

**Street Lighting and Electrical
Term Maintenance Contract
2013 - 2018**

ITT

**Preamble to Method of
Measurement and
Schedule of Rates**

Appendix 3

Name of Tenderer

Address

.....

.....

.....

December 2012

Reading Borough Council
Civic Centre
Reading
RG1 7AE

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The following Preambles supersede those set down in Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works.

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 Her Majesty's Stationery Office as Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works and these amended Preambles. The relevant publication date of each page of the Method of Measurement for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.

In addition where a paragraph in Section 1, 2 or 3 of Volume 4 of the Manual of Contract Documents for Highway Works is annotated by "(08/93)" this indicates the relevant publication date of the alteration(s) to the paragraph. The first double digit refers to the month and the second double digit refers to years.

2

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 shown. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Conditions of Contract. The rates 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)

Labour and costs in connection therewith.

- (ii) The supply of materials, goods, storage and costs in connection therewith including delivery to Site. Taking delivery of materials and goods supplied by others, unloading, storage, and costs in connection therewith.
- (iii) Plant and costs in connection therewith.
- (iv) Fixing, erecting and installing or placing of 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 including temporary accommodation at individual sites, overheads and profit.
- (ix) Waste.
- (x) Attendance and transport for sampling and testing carried out by the Engineer, supplying results of tests carried out by the Contractor and providing test certificates.
- (xi) Complying with Quality Assurance requirements of the Contract and providing certificates of conformity.
- (xii) Preparation and supply of detailed working drawings.
- (xiii) Awaiting approvals and or consents.
- (xiv) Where stipulated complying with the particular requirements of Appendix 1/24.
- (xv) Travelling to, between and from different

locations within the Network.

- (xvi) Communication system for the Contractor.
- (xvii) Site safety.
- (xviii) Traffic management as described in paragraph 18 of these Preambles.
- (xix) Erection, servicing and dismantling temporary accommodation.
- (xx) Provision of any additional maintenance compounds.
- (xxi) Where item product descriptions are 'out of date' at the time of tender, the price/rate entered should allow for the relevant manufacturers current equivalent.

Measurement	3	The final measurement of quantity against each item on a Works Order/Instruction shall be computed net to two decimal places, except for measurement of tonnage and hectares in which cases the quantities shall be to three decimal places, from the dimensions stated in the Contract unless stated otherwise in the Method of Measurement or stated on the Works Order/Instruction.
Pricing of Items	4	Each individual item shall have a rate or price entered against it. Rates shall be expressed to two decimal places.
Schedule of Rates	5	Where appropriate, provision has been made in the Schedule of Rates for certain items of work to be measured and paid for in various quantity ranges. The measurement and payment of such items for each individual Works Order/Instruction shall be made using only the rate entered under the appropriate quantity range.
Alternative Specified Materials, Designs and Options Within Types	6	Where in the Contract a choice of alternatives is permitted the scheduled description and the rates inserted shall be deemed to cover any of the permitted alternative materials or designs

of Pavement		the Contractor may elect to use. In all cases the rates inserted in the Schedule of Rates shall be deemed to include for any adjustments of work content, rates, costs and the like occasioned by the choice of alternatives elected to be used or constructed by the Contractor.
Privately and Publicly Owned Services or Supplies	7	The Contractor shall include in his rates for locating and taking measures for the support and full protection of pipes, cables and other apparatus during the progress of the Works, obtaining the written consent of the appropriate authority to interrupt the service or supply and for keeping the Engineer informed of all arrangements he makes with owners of privately owned services or supplies, Statutory Undertakers and Public Authorities as appropriate.
Labours	8	<p>Labours in connection with Nominated Sub-Contractors shall include:</p> <p>(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;</p> <p>(ii) in the case of goods, materials or services supplied - for taking delivery, unloading, storing, protecting and returning crates, cartons and packing materials.</p>
Location and Frequency of Schedule items	9	The Contractor shall allow in the rates for carrying out the Works at any location within the Network, and shall also allow for the items in the Schedule of Rates being used only once, a number of times or not at all during the currency of the Term Contract.
Roadworks Overall	10	The Contractor shall allow in his rates for complying with requirements in respect of

Requirements		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 plant and general requirements for sub-bases and road bases.
Work Within and Below Non-Tidal Open Water or Tidal Water	11	The Contractor shall allow in his rates for taking measures required to execute the work separately measured as being within and below non-tidal open water or tidal water. Subject to and without prejudice to the Conditions of Contract the datum stated in the Contract shall be used for the measurement of work affected by non-tidal open water or tidal water irrespective of the actual level of water encountered in the Works.
Dealing with Flow	12	The Contractor shall allow in his rates for taking measures to deal with the existing flow of water, sewage and the like.
Reimbursement by the Employer of Fees, Rates Taxes and Engineers Telephone Calls	13	The Employer shall reimburse the Contractor the actual price paid by the Contractor in respect of:
	(i)	fees, rates and taxes - the sums certified by the Engineer as properly repayable to the Contractor in accordance with the Conditions of Contract.
Site Limitations and Constraints	14	The Contractor shall allow in his rates for complying with any limitations and constraints on the use of the Network or Site.
Hard Material	15	For the purposes of the Contract the following are designated as Hard Material in accordance with Chapter 1 Definitions, paragraph 1(i)(i):
	(a)	material which requires the use of blasting, breakers or splitters for its removal but excluding individual masses less than 0.20 cubic metres; or

	(b)	existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.
Equivalent Products and Materials	16	<p>Where the Contractor offers an equivalent product or material in place of the one identified or specified, which is accepted for incorporation into the Works by the Engineer, then the rates in the Schedule of Rates shall be deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.</p> <p>Unless specifically stated to the contrary in the Contract the measurement of the Works affected by the incorporation of the equivalent products and materials shall be based on the Tender documents and not on the Works as amended and completed to incorporate the equivalent products and materials.</p>
Setting up and Movement between Sites	17	<p>Unless expressly stated otherwise the Contractor shall allow in his rates and prices for carrying out the works at any location with the Network, for setting up at each Site and for movement between Sites.</p> <p>Where Establishment of plant for any operation is separately measured in the Schedule of Rates, it shall be on the basis of one Establishment per relevant Works Order. The Site shall be as defined on that Works Order.</p>
Traffic Safety and Management	18	<p>The Contractor shall allow in the rates for traffic safety and management on all roads, when he is engaged upon routine maintenance so described in Specification Appendix 0/1 Clause 1471AR except dual carriageways where traffic management work for routine maintenance work shall be valued in accordance with the items in the schedule of rates. For non-routine, renewal type work the payment for temporary traffic management on all road types shall be determined for the</p>

individual works order using the example items in the schedule of rates as a basis. The Contractor shall also allow in the rates (routine maintenance items or works order traffic management items as appropriate) for maintaining traffic safety measures on all roads including dual carriageways and motorways as follows:-

- (a) phasing the Works in a manner acceptable to the Police for the continuing flow of traffic including maintaining access to properties and submitting a programme for approval by the Engineer prior to the commencement of the Works;
- (b) complying with the current requirements of the “Traffic Signs Regulations and General Directions” and with the recommendations contained in Chapter 8 of the Traffic Signs Manual and any amendment thereto or where the circumstances of any particular case are not covered submitting proposals for dealing with such situations to the Engineer for approval. Complying in addition with the guidance given in Safety at Streetworks and Roadworks (2001) (A Code of Practice) published by TSO under the New Roads and Street Works Act 1991 (NRSWA) and County Surveyors publication ‘Notes for Guidance on Safety at Roadworks 1994’;
- (c) providing temporary traffic signs, lamps, cones and barriers, erecting, clearing and maintaining, repositioning and covering signs during the progress of the Works and finally removing;
- (d) maintaining traffic safety and management measures on dual carriageways where these measures are required for works being carried out directly by the Contractor.

