LIBRARY OF STANDARD ITEM DESCRIPTIONS FOR HIGHWAY WORKS

Contents

Introduction

General

1 (05/01) The Library has been compiled in accordance with the itemisation features of the Method of Measurement for Highway Works (MMHW). This is a master library which can be used direct for manual billing, or as the basis from which individual libraries can be constructed to suit available computer facilities. Whatever process is followed the end result should produce directly comparable Bills of Quantities.

The root narratives contain numbered inserts which can, by the use of a numbered variable from the appropriate numbered group, produce unique item descriptions for all standard constructional work. For example, the information in the Specification or on the Drawings may show the requirements for fencing as "1.3 metres high standard four rail fencing with timber posts and stockproofing of a single strand of galvanized barbed wire".

By referring to **Series 300: Fencing**, a unique item description can be built up as follows:

Root Narrative Item 2 - 10*2* fencing **7*** high with **8*3*4*5***

Variables

10*(o) = no entry - no entry to be made against 10*
2*(ii) = four rail - selected from Group 2*
7*(i) = 1.3 metres - unique height
8*(iv) = timber posts - selected from Group 8*
3*(i) = one strand of galvanized barbed wire-selected from Group 3*
4*(o) = no entry - no entry to be made against 4*
5*(o) = no entry - no entry to be made against 5*

Similarly, by referring to **Series 1600: Piling and Embedded Retaining Walls**, a unique item description for piling requirements, which may be shown as, "vertical 3.5 metre 600 mm diameter cast-in-place piles in main piling" would be as follows:

Root Narrative Item 8 - 6*7* cast-in-place piles **16*3*5*** in length **2***

Variables

6*(i) = vertical - selected from Group 6*
7*(vii) = 600 mm diameter - selected from Group 7*
16*(o) = no entry - no entry to be made against 16*
3*(o) = no entry - no entry to be made against 3*
5*(i) = not exceeding 5 metres - selected from Group 5*
2*(ii) = in main piling - selected from Group 2*

Amendments to the Library

2 Any variable not listed in a group but belonging to a group generically may be added to it and numbered sequentially. Items which cannot be compiled from the existing root narratives are rogue items and if required they should be drafted on the same principles as the Library and inserted as necessary in the Bill of Quantities.

As in the case of the MMHW, rogue items not contained in the Library but which are found to be consistently necessary and are felt to be of national application should be forwarded to Quality Services - Civil Engineering Division, St Christopher House, London for evaluation and possible incorporation into any standard amendments which may be issued.

Series 100: Preliminaries

Item	*Root Narrative*	*Unit*
	Temporary Accommodation	
1	1* of principal offices for the Overseeing Organisation 2*	item
2	1* of principal laboratories for the Overseeing Organisation 2*	item
3	1* of portable offices for the Overseeing Organisation 2*4*	item
4	1* of portable laboratories for the Overseeing Organisation 2*4*	item
5	1* of offices and messes for the Contractor	item
6	1* of stores and workshops for the Contractor	item
7	Servicing of principal offices for the Overseeing Organisation 3*	item
8	Servicing of principal laboratories for the Overseeing Organisation 3*	item
9	Servicing of portable offices for the Overseeing Organisation 3*4*	item
10	Servicing of portable laboratories for the Overseeing Organisation 3*4*	item
	Vehicles for the Overseeing Organisation	
11	(05/05) 7* for the Overseeing Organisation 3*	v.day
	Communication System for the Overseeing Organisation	
12	Communication system for the Overseeing Organisation 3*	item
	Operatives for the Overseeing Organisation	
13	(05/01) 6* for the Overseeing Organisation 3*	op.day
	Information Board	
14	Information board 7*	no

Traffic Safety and Management

15	Traffic safety and management	item
16	(05/01) Traffic safety and management for landscape and ecology	item
17	Taking measures for or construction, maintenance, removal of contraflow arrangements	item

Temporary Diversion for Traffic

18	8* temporary diversion for traffic at location 9* listed in Appendix 1/18	item
19	8* temporary diversions for traffic at those locations listed in the Appendix 1/18 but not measured individually	item
20	8* temporary diversions for traffic at those locations proposed by the Contractor	item

Recovery Vehicles

21	(05/01) Establishment of 5* recovery vehicle	item
22	(05/01) Maintenance of 5* recovery vehicle	v.day
23	(05/01) Removal of 5* recovery vehicle	item

Progress Photographs

24	Set of progress photographs 10*	no
25	Set of aerial progress photographs 10*	no
26	Additional progress photographs 10*	no
27	Additional aerial progress photographs 10*	no

Temporary Closed Circuit (CCTV) System for the Monitoring of Traffic

28	(05/01) Installation of temporary closed circuit (CCTV) system for the monitoring of traffic	item
29	(05/01) Maintenance of temporary closed circuit (CCTV) system for the monitoring of traffic	day
30	(05/01) Removal of temporary closed circuit (CCTV) system for the monitoring of traffic	item

Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks (05/01)

31	(05/01) Installation of temporary automatic speed camera system for the enforcement of mandatory speed limits at roadworks	item
32	(05/01) Maintenance of temporary automatic speed camera system for the enforcement of mandatory speed limits at roadworks	day
33	Removal of temporary automatic speed camera system for the enforcement of mandatory speed limits at roadworks	item

Group	*Variables*	
1*	(i)	=Erection
	(ii)	=Servicing
	(iii)	=Dismantling
2*	(o)	=No entry
†	(i)	=provided by the Overseeing Organisation
3*	(o)	=No entry
	(i)	=until completion of the works
	(ii)	=after completion of the works
4*	(o)	=No entry
	(i)	=at place of fabrication or manufacture
5*(05/01)	(i)	=light
	(ii)	=heavy
6*	(i)	=Chainman/Driver
	(ii)	=Driver/Laboratory handyman
	(iii) etc	=[stated Type]
7*	(i) etc	=[stated Type]
8*	(i)	=Taking measures for or construction of
	(ii)	=Maintenance of measures for or construction of
	(iii)	=Removal of measures for or construction of
9*	(i) etc	=[stated reference]

10*	(i)	=in monochrome
	(ii)	=in colour

Note

† The Specification for Highway Works does not cover this item. If the compiler wishes to use this variable then appropriate details must be given in Contract-specific Specification Clauses or on the Drawings.

