

SCHEDULE 4
CONSTRUCTION AND HANDBACK REQUIREMENTS

Part 1
Core Construction Requirements

1. In the design, planning and execution of the Works and other works in connection with the repair, maintenance or improvement of the Project Road, and functions associated with the construction of the Project Road and Off-Site Facilities, the DBFO Co shall take all such action and do all such things (including, without limitation, organising itself, adopting measures and standards, executing procedures, including inspection procedures and safety patrols, and engaging and managing contractors, agents and employees) as will and in such manner as will:
 - 1.1 enable the Secretary of State to provide an acceptably safe highway in respect of its condition (structural safety) and use (road safety); and
 - 1.2 enable the Secretary of State to fulfil his statutory and common law obligations; and, subject to paragraphs 1.1 and 1.2 above:
 - 1.3 enable the Secretary of State to provide a level of highway service to the public not inferior to that provided on the trunk road and motorway network generally during construction or improvement works, taking account of Special Events;
 - 1.4 enable the police, local authorities, and others with statutory duties or functions in relation to the Project Road or adjoining roads to fulfil those duties and functions;
 - 1.5 discharge the Secretary of State's liabilities in respect of the undertakings and commitments at Schedule 8 (Third Parties), without creating or incurring any liability that would subsist beyond the Contract Period;
 - 1.6 minimise the occurrence and adverse effects of accidents and ensure that all accidents and emergencies are responded to as quickly as possible;
 - 1.7 minimise the risk of damage, destruction or disturbance to third party property;
 - 1.8 ensure that members of the public are treated with all due courtesy and consideration;
 - 1.9 provide a safe, clear and informative system of road signs;
 - 1.10 comply with any specified programme requirements, including for the completion of the New Road;
 - 1.11 enable standards of reliability, durability, accessibility, maintainability, quality control and assurance, and fitness for purpose appropriate to a highway of the character of the Project Road to be achieved throughout the Contract Period;
 - 1.12 comply with the Orders listed in Part 4 of Schedule 3;

- 1.13 meet the environmental objectives detailed in the Environmental Statement(s), including the achievement of a high standard in the mitigation of adverse environmental effects; and
- 1.14 achieve a high standard in the appearance and aesthetic quality of the Project Road and achieve integration of the Project Road with the character of the surrounding landscape through both sensitive design and sensitive management of all visible elements including those on the Existing Road.
2. The Measuring Equipment and the Traffic Control and Communications Systems shall comply with the Core Communications Requirements.
3. The DBFO Co shall comply with the scheme specific Core Construction Requirements identified in Annex 1 and Appendix 1 to Annex 1 to this Part 1 of Schedule 4.
4. **Definitions**

In these Core Construction Requirements the following expressions have the following meanings:

"Special Events" means events likely to significantly affect traffic flows on the Project Road during or as a consequence of the Operations. Special Events shall include:

1. Sioe y Môn (Anglesey Show); and
2. National Eisteddfod of Wales 1999.

"New Order" means any Line Order, Side Roads Order, De-trunking Order, Compulsory Purchase Order or any other statutory instrument or other subordinate legislation made in respect of the Project Road in accordance with the terms of this Agreement.

"Orders" means the orders and other consents identified in Part 4 of Schedule 3, as amended, modified, varied or superseded by any New Order.

"Environmental Statement(s)" means the Environmental Statement(s) referred to in Annex 12 to Part 2 of this Schedule 4.

"Ecological Interest" has the meaning given to that expression in paragraph 1.3.1 of Annex 11 to Part 2 of this Schedule.

**Annex 1
to Part 1 of Schedule 4**

Scheme Specific Core Construction Requirements

1. General

1.1 Environmental

The DBFO Co shall:

- 1.1.1 comply with the general habitat creation principles stated in the Environmental Statements listed in Annex 12 to Part 2 of this Schedule;
- 1.1.2 take such measures as are necessary to prevent infiltration of land fill gas and polluted leachate into the drainage system of the New Road and Local Authority Roads;
- 1.1.3 provide silt traps and oil interceptors on drainage discharges which feed Ecological Interest and Habitat Creation areas including, without limitation, wetlands and balancing ponds;
- 1.1.4 provide opportunities for a range of habitats to develop in new watercourses created;
- 1.1.5 establish spawning sites on realigned sections of all watercourses to replace existing spawning sites;
- 1.1.6 provide surface water drainage balancing ponds at the locations shown on the drawings listed in Section 5 to Part 5 of this Schedule;
- 1.1.7 not interfere with existing watercourses except to the extent that there is no practical alternative (and for the avoidance of doubt, the extent of any such interference shall be restricted to the minimum practicable);
- 1.1.8 divert or otherwise treat in an appropriate engineering and environmental manner all watercourses, drains and sewers that enter the boundary of the New Road;
- 1.1.9 carry out all work to existing watercourses in a manner to minimise damage to Ecological Interests. Any Ecological Interests which are damaged shall be repaired, or to the extent not capable of repair, measures shall be taken to mitigate the damage;
- 1.1.10 take all reasonable measures in relation to the wetlands, balancing ponds and flood relief areas provided by it to minimise the risk of scouring wetland substrate and maximise the time that water takes to pass through the system;
- 1.1.11 erect wildlife barriers to guide wildlife to safe crossing points, including, without limitation, otter passages or ledges; and

- 1.1.12 take measures to mitigate the effect of the New Road on the ecology, which measures shall include (i) the provision of areas of Habitat Creation as defined in paragraph 1.8 of Annex 11 to Part 2 of this Schedule, including, without limitation, reed beds, marshlands, roosting areas, ecological routes for birds, insects, amphibians and small mammals, spawning sites and (ii) the retention or mitigation of areas of Ecological Interest as defined in paragraph 1.3.1 of Annex 11 of Part 2 of this Schedule as follows:
- 1.1.12.1 at the locations and for the purposes proposed in the Environmental Statements listed in Annex 12 to this Part of this Schedule;
 - 1.1.12.2 at Clefiog Uchaf (as shown on drawing number 964057/HC/202 in Section 7 to Part 5 of this Schedule) to compensate for losses within the SSSI by:
 - 1.1.12.2.1 the creation of winter inundation/summer wet pastures by shaping to provide islands to attract estuarine birds of the SSSI;
 - 1.1.12.2.2 enhancing the stream corridor by reforming and planting reedbeds;
 - 1.1.12.2.3 providing sluices to manage water levels; and
 - 1.1.12.2.4 retaining and relaying topsoil and plant material on regraded surfaces to assist with vegetative recolonisation;
 - 1.1.12.3 at the western shore of the Inland Sea (as shown on drawing number 964057/HC/201 in Section 7 to Part 5 of this Schedule) to compensate for the loss and disturbance of a bird roost within the SSSI by:
 - 1.1.12.3.1 extending the shingle spit, with suitable ungraded gravels, as a roosting and nesting site for seabirds;
 - 1.1.12.3.2 excavating a new sea channel to deter ground predators;
 - 1.1.12.4 at the severed section of the Inland Sea on the eastern shore by providing a reed-colonised lagoon; and
 - 1.1.12.5 at the bends on the realigned sections of the Afon Caradog and Afon Gwna by providing spawning sites.

1.2. **Boundary Treatments**

The DBFO Co shall ensure that:

- 1.2.1 permanent road-side boundaries are not alien to the indigenous boundary types in the adjacent area;
- 1.2.2 temporary boundary fences are not alien nor cause visual intrusion to adjacent landscape;

- 1.2.3 all cloddiau are designed and constructed, using materials obtained from local sources, in a style which is in keeping with that of adjoining existing field enclosures; and
- 1.2.4 temporary boundary fences shall be provided to limit the movement of construction traffic, unless permanent boundary treatments are provided before construction of the New Road begins.

