



National Highways Limited

Pavement Delivery Framework

Amendments to the Method of Measurement

CONTENTS AMENDMENT SHEET

Amend. No.	Issue Date	Amendments	Initials	Date
0	14/01/22	First issue	MS/DM	14/01/22
1	08/04/22	Amendment to Series 700: Pavements, Regulating Course – correction of page numbers	MS - SM	08/04/22

PAVEMENT DELIVERY FRAMEWORK – AMENDMENTS TO THE METHOD OF MEASUREMENT

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Preambles to Schedule of Rates

General Directions	1	The Schedule of Rates has been prepared in accordance with the Method of Measurement for Highway Works published by The Stationery Office as Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works. The relevant publication date of each page of the Method of Measurement for Highway Works that is incorporated into this contract is given in the Schedule of Pages and Relevant Publication Dates.
	2	(05/01) In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings "Item coverage" in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Framework documents. The rates and prices entered in the Schedule of Rates shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
		(i) People not limited to employed and hired-in Staff, Labour and consultants and costs in connection therewith;
		(ii) The manufacture, fabrication and supply of Plant and Materials goods, storage and costs in connection therewith including delivery to Site. Taking delivery of Plant and Materials supplied by others, unloading, storage, and costs in connection therewith;
		(iii) Equipment and costs in connection therewith;
		(iv) Fixing, erecting and installing or placing of Plant and Materials and goods in position;
		(v) Temporary Works;
		(vi) The effect on the phasing of the Works or any element of the Works to the extent set forth or reasonably implied in the documents on which the tender is based.
		(vii) General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based.
		(viii) Establishment charges, not limited to insurances overheads and fee;
		(ix) Waste;
		(x) Testing carried out by the Contractor in accordance with the particular requirements of Appendix 1/5 including supplying results of tests, reports and certificates;

Preambles to Schedule of Rates (Continued)

General Directions	2	(05/01) In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Framework documents. The rates and prices entered in the Schedule of Rates shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
		(xi) Supply and delivery of samples to the Overseeing Organisation in accordance with the particular requirements of Appendix 1/6;
		(xii) Checking, inspecting, examining, measuring and verifying Plant and Materials and workmanship including supplying results, reports and certificates;
		(xiii) Attendance and transport for sampling and testing carried out by the Overseeing Organisation;
		(xiv) Complying with Quality Assurance requirements of the contract and providing certificates of conformity;
		(xv) “As Built” Drawings and Information;
		Unless measured elsewhere within the Schedule of Rates; the Contractor shall allow for the provision of all necessary “As Built” Drawings and Information.
		(xvi) Awaiting approvals and consent;
		(xvii) Where stipulated complying with the particular requirements of Appendix 1/24;
		(xviii) All requirements in relation to Preliminary items as required by the contractor;
		(xix) Travelling to, between and from different locations within the Site;
		(xx) Updating information and inventory data to the information database or system;
		(xxi) Where instructed all requirements in relation to the Principal Contractor role in accordance with the CDM Regulations 2015 and any amendment thereof;
		(xxii) Supervision, management, programming and the like to provide the Works;

Preambles to Schedule of Rates (Continued)

General Directions	2	(05/01) In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Framework documents. The rates and prices entered in the Schedule of Rates shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
		(xxiii) The use of subcontractors;
		(xxiv) Landfill costs and taxes.
		(xxv) Safeguarding of the Works
		The Contractor shall be responsible for the safeguarding and protection of the Works against any damage from whatsoever cause arising, including fire or theft, all necessary watching and lighting for the security of the Works, the protection of the public (where not provided by others), and shall take all necessary precautions in carrying out Works to prevent damage to other work.
		The Contractor shall ensure that all necessary adequate temporary works and measures are provided, or precautions taken to protect the Works from damage caused by inclement weather.
		The Contractor shall ensure that all necessary adequate temporary works and measures are provided, or precautions taken to protect the Works under construction or already constructed (including Works undertaken by others).
		The Contractor will be responsible for the removal of all protection materials (and the like) upon completion of the Works and/or parts of the Works as may become necessary.
		(xxvi) Preservation of Trees, Landscaping, or Other Amenities
		Unless measured elsewhere within the Schedule of Rates; the Contractor shall take all measures to prevent injury or damage to trees, landscaping, or other amenities or existing buildings on or adjacent to the sites. The Contractor will be liable for and shall make good any injury and/or damage to existing amenities and buildings that occurs during the carrying out of the Works.

