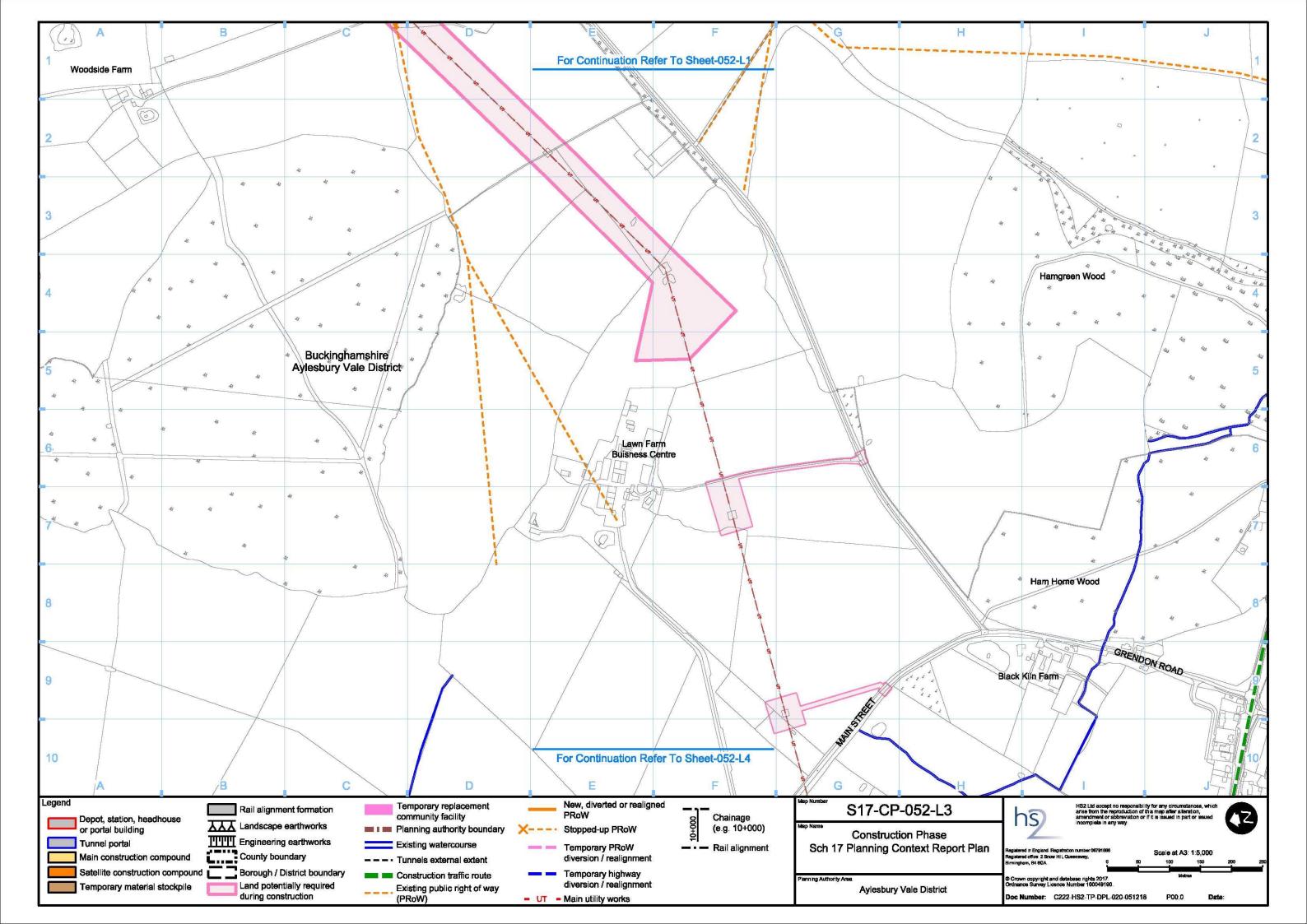


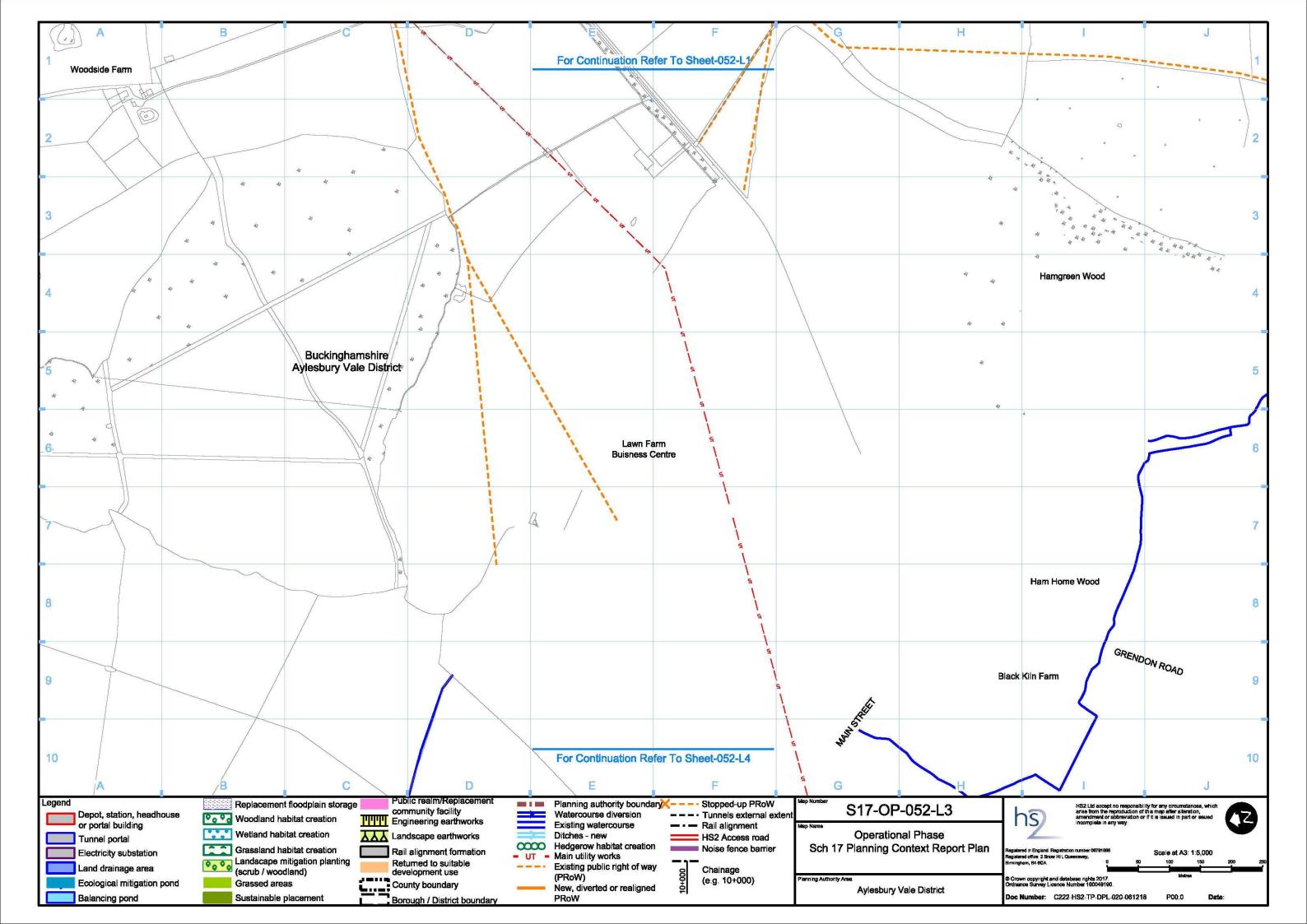


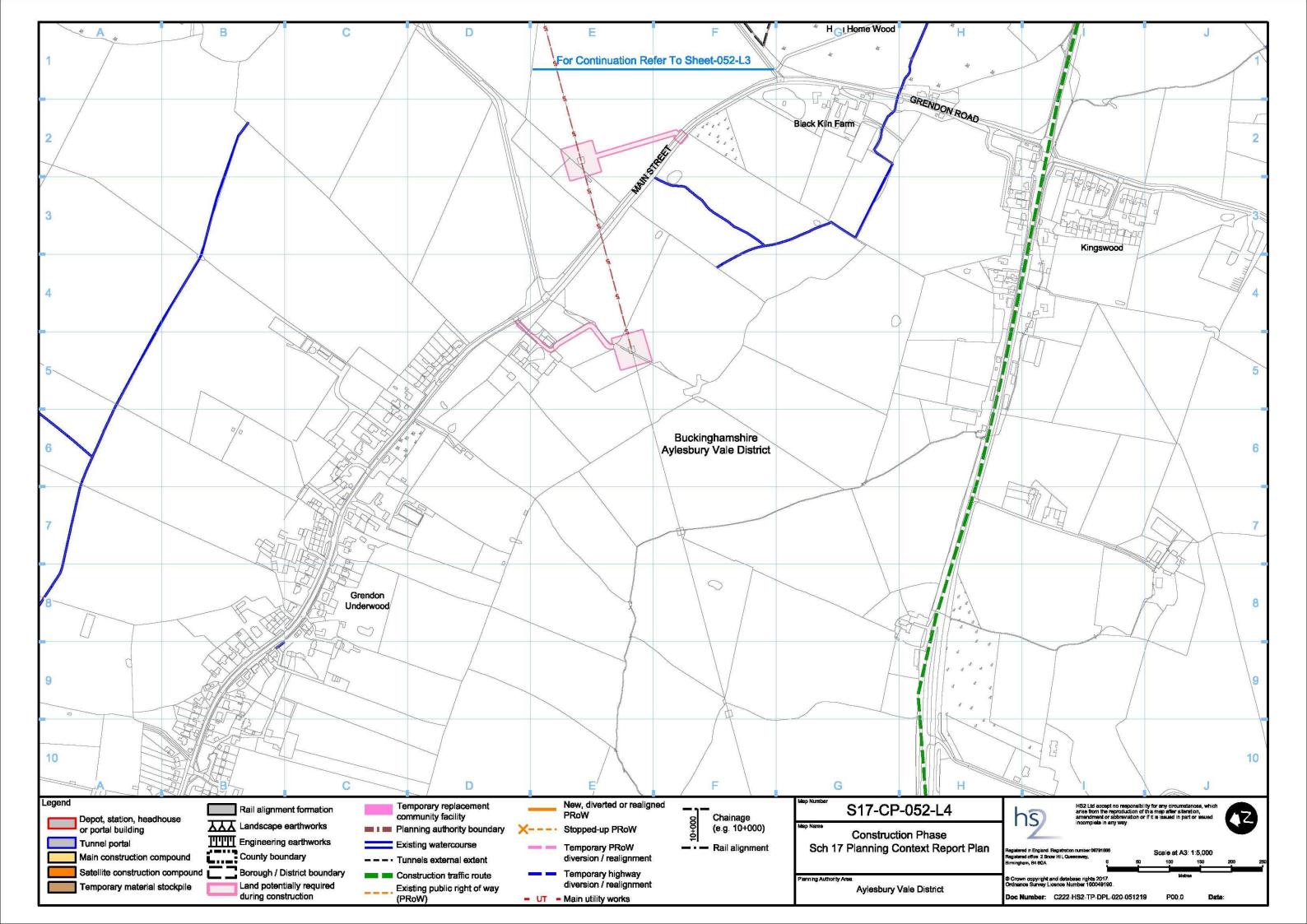


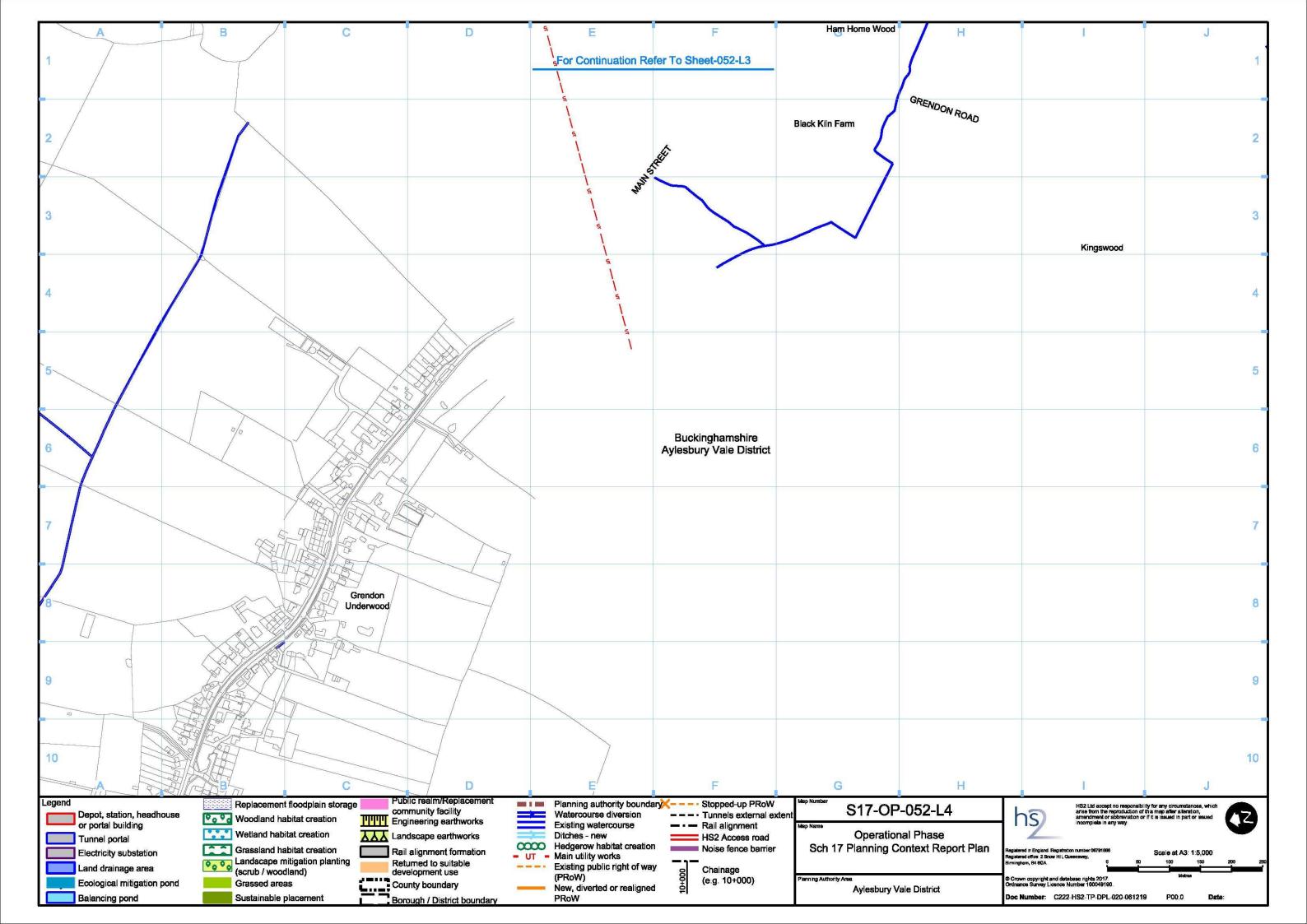


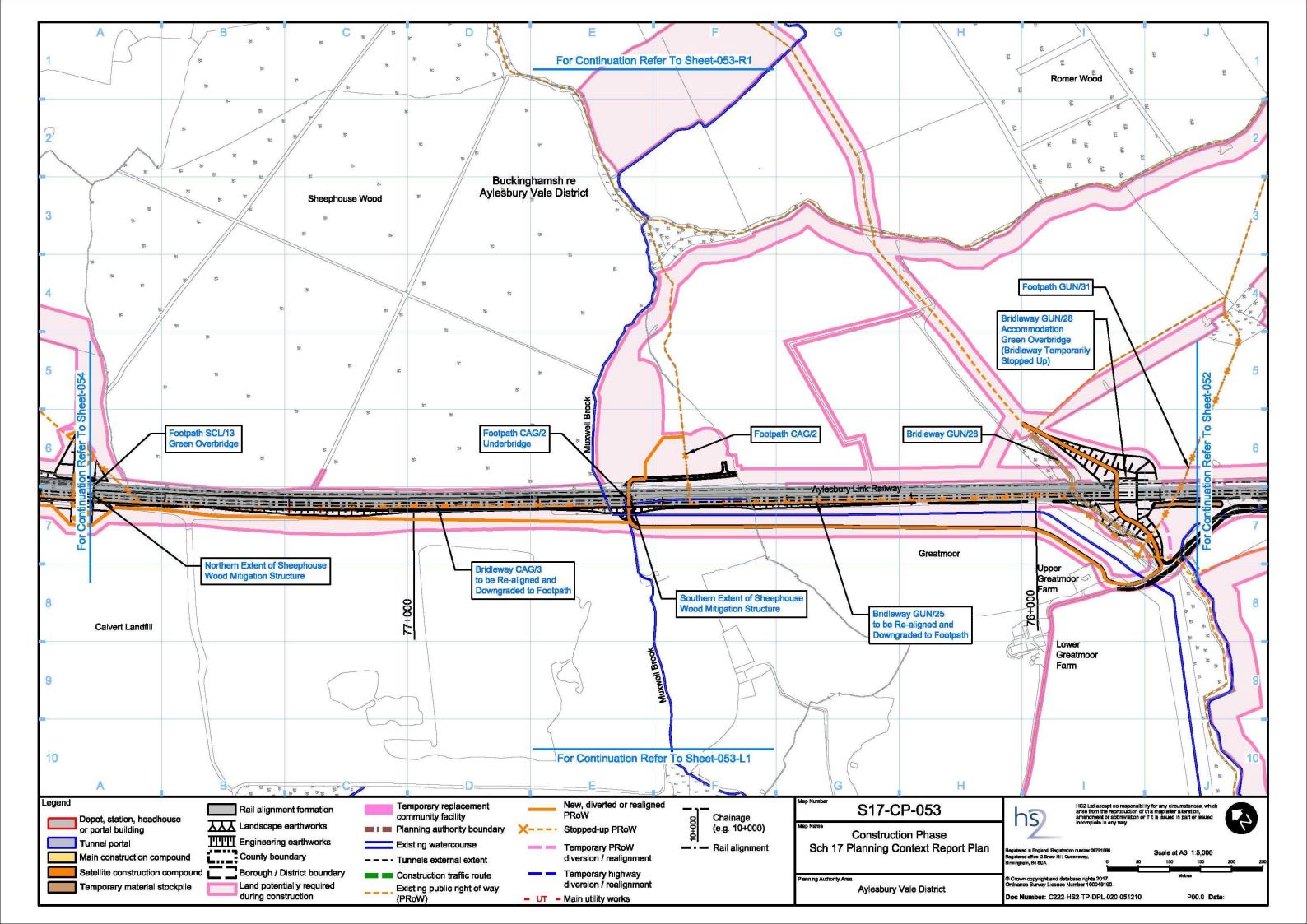


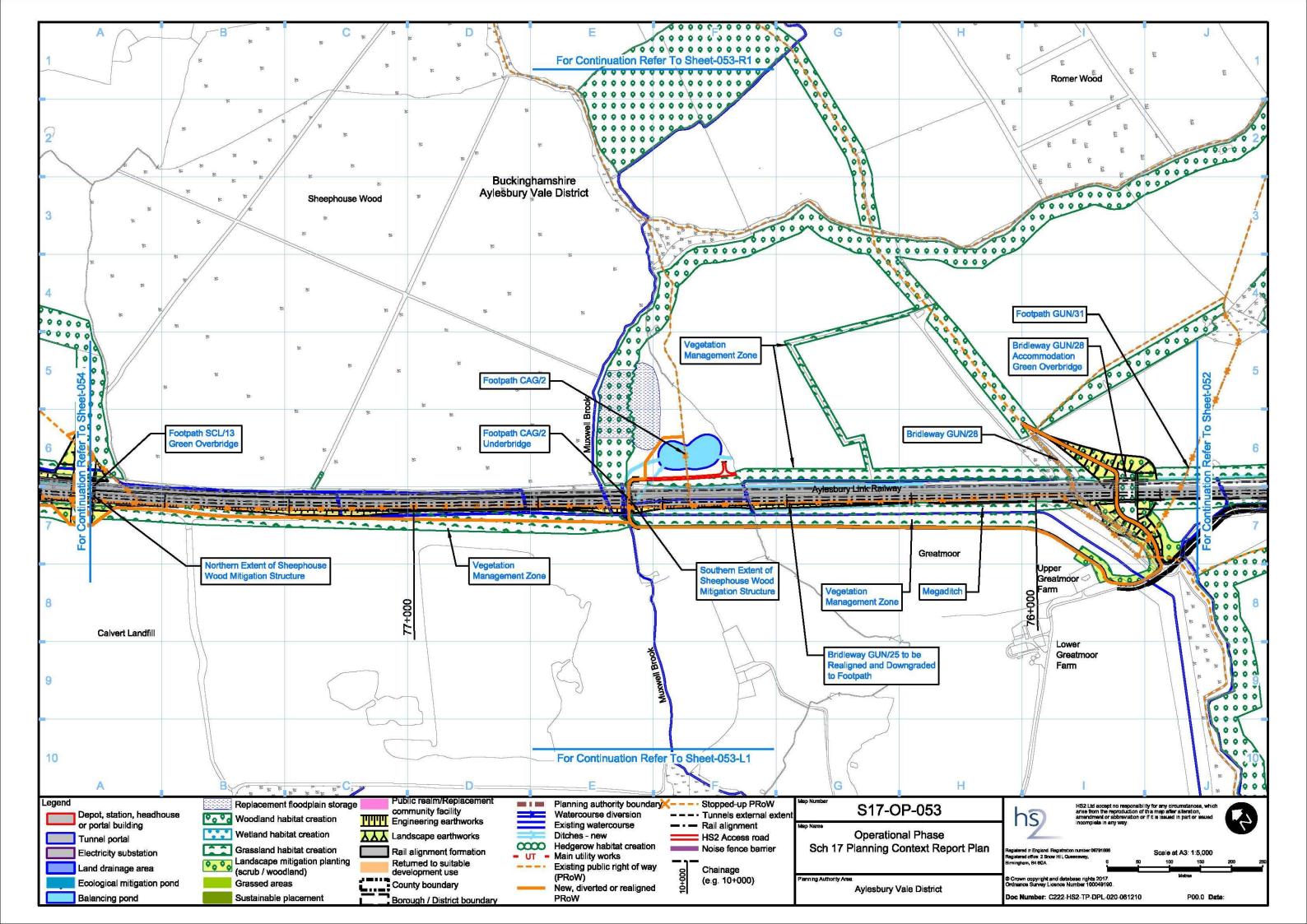


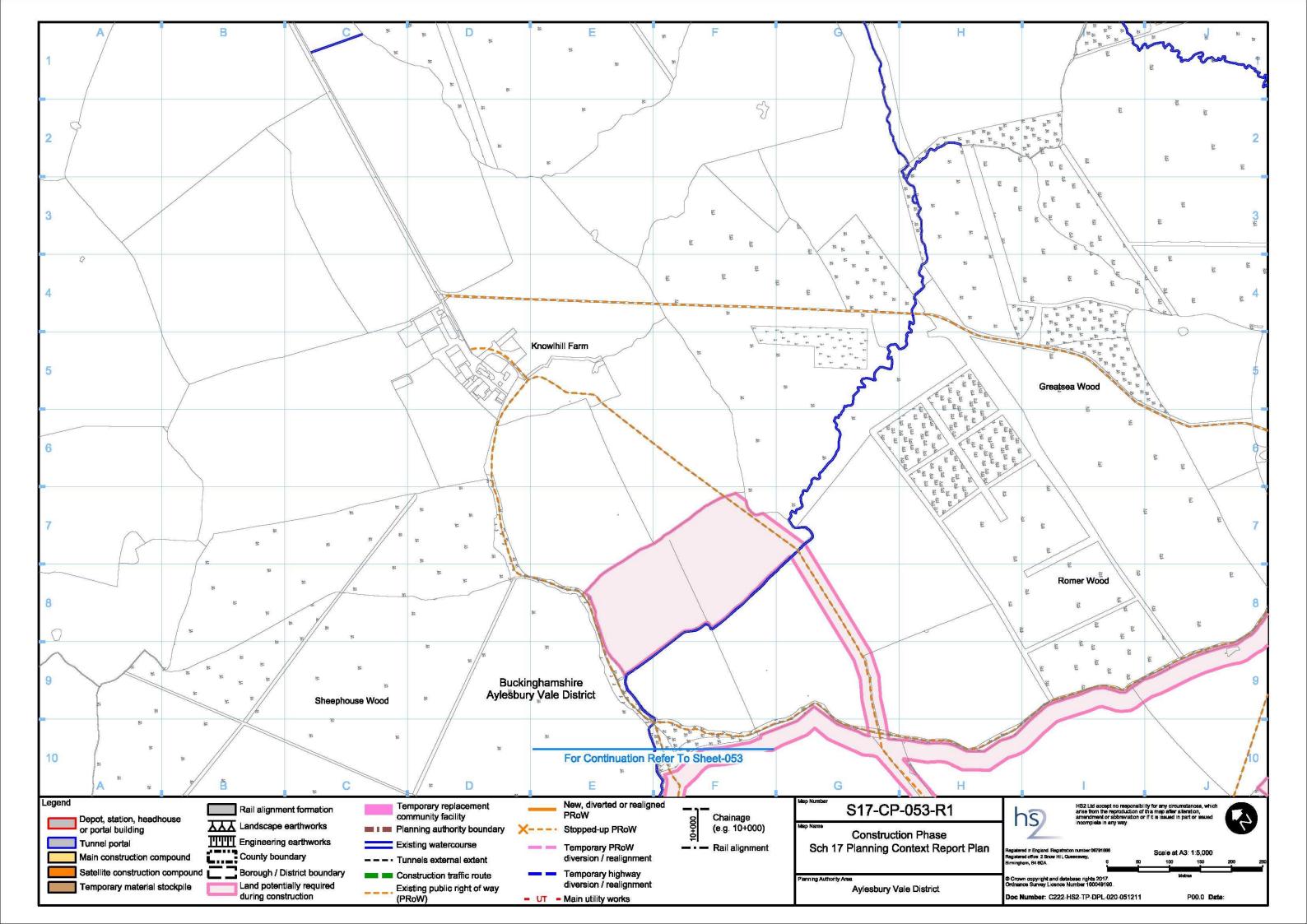


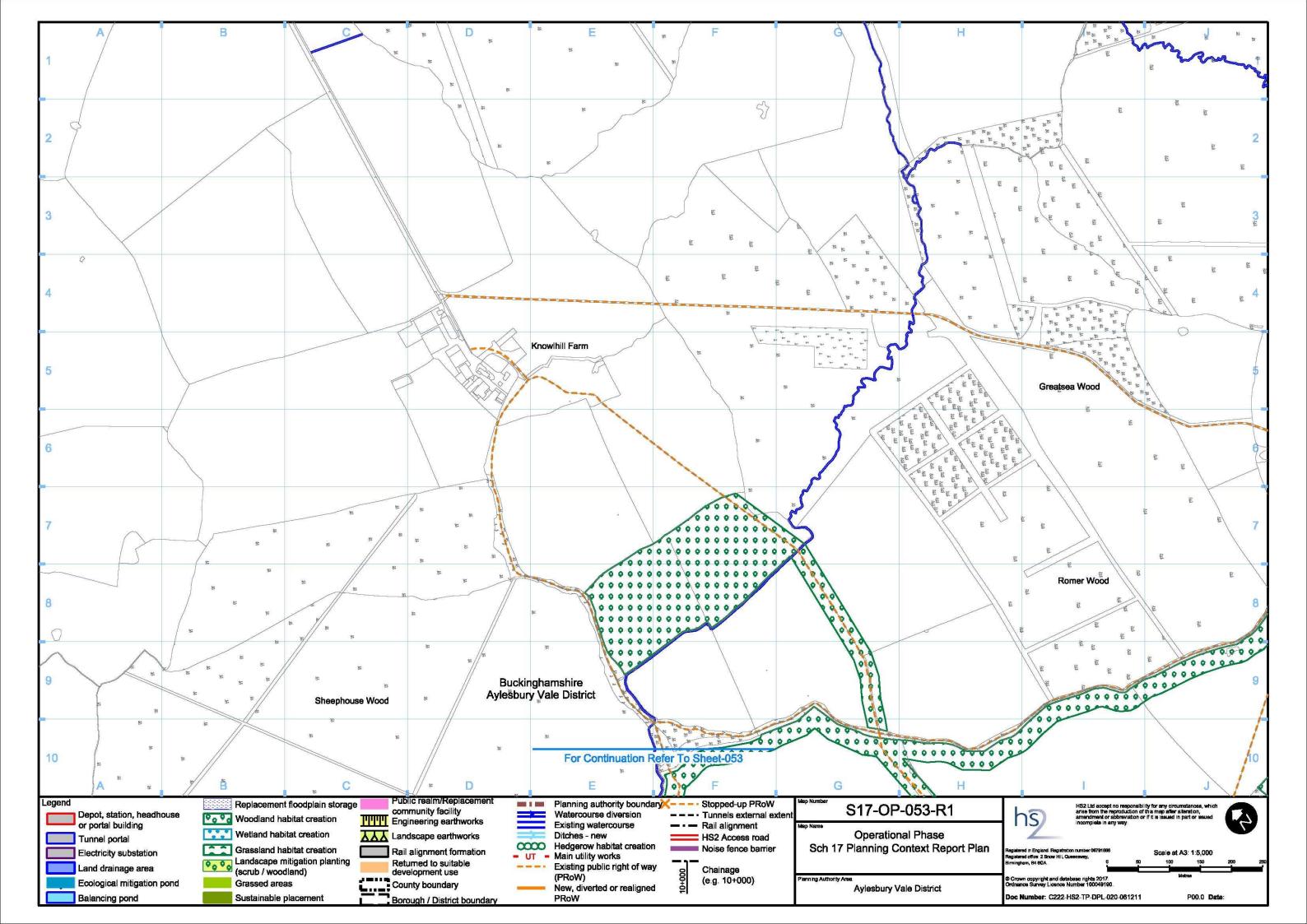


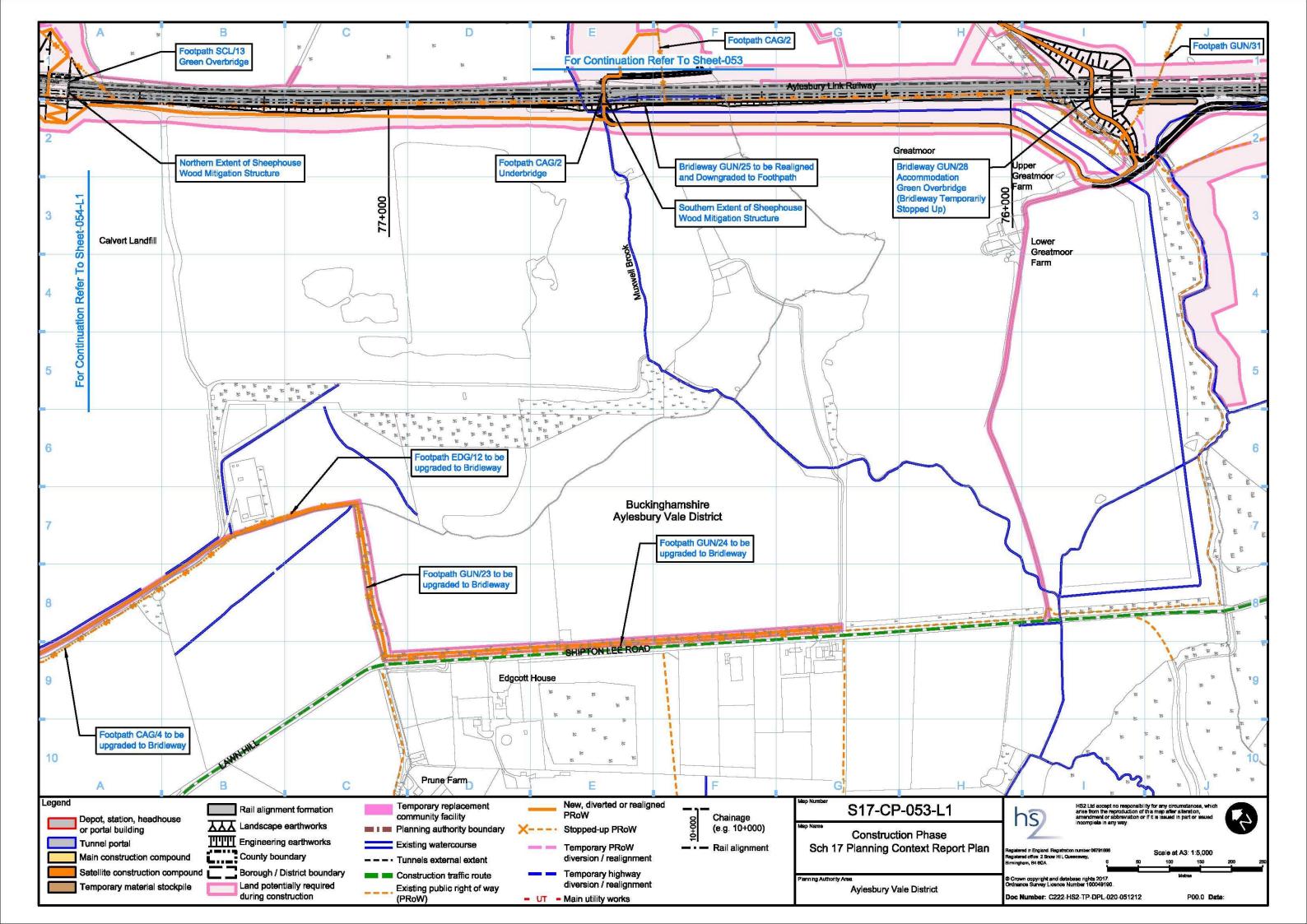


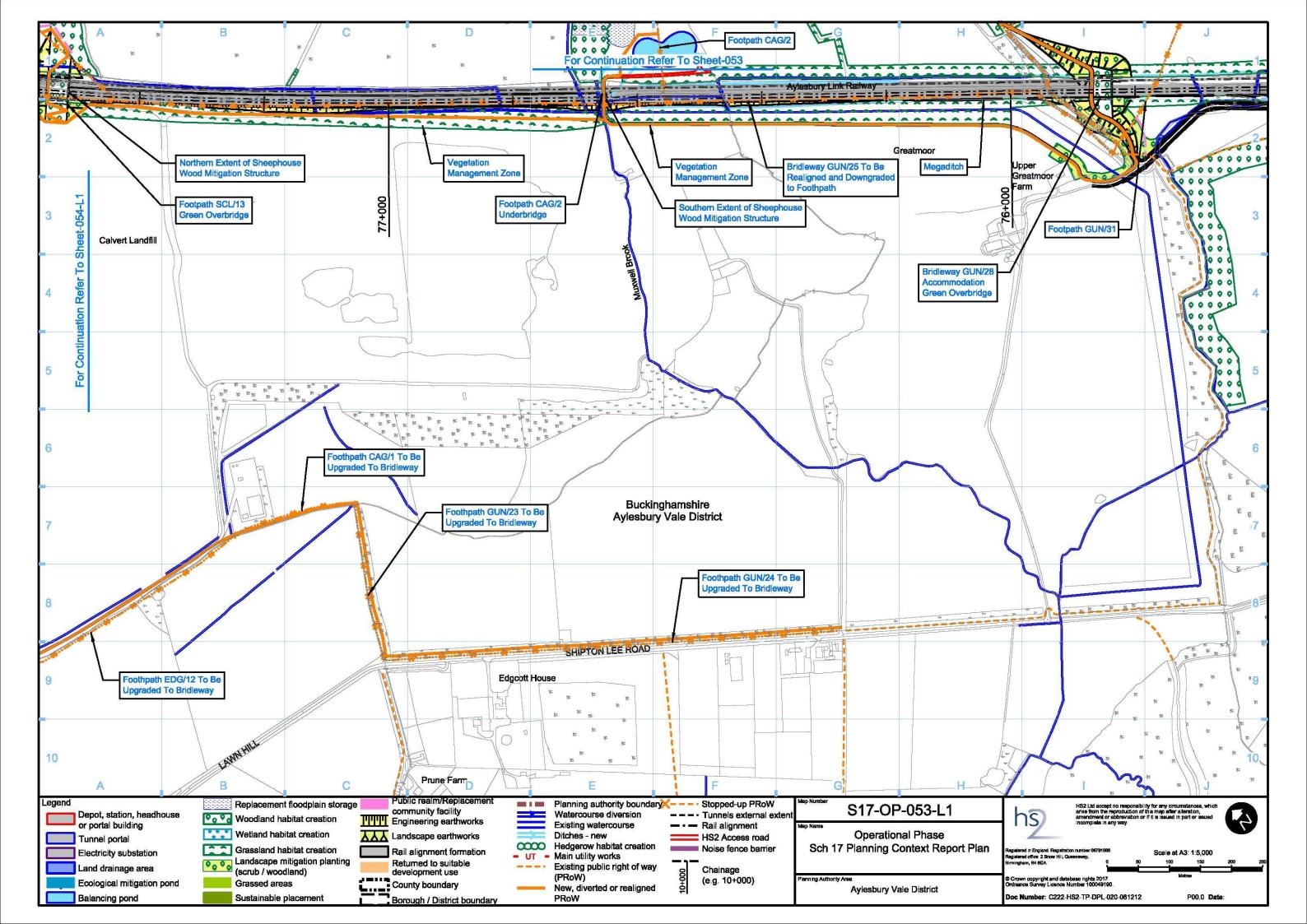


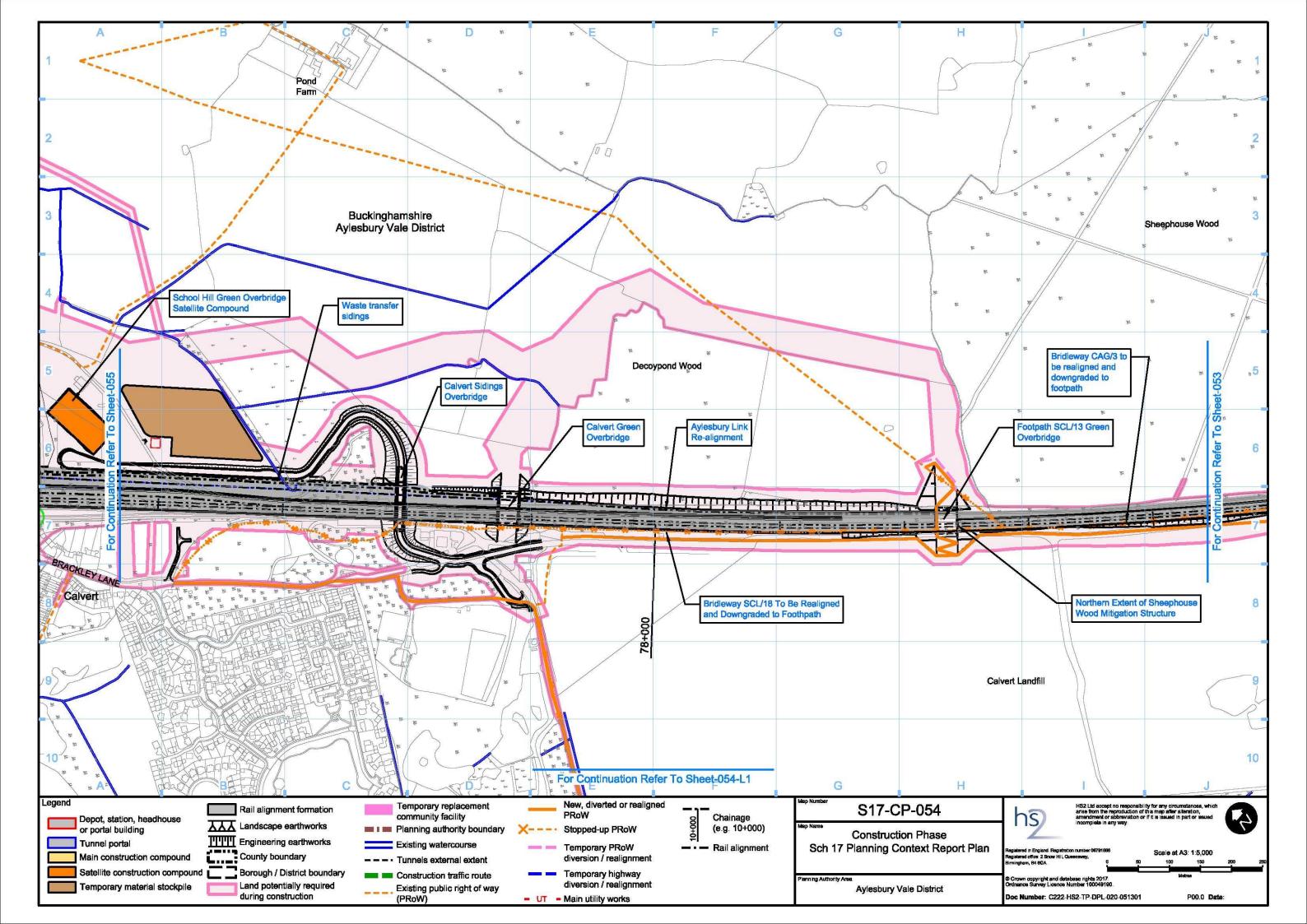


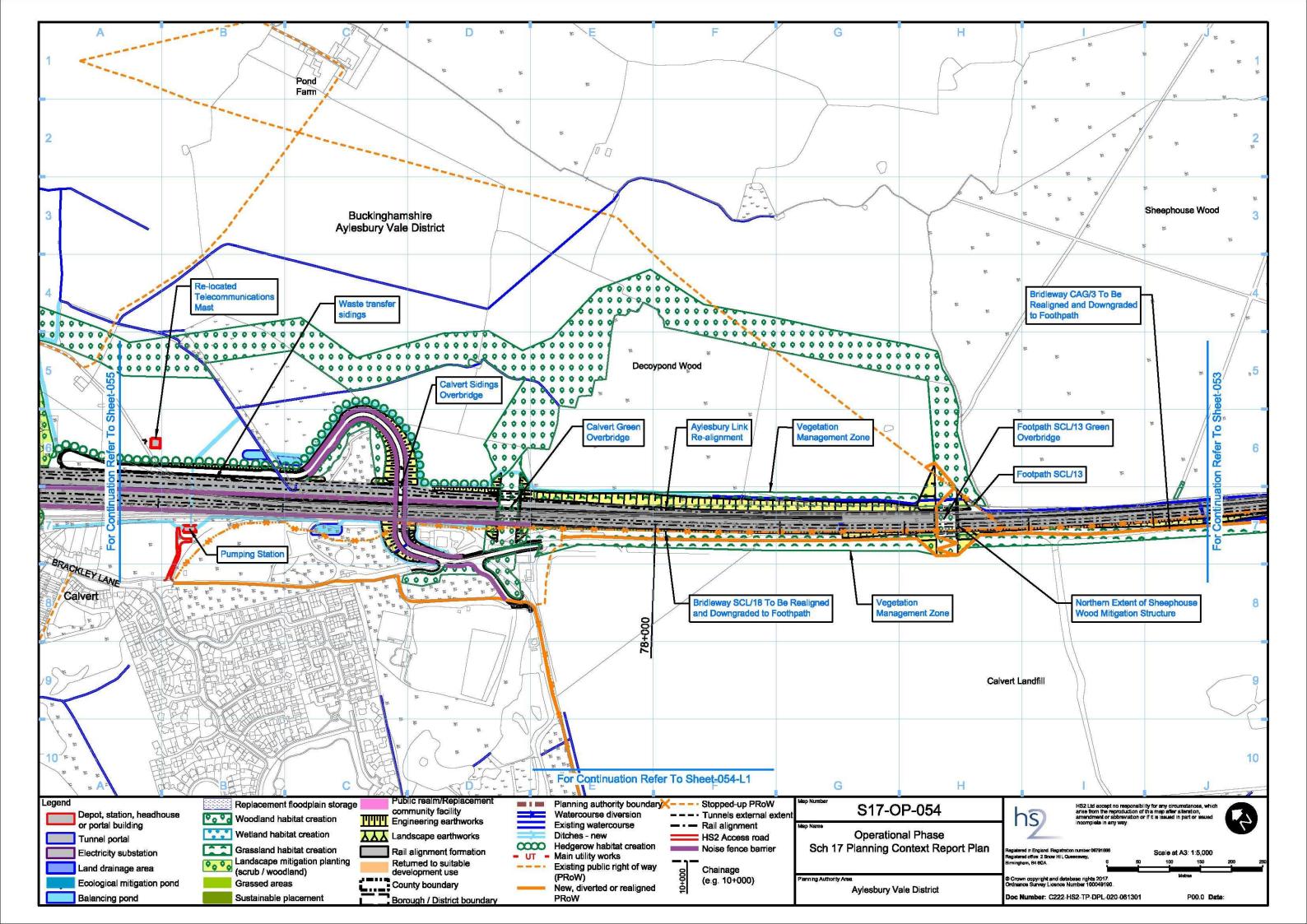