1.3 Fencing

- 1.3.1 Where appropriate for safety reasons, the DBFO Co shall provide guardrails to safeguard pedestrians and to guide them to designated crossing points.
- 1.3.2 The DBFO Co shall provide stiles to enable pedestrians to cross existing or new field boundaries and new highway boundaries when using existing or diverted public footpaths, the form of which shall be in keeping with that of the adjoining boundary treatment.
- 1.3.3 The DBFO Co shall provide stiles to enable pedestrians to cross a highway boundary only when the diverted public footpath is brought within the highway corridor.

1.4 Drainage

- 1.4.1 The DBFO Co shall carry out a survey to identify locations where underdrainage schemes may be affected by the construction of the New Road.
- 1.4.2 The DBFO Co shall monitor the construction of the New Road and its effect on underdrainage schemes to enable it to promptly comply with paragraph 1.1 of Part 4 to Schedule 8.
- 1.4.3 Soakaways shall not be used to receive highway drainage.
- 1.4.4 Drainage channels within cuttings shall not be visually intrusive.

1.5 Earthworks

- 1.5.1 The DBFO Co's procedures for blasting shall include, without limitation:
 - 1.5.1.1 trial blasting prior to the start of blasting operations which shall be conducted at a sufficient distance from residential buildings to ensure that air overpressure and vibration levels do not constitute a nuisance to any Interested Parties. Air overpressure and vibration levels shall be recorded during the trial blasting to provide the basis for ensuring that future levels at residential properties do not exceed limits which are reasonably acceptable to any Interested Parties. Due regard shall be given to the special needs of any ancient buildings;
 - 1.5.1.2 measures to reduce the problems of noise, vibration, dust, and fly rock (including without limitation restricted operating times and continual monitoring); and

- 1.5.1.3 measures to mitigate stress in affected livestock.
- 1.5.2 The use of rockbolts and other forms of reinforcement shall be avoided wherever possible in rock cuttings.
- 1.5.3 The DBFO Co shall excavate cuttings to imitate natural slopes compatible with adjoining landscape so that they appear as natural as possible complete with irregularities, rock outcrops, pockets of soil, ledges and grassy areas.
- 1.5.4 The DBFO Co shall not use pre-splitting techniques in excavating the faces of rock cuttings.
- 1.5.5 Unacceptable material class U2 as defined by SHW and classified as special waste or hazardous material shall not remain within the site.
- 1.5.6 Each embankment slope shall be reseeded as soon as reasonably practicable following completion of the earthworks.
- 1.5.7 Plots identified as being "**land to which Clause 8.9.2. applies**" on the New Road drawings in Section 2 to Part 5 of Schedule 3 shall have subsoil and top soil spread to achieve the same thickness, composition and characteristics of the subsoil and top soil on the adjacent land.
- 1.5.8 Topsoil should be stockpiled as close as reasonably practicable to its origin.
- 1.5.9 Topsoil which is re-used should be spread as close as reasonably practicable to its original location.
- 1.5.10 Verges shall incorporate low fertility soils with non-competitive grasses.
- 1.5.11 Slopes of cuttings in drift material shall be topsoiled and vegetated.
- 1.5.12 Damaged topsoil shall be restored to its original composition and characteristics.
- 1.5.13 Topsoils most vulnerable to damage from mishandling or trafficking when wet shall not be used as locations for soil dumps, access tracks and construction compounds.

1.6 Road Geometry

- 1.6.1 All lay-bys shall be designed and constructed in locations and to specifications appropriate to their predicted usage.
- 1.6.2 Where footways and cycle tracks on a side road form a junction with or cross the New Road appropriate provision shall be made to enable pedestrians and cyclists to cross safely and expeditiously the junction or the New Road, as the case may be.
- 1.6.3 Tactile paving shall be provided at all appropriate crossing points.
- 1.6.4 Where sections of roads are to tie with existing roads of differing widths, the DBFO Co shall ensure that the widths shall gradually taper or expand (as the

case may be) from those specified in paragraphs 2.1.3 and 2.2.3 below to the existing width over the lengths of highways to be improved, as specified in the Side Road Orders.

- 1.6.5 All slip roads shall have merge or diverge tapers as appropriate.

1.7 Roadworks

- 1.7.1 Surfacing shall be provided so that the resultant level of traffic noise is no greater than that which would have arisen from traffic on a rolled asphalt wearing course.
- 1.7.2 All private accesses and field accesses shall be paved between the edge of the carriageway and the gate or other entrance to such access in accordance with standard detail drawings 964057/MI/101 (for private access) and 964057/MI/102 (for field access).

1.8 Road Lighting

- 1.8.1 The DBFO Co shall provide lighting columns which minimise their visual impact in daylight and artificial light.
- 1.8.2 All lighting shall be high pressure sodium with full cut-off lanterns with 10 metre high columns.
- 1.8.3 Road lighting cables in the ground shall be in ducts.
- 1.8.4 Road lighting circuits shall incorporate loop-in loop-out cabling.

1.9 Traffic Management

Prior to the commencement of construction of the New Road, routes to the construction sites to be used by construction traffic (including, without limitation, plant and material suppliers' vehicles) and the type of construction traffic which shall use those routes shall be agreed with the highway authorities and police forces and notified to all affected community councils. The DBFO Co shall procure that all such construction traffic shall use only the routes to the construction sites so agreed.

1.10 Overbridges

- 1.10.1 Overbridges shall be similar in appearance to each other.
- 1.10.2 Except for the overbridge to be provided pursuant to paragraph 2.2.2.12 below, overbridges shall have bridge decks supported on concrete leaf piers.
- 1.10.3 Except for the overbridges to be provided pursuant to paragraph 2.2.2.11 and 2.2.2.12 below, overbridges shall have hidden bank seat abutments.

1.11 Environmentally Sensitive Areas

- 1.11.1 In establishing site compounds or engaging in any other Operations save as specifically authorised, required or contemplated in the Orders and/or this Agreement, the DBFO Co shall not undertake any "permitted development" as defined in the (Town and Country

Planning (General Permitted Development) Order 1995, S.I.418) without first obtaining the permission of the local planning authority.

- 1.11.2 Notwithstanding paragraph 1.11.1 above, in establishing site compounds or engaging in any other Operations, save as specifically authorised, required or contemplated in the Orders and/or this Agreement, the DBFO Co shall not undertake any "permitted development" (as defined in the Town and Country Planning (General Permitted Development) Order 1995, S.I.418) in any of the environmentally sensitive areas numbered ESA-01 to ESA-21 and the Sites of Special Scientific Interest (SSSIs) shown on drawings numbered 964057/MI/202A to 212A in Section 8 of Part 5 of Schedule 4.

1.12 Structures

Reinforced earth wall panels shall not be used in Structures.

2. Schemes

2.1 Llanfair PG to Bryngwran

2.1.1 The following junctions shall be provided:

- 2.1.1.1 an off-slip road, to the north of the properties known as Glan Menai and Hafod, connecting the westbound carriageway to the realigned A5 on the west side of Llanfair Pwllgwyngyll;
- 2.1.1.2 a priority junction between the new A5 local link road to Gaerwen and the diverted unclassified road leading to the A4080 on the west side of Llanfair Pwllgwyngyll;
- 2.1.1.3 a priority junction between the existing A5 and the diverted Class III road to Star;
- 2.1.1.4 a priority junction, south of the property known as Talcen Eiddew, between the diverted Class III road to Star and the new minor road leading to the property known as Bodfan and other properties;
- 2.1.1.5 a grade separated junction, to the north east of the property known as Cefn Du, with the Cefn Du link road and the diverted unclassified road on the east side of Gaerwen;
- 2.1.1.6 a roundabout, east of the properties known as Maes Hyfryd on the east side of Gaerwen, with the existing A5 and Cefn Du link road;
- 2.1.1.7 a priority junction, to the north west of Saint Cristiolus Church, between the diverted A5 and Class III road to Llangristiolus;
- 2.1.1.8 a grade separated junction at Nant Turnpike with the diverted A5 and A5114 to Llangefni;
- 2.1.1.9 a priority junction at Nant Turnpike between the diverted A5114 and the unclassified road leading to the properties known as Craigle and Ty Mawr;