Preambles to Schedule of Rates (Continued)

General Directions	2	(05/01) In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Framework documents. The rates and prices entered in the Schedule of Rates shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
		(xxvii) Health and Safety Provisions
		Unless measured elsewhere within the Schedule of Rates; the Contractor shall allow for all necessary Health and Safety Provisions within the pricing of the Schedule of Rates unless specific provision has been made elsewhere within the Schedule of Rates for the provision of Health and Safety measures.
		(xxviii) Inclement Weather
		The Contractor shall include within the pricing for undertaking all necessary measures and precautions to maintain continuity of productivity and working during all types of inclement weather.
		(xxix) Disposal of Waste and/or Surplus Material
		The Contractor shall remove rubbish, debris, surplus material and spoil daily and keep the works area clean and tidy.
		The Contractor shall remove all rubbish, dirt and residues from the Works generally.
		The Contractor shall ensure that non-hazardous material is disposed of at a tip/place of disposal approved by a Waste Regulation Authority.
		The Contractor shall remove all surplus hazardous materials and/or contents regularly for disposal off site in a safety and competent manner as approved by a Waste Regulation Authority and in accordance with relevant regulations. Retain waste transfer documentation on site.
		(xxx) Cross-Reference and/or Priority to Other Documents
		Where the contents of the Contract Specification differ to that of the “Amendments to the Method of Measurement”, the contents of the “Amendments to the Method of Measurement” shall take precedence.

Preambles to Schedule of Rates (Continued)

General Directions	2	(05/01) In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Framework documents. The rates and prices entered in the Schedule of Rates shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
		(xxxi) NEC4 Contract Terminology
		(i) Where reference is made to herein to “Staff”, “Operatives” and the like, this shall be deemed to be that defined under the Schedule of Cost Components.
		(ii) Where reference is made to herein to “Materials”, “Plant”, “Equipment”, “Subcontract” and “Charges”, this shall be deemed to be that defined under the Schedule of Cost Components.
Measurement	3	<p>(i) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the Method of Measurement.</p> <p>(ii) (11/06) Where the tender documents specify the Type of Pavement to be constructed then the measurement of work shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract for that Type of Pavement. Where the tender documents provide for the Contractor to select the type of safety barrier, pavement or buried structure (where the structure is not within Designated Outlines) to be constructed then the measurement of all work in each area so affected shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract in that area for the particular type of safety barrier, pavement or buried structure the Contractor has elected to construct.</p> <p>(iii) The Schedule of Rates is designed for schemes of different complexity and size and utilises banding where appropriate to differentiate between different ranges of quantity of work.</p> <p>(iv) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the Method of Measurement.</p> <p>(v) Items measured in m³ and banded by volume of material shall be measured as the cumulative volume of material and the appropriate banding applied.</p>

Preambles to Schedule of Rates (Continued)

Measurement	3	(vi) Items measured in m ² and banded by surface areas shall be measured as follows:
		a) Where the overall surface area is one continuous area it shall be measured as such and the appropriate banding applied.
		b) Where the overall surface area comprises of several separate areas that are not connected they shall be not be measured cumulatively and measured individually and the appropriate banding applied to each one.
		Note: Where it is the Contractors decision to undertake Works in sections to complement their programme and/or method of work, these shall be measured as one continuous area.
		(vii) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the Method of Measurement.
		(viii) Items measured in m ³ and banded by volume of material shall be measured as the cumulative volume of material and the appropriate banding applied.
		(ix) Adjustments to Polished Stone Value (PSV) will be measured on the overall area of the pavement to be adjusted.
		(x) For the purposes of this contract the density of asphalt shall assumed to be 2.43 t/m ³ .
Pricing of Items	4	Each individual item in the Schedule of Rates shall have a rate or price entered against it. Rates and prices shall be expressed to two decimal places which shall be informed by entries inputted by the Contractor in the additional columns provided for each cost component and/or cost of Subcontractors and the corresponding fees.
	5	Series 700 items that have an allowance for increasing pavement thickness shall be priced as below:
		a) Thickness of pavement Schedule of Rate item 70mm (Base Rate);
		b) New thickness of pavement item 90 mm;
		c) Number of 5mm increments to increase thickness from 70 mm to 90 mm is 4;
		d) Revised rate = Base Rate +(4x rate for increments of 5mm).

