

**Annex 5
to Part 2 of Schedule 4
Numbered Appendices**

Appendix 0/1**Contract-Specific Additional, Substitute and Cancelled Clauses,
Tables and Figures**

List of Additional Clauses, Tables and Figures

Clause, Table No. or Figure No.	Title

List of Additional Clauses, Tables and Figures

Clause, Table No. or Figure No.	

List of Substitute Clauses, Tables and Figures

Clause, Table No. or Figure No.	Title

Additional Clauses, Tables and Figures

Clause, Table No. or Figure No.	Title and written text

Appendix 0/2**Contract-Specific Minor Alterations to Existing Clauses,
Tables and Figures**

Clause, Table No. or Figure No.	Alterations to be made
Series 900 Road Pavements - Bituminous Bound Materials - Clause 939.9	Delete the words "line of quality" and insert the words "line of equality".

Appendix 0/3

List of Numbered Appendices Referred to in the Specification

The list set out in this Appendix 0/3 is a list of the Numbered Appendices referred to in the SHW (excluding those which are inappropriate for use in the DBFO Contract). This list also includes certain contract-specific Numbered Appendices devised for this Agreement. Those identified by the letters C or T/C shall be completed where appropriate as described below.

Symbol

- | | |
|-----|---|
| C | Appendix to be completed by the DBFO Co as appropriate during design stage, prior to commencement of construction of the appropriate element. The Appendix shall be submitted in accordance with the Design and Certification Procedure. |
| T/C | Appendix has been partially completed and to the extent completed forms part of the Construction Requirements. The DBFO Co is required to provide further details in accordance with the Design and Certification Procedure prior to commencement of construction of the appropriate element. |

In addition to those Numbered Appendices so identified, the DBFO Co shall complete such other Numbered Appendices as required in respect of the Works in accordance with the SHW and Notes for Guidance. Each such Appendix shall be submitted in accordance with the Design and Certification Procedure prior to commencement of the relevant Works.

Where the DBFO Co is to submit an Appendix or further information under the Design and Certification Procedure in accordance with the foregoing, such Appendix or further information shall be prepared in accordance with the SHW and the Notes for Guidance. The Department's Nominee may object to any such Appendix or further information on the grounds set out in paragraph 3.13 of Part 3 of Schedule 7, as well as on the ground that the relevant Appendix or further information does not satisfy any standard specified in respect of such Appendix or further information in this Part 2 of Schedule 4.

Where an Appendix is included in this Annex 5 but no letter is given in the list, the relevant Appendix has been completed prior to execution of this Agreement and is included in the Construction Requirements. Any changes to such Appendices shall be submitted as a DBFO Co's Change.

Where the Construction Requirements apply to any works in accordance with Part 2 of Schedule 6 or to any other works carried out on the Project Facilities after the end of the Construction Period and any Appendix contained in this Part 2 of Schedule 4 is not appropriate for use in respect of the relevant works, the DBFO Co shall procure that a revised Appendix shall be completed and submitted in accordance with the Design and Certification Procedure prior to commencement of the relevant works. The Department's Nominee may object to any such revised Appendix on the grounds set out in paragraph 3.13 of Part 3 of Schedule 7, as well as on the grounds that the relevant Appendix does not satisfy any standard specified in this Part 2 of Schedule 4.

Complete d	Appendix No	Title
		INTRODUCTION
I	0/1	Contract-Specific Additional, Substitute and Cancelled Clauses, Tables and Figures
I	0/2	Contract-Specific Minor Alterations to Existing Clauses, Tables and Figures
I	0/3	List of Numbered Appendices Referred to in the Agreement
T	0/4	List of Drawings Included in the Agreement
		PRELIMINARIES
I	1/1	Temporary Accommodation and Equipment for the Department's Agent
I	1/2	Vehicles for the Department's Agent
I	1/3	Communication System for the Department's Agent
C	1/5	Testing to be Carried Out by the DBFO Co
C	1/7	Site Extent and Limitations on Use
not used	1/8	Operatives for the Department's Agent
C	1/9	Control of Noise and Vibration
C	1/12	Setting Out and Existing Ground Levels
I	1/13	Programme and Works Programme
I	1/15	Accommodation Works
C	1/16	Privately and Publicly Owned Services and Supplies
I	1/17	Traffic Safety and Management
C	1/18	Temporary Diversions for Traffic
C	1/19	Routing of Vehicles
C	1/20	Recovery Vehicles for Breakdowns
I	1/21	Information Boards
not used	1/22	Progress Photographs
C	1/23	Substances Hazardous to Health

Complete d	Appendix No	Title
		SITE CLEARANCE
C	2/1	List of Buildings, etc. to be Demolished
C	2/2	Filling of Trenches and Pipes
C	2/3	Retention of Material Arising from Site Clearance
C	2/4	Explosives and Blasting
C	2/5	Hazardous Materials
		FENCING AND ENVIRONMENTAL BARRIERS
C	3/1	Fencing, Gates and Stiles
C	3/2	Environmental Barriers
		SAFETY FENCES, SAFETY BARRIERS AND PEDESTRIAN GUARDRAILS
C	4/1	Safety Fences and Safety Barriers
C	4/2	Pedestrian Guardrails
		DRAINAGE AND SERVICE DUCTS
C	5/1	Drainage Requirements
C	5/2	Service Duct Requirements
C	5/3	Surface Water Channels and Drainage Channel Blocks
C	5/4	Fin Drains and Narrow Filter Drains
C	5/5	Combined Drainage and Kerb Systems
		EARTHWORKS
C	6/1	Requirements for Acceptability and Testing etc. of Earthworks Materials
C	6/2	Requirements for Dealing with Class U2 Unacceptable Material
C	6/3	Requirements for Excavation, Deposition, Compaction (Other than Dynamic Compaction)
C	6/4	Requirements for Class 3 Material