- 2.1.1.10 a priority junction, to the north east of Lôn Cei overbridge, between the diverted Class III road to Llangristolus and the unclassified road leading to the property known as Waen Hir;
- 2.1.1.11 a priority junction, to the south west of Tafarn overbridge, between the diverted unclassified roads from the property known as Tafarn-y-grib to Engedi and the property known as Strydan to Engedi; and
- 2.1.1.12 a grade separated junction to the north of the property known as Bwlcyn with the A4080.
- 2.1.2 The following structures shall be provided at the locations shown on the drawings in Section 5 of Part 5 of this Schedule:
 - 2.1.2.1 Footpath 14 Footbridge which shall:
 - 2.1.2.1.1 be a single span Vierendeel girder arched structure; and
 - 2.1.2.1.2 have approach ramps that are sympathetically integrated with earth embankments;
 - 2.1.2.2 Afon Braint Culvert;
 - 2.1.2.3 Star Overbridge which shall have two spans;
 - 2.1.2.4 Avon Braint Tributary Culvert which shall allow the retention of the natural alignment, profile bed and bank characteristics of the watercourse;
 - 2.1.2.5 Cefn Du Overbridge which shall have two spans;
 - 2.1.2.6 Lon Graig Overbridge which shall have two spans;
 - 2.1.2.7 Capel Pensarn Underbridge which shall:
 - 2.1.2.7.1 be a single span portal type structure; and
 - 2.1.2.7.2 incorporate kerbed and paved 1.5m wide footpaths.
 - 2.1.2.8 Pentre Berw Railway Underbridge which shall:
 - 2.1.2.8.1 be an arch structure; and
 - 2.1.2.8.2 incorporate a clawdd on the south verge of the New Road;
 - 2.1.2.9 Refail Underbridge which shall:
 - 2.1.2.9.1 incorporate a clawdd on the south verge of the New Road;
 - 2.1.2.9.2 incorporate lighting for the footway and carriageway in the structure; and

- 2.1.2.9.3 incorporate a kerbed and paved footpath;
- 2.1.2.10 two Afon Cefni Culverts;
- 2.1.2.11 Afon Cefni Underbridge which shall incorporate:
 - 2.1.2.11.1 a pedestrian access through the structure; and
 - 2.1.2.11.2 access ramps on the north side of the Underbridge from the New Road to river banks;
- 2.1.2.12 Nant Turnpike Overbridge which shall have two spans;
- 2.1.2.13 Lon Cei Overbridge which shall have two spans;
- 2.1.2.14 Cefn Canol Overbridge which shall have four spans;
- 2.1.2.15 Afon Gwna River Culvert which shall:
 - 2.1.2.15.1 be a box type structure;
 - 2.1.2.15.2 be a combined culvert for the Afon Gwna and pedestrians; and
 - 2.1.2.15.3 incorporate lighting for the footway in the structure;
- 2.1.2.16 Bryn Twr Overbridge which shall have two spans;
- 2.1.2.17 Ty'n-y-Bont Overbridge which shall have two spans;
- 2.1.2.18 Pumlllog Overbridge which shall have four spans;
- 2.1.2.19 Tyddyn-Polion Underbridge which shall have:
 - 2.1.2.19.1 three spans incorporating the river valley, a public footpath and field access track; and
 - 2.1.2.19.2 intermediate piers taking the form of discrete circular columns;
- 2.1.2.20 Tafarn Overbridge which shall have two spans;
- 2.1.2.21 A4080 Junction Overbridge which shall have two spans;
- 2.1.2.22 Afon Caradog (1) River Culvert;
- 2.1.2.23 Capel Hebron Underbridge which shall incorporate a lit kerbed and paved 1.5m wide footpath on the south east side;
- 2.1.2.24 Afon Caradog (2) River Culvert which shall be extended on the north side of the New Road to provide access to Bryngwran Sewerage Works;
- 2.1.2.25 Afon Caradog (3) River Culvert;

2.1.2.26 Afon Crigyll River Culvert;

2.1.2.27 Nant Turnpike Retaining Wall:

2.1.2.27.1 the cutting and farm pond adjacent to the north east slip road for the grade separated junction referred to in paragraph 2.1.1.8 above shall be retained; and

2.1.2.27.2 the height of the retaining wall shall be minimised by reducing the slope of the cutting; and

2.1.2.28 Fferm-y-Llan Underpass.

2.1.3 Road Geometry

2.1.3.1 The mainline of the New Road from Llanfair PG to Bryngwran shall:

2.1.3.1.1 comprise a dual 7.3m wide carriageway with 1m wide hard strips; and

2.1.3.1.2 within the meaning of the DMRB:

2.1.3.1.2.1 be designed as a rural road; and

2.1.3.1.2.2 have a design speed of 120 kilometres per hour.

2.1.3.2 2.1.3.2.1 The slip roads for the grade separated junctions of the New Road, referred to in paragraphs 2.1.1.5, 2.1.1.8 and 2.1.1.12 above, shall be designed as rural all purpose slip roads within the meaning of DMRB.

2.1.3.2.2 The off-slip road referred to in paragraph 2.1.1.1 shall have a minimum overall width of 11m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.

2.1.3.2.3 The slip roads for the Cefn Du grade separated junction referred to in paragraph 2.1.1.5 shall have a minimum overall width of 11m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.

2.1.3.2.4 The slip roads for the Nant Turnpike grade separated junction referred to in paragraph 2.1.1.8 shall have a minimum overall width of 11m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.

2.1.3.2.5 [NOT USED]

2.1.3.2.6 The slip roads for the Bwlcyn grade separated junction referred to in paragraph 2.1.1.12 shall have a minimum

overall width of 14.3m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.

2.1.3.3 The link road from the grade separated junction referred to in paragraph 2.1.1.5 above to the roundabout referred to in paragraph 2.1.1.6 above and the realigned section of the A4080 in the vicinity of the grade separated junction to the A5 referred to in paragraph 2.1.1.12 shall:

2.1.3.3.1 comprise a single 7.3m wide carriageway with 1m wide strips;

2.1.3.3.2 within the meaning of the DMRB:

2.1.3.3.2.1 be designed as a rural road; and

2.1.3.3.2.2 have a design speed of:

- (a) 85 kilometres per hour for the link road from the grade separated junction referred to in paragraph 2.1.1.5 above to the roundabout referred to in paragraph 2.1.1.6 above;
- (b) 85 kilometres per hour for the realigned section of the A4080 to the south of the grade separated junction referred to in paragraph 2.1.1.12 above; and
- (c) 70 kilometres per hour for the realigned section of the A4080 between its junction with the A5 and the grade separated junction referred to in paragraph 2.1.1.12 above.

2.1.3.4 The diverted sections of the A5 and the realigned section of the A5114 in the vicinity of the grade separated junction referred to in paragraph 2.1.1.8 above shall:

2.1.3.4.1 comprise a single 7.3m wide carriageway;

2.1.3.4.2 within the meaning of the DMRB:

2.1.3.4.2.1 be designed as a rural road; and

2.1.3.4.2.2 have a design speed of 100 kilometres per hour, except for the diverted section of the A5 west of the grade separated junction referred to in paragraph 2.1.1.8 above which shall

have a design speed of 85 kilometres per hour.

2.1.3.5 [NOT USED]

2.1.3.6 The realigned section of the class III road to Star between the A5 and the private means of access to the property known as Talcen Eiddew shall:

2.1.3.6.1 comprise a single 5.5m wide carriageway;

2.1.3.6.2 within the meaning of the DMRB:

2.1.3.6.2.1 be designed as a rural road; and

2.1.3.6.2.2 have a design speed of 60 kilometres per hour.