[illegible]

Preambles to Schedule of Rates (Continued)

Labour	7	Labours and/or Attendances in connection with Subcontractors shall include:
		(i) In the case of work or services executed, for affording the use of existing working space, access, temporary roads, erected scaffolding, working shelters, staging, ladders, hoists, storage, latrines, messing, welfare and other facilities existing on Site and the provision of protection, water, electricity for lighting and clearing away rubbish and debris arising from the work;
		(ii) In the case of goods, Plant and Material or services supplied - for taking delivery, unloading, storing, protecting and returning crates, cartons and packing materials.
Roadworks Overall Requirements	8	The Contractor shall allow in his rates and prices for complying with requirements in respect of pavement construction, horizontal alignments surface levels and surface regularity of pavement courses, dealing with changes in weather conditions, use of surfaces by traffic and construction equipment, and general requirements for sub-bases and road bases.
Work Within and Below Non-tidal Open Water or Tidal Water	9	(i) The Contractor shall allow in his rates and prices for taking measures required to execute work within and below non-tidal open water or tidal water.
		(ii) The Contractor shall include in his rates and prices for any investigations to ascertain actual boundaries, surface levels and ranges affected by non-tidal open water or tidal water.
Dealing with Flow	10	The Contractor shall allow in his rates and prices for taking measures to deal with the existing flow of water, sewage and the like.
Not used	11	
Site Limitations and Constraints	12	The Contractor shall allow in his rates and prices for complying with any limitations and constraints on the use of the Site.
Hard Material	13	For the purposes of the Contract the following are designated as Hard Material in accordance with Chapter 1 Definitions, paragraph 1 (h)(j):
		(a) * strata;
		(b) those deposits designated by limits shown on the Drawings;
		(c) existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.

[illegible]

Preambles to Schedule of Rates (Continued)

Testing	18	(05/01) Testing as paragraph 2(ix) above, is in respect of tests to be carried out by the Contractor to verify workmanship, goods and Plant and Materials incorporated into the permanent works and testing of the permanent works in order to prove the Overseeing Organisation's design as set out in Appendix 1/5.
		Checking, inspecting, examining, measuring and verifying goods, materials and workmanship incorporated in the permanent works, as paragraph 2(xii) above, is in respect of other operations set forth or reasonably implied in the Contract to be carried out by the Contractor to demonstrate compliance with the particular requirements of the Contract, or to prove the Overseeing Organisation's design where not separately listed in Appendix 1/5, but excluding trial erection of structural steelwork which shall be measured separately in accordance with Series 1800.
		Procedural trials, trial panels and trial areas required to be carried out or constructed as separate operations in advance of the permanent works in order to verify goods, materials and workmanship shall not be measured separately but are included within the item coverage for the relevant Series.
		Testing of existing structures and other investigative works shall be individually measured within the relevant Series.
Adjustment to Schedule of Rates	19	The Schedule of Rates to be applied to a Scheme may be subject to adjustment in accordance with the Scope.
Amendments to The Method of Measurement	20	(05/01) For the purposes of the Contract the Method of Measurement for Highway Works is amended by replacing the words "Bill of Quantities" with "Schedule of Rates" and in accordance with the pages immediately following.
		The following additional abbreviation shall be used for the units of measurement:

Preambles to Schedule of Rates (Continued)

Unit	Abbreviation
millimetre	mm
metre	m
square millimetre	mm ²
square metre	m ²
hectare	ha
cubic metre	m ³
kilogramme	kg
tonne	t
day	day
litres	lt
sum	sum
number	no
hour	hr
week	wk
item	item
item/week	i/wk
metres/day	m/day
lift per square metre	lift/m ² day
per lift per square metre	day/lift/m ²
metres per week	m/week

	Note that references to the division of the Schedule of Rates into Level 1 and 2 as set down in Table 1, Chapter III, Preparation of the Schedule of Rates and the associated terminology shall be not be used.
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Definitions

