

A417 Missing Link DCO

Joint Councils Written Summary of Oral Case Appendix A Detailed Design in DCOs Case Studies

Gloucestershire County Council, Cotswold District Council,
Tewkesbury Borough Council

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Appendix A. Design Detail in Development Consent Orders

1.1. Introduction

1.1.1 During Issue Specific Hearing 2 (ISH2) on Environmental Matters on Thursday 27 January 2022 National Highways offered to present, at a future deadline, examples of made Development Consent Orders (DCOs) that follow the same approach proposed on the A417 Missing Link:

- Relying solely on general arrangement plans and works plans to illustrate preliminary design detail;
- Indirectly securing detailed design commitments in environmental management plans and design summary reports; and
- Omitting a requirement which secures an approval process for the detailed design

1.1.2 The Joint Councils have reviewed recent National Highways DCO schemes - none of which are located in nationally designated areas - and DCOs made for other developers which are located partly or wholly within Areas of Outstanding Natural Beauty (AONBs) and National Parks.

1.1.3 These examples demonstrate that the A417 Missing Link application falls short of the level of preliminary design information usually required in DCO applications and fails to secure written approval of detailed design as is standard for NSIPs in AONBs.

1.1.4 The following examples are set out in two parts:

- Recent DCOs for Nationally Significant Infrastructure Projects (NSIPs) sought by National Highways (or Highways England); and
- DCOs for NSIPs located in AONBs or National Parks sought by other developers.

1.1.5 The Joint Councils provide commentary on these examples throughout and provides overall conclusions in relation to the A417 Missing Link draft DCO.

1.2. Recent DCOs for NSIPs sought by National Highways (or Highways England)

1.2.1 All of the recent National Highways (or Highways England) DCO applications we reviewed are supported by scaled engineering section drawings and/or elevation drawings which illustrate preliminary design information in relation to proposed overbridges:

- A428 Black Cat to Caxton Gibbet Improvements (Examination)
- M25 Junction 10 / A3 Wisley Interchange (Decision stage)
- M25 Junction 28 (Decision stage)
- A63 Castle Street Improvement-Hull Order 2020
- M42 Junction 6 Improvement Order 2020

1.2.2 In the case of each of these schemes, the DCO Requirement which secures the detailed design (as set out in the following section) makes specific reference to engineering drawings and sections. This ensures that the preliminary design information shown on those drawings is secured and provides assurances that the future assessment of the compatibility of detailed design with the preliminary design is achievable.

1.2.3 The Joint Councils note that none of these schemes are located in nationally designated areas but do provide greater level of certainty around design than the draft DCO for the A417 Missing Link.

A428 Black Cat to Caxton Gibbet Improvements

1.2.4 Schedule 2 Requirement 12 – Detailed Design

(1) The detailed design for the authorised development must accord with:

(a) the preliminary scheme design shown on the works plans, the general arrangement plans and the engineering section drawings;

(b) the principles set out in the environmental masterplan; and

(c) the design principles set out in the scheme design approach and design principles.

unless otherwise agreed in writing by the Secretary of State following consultation with the relevant local authority on matters related to their functions, provided that the Secretary of State is satisfied that any amendments would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.

(2) Where amended details are approved by the Secretary of State under paragraph (1), those details are deemed to be substituted for the corresponding plans or sections and the undertaker must make those amended details available in electronic form for inspection by members of the public

M25 Junction 10 / A3 Wisley Interchange

1.2.5 Schedule 2 Requirement 5 – Detailed Design

(1) The authorised development must be designed in detail and carried out so that it is compatible with the preliminary scheme design shown on the works plans, the Scheme Layout Plans and the engineering drawings and sections, certified under article 46 (certification of documents, etc.) of this Order, unless otherwise agreed in writing by the Secretary of State, following consultation with the relevant planning authority and the local highway authority on matters related to their functions and provided that the Secretary of State is satisfied that any amendments would not give rise to any materially new or materially different significant environmental effects in comparison with those described in the environmental statement.