Complete d	Appendix No	Title
C	6/5	Geotextiles Used to Separate Earthworks Materials
C	6/6	Fill to Structures and Fill Above Structural Foundations
C	6/7	Sub-formation and Capping and Preparation and Surface Treatment of Formation
C	6/8	Topsoiling, Grass Seeding and Turfing
C	6/9	Earthwork Environmental Bunds, Landscape Areas, Strengthened Embankments
C	6/10	Ground Anchorages, Crib Walling and Gabions
C	6/11	Swallow Holes and Other Naturally Occurring Cavities and Disused Mine Workings
C	6/12	Instrumentation and Monitoring
C	6/13	Ground Improvement
		ROAD PAVEMENTS - GENERAL
C	7/1	Permitted Pavement Options Sheets 1, 2 and 3
C	7/2	Excavation and Reinstatement of Existing Surfaces
C	7/3	Surface Dressing
C	7/4	Bituminous Sprays
C	7/5	In Situ Recycling: The Repave Process
C	7/6	Breaking up or Perforation of Existing Pavement
		KERBS, FOOTWAYS AND PAVED AREAS
C	11/1	Kerbs, Footways and Paved Areas
		TRAFFIC SIGNS
C	12/1	Traffic Signs: General
C	12/2	Traffic Signs: Marker Posts
C	12/3	Traffic Signs: Road Markings and Studs

Complete	Appendix	Title
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d	No	
C	12/4	Traffic Signs: Cones, Cylinders, FTDs and Other Traffic Delineators
C	12/5	Traffic Signs: Traffic Signals
C	12/6	Traffic Signs: Special Sign Requirements on Gantries
		ROAD LIGHTING COLUMNS AND BRACKETS
C	13/1	Information to be Provided by the DBFO Co When Specifying Lighting Columns and Brackets
C	13/2	Column and Bracket Data Sheets 1 and 2
C	13/3	Instructions for Completion of Column and Bracket Data Sheet
		ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS
C	14/1	Site Records
C	14/2	Location of Lighting Units and Feeder Pillars
C	14/3	Temporary Lighting
C	14/4	Electrical Equipment for Road Lighting
C	14/5	Electrical Equipment for Traffic Signs
		MOTORWAY COMMUNICATIONS
C	15/1	Motorway Communications
		PILING AND DIAPHRAGM WALLING
C	16/1	Requirements for Piling and Diaphragm Walling
C	16/2	Precast Reinforced and Prestressed Concrete Piles and Precast Reinforced Concrete Segmental Piles
C	16/3	Bored Cast-in-Place Piles
C	16/4	Bored Piles Constructed using Continuous Flight Augers and Concrete or Grout Injection through Hollow Auger Stems
C	16/5	Driven Cast-in-Place Piles
C	16/6	Steel Bearing Piles

Complete d	Appendix No	Title
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C	16/7	Reduction of Friction on Piles
C	16/8	Non-Destructive Methods for Testing Piles
C	16/9	Static Load Testing of Piles
C	16/10	Diaphragm Walls
C	16/11	Hard/Hard Secant Pile Walls
C	16/12	Hard/Soft Secant Pile Walls
C	16/13	Contiguous Bored Pile Walls
C	16/14	King Post Walls
C	16/15	Steel Sheet Piles
C	16/16	Integrity Testing of Wall Elements
C	16/17	Instrumentation for Piles and Embedded Walls
C	16/18	Support Fluids
		STRUCTURAL CONCRETE
C	17/1	Concrete - Classification of Mixes
C	17/2	Concrete - Impregnation Schedule
I	17/3	Concrete - Surface Finishes
C	17/4	Concrete - General
		STRUCTURAL STEELWORK
C	18/1	Requirements for Structural Steelwork
		PROTECTION OF STEELWORK AGAINST CORROSION
C	19/1	Requirements for Bridges, Parapets and other Highway Structures Except Bearings and Lighting Columns
C	19/2	Requirements for Bearings
C	19/3	Requirements for Lighting Columns and Bracket Arms

Complete d	Appendix No	Title
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C	19/4	Requirements for Other Work
C	19/5	Form BE/P2 (New Works) Paint System Sheet
C	19/6	Form BE/P3 Paint Sample Despatch List (no ref. in SHW - see NG 1910)
C	19/7	Form BE/P4 Paint Sample Analysis Report (no ref. in SHW - see NG 1910)
C	19/8	Form BE/P5 Paint Data Sheet
C	19/9	General Requirements
		WATERPROOFING FOR STRUCTURES
C	20/1	Form PWS Proprietary Waterproofing System Data Sheet and Annex "A"
C	20/2	Waterproofing for Concrete Structures
		BRIDGE BEARINGS
C	21/1	Bridge Bearing Schedule
		PARAPETS
C	22/1	Parapet Schedule
		BRIDGE EXPANSION JOINTS AND SEALING OF GAPS
C	23/1	Bridge Deck Expansion Joint Schedule
C	23/2	Sealing of Gaps Schedule
		BRICKWORK, BLOCKWORK AND STONEMASONRY
C	24/1	Brickwork, Blockwork and Stonemasonry
		SPECIAL STRUCTURES
C	25/1	Requirements for Corrugated Steel Buried Structures
C	25/2	Requirements for Reinforced Earth and Anchored Earth Structures
C	25/3	Requirements for Pocket Type Reinforced Brickwork Retaining Wall Structures