Additional items After 1 (k) add the following		
	(l)	Where item descriptions are designated as “not exceeding” or “exceeding” then the following definitions shall apply:
		(i) “Not exceeding” means up to and including the stated dimension or quantity;
		(ii) “Exceeding” means in excess of the stated dimension or quantity.
	(m)	Where reference is made in an item description to “bandings” it shall mean value in pounds (£) or the definitions set out in (i) or (ii) above.
	(n)	Where item descriptions are described as “Surface Area” or “Volume of Material” then the following definitions shall apply:
		(i) “Surface Area” means the uppermost layer of the material or treatment and is measured in m ² .
		(ii) “Volume of Material” means the total amount of space a material occupies and is measured in m ³ .
	(o)	Unless otherwise stated:
		(i) “Day” shall mean Monday to Friday from 19:00 to 07:00 hours Summer season (from 1 April to 30 October).
		(ii) Adjustments shall apply to the rates in the Schedule of Rates as below for priced items for works undertaken during out of hours working for the period:
		(a) Daytime Working – Monday to Friday 07:00-1900 hours;
		(b) Weekend Working 07:00 Saturday to 07:00 hours Monday;
		(c) Public holidays 00:00 to 24:00 hours;
		(d) Winter season (From 1 November to 31 March).
	(p)	Unless otherwise stated:
		(i) “Week” shall mean Monday to Sunday from 00:00 to 23:59 hours Summer season (from 1 April to 30 October).
		(ii) Adjustments shall apply to the rates in the Schedule of Rates for priced items for works undertaken during the Winter season (From 1 November to 31 March)

[illegible]

Schedule of Pages and Relevant Publication Date

Chapter/Series	Page Number	Publication Date
Contents	1	Nov 2004
	2	May 2005
	3	Nov 2004
	4 to 7	May 2005
Chapter I	1 to 3 inclusive	March 1998
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	2	May 2001
Chapter III	1	March 1998
	2	May 2001
	3 to 12 inclusive	May 2004
	13	Nov 2006
	14 to 16 inclusive	May 2005
	15 to 19 inclusive	Nov 2006
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	8	Nov 2004
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	12	Nov 2004
	13 to 15 inclusive	May 2001
200	1	May 2001
	2 to 3 inclusive	May 2004
	4	May 2001
300	1 to 5 inclusive	May 2001
400	1 to 2 and 4 to 8 inclusive	Nov 2004
	3	Nov 2006
500	1 to 5 inclusive	May 2001
	6	Nov 2004
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	14	May 2005
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	16 to 17 inclusive	May 2005
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600	1	May 2002
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	3	March 1998
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700	1	May 2001
	2	May 2002
	3	May 2001
	4 to 5 inclusive	May 2002

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	10	May 2001
	11	May 2002
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800)	
900) Not taken up	
1000)	
1100	1	May 2001
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1200	1 to 2 inclusive	May 2001
	3 to 5 inclusive	March 1998
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1300	1 to 3 inclusive	Nov 2003
1400	1 to 2 inclusive	May 2001
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1500	1 to 2 inclusive	May 2001
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1600	1 to 2 inclusive	March 1998
	3 to 6 inclusive	May 2001
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1700	1	May 2004
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1800	1	March 1998
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1900	1	May 2003
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2100	1	March 1998
2200	Not taken up	
2300	1 to 3 inclusive	March 1998
2400	1 to 3 inclusive	May 2001
	4	March 1998
2500	1 to 2 inclusive	May 2001
2600	Not taken up	
2700	1	May 2001
3000	1 to 15 inclusive	May 2001
5000	1 to 2 inclusive	May 2003

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries

Temporary Accommodation

The following amendments should be made to paragraphs 2-6		
Units	2.	The unit of measurement shall be:
		(i) Mobile welfare facilitiesDay.
		(ii) Self-Contained Welfare Units.....Week.
		(iii) Erection and dismantling of temporary accommodation, installation and removal of foundations, bases, vehicle access and hardstandings.....Item.
		(iv) Servicing temporary accommodation, maintenance of foundations, bases, vehicle access and hardstandings.....Week.
Itemisation	3.	Separate items shall be provided for temporary accommodation in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	<ol style="list-style-type: none"> 1. Mobile welfare facilities 2. Self-Contained Welfare Units. 3. Site for temporary accommodation 4. Erection of temporary accommodation. 5. Servicing temporary accommodation. 6. Dismantling temporary accommodation. 7. Installation of foundations, bases and hardstandings. 8. Maintenance of foundations, bases and hardstandings. 9. Removal of foundations, bases and hardstandings. 10. Installation of vehicle access and hardstandings. 11. Maintenance of vehicle access and hardstandings. 12. Erection of temporary accommodation. 13. Removal of vehicle access and hardstanding