(2) Where amended details are approved by the Secretary of State under sub-paragraph (1), those details are deemed to supersede the corresponding drawings and plans certified under article 46 of this order and the undertaker must make those amended details available in electronic form for inspection by members of the public and undertake the works in accordance with the approved amended details.

M25 Junction 28

1.2.6 Schedule 2 Requirement 3 Detailed Design

(1) The authorised development must be designed in detail and carried out so that it is compatible with the preliminary scheme design shown on the engineering drawings and sections unless otherwise agreed in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority and relevant highway authority on matters related to its functions, provided that the Secretary of State is satisfied that any amendments to the engineering drawings and sections showing departures from the preliminary scheme design would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement. (2) Where amended details are approved by the Secretary of State under sub-paragraph (1), those details are deemed to be substituted for the corresponding engineering drawings and sections and the undertaker must make those amended details available online for inspection by members of the public.

A63 Castle Street Improvement-Hull

1.2.7 Schedule 2 Requirement 3 Detailed Design

(1) The authorised development must be designed in detail and carried out in accordance with the preliminary scheme design shown on the engineering drawings and sections unless otherwise agreed in writing by the Secretary of State following consultation with the relevant planning authority on matters related to its functions, provided that the Secretary of State is satisfied that any amendments to the engineering drawings and sections showing departures from the preliminary scheme design would not give rise to any materially new or materially

different environmental effects in comparison with those reported in the environmental statement.

M42 Junction 6 Improvement

1.2.8 Schedule 2 Requirement 3 Detailed Design

(1) The authorised development must be designed in detail and carried out so that it is compatible with the preliminary scheme design shown on the general arrangement plans, works plans and the engineering drawings and sections unless otherwise agreed in writing by the Secretary of State following consultation with the relevant planning authority and local highway authority on matters related to their functions and provided that the Secretary of State is satisfied that any amendments to the general arrangement plans, works plans and the engineering drawings and sections showing departures from the preliminary scheme design would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.

1.3. DCOs for NSIPs located in AONBs and National Parks

Hinkley Point C Connection Order 2016

Developer: National Grid

Location: Mendip Hills AONB

1.3.1 The National Grid Hinkley Point C Connection DCO is 57km in length with approximately 10km located within the Mendips Hills AONB. The applicant committed to installing underground cables by horizontal directional drilling through the AONB instead of installing overhead lines. The Scheme does, however, require installation of numerous above-ground structures within the AONB.

Preliminary design information included in the application

1.3.2 For the above-ground structures located within the AONB, National Grid submitted as part of its application, document 4.8.2 Design Drawings 400kV Underground Cables. This package of drawings and plans illustrates preliminary design detail, including:

- Elevations, sections and plans of permanent and temporary bridges over rivers;
- Elevations and plans of cable sealing end compounds; and
- General arrangements plans for temporary construction compounds.

1.3.3 These drawings are at an appropriate scale and include annotations setting out preliminary design information.

1.3.4 To accompany the scaled drawings, the application included a report titled *Design Approach to Site Specific Infrastructure* which establishes design principles for specific structures proposed in the AONB, including setting out the details and images of the types of materials and finishes for structures and associated surface treatment and means of enclosure.

Requirements securing design detail

1.3.5 Schedule 3 Requirement 16 Fencing and other means of enclosure

(1) No stage of the authorised development may commence until, for that stage, written details of all proposed temporary and permanent fences, walls or other means of enclosure have been submitted to and approved by the relevant planning authority.

1.3.6 Schedule 3 Requirement 32 Approval of external appearances etc. of permanent structures

(1) Any permanent buildings at—

- (a) Sandford Substation;*
- (b) Bridgewater Tee cable sealing end compound;*
- (c) South of Mendip Hills cable sealing end compound; and*
- (d) Seabank Substation,*

must not be constructed until details of their design, external appearance, colour and surface finish have been submitted to and approved by the relevant planning authority.