Completed	Appendix No	Title
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MISCELLANEOUS		
C	26/1	Ancillary Concrete
C	26/2	Bedding Mortar
C	26/3	Cored Thermoplastic Node Markers

Appendix 0/4

List of Drawings Included in the Agreement

Drawings listed in:		Purpose for which drawing(s) included:
Schedule 3 Part 5		
Section 1	Existing Road	Boundary of Existing Road Boundary of Site Boundary of Adjacent Areas
Section 2	New Road	Boundary of New Road Boundary of Site Boundary of Adjacent Areas (including Temporary Adjacent Areas)
Section 3	Road Length and Measurement Points	Road Length and Measurement Points
Schedule 4 Part 5		
Section 1	Accommodation Works	
Section 1.1	Accommodation Works	Location of Accommodation Works
Section 1.2	Standard Details	Standard details which apply to the Works, including Accommodation Works
Section 2	Archaeology	Location of Identified Archaeological Sites
Section 3	Construction Non-Planting Landscape Areas	Areas of landscape treatment (including, without limitation, regrading, special treatment of cuttings, free standing walls and hard landscaping)
Section 4	Construction Planting Landscape Areas	Areas of landscape treatment (including, without limitation, planting, seeding and cloddiau)
Section 5	Engineering Drawings	Junction layouts and locations, vertical alignments, balancing ponds, flood relief areas, underground storage tank, locations of structures and locations within the highway boundary of footways, cycle tracks and lay-bys
Section 6	Existing Vegetation	Existing Vegetation along the New Road
Section 7	Habitat Creation	Areas of Habitat Creation

Section 8	Miscellaneous	
Section 8.1	Historic Route Signs	Details of historic route signs
Section 8.2	Accesses	Construction details of paved private and field accesses
Section 8.3	Sewers to be provided by the DBFO Contractor as part of the A55 Contract	Manhole and outfall locations at Holyhead
Section 8.4	Replacement Public Open Space for Valley Community Council	Location of Existing Public Open Space, location of and work required to the new public open space
Section 8.5	Environmentally Sensitive Areas prohibited for Contractor's Use	Location of Environmentally Sensitive Areas prohibited for the DBFO Co's use
Section 8.6	Proposed Reconstruction A5025 Sant Tysilio to Bryn Awelon	Reconstruction of the A5025
Section 8.7	Trailer Swept Paths at Black/Station Bridge Junctions	Trailer swept paths at Black/Station Bridge Junctions
Section 9	Off-Site Planting	Location of Off-Site Planting
Section 10	Structure General Arrangement	General arrangement of structures

Schedule 6 Part 3

Section 1	Existing Landscape Areas	Existing Landscape Areas along the Existing Road
Section 2	Structures Maintenance Boundaries	Maintenance boundaries in respect of structures
Section 3	Masonry boundary /retaining walls	Existing masonry/boundary walls to be maintained
Section 4	Excluded On-Site Equipment	Identification of Excluded On-Site Equipment

- 2.2.3 **Computer Equipment and Stationery Requirements:** computer equipment and stationery requirements which shall be specified by the Department's Agent provided that the Department's Agent may not specify:
- 2.2.3.1 any computer equipment the total cost of which would exceed £20,000; nor
- 2.2.3.2 any stationery requirements the total cost of which would exceed £2,000 per annum,
- each in January 1998 prices and excluding VAT. Such computer equipment and stationery requirements shall be provided within 30 days of the date on which the specifications are provided to the DBFO Co by the Department's Agent.
- 2.2.4 **Other Office Equipment:** two printers (one laser and one colour), an A4/A3 photocopier, a digital camera with date facility, a fax machine, a dictating machine, a scanner, a first-aid kit and appropriate protective site clothing for 12 persons and safety helmets for 15 persons, each of which shall comply with all applicable Law.
- 2.2.5 **Surveying Equipment:** surveying equipment of the standard used in the carrying out of the Works shall be made available upon the giving of 24 hours' notice to the DBFO Co by the Department's Agent.
- 2.2.6 **Telecommunications:** not less than two private telephone exchange lines (with a single telephone number) and a British Telecom exchange, eight extensions with handsets in the various offices, four mobile telephones and a separate incoming and outgoing exchange line with fax machine and modem, provided that the DBFO Co's responsibility for line rental and all call charges shall not exceed £2,000 per annum in January 1998 prices and excluding VAT.
- 2.2.7 **Kitchen Facilities:** kitchen facilities which shall include a hot and cold running water supply, cooking facilities and utensils, a microwave oven, refrigeration and fresh beverage-making facilities and supplies.
- 2.2.8 **Standards:** a copy of each of the British Standards, the Design Manual for Roads and Bridges, the Manual of Contract Documents for Highway Works and other codes, specifications or documentations used by the DBFO Co. Where available, such documents shall be provided on CD-Rom.
3. **Maintenance:** the Site Provision shall be cleaned and maintained on a daily basis and appropriate arrangements made for the regular disposal of waste.

Appendix 1/2

Vehicles for the Department's Agent

1. New vehicles shall be provided ready for the exclusive use of the Department's Agent prior to the date for commencement of the Works until the fulfilment of the Department's Agent's functions in respect of the Works.