NOTE

- (1) Maintenance of lane closures installed by the Contractor on the instructions of the Engineer for the use of other parties will be measured separately.
- | | | |
|---|----|--|
| Payments to Statutory Undertakers | 19 | <p>The Contractor shall note that he may be required to place orders with Statutory Undertakers for renewal, maintenance or repair of services or new services on the Network and the payment for such orders will be required in advance of the work being undertaken or of the valuation of them being certified or paid.</p> <p>Works Orders/Instructions shall be issued on each occasion but the Contractor shall allow in his rates for all additional cost associated with the payments for such works and the fact that invoices for the Statutory Undertakers works may not be immediately available.</p> |
| Adjustment to Schedule of Rates | 20 | <p>The Contractor shall have the opportunity to price for Works instructed by the Engineer outside normal working hours in accordance with Appendix to the Form of Tender.</p> |
| Amendment to the Method of Measurement | 21 | <p>For the purpose of this Contract the Method of Measurement for Highway Works is amended by replacing the words “Bill of Quantities” wherever they occur with the words “Schedule of Rates” and in accordance with the pages immediately following these Preambles.</p> |

SERIES 100: PRELIMINARIES

Traffic Safety and Management is covered by paragraph 18 of the Preambles to the Schedule of Rates.

Insert the following headings and paragraphs 56 to 63 inclusive including side headings:-

TRAFFIC SAFETY AND MANAGEMENT, LANE CLOSURES

Definition

56 The “different layouts” referred to in this Series refer to the various layouts contained in Chapter 8 of the Traffic Signs Manual.

The definition of “time period” is:

- (a) “day” shall mean 08.00 hours to 17.30 hours;
- (b) “night” shall mean 17.30 hours to 08.00 hours;
- (c) “weekend” shall mean any Saturday, Sunday or Official Bank Holiday.

Units

57 The units of measurement shall be:

- (i) establish and remove traffic control layout.....item;
- (ii) maintaining traffic control layout for othershour;
- (iii) temporary overnight removal of traffic control.....item;
- (iv) establish, operate and remove mobile lane closure.....day

Measurement

58 Traffic Safety and Management lane closures shall be measured for the period ordered by the Engineer and shall be additional to the items of work in other sections of the Schedule of Rates for dual carriageways except for Routine Maintenance Works so described in the Specification Appendix 0/1 Clause 1471AR and where traffic lights are ordered.

Any extra costs of removal of facilities and abortive time resulting from an instruction to cease operations shall be paid for on a Daywork basis as a separate charge.

Cones, lights, signs and the like shall not qualify for reimbursement of Materials on Site and Network under Clause 51 of the Conditions of Contract.

The measurement of traffic control layout shall be for a basic length of 100m plus lead in tapers. Additional lengths of 40m or part thereof shall be measured separately.

The measurement of temporary removal of traffic control layouts shall be made only in respect of a traffic control layout which is ordered by the Engineer to be removed temporarily by walking cones over to and laying down signs in the verge or central reservation or where the works at a specific site extend for more than one day.

The measurement of traffic diversions shall be in accordance with the Dayworks Schedule.

Itemisation

- 59 Separate items shall be provided for traffic safety and management lane closures in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Establish and remove traffic control layout 2 Maintain traffic control layout for others 3 Temporary overnight removal of lane closure. 4 Establish, operate and remove mobile lane closure
II	1 Different layouts
iii	1 Basic length of up to 100m plus lead in tapers 2 Additional length of 40m or part thereof.
iv	1 Different time period

Establish and Remove Traffic Control Layout	60	The items for establishing and removing traffic control layout shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item coverage	(a)	complying with the recommendations contained in Chapter 8 of the "Traffic Signs Manual" published by Her Majesty's Stationery Office and any amendments thereto;
	(b)	complying with the particular requirements of the Contract including Appendix 1/17;
	(c)	access to the highway and the erection, maintenance, illumination, repositioning and removal of all temporary signs, information boards, floodlighting, cylinders, cones, road markings, lamps and traffic activated control signals;
	(d)	erection, maintenance and removal of information signs additional to the requirements of Chapter 8 of the Traffic Signs Manual.
	(e)	organising and programming the traffic safety and management works to comply with the Specification and the requirements of the Engineer including restricted working hours.
	(f)	complying with the requirements of Statutory Undertakers and Public Authorities as appropriate;
	(g)	carrying out the traffic safety and management works in a manner acceptable to the Engineer and the Police for the operation of all traffic.
	(h)	provision of traffic officer;
	(i)	covering and uncovering of temporary signs;
	(j)	replacement of initially established stocks of temporary equipment with new equipment and double handling costs arising therefrom;

	(k)	keeping clean, legible and secure all temporary traffic signs, lamps and control equipment;
	(l)	pre-placing signs and cones in central reservation and removal on completion;
	(m)	rapid removal of all facilities when required by the Engineer or Police within 30 minutes of an instruction being issued;
	(n)	maintenance and surveillance of all traffic safety and management measures where required for Contractors own use as paragraph 9 items (c), (d) and (e).
Maintain Traffic	61	The items for maintaining traffic control layout for others shall in accordance with the Preambles to Schedule of Rates General Directors include for:
Item Coverage	(a)	carrying out the traffic safety and management works in a manner acceptable to the Engineer and the police;
	(b)	traffic officer;
	(c)	maintaining traffic control layout equipment including securing cleaning, repositioning, covering and uncovering;
	(d)	keeping highways clean and clear of all debris;
	(e)	continuous maintenance and surveillance of all traffic safety and management measures.
Temporary Overnight Removal of Lane Closure	62	The items for temporary overnight removal of lane closure shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item Coverage	(a)	removal and re-establishing (as paragraph 8)
	(b)	laying down securely and raising traffic signs;
	(c)	walking over cones and repositioning.

Mobile Lane Closures	63	The items for establishing, operating and removing mobile lane closures shall in accordance with the Preambles to Schedule of Rates General Directions include for:
Item Coverage	(a)	As this series paragraph 48
	(b)	Operation of rolling signage, crash cushions and the like

SERIES 200: SITE CLEARANCE

TAKE UP OR DOWN AND SET ASIDE FOR RE-USE OR REMOVE TO STORE OFF SITE.

Insert sub-paragraph 11(r) and 11(s):

- (r) Traffic safety and management (as series 100);
- (s) Liaison with statutory undertakers (including regional electricity company).

Delete existing sub paragraph 11(l) and replace with the following:

- (l) Permanent reinstatement of surfaces to match existing;

Insert the following additional heading and paragraphs 11 to 14 including side headings:-

TAKE UP OR DOWN AND REMOVE TO LICENCED TIP OFF THE NETWORK PROVIDED BY THE CONTRACTOR.