(2) Any permanent bridges at—

- (a) Towerhead Brook; and
- (b) the River Axe,

must not be constructed until details of their design, external appearance, colour and surface finish have been submitted to and approved by the relevant planning authority, after consultation with the Environment Agency.

(3) Any works to construct the buildings and bridges referred to in this Requirement must be completed in accordance with details approved under sub-paragraphs (1) and (2).

1.3.7 Schedule 3 Requirement 38 Design Approach to Site Specific Infrastructure

(1) In relation to Requirements 8 (control of artificial light emissions), 9 (provision of embedded landscape mitigation), 10 (replacement planting), 16 (fencing and other means of enclosure), 22 (highway works), 30 (River Axe crossing) and 32 (approval of external appearances etc. of permanent structures), any detail, method or scheme to be submitted to and approved by the relevant planning authority must be produced having regard to the Design Approach to Site Specific Infrastructure, unless otherwise agreed by the relevant planning authority.

Joint Councils' Commentary

- The Design Approach to Site Specific Infrastructure document provides considerably more design information for specific elements of the Scheme than the National A417 Missing Link Design Summary Report.
- The Design Approach to Site Specific Infrastructure document is defined in Schedule 3 Requirement 1.
- Schedule 3 Requirement 38 clearly details that design information developed pursuant to other requirements must have regard to the preliminary design information included in the document.
- Schedule 3 Requirement 32 secures the written approval of the relevant authority for detailed design of structures located within the Mendip Hills AONB.
- Owing to the sensitive landscape, design detail as minor as means of enclosure must be submitted to the relevant authority for written approval.

South Hook Combined Heat and Power Plant 2014

Developer: QPI Global Ventures Ltd

Location: Pembrokeshire Coast National Park

Preliminary design information included in the application

1.3.8 A Design Principles Statement is a certified document under Article 15.

Requirements securing design detail

1.3.9 Schedule 2 Requirement 5

(1) Except for the permitted preliminary works, no authorised development shall commence until written details of the layout, scale and external appearance of the authorised development have been submitted to, and approved by, the relevant planning authorities. (2) The details submitted for approval by Pembrokeshire Coast National Park Authority in respect of the key buildings must incorporate the principles and parameters set out in the design principles statement. Such details shall include appropriately scaled plans and sectional drawings indicating existing and proposed finished floor levels, and representations of 3-dimensional images.

1.3.10 Schedule 2 Requirement 7

(1) All proposed permanent fences, walls or other means of enclosure must be constructed as identified in the written details referred to in requirement 5 (detailed design approval) unless otherwise agreed in writing by the relevant planning authorities prior to the completion of commissioning.

Joint Councils' commentary

- The Design Principles Statement document is certified in Article 15. The A417 Missing Link Design Summary Report is not a certified document.
- Schedule 2 Requirement 5 secures the written approval of the relevant authority for detailed design of layout scale and external appearance of the development.
- Owing to the sensitive landscape, design detail as minor as means of enclosure must be submitted to the relevant authority for written approval.

The Sizewell C Project (Decision stage)

Developer: NNB Generation Company (SZC) Limited

Location: Suffolk Coast and Heaths AONB.

Preliminary design information included in the application

- 1.3.11 The application is supported by an extensive package of plans and drawings, the quantum of design information reflects the scale of the Scheme.
- 1.3.12 To assist, this review focuses on one area of the Scheme, a new section of road to bypass two villages. The new road includes vehicle and pedestrian overbridges. The application contains scaled plans and elevations to illustrate the preliminary design of these structures, the drawings include annotated preliminary design information.
- 1.3.13 The suite of plans are listed in Part 6 of Schedule 7 of the draft DCO.
- 1.3.14 The application includes an Associated Development Design Principles document which sets out design principles for specific elements of the design. In relation to the new section of road it sets out some preliminary design commitments.