No. of Vehicles	Type of Vehicle (as described in paragraph 3 below)
2	Type 3
2	Type 2
1	Type 1

2. The four-wheel drive vehicles shall have off-road capability and shall be fully equipped for their purpose.

All vehicles shall be fitted with a rotary amber flashing unit in accordance with the Road Vehicle Lighting (Amendment) Regulations 1980 and shall be equipped with appropriate "works vehicle" signs which shall be fitted to the rear of the vehicle.

Vehicles shall be serviced regularly and cleaned inside and outside at least weekly.

3. The types of vehicle listed in the table in paragraph 1 above are as follows:

Type 1 Vehicle

The vehicle is to be suitable for off-road use, have 4 wheel drive, full side windows and seating for at least ten passengers. The vehicle shall be free from markings identifying any company associated with the Project. The equipment shall include:

Fire extinguisher, heater and demister, hazard flashing unit, heavy duty suspension, spare wheel, petrol filler cap lock, bonnet lock and spare wheel lock, internal and external mirrors, mud flaps, link mats front and rear, mudshield for front and rear brakes, rubber pads for clutch and brake pedals, interior sun visors, gearbox covers, tow rope, towing hooks front and rear, laminated windscreen, wire mesh guards for side, tail, stop and flasher lamps and covers for universal joints.

Type 2 Vehicle

The vehicle is to be suitable for off-road use, have 4 wheel drive, full side windows and seating for at least three passengers. The vehicle shall be free from markings identifying any company associated with the Project. The equipment shall be as for the Type 1 Vehicle with the following variations:

Link mats and heater shall be supplied for the front only.

Type 3 Vehicle

The vehicle shall have a carrying capacity of at least 0.25 tonne, a minimum ground clearance (unladen) of 150mm and independent suspension.

The vehicle shall be free from markings identifying any company associated with the Project. The equipment shall include a reversing lamp and fire extinguisher.

Appendix 1/3

Communication System for the Department's Agent

Mobile telephones shall be provided as described in Appendix 1/1.

Appendix 1/9

Control of Noise and Vibration

1. The DBFO Co shall consult the relevant local authority and gain all consents required to its proposed methods of working and to the steps it proposes in order to minimise noise.

Appendix 1/13**Programme and Works Programme**

1. This Appendix 1/13 is without prejudice to Clause 11 of the Agreement.
2. **Programme**
 - 2.1 The DBFO Co shall provide the Programme in computer model and bar chart form. It shall show all of the main design and construction activities in respect of each stage of the Works and restraints, each of which should be given a short title. All events shall be numbered and annotated with the earliest and latest start and finish event dates.
 - 2.2 The Programme shall:
 - 2.2.1 indicate when design material will be submitted to the Department's Agent;
 - 2.2.2 allow for:
 - 2.2.2.1 the time periods and procedures provided for in the Design and Certification Procedure and the Review Procedure;
 - 2.2.2.2 the design to be completed prior to commencement of construction work; and
 - 2.2.2.3 the establishment and certification of any testing laboratory referred to in Clause 22.4 (Testing);
 - 2.2.3 identify the critical path from the Commencement Date to the date of issue of the Completion Certificate; and
 - 2.2.4 show the interrelationship of all significant activities including Relevant Authorities' activities.
 - 2.3 The Programme shall be mounted on computer software which shall be the latest version of Time Line or an equivalent approved by the Department's Agent. If required, the DBFO Co shall supply the Department's Agent with such software, licences, reference manuals and initial training.
 - 2.4 All data relating to the Programme shall be provided to the Department's Agent in both approved machine readable format (disk, tape, etc.) and in hard copy.
 - 2.5 The Programme shall include a level of detail of not less than the following:
 - 2.5.1 each bridge or structure;
 - 2.5.2 earthworks;
 - 2.5.3 roadworks in lengths not exceeding one kilometre;
 - 2.5.4 Accommodation Works;
 - 2.5.5 major privately and publicly owned services;

- 2.5.6 traffic management measures;
- 2.5.7 lighting, signing, soiling and seeding, cabling and communications equipment;
- 2.5.8 archaeological, ecological and landscaping Works;
- 2.5.9 works in respect of noise insulation; and
- 2.5.10 any pre-commencement activities.

3. Works Programme

- 3.1 The DBFO Co shall provide the Works Programme in computer model, network drawings and bar chart form together with a critical path analysis. It shall show the level of detail appropriate to each stage of the Works and all activities and restraints. All events shall be numbered and annotated with earliest and latest event dates.
- 3.2 The Works Programme shall allow for the time periods and procedures required for the Design and Certification Procedure and the Review Procedure.
- 3.3 The Works Programme shall also show the interrelationship of all significant activities, including Relevant Authorities' activities.
- 3.4 The critical path shall be clearly indicated.
- 3.5 The Works Programme shall be mounted on computer software which shall be the latest version of Time Line or an equivalent approved by the Department's Agent. If required, the DBFO Co shall supply the Department's Agent with such software, licences, reference manuals and initial training.
- 3.6 All data relating to the Works Programme shall be provided to the Department's Agent in both approved machine readable format (disk, tape, etc.) and in hard copy.
- 3.7 The Works Programme (and any revisions to the Works Programme) shall be submitted under the Review Procedure at the times specified in Clause 12.
- 3.8 The Works Programme shall set out at least the level of detail specified below:

3.8.1 Level 1

To contain the following details in respect of each Scheme:

3.8.1.1 the following in respect of each structure:

- 3.8.1.1.1 Temporary Works;
- 3.8.1.1.2 piling;
- 3.8.1.1.3 substructure;
- 3.8.1.1.4 superstructure; and
- 3.8.1.1.5 finishes;