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Temporary Accommodation

Group	Feature
II	1 Office
	2 Conference / meeting room
	3 Canteen and kitchen
	4 Drying room
	5 Combined canteen / drying room
	6 Toilets and washrooms
	7 First aid room
	8 Secure stores
	9 Security control room
	10 Stairs and office staging
	11 Security / Intruder / Fire system to the office compound
	12 Mains water connection
	13 Mains sewerage connection
	14 Mains power connection
	15 Generator
	16 Perimeter fencing
	17 Telephone system
	18 Internet broadband connection
	19 Internet connection other than broadband (4G dongle etc)
	20 LAN / WAN lines and connections
	21 Workstation for Overseeing organisation
	22 General office furniture for Overseeing Organisation
	23 Conference / meeting room furniture
	24 Photocopier
	25 Canteen furniture
	26 Canteen equipment
	27 Water dispenser
	28 Project signboard
	29 Safety signage and information notice board.
III	1 For schemes with a Task Order value not exceeding £150,000.
	2 For schemes with a Task Order value exceeding £150,000 but not exceeding £1,000,000.
	3 For schemes with a Task Order value exceeding £1,000,000.
IV	1 To accommodate not exceeding 10 people
	2 To accommodate exceeding 10 but not exceeding 20 people and so on in steps of 10 people.

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Temporary Accommodation

Erection of Temporary Accommodation	4	The items for erection of temporary accommodation shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item coverage		(a) initial accommodation and equipment, bringing to site, maintenance, servicing and removing;
		(b) preparation of sites (unless covered under Group I Feature 6);
		(c) foundations, bases and hardstandings (unless measured separately under Group I Feature 6);
		(d) water services (unless measured separately under Group II Feature 12 and Feature 27);
		(e) sewerage services (unless measured separately under Group II Feature 13);
		(f) heating and lighting services;
		(g) power services (unless measured separately under Group II Feature 14 or 15);
		(h) fences, notice and direction boards (unless measured separately under Group II Feature 16);
		(i) vehicle access, hardstandings (unless measured separately under Group I Feature 9);
		(j) temporary surface water drainage;
		(k) equipment, furnishings, fittings, supplies and initial consumable stores (unless measured separately under Group II);
		(l) telephones, extensions, switchboard and switching systems separately connected to the telephone system;
		(m) internet services (unless measured separately under Group II Features 18, 19 or 20);
		(n) in the case of accommodation provided by the Overseeing Organisation, alterations and refurbishments;
		(o) security;
		(p) temporary protection to trees / vegetation;
		(q) floor coverings;

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Temporary Accommodation

Erection of Temporary Accommodation	4	The items for erection of temporary accommodation shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item coverage		(r) site equipment (unless measured separately under this series paragraphs 80 to 85);
		(s) project signboards (unless measured separately under Group II Feature 28);
		(t) fire extinguishers and fire points;
		(u) and anything required by the Contractor
Servicing of Temporary Accommodation	5	The items for servicing of temporary accommodation shall in Accommodation in accordance with the Preambles to Schedule of Rates General Directions include for:
Itemisation		(a) Rental and leasing including telephone rental;
		(b) Heating, sanitation, power, lighting and water;
		(c) Depreciation and maintenance of buildings, services, fences, notice and direction boards, vehicle access, parking areas, hardstandings and footpaths (except where measured separately under Group I Feature 6);
		(d) Depreciation, maintenance and replacement of equipment, furnishings, fittings and supplies;
		(e) Cleaning accommodation;
		(f) Moving and re-establishing portable accommodation as required;
		(g) Replenishment of consumable stores;
		(h) Repairing, replacing, calibration of equipment;
		(i) Disposal of waste;
		(j) Security.
Dismantling Temporary Accommodation	5	The items for servicing of temporary accommodation shall in Accommodation in accordance with the Preambles to Schedule of Rates General Directions include for:
		(a) Receiving back from Overseeing Organisation and removing equipment, furniture, fittings and supplies off site;

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Temporary Accommodation

Dismantling Temporary Accommodation	5	The items for servicing of temporary accommodation shall in Accommodation in accordance with the Preambles to Schedule of Rates General Directions include for:
		(b) Disconnecting, removing and sealing off disused services;
		(c) Demolishing and removing off Site temporary accommodation, vehicle access, hardstanding, parking areas, footpaths and fences, notice and direction boards;
		(d) Disposal of material (as Series 600 paragraph 39);
		(e) Reinstatement of the sites occupied by temporary accommodation;
		(f) In the case of accommodation for the Overseeing Organisation, the credit value of surplus equipment or material which becomes the property of the Contractor;
		(g) In the case of accommodation for the Overseeing Organisation, the transport and delivery to the Overseeing Organisation of equipment or material which becomes the property of the Overseeing Organisation;
		(h) In the case of accommodation provided by the Overseeing Organisation, handing back to the Overseeing Organisation in the condition specified.