2.1.3.7 The following minor roads shall (a) comprise single 4.5m wide carriageways and (b) within the meaning of the DMRB (i) be designed as rural roads, and (ii) have a design speed of 50 kilometres per hour, namely:

2.1.3.7.1 the realigned section of the unclassified road leading to the A4080 on the west side of Llanfair PG from its junction with the realigned section of the A5 referred to in paragraph 2.1.3.4 above;

2.1.3.7.2 the realigned section of the unclassified road between Gwalchmai and Cerrig Engan in the vicinity of Ty'n-y-Bont Overbridge;

2.1.3.7.3 the realigned section of the unclassified road between Gwalchmai and Aberffraw in the vicinity of Pumllog Overbridge;

2.1.3.7.4 the realigned section of the unclassified road between Tafarn-y-Grib and Engedi in the vicinity of Tafarn Overbridge; and

2.1.3.7.5 the realigned section of the unclassified road between the property known as Tafarn-y-Grib and Dothan from its junction with the section identified in paragraph 2.1.3.7.4 above, to the south side of the property known as Strydan.

2.1.3.8 The following minor roads shall (a) comprise a single 3.6m wide carriageway, and (b) within the meaning of the DMRB (i) be designed as a rural road, and (ii) have a design speed of 50 kilometres per hour, namely:

2.1.3.8.1 the minor road to the south of the property known as Talcen Eiddew leading to the property known as Bodfan and other properties from the priority junction referred to

- in paragraph 2.1.1.4 above (and the DBFO Co shall provide two passing bays on this new side road);
- 2.1.3.8.2 the northern link off the grade separated junction referred to in paragraph 2.1.1.5 above (and the DBFO Co shall provide two passing bays on this new side road);
 - 2.1.3.8.3 the realigned section of the unclassified road to Graig Fawr in the vicinity of the Lon Graig Overbridge referred to in paragraph 2.1.2.6 above;
 - 2.1.3.8.4 the realigned section of the class III road leading to Llangristiolus (past St Cristiolus Church) from its junction with the realigned A5 in the vicinity of the grade separated junction referred to in paragraph 2.1.1.8 above; and
 - 2.1.3.8.5 the realigned section of unclassified road in the vicinity of the Lon Cei Overbridge referred to in paragraph 2.1.2.13 above.
- 2.1.3.9 The geometric standards of the roads over Cefn Canol Overbridge and Bryn Twr Overbridge referred to in paragraphs 2.1.2.14 and 2.1.2.16 respectively shall be consistent with those of the existing road.
- 2.1.3.10 The geometric standards of the roads and private means of access under Capel Pensarn Underbridge, Tyddyn-Polion Underbridge and Capel Hebron Underbridge referred to in paragraphs 2.1.2.7, 2.1.2.19 and 2.1.2.23 respectively shall be consistent with those of the existing road or private means of access as appropriate.
- 2.1.3.11 The road connecting the two roundabouts at the grade separated junctions referred to in paragraphs 2.1.1.8 and 2.1.1.12 above shall have a design speed of 50 kilometres per hour.
- 2.1.4 Road lighting shall be provided:
- 2.1.4.1 at all grade separated junctions as a partial lighting system in accordance with BS 5489;
 - 2.1.4.2 along the link road from the grade separated junction to the roundabout referred to in paragraphs 2.1.1.5 and 2.1.1.6 above respectively;
 - 2.1.4.3 at the roundabout referred to in paragraph 2.1.1.6 above;
 - 2.1.4.4 along the A5 from the roundabout referred to in paragraph 2.1.1.6 above to tie into the existing lighting at Gaerwen;
 - 2.1.4.5 along the A4080 from the grade separated junction referred to in paragraph 2.1.1.12 above to the priority junction of the A4080 with the A5; and

- 2.1.4.6 along the slip road referred to in paragraph 2.1.1.1 above. The road lighting on the Existing Road shall be terminated at this slip road.
- 2.1.5 Otter passages or ledges shall be provided through the following structures parallel with the watercourses:
 - 2.1.5.1 Afon Braint Culvert (paragraph 2.1.2.2 above);
 - 2.1.5.2 Avon Braint Tributary Culvert (paragraph 2.1.2.4 above);
 - 2.1.5.3 Afon Cefni Underbridge (paragraph 2.1.2.11 above) which shall have one each side of the watercourse;
 - 2.1.5.4 Afron Gwna River Culvert (paragraph 2.1.2.15 above);
 - 2.1.5.5 Afon Caradog (1) River Culvert (paragraph 2.1.2.22 above);
 - 2.1.5.6 Afon Caradog (2) River Culvert (paragraph 2.1.2.24 above);
 - 2.1.5.7 Afon Caradog (3) River Culvert (paragraph 2.1.2.25 above); and
 - 2.1.5.8 Afron Crigyll River Culvert (paragraph 2.1.2.26 above).
- 2.1.6 Central reserve safety fencing shall be provided on the New Road.
- 2.1.7 Flood relief areas shall be provided at the locations shown on the drawings listed in Section 5 to Part 5 of this Schedule.
- 2.1.8 The DBFO Co shall not significantly alter the flow of water through Carex Fen or change the natural ground water level.
- 2.1.9 The existing layby shown on drawing 964057/ED/101 in Section 5 to Part 5 of this Schedule 4 shall be removed.
- 2.1.10 The following work to the existing Afon Cefni Bridge shall be carried out prior to the issuance of the Completion Certificate:
 - 2.1.10.1 remove the northern deck as shown on drawing 964057/ED/103 in Section 5 of Part 5 of this Schedule 4. The DBFO Co shall trim the remaining embankments to the profile of the existing abutments and shall provide a capping beam along the trimmed top of each abutment to give a neat uniform appearance similar to the details provided for the new Cefni Bridge wing walls;
 - 2.1.10.2 replace the two prestressed beams on the north side of the southern deck so that the replacement elements comply with the standards contained in Part 2 of this Schedule 4; and
 - 2.1.10.3 provide a 113km/hr, P2 aluminium parapet on the north side of the southern deck.

2.2 **Bryngwran to Holyhead**

- 2.2.1 The following junctions and ancillary works shall be provided:

- 2.2.1.1 a priority junction, to the north east of Cymunod Underpass, between the existing A5 and the diverted unclassified road;
- 2.2.1.2 a grade separated junction, to the south west of the property known as Dalar Hir, with the diverted A5 and the unclassified road leading from Bodedern to Llanfihangel yn Nhown;
- 2.2.1.3 a grade separated junction, to the south of the property known as Pen-caledog, with the diverted A5;
- 2.2.1.4 a priority junction between the diverted A5 and the diverted unclassified road leading to the property known as Bodwedd and other properties;
- 2.2.1.5 a priority junction between the diverted A5 and the diverted unclassified road leading to the property known as Pen-caledog;
- 2.2.1.6 a priority junction, to the south west of the property known as Awelon, between the diverted B4545 Station Road and the diverted unclassified Lôn Spencer;
- 2.2.1.7 a priority junction, to the west of the property known as Bryn hyfryd, between the diverted B4545 Trearddur Bay Road and the diverted unclassified Valley to Llanfair yn Neubwll Road;
- 2.2.1.8 a priority junction, to the south of the property known as Yr Erw, between the diverted B4545 Trearddur Bay Road and the existing B4545;
- 2.2.1.9 a grade separated junction, to the south east of the property known as Ty Mawr Holyhead, with the Penrhos Link;
- 2.2.1.10 a roundabout, to the north east of the Fire Station in Holyhead, with the diverted B4545 Kingsland Road;
- 2.2.1.11 a priority junction, to the north of the Foresters Arms in Holyhead, between the B4545 Kingsland Road and Porth Dafarch Road;
- 2.2.1.12 a priority junction, to the north of the business known as the Builder Center in Holyhead, between the existing B4545 Kingsland Road and the unclassified Gas Works Industrial Estate Link;
- 2.2.1.13 a priority junction, to the west of the business known as the Builder Center, between the existing unclassified Gas Works Industrial Estate Road and the unclassified Gas Works Industrial Estate Link;
- 2.2.1.14 a signalised junction at the west end of Station Bridge;
- 2.2.1.15 a junction between the B4545 Kingsland Road and Holborn Road which prevents vehicular access to and from the A5 Victoria Road;
- 2.2.1.16 a priority junction, to the east of the "Best Toys (previously Guinness Brothers Group)" factory, between the unclassified Penrhos

Industrial Estate - Estate Road and the extended unclassified Penrhos Industrial Estate - Link; and

- 2.2.1.17 a modified priority junction between the Penrhos Link and the unclassified Penrhos Industrial Estate cul-de-sac.