Requirements securing design detail (draft DCO submitted at Deadline 7)

- 1.3.15 Schedule 2 Requirement 20 Associated development sites: Buildings, structures and landscape
(1) Work No. 9 (northern park and ride), Work No. 10 (southern park and ride) and Work No. 13 (freight management facility) must not be commenced until a statement of compliance demonstrate how the plans and details of the relevant building, structure or works for that work have incorporated the relevant tables in the Associated Development Design Principles as set out in paragraph (2), has been submitted to and approved by East Suffolk Council.
- 1.3.16 Schedule 2 Requirement 22 Highways Works
(1) Construction of any part of Work Nos. ... 11 (two village bypass) ... must not be commenced until details of the layout and highway alignment, including details of the surface and foul water drainage system for that part have been submitted to and approved by Suffolk County Council in consultation with the Environment Agency.
(2) The layout and highway alignment details referred to in paragraph (1) must be in accordance with the plans listed in Schedule 7 (Approved Plans) and in general accordance with the relevant tables in the Associated Development Design Principles and (in respect of Work No. 11 and Work No. 12) within the vertical limits of deviation specified in article 4 of this Order, unless otherwise agreed with Suffolk County Council.

Joint Councils Commentary

- Schedule 2 Requirement 22:

- Secures the written approval of the relevant authority for detailed design of layout scale and external appearance of the new road.
- Requires the detailed design submitted for approval to be in accordance with the preliminary design submitted with the application.
- Requires the design to accord with the commitments set out in the Associated Development Design Principles.
- Unlike the A417 Missing Link Design Summary Report:
 - The Associated Development Design Principles sets out a reasonable level of preliminary design information.
 - The Associated Development Design Principles is a certified document in Schedule 22.

East Anglia Two Offshore Windfarm, (Decision Stage)

Developer: East Anglia TWO Limited

Location: Suffolk Coast and Heaths AONB.

Preliminary design information included in the application

- 1.3.17 The application is supported by an Onshore Substation Design Principles Statement which sets out the design principles behind the concept design of substations.
- 1.3.18 The application was not supported by section or elevation drawings of proposed onshore structures, this prompted a Rule 17 request from the Examining Authority for further design information to be submitted into examination.

Requirements securing design detail

- 1.3.19 Schedule 1 Part 3 Requirement 12 detailed design parameters onshore:
- (1) No stage of Work No. 30 may commence until details of the layout, scale and external appearance of the onshore substation have been submitted to and approved by the relevant planning authority in consultation with Suffolk County Council. Work No. 30 must be carried out in accordance with the approved details.*
- ...
- (3) No stage of the national grid substation comprised within Work No. 41 may commence until details of the layout, scale and external appearance of the national grid substation have been submitted to and approved by the relevant planning authority in consultation with Suffolk County Council. Work No. 41 must be carried out in accordance with the approved details.*
- (4) No stage of the cable sealing end compounds comprised within Work No. 38 may commence until details of the layout, scale and external appearance of the cable sealing end compounds have been submitted to and approved by the relevant planning authority in consultation with Suffolk County Council. Work No. 38 must be carried out in accordance with the approved details.*
- (5) Any details provided by the undertaker pursuant to paragraphs (1), (2), (3) and (4) must accord with the substations design principles statement and be within the Order limits.*
- 1.3.20 Schedule 1 Part 3 Requirement 17 Fencing and other means of enclosure
- (1) No stage of the onshore works may commence until for that stage written details of all proposed permanent and temporary fences, walls or other means of enclosure of the onshore works have been submitted to and approved by the relevant planning authority.*

Joint Councils Commentary

- A requirement will secure the written approval of the relevant authority for detailed design of onshore structures.
- The design of onshore structures will need to be in accordance with the preliminary design detail set out in the Onshore Substation Design Principles Statement.