Site Equipment

Add new paragraphs 56 to 61 inclusive		
Units	56	The unit of measurement shall be:
		(i) Establishment of each type of site equipmentitem
		(ii) Maintenance of each type of site equipmentitem
		(iii) Removal of each type of site equipmentitem
Measurement	57	Establishment and removal of site equipment shall each be measured once only for each type of site equipment.

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Site Equipment

Add new paragraphs 56 to 61 inclusive		
Measurement	58	The measurement of maintenance of site equipment shall be each week or part thereof during which each type of site equipment is provided

Group	Feature
I	1 Establishment 2 Maintenance 3 Removal
II	1 Forklift/Telehandler 2 Mobile elevated Work Platform. 3 Overhead power line avoidance including goalposts and height restriction warning. 4 Floodlight 5 Road sweeper (where instructed by the Project Manager that a road sweeper is required to be brought to site for a specific activity). Road sweeper already on site are not covered by this item. 6 Temporary stairs 7 Generators

Establishment of Site Equipment	59	The items for establishment of site equipment shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item coverage		(a) inspections and submission of certificates;
		(b) bringing equipment to site;
		(c) establishment of stable footings, foundations, bases, hardstandings and shelters;
		(d) establishment of all equipment and signs.
Maintenance of Site Equipment	60	The items for maintenance of site equipment shall in accordance with the Preambles to Schedule of Rates General Directions include for:
		(a) Driver and /or operator as appropriate;
		(b) maintenance of equipment and signs;
		(c) taxing for use on public highways;
		(d) comprehensive insurance;

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Site Equipment

Maintenance of Site Equipment	60	The items for maintenance of site equipment shall in accordance with the Preambles to Schedule of Rates General Directions include for:
		(e) moving, altering and adapting;
		(f) replacement equipment and signs;
		(g) depreciation;
		(h) maintenance;
		(i) fuel, oil and other consumables;
		(j) qualified operatives, safety officer and provision of documents;
		(k) completion and submission of information log sheets and record sheets;
		(l) completion and submission of information log sheets and record sheets;
Removal of Site Equipment	61	The items for removal of site equipment shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item Coverage		(a) removal of all equipment and associated signs from site;
		(b) removal of stable footings, foundations, bases hardstandings and shelters;
		(c) reinstatement.
Units	62	The unit of measurement shall be:
		(i) registration with and administration of Considerate Constructors Scheme Item
Add new paragraphs 62 to 65 inclusive:		
Measurement	63	Minimum visit charges shall be measured once only for each day where the cumulative value of all works to be undertaken by a subcontractor during that period are less than the minimum visit charge for that subcontractor. Where minimum visit charge is measured, all other works to be undertaken during that day shall not be measured.

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Considerate Constructors Scheme

Add new paragraphs 62 to 65 inclusive:		
Itemisation	64	Separate items shall be provided for the Considerate Constructors Scheme in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Registration with and administration of Considerate Constructors Scheme

Minimum Visit Charges	65	The items for minimum visit charge shall be in accordance with the Preambles to Schedule of Rates General Directions include for:
		(a) Everything necessary for installation of the works.

Minimum Visit Charges

Add new paragraphs 66 to 69 inclusive		
Units	66	The unit of measurement shall be:
		(i) Establishment of each type of site equipmentitem.
		(ii) Maintenance of each type of site equipmentitem
		(iii) Removal of each type of site equipmentitem
Measurement	67	Minimum visit charges shall be measured once only for each day where the cumulative value of all works to be undertaken by a subcontractor during that period are less than the minimum visit charge for that subcontractor. Where minimum visit charge is measured, all other works to be undertaken during that day shall not be measured.
Itemisation	68	Separate items shall be provided for minimum visit charges in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Different Types of work Scheme

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Minimum Visit Charges

Add new paragraphs 66 to 69 inclusive		
Minimum Visit Charges	69	The items for minimum visit charge shall be in accordance with the Preambles to Schedule of Rates General Directions include for:
		(a) Everything necessary for installation of the works.