2.2.2 The following structures shall be provided:

- 2.2.2.1 Cymunod Underpass which shall incorporate kerbed and paved 1.5m wide footpaths;
- 2.2.2.2 Dalar Hir Overbridge;
- 2.2.2.3 Ysbyllidir Access Underbridge which shall:
 - 2.2.2.3.1 incorporate an access track on its western side, fenced to segregate cattle from road users; and
 - 2.2.2.3.2 incorporate a kerbed and paved 1.5m wide footpath on its eastern side;
- 2.2.2.4 Pen-caledog Overbridge;
- 2.2.2.5 Criglas Railway Underbridge which shall incorporate a paved 1.5 metre wide footpath on its eastern side;
- 2.2.2.6 Afon Cleifiog Bridge which shall:
 - 2.2.2.6.1 incorporate a public right of way;
 - 2.2.2.6.2 be an arch form in keeping with nearby masonry arch listed structure;
 - 2.2.2.6.3 have masonry facing to wing walls and head walls; and
 - 2.2.2.6.4 allow the retention of the natural alignment, profile bed and bank characteristics of the watercourse;
- 2.2.2.7 Station Road Overbridge which shall be a two span structure;
- 2.2.2.8 Glyn Dwr Underpass which shall:
 - 2.2.2.8.1 incorporate a 2.4m high environmental parapet which shall be on the Inland Sea side:
 - 2.2.2.8.1.1 be faced with local stone; and
 - 2.2.2.8.1.2 maintain the same visual appearance as that of the existing wall;
 - 2.2.2.8.2 incorporate lighting for the footway and carriageway in the structure; and
 - 2.2.2.8.3 have a kerbed and paved 1.5m wide footpath.

- 2.2.2.9 Inland Sea Bridge which shall:
 - 2.2.2.9.1 incorporate a 2.4m high environmental parapet wall which shall be on the Inland Sea side:
 - 2.2.2.9.1.1 be faced with local stone; and
 - 2.2.2.9.1.2 maintain the same visual appearance as that of the existing wall;
- 2.2.2.10 Anglesey Aluminium Metal Ltd Overbridge;
- 2.2.2.11 Ty Mawr Junction Overbridge which shall have:
 - 2.2.2.11.1 abutments set back from the New Road; and
 - 2.2.2.11.2 traditional masonry cladding to the wingwalls;
- 2.2.2.12 Cyttir Road Overbridge which shall have:
 - 2.2.2.12.1 soffits with plain arched profiles forming a continuous solid face across the width of the structure;
 - 2.2.2.12.2 wingwalls aligned with the outer faces of the arches to match the form of the existing Cyttir Road masonry arch structure; and
 - 2.2.2.12.3 traditional masonry cladding to abutments, wingwalls and parapet faces to closely match the appearance and detailing of the existing Cyttir Road masonry arch structure;
- 2.2.2.13 Penllech Nest Footbridge which shall have:
 - 2.2.2.13.1 traditional masonry cladding to all bankseats, wingwalls and piers to closely match the appearance and detailing of the existing masonry arch structure to be demolished; and
 - 2.2.2.13.2 solid concrete parapets with feature finish topped with metal rail;
- 2.2.2.14 Black/Station Railway Underbridge which shall have:
 - 2.2.2.14.1 traditional masonry cladding to mass concrete and containment walls;
 - 2.2.2.14.2 blue brick cladding to parapets to match existing;
 - 2.2.2.14.3 steepled copings to the parapets;

- 2.2.2.14.4 upgraded masonry faced parapets along both sides of the bridge;
 - 2.2.2.14.5 upgraded waterproofing to the whole deck surface between parapets;
 - 2.2.2.14.6 new reinforced concrete overslab to service ducts along both sides of the bridge; and
 - 2.2.2.14.7 span 6 strengthened as detailed in the TAF and spans 8 and 9 infilled with a lightweight material retained between masonry-faced mass concrete wingwalls constructed outside the existing structure line to facilitate the required widening of the deck at the junction of the existing A5 with the new A55 Trunk Road.
- 2.2.2.15 Ty Mawr Railway Underbridge which shall have:
- 2.2.2.15.1 [NOT USED]
 - 2.2.2.15.2 traditional masonry cladding to abutments, wingwalls and parapet faces to reflect the appearance and detailing of the existing Ty Mawr masonry arch railway bridge;
- 2.2.2.16 Pen y Mynydd Retaining Wall;
- 2.2.2.17 Station Road Valley Retaining Walls;
- 2.2.2.18 Environmental Wall crossing the Inland Sea which shall:
- 2.2.2.18.1 protect the Inland Sea environment from traffic noise and visual intrusion;
 - 2.2.2.18.2 act as a vehicle barrier;
 - 2.2.2.18.3 be 2.4m high;
 - 2.2.2.18.4 on the Inland Sea side:
 - 2.2.2.18.4.1 be faced with local stone; and
 - 2.2.2.18.4.2 maintain the same visual appearance as that of the existing wall;
- 2.2.2.19 Kingsland Road Retaining Wall which shall have:
- 2.2.2.19.1 masonry cladding on the west face;
 - 2.2.2.19.2 flushed pointed blue brickwork on the east traffic face to match existing parapets to Black/Station Railway Underbridge; and
 - 2.2.2.19.3 steepled precast concrete coping stones;

2.2.2.20 Railway Containment Wall - Holyhead which shall:

2.2.2.20.1 form a boundary between the New Road and the Chester to Holyhead railway line between Kingsland Roundabout (Black Bridge roundabout) and Ty Mawr Railway Underbridge; and

2.2.2.20.2 have traditional masonry cladding in the vicinities of Kingsland roundabout (Black Bridge roundabout) and Ty Mawr Railway Underbridge; and

2.2.2.21 The Overbridges to be provided pursuant to paragraphs 2.2.2.2, 2.2.2.4, 2.2.2.7, 2.2.2.10, 2.2.2.11 and 2.2.2.12 above shall have two or four spans.

2.2.3 Road Geometry

2.2.3.1 The mainline of the New Road from Bryngwran to the start of the eastern slip road tapers, as shown on drawing 964057/ED/302 in Section 5 to Part 5 of this Schedule, in the vicinity of the grade separated junction referred to in paragraph 2.2.1.9 above shall:

2.2.3.1.1 comprise a dual 7.3m wide carriageway with 1m wide hard strips;

2.2.3.1.2 within the meaning of the DMRB:

2.2.3.1.2.1 be designed as a rural road; and

2.2.3.1.2.2 have a design speed of 120 kilometres per hour.