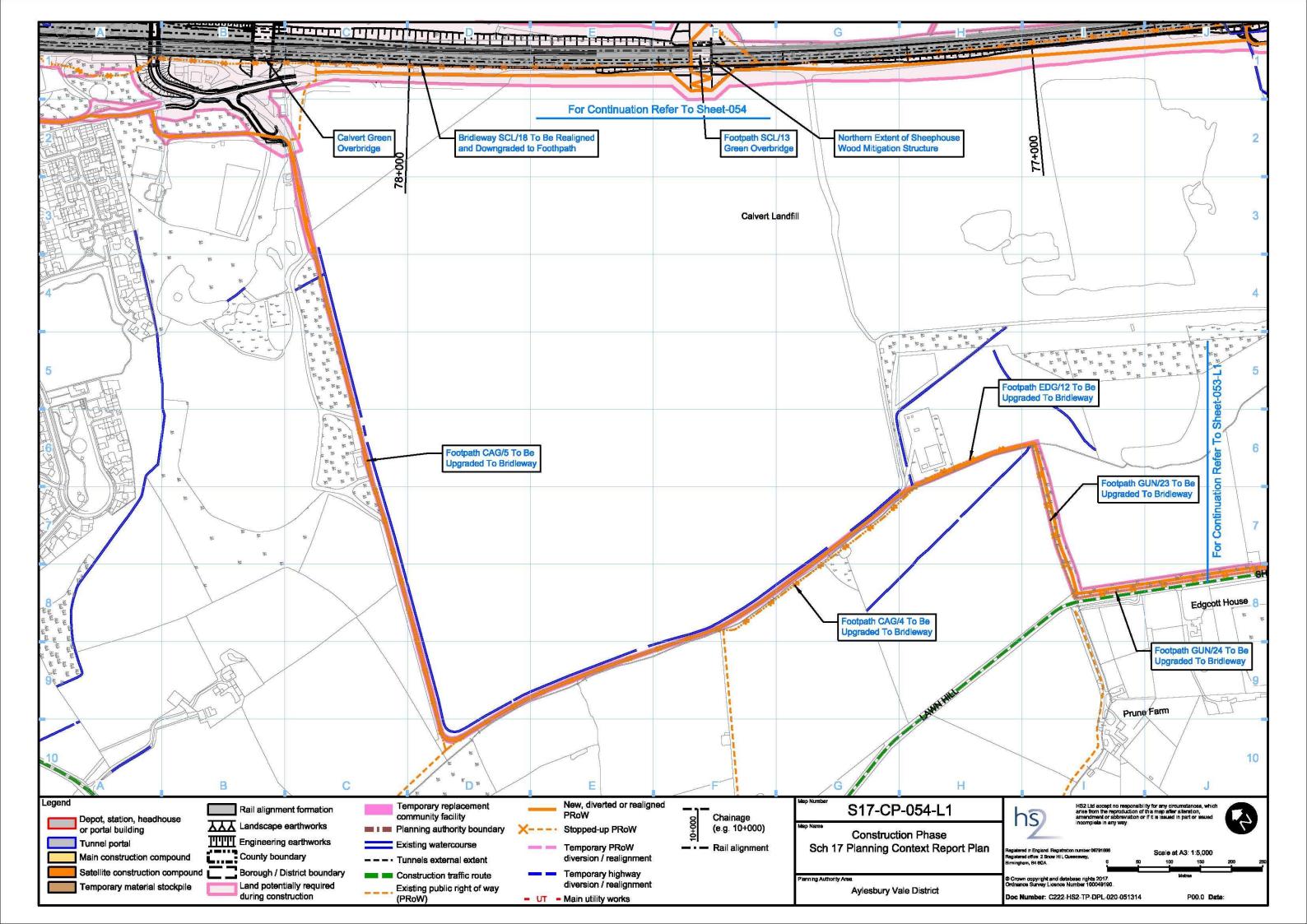


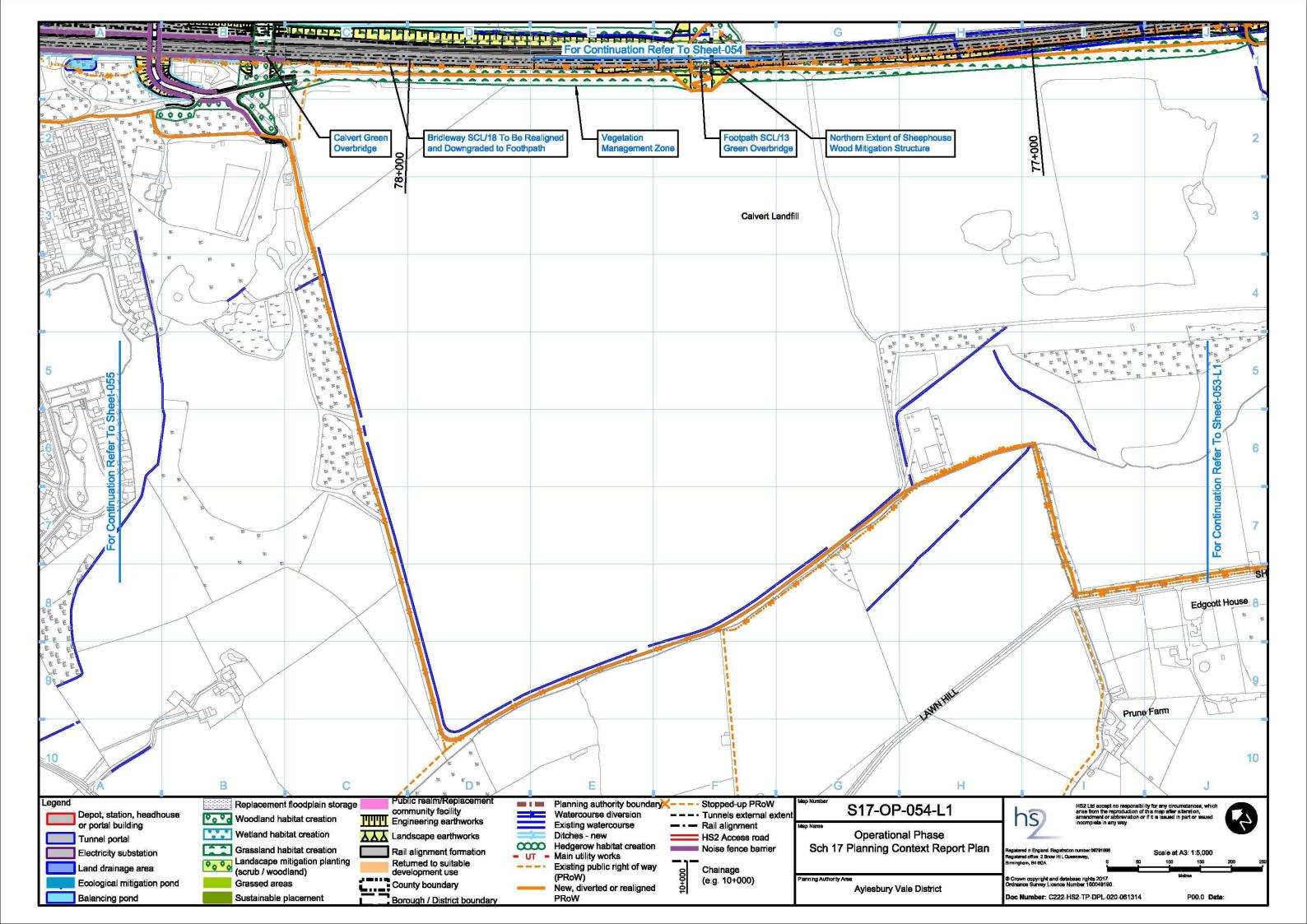


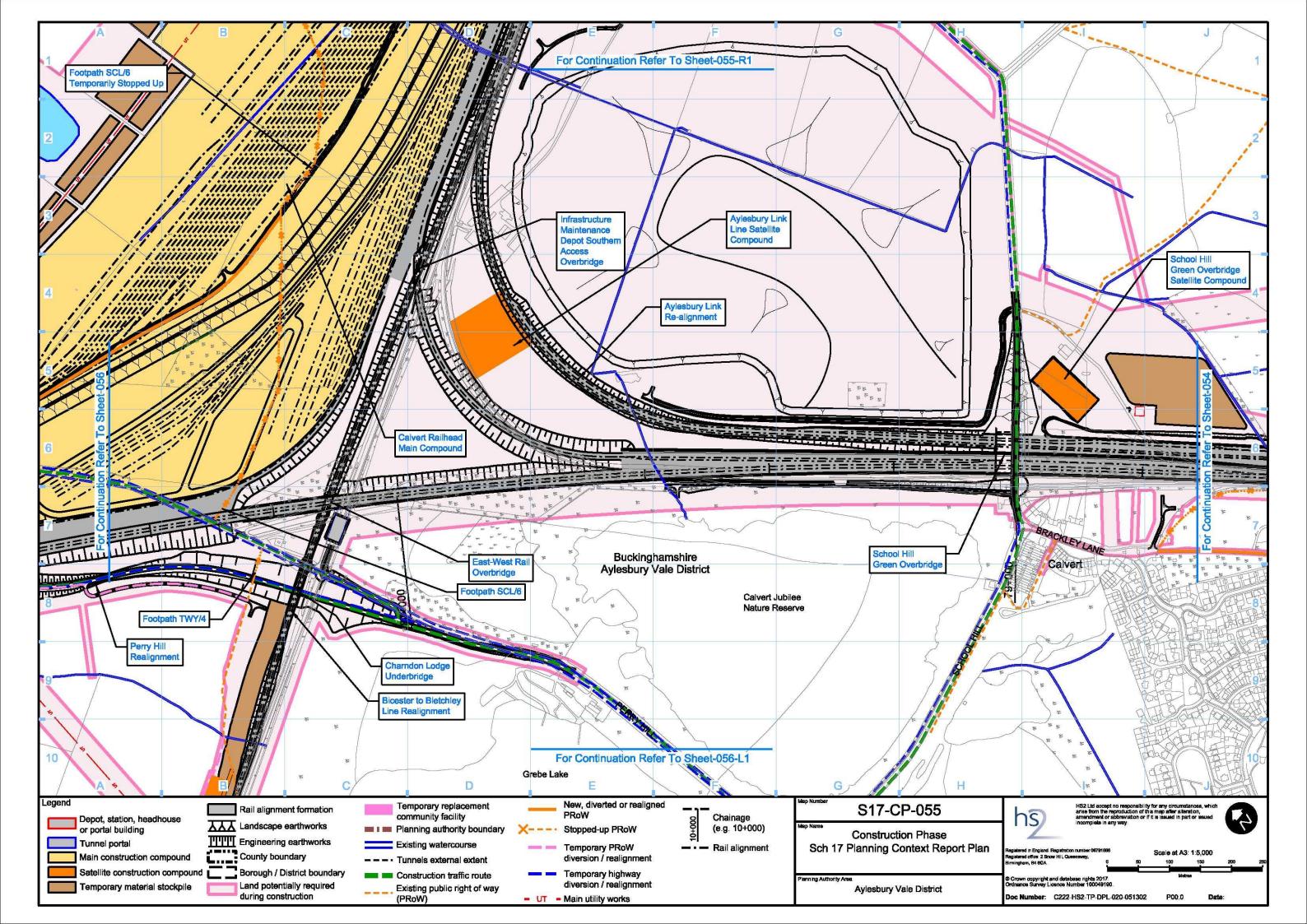


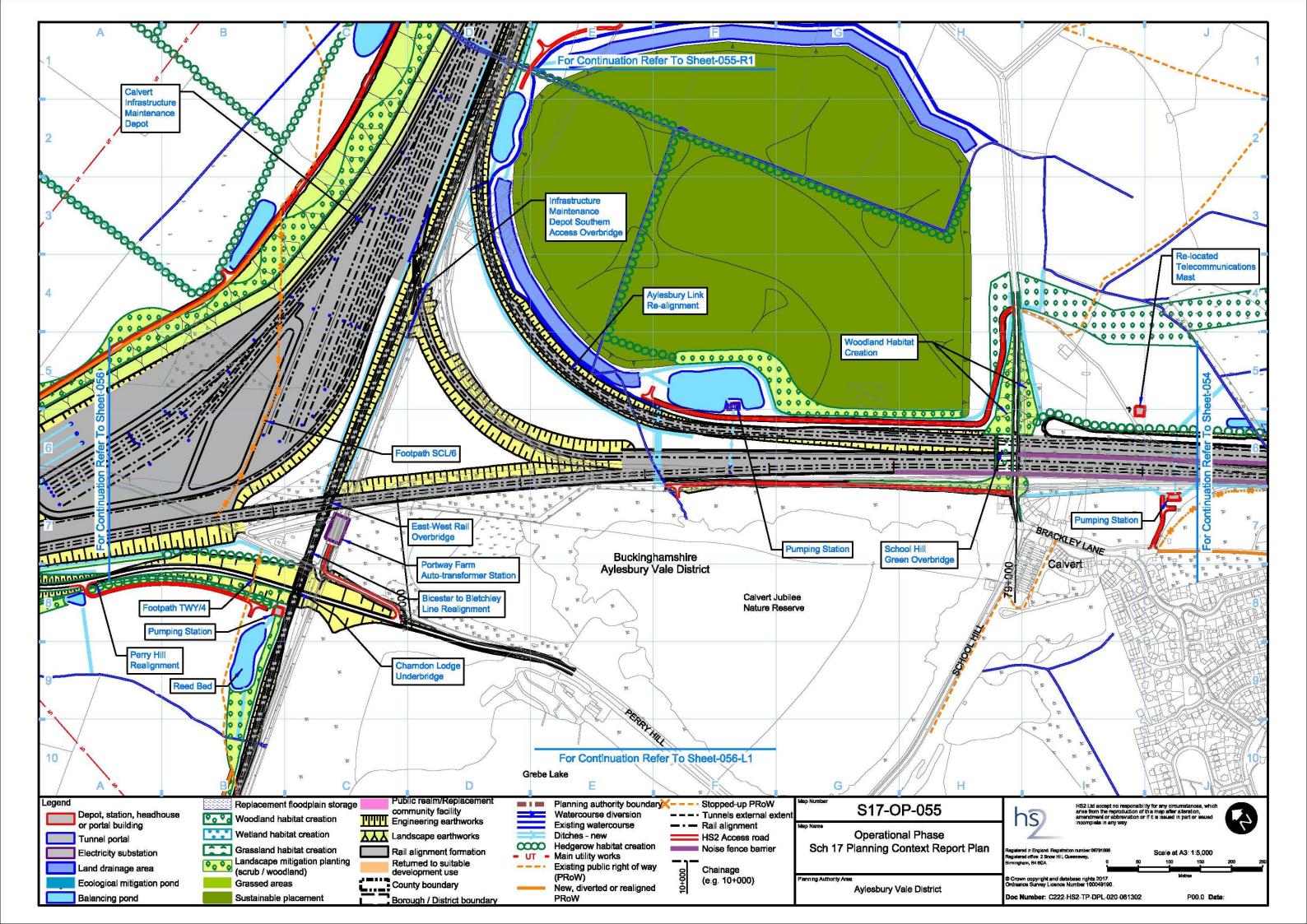


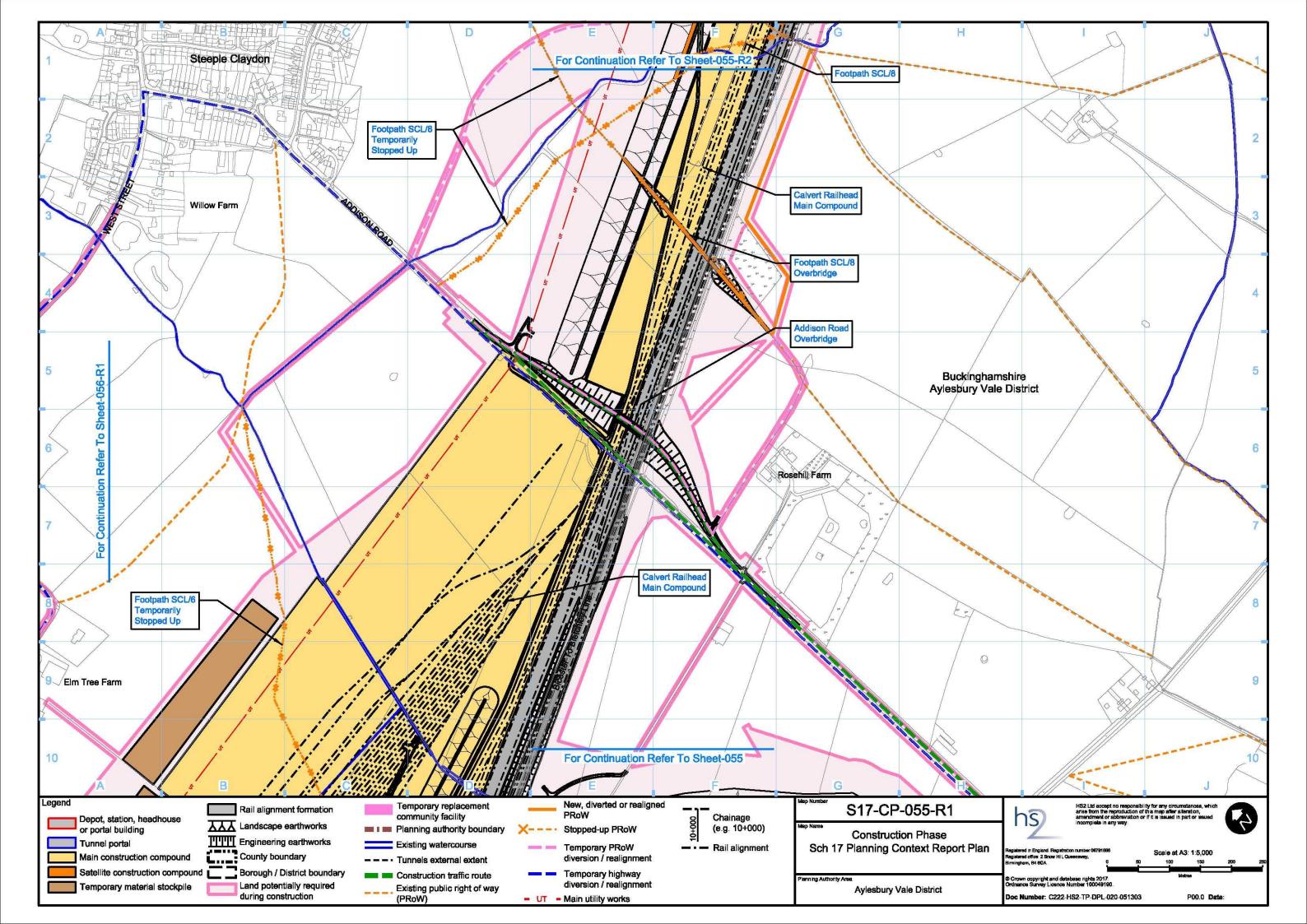


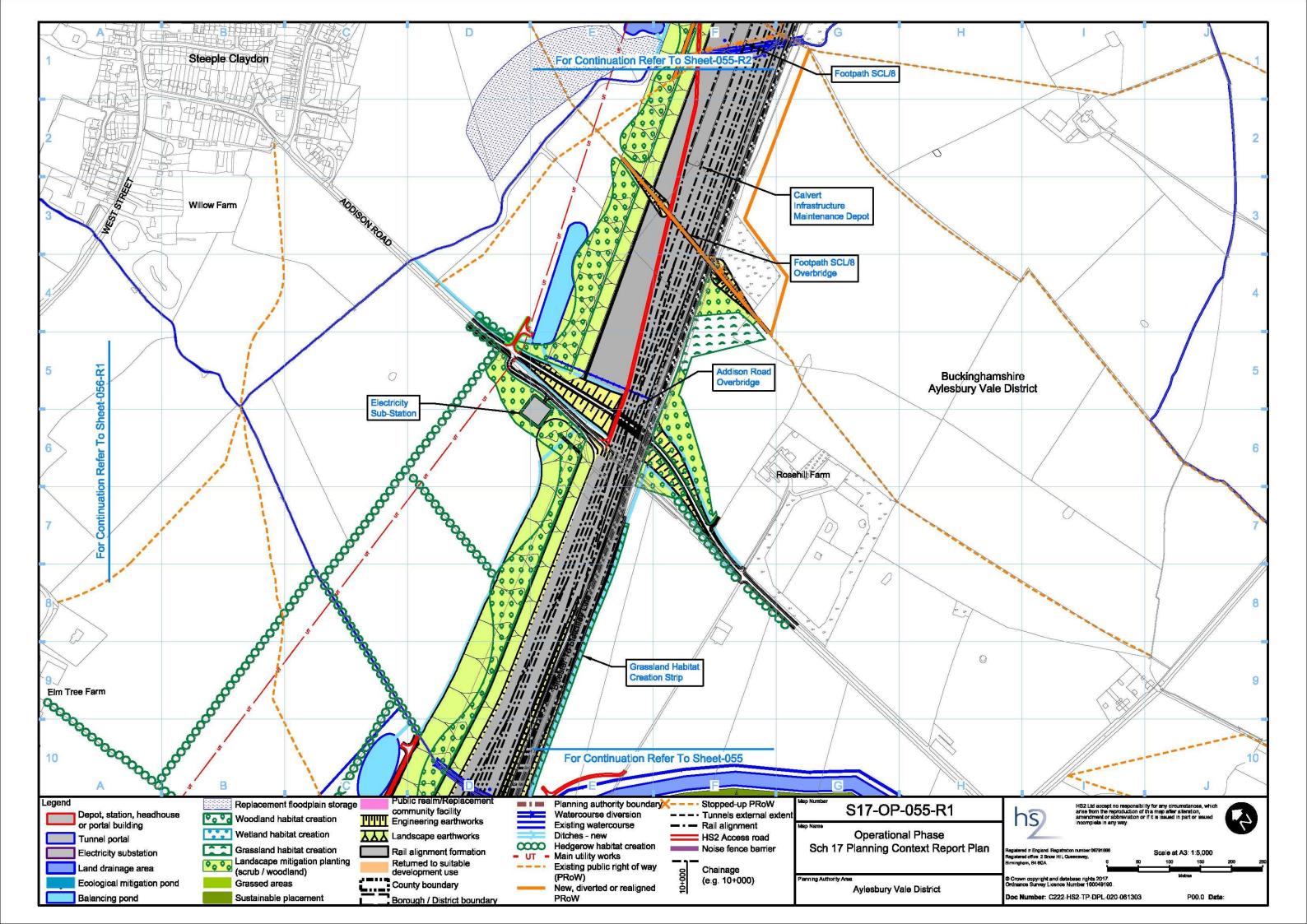


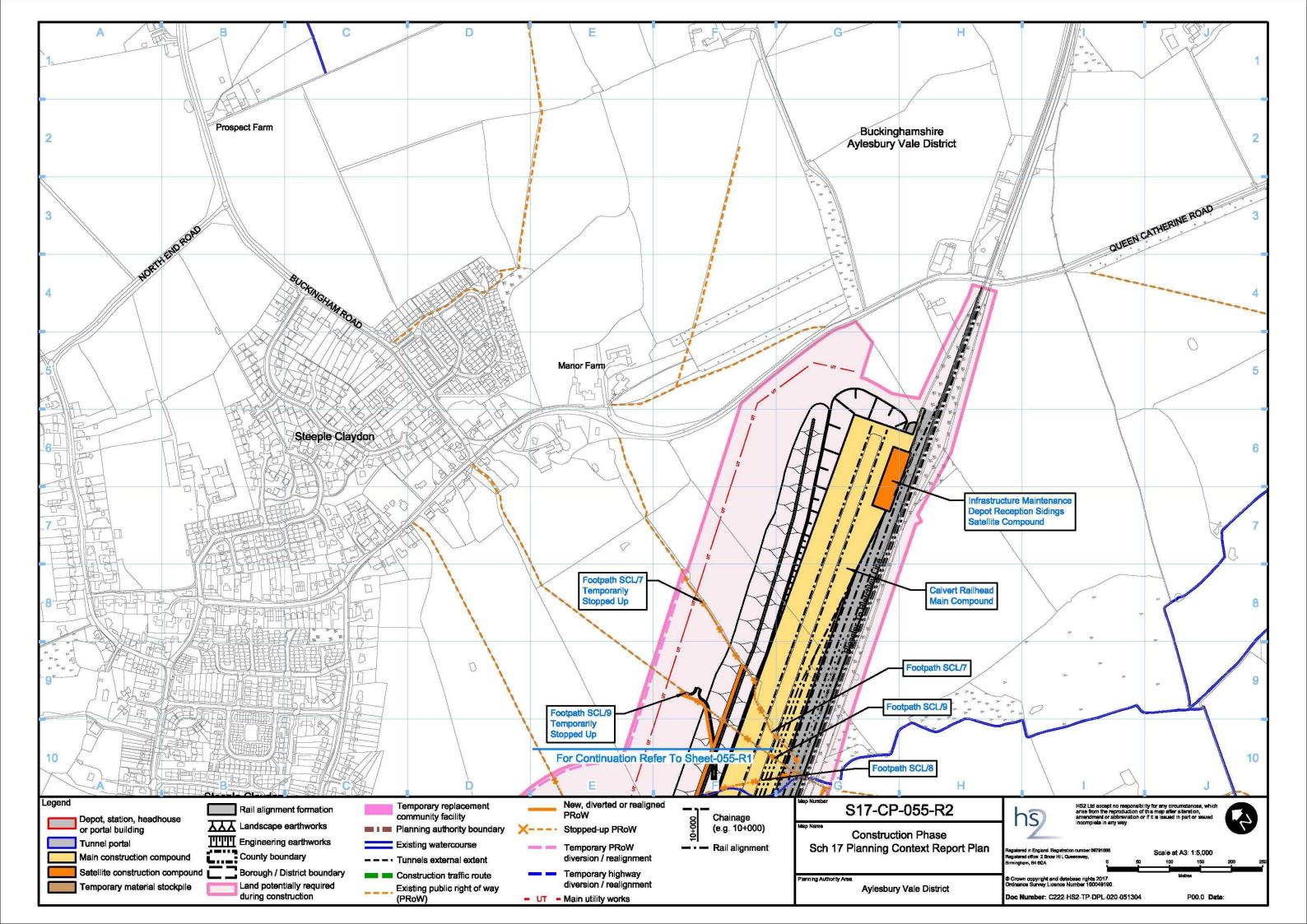


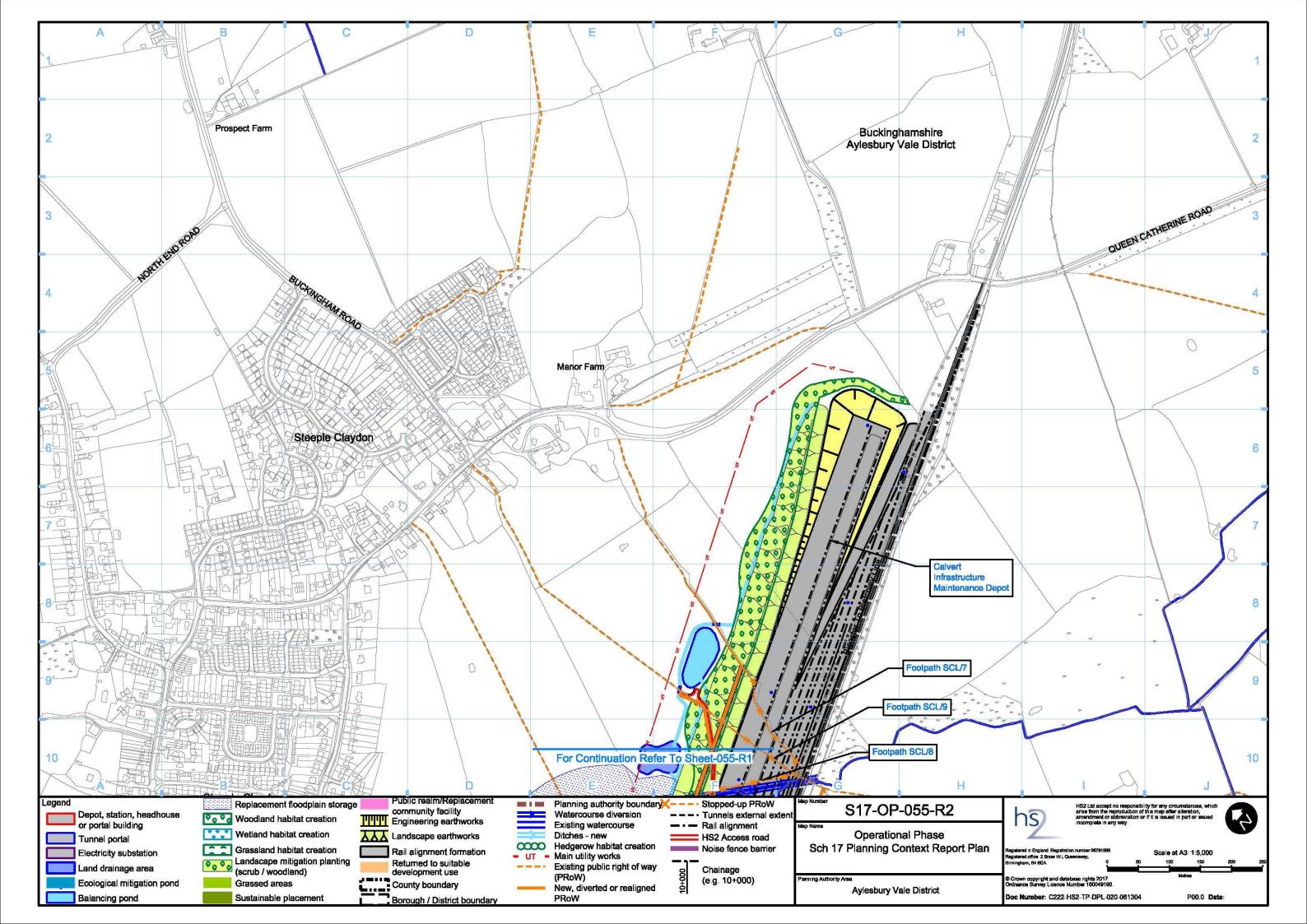


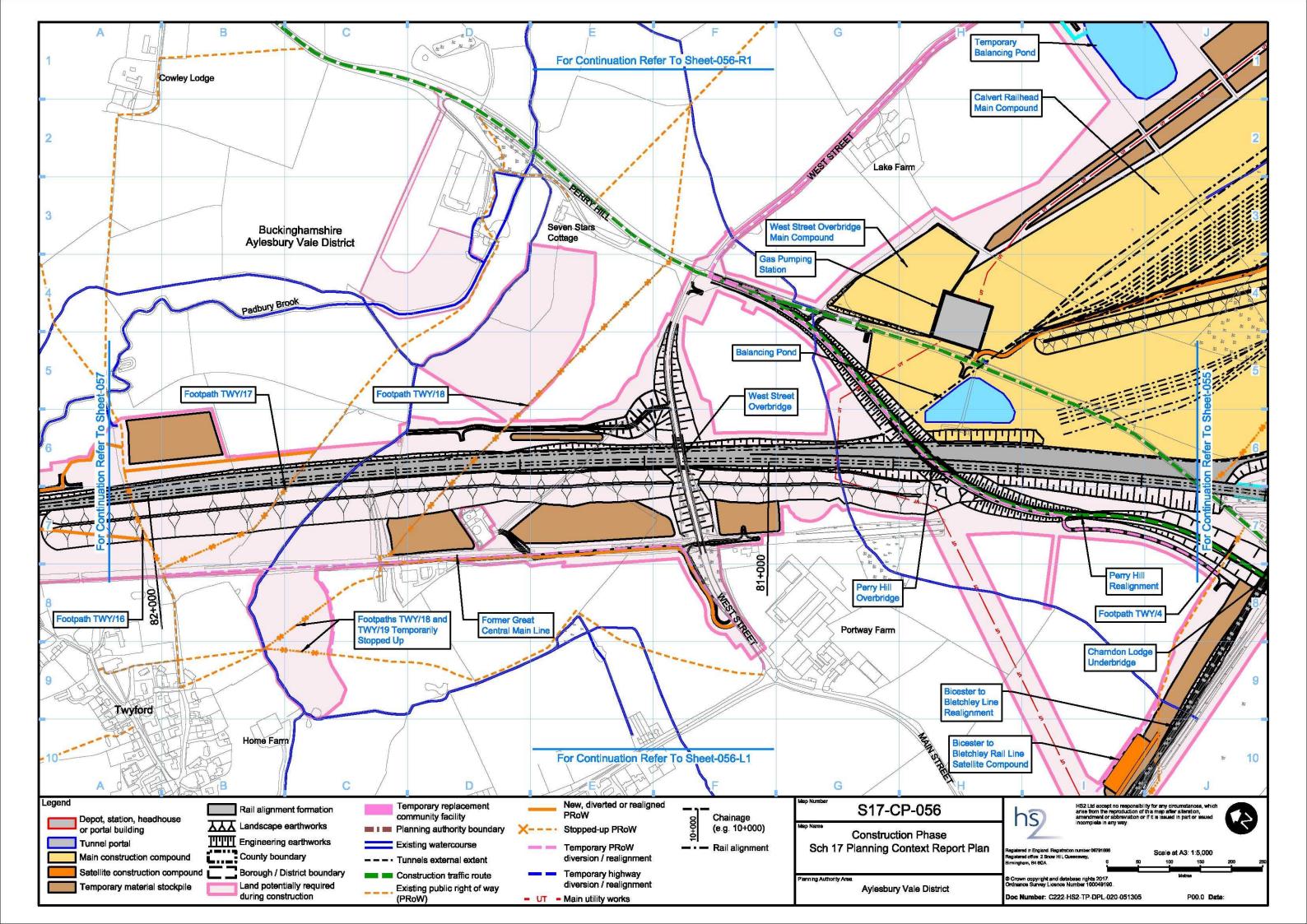


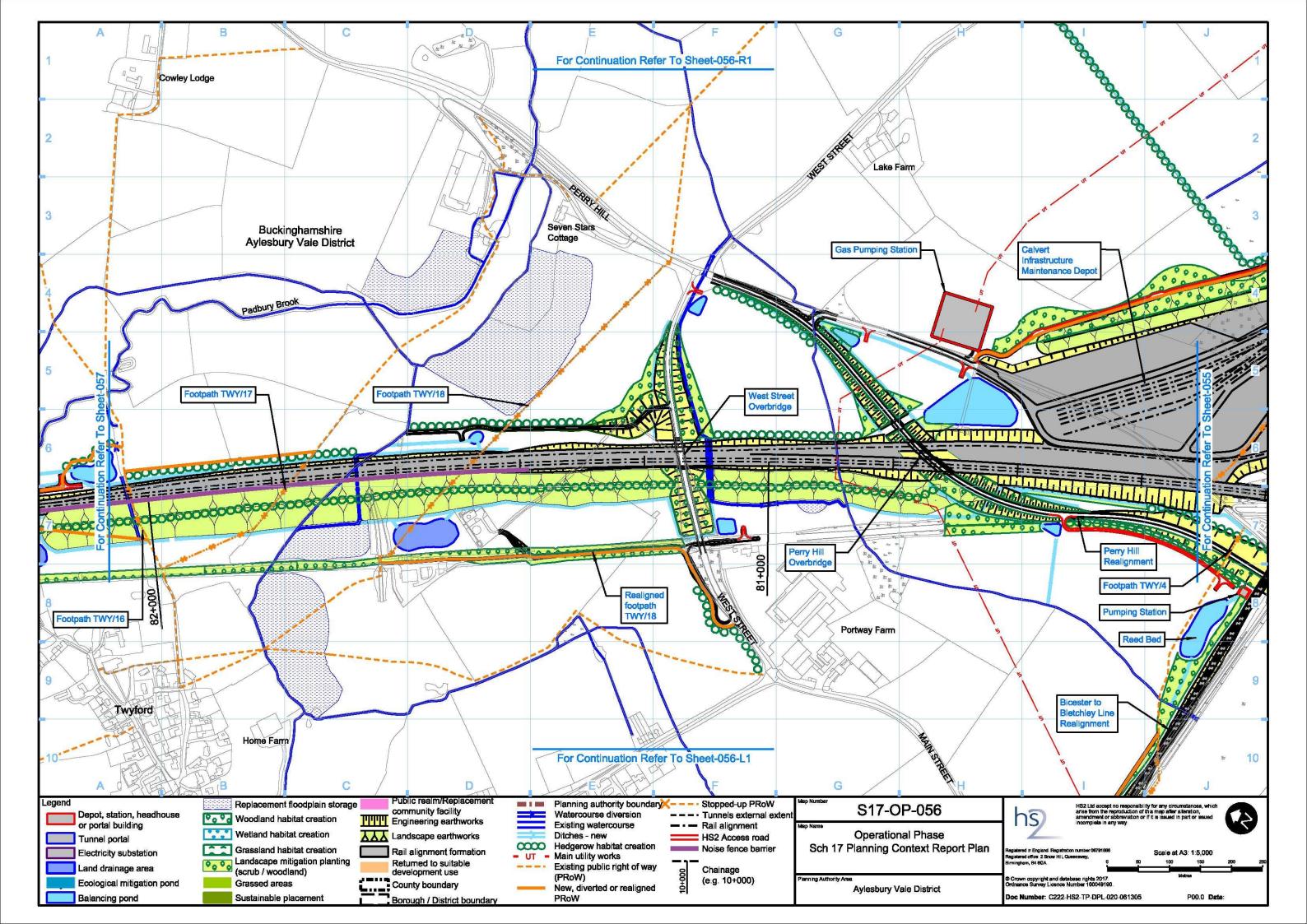


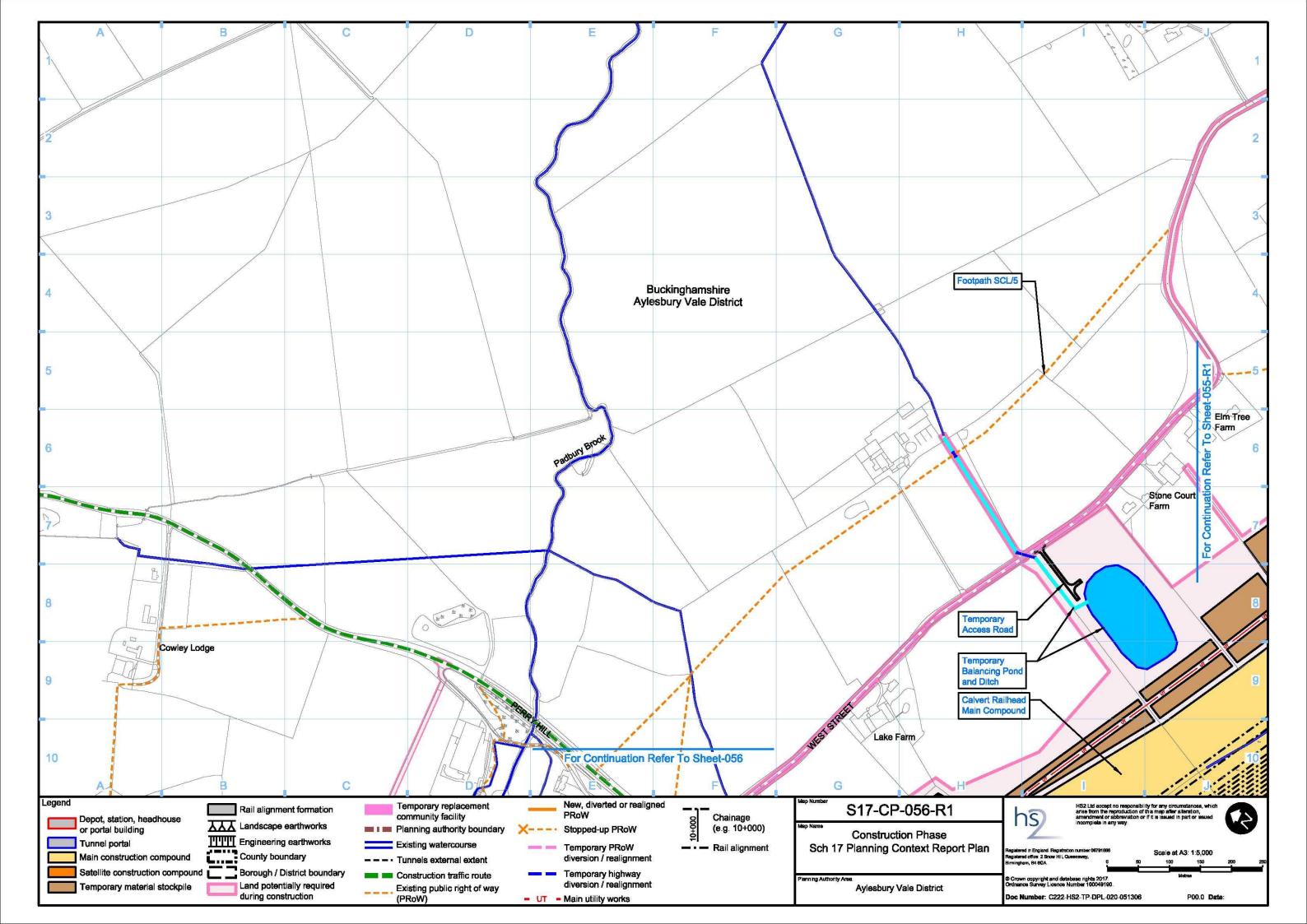