Units

12 The units of measurement shall be:

Take up or down and remove to licenced tip off the network provided by the contractor the following:

- (i) road lighting columns, sign lighting units, bracket arms, feeder pillars, and the like.....number;
- (ii) cable.....linear metre.

Measurement

13 The measurement for take up or down and remove to licenced tip off the network provided by the contractor for cables, road lighting, columns, sign lighting units, bracket arms, feeder pillars, and the like shall be lengths or numbers instructed by the engineer.

Itemisation

14 Separate items shall be provided for take up or down and remove to licensed tip off the network provided by the contractor in accordance with Chapter II paragraphs 3 and 4 and the following.

		Group	Feature
		I	1 Take up or down and remove to licenced tip off the network provided by the contractor.
		II	1 Road lighting columns, sign lighting units, bracket arms, feeder pillars and the like. 2 Cable
Take up or down and remove to licensed tip off the network provided by the contractor.	15	The items for take up or down and remove to licenced tip off the network provided by the contractor shall in accordance with the Preambles to schedule of Rates General Directions include for:	
	(a)	Excavation of acceptable material (as series 600 paragraphs 17 and 18);	
	(b)	Excavation of unacceptable material (as series 600 paragraphs 19);	
	(c)	Breaking up of foundations;	
	(d)	Dismantling;	
	(e)	Loading into transport;	
	(f)	Transport and handling;	
	(g)	Disposal of material to licenced tip off the network provided by the contractor (as series 600 paragraph 3a);	
	(h)	Disconnecting removing and sealing supplies;	
	(i)	Backfilling and compaction;	
	(j)	The disposal of lamps through an approved lamp disposal machine;	
	(k)	Permanent reinstatement of surfaces to match existing;	
	(l)	Tidying area in the vicinity of repair;	

- (m) Credit value of materials;
- (n) Traffic safety and management (as series 100);
- (o) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information);
- (p) Remove root section from steel columns and remove to store off site (as series 200 paragraph 10);

SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS

Delete existing heading TRAFFIC SIGNS and paragraphs 1 to 4 inclusive including side headings and insert the following heading and paragraphs 1 to 4 inclusive including side headings:-

ILLUMINATED SIGN EQUIPMENT

Units	1	The units of measurement shall be:								
	(i)	Sign lighting lanterns, brackets, refuge beacons, belisha beacons, school flashing units, internally illuminated signs, sign posts and the like.....number.								
Measurement	2	The measurement of illuminated sign equipment shall be the complete installation except for isolators which shall be measured separately under series 1400 (paragraphs 55 to 58).								
Itemisation	3	Separate items shall be provided for illuminated sign equipment in accordance with Chapter II paragraphs 3 and 4 and the following:								
		<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Illuminated sign equipment</td></tr><tr><td>II</td><td>1 Sign lighting lanterns, brackets, refuge beacons, belisha beacons, school flashing units, internally illuminated signs, sign posts and the like.</td></tr><tr><td>III</td><td>1 Different types 2 Different sizes</td></tr></table>	Group	Feature	I	1 Illuminated sign equipment	II	1 Sign lighting lanterns, brackets, refuge beacons, belisha beacons, school flashing units, internally illuminated signs, sign posts and the like.	III	1 Different types 2 Different sizes
Group	Feature									
I	1 Illuminated sign equipment									
II	1 Sign lighting lanterns, brackets, refuge beacons, belisha beacons, school flashing units, internally illuminated signs, sign posts and the like.									
III	1 Different types 2 Different sizes									
Illuminated sign equipment	4.	The items for illuminated sign equipment shall in accordance with the preambles to schedule of rates General Directions include for:								
Item Coverage	(a)	Excavation of acceptable material (as series 600 paragraphs 17 and 18);								
	(b)	Excavation of unacceptable material (as series 600 paragraphs 19);								

- (c) Excavation in hard material (as series 600 paragraph 23);
- (d) Backfilling and compaction;
- (e) In situ concrete (as series 1700 paragraph 4);
- (f) Formwork (as series 1700 paragraph 14);
- (g) Reinforcement (as series 1700 paragraph 25);
- (h) Ducts in bases and draw wires;
- (i) Permanent reinstatement of Surfaces to match existing;
- (j) Covering and removal of covering of signs;
- (k) Disposal of material (as series 600 paragraph 39);
- (l) Doors, locks and keys;
- (m) Location lettering/numbering and marking;
- (n) Drilling or forming holes and pockets in structures, lighting columns, posts or foundations and casting in bolts, sockets, base plates and anchorage assemblies;
- (o) Protective system;
- (p) Rivets, bolts, nuts and the like;
- (q) Electrical equipment including lamps, wiring and connections, excluding network cabling and isolators;
- (r) Conduit including screwed and threaded connections, bends, tees and the like and draw wires.
- (s) Threading cable through duct sleeves, conduit and the like;
- (t) Backboard, fixings protective caps, sealing, grommets, spacers, mounting plates and strips;

- (u) Complying with the wiring regulations, earthing (other than earth electrodes), and inspection verification and test;
- (v) Protective treatment;
- (w) Preparation and supply of record drawings;
- (x) Fixing to structures and foundations including attachment systems;
- (y) Traffic safety and management (as series 100);
- (z) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information);

Insert the following heading and paragraphs 45 to 48 inclusive including side headings:-

SIGN PLATES

Units	5 The units of measurement shall be:						
	(i) sign plates.....number;						
Measurement	6 The measurement of sign plates shall be the complete installation.						
Itemisation	7 Separate items shall be provided for sign plates in accordance with Chapter II paragraphs 3 and 4 and the following.						
	<table border="1"> <thead> <tr> <th>Group</th><th>Feature</th></tr> </thead> <tbody> <tr> <td>I</td><td>1 Sign plates</td></tr> <tr> <td>II</td><td>1 Different types and sizes.</td></tr> </tbody> </table>	Group	Feature	I	1 Sign plates	II	1 Different types and sizes.
Group	Feature						
I	1 Sign plates						
II	1 Different types and sizes.						
Sign Plates	8 The items for sign plates shall in accordance with the Preambles to Schedule of Rates General Directions include for:						
Item Coverage	(a) Fixings, clips, nuts, bolts and the like;						

- (b) Attaching to any post or column;
- (c) Traffic safety and management (as series 100);

Insert the following heading and paragraphs 49 to 52 inclusive including side headings:-

BOLLARDS

Units	9	The units of measurement shall be:
	(i)	Bollards.....number;
Measurement	10	The measurement of bollards shall be the complete installation except for cutouts which shall be measured separately under series 1400 (paragraphs 55 to 58).
Itemisation	11	Separate items shall be provided for bollards in accordance with Chapter II paragraphs 3 and 4 and the following.