Project Specific Management and Staff

Add new paragraphs 67 to 70 inclusive		
Units	67	The unit of measurement shall be:
		(i) Project manager, site manager, supervisor, health and safety officer, planner /programmer, quantity surveyor, engineer, environmental manager, temporary works engineer, storeman, arboriculturist, public liaison officer, ecologist Hr
Measurement	68	The measurement of project specific management and staff shall be each hour within the working area not included in the rates or fee.
Itemisation	69	Separate items shall be provided for project specific management and staff in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Project Manager
	2 Site Manager
	3 Supervisor (non-operational)
	4 Health and safety officer
	5 Planner/programmer
	6 Quantity surveyor
	7 Engineer
	8 Temporary works engineer
	9 Environmental manager
	10 Storeman (non-operational)
	11 Arboriculturist
	12 Public liaison officer
	13 Ecologist

Amendments to Chapter IV Units and Methods of Measurement

Series 100: Preliminaries (Continued)

Project Specific Management and Staff

Management and Staff	70	The items for project specific management and staff shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item coverage		(a) People cost (as Schedule 1 – Schedule of Cost Components paragraph 1 People);
		(b) A vehicle.

Series 200: Site Clearance

Amend paragraph 1, and add the following:		General Site Clearance shall not be measured for works undertaken through the pavement delivery framework. When the Contract requires Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site, these shall be measured within paragraphs 8-11 Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site of this Series and as amended below.
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Series 700: Pavements

Sub-base

The following amendments should be made to paragraphs 1 to 5		
Units	1	The unit of measurement shall be:
		(i) sub-base cubic metre
Measurement	2	The measurement of sub-base shall be the volume of sub-base measured to the outlines stated in the Contract.
	3	No deduction shall be made for openings of 1 square metre or less.

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Sub-base

The following amendments should be made to paragraphs 1 to 5		
Itemisation	4	The items shall be provided for sub-base in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Each group or type of sub-base.
II	1 In carriageway, hardshoulder hardstrip emergency crossing, lay-by and bus bay.

Sub-base	5	(05/01) The items for sub-base shall in accordance with the Preambles to Bill of Quantities General Directions include for:
		(a) trial areas and trials;
		(b) making good after sampling and testing;
		(c) protection of material in transit and while awaiting tipping;
		(d) grading, measuring, mixing and depositing materials;
		(e) spreading and compaction;
		(f) cleaning, preparing and working on or up to existing surfaces and features;
		(g) curing and protection;
		(h) edge support;
		(i) maintenance of surface;
		(j) induced cracking;
		(k) taking measures to protect the subgrade and sub-base from deterioration due to the ingress of water and the use of constructional plant;
		(l) taking measures to improve the sub-base to protect the sub-base and subgrade from damage due to the Contractor's method of construction and choice of constructional plant;

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Sub-base

Sub-base	5	(05/01) The items for sub-base shall in accordance with the Preambles to Bill of Quantities General Directions include for:
		(m) shaping to cambers, falls and crowns;
		(n) provision of soundness test certificate.

Pavement

The following amendments should be made to paragraphs 6 to 9		
Units	6	The unit of measurement shall be:
		(i) Base, including (lower base and upper base), binder course surface course and concrete slab,..... square metre.
Measurement	7	The measurement of base (including lower base and upper base), binder course, surface course and concrete slab shall be calculated using the width of the top surface of the course or slab.
		Note: The width of the "top surface" of the course shall be the width required by the Contract and shall exclude sloping sides or edges.
		No deductions shall be made for openings of 1 square metre or less.
Itemisation	8	Separate items shall be provided for base, (including lower base and upper base), binder course surface course and concrete slab in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Pavement.
II	1 Base (including Lower Base and Upper Base).
	2 Binder course.
	3 Surface Course.
	4 Concrete Slab

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Pavement

The following amendments should be made to paragraphs 6 to 9		
Itemisation	8	Separate items shall be provided for base, (including lower base and upper base), binder course surface course and concrete slab in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
III	1 Each group or type.
IV	1 Different thicknesses.
V	1 Reinforced.
VI	1 In carriageway, hardshoulder, hardstrip, emergency crossing lay-by and bus bay.
VII	1 In overlay.

Base (including Lower and upper Base), Binder Course, Surface and Surface Course	9	The items for base, binder course and surface course shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item coverage		(a) trial areas and trials;
		(b) making good after sampling and testing;
		(c) protection of material in transit and while awaiting tipping;
		(d) designing and verifying mixes;
		(e) grading, measuring, reclaiming, mixing and depositing materials;
		(f) air entrainment;
		(g) spreading and compaction;
		(h) cutting back, saw cutting, cleaning, preparing and working on or up to existing surfaces and features;
		(i) edge support;