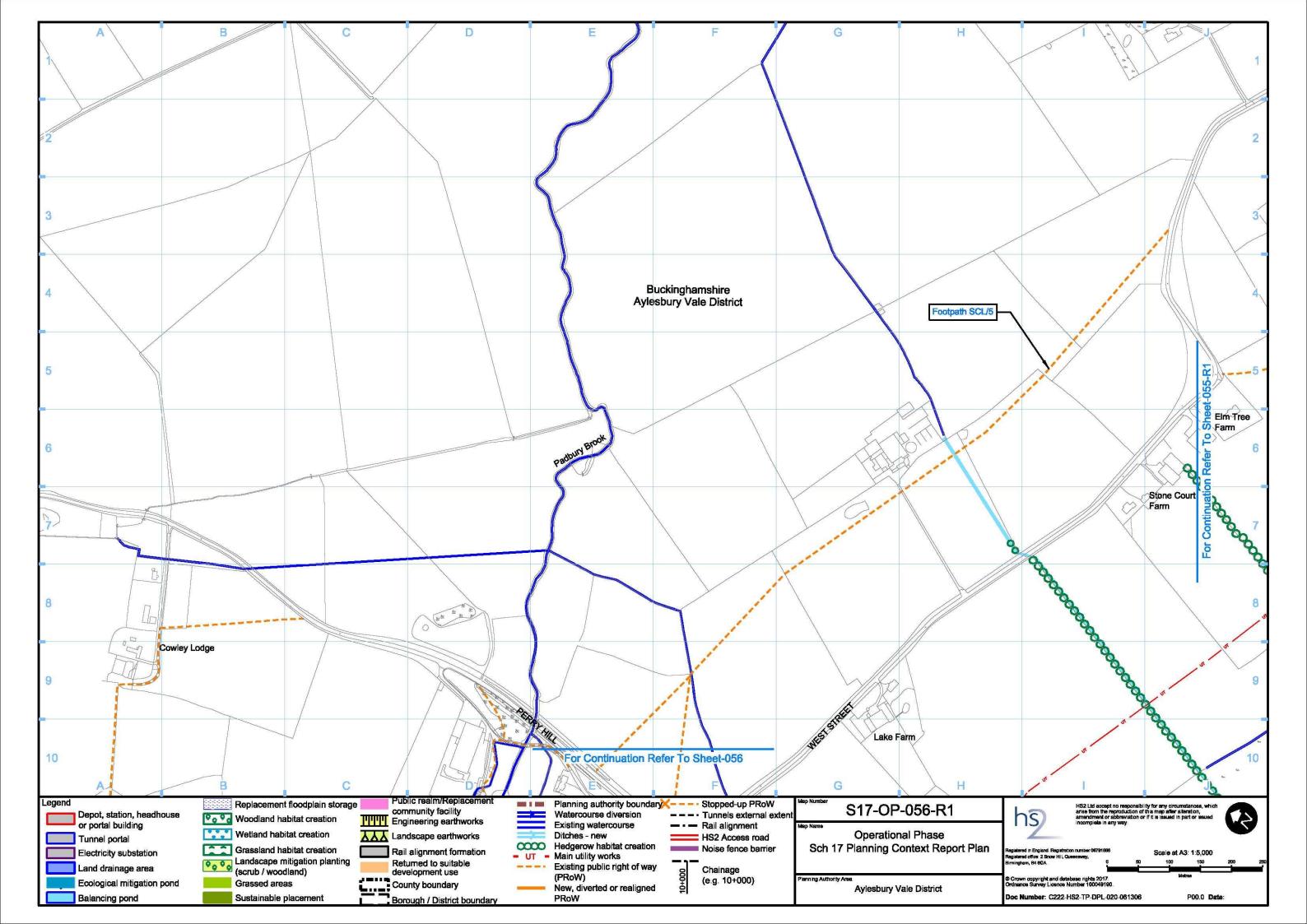


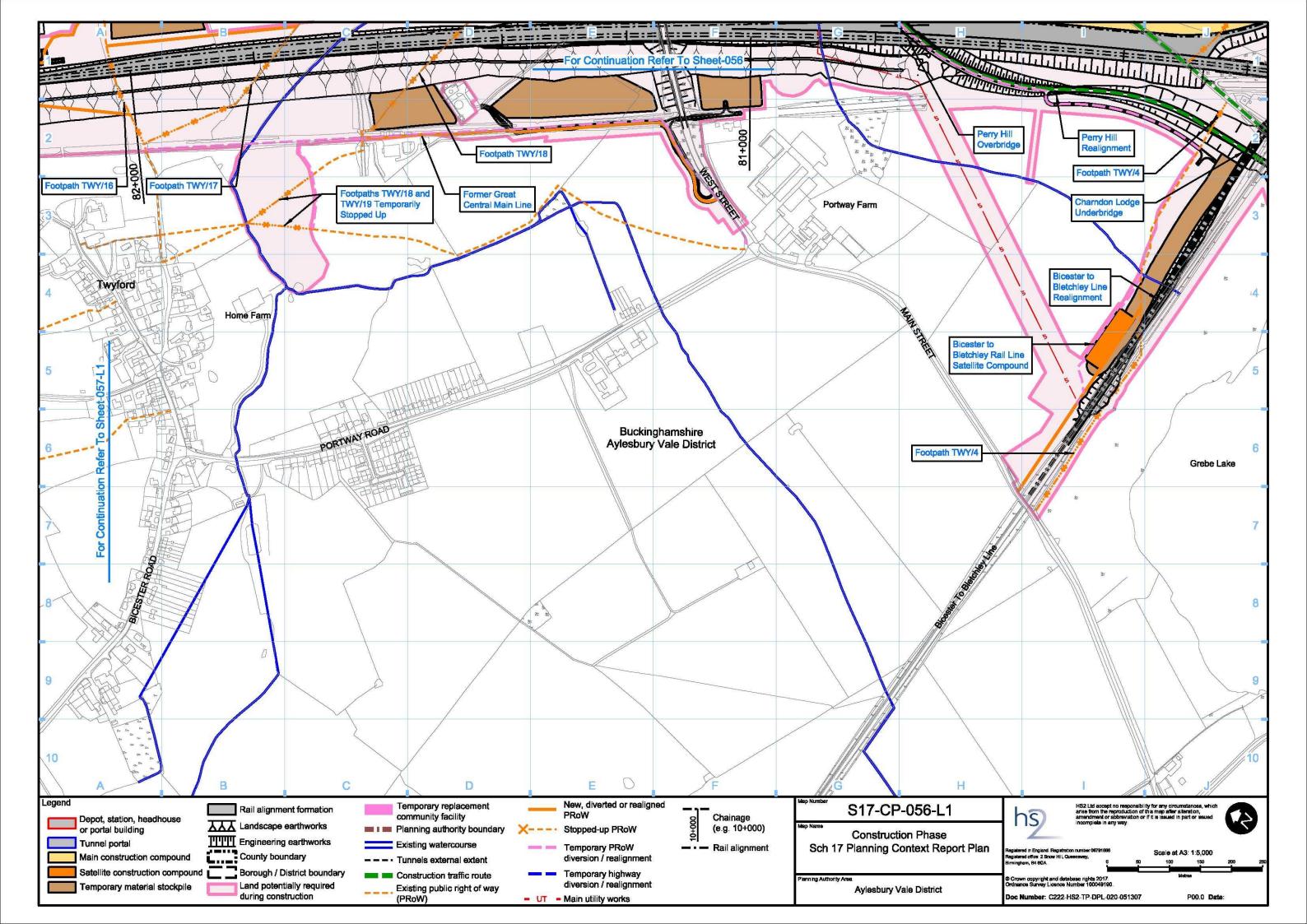


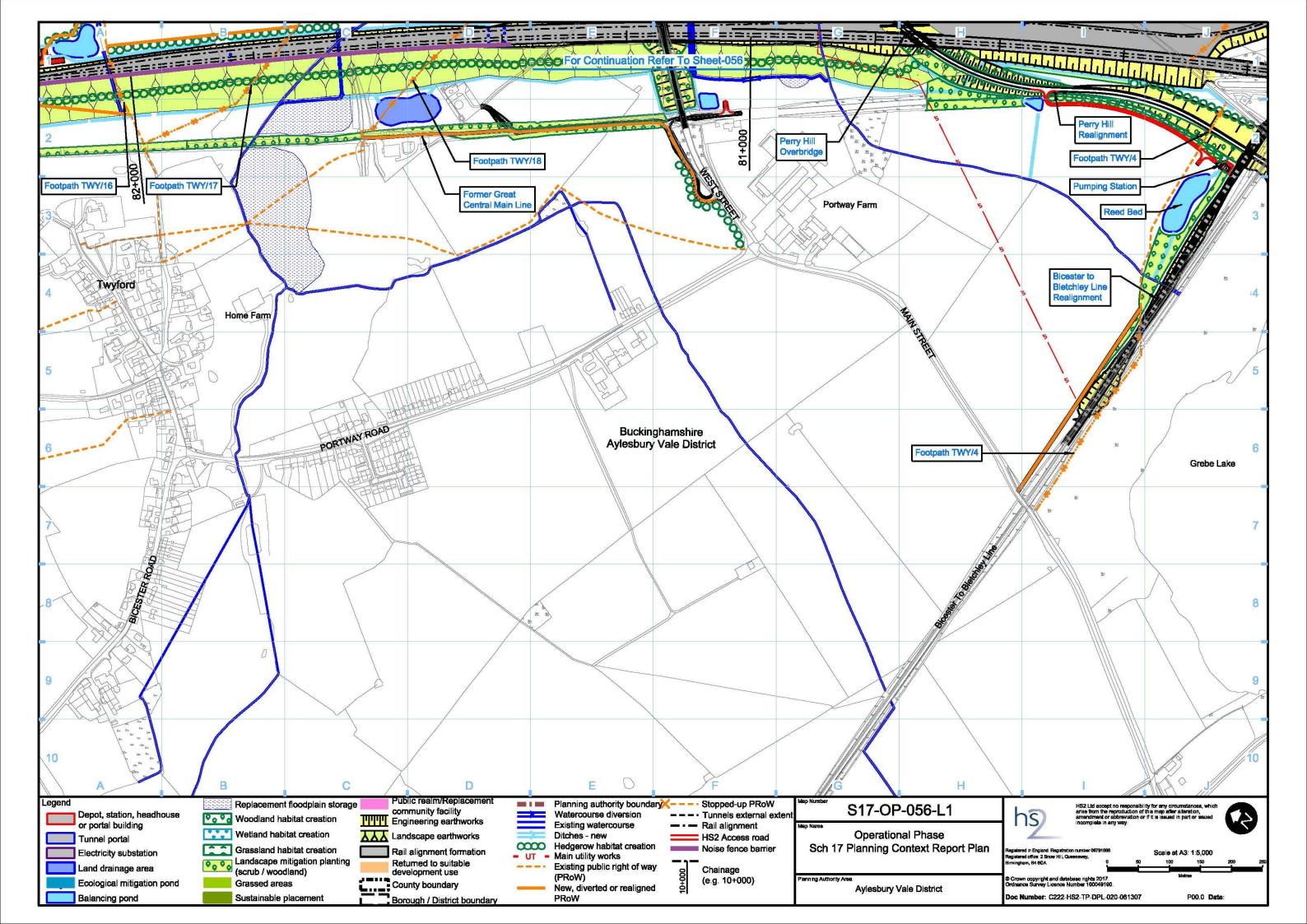


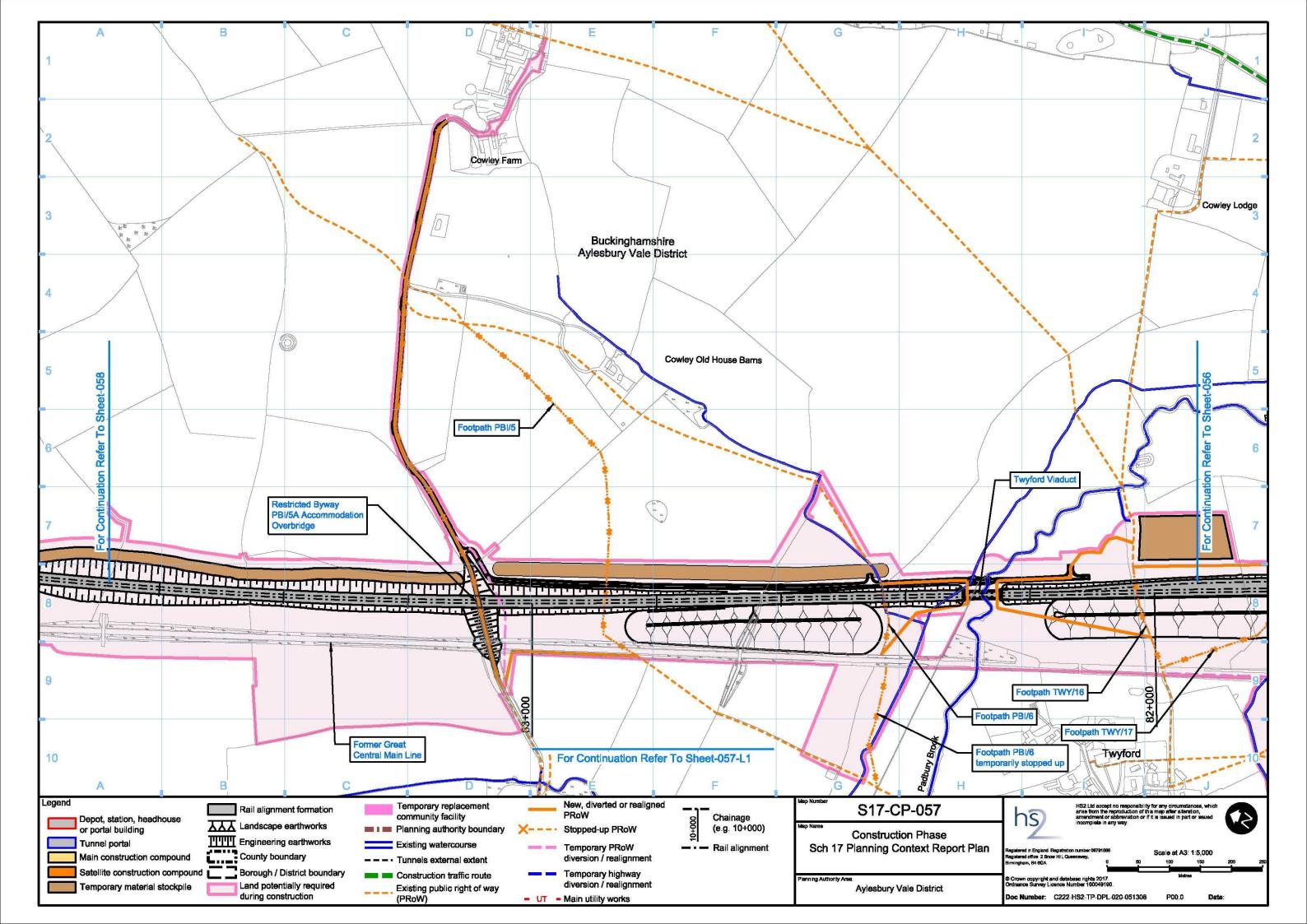


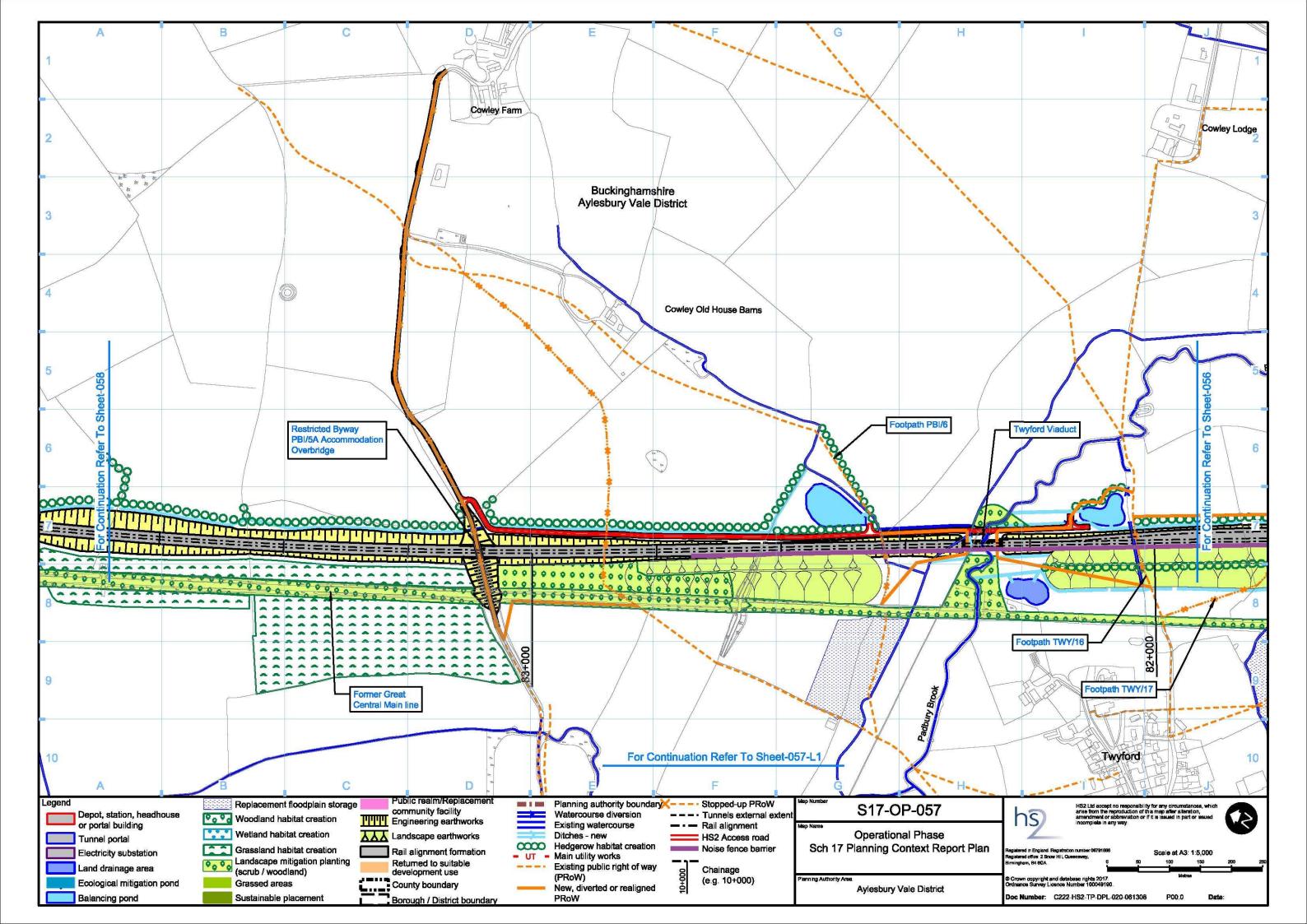


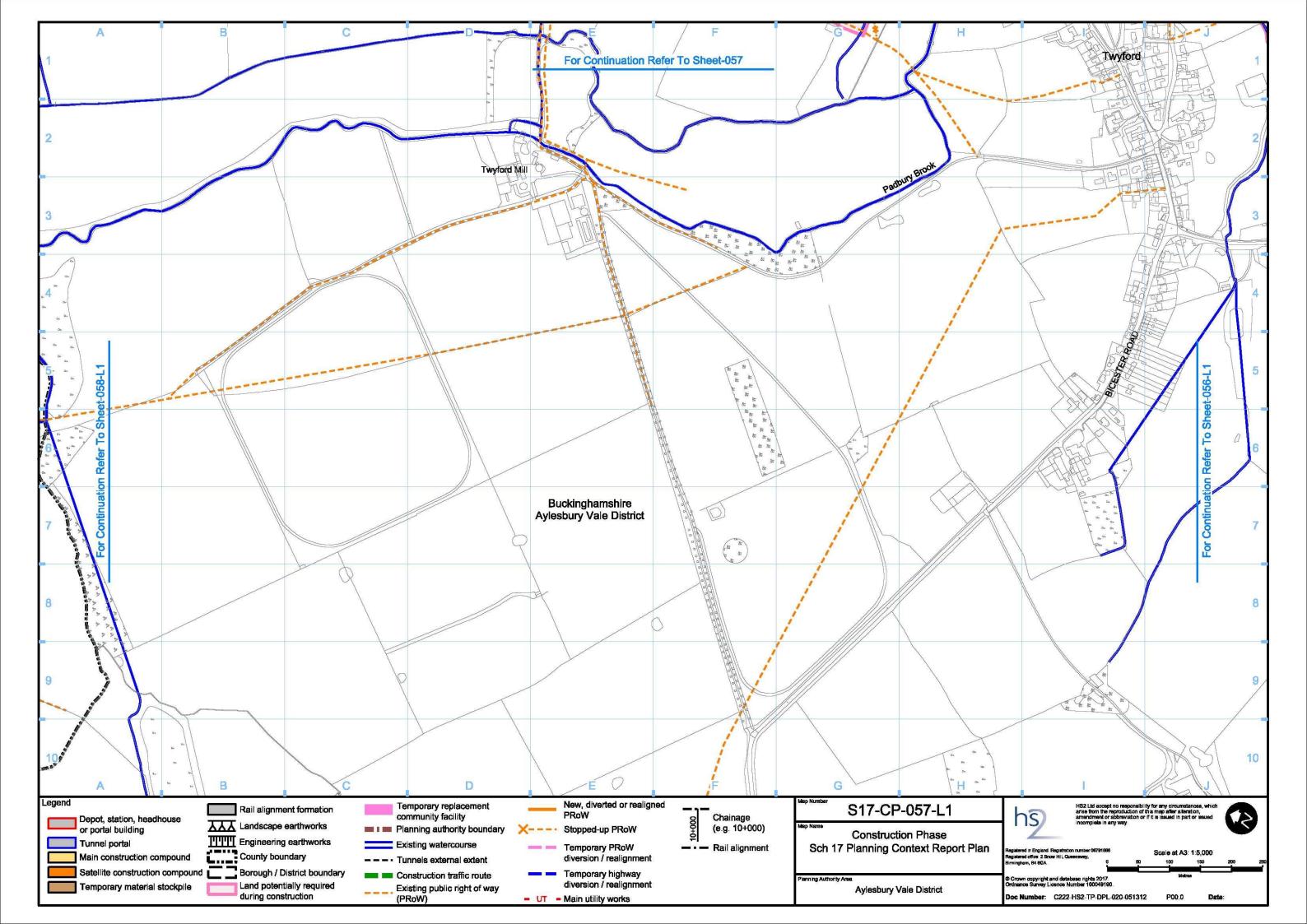


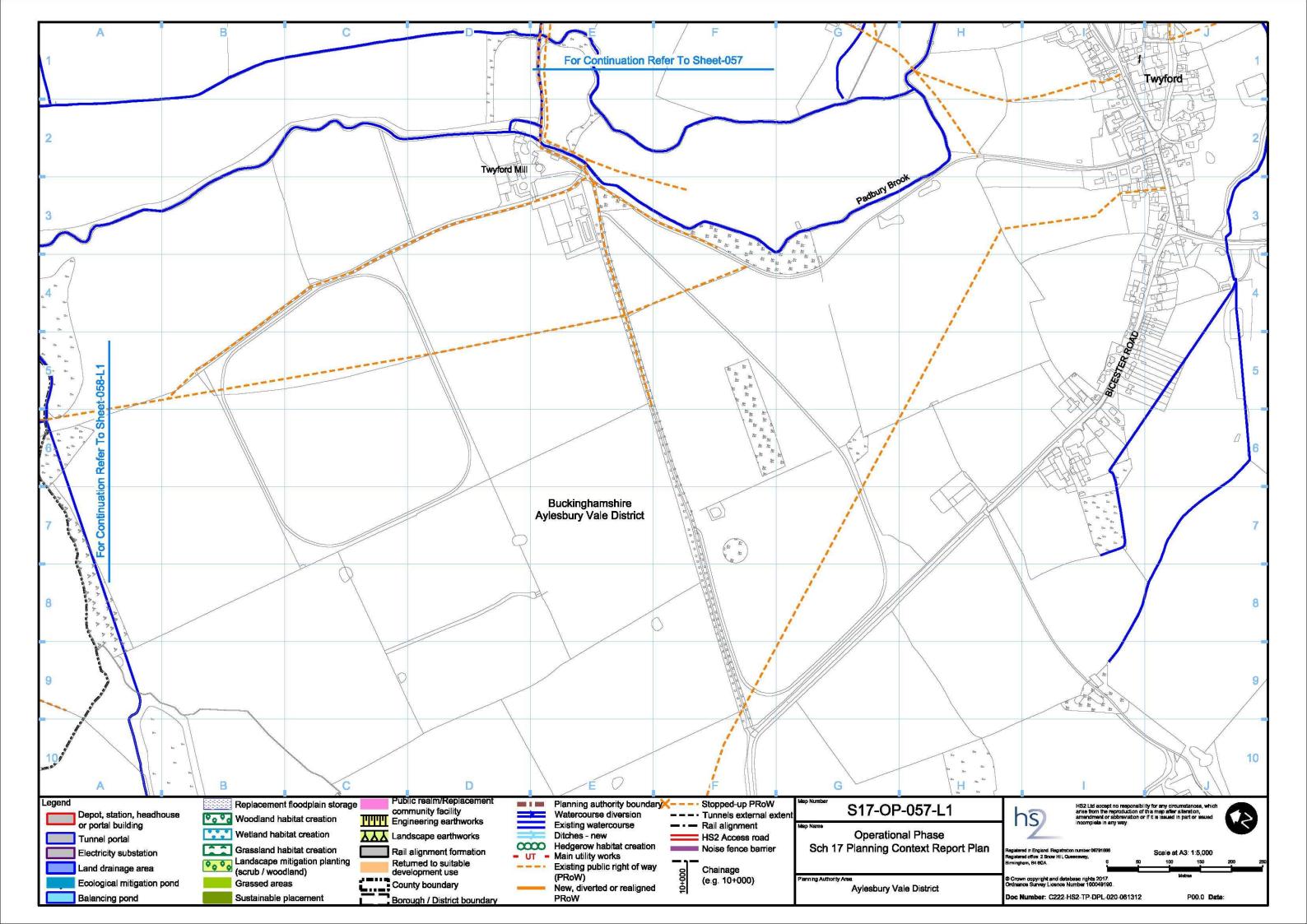


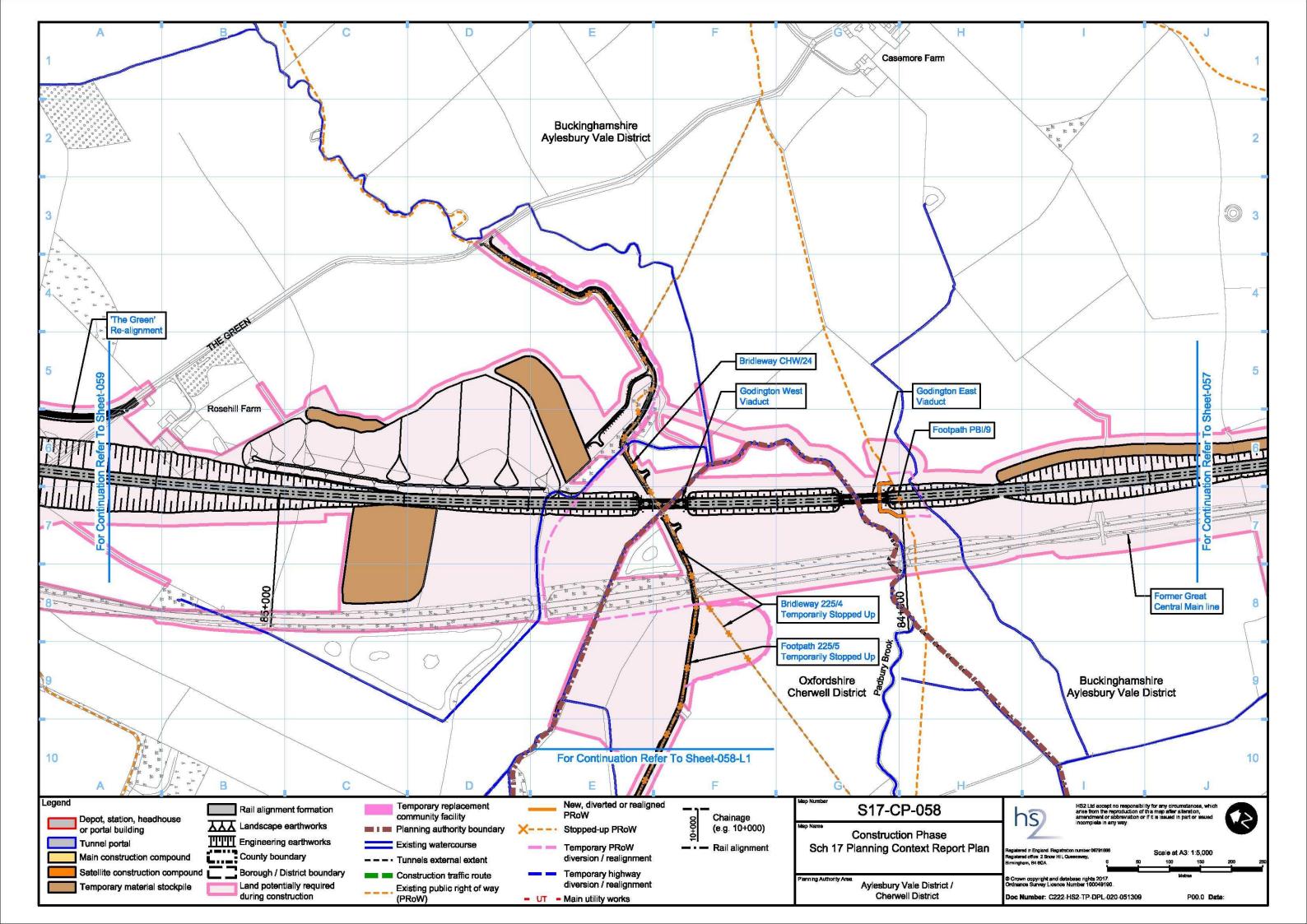


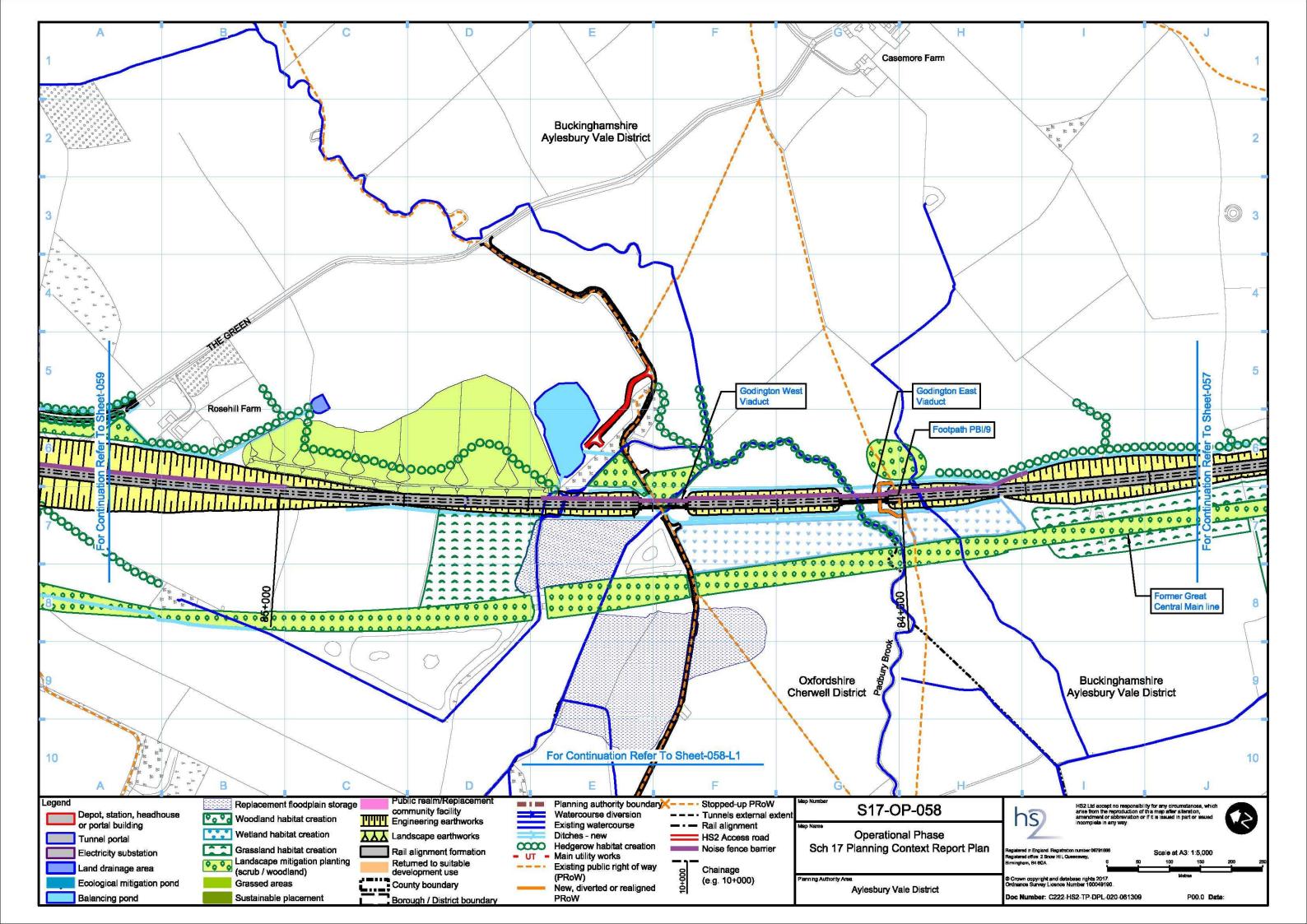


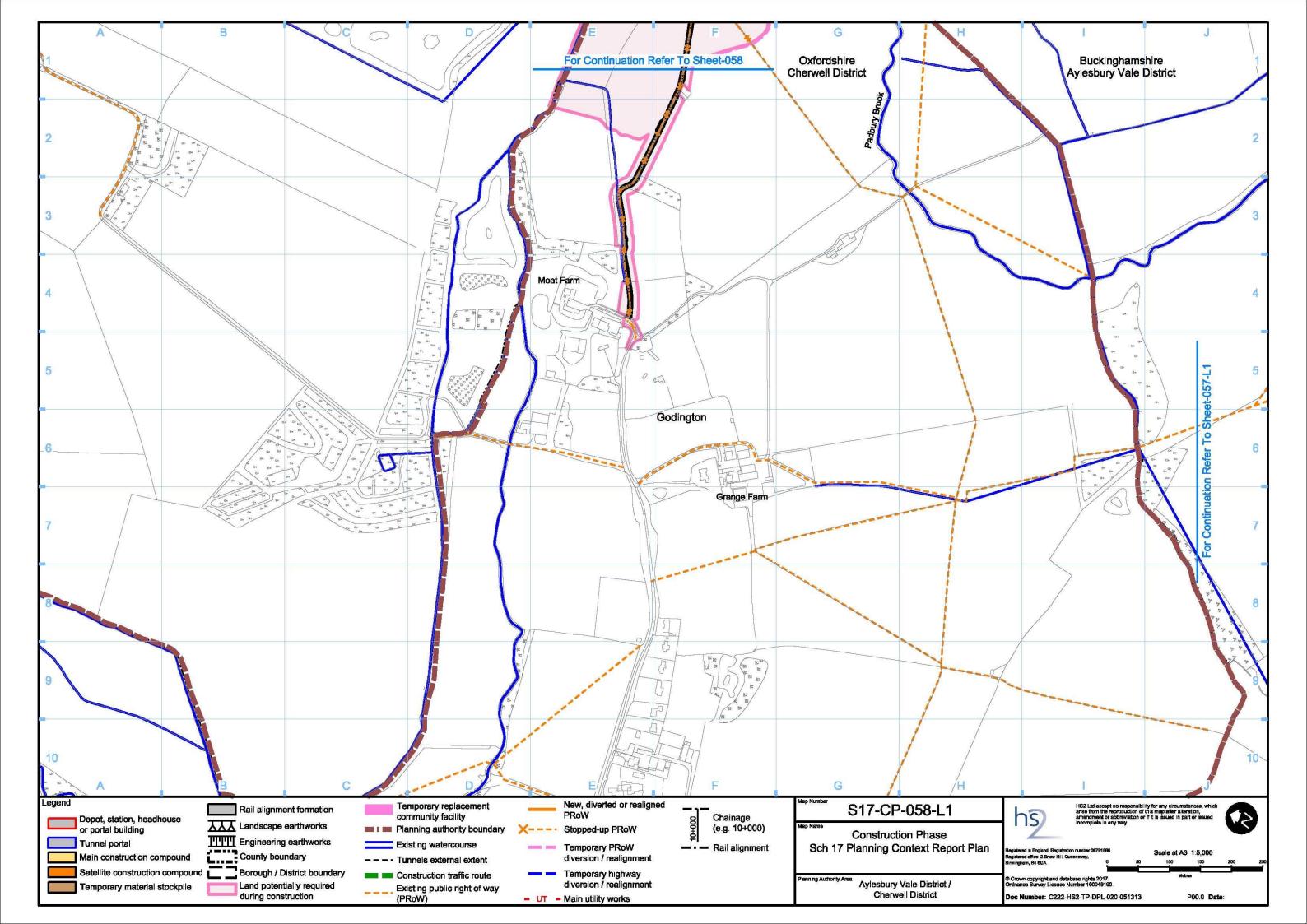


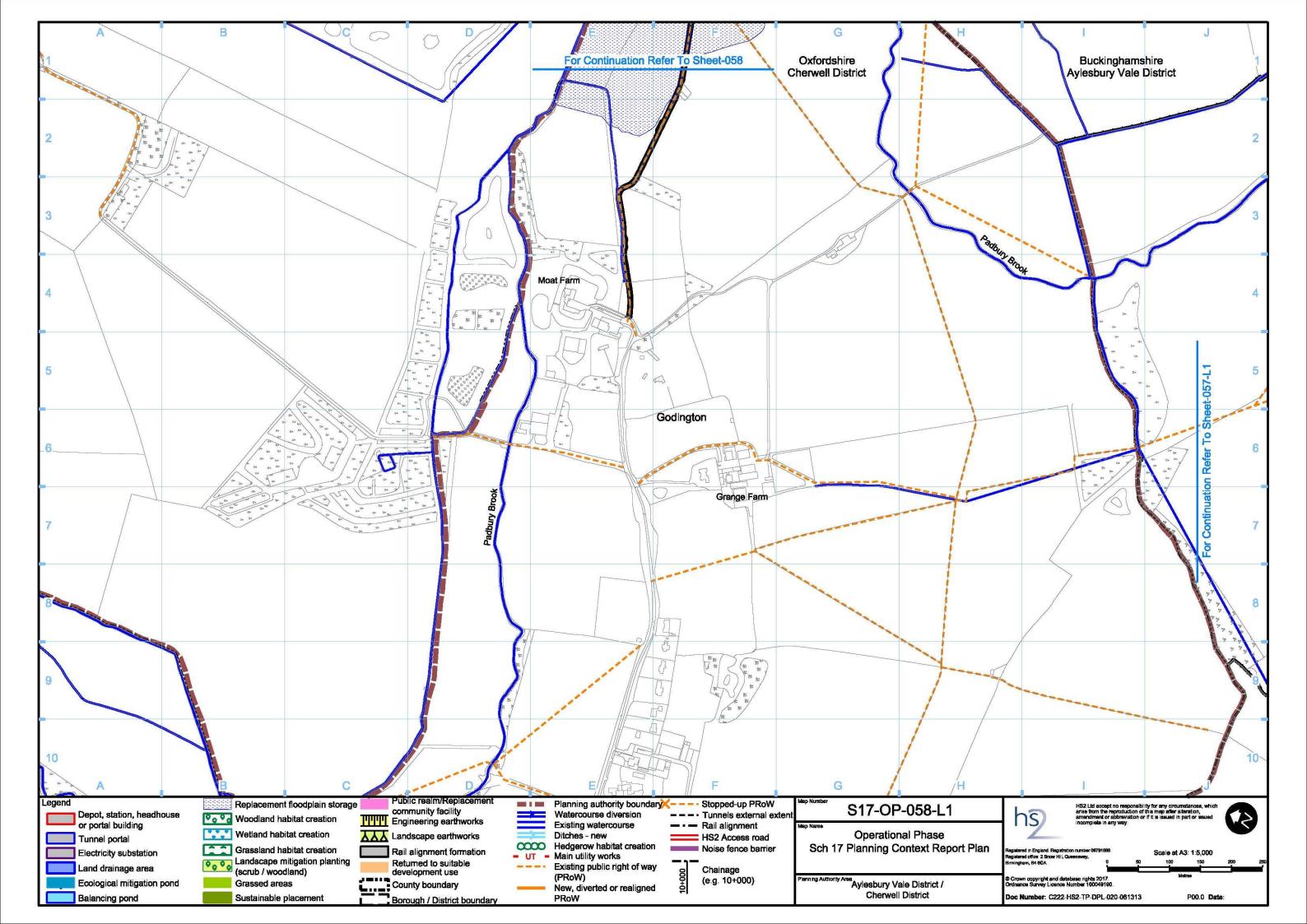


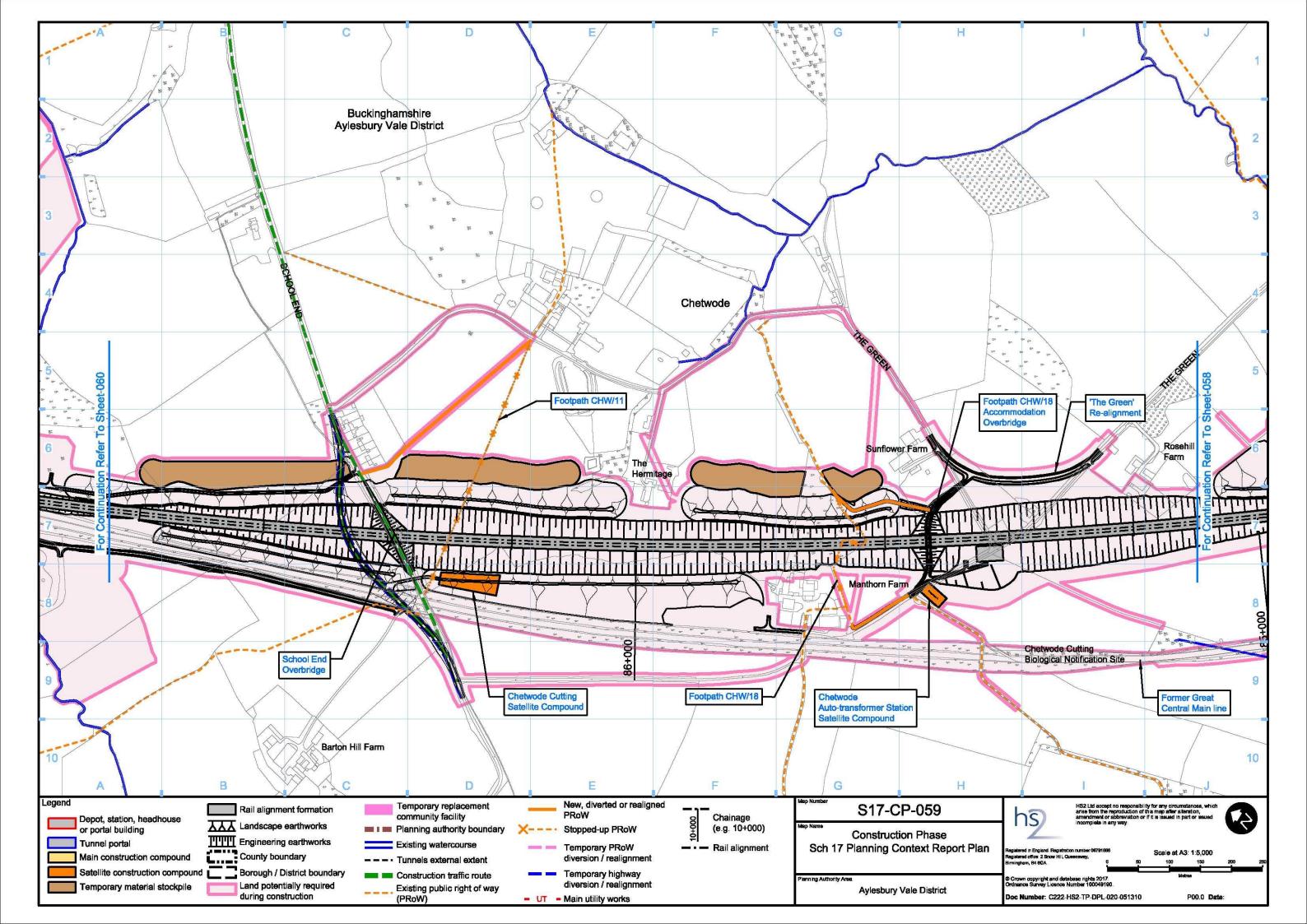