Group	Feature
I	1 Bollards
II	1 Different types 2 Different sizes

Bollards	12	The items for bollards shall in accordance with the Preambles to schedule of Rates General Directions include for:
	(a)	Excavation of acceptable material (as series 600 paragraphs 17 and 18);
	(b)	Excavation of unacceptable material (as series 600 paragraphs 19);
	(c)	Excavation in Hard Material (as Series 600 paragraph 23);
	(d)	Backfilling and compaction;
	(e)	Insitu concrete (as Series 1700 paragraph 4);

- (f) Ducts in bases and draw wires;
- (g) Permanent reinstatement of surfaces to match existing;
- (h) Covering and removal of covering of signs;
- (i) Disposal of material (as Series 600 paragraph 39);
- (j) Locks and keys;
- (k) Location lettering numbering and marking;
- (l) Rivets, bolts, nuts and the like;
- (m) Electrical equipment including lamps, wiring and connections, excluding network cabling and isolators;
- (n) Threading cable through duct sleeves, conduit and the like;
- (o) Fixings, protective caps, sealing, grommets, spacers, mounting plates and strips;
- (p) Complying with wiring regulations, earthing (other than earth electrodes), and inspection, verification and testing;
- (q) Protective treatment;
- (r) Notices and recording;
- (s) Preparation and supply of record drawings;
- (t) Fixing of shells to bases;
- (u) Traffic safety and management (as series 100);
- (v) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information);

Insert the following Heading and paragraphs 53 to 55 inclusive including side headings:

REMOVE FROM STORE AND RE-ERECT SIGNS AND BOLLARDS

Units	13	The unit of measurement shall be:								
	(i)	remove from store and re-erect signs and bollards.....number.								
Itemisation	14	Separate items shall be provided for remove from store and re-erect in accordance with Chapter II paragraphs 3 and 4 and the following.								
<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Remove from store and re-erect signs.</td></tr><tr><td></td><td>2 Remove from store and re-erect bollards</td></tr><tr><td>II</td><td>1 Different types</td></tr></table>			Group	Feature	I	1 Remove from store and re-erect signs.		2 Remove from store and re-erect bollards	II	1 Different types
Group	Feature									
I	1 Remove from store and re-erect signs.									
	2 Remove from store and re-erect bollards									
II	1 Different types									
Remove from Store and Re-erect signs and bollards	15	The items for remove from store and re-erect signs and bollards shall in accordance with the Preambles to Bill of Quantities General Directions include for:								
Item coverage	(a)	loading, transporting from store, unloading and positioning for re-erection;								
	(b)	replacing items damaged during the foregoing operations;								
	(c)	modification and new materials;								
	(d)	painting existing painted items;								
	(e)	illuminated sign equipment (as this series paragraph 4)								
	(f)	bollards (as this series paragraph 11).								

SERIES 1300: ROAD LIGHTING COLUMNS AND BRACKETS

ROAD LIGHTING COLUMNS, BRACKETS AND WALL MOUNTINGS

Delete existing sub-paragraph 4(t) and replace with the following:-

- (t) Electrical equipment including lamps, wiring and making connections, excluding network cabling and isolators;

Delete existing sub-paragraph 4(v) and replace with the following:-

- (v) Permanent reinstatement of surfaces to match existing;

Delete existing sub-paragraph 4(cc) and replace with the following:-

- (cc) complying with the wiring regulations and earthing (other than earth electrodes), and inspection verification and testing;

Add the following sub-paragraphs 4(gg) and 4(hh);

- (gg) traffic safety and management (as series 100);
- (hh) liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information);

Insert the following heading and paragraphs 8 to 11 inclusive including side headings:-

SLEEVING OF CONCRETE COLUMNS

Units	8 The units of measurement shall be:
	(i) sleeving of concrete columns.....number
Measurement	9 The measurement of sleeving for concrete columns shall be the complete installation.

Itemisation	10	Separate items shall be provided for sleeving of concrete columns in accordance with Chapter II paragraphs 3 and 4 and the following.								
		<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Different height of columns</td></tr><tr><td>II</td><td>2 Different projections of brackets</td></tr><tr><td>III</td><td>3 Different types</td></tr></table>	Group	Feature	I	1 Different height of columns	II	2 Different projections of brackets	III	3 Different types
Group	Feature									
I	1 Different height of columns									
II	2 Different projections of brackets									
III	3 Different types									
Sleeving of Concrete Columns	11	The items for sleeving of concrete columns shall in accordance with the Preambles to Schedule of Rates General Directions include for:								
Item Coverage	(a)	Rivets, nuts, bolts, fixings, clips and the like.								
	(b)	Drilling or forming holes and pockets in structures or foundations, and casting in bolts, sockets, base plates and anchorage assemblies.								
	(c)	Attaching to any post or column.								
	(d)	Bedding, grouting and filling.								
	(e)	Disposal of material (as Series 600 paragraph 39)								
	(f)	Reinstatement of surfaces.								
	(g)	Traffic safety and management (as series 100);								

SERIES 1400: ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS

LOCATING BURIED ROAD LIGHTING AND TRAFFIC SIGN CABLE

Insert the following sub-paragraphs 4(f) and 4(g);

- (f) Traffic safety and management (as series 100).
- (g) Liaison with statutory undertakers including regional electricity company. (To include for issue of notices and collation of information).

TRENCH FOR CABLE AND DUCT

Insert the following sub-paragraphs 8(r) and 8(s);

- (r) Traffic safety and management (as series 100).
- (s) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information).

Insert the following sub-paragraphs 13(n) and 13(o);

- (n) Traffic safety and management (as series 100).
- (o) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information).

Insert the following sub-paragraphs 15(i) and 15(j);

- (i) Traffic safety and management (as series 100).
- (j) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information).

CABLE JOINTS AND TERMINATIONS

Insert the following sub-paragraphs 19(q) and 19(r);

- (q) Traffic safety and management (as series 100).
- (r) Liaison with statutory undertakers, including

regional electricity company. (To include for issue of notices and collation of information).

FEEDER PILLARS

Insert the following sub-paragraphs 22(aa) and 22(bb).

- (aa) Traffic safety and management (as series 100).
- (bb) Liaison with statutory undertakers (including regional electricity company).

Insert the following heads and paragraphs 36 to 82 inclusive including side headings.

EARTH ELECTRODES

Insert the following sub-paragraphs 27(s) and 27(t);

- (s) Traffic safety and management (as series 100).
- (t) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information).

CHAMBERS

Insert the following sub-paragraphs 32(b) and 32(c);

- (b) Traffic safety and management (as series 100).
- (c) Liaison with statutory undertakers, including regional electricity company. (To include for issue of notices and collation of information).

LANTERNS

Units	36	The units of measurement shall be:
	(i)	Lanterns.....number.
Measurement	37	The measurement of lanterns shall be the complete installation including wiring and connections.
Itemisation	38	Separate items shall be provided for lanterns in accordance with Chapter II paragraphs 3 and 4

and the following.