1.4. Conclusions

- 1.4.1 All of the case studies reviewed in section 1.2 demonstrate that the approach proposed by National Highways for the A417 Missing Link is a departure from the standard approach it has taken on its recently made and currently proposed DCOs. The Joint Councils consider and that this is particularly unacceptable for this Scheme as it is located within the Cotswold AONB.
- 1.4.2 All of the case studies reviewed in section 1.3 demonstrate that where DCOs for NSIPs located in AONBs have been granted by the Secretary of State, the approval of detailed design by an approval body is consistently required before construction can commence. These case studies also present, in general, a greater level of preliminary design detail on plans and drawings and in reports which are certified or secured within requirements.
- 1.4.3 The Joint Councils see no reason why this should be any different in the case of the A417 Missing Link.
- 1.4.4 At ISH2 the Joint Councils offered two options to address the lack of preliminary design for structures secured in the DCO. Following a review of the evidence presented during the ISH2 and the previous DCOs reviewed in this Appendix, the Joint Councils have developed these option. Option 1 is the Joint Councils preferred option:

Option 1

- 1.4.5 National Highways should submit engineering section drawings of proposed structures into examination along with any additional environmental assessment carried out if required. Requirement 11 should be amended to make specific reference to the engineering section drawings.
- 1.4.6 The engineering section drawings should include all elevations of structures and long and cross sections showing levels changes. All elevations and sections should be at an appropriate scale and should illustrate the preliminary design including all external dimensions measured using drawing notes or annotations and all preliminary design commitments made in other application documents annotated or noted on the drawings to ensure they are secured under Requirement 11.
- 1.4.7 For the Air Balloon Way and National Trail, the Joint Councils consider- plans providing more detail of the proposed routes in the context of other nearby Public Rights of Way and highways, the specification of new structures such as gates, bridges or steps too be installed, surface finishes and compliance with British Standards BS5709 (2016).
- 1.4.8 Having considered the evidence presented at ISH2, the Joint Councils also consider it appropriate to secure the contents of the Design Summary Report and Environmental Masterplan under Requirement 11 to ensure detailed design is compatible with the commitments made in those documents. This would follow the approach proposed on A428 Black Cat DCO scheme.

Option 2

- 1.4.9 National Highways should redraft Requirement 11 in a matter that ensures it is specific to the design of the carriageway, then a new requirement should be included in the Order to secure the written approval of the Secretary of State of detailed design of structures following consultation with the relevant planning authority, highway authority and other key stakeholders, prior to construction of the structure.
- 1.4.10 In the case of both options, the 'structures' are the Cotswold Way Crossing, Gloucestershire Way Crossing, Stockwell Overbridge, Cowley Overbridge, Cotswold Way National Trail and Air Balloon Way.

1.5. Drawing References

- 1.5.1 The DCO projects and application documents reviewed in this Appendix are references in the following table.

Table 1.1 - CO Projects

Project Name	Applicant	Status	Document Volume	Document Title
A428 Black Cat to Caxton Gibbet Improvements (Examination)	National Highways	Examination	2.10	Engineering Section Drawings – Part 3 Structures General Arrangements
M25 Junction 10 / A3 Wisley Interchange (decision stage)	National Highways	Decision	2.9	Engineering Drawings and Sections
M25 Junction 28 (decision stage)	National Highways	Decision	2.8	Engineering Drawings and Sections
A63 Castle Street Improvement-Hull Order 2020	National Highways	Made	2.6	Engineering Drawings and Sections
M42 Junction 6 Improvement Order 2020	National Highways	Made	2.8	Engineering Drawings and Sections
			2.8(a)	Engineering Drawings and Sections
Hinkley Point C Connection Order 2016	National Grid	Made	4.8.2	Design Drawings 400kV Underground Cables
			8.32	Design Approach to Site Specific Infrastructure
South Hook Combined Heat and Power Plant 2014	QPI Global Ventures Ltd	Made	1.22	Design Principles Statement
The Sizewell C Project (Decision stage)	NNB Generation Company (SZC) Ltd	Decision	2.8	Two Villages Bypass Plans for Approval

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