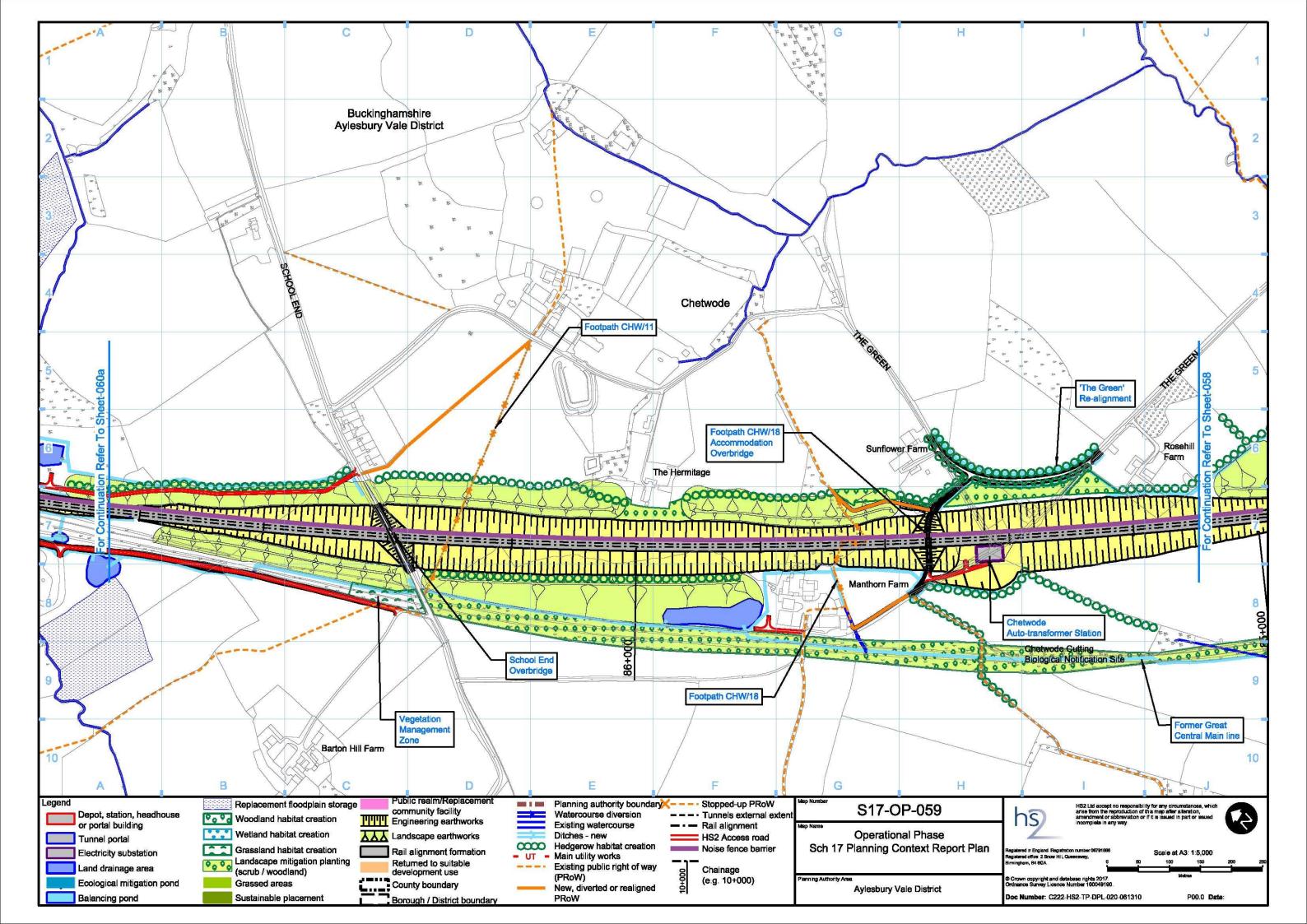


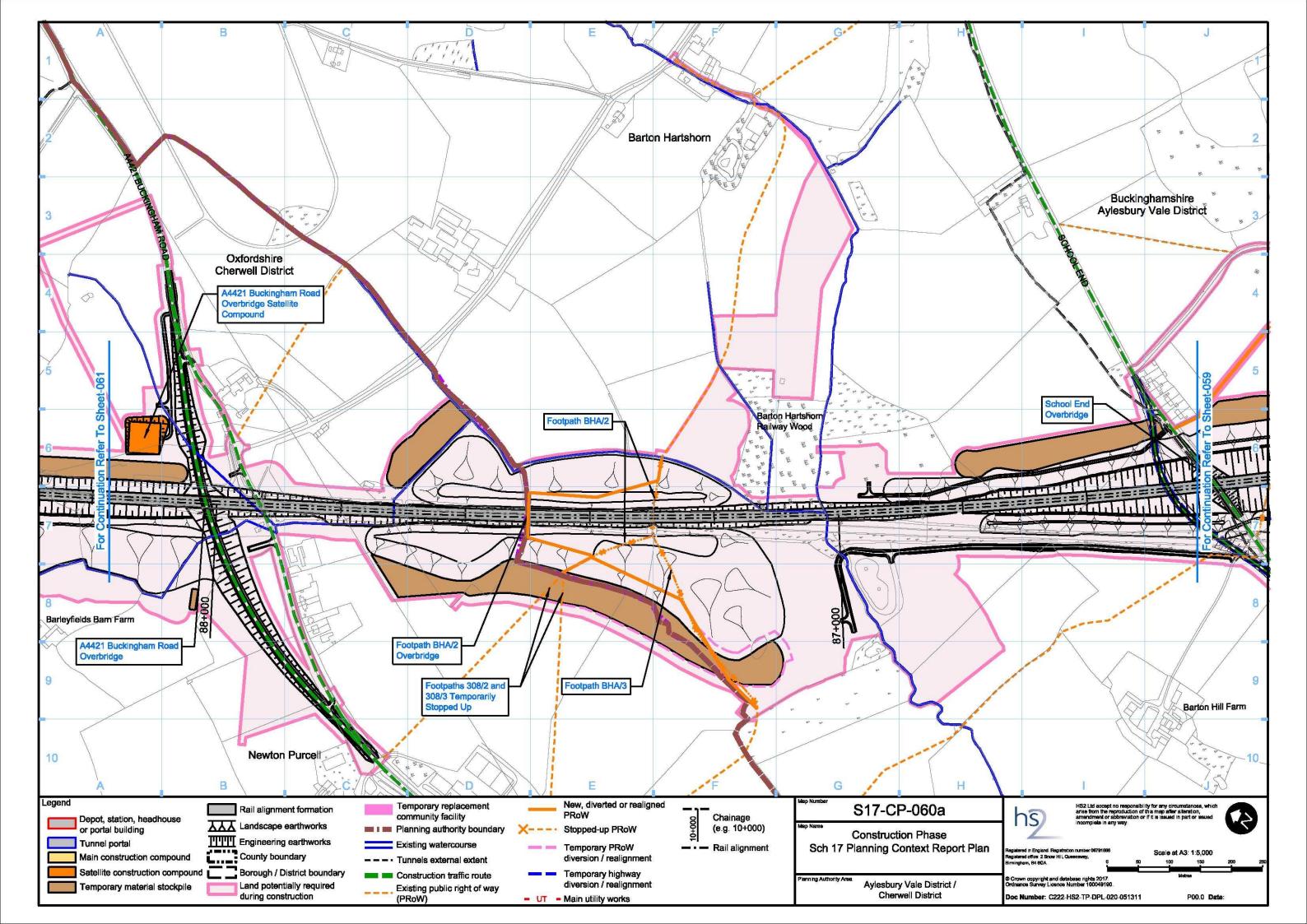


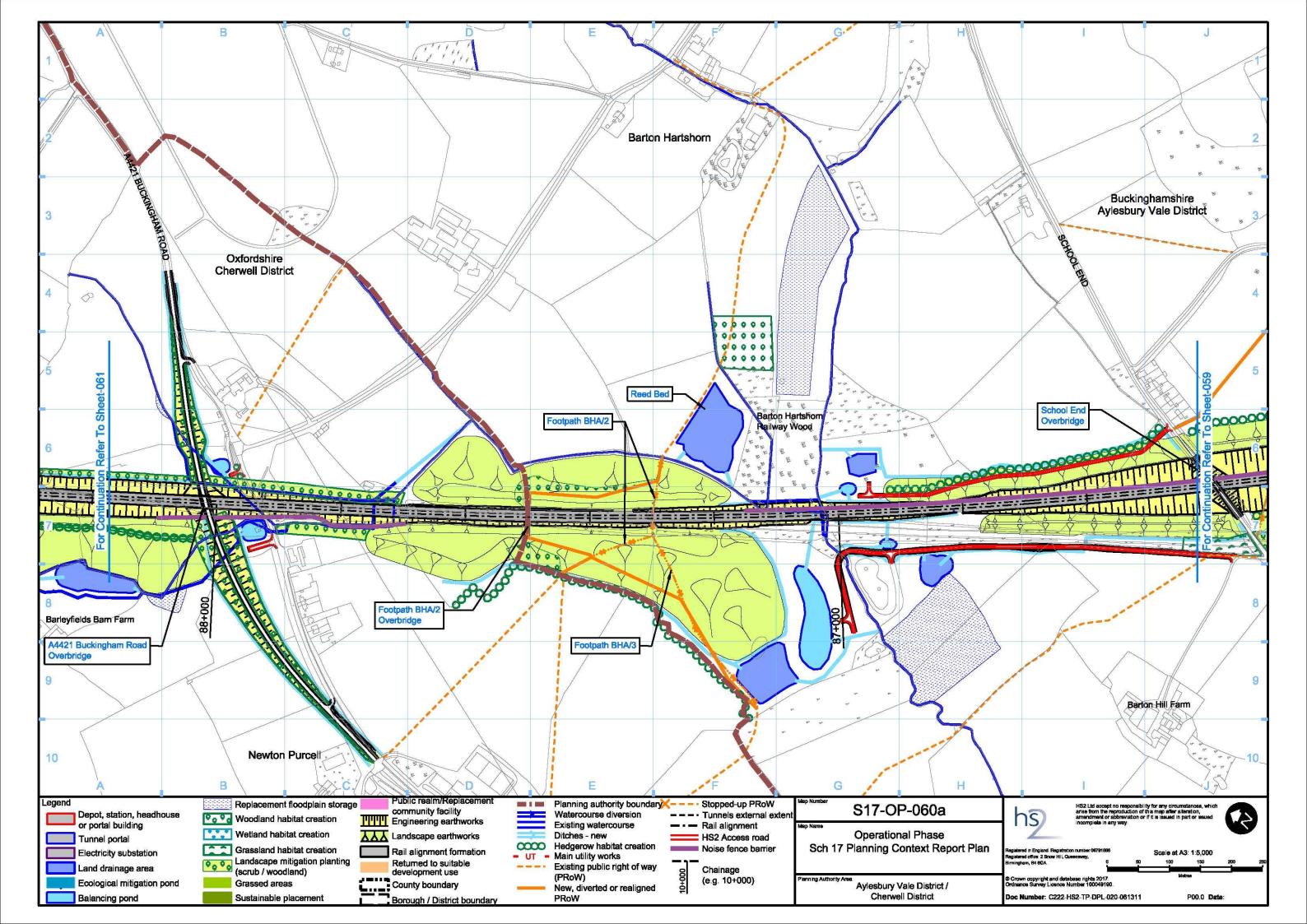


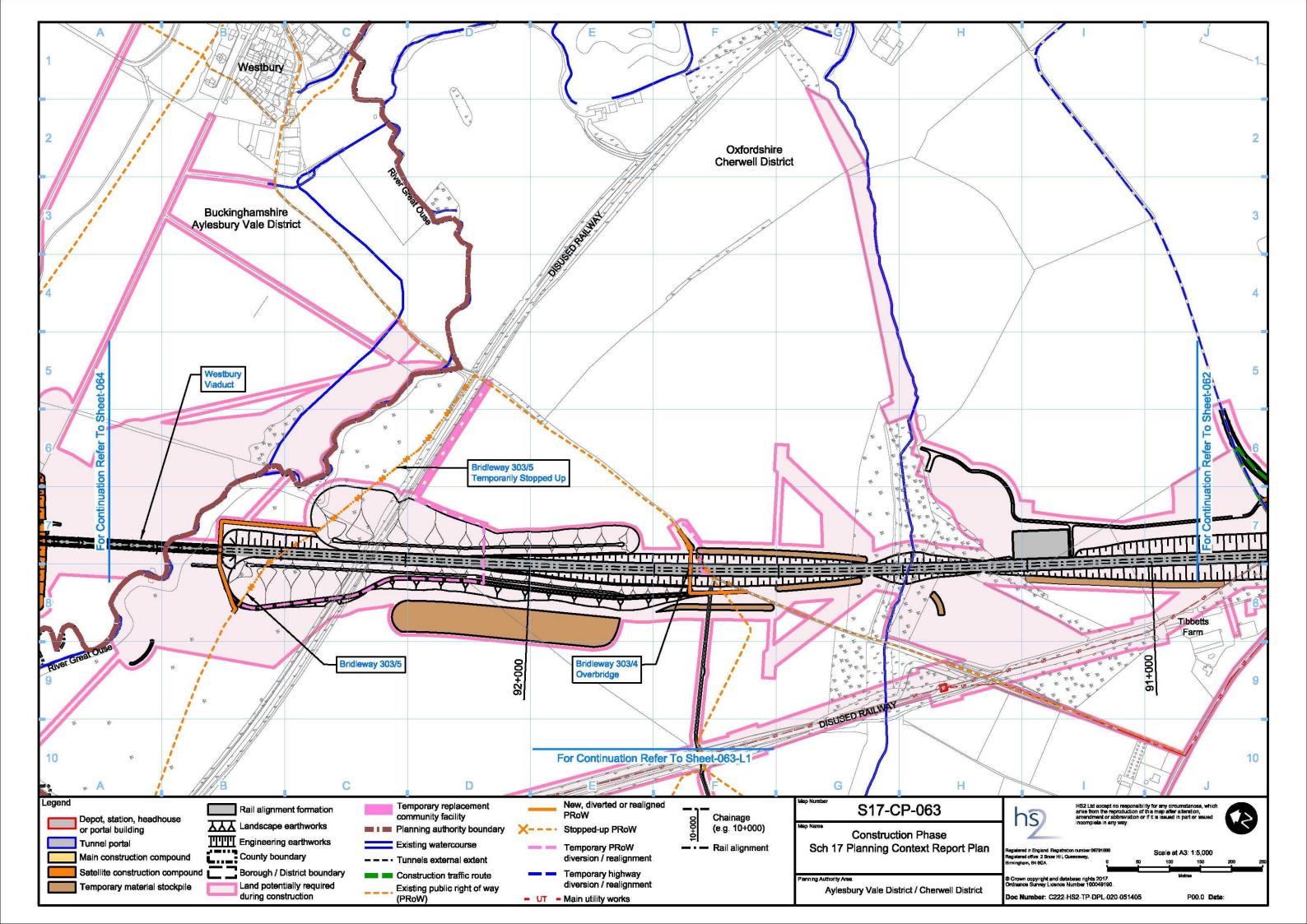


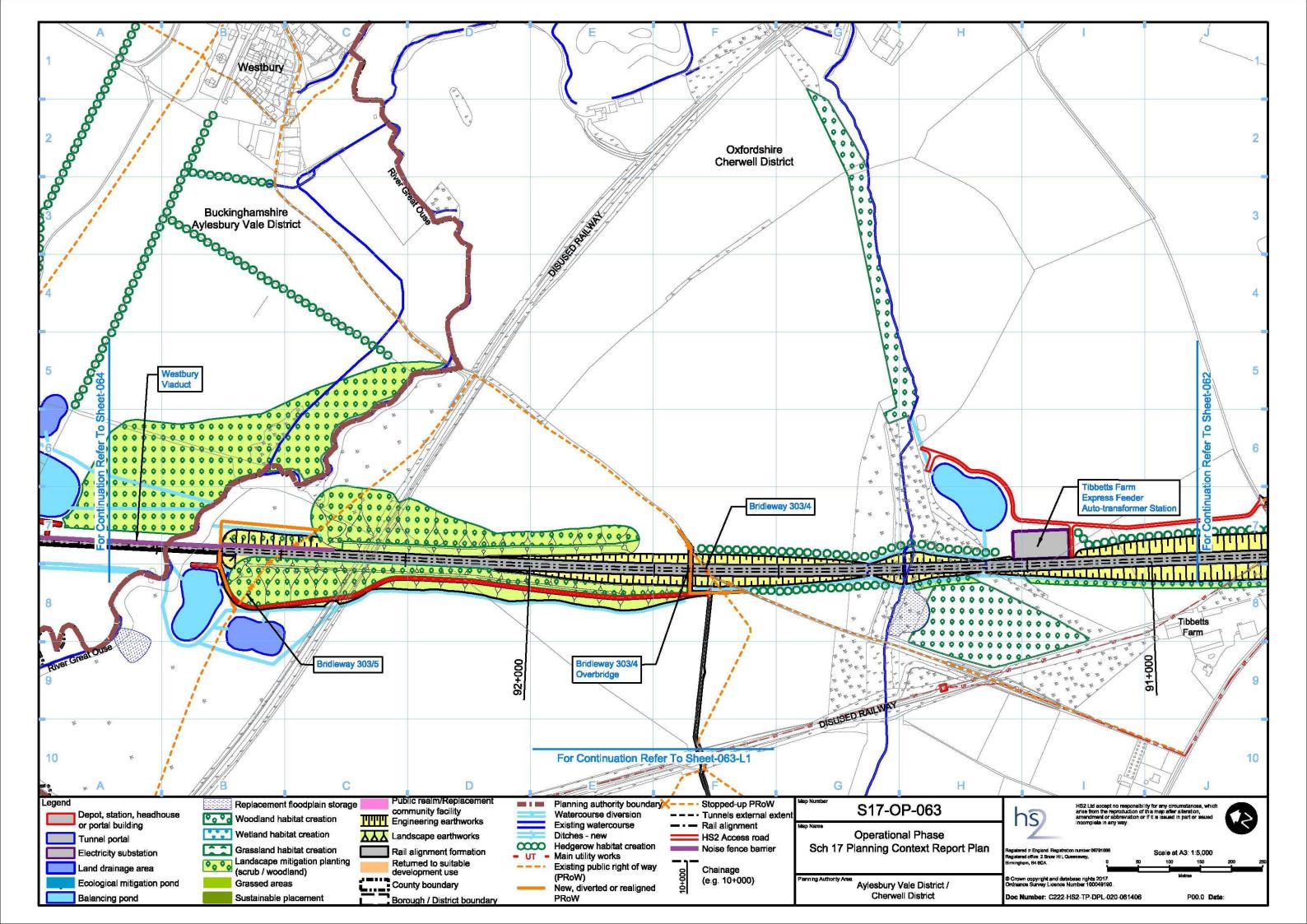


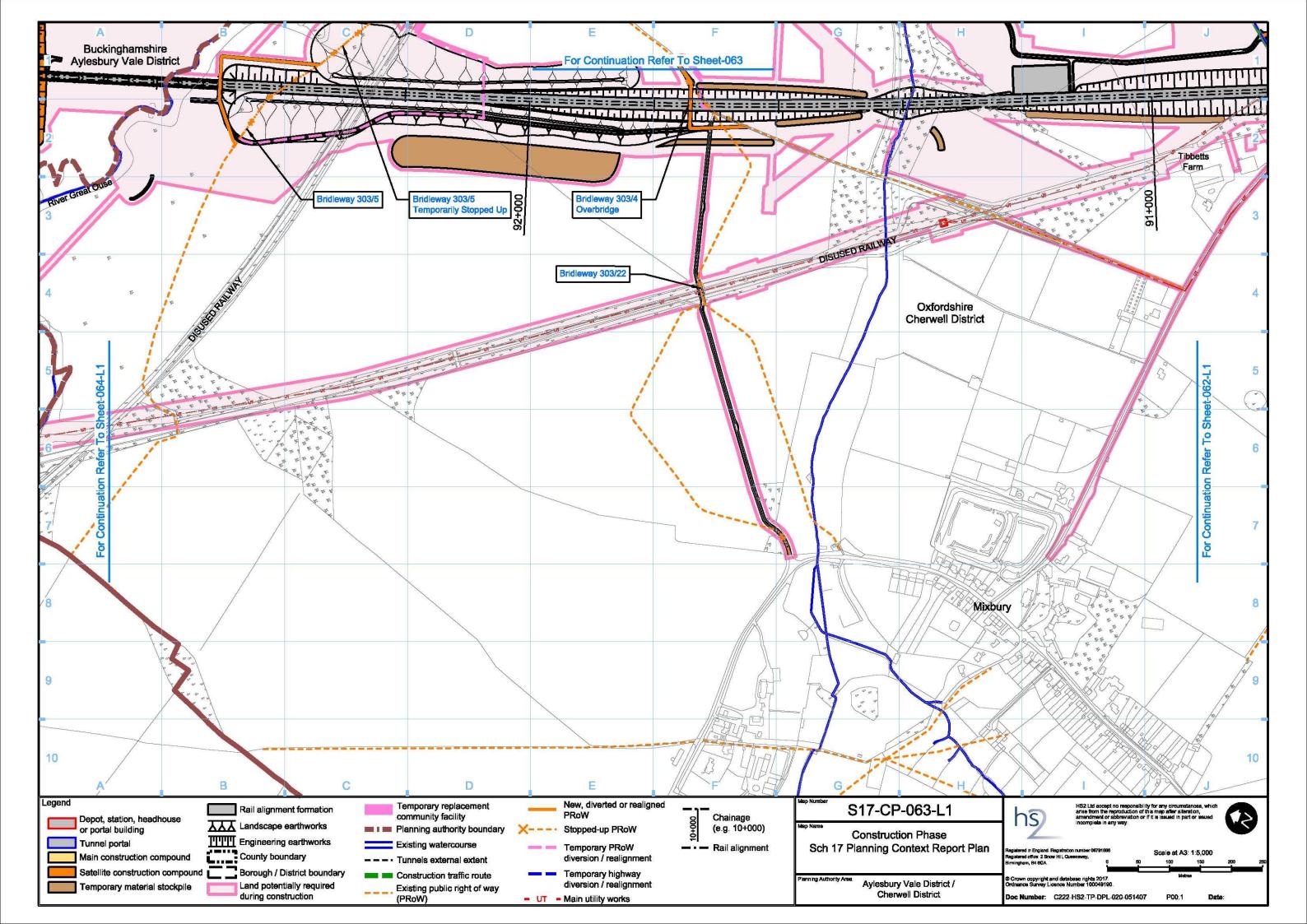


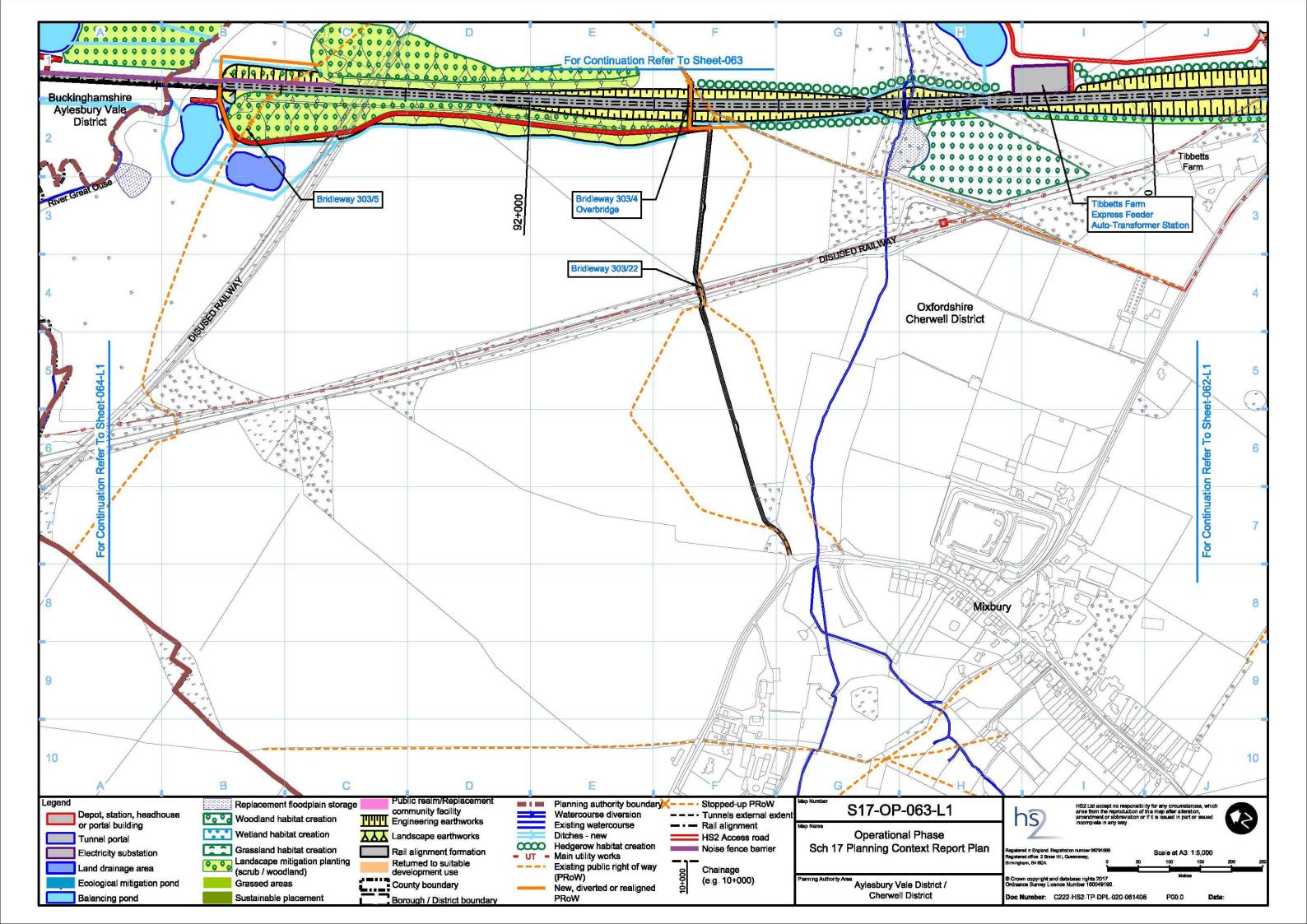


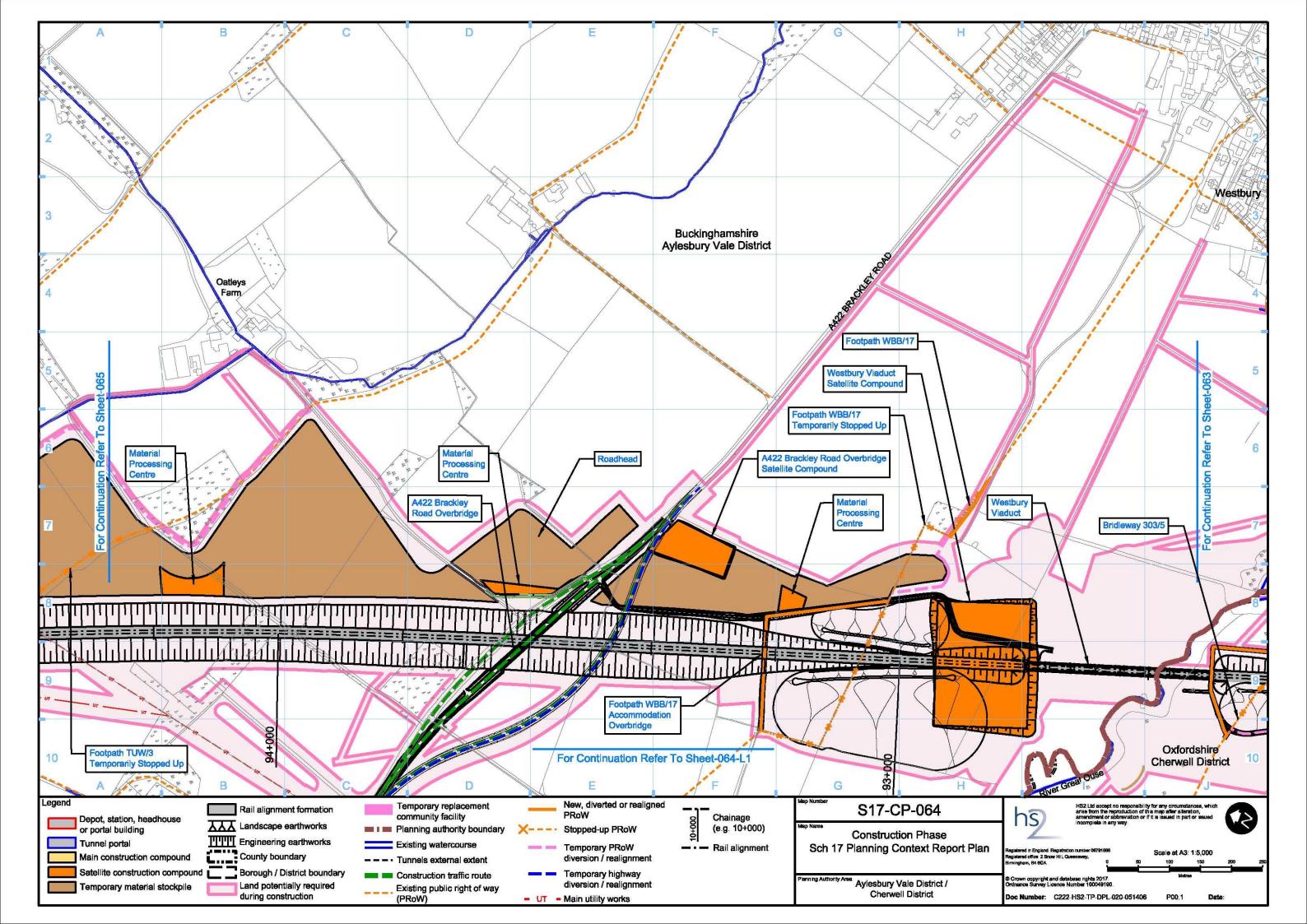


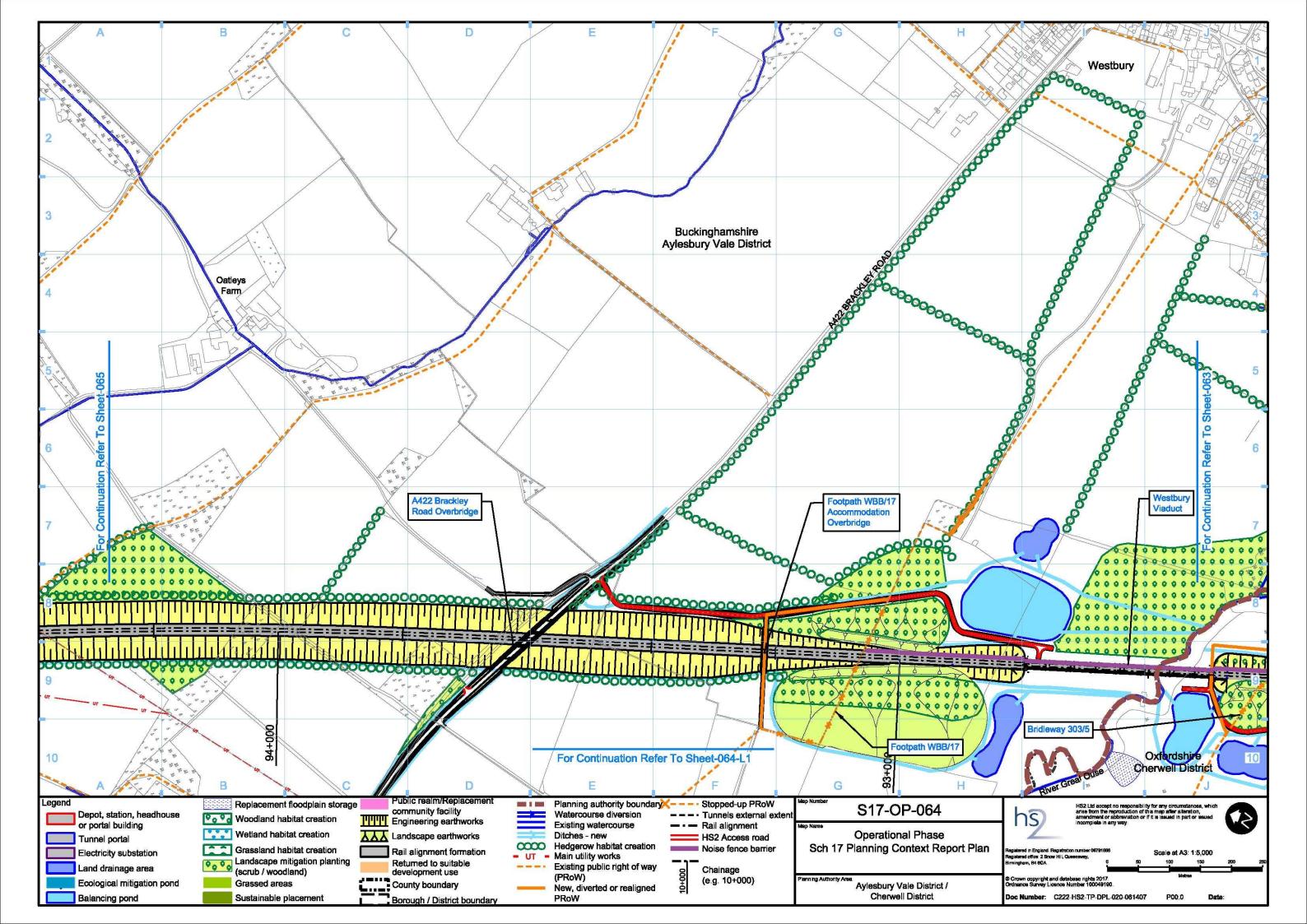


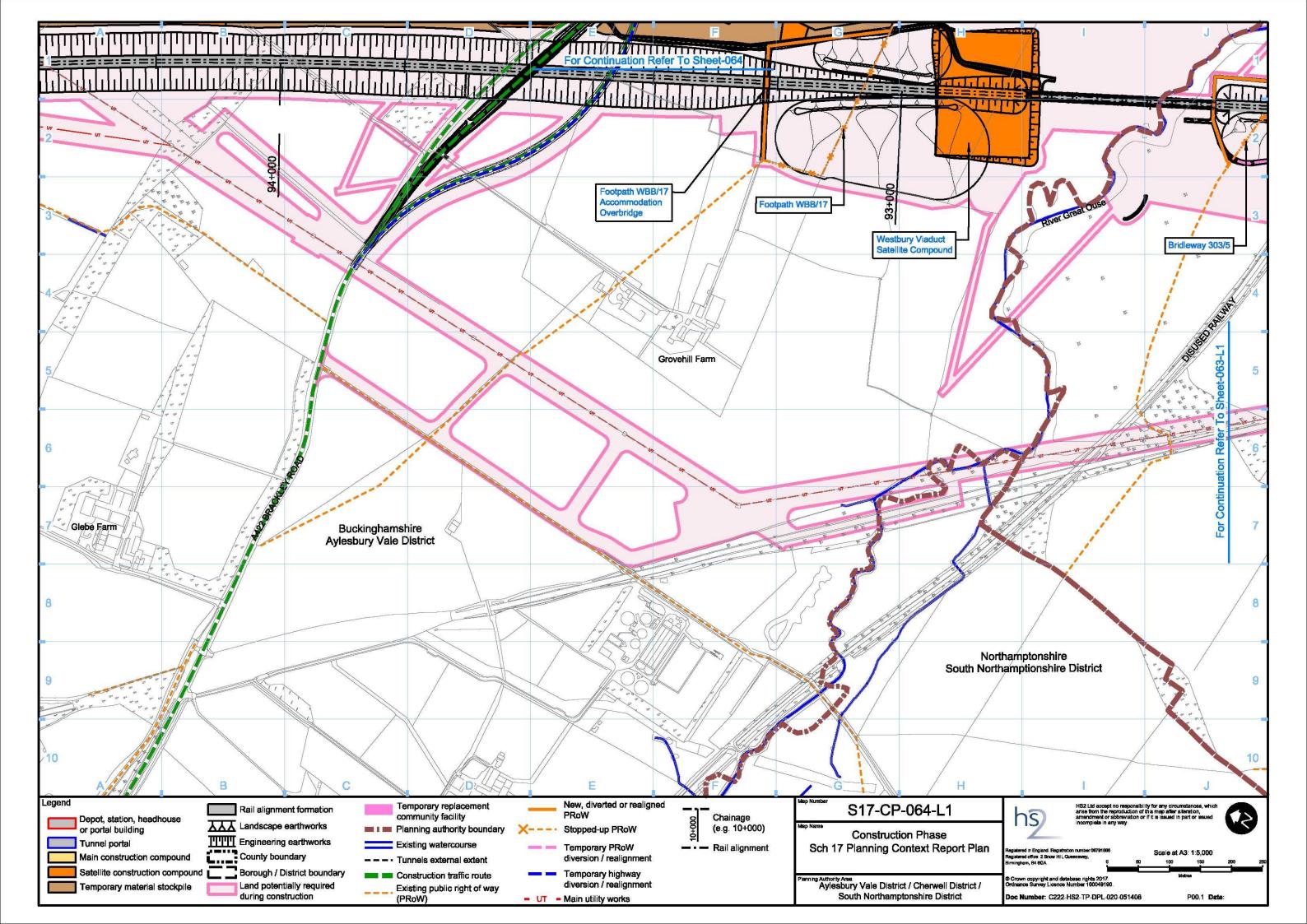


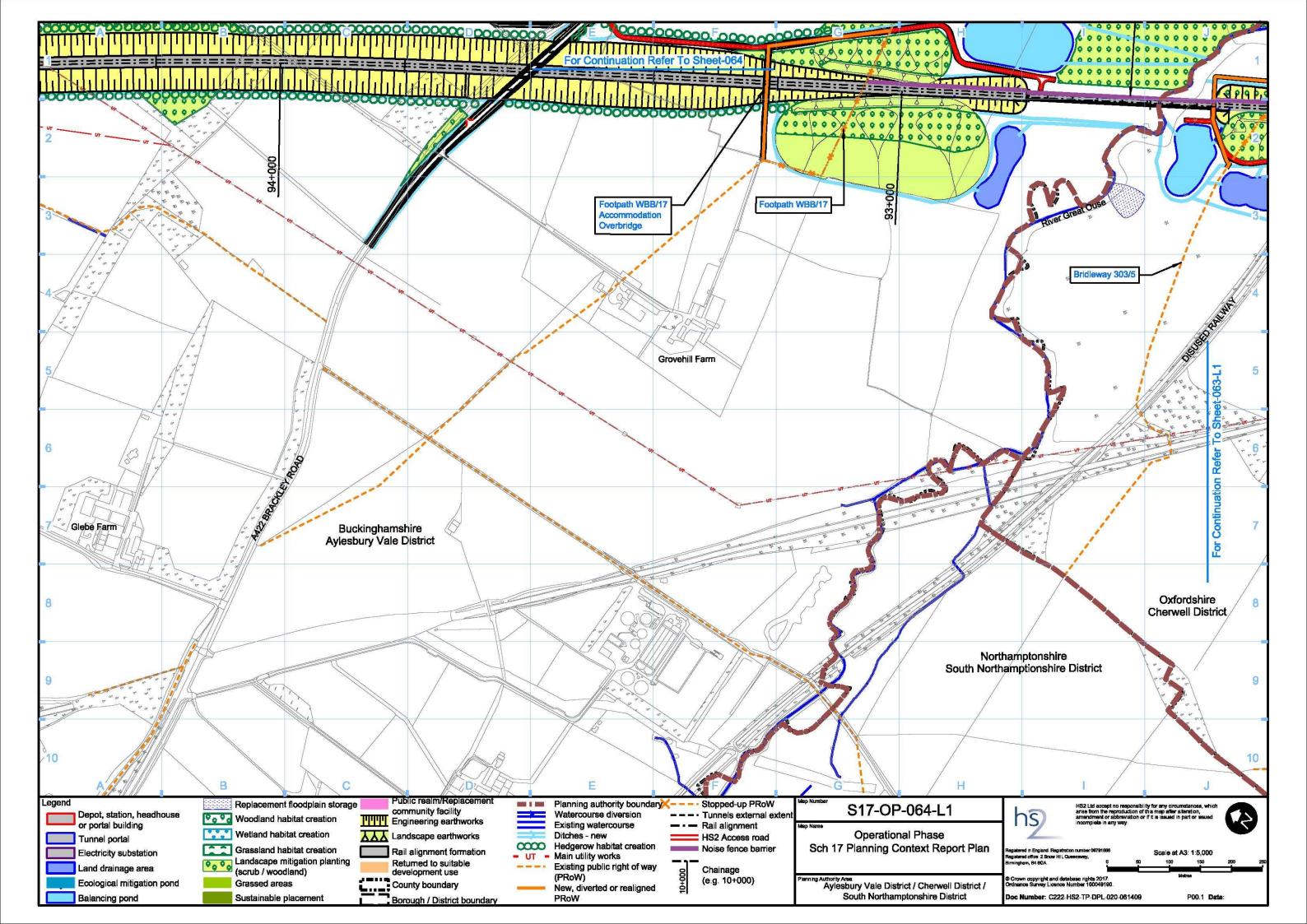


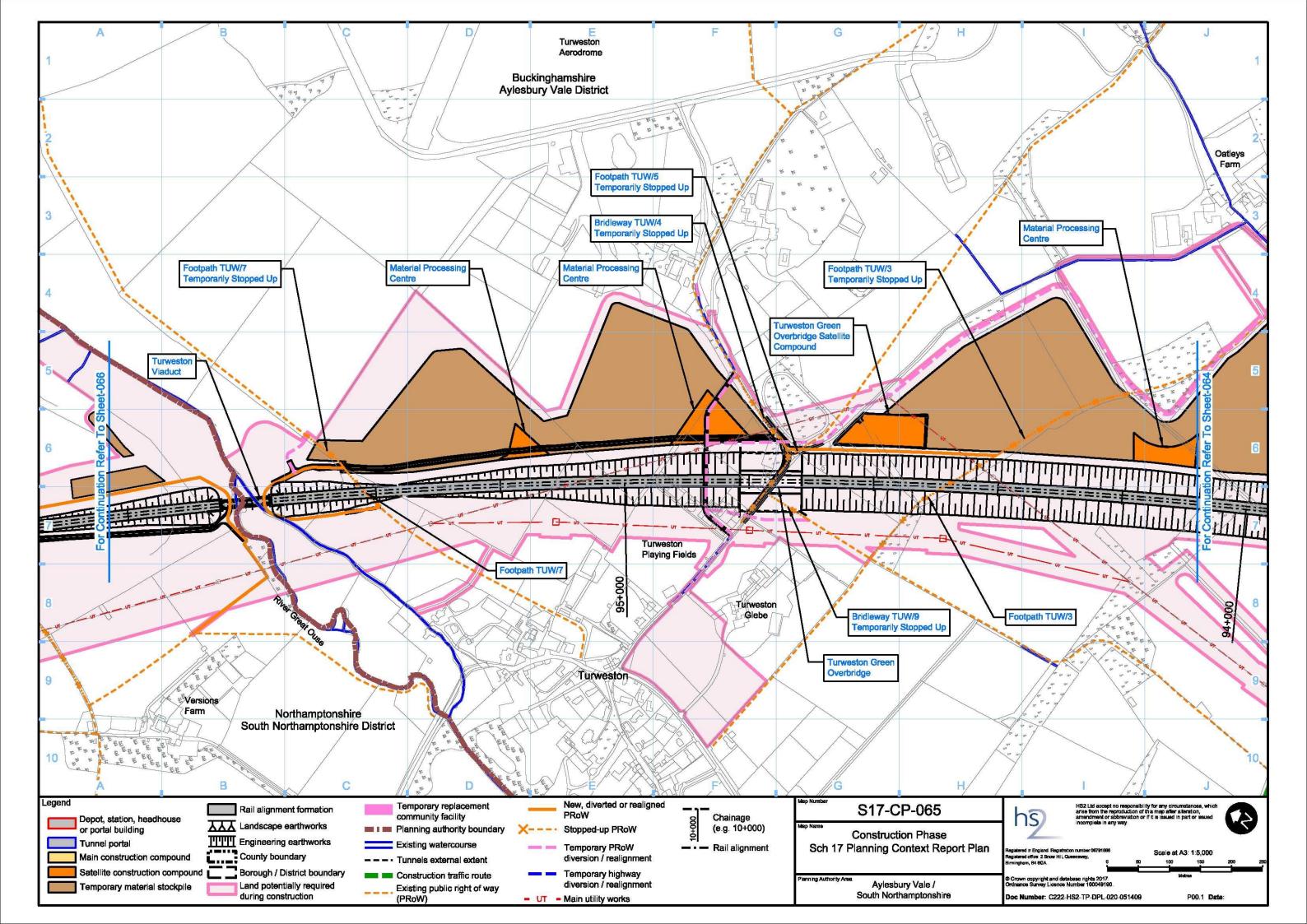