Group	Feature
I	1 Lanterns.
II	1 Different Types 2 Different Wattages

Lanterns

- 39 The items for lanterns shall in accordance with the Preambles to Schedule of Rates General Directions include for:
- (a) Fitting to bracket arm;
 - (b) Electrical equipment, including gear if stated, lamp, wiring and making connections, excluding network cabling and photo electric cell;
 - (c) Wiring from lighting unit to cut-out or isolator;
 - (d) Conduit including draw wires, screwed and threaded connections, bends, tees and the like;
 - (e) Threaded cable through duct sleeves, conduit and the like;
 - (f) Fixings, protective caps, sealing grommets, spaces, mountings, plates and strips;
 - (g) Notices, recording and preparation and supply of record drawings;
 - (h) Complying with Wiring Regulations; earthing (other than earth electrode) and inspection verification and testing;
 - (i) Fixing lantern to walls or structures;
 - (j) Adjustment of lamp holder and reflector positions;
 - (k) Any bowl type, any canopy colour;
 - (l) Traffic safety and management (as series 100);

	(m)	Numbering and lettering of column where required.						
		REMOVE FROM STORE AND RE-ERECT LANTERNS						
Units	40	The unit of measurement shall be:						
	(1)	remove from store and re-erect lanternsnumber.						
Itemisation	41	Separate items shall be provided for remove from store and re-erect in accordance with Chapter II paragraphs 3 and 4 and the following						
		<table><tr><td>Group</td><td>Feature</td></tr><tr><td>I</td><td>1 Remove from store and re-erect lanterns.</td></tr><tr><td>II</td><td>1 Different Types 2 Different Wattages</td></tr></table>	Group	Feature	I	1 Remove from store and re-erect lanterns.	II	1 Different Types 2 Different Wattages
Group	Feature							
I	1 Remove from store and re-erect lanterns.							
II	1 Different Types 2 Different Wattages							
Remove from Store and Re-erect lanterns	42	The items for remove from store and re-erect road lighting columns, brackets and wall mountings shall in accordance with the Preambles to Bill of Quantities General Directions include for:						
Item coverage	(a)	loading, transporting from store, unloading and positioning for re-erection;						
	(b)	replacing items damaged during the foregoing operations;						
	(c)	modification and new materials;						
	(d)	painting existing painted items;						
	(e)	lanterns (as this series paragraph 4).						
		PHOTOCELLS AND TIMESWITCHES						
Units	43	The units of measurement shall be:						
	(i)	Photocells and timeswitchesnumber;						
Measurement	44	The measurement of photocells and timeswitches shall be the complete installation						

including wiring and connections.

Itemisation	45	Separate items shall be provided for photocells and timeswitches in accordance with chapter II paragraphs 3 and 4 and the following.						
		<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Photocells and timeswitches.</td></tr><tr><td>II</td><td>1 Different types</td></tr></table>	Group	Feature	I	1 Photocells and timeswitches.	II	1 Different types
Group	Feature							
I	1 Photocells and timeswitches.							
II	1 Different types							
Photocells and timeswitches	46	<p>The items for Photocells and Timeswitches shall in accordance with the Preambles to Schedule of Rates General Directions include for:-</p> <ul style="list-style-type: none">(a) Fixing of photocell to lantern;(b) Drilling or removing any knockouts to fit photocell;(c) Fixing of timeswitch/photocell controller to backboard;(d) Wiring and making connections;(e) Complying with the wiring regulations and earthing, inspection verification and testing;(f) Setting up and commissioning of timeswitches;(g) Traffic safety and management (as Series 100)						
Mayflower Central Management System		<p>The items for Mayflower (CMS) shall be in accordance with the Preamble to Schedule of Rates General Directions include for:-</p> <ul style="list-style-type: none">(a) Fixing of Mayflower Submaster, Internal or External Node to lantern(b) Drilling or removing any knockouts to fit Mayflower equipment(c) Wiring and making connections(d) Complying with the wiring regulations and earthing, inspection verification and testing;						

- (e) Setting up and commissioning of Mayflower equipment
- (f) Traffic safety and management (as Series 100)

LAMPS

Units	47	The units of measurement shall be:	
	(i)	Lamps.....number;	
Measurement	48	The measurement for lamps shall be the complete installation.	
Itemisation	49	Separate items shall be provided for lamps in accordance with Chapter II paragraphs 3 and 4 and the following.	
		Group	Feature
		I	1 Lamps
		II	3 Different types and wattages
Lamps	50	The items for lamps shall in accordance with the Preambles to schedule of Rates General Directions include for:	
Item Coverage	(a)	Fitting of lamp to lantern on columns in sign units, in bollards and the like.	
	(b)	Traffic safety and management (as Series 100).	

BALLASTS

Units	51	The units of measurement shall be:				
	(i)	ballasts.....number;				
Measurement	52	The measurement for ballasts shall be the complete installation.				
Itemisation	53	Separate items shall be provided for ballasts in accordance with Chapter II paragraphs 3 and 4 and the following.				
<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Ballasts</td></tr></table>			Group	Feature	I	1 Ballasts
Group	Feature					
I	1 Ballasts					

		II	1	Different types and wattages
Ballasts	54	The items for ballasts shall in accordance with the Preambles to schedule of Rates General Directions include for:		
Item Coverage	(a)	Fitting of ballast to lantern/backboard in/on columns, sign units, bollards and the like;		
	(b)	Wiring and making connections;		
	(c)	Complying with the wiring regulations and earthing; and inspection, verification and testing.		
	(d)	Traffic Safety and management (as series 100).		
	CAPACITORS			
Units	55	The units of measurement shall be:		
	(i)	Capacitorsnumber;		
Measurement	56	The measurement for Capacitors shall be the complete installation.		
Itemisation	57	Separate items shall be provided for capacitors in accordance with Chapter II paragraphs 3 and 4 and the following.		
		Group	Feature	
		I	1	Capacitors
		II	1	Different types and wattages
Capacitors	58	The items for Capacitors shall in accordance with the Preambles to schedule of Rates General Directions include for:		
Item Coverage	(a)	Fitting of Capacitor to lantern/backboard in columns, in sign units, in bollards and the like;		
	(b)	Wiring and making connections;		

- (c) Complying with the wiring regulations and earthing; and inspection, verification and testing;
- (d) Traffic safety and management (as series 100);

IGNITORS/STARTERS

- | | | |
|--------------------|-----|--|
| Units | 59 | The units of measurement shall be: |
| | (i) | Ignitors/Starters.....number; |
| Measurement | 60 | The measurement for Ignitors/starters shall be the complete installation. |
| Itemisation | 61 | Separate items shall be provided for ignitors/starters in accordance with Chapter II paragraphs 3 and 4 and the following. |

Group	Feature
I	1 Ignitors/Starters
II	1 Different types and wattages

- | | | |
|--------------------------|-----|---|
| Ignitors/starters | 62 | The items for Ignitors/starters shall in accordance with the Preambles to schedule of Rates General Directions include for: |
| Item Coverage | (a) | Fitting of Ignitor/starter to lantern/backboard in columns, in sign units, in bollards and the like. |
| | (b) | Wiring and making connections; |
| | (c) | Complying with the wiring regulations and earthing; and inspection, verification and testing. |
| | (d) | Traffic safety and management (as series 100); |

CUTOUTS, FUSES, ISOLATORS, SWITCHFUSES AND CONSUMER UNITS

- | | | |
|--------------|-----|--|
| Units | 63 | The units of measurement shall be: |
| | (i) | Cutouts, fuses, isolators, switchfuses and consumer unitsnumber; |