2.2.3.2 The mainline of the New Road from the start of the eastern slip road tapers, as shown on drawing 964057/ED/302 in Section 5 to Part 5 of this Schedule, in the vicinity of the grade separated junction referred to in paragraph 2.2.1.9 above to the roundabout referred to in paragraph 2.2.1.10 above shall:

2.2.3.2.1 comprise a dual 7.3m wide carriageway with:

2.2.3.2.1.1 3m wide kerbed verges incorporating a 1m wide paved strip and a 2m wide soft landscape area; and

2.2.3.2.1.2 a central reserve which shall be kerbed and paved except for the section between Chainage 18260 and the roundabout referred to in paragraph 2.2.1.10 above which shall be kerbed and block paved;

2.2.3.2.2 within the meaning of DMRB:

2.2.3.2.2.1 be designed as an urban road; and

- 2.2.3.2.2.2 have a design speed of 85 kilometres per hour.
- 2.2.3.3 The mainline of the New Road from the roundabout referred to in paragraph 2.2.1.10 to the signalised junction referred to in 2.2.1.14 above shall:
 - 2.2.3.3.1 comprise a dual 7.3m wide carriageway with:
 - 2.2.3.3.1.1 3m wide kerbed verges incorporating a 1m wide paved strip and a 2m wide soft landscape area except for the section alongside the Kingsland Road Retaining Wall referred to in paragraph 2.2.2.19 above which shall have a 1.1m wide kerbed paved verge; and
 - 2.2.3.3.1.2 a central reserve which shall be kerbed and block paved;
 - 2.2.3.3.2 within the meaning of DMRB:
 - 2.2.3.3.2.1 be designed as an urban road; and
 - 2.2.3.3.2.2 have a design speed of 60 kilometres per hour.
- 2.2.3.4 The slip roads for the grade separated junctions of the New Road, referred to in paragraphs 2.2.1.2 and 2.2.1.3 above shall be designed as rural all purpose slip roads within the meaning of DMRB and shall have a minimum overall width of 11m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.
- 2.2.3.5 The south east slip roads for the grade separated junction referred to in paragraph 2.2.1.9 above shall be designed as rural all purpose slip roads within the meaning of DMRB and shall have a minimum overall width of 12.5m including verges with a 3.7m wide carriageway for one lane and a 2.3m wide hard shoulder.
- 2.2.3.6 The north west slip roads for the grade separated junction referred to in paragraph 2.2.1.9 above, shall be designed as urban all purpose slip roads within the meaning of DMRB and shall be 12.5m wide with a 3.7m wide carriageway for one lane, a 2.3m wide kerbed hard shoulder and a 1.0m wide kerbed hard strip on its off side.
- 2.2.3.7 The Penrhos Link between the grade separated junction referred to in paragraph 2.2.1.1.9 above and the A5 shall:
 - 2.2.3.7.1 comprise a single 7.3m wide carriageway with 1m wide hard strips and 2m wide kerbed footways;
 - 2.2.3.7.2 within the meaning of DMRB:
 - 2.2.3.7.2.1 be designed as an urban road; and

- 2.2.3.7.2.2 have a design speed of 60 kilometres per hour.
- 2.2.3.8 The Victoria Road Link between the signalised junction referred to in paragraph 2.2.1.14 above and Victoria Road shall:
- 2.2.3.8.1 at the stopline comprise a kerbed single 13.8m wide carriageway with a traffic island separating two southbound and one northbound traffic lanes reducing to a 7.3m carriageway at Victoria Road;
 - 2.2.3.8.2 have a 1.1m wide kerbed paved verge adjacent to the Kingsland Road Retaining Wall referred to in paragraph 2.2.2.19 above;
 - 2.2.3.8.3 have a 2m wide kerbed footway on the east side;
 - 2.2.3.8.4 within the meaning of DMRB:
 - 2.2.3.8.4.1 be designed as an urban road; and
 - 2.2.3.8.4.2 have a design speed of 60 kilometres per hour.
- 2.2.3.9 The realigned section of the B4545 in the vicinity of Station Road Overbridge (paragraph 2.2.2.7 above) shall:
- 2.2.3.9.1 comprise a single 7.3m wide carriageway with kerbs and footways as shown on drawing 964057/ED/208 in Section 5 to Part 5 of this Schedule;
 - 2.2.3.9.2 within the meaning of DMRB:
 - 2.2.3.9.2.1 be designed as an urban road; and
 - 2.2.3.9.2.2 have a design speed of 60 kilometres per hour;
- 2.2.3.10 The class A roads in the vicinity of the junction referred to in paragraphs 2.2.1.2 and 2.2.1.3 shall each:
- 2.2.3.10.1 comprise a single carriageway with carriageway and verge widths at least the same as the existing carriageway and verge widths;
 - 2.2.3.10.2 within the meaning of the DMRB:
 - 2.2.3.10.2.1 be designed as a rural road; and
 - 2.2.3.10.2.2 have a design speed of 85 kilometres per hour;

- 2.2.3.11 The realigned unclassified roads in the vicinity of the grade separated junction referred to in paragraph 2.2.1.2 above, shall each:
- 2.2.3.11.1 comprise a single carriageway with carriageway and verge widths at least the same as the existing carriageway and verge widths;
 - 2.2.3.11.2 within the meaning of the DMRB:
 - 2.2.3.11.2.1 be designed as a rural road; and
 - 2.2.3.11.2.2 have a design speed of 70 kilometres per hour;
- 2.2.3.12 The realigned sections of unclassified roads between Valley and Llanfair yn Neubwll from the priority junction referred to in paragraph 2.2.1.7 above to the east side of the access to the property known as Bryn-Lyfryd and between the A5 and Llanfihaugei yn Nhown to Engedi road to the west of the property known as Cymunod shall each:
- 2.2.3.12.1 comprise a single 5.5m wide carriageway;
 - 2.2.3.12.2 within the meaning of DMRB:
 - 2.2.3.12.2.1 be designed as a rural road; and
 - 2.2.3.12.2.2 have a design speed of 60 kilometres per hour;
- 2.2.3.13 The realigned section of the B4545 in the vicinity of the roundabout referred to in paragraph 2.2.1.10 above shall:
- 2.2.3.13.1 have kerbs and footways;
 - 2.2.3.13.2 incorporate a right turn facility into Porth Dafarch Road on the south east exit towards Trearddur;
 - 2.2.3.13.3 within the meaning of DMRB:
 - 2.2.3.13.3.1 be designed as an urban road; and
 - 2.2.3.13.3.2 have a design speed of:
 - (a) 60 kilometres per hour for the realigned section of the B4545 south of the roundabout referred to in paragraph 2.2.1.10 above; and
 - (b) 50 kilometres per hour for the realigned section of the B4545

north of the roundabout referred to in paragraph 2.2.1.10 above.

- 2.2.3.14 The realigned section of the unclassified road between Valley and Llanfair yn Neubwil from the east side of the access to the property known as Bryn-hyfyrd shall:
- 2.2.3.14.1 comprise a single 3.6m wide carriageway;
 - 2.2.3.14.2 incorporate two passing bays;
 - 2.2.3.14.3 within the meaning of the DMRB:
 - 2.2.3.14.3.1 be designed as a rural road; and
 - 2.2.3.14.3.2 have a design speed of 50 kilometres per hour.
- 2.2.3.15 The roads over Cytir Road Overbridge referred to in paragraph 2.2.2.12 above and Black/Station Railway Underbridge referred to in paragraph 2.2.2.14 above, shall be provided so as to maintain the geometric standards of the existing road.
- 2.2.3.16 The realigned section of the road from the priority junction referred to in paragraph 2.2.1.6 above, shall:
- 2.2.3.16.1 comprise a single 7.3m wide carriageway with kerbs and a 1.2m wide footway on the east side;
 - 2.2.3.16.2 within the meaning of the DMRB:
 - 2.2.3.16.2.1 be designed as an urban road; and
 - 2.2.3.16.2.2 have a design speed of 50 kilometres per hour.
- 2.2.3.17 The industrial link roads from the priority junction referred to in paragraph 2.2.1.12 above to the priority junction referred to in paragraph 2.2.1.13 above and the spur from the priority junction referred to in paragraph 2.2.1.16 above, shall:
- 2.2.3.17.1 be within the meaning of DMRB, have a design speed of 50 kilometres per hour; and
 - 2.2.3.17.2 be designed to comply with the requirements of Isle of Anglesey County Council.
- 2.2.3.18 The geometric standards of the roads and private means of access under Cymunod Underpass, Ysbyllidir Access Underbridge and Glyn Dwr Underpass in paragraphs 2.2.2.1, 2.2.2.3 and 2.2.2.8 respectively shall be consistent with those of the existing road or private means of access as appropriate.