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Pavement

Base (including Lower and upper Base), Binder Course, Surface and Surface Course	9	The items for base, binder course and surface course shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item coverage		(j) reinforcement (unless specifically instructed that it is to measured elsewhere);
		(k) waterproof and separation membranes;
		(l) chippings;
		(m) surface texturing;
		(n) formwork (as Series 1700 paragraph 15);
		(o) making joints;
		(p) forming or sawing grooves, cleaning, grit blasting, priming, caulking, temporary and permanent sealing of joints;
		(q) longitudinal, expansion, contraction, warping and construction joint assemblies, including joint filler and crack inducers, tie and dowel bars, dowel bar cradles, caps and sheaths and inspection of dowel bars and corrosion protection to tie bars and coating to transverse reinforcement;
		(r) shaping to cambers, falls and crowns;
		(s) forming sockets, recesses, openings, and bays;
		(t) curing and protection;
		(u) protection and masking and masking of kerbs, drainage channels, chamber covers, gully gratings, expansion joints, and the like;
		(v) maintenance of surface;
		(w) taking measures to protect and maintain the pavement from deterioration by the use of constructional plant and the ingress of water and other materials;
		(x) anchorages including excavation and disposal, steel beams, ground beams and thickening of slab;

Series 700: Pavements (Continued)

Base (including Lower and upper Base), Binder Course, Surface and Surface Course	9	The items for base, binder course and surface course shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item coverage		(y) measures required for aftercare and opening the road to traffic;
		(z) protective system to steel beams (as Series 1900 paragraph 4);
		(aa) slurry sealing, surface dressing, bituminous spray, resin based; treatment and tack coat forming integral parts of the pavement;
		(bb) admixtures and additives;
		(cc) retarders, brushing and other measures necessary to provide exposed aggregate textured surface including disposal of surplus mortar arising;
		(dd) saw cutting and sealing bituminous overlays;
		(ee) bond-breaker tape.

The following amendments should be made to paragraphs 10 to 14		
Units	10	<p>The units of measurement shall be:</p> <p>(i) bituminous regulating course cubic metre or tonne</p> <p>(ii) cement bound regulating course cubic metre.</p>

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Regulating Course

The following amendments should be made to paragraphs 10 to 14		
Measurement	11	The tonnage certified by the Overseeing Organisation shall be only that material included on delivery tickets which is incorporated in the Permanent Works in the locations and to the extent and thickness required by the Contract. Material in excess of the requirements of the Contract and material used for any other purpose shall not be included
	12	The measurement of bituminous regulating course by cubic metres shall be the volume of material measured to the outlines required by the Contract.
Itemisation	13	Separate items shall be provided for bituminous regulating courses and cement bound regulating courses in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Each group or type of bituminous regulating course. 2 Each group or type of cement bound regulating course.
II	1 Base. 2 Binder course. 3 Surface course.

		Note: Each item description which includes Group I Feature 1 shall relate to the tabulated list of the different constituent aggregate types and their factors included in the Specification.
Bituminous and Cement Bound Regulating Course	14	(05/02) The items for bituminous and cement bound regulating course shall in accordance with the Preambles to Bill of Quantities General Directions include for:

Amendments to Chapter IV Units and Methods of Measurement

Series 700: Pavements (Continued)

Regulating Course

The following amendments should be made to paragraphs 10 to 14		
Item coverage		(a) base, (including lower base, upper base) binder course, surface course and concrete slab (as this Series paragraph 9);
		(b) weighing, tickets and copies;
		(c) material not laid as regulating course.

Surface Treatment

The following amendments should be made to paragraphs 15 to 19		
Units	15	The unit of measurement shall be:
		(i) surface treatment square metre
Measurement	16	The measurement of surface treatment shall be calculated using the width of the top surface to be treated as described in paragraph 7.
	17	Surface treatment shall only be measured separately when the Contract requires a separate or additional surface treatment to be applied to the pavement. Surface treatment forming an integral part of any specified group or type of pavement shall not be separately measured.
		No deductions shall be made for openings of 1 square metre or less.
		Items for different colours are measured as an allowance for the change from red to the new colour.
Itemisation	18	Separate items shall be provided for surface treatment, in accordance with Chapter II paragraphs 3 and 4 and the following

Group	Feature
I	1 Slurry sealing.
	2 Surface dressing.
	3 Bituminous spray.
	4 Resin based surface treatment.

Series 700: Pavements (Continued)

The following amendments should be made to paragraphs 15 to 19		
Itemisation	18	Separate items shall be provided for surface treatment, in accordance with Chapter II paragraphs 3 and 4 and the following

[illegible]