Measurement	64	The measurement for cutouts, fuses, isolators, switchfuses and consumer units shall be the complete installation.	
Itemisation	65	Separate items shall be provided for Cutouts, fuses, isolators, switchfuses and consumer units in accordance with Chapter II paragraphs 3 and 4 and the following.	
		Group	Feature
		I	1 Cutouts, fuses, isolators, switchfuses and consumer units
		II	1 Different types
Cutouts, fuses, isolators, switchfuses and consumer units	66	The items for cutouts, fuses, isolators, switchfuses and consumer units shall in accordance with the Preambles to Schedule of Rates General Directions include for:	
Item Coverage	(a)	Isolation of supply;	
	(b)	Fixing to backboard;	
	(c)	Fuse carriers, fuses, isolators, double pole isolators;	
	(d)	Complying with Wiring Regulations;	
	(e)	Cable joints and terminations;	
	(f)	Removing knock-outs, drilling or forming holes and pockets and casting in bars, sockets, base plates, plinths and anchorage assemblies;	
	(g)	Protective caps, sealing, grommets, spacers, mounting plates and strips;	
	(h)	Complying with wiring regulations and earthing (other than earth electrodes) and inspection, verification and testing.	
	(i)	Conduit including screwed and threaded connections, bends tees the like and draw wires;	

- (j) Colour coding, wiring and making connections, excluding electricity supplier's connection;
- (k) Threading cable through ducts, sleeves, conduit and the like;
- (l) Notices, labelling, recording numbering and lettering;
- (m) Commissioning;
- (n) Galvanised steel trunking, termination rails and blocks, internal single insulated wiring and supply double insulated rails.
- (o) SWA extension boxes, termination blocks, glanding, gland plates, bonding;
- (p) Traffic safety and management (as series 100);

SUNDRY ITEMS

Units

- 67 The units of measurement shall be:
- (i) Contactors, conduit junction boxesnumber
 - (ii) Conduit, single insulated cableslinear metre

Measurement

- 68 The measurement of sundry items shall be the complete installation.

Itemisation

- 69 Separate items shall be provided for Sundry Items in accordance with Chapter II paragraphs 3 and 4 and the following.

Group	Feature
I	1 Contractors
	2 Conduit and the like
	3 Single insulated cables
II	1 Different sizes of conduit
	2 Different sizes of single insulated cables.

Sundry Items	70	The items for sundry items shall in accordance with the Preambles to Schedule of Rates General Directions include for:
	(a)	Wiring and making connections to contactor;
	(b)	Fixing Contactor to backboard;
	(c)	Complying with the wiring regulations and earthing, inspection, verification and testing;
	(d)	Threading cables through conduit, including draw wires;
	(e)	Fixing conduit to surfaces, including fixing, screws, nuts, bolts and the like;
	(f)	Traffic safety and management (as series 100);
	(g)	Liaison with statutory undertakers(including regional electricity company).

ROUTINE MAINTENANCE OF STREET LIGHTING

Units	71	The units of measurement shall be:
	(i)	Lighting points.....number
Measurement	72	The measurement of Routine Maintenance of Street Lighting shall be the complete installation.
Itemisation	73	Separate items shall be provided for Routine Maintenance of Street Lighting in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Routine Maintenance of Street Lighting
II	1 Different heights

Routine Maintenance of Street Lighting	74	<p>The items for Routine Maintenance of Street Lighting shall in accordance with Preambles to Schedule of Rates General Directions include for:-</p> <ul style="list-style-type: none"> (a) lamps, ballasts, ignitors, capacitors, photo cells, fuses, doors, banding, cable, joints, (as series 1400 paragraphs 10, 11, 13, 17, 39, 43, 47, 51, 55, 59, 63, 67) Mayflower equipment and other materials required for routine maintenance operation; (b) provision of data, drawings and reports; (c) excavation of acceptable material (as series 600 paragraphs 17 and 18); (d) excavation of unacceptable material (as series 600 paragraph 19); (e) rivets, nuts, bolts, skins, washers, welds, clamps, sundry materials and the like; (f) blinding concrete and paving slab; (g) in situ concrete (as series 1700 paragraph 4); (h) formwork (as series 1700 paragraph 14); (i) reinforcement (as series 1700 paragraph 25); (j) drilling or forming holes and pockets in structures or foundations and casting in bolts, sockets, base plates and anchorage assemblies; (k) bedding, grouting and filling; (l) backfilling and compaction; (m) marking, numbering and lettering; (n) electrical equipment, isolating, wiring and making connections and terminations including Highway Authority owned network cabling;
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- (o) degrease and lubrication;
- (p) bulk lamp change, cleaning, inspection, verification and testing;
- (q) raising and lowering operations;
- (r) clearing debris and vegetation, including pruning;
- (s) loading, transporting from store, unloading and erecting;
- (t) fault identification, investigation, and repair including Highway Authority owned network cabling;
- (u) replacement of faulty or damaged/broken components;
- (v) scouting;
- (w) traffic safety and management (as series 100);
- (x) liaison with statutory undertakers (including regional electricity company);
- (y) complying with BS7671 current edition;
- (z) Provision, maintenance and update computer system;
- (aa) retention of items in store off site (as series 200 paragraph 10)
- (bb) disposal of items to licensed tip (as series 600 paragraph 39);
- (cc) permanent reinstatement of surfaces;
- (dd) refit doors, locks and keys;
- (ee) ducts and draw ropes;

- (ff) conduit, including screwed and threaded connections, bends, tees and the like and draw wires;
- (gg) threading cable through ducts, sleeves conduit and the like;
- (hh) re-alignment of columns, lanterns, brackets, lamps and optical components, etc and the like;
- (ii) guarantees;
- (jj) plant, labour and equipment;
- (kk) removal and reinstatement of items for routine maintenance operations;
- (ll) checking, aligning and replacing seals where necessary;
- (mm) abortive calls;
- (nn) reinstatement of protective system damaged during routine maintenance operation;
- (oo) attending meetings;
- (pp) gaining access;
- (qq) identifying, reporting and organising repair of Regional Electricity Company supply failures.
- (rr) all relevant requirements of specification appendix 0/1 clause 1471AR.

ROUTINE MAINTENANCE OF SIGN LIGHTING

Units	75	The units of measurement shall be:
	(i)	Sign lighting points.....number
Measurement	76	The measurement of Routine Maintenance of Sign Lighting shall be the complete installation.