3.8.1.2 earthworks - sub-divided as appropriate;

- 3.8.1.3 the following in respect of all roadworks:
 - 3.8.1.3.1 fencing;
 - 3.8.1.3.2 noise barriers;
 - 3.8.1.3.3 site clearance;
 - 3.8.1.3.4 drainage;
 - 3.8.1.3.5 capping;
 - 3.8.1.3.6 sub-base;
 - 3.8.1.3.7 road base;
 - 3.8.1.3.8 surfacing; and
 - 3.8.1.3.9 road markings;
- 3.8.1.4 Accommodation Works;
- 3.8.1.5 privately and publicly owned services and supplies;
- 3.8.1.6 traffic management measures including operation of site, accesses, plant crossing and temporary diversions;
- 3.8.1.7 lighting, signing, soiling and seeding, cabling and communications equipment; and
- 3.8.1.8 archaeological, ecological and landscaping Works.

3.8.2 Level 2

Further breakdown of items and other details as may reasonably be required by the Department's Agent. Such details shall be submitted within a reasonable period of the relevant request.

Appendix 1/15

Accommodation Works

See following pages

Appendix 1/16**Privately and Publicly Owned Services and Supplies**

1. The DBFO Co shall make all arrangements with the Relevant Authorities for alterations to any services affected by the Works.

Appendix 1/17**Traffic Safety and Management**

1. The DBFO Co shall ensure that no more than three sets of temporary traffic signals, including any operating for plant crossing or Relevant Authorities in connection with the construction of the Works, are operating on the De-Trunked Segments at any time.
2. The DBFO Co shall manually control temporary traffic signals during periods of peak flow, including flows generated by ferry sailings.
3. The DBFO Co shall ensure that operators of temporary traffic signals are at all times equipped with mobile phones for emergency use.

Appendix 1/21**Scheme Information boards**

1. The dimensions and details of any sign face shall be as shown on the Welsh Office drawing WO/P 7007. The DBFO Co shall agree the actual wording which appears on the sign face with the Department's Agent.
2. The DBFO Co shall agree locations of the information boards with the Department's Agent.

Appendix 12/1**Traffic Signs****1. Road Classification and Renumbering**

The DBFO Co shall adopt the following road classifications in providing new signs and renumbering existing ones:

1.1 New Road

- 1.1.1 Trunk road to be classified A55(T);
- 1.1.2 Road between Cefn Du Interchange and roundabout with A5 east of Gaerwen to be classified A5152;
- 1.1.3 Penrhos Link between Ty Mawr Interchange and the roundabout on A5 at Penrhos Industrial Estate to be classified A5153;
- 1.1.4 The realigned sections of A5 at Nant Turnpike junction to be classified A5; and
- 1.1.5 The realigned sections of A5 at Dalar Hir junction to be classified A5.

1.2 Existing Road (Excluding the De-Trunked Segments)

- 1.2.1 A5 from Llys-Gwynt (Llandegai) Interchange to West of Llanfair PG to be renumbered A55(T);
- 1.2.2 A5(T) over Station Bridge, Holyhead to be renumbered A55(T);
- 1.2.3 Turkey Shore Road from Station Bridge to the port entrance to be classified as A55(T); and
- 1.2.4 A4080 from its junction with the A5122 and A487 (Antelope Roundabout) to its junction with the A5 to be renumbered A5.

1.3 De-Trunked Segments

- 1.3.1 A5(T) from Station Bridge to Salt Island, Holyhead to be renumbered A5154.

1.4 Local Authority Roads

- 1.4.1 A5122 from the junction with the A5(T) at Llys y Gwynt (Llandegai) Interchange to the junction with A487(T) at Antelope Roundabout to be renumbered A5;
- 1.4.2 A4080 from A5(T) at Britannia Bridge to the class III road at Toll House junction in Llanfair PG to be renumbered A5; and
- 1.4.3 Class III road from Toll House junction through Llanfair PG village to west end of Llanfair PG by-pass to be classified A5.

Appendix 1/21**Concrete - Surface Finishes****1. Class F6**

The requirements for Class F6 are as for Class F3 (Clause 1708.4) with the addition of the following:

- (i) After removal of the formwork, the surface shall be lightly grit blasted to remove laitance; and
- (ii) Trial panels shall be produced.

2. Class F7

The requirements for Class F7 are as for Class F3 (Clause 1708.4) with the addition of the following:

- (i) Timber fillets shall be fixed vertically to the formwork to the dimensions and arrangement shown on the Outline General Arrangement drawings;
- (ii) After removal of the formwork, but while the concrete remains "green", the outstanding concrete ribs shall be knocked off using a hand held tool. This shall be carried out working in one direction (i.e. upwards or downwards) and striking the rib off alternately from each side to give a spiral scalloped effect; and
- (iii) Trial panels shall be produced.

**Annex 6
to Part 2 of Schedule 4**

Requirements for New and Existing Structures

See following pages.