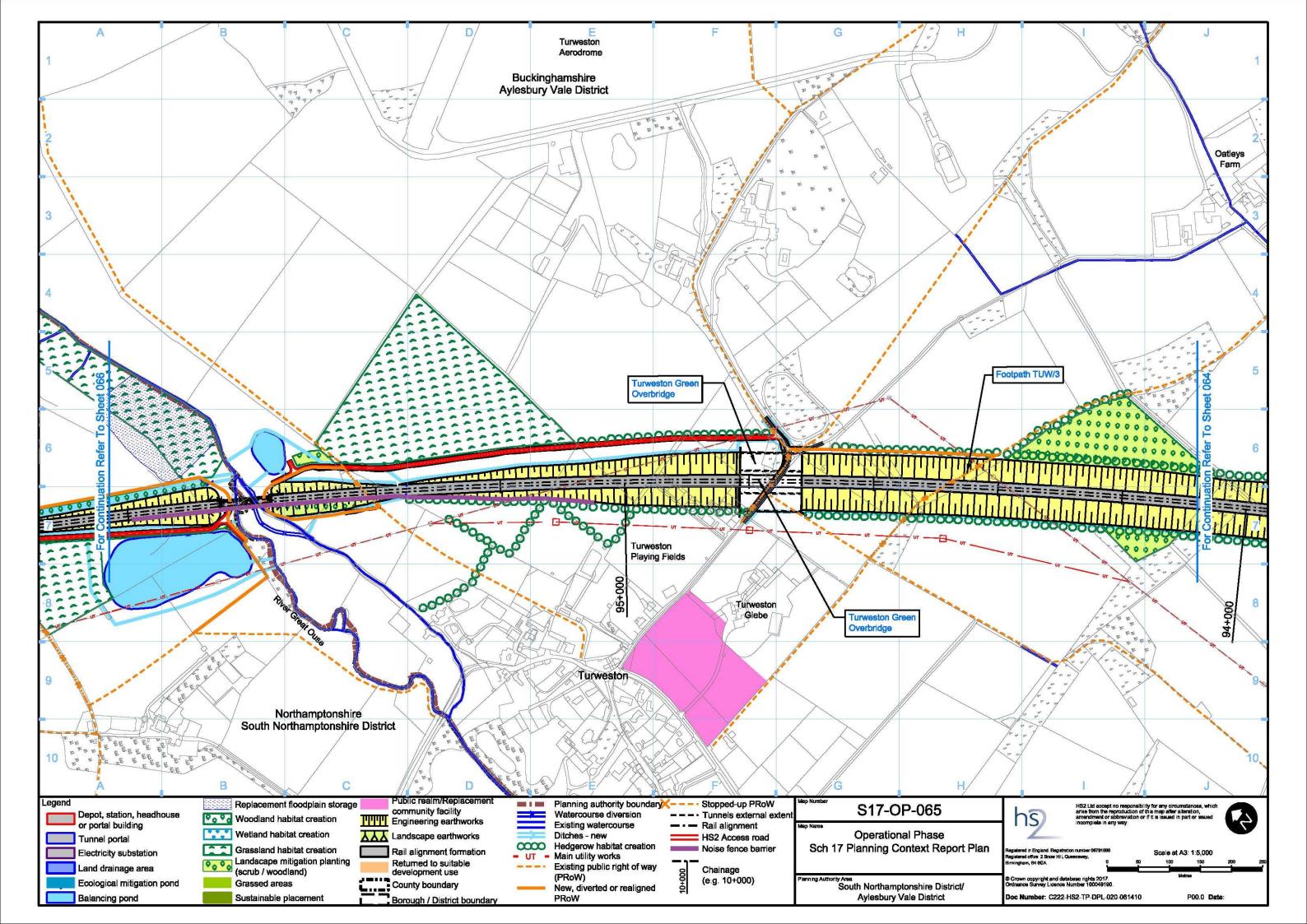


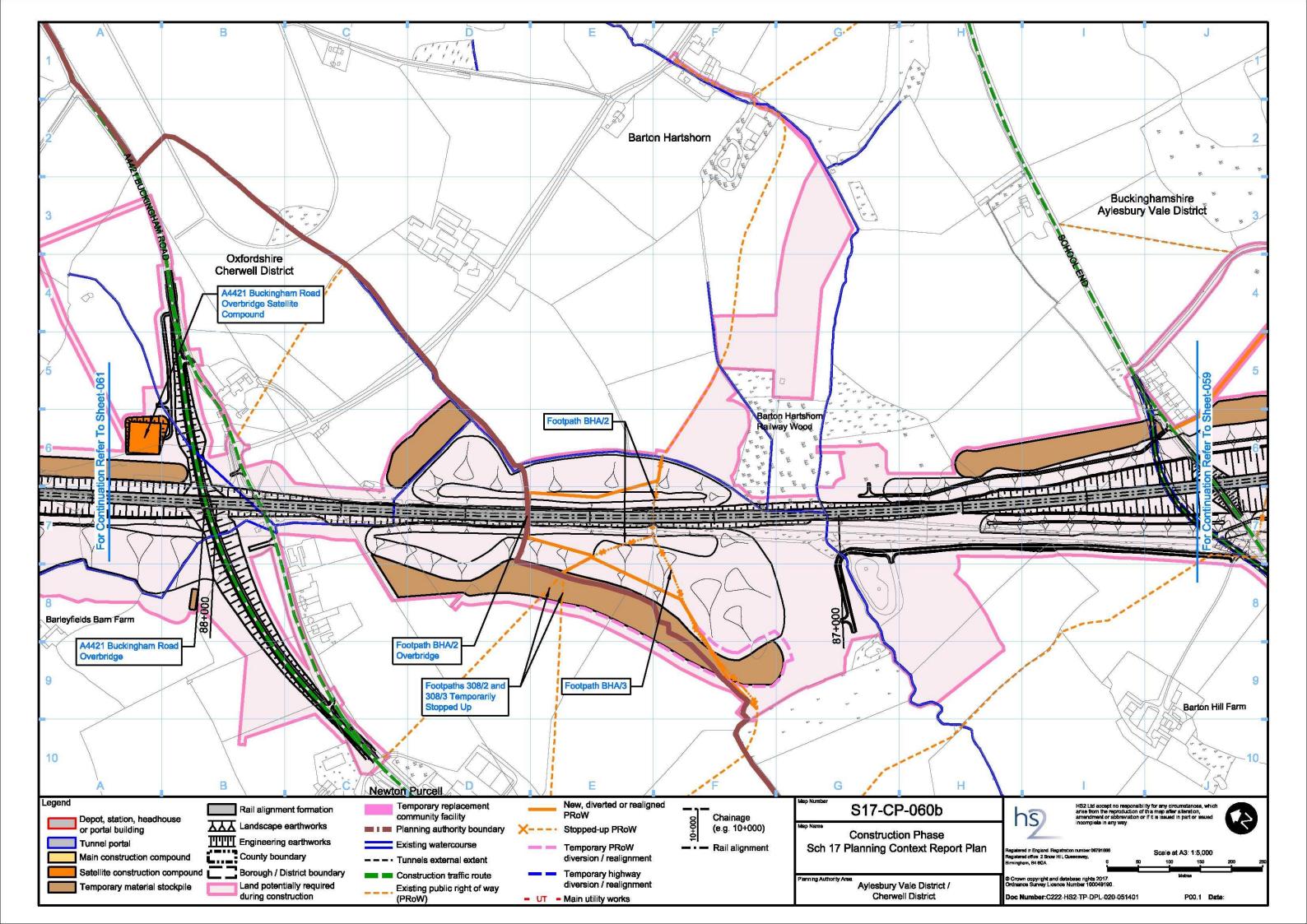


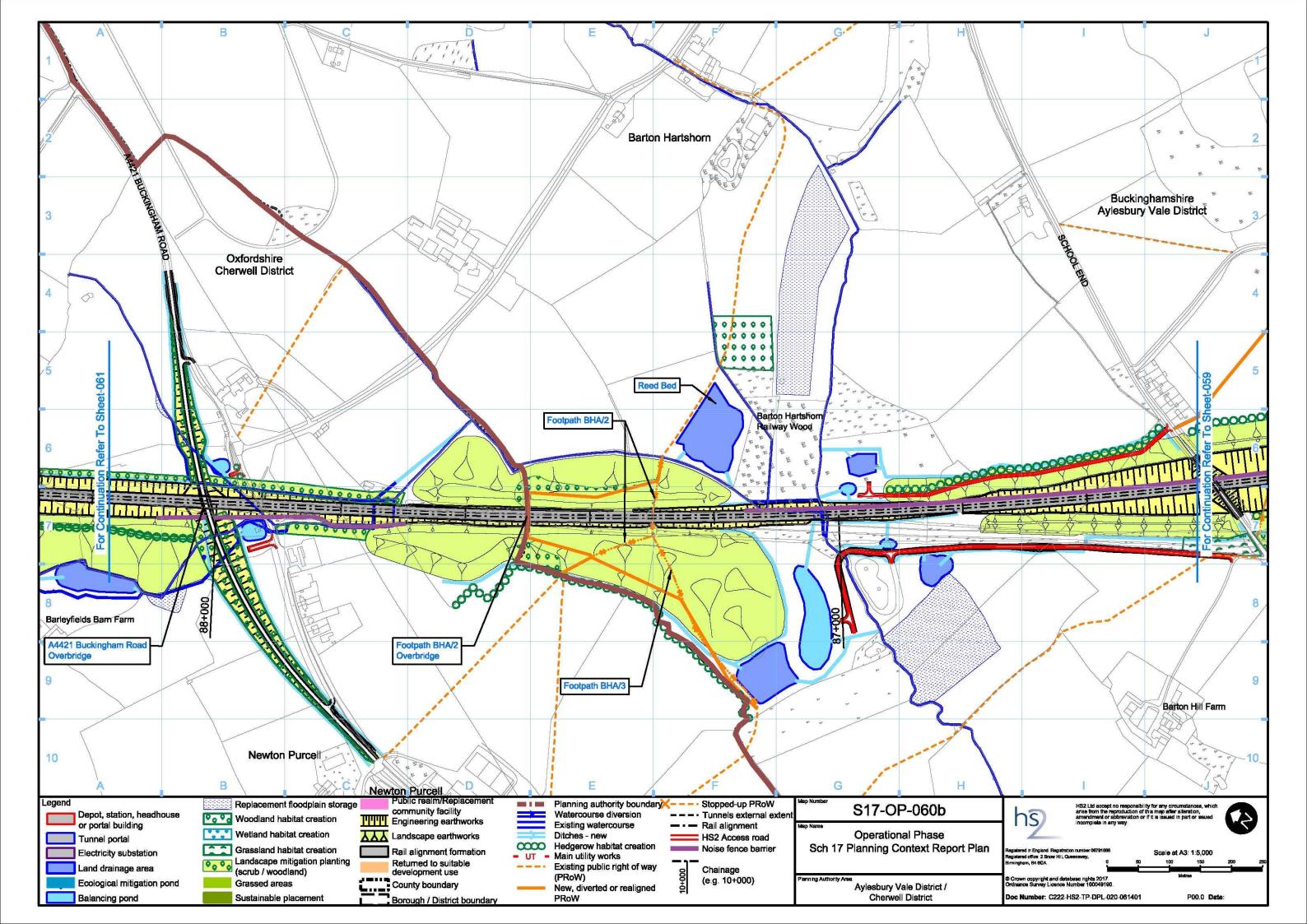


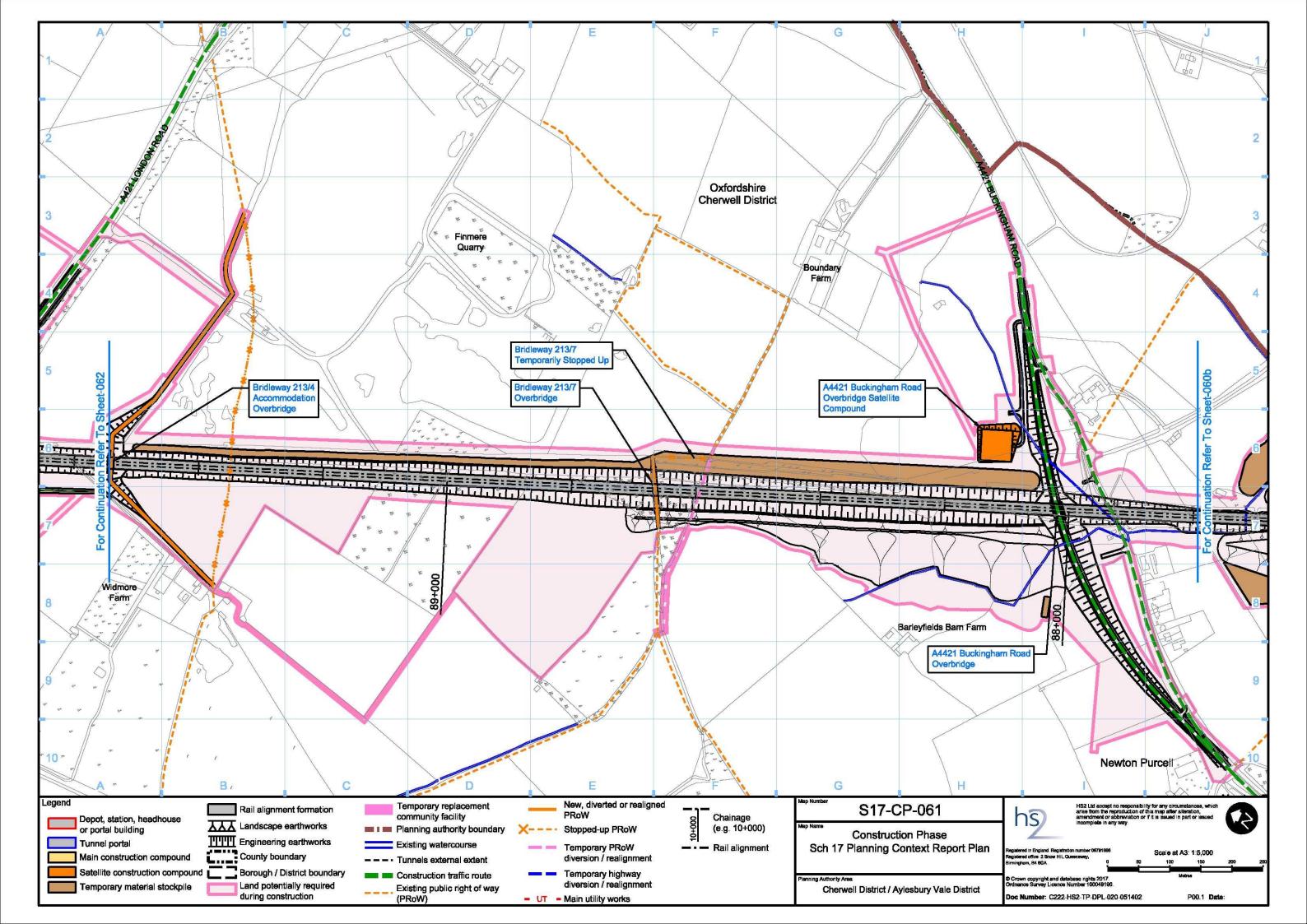


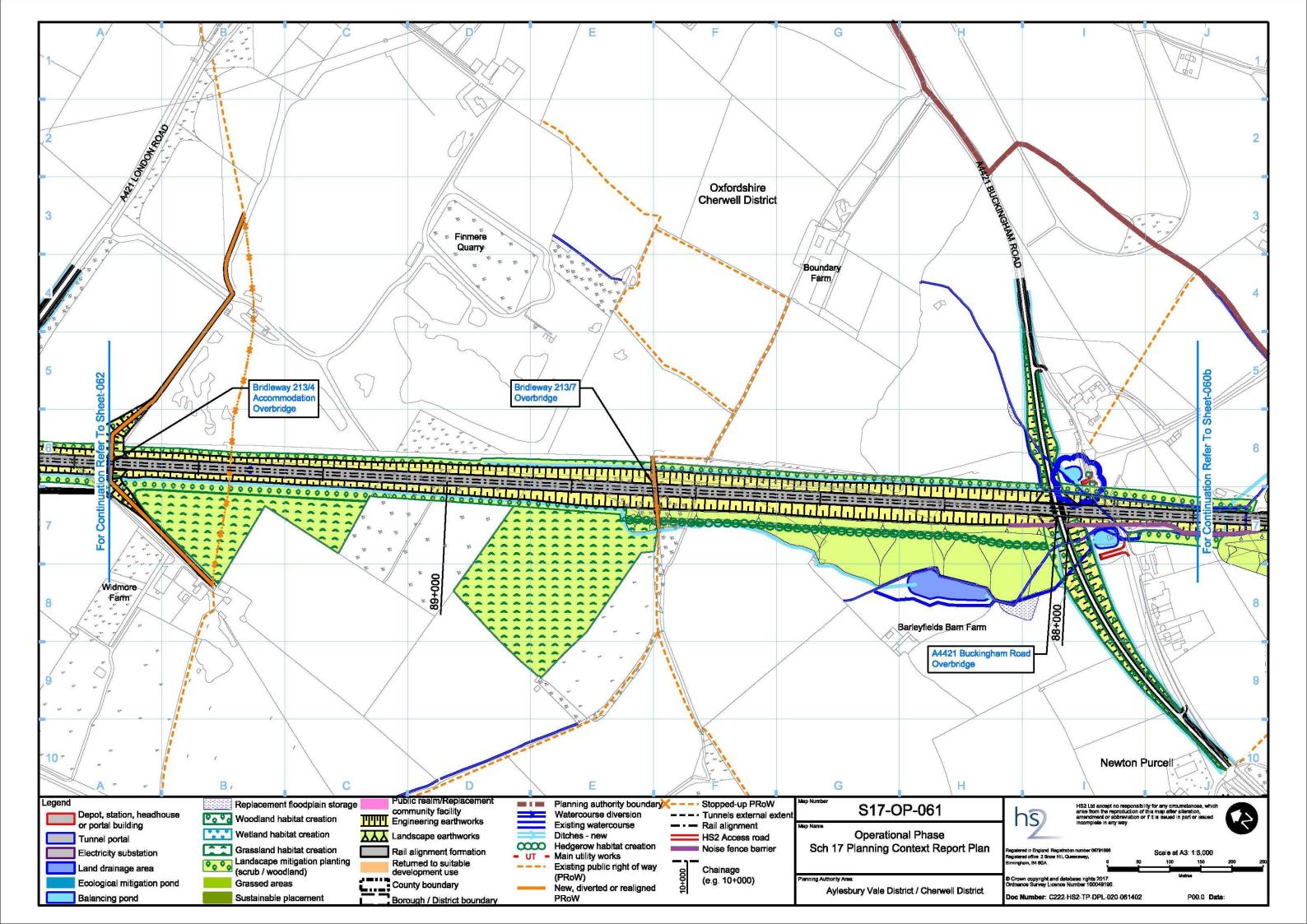


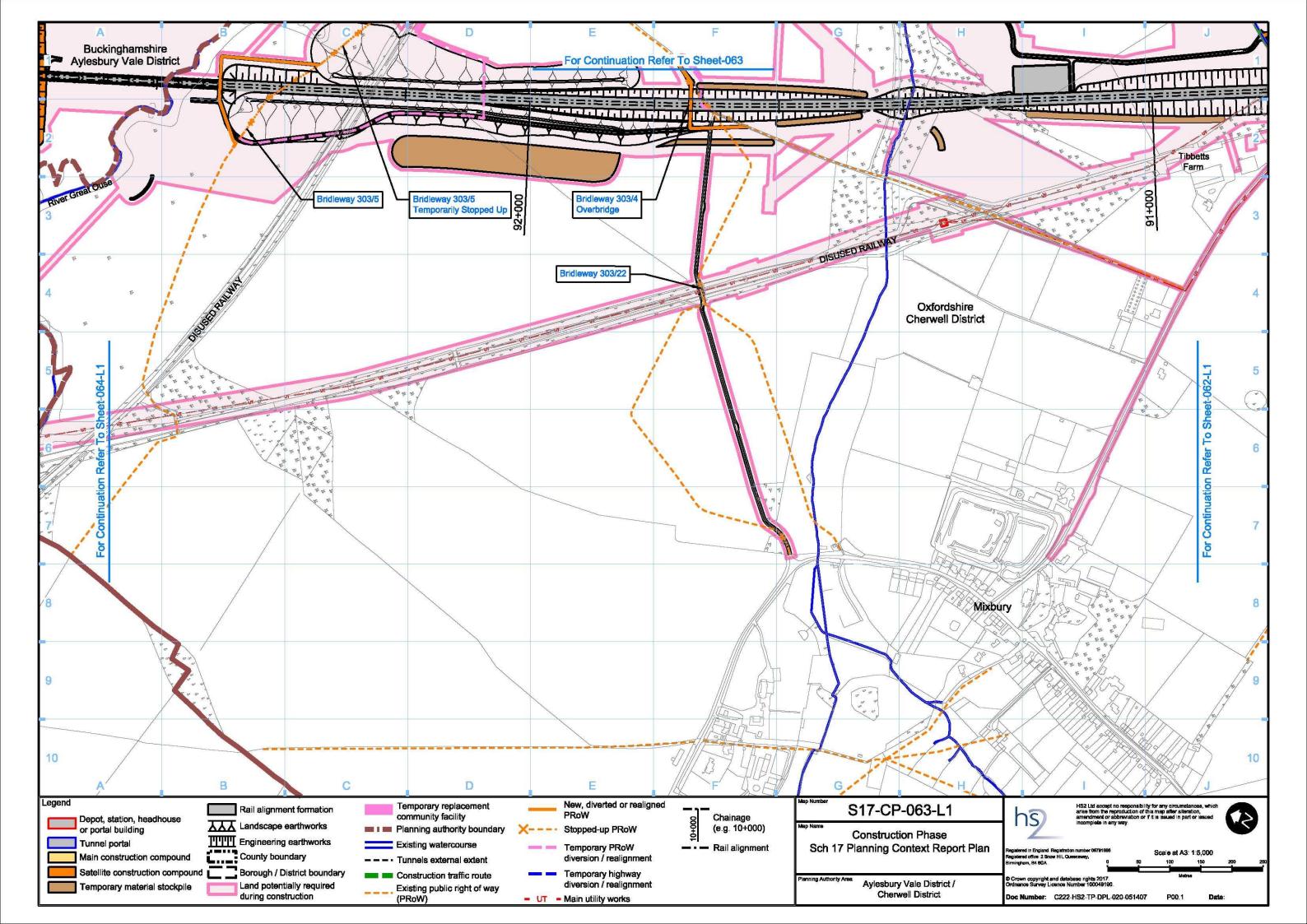


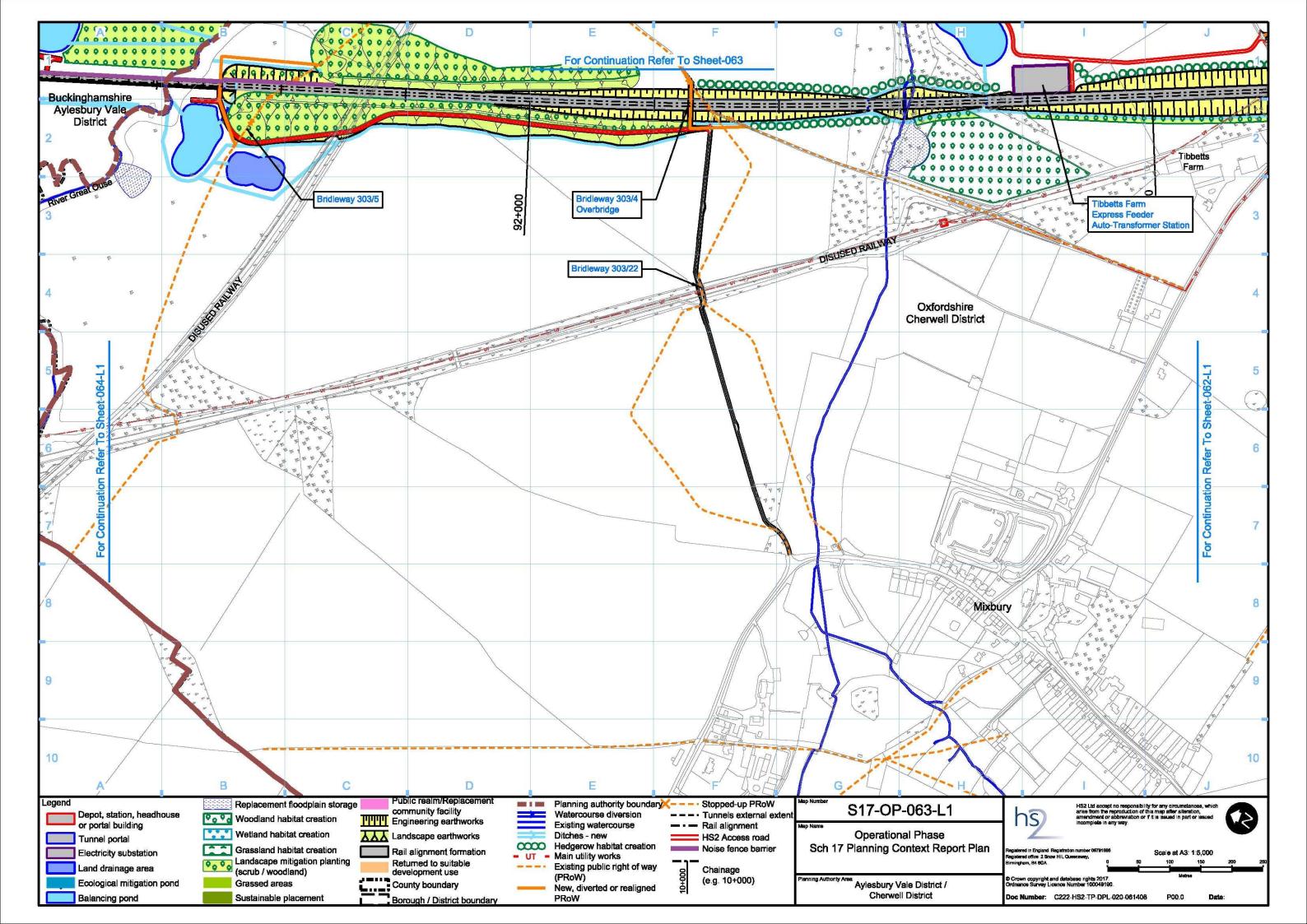


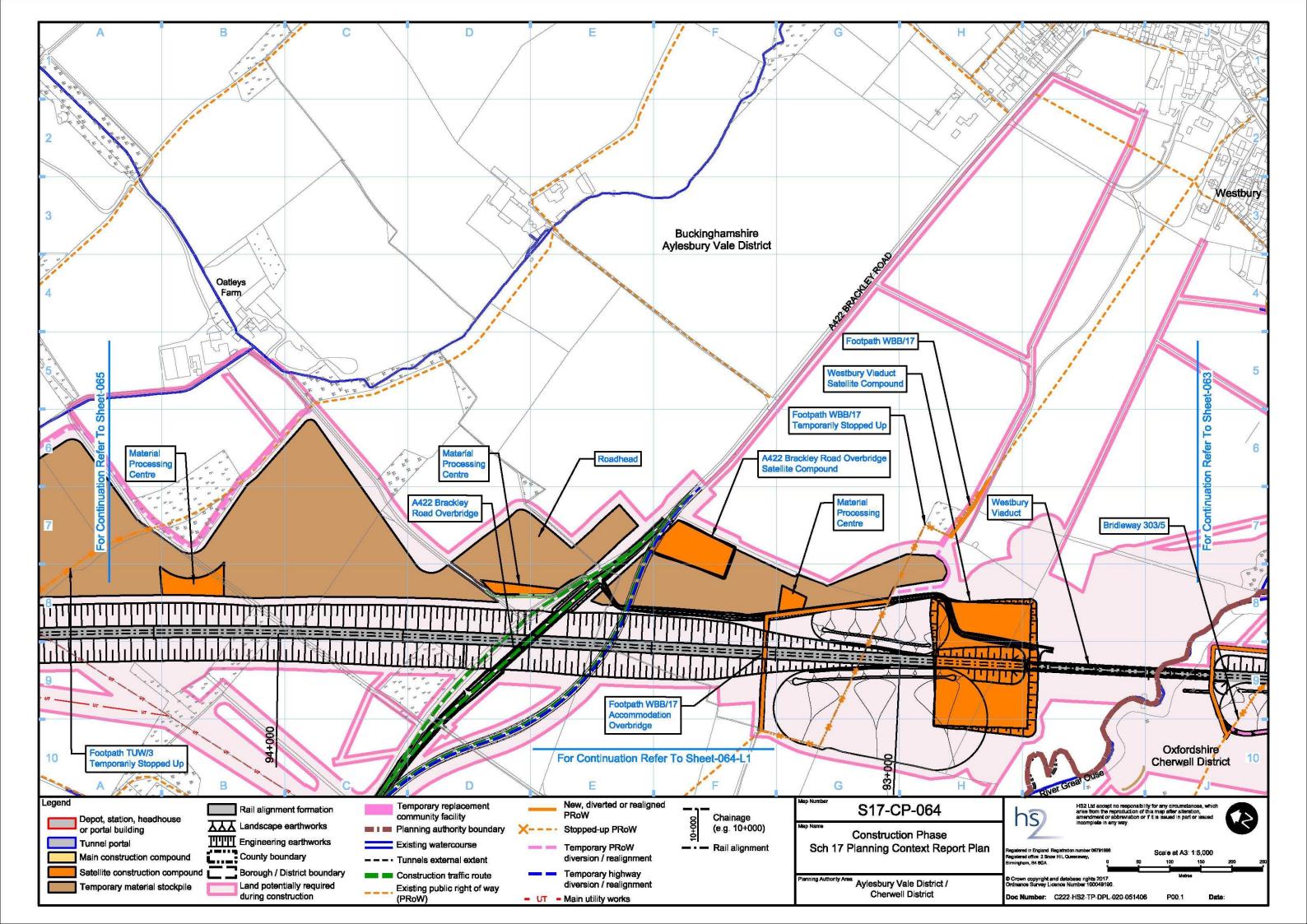


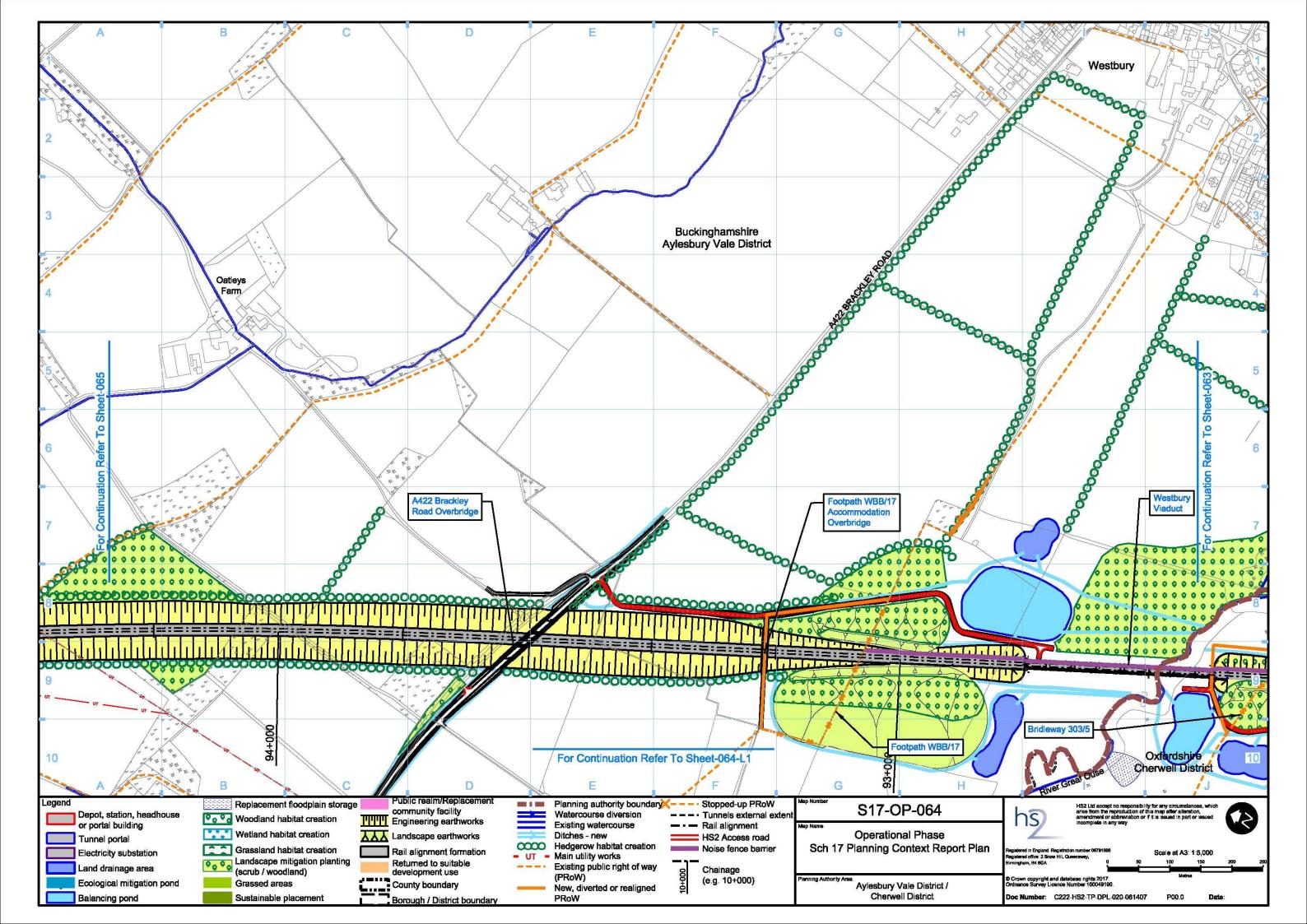


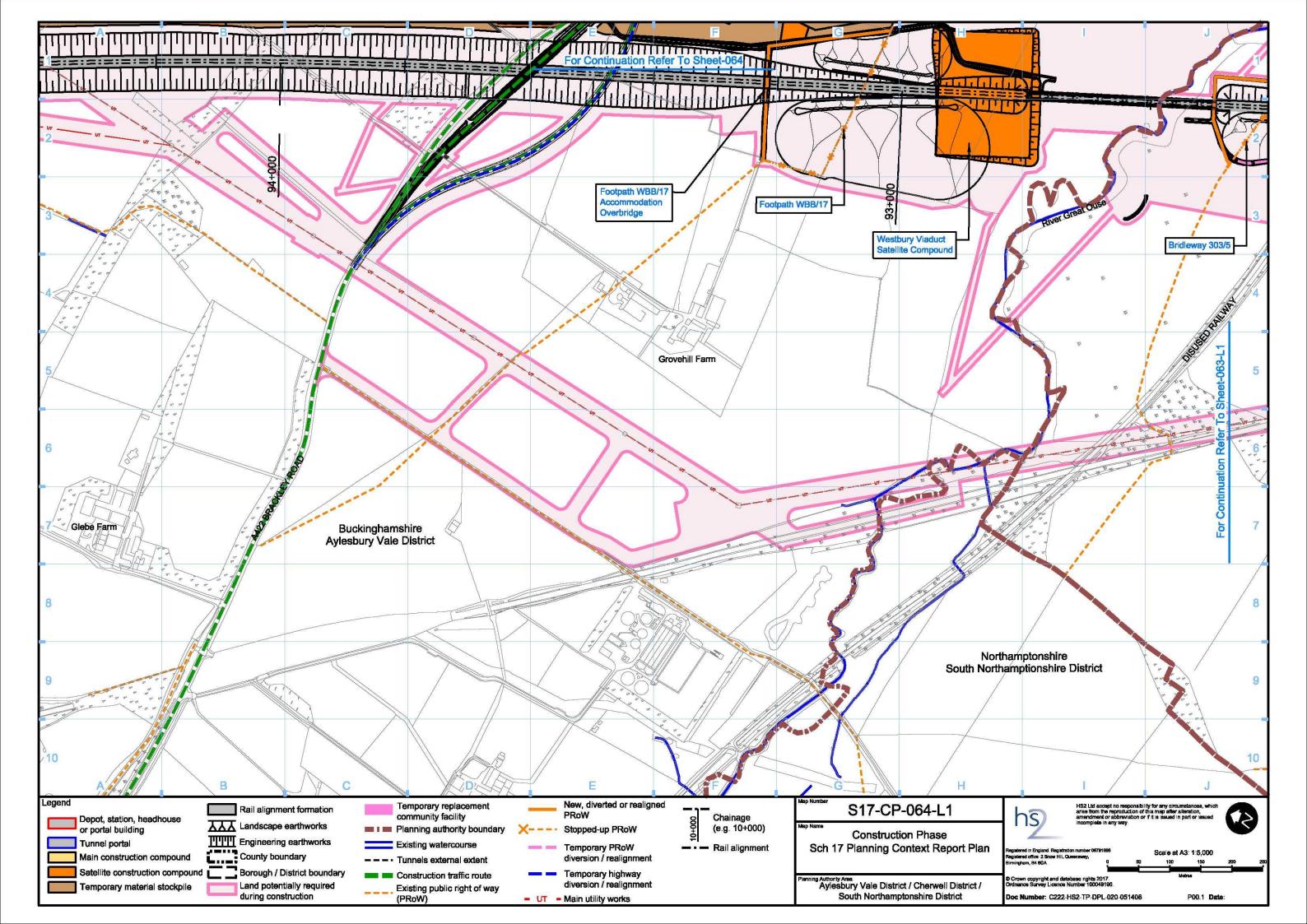


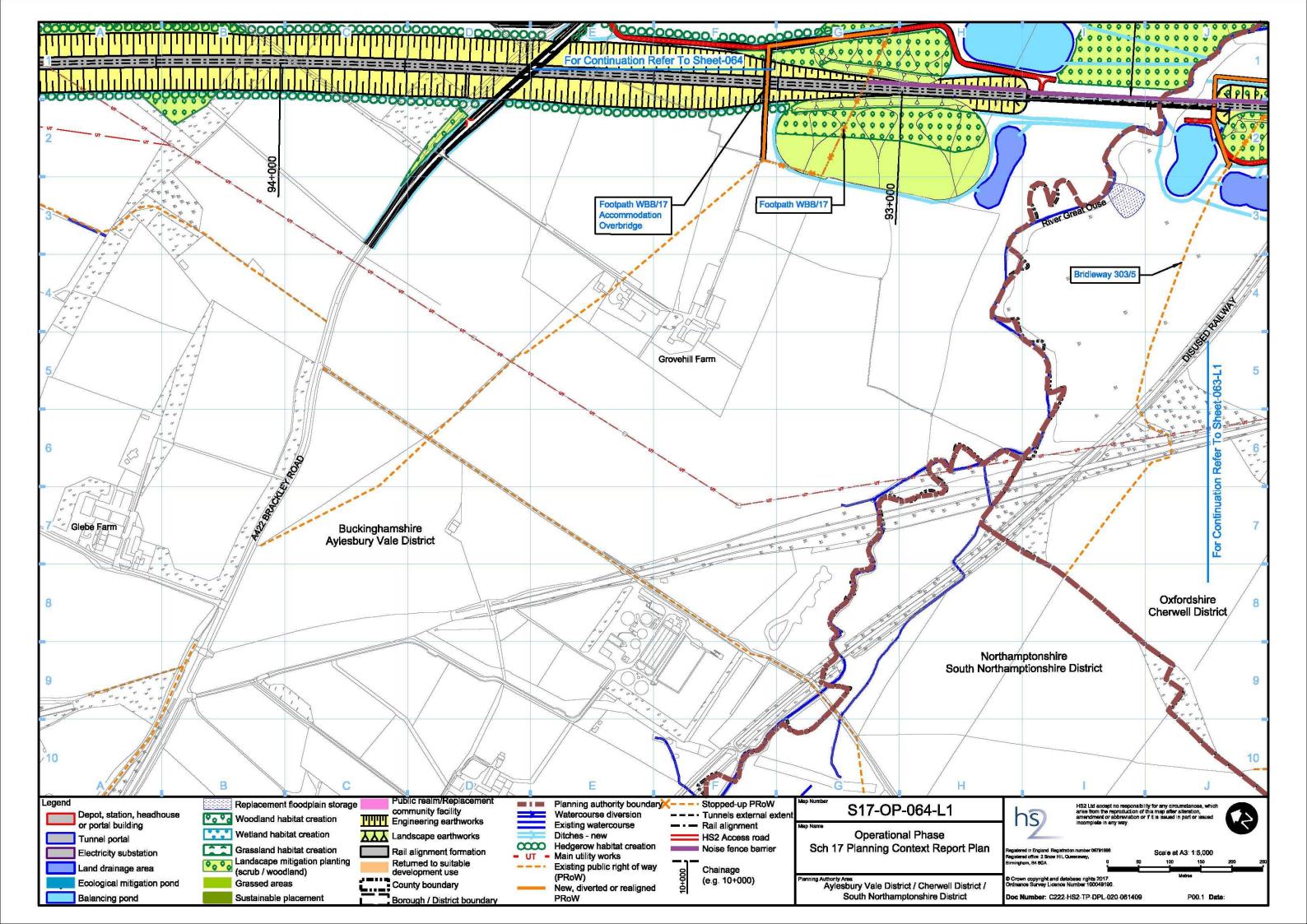


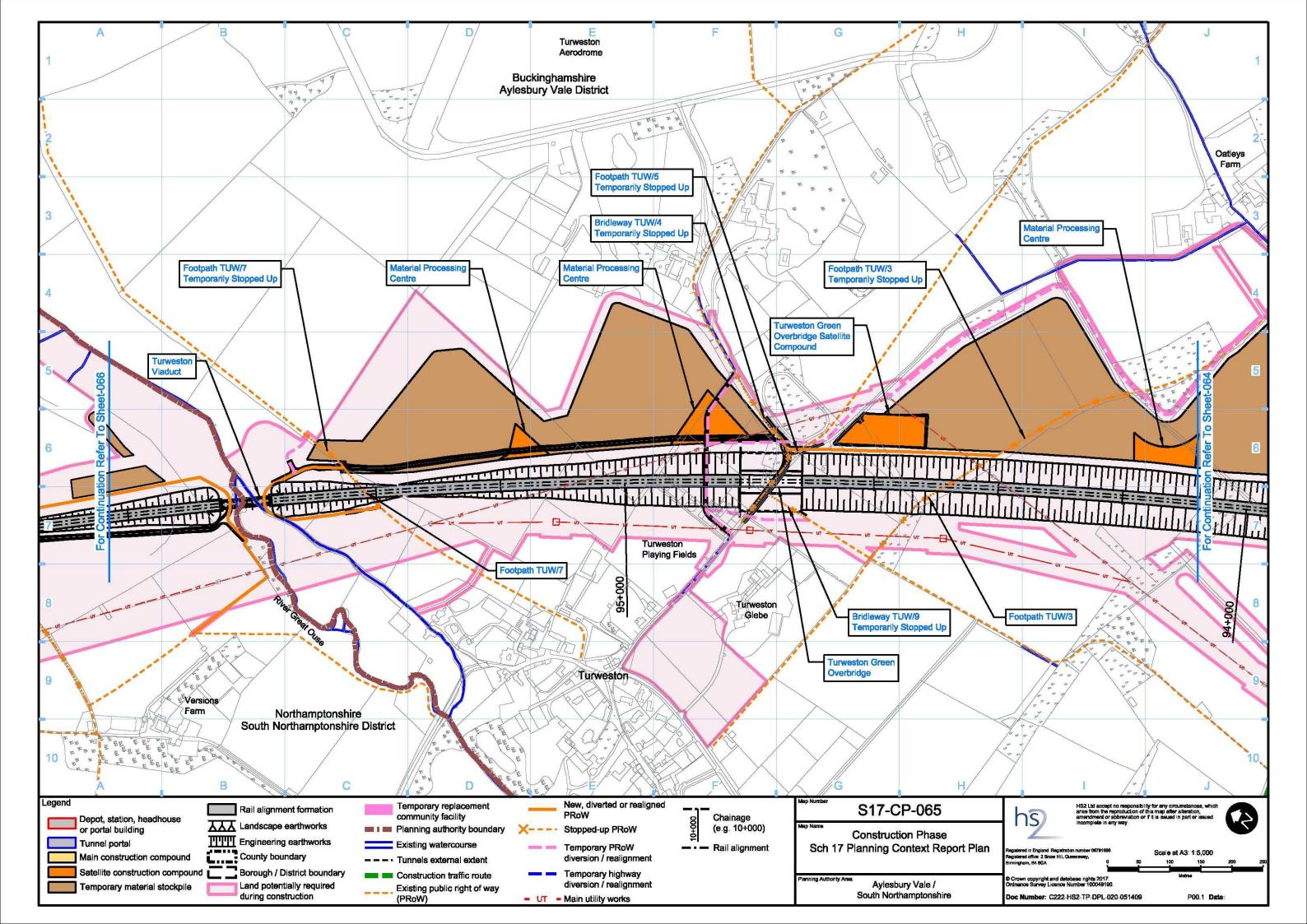