- 2.2.3.19 The roads connecting the two roundabouts at the grade separated junctions referred to in paragraphs 2.2.1.2, 2.2.1.3 and 2.2.1.9 above shall each have a design speed of 50 kilometres per hour.
- 2.2.4 Road lighting shall be provided:
- 2.2.4.1 at the grade separated junctions referred to in paragraphs 2.2.1.2 and 2.2.1.3 above as a partial lighting system in accordance with BS 5489;
 - 2.2.4.2 at the grade separated junction referred to in paragraph 2.2.1.9 above as a full lighting system in accordance with BS 5489;
 - 2.2.4.3 at the priority junction referred to in paragraph 2.2.1.1 above, and along the A5 from this junction to tie in with the existing lighting to the west of this junction;
 - 2.2.4.4 along the mainline of the New Road from the grade separated junction referred to in paragraph 2.2.1.9 above to tie in with the existing lighting at Black/Station Underbridge and Victoria Road, Holyhead. This new lighting shall integrate fully with any adjacent existing lighting; and
 - 2.2.4.5 along the Penrhos Link from the grade separated junction referred to in paragraph 2.2.1.9 above to tie in with the existing lighting at the roundabout junction on the A5.
- 2.2.5 Criglas Railway Underbridge which shall incorporate a paved 1.5 metre wide public footpath on its eastern side.
- 2.2.6 Traffic Signals
- 2.2.6.1 Traffic signals, which shall be linked with the existing signals at the east end of Black/Station Railway Underbridge, shall be provided at:
 - 2.2.6.1.1 the Holyhead port entrance roundabout; and
 - 2.2.6.1.2 the west end of Black/Station Railway Underbridge (see paragraph 2.2.1.14 above).
 - 2.2.6.2 Notwithstanding paragraph 2.2.6.3 below, the existing pedestrian phase on the traffic signals at the east end of Black/Station Bridge shall be retained unless an equivalent alternative crossing facility is provided.
 - 2.2.6.3 The traffic signals at the east end of Black/Station Bridge and the traffic signals to be provided in accordance with paragraphs 2.2.6.1.1 and 2.2.6.1.2 above shall be provided with pedestrian facilities in accordance with TA/15/81 in Section 1 of Volume 8 of DMRB referred to in Annex 1 of Part 2 of this Schedule.
- 2.2.7 Traffic calming measures shall be provided at the junction of the A5 London Road and the east end of Black/Station Railway Underbridge in Holyhead to deter through traffic from using the A5 London Road.

- 2.2.8 An underground storage tank for highway drainage shall be provided at the location shown on drawing number 964057/ED/305 in Section 5 to Part 5 of this Schedule.
- 2.2.9 Central reserve safety fencing shall be provided on the New Road from Bryngwran to the roundabout referred to in paragraph 2.2.1.10 above.
- 2.2.10 The Inland Sea shall not be used to receive highway drainage.
- 2.2.11 The DBFO Co shall monitor and provide measures to control the spread of sediments within the Inland Sea in accordance with paragraphs 1.9 and 1.10 of Section C of Part 3 to Schedule 8.
- 2.2.12 A paved shared use footway/cycle track shall be provided in the areas to the south west side of the roundabout referred to in paragraph 2.2.1.10 above.
- 2.2.13 The DBFO Co shall provide traffic islands and street furniture at the west end of Black/Station Bridge within the trailer swept path as shown on drawing numbered 100888/SHF/0452 such that they can easily be removed and replaced to facilitate the movement of abnormal vehicles.
- 2.2.14 The DBFO Co shall comply with the Additional Special Requirements of Welsh Water ("DCWW") in paragraph 6 of Section C to Part 3 of Schedule 8.
 - 2.2.14.1 The DBFO Co shall comply with the Additional Special Requirements of Welsh Water ("**DCWW**") set out in paragraph 6 of Section C to Part 3 of Schedule 8.
 - 2.2.14.2 The DBFO Co shall procure that the sewers manholes and outfalls to be provided in accordance with paragraph 6 of Section C to Part 3 of Schedule 8 shall be adopted by DCWW.
- 2.2.15 The DBCO Co shall provide kissing gates rather than stiles at each of the following locations:
 - 2.2.15.1 at the points where the existing public footpaths meet the highway boundary on the north and south sides of Criglas Railway Underbridge (at the location shown on drawing number 964057/AW/2014/2);
 - 2.2.15.2 at the point where the diverted public footpath 22 meets the eastbound off slip road at Ty Mawr Grade Separated Junction (at the location shown on drawing number 964057/AW/3003/3); and
 - 2.2.15.3 at the point where the diverted public footpath 22 meets the Ty Mawr Road on the south west side of Ty Mawr Grade Separated Junction (at the location shown on drawing number 964057/AW/3001/1).

3. Side and Slip Roads

3.1 The DBFO Co shall:

- 3.1.1 carry out the improvement of highways;
- 3.1.2 stop up highways;
- 3.1.3 construct new highways;
- 3.1.4 stop up private means of access to premises; and
- 3.1.5 provide new private means of access to premises,

all as described in the schedules to the Side Roads Orders and Supplementary Side Roads Orders listed in Part 4 of Schedule 3.

3.2 Where, pursuant to any Order, any length of highway is authorised to be stopped up, another reasonably convenient route shall be made available to users of such length of highway prior to such stopping up.

3.3 Where, pursuant to any Order, any private means of access is authorised to be stopped up and an alternative means of access is authorised to be provided, another reasonably convenient means of access shall be made available prior to such stopping up.

3.4 Where, in accordance with Appendix 1/15 to Annex 5 to Part 2 of Schedule 4, an access track is to be provided between two points, then, at all times during the period from the date on which any existing access between such points is stopped up by the Works to the date on which such access track is so provided, a means of access between such points shall be provided.

3.5 The DBFO Co shall provide all slip roads as described in the Orders listed in Part 4 of Schedule 3.

4. Menai Bridge

4.1 Notwithstanding the provisions of paragraph 6.3.2.1 of Section 6 of Part 2 of Schedule 6, the DBFO Co shall carry out a principal inspection in accordance with paragraphs 6.3.2.3 and 6.3.2.4 of that Section within one year of the commencement of the Contract Period.

4.2 Prior to the issuance of the Permit to Use, the DBFO Co shall replace the concrete deck slab with a new concrete deck made composite with the existing supporting metal deck plates or replacement plates or with the existing transverse joists for the suspended span, so that the replacement elements comply with the standards contained in the Construction Requirements. Refer to the TAF for design criteria.

4.3 After completion of the work pursuant to paragraph 4.2 above and prior to the issuance of the Completion Certificate, the DBFO Co shall provide surface protection to the metal members providing structural support to the concrete deck slab referred to in paragraph 4.2 above.

5. **A5025**

5.1 Prior to the issuance of the Permit to Use the DBFO Co shall:

- 5.1.1 reconstruct the carriageway;
- 5.1.2 install street furniture; and
- 5.1.3 apply road markings,

in each case at the location shown on drawing No. 027.95.13.A, in accordance with the details shown on drawings Nos. 027.95.13.C and 027.95.13.D in Section 8.4 of Part 5 of Schedule 4.