Index to TAFS

		<u>Rev</u>
Footpath 14 Footbridge	GD00208/ST/RT/101	4
Star Overbridge - Option 1	GD00208/ST/RT/103	3
Star Overbridge - Option 2	GD00208/ST/RT/103	3
Cefn Du Overbridge	GD00208/ST/RT/105	3
Lon Graig Overbridge	GD00208/ST/RT/106	4
Capel Pensarn Underbridge	GD00208/ST/RT/107	4
Pentre Berw Railway Underbridge	GD00208/ST/RT/108	4
Afon Cefni Underbridge	GD00208/ST/RT/111	3
Nant Turnpike Overbridge	GD00208/ST/RT/112	4
Lon Cei Overbridge	GD00208/ST/RT/113	3
Cefn Canol Overbridge	GD00208/ST/RT/114	3
Bryn Twr Overbridge	GD00208/ST/RT/116	3
Ty'N-Y-Bont Overbridge	GD00208/ST/RT/117	3
Pumllog Overbridge	GD00208/ST/RT/118	3
Tyddyn-Polion Underbridge	GD00208/ST/RT/119	3
Tafarn Overbridge	GD00208/ST/RT/120	4
A4080 Grade Separated Junction	GD00208/ST/RT/121	3
Capel Hebron Underbridge	GD00208/ST/RT/123	3
Cymunod Underbridge	GD00208/ST/RT/151	3
Dalar Hir Overbridge	GD00208/ST/RT/152	3
Ysbyllidir Access Underbridge	GD00208/ST/RT/153	3
Pen-Caledog Overbridge	GD00208/ST/RT/154	3
Criglas Railway Underbridge	GD00208/ST/RT/155	4
Afon Cleifog Bridge	GD00208/ST/RT/156	3
Station Road Overbridge	GD00208/ST/RT/157	4
Inland Sea Bridge - Option 1	GD00208/ST/RT/159A	4
Inland Sea Bridge - Option 2	GD00208/ST/RT/159B	5
Inland Sea Bridge - Option 3	GD00208/ST/RT/159C	4
Anglesey Aluminium Metal Limited Overbridge	GD00208/ST/RT/160	3
Ty Mawr Junction Overbridge	GD00208/ST/RT/161	3
Cyttir Road Overbridge	GD00208/ST/RT/162	3
Penllech Nest Footbridge	GD00208/ST/RT/163	3
Black Station Railway Underbridge	GD00208/ST/RT/164	3
Ty Mawr Railway Underbridge	GD00208/ST/RT/165	3
Existing Afon Cefni Underbridge	GD00208/ST/RT/501	
Menai Bridge	GD00208/ST/RT/166	3
Afon Braint Culvert (relating to drawing No.)	964057/TAF/102	
Afon Braint Tributary Culvert (relating to drawing No.)	964057/TAF/104	
Refail Underbridge (relating to drawing No.)	964057/TAF/109	
Afon Cefni Culverts (relating to drawing No.)	964057/TAF/111	
Afon Gwna River Culvert (relating to drawing No.)	964057/TAF/115	

Afon Caradog (1) River Culvert (relating to drawing No.)	964057/TAF/122
Afon Caradog (2) River Culvert (relating to drawing No.)	964057/TAF/124
Afon Caradog (3) River Culvert (relating to drawing No.)	964057/TAF/125
Afon Crigyll River Culvert (relating to drawing No.)	964057/TAF/126
Fferam-y-Llan Underpass (relating to drawing No.)	964057/TAF/128
Station Road Valley Retaining Walls	964057/TAF/207.RW
Glyndwr Underpass	964057/TAF/208
Environmental Walls	964057/TAF/EW
Pen y Mynydd Retaining Wall	964057/TAF/PYM
Kingsland Road Retaining Wall (relating to drawing No.)	964057/TAF/303
Railway Containment Walls (relating to drawing No.)	964057/TAF/310, 311
Nant Turnpike Retaining Wall	No number.

**Annex 7
to Part 2 of Schedule 4**

Requirements for Structures on the Existing Road

1. Menai Bridge

The requirements for this structure are as shown in the TAF in Annex 6 to Part 2 of this Schedule.

2. Black/Station Railway Underbridge

The requirements for this structure on the Existing Road are as shown in the TAF in Annex 6 to Part 2 of this Schedule.

3. Afon Cefni Underbridge

The requirements for this structure are as shown in the TAF in Annex 6 to Part 2 of this Schedule.

**Annex 8
to Part 2 of Schedule 4**

Departures from Standard

Departure Category	Departure Type	Departure No.	Conditions of Acceptance
Highway Design (iv)	Vertical Alignment	964057/UKH/002	Accepted in principle but additional information required on visibility.
Highway Design (iv)	Horizontal Alignment	964057/UKH/003	Accepted.
Pavement Design (iii)	Pavement	964057/UKH/009	Accepted in principle. Each particular site and circumstances to be submitted as an Alternative Proposal in accordance with the Review Procedure.
Pavement Design (iii)	Pavement	964057/UKH/010	Accepted subject to approval by Isle of Anglesey County Council
Pavement Design (iii)	Pavement	964057/UKH/011	Accepted in principle. Each particular site and circumstances to be submitted as an Alternative Proposal in accordance with the Review Procedure.
Structure Specification (iv)	Soffit Clearance	964057/UKH/013	Accepted.
Structure Specification (iv)	Parapet Surface Finish	964057/UKH/014	Accepted subject to Railtrack technical approval procedures.
Structure Specification (iv)	Parapet Surface Finish	964057/UKH/015	Accepted subject to Railtrack technical approval procedures.
Structure Specification (iv)	Parapet Surface Finish	964057/UKH/016	Accepted subject to Railtrack technical approval procedures.
Traffic Signs Illumination (iv)	Traffic Signs	964057/UKH/017	Accepted subject to the requirements of the Traffic Signs Regulations and General Directions 1994.
Highway Design (iv)	Drainage	964057/UKH/018	Accepted in principle, subject to: 1. each particular site and circumstances to be submitted as an Alternative Proposal in accordance with the Review Procedure; and 2. clarification that the stability of the embankments will not be affected by the use of combined drains.
Pavement Specification (ii)	Pavement Materials	964057/UKH/019	Accepted in principle. Each particular site and circumstances to be submitted as an Alternative Proposal in accordance with the Review Procedure.
Pavement Specification (iii)	Pavement Materials	964057/UKH/020	Accepted subject to approval by Isle of Anglesey County Council.
Pavement Specification (ii)	Pavement Materials	964057/UKH/021	Accepted in principle. DBFO Co to provide SoS with feedback on the performance, effectiveness and durability of the materials used. Such information to be treated confidentially by the SoS.