Itemisation **77** Separate items shall be provided for Routine Maintenance of Sign Lighting in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	2 Routine Maintenance of Sign Lighting
II	2 Different types

Routine Maintenance of Sign Lighting **78** The items for Routine Maintenance of Sign Lighting shall in accordance with Preambles to Schedule of Rates General Directions include for:-

- (a) lamps, ballasts, ignitors, capacitors, photo cells, fuses, doors, banding, cable, joints, (as series 1400 paragraphs 10, 11, 13, 17, 34, 38, 42, 46, 50, 54, 58, 62) and other materials required for routine maintenance operation;
- (b) provision of data, drawings and reports;
- (c) excavation of acceptable material (as series 600 paragraphs 17 and 18);
- (d) excavation of unacceptable material (as series 600 paragraph 19);
- (e) rivets, nuts, bolts, skins, washers, welds, clamps, sundry materials and the like;
- (f) blinding concrete and paving slab;
- (g) in situ concrete (as series 1700 paragraph 4);
- (h) formwork (as series 1700 paragraph 14);
- (i) reinforcement (as series 1700 paragraph 25);
- (j) drilling or forming holes and pockets in structures or foundations and casting in bolts, sockets, base plates and anchorage assemblies;
- (k) bedding, grouting and filling;

- (l) backfilling and compaction;
- (m) marking, numbering and lettering;
- (n) electrical equipment, isolating, wiring and making connections and terminations including Highway Authority owned network cabling;
- (o) degrease and lubrication;
- (p) bulk lamp change, cleaning, inspection, verification and testing;
- (q) raising and lowering operations;
- (r) clearing debris and vegetation, including pruning;
- (s) loading, transporting from store, unloading and erecting;
- (t) fault identification, investigation, and repair including Highway Authority owned network cabling;
- (u) replacement of faulty or damaged/broken components;
- (v) scouting;
- (w) traffic safety and management (as series 100);
- (x) liaison with statutory undertakers (including regional electricity company);
- (y) complying with BS7671 current edition;
- (z) Provision, maintenance and update computer system;
- (aa) retention of items in store off site (as series 200 paragraph 10)
- (bb) disposal of items to licensed tip (as series 600 paragraph 39);

- (cc) permanent reinstatement of surfaces;
- (dd) refit doors, locks and keys;
- (ee) ducts and draw ropes;
- (ff) conduit, including screwed and threaded connections, bends, tees and the like and draw wires;
- (gg) threading cable through ducts, sleeves conduit and the like;
- (hh) re-alignment of posts, lanterns, brackets, lamps and optical components, etc and the like;
- (ii) restanding, re-erecting and re-fixing displaced baselit bollard shells
- (jj) guarantees;
- (kk) plant, labour and equipment;
- (ll) removal and reinstatement of items for routine maintenance operations;
- (mm) checking, aligning and replacing seals where necessary;
- (nn) abortive calls;
- (oo) reinstatement of protective system damaged during routine maintenance operation;
- (pp) attending meetings;
- (qq) gaining access;
- (rr) identifying, reporting and organising repair of Regional Electricity Company supply failures.
- (ss) all relevant requirements of specification appendix 0/1 clause 1471AR

ROUTINE MAINTENANCE OF SUBWAY

Units 79 The units of measurement shall be:

	(i)	Subway.....number						
Measurement	80	The measurement of Routine Maintenance of subway shall be the complete installation.						
Itemisation	81	Separate items shall be provided for routine maintenance of subway in accordance with Chapter II paragraphs 3 and 4 and the following:						
		<table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Routine maintenance of subway</td></tr><tr><td>II</td><td>1 Specified pumping arrangement</td></tr></table>	Group	Feature	I	1 Routine maintenance of subway	II	1 Specified pumping arrangement
Group	Feature							
I	1 Routine maintenance of subway							
II	1 Specified pumping arrangement							
Routine Maintenance of subway lighting units	82	The items for routine maintenance of subway lighting units shall in accordance with Preambles to Schedule of Rates General Directions include for:						
	(a)	lamps, ballasts, ignitors, capacitors, photo cells, fuses, banding, cable, joints, (as series 1400 paragraphs 10, 11, 13, 17, 34, 38, 42, 46, 50, 54, 58, 62) and other materials required for routine maintenance operation;						
	(b)	provision of data, drawings and reports;						
	(c)	excavation of acceptable material (as series 600 paragraphs 17 and 18);						
	(d)	excavation of unacceptable material (as series 600 paragraph 19);						
	(e)	rivets, nuts, bolts, skins, washers, welds, clamps, sundry materials and the like;						
	(f)	blinding concrete and paving slab;						
	(g)	in situ concrete (as series 1700 paragraph 4);						
	(h)	formwork (as series 1700 paragraph 14);						
	(i)	reinforcement (as series 1700 paragraph 25);						

- (j) drilling or forming holes and pockets in structures or foundations and casting in bolts, sockets, base plates and anchorage assemblies;
- (k) bedding, grouting and filling;
- (l) backfilling and compaction;
- (m) marking, numbering and lettering;
- (n) electrical equipment, isolating, wiring and making connections and terminations including Highway Authority owned network cabling;
- (o) degrease and lubrication;
- (p) bulk lamp change, cleaning, inspection, verification and testing;
- (q) raising and lowering operations;
- (r) clearing debris and vegetation, including pruning;
- (s) loading, transporting from store, unloading and erecting;
- (t) fault identification, investigation, and repair including Highway Authority owned network cabling;
- (u) replacement of faulty or damaged/broken components;
- (v) scouting;
- (w) traffic safety and management (as series 100);
- (x) liaison with statutory undertakers (including regional electricity company);
- (y) complying with IEE 16th Edition wiring regulations (BS7671 current edition);
- (z) Provision, maintenance and update computer system;

- (aa) retention of items in store off site (as series 200 paragraph 10)
- (bb) disposal of items to licensed tip (as series 600 paragraph 39);
- (cc) permanent reinstatement of surfaces;
- (dd) refit doors, locks and keys;
- (ee) ducts and draw ropes;
- (ff) conduit, including screwed and threaded connections, bends, tees and the like and draw wires;
- (gg) threading cable through ducts, sleeves conduit and the like;
- (hh) re-alignment of lanterns, brackets, lamps and optical components, etc and the like;
- (ii) guarantees;
- (jj) plant, labour and equipment;
- (kk) removal and reinstatement of items for routine maintenance operations;
- (ll) checking, aligning and replacing seals where necessary;
- (mm) abortive calls;
- (nn) reinstatement of protective system damaged during routine maintenance operation;
- (oo) attending meetings;
- (pp) gaining access;
- (qq) identifying, reporting and organising repair of Regional Electricity Company supply failures.

**SERIES 1900: PROTECTION OF STEELWORK AGAINST
CORROSION PROTECTIVE SYSTEM**

Amendment to paragraph 1:
Add the following:

- (ii) Protective system to lighting columns and brackets.....number
- (iii) Bitumen base to columns/signs.....number.
- (iv) Numbering highway equipment.....number.

Insert the following sub-paragraphs 4(r) and 4(s).

- (r) Traffic safety and management (as series 100);
- (s) Adhesive labels;

SERIES 3600: EMERGENCY SERVICE

FACILITIES TO PROVIDE EMERGENCY SERVICE CALLOUT

Definitions	1	Facilities shall be deemed to include all arrangements necessary to undertake the Emergency Service in accordance with the Contract not separately measured.						
Units	2	The units of measurement shall be: (i) facilities to provide emergency service callout.....annum						
Measurement	3	<p>The measurement of facilities to provide emergency service callout is for the total cost of labour, plant and materials necessary to deal with the calls received as described in Appendix 1/13 and to have available at all times the labour, plant, equipment and materials as described in Appendix 36/70.</p> <p>It should be noted that where emergencies require additional resources to 2 operatives with plant and equipment as described in Appendix 36/70 these will be reimbursed using the Dayworks Schedule.</p>						
Itemisation	4	<p>Separate items shall be provided for facilities to provide emergency service callout in accordance with Chapter II paragraphs 3 and 4 and the following:</p> <table><tr><th>Group</th><th>Feature</th></tr><tr><td>I</td><td>1 Facilities to provide emergency services.</td></tr><tr><td>II</td><td>1 Different times</td></tr></table>	Group	Feature	I	1 Facilities to provide emergency services.	II	1 Different times
Group	Feature							
I	1 Facilities to provide emergency services.							
II	1 Different times							
Facilities to provide emergency service callout	5	The items for facilities to provide emergency service callout shall in accordance with the Preambles to Schedule of Rates General						