6. **Public Open Space**

6.1 The DBFO Co shall carry out the works identified in drawing numbered 964057/MI/201 in Section 8 of Part 5 of this Schedule 4 in connection with the creation and development of a new public open space at the location indicated in that drawing. In particular (but without prejudice to the foregoing), the DBFO Co shall:

- 6.1.1 remove surfaced road construction, replace the same with imported topsoil and cultivate for use as a grassed sports field;
- 6.1.2 take down existing hedges and fences;
- 6.1.3 treat and cultivate an existing field so as to be suitable for use as a grassed sports field;
- 6.1.4 construct a diverted public footpath 1.0m wide;
- 6.1.5 construct a combined turning bay and field access;
- 6.1.6 construct timber wicket gate in dry stone wall to match existing walls; and
- 6.1.7 erect a 1.4m high heavy duty green plastic coated chain link fence with steel posts.

6.2 The works specified in paragraph 6.1 above shall be undertaken in such a manner as to ensure that the new public open space is made an integral part of the adjacent sports field.

7. **Historic Route Signs**

Prior to the issuance of the Permit to Use, historic route signs shall be installed on the existing A5 in accordance with paragraph 19 of Annex 14 of Part 2 of Schedule 4.

8. **Vertical Alignment**

8.1 Before effecting any changes in the vertical alignment of the Existing Design which either fall outside the scope of any parameters for variations contemplated in the environmental statement or may reasonably be expected to be materially intrusive on the view from any adjacent buildings, the DBFO Co shall:

- 8.1.1 prepare and submit to the Secretary of State a supplementary environmental statement appropriate to the proposed changes which contains the information referred to in Annex III to Council Directive No. 85/337/EEC;
 - 8.1.2 shall ensure that "the appropriate environmental body", as defined in subsection (6) in Section 105A of the Highways Act 1980, and the Environment agency are given a reasonable opportunity to express an opinion on the proposed changes before the proposed changes are implemented; and
 - 8.1.3 ensure that the public concerned are given a reasonable opportunity to express an opinion on the proposed changes before the proposed changes are implemented.
- 8.2 At any time following submission of the supplementary environmental statement referred to in paragraph 8.1.1 above, the Secretary of State shall be entitled to publish the same.
9. **National Cycle Network ("NCN")**
- The DBFO Co shall incorporate interfaces with the NCN into the Project Road, utilising the general standards and approved solutions contained in the "NCN Guidelines and Technical Details" (the "**NCN Guidelines**").
10. **Demolition of Public Conveniences**
- The public conveniences located at Cambria Road, Menai Bridge are to be demolished and the area reinstated.

**Appendix 1
to Annex 1
to Part 1 of Schedule 4**

Note: For chainages see drawings in Sections 3,4 or 5 as appropriate

1. Construction of freestanding walls at the following locations:

Location	Approximate Chainage (or description of location and approximate length)
1.1 Llanfair PG to Bryngwran	
(a) Westbound side	400m total on the northern side of the A5 both west and east of the Cefn Du Roundabout. At the Nant Turnpike Interchange, the walls highlighted on drawing numbered 964057/CPLA/105 (see Section 4 to Part 5 of Schedule 4).
(b) Eastbound side	At the Nant Turnpike Interchange, the walls highlighted on drawing numbered 964057/CPLA/105 (see Section 4 to Part 5 of Schedule 4).
1.2 Bryngwran to Holyhead	
(a) Westbound side	440m south of the Dalar Hir Grade separated junction (level with 4150-4470) 6840-7340 Inland Sea Environmental Wall (8850-10400) 12610-12850 12860-13130
(b) Eastbound side	480m north of the Dalar Hir grade separated junction (level with 3880-4290) 7380-7850 Penrhos Link, west side 40-210 Penrhos Link, west side 230-410
2. Construction of cloddiau at the following locations, provided that any planting on the tops of cloddiau may be undertaken after the date of issue of the Permit to Use:	
2.1 Llanfair PG to Bryngwran	
(a) Westbound side	550-1070 1690-1950 2680-3520 630m total along both sides of the Cefn Du Link Road south of the New Road 3540-4160 4180-4550

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|--------------------|--|
| | 5310-5380 |
| | 5390-6140 |
| | 8980-9130 |
| | 9980-11200 |
| | 11670-11820 |
| | 130m total along both sides of the side road south of the Bryn Twr Overbridge |
| | 11830-12000 |
| | 12900-13170 |
| | 13340-13900 |
| | 14170-14530 |
| | 190m along the western side of the side road south of Pumllog Overbridge |
| | 15600-16040 |
| | 90m running from 16040 towards Strydan |
| | 550m on the southern side of the side roads west of Strydan (level with 16000-16500) |
| | 18180-18670 |
| (b) Eastbound side | 1120-1590 |
| | 1600-2700 |
| | 9030-9270 |
| | 9560-9690 |
| | 11000-11200 |
| | 11300-11700 |
| | 12900-13170 |
| | 14160-14440 |
| | 14530-15260 |
| | 310m total on the western side of the side road north of Pumllog Overbridge and then running approximately parallel to the New Road (level with 14500-14680) |
| | 15850-16340 |
| | 180m along the southern side of the side road east of the Tafarn Overbridge. |
| | 18180-18660 |
- 2.2 **Bryngwran to Holyhead**
- | | |
|--------------------|-------------|
| (a) Westbound side | 5610-6170 |
| | 10640-11050 |
| | 11490-11710 |
| | 12080-12240 |
| (b) Eastbound side | 8360-8900 |
3. The Works referred to in paragraph 1.17 of Annex 11 to Part 2 of Schedule 4.
4. The provision of traffic signals in accordance with paragraph 2.2.6 of Annex 1 to Part 1 of Schedule 4.

5. Regrading works at the following locations:

Location	Approximate Chainage (or description of location and approximate length)
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5.1 **Llanfair PG to Bryngwran**

(a) Westbound side	4320-4680
	5330-5670
	5800-6140
	9140-9340
	10070-10810
	13750-13930

(b) Eastbound side	4540-4690
	5290-5720
	9180-9340
	10050-10800
	13750-13960

5.2 **Bryngwran to Holyhead**

(a) Westbound side	2380-2690
	2700-3560
	5610-6050
	8640-8850

(b) Eastbound side	7850-8190
	8260-8900

6. Accommodation Works in accordance with Appendix 1/15 to Annex 5 to Part 2 of Schedule 4.
7. Compliance with Clause 13.5.1.D.
8. An Approval Letter (as defined in the Railtrack Works Agreement) pursuant to and in accordance with the Railtrack Works Agreement.

Annex 2
Part 1 of Schedule 4

Taking Over Requirements

The DBFO Co shall procure that either the conditions set out in paragraph 1 below or the conditions set out in paragraph 2 below have been satisfied.

1. The road pavement of all De-Trunked Segments shall comply with the following requirements:
 - 1.1 For each 100 metre length of each lane of the Project Road, the Residual Life (85th percentile) to the onset of investigatory conditions, shall be predicted in accordance with HD29/94 (as set out in DMRB (reference 7.3.2) as amended by Part 2 of this Schedule 4).
 - 1.1.1 At least 85% of each traffic lane of the Project Road shall have a Residual Life of 10 years or more.
 - 1.1.2 For any one kilometre length of a lane:
 - 1.1.2.1 no more than one 100 metre length shall have a Residual Life less than 10 years; and
 - 1.1.2.2 no 100 metre length shall have a Residual Life of less than 0 years.
 - 1.2 [NOT USED]
 - 1.3 All sections of each traffic lane of the De-Trunked Segments shall have a Mean Summer SCRIM Coefficient at least 10% greater than the Investigatory Level specified in Standard HD 28/94 (as set out in the DMRB (reference 7.3.1) as amended by Part 2 of this Schedule 4).
 - 1.4 All carriageways of the De-Trunked Segments shall be free from defects in accordance with the O&M Requirements.
2. IACC shall have unconditionally agreed to take over all De-Trunked Segments as the highway authority in accordance with an order made pursuant to section 10(2)(b) of the Highways Act on terms previously approved by the Secretary of State.

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