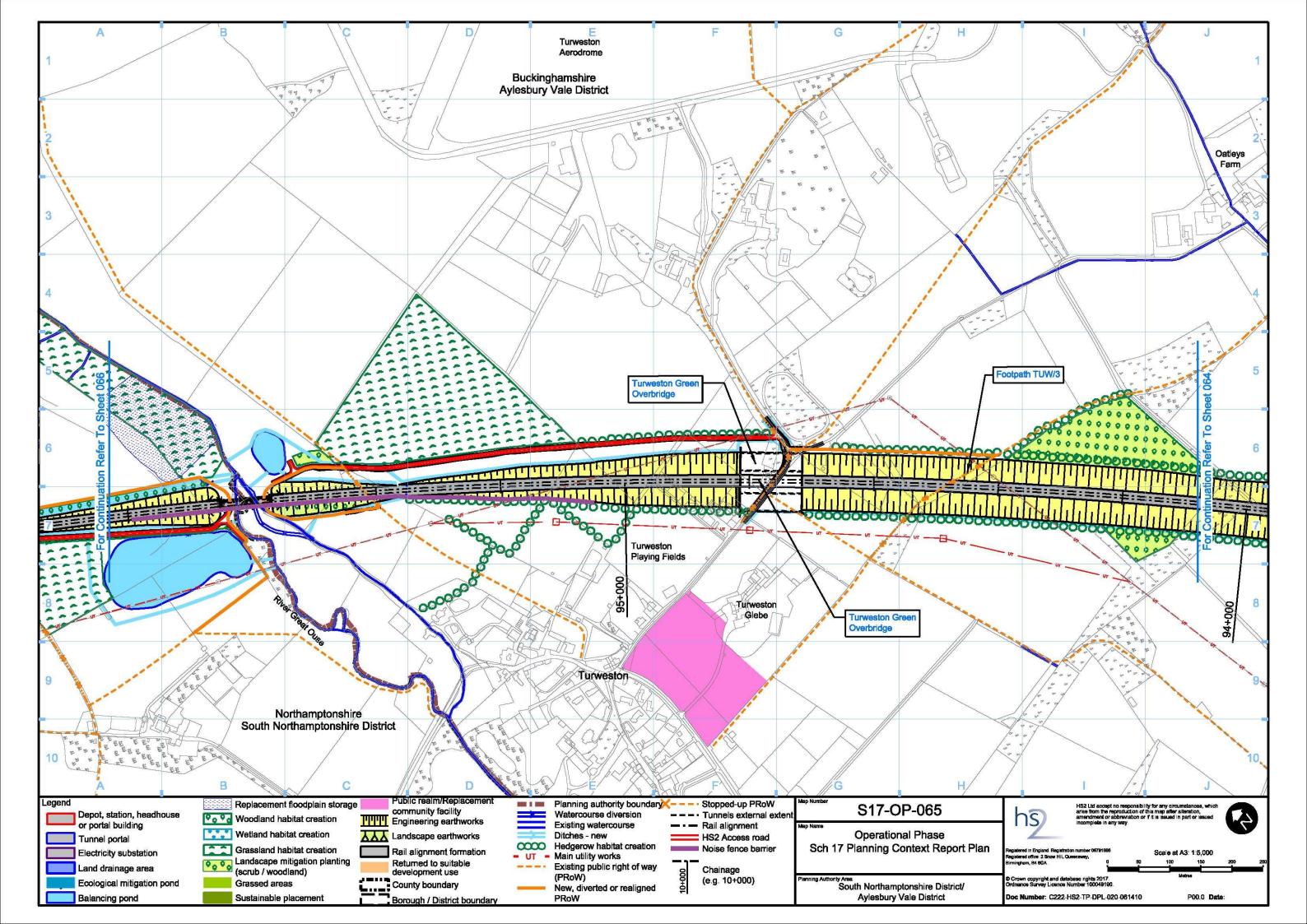


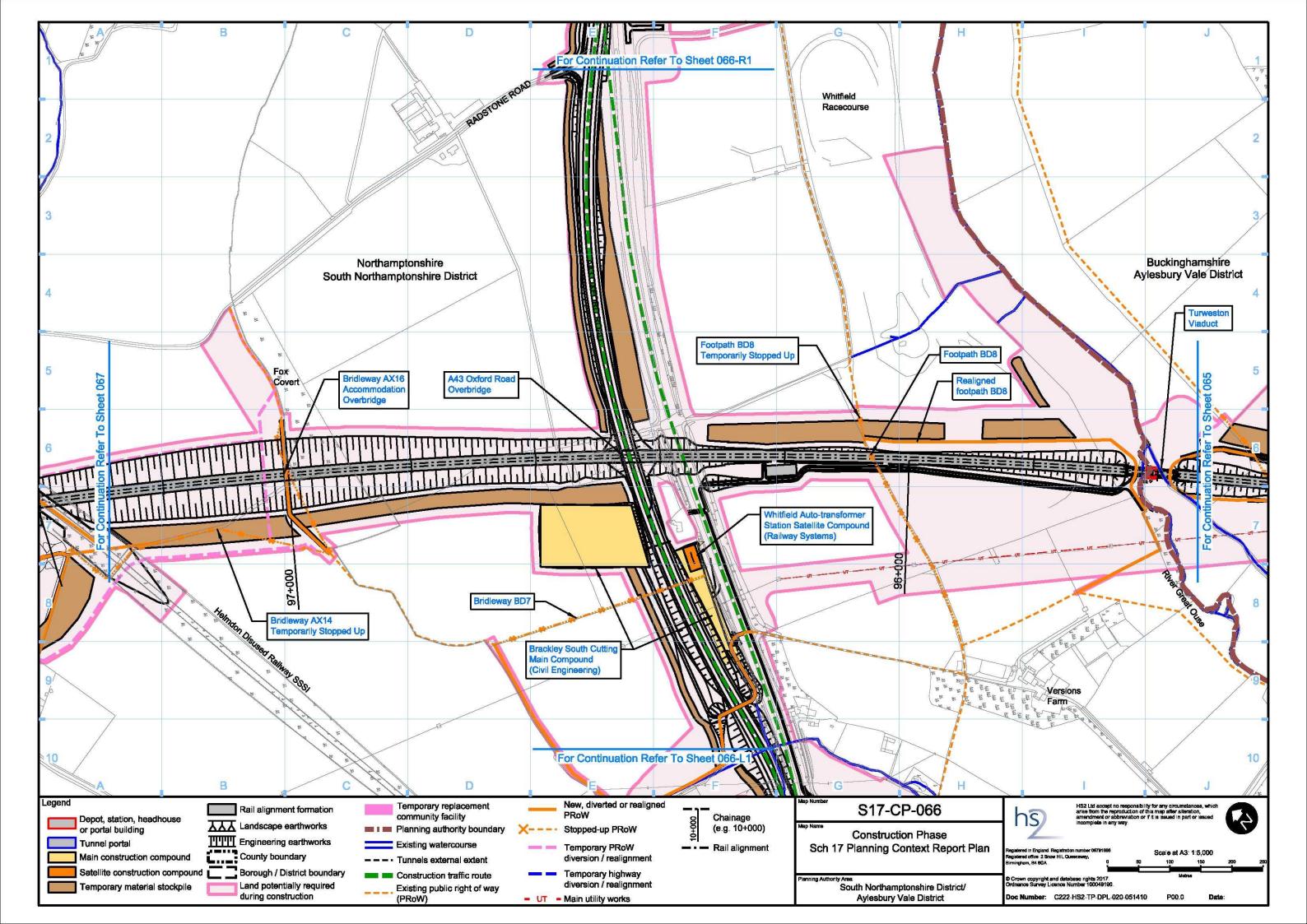


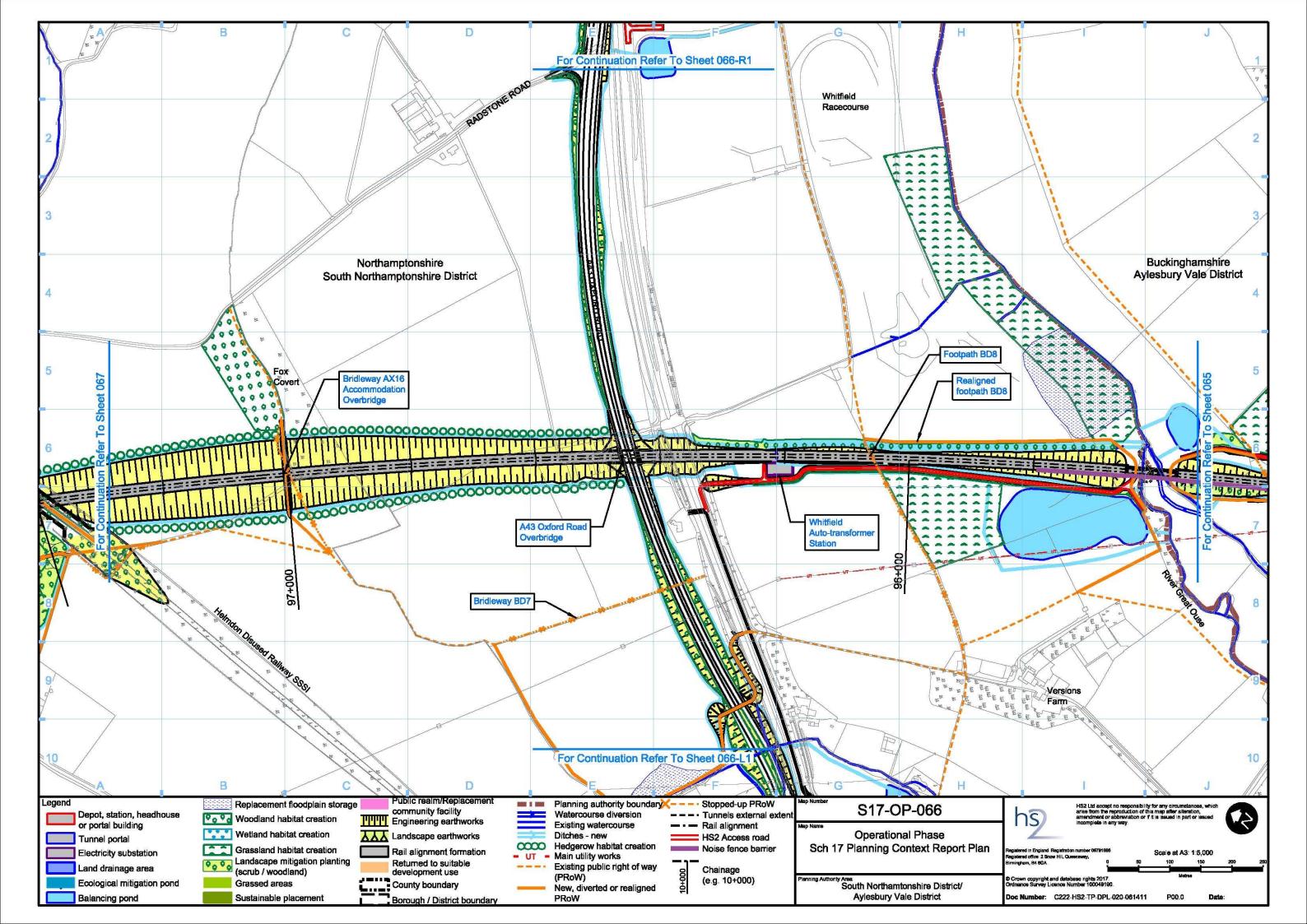














Annex 1 – Signposting

Link
http://www.legislation.gov.uk/ukpga/2017/7/contents/enacted
http://www.legislation.gov.uk/uksi/2017/223/contents/made
http://www.legislation.gov.uk/uksi/2017/227/contents/made
https://www.gov.uk/government/publications/environmental-minimum-requirements
https://www.gov.uk/government/publications/high-speed-rail-london-west-midlands-bill-register-of-undertakings-and-assurances
https://www.gov.uk/government/publications/high-speed-rail-london-to-west-midlands-act-2017-schedule-17-statutory-guidance
https://www.gov.uk/government/collections/high-speed-rail-london-west-midlands-bill#information-papers
https://www.gov.uk/government/publications/planning-forum-notes
https://www.gov.uk/government/collections/hs2-phase-one-environmental-statement-documents
https://www.gov.uk/government/collections/additional-provision-september-2014
https://www.gov.uk/government/collections/supplementary-environmental-statement-and-additional-provision-2-july-2015
https://www.gov.uk/government/collections/supplementary-environmental-statement-2-and-additional-provision-3-september-2015
https://www.gov.uk/government/collections/supplementary-environmental-statement-3-and-additional-provision-4-october-2015
https://www.gov.uk/government/collections/supplementary-environmental-statement-4-and-additional-provision-5-december-2015