Directions include for:

Item coverage	<ul style="list-style-type: none"> (a) specified availability of supervision, labour, vehicles, plant and equipment in order to meet the emergency response time required under the Contract; (b) advising the Engineer of the names of the personnel available for emergency call out; (c) operating a communications system capable of ensuring that the emergency service is mobilised and arrives on site within the specified response time; (d) operating a communication system capable of ensuring that the Engineer is able to contact the Contractors supervisor at any time 24 hours a day, 7 days a week; (e) taxing vehicles for use on the public highway and for carriage of goods and samples; (f) maintenance of vehicles and plant in a roadworthy condition and in conformity with the vehicle manufacturers recommendations; (g) fuel and running costs; (h) mobilisation of resources to meet response times; (j) wages and other emoluments paid including payment for overtime; (k) costs and expenses consequent to the employment and hiring; (l) training and certification of competence as appropriate; (m) working outside the Contractors normal working hours; (n) drawing materials from the Contractor's stock of material; (o) replacement of Contractor's stock at
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Contractor's expense;

- (p) travel to and from Site;
- (q) acting on the instructions of the Engineer and/or the Police;
- (r) reporting to the Engineer details of all work carried out and materials used;
- (s) dealing with all telephone enquiries including outside normal working hours;
- (t) contacting Engineers Emergency Control Office when necessary;
- (u) disruption to other work as a result of attending emergencies.

SERIES 3900: DAYWORKS SCHEDULE

LABOUR

Units	1	The units of measurement shall be:								
	(i)	labourer.....hour;								
	(ii)	electrician/approved electrician.....hour;								
	(iii)	supervisor.....hour.								
Measurement	2	The measurement of labourer, electrician/approved electrician and supervisor shall be the actual hours spent on work at the Site instructed on the Works Order.								
Itemisation	3	Separate items shall be provided for Labour in accordance with chapter II paragraph 3 and 4 and the following:								
		<table><tr><th>Group</th><th>Feature</th></tr><tr><td>1</td><td>1 Labourer</td></tr><tr><td></td><td>2 Electrician/Approved electrician</td></tr><tr><td></td><td>3 Supervisor</td></tr></table>	Group	Feature	1	1 Labourer		2 Electrician/Approved electrician		3 Supervisor
Group	Feature									
1	1 Labourer									
	2 Electrician/Approved electrician									
	3 Supervisor									
Labour	4	The items for Labour shall in accordance with the Preambles to Schedule of Rates General Directions include for:								
Item coverage	(a)	Basic cost of labour for workmen;								
	(b)	Plus rates for skill;								
	(c)	Guaranteed bonus;								
	(d)	All other amounts of every kind paid in accordance with the rules of the appropriate wage fixing body;								
	(e)	Non-productive overtime and costs associated therewith;								
	(f)	All bonuses, payments and incentives in excess of the guaranteed bonus;								

- (g) National insurance and Surcharges;
- (h) Works, third party and Employers liability insurances;
- (i) Annual and public holidays and pay and benefit scheme;
- (j) Non-contributory sick pay scheme;
- (k) Industrial training levy;
- (l) Redundancy payments contribution;
- (m) Contracts of Employment Act;
- (n) superintendence and supervision;
- (o) sundry materials, small tools, appliances and plant not provided for in paragraphs 5, 6 and 7 of this Series;
- (p) protective clothing
- (q) transport to and from the Network;
- (r) transport to and from any Site within the Network;
- (s) welfare facilities;
- (t) use of subcontractors and specialists;
- (u) establishment charges, overheads and profit;
- (v) travelling time within the Network between Sites.

PLANT

5 Basic Cost of Plant and Percentage Adjustment:

- (i) The basic cost of plant shall be charged at the Hire Rates set down in the Table Section 4 Plant of 'Schedules of Dayworks Carried out Incidental to Contract Work' issued by the Civil Engineering Contractors Association current at the date the work is executed. The Notices and Conditions set down in Section 4 Plant of the above schedules of Dayworks shall not apply.
- (ii) Only the actual time plant is working on Site on Dayworks shall be chargeable.
- (iii) The period stated in the Table Section 4 Plant shall be the minimum chargeable.
- (iv) Plant ordered in writing by the Engineer to be made available on Site for a Daywork operation shall be charged at two-thirds of the rate obtained in accordance with sub-paragraph (i) above for the time the plant is made available but not used, subject to a maximum of 8 hours per working day and 40 hours in a working week.
- (v) Haulage to and from the Site of plant ordered in writing by the Engineer to be used exclusively for a Daywork operation shall be charged at net invoiced cost. The percentage adjustment to the basic cost of plant shall not be applied to such haulage costs.
- (vi) Rates for mechanical and other special plant not normally classed as small tools and not included in the Table Section 4 Plant shall be paid for at Hire Rates reasonably related to those obtained in accordance with sub-paragraph (i) above.
- (vii) The Contractor shall allow for percentage adjustment to his basic cost of plant in Table Section 4 of 'Schedule of Dayworks Carried Out incidental to Contract Work'.

Basic Cost of Plant	6	The basic cost of plant for Dayworks shall in accordance with Section 4 Plant of 'Schedules of Dayworks carried out incidental to Contract Work' include for:
Item Coverage	(a)	all associated costs irrespective of whether plant is owned, hired or leased;
	(b)	fuel;
	(c)	consumable stores;
	(d)	repairs;
	(e)	maintenance;
	(f)	insurance;
	(g)	establishment charges overheads and profit;
	(h)	be exclusive of operator, driver and attendants.
Percentage Adjustment to the Basic Cost of Plant Item Coverage	7	The percentage adjustment to the Basic Cost of Plant shall include for:
	(a)	owned, hired or leased plant;
	(b)	general servicing, overheads and replacements;
	(c)	fuel distribution;
	(d)	transporting to and from Site (except as stated in paragraph 5(v) of this Series;
	(e)	all other charges and costs not recovered in Basic cost of plant;
	(f)	discounts;
	(g)	use of subcontractors or specialists.

MATERIALS

8	Basic Cost of Material and Percentage Adjustment:
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	(i)	The basic cost of materials shall be charged at the net invoiced price of materials delivered to Site.
	(ii)	The Contractor shall allow for percentage adjustment to his basic cost of materials.
	(iii)	No percentage adjustment to the basic cost of materials shall be charged for items re-erected from store (series 1200 paragraph 55 and series 1300 paragraph 7 or for materials supplied by the Employer.
Percentage Adjustment to the Basic cost of Materials Item Coverage	9	The percentage adjustment to the Basic Cost of Materials at the net invoiced price delivered to Site shall include for:
	(a)	ordering and taking delivery;
	(b)	unloading, storing and protecting;
	(c)	double handling;
	(d)	waste;
	(e)	discounts;
	(f)	use of subcontractors or specialists;
	(g)	establishment charges overheads and profit;
	(h)	travelling time within the Network between Sites.