Pavement Specification (ii)	Pavement Materials	964057/UKH/022	Accepted in principle. DBFO Co to provide SoS with feedback on the performance, effectiveness and durability of the materials used. Such information to be treated confidentially by the SoS.
Pavement Specification (ii)	Pavement Materials	964057/UKH/023	Accepted in principle. DBFO Co to provide SoS with feedback on the performance, effectiveness and durability of the materials used. Such information to be treated confidentially by the SoS.
Pavement Specification (ii)	Pavement Materials	964057/UKH/025	Accepted subject to approval by Isle of Anglesey County Council.
Pavement Specification (ii)	Pavement Materials	964057/UKH/026	Accepted subject to approval by Isle of Anglesey County Council.
Structure Specification (iv)	Structure Design and Detailing	964057/UKH/027	Accepted subject to Railtrack technical approval procedures.
Highway Design (iv)	Vertical Alignment	964057/UKH/029	Accepted
Highway Design (iv)	Vertical Alignment	964057/UKH/030	Accepted
Highway Design (iv)	Vertical Alignment	964057/UKH/032	Accepted
Highway Design (iv)	Vertical Alignment	964057/UKH/033	Accepted

**Annex 9
to Part 2 of Schedule 4**

Treatment of Existing Vegetation

1. For the purposes of this Annex 9:
 - 1.1 **"Existing Vegetation"** means the following:
 - 1.1.1 vegetation within the Site, Off Site Planting Areas or other Adjacent Areas;
 - 1.1.2 vegetation overhanging the Site, Off Site Planting Areas or other Adjacent Areas; and
 - 1.1.3 vegetation the root zone of which is within the Site, Off Site Planting Areas or other Adjacent Areas;and
 - 1.2 **"Off Site Planting Area"** has the meaning given in paragraph 1.3.5 of Annex 10.
2. The DBFO Co shall not carry out any Works within a part of the Site, Adjacent Areas or Off Site Planting Areas until it has submitted to the Department's Agent, in accordance with the Design and Certification Procedure, details of any Existing Vegetation within that area and there has been no objection to such submission in accordance with the Review Procedure. The Department's Agent may comment on such submission on the grounds that the submission does not identify, in accordance with the Construction Requirements or Good Industry Practice, all the Existing Vegetation within that area.
3. The submission referred to in paragraph 2 above shall, without limitation, be set out on drawings at a scale sufficient to show clearly:
 - 3.1 any Existing Vegetation to be retained and its location within the Site, Adjacent Areas or Off Site Planting Areas;
 - 3.2 the height, crown spread, species, composition and condition of the Existing Vegetation referred to in paragraph 3.1 above; and
 - 3.3 any Existing Vegetation to be removed as part of the Works and its location within the Site, Adjacent Areas or Off Site Planting Areas.
4. The Existing Vegetation identified in a submission in accordance with paragraph 2 above to which there has been no objection in accordance with the Review Procedure and the Existing Vegetation identified in Appendix 2 to this Annex 9 shall:
 - 4.1 together be referred to hereafter as the **"Relevant Existing Vegetation"**;
 - 4.2 in the case of the Existing Vegetation to be retained, be referred to hereafter as the **"Retained Existing Vegetation"**; and
 - 4.3 in the case of the Existing Vegetation to be removed as part of the Works, be referred to hereafter as the **"Marked Existing Vegetation"**.

5. Subject to paragraph 7 below, the DBFO Co shall not carry out any Works within a part of the Site, Adjacent Areas or Off Site Planting Areas which contains Retained Existing Vegetation or Marked Existing Vegetation until it has submitted to the Department's Agent in accordance with the Design and Certification Procedure (i) a design for the protection of such Retained Existing Vegetation and for the removal of such Marked Existing Vegetation (together an "**Existing Vegetation Design**") together with a Landscaping Certificate 1, and (ii) in the case of an area containing Retained Existing Vegetation, a Landscaping Certificate 2 in accordance with paragraph 11 below, and there has been no objection to the Existing Vegetation Design and Landscaping Certificate 1 in accordance with the Review Procedure. The Department's Agent may comment on an Existing Vegetation Design and the accompanying Landscaping Certificate 1 on the grounds that the Existing Vegetation Design:
 - 5.1 is not consistent with the outline management strategy set out in Appendix 1 to this Annex 9;
 - 5.2 does not comply with the Core Construction Requirements;
 - 5.3 does not comply with the Construction Requirements; or
 - 5.4 does not comply with Good Industry Practice.
6. The Existing Vegetation Design shall include, without limitation:
 - 6.1 drawings at a scale sufficient to show clearly any Retained Existing Vegetation and Marked Existing Vegetation together with the location of the fencing or other measures to be undertaken to protect such Retained Existing Vegetation; and
 - 6.2 the specification for the fencing or other measures referred to in paragraph 6.1 above.
7. The DBFO Co may only carry out Works within an area containing Relevant Existing Vegetation if there is an Existing Vegetation Design for such area to which there has been no objection in accordance with the Review Procedure.
8. The DBFO Co shall carry out and comply with the terms of any Existing Vegetation Design to which there has been no objection in accordance with the Review Procedure.
9. The area within which the Retained Existing Vegetation is located shall be delineated on the ground in such manner as to ensure that it is clearly visible to any persons carrying out the Works.
10. Without prejudice to the provisions of paragraph 8 above, all Retained Existing Vegetation shall be protected from damage to root, stem and crown and, if damaged, shall be repaired or to the extent not capable of repair shall be replaced. Where damage to trees is capable of being repaired, it shall be repaired in accordance with BS 4428 and BS 5837.
11. The DBFO Co shall submit a Landscaping Certificate 2 to the Department's Agent in accordance with the Design and Certification Procedure upon the completion within an area of all the Works required to be carried out pursuant to this Annex 9 in respect of the Retained Existing Vegetation within that area.

12. Without prejudice to the requirements of this Annex 9, the DBFO Co shall, from the Commencement Date, manage all Existing Vegetation and the areas containing them in accordance with the requirements set out in Section 7 to Part 2 of Schedule 6.

13. [Scheme Specific Requirements.](#)

The DBFO Co shall protect the Retained Existing Vegetation on land acquired for landscape mitigation during construction.

**Appendix 1 to Annex 9
to Part 2 of Schedule 4**

Treatment of Existing Vegetation - Outline Management Strategy

To be provided by the DBFO Co pursuant to paragraphs 8 and 10 of Part 3 of Schedule 7.

**Appendix 2 to Annex 9
to Part 2 of Schedule 4**

Retained Existing Vegetation

Without prejudice to paragraph 4 of this Annex 9, the following items shall constitute Retained Existing Vegetation. The drawings referred to in the column entitled Drawing Number are in Section 6 of Part 5 of this Schedule 4.

Llanfair PG to Bryngwran

Drawing Number	Location and description of Existing Vegetation
964057/EV/101	Mature Scrub woodland to triangular plot to the north of the New Road.
964057/EV/101	Native and ornamental tree and shrub planting between the New Road and Llanfair PG.
964057/EV/101	Tree and shrub planting between the New Road and A5, west of Glan Menai and small area to the south of the A5.
964057/EV/101	Two areas of mature hedgerow along Afon Braint, north and south of the New Road and between the A5 adjoining Adjacent Areas for stream diversions and flood relief area.
964057/EV/102	Mature trees on eastern boundary of Adjacent Area for stream diversion near Talcen Eiddw.
964057/EV/102	2 No. Hedgerows containing mature trees within the Adjacent Area for stream diversion west of Talcen Eiddw.
964057/EV/102	Mature planting to the north of Llys-Merion.
964057/EV/102	Planting to south of Bodfan.
964057/EV/102	Two areas of mature hedgerow planting to severed hedgerow to north and south of New Road north west of the Star Filling Station.
964057/EV/103	Two areas of mature trees in severed hedgerows on New Road boundary, north of Craig Bach.
964057/EV/103	Mature trees, primarily Quercus sp. Adjoining tops of cutting slopes through Parc-y-Coed, north of the New Road on two plots and south of the New Road on a single plot.
964057/EV/103	Mature tree belt to east of former mineral railway line.
964057/EV/103	Scrub planting to north of the New Road, adjacent to the former mineral railway line, two locations.
964057/EV/103	Four areas of individual semi-mature trees to the north and east of Refail on property boundaries.

Drawing Number	Location and description of Existing Vegetation
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964057/EV/103	Southern section of mature scrub planting within Adjacent Area, west of Refail on two plots.
964057/EV/104	Roadside planting to the east of diverted local road, north of St. Cristiolus Church.
964057/EV/104	Semi-mature Ash on existing local road verge adjacent to New Road south west of Waen-Hir.
964057/EV/104	Single mature Ash on property boundary south of Ty Newydd.
964057/EV/105	Roadside planting adjoining Temporary Adjacent Area on either side of local road to the north of Bryn Twr.
964057/EV/105	Single mature tree on southern boundary of New Road.
964057/EV/106	Two areas of mature Acer species adjoining local road to the east of Ty Newydd and east of Drip Bach.
964057/EV/106	Single mature tree in Adjacent Area adjoining stream, north east of new side ride overbridge south east of Ty Newydd.
964057/EV/106	Individual mature trees to the north of Tyn-y-bont.
964057/EV/106	Clump of mature scrub to northern boundary of New Road, south of Tyddyn Polion.
964057/EV/107	Two areas of scrub planting to valley sides, adjoining balancing pond, east of Penrhyn.
964057/EV/107	Mature tree on northern curtilage of Strydan.
964057/EV/107	Two areas of mature trees adjoining local road north east of Tredolphin.
964057/EV/108	Scrub planting adjoining proposed wetland creation areas, north of New Road at Melin-y-Plas.
964057/EV/108	Individual trees to the northern boundary of Capel Hebron.
964057/EV/108	Mature scrub at confluence of Afon Crigyll and Afon Caradog, north of proposed balancing pond.

Bryngwran to Holyhead

Drawing Number	Location and description of Existing Vegetation
964057/EV/301	Line of mature sycamore trees lining one half of the avenue to Ty Mawr Farm.
964057/EV/301	Short length of mature hawthorn hedge south of the Ty Mawr - Holyhead grade separated junction.

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