Series 200: Site Clearance

Item	*Root Narrative*	*Unit*
	Site Clearance	
1	General site clearance	ha
2	General site clearance area 1*	ha
3	Demolition of building or structure 1*	item
4	Demolition of group of buildings or structures 1*	item
5	(05/01) Partial demolition of individual structures 1*	item
	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site (05/01)	
6	(05/01) Take up or down 2*3*4*	m^3
7	(05/01) Take up or down 2*5* paving 6*	m^2
8	(05/01) Take up or down 2*4* brickwork 6*	m^2
9	(05/01) Take up or down 2*7*19*	m
10	(11/06) Take up or down 2*8*9* safety barriers 11*	m
11	(05/01) Take up or down 2*10*4*13*	m
12	(05/01) Take up or down 2*12* fence 13*	m
13	(05/01) Take up or down 2*14*4*19*	m
14	(05/01) Take up or down 2*15*16*	m
15	(05/01) Take up or down 2*17*18*19*	no
16	(05/01) Take up or down 2*20*	no

Group	*Variables*	
1*	(i) etc	=[stated reference]
2*(05/01)	(i)	=and set aside for reuse
	(ii)	=and remove to store off Site
	(iii)	=and remove to tip off Site
3*(05/01)	(i)	=blockwork
	(ii)	=stonework
4*(05/01)	(i) etc	=[stated Type]

5*(05/01)	(i)	=precast concrete slab
	(ii)	=stone flag
	(iii)	=brick
	(iv)	=cobble
	(v)	=granite sett
	(vi)	=block
	(vii) etc	=[stated Type]
6*(05/01)	(i) etc	=[stated depth or thickness]
7*(05/01)	(i)	=precast concrete kerbs
	(ii)	=granite kerbs
	(iii)	=precast concrete channels
	(iv)	=precast concrete edgings
	(v)	=combined drainage and kerb blocks
	(vi)	=linear drainage channel systems
	(vii) etc	=[stated Type and feature]
8*(05/01)	(i)	=untensioned single sided
	(ii)	=untensioned double sided
	(iii)	=tensioned single sided
	(iv)	=tensioned double sided
9*(05/01)	(i)	=corrugated beam
	(ii)	=open box beam
	(iii)	=rectangular hollow section beam
10*(05/01)	(i)	=safety barriers
	(ii)	=pedestrian guardrails
11*(05/01)	(i)	=on timber posts
	(ii)	=on steel posts
	(iii)	=attached to structures
12*(05/01)	(i)	=post and rail
	(ii)	=cleft chestnut
	(iii)	=chain link
	(iv) etc	=[stated Type]
13*(05/01)	(o)	=No entry
	(i)	=300 mm high
	(ii)	=375 mm high
	(iii)	=450 mm high
	(iv) etc	=525 mm high (and so on in steps of 75 mm)
14*(05/01)	(i)	=copings
	(ii)	=string courses
	(iii) etc	=[stated named feature]

15*(05/01)	(i)	=power cable
	(ii)	=communications cable
16*(05/01)	(i)	=laid singly
	(ii)	=laid as a pair
	(iii) etc	=[stated number]
17*(05/01)	(i)	=bench seat
	(ii)	=cattle trough
	(iii) etc	=permanent bollard [stated type]
	(iv)	=parking meter
	(v)	=pedestrian crossing lights
	(vi)	=lighting column including bracket arm and lantern
	(vii)	=wall mounting including bracket arm and lantern
	(viii)	=traffic sign
	(ix)	=traffic sign including posts
	(x)	=internally illuminated traffic sign
	(xi)	=internally illuminated traffic sign including posts
	(xii)	=externally illuminated traffic sign
	(xiii)	=externally illuminated traffic sign including posts
	(xiv)	=timber gate
	(xv)	=metal gate
	(xvi)	=stile
	(xvii)	=road stud
	(xviii)	=individual blocks
	(xix)	=individual masonry features
	(xx)	=individual stones
	(xxi)	=chamber cover and frame
	(xxii)	=gully grating and frame
	(xxiii)	=feeder pillars
	(xxiv)etc	=[stated named feature]
18*(05/01)	(o)	=No entry
	(i) etc	=[stated Type]
19*(05/01)	(o)	=No entry
	(i) etc	=[stated Size]
20*(05/01)	(i) etc	=[stated Type of signal]
	(ii) etc	=[stated Type of motorwarn assembly]
	(iii) etc	=[stated Type of emergency telephone]
	(iv)	=camera pole
	(v) etc	=[stated Type of cabinet]
	(vi) etc	=[stated Type of equipment]

Series 300: Fencing

Item	*Root Narrative*	*Unit*
	Fencing, Gates and Stiles	
1	Temporary fencing 1*	m
2	10*2* fencing 7* high with 8*3*4*5*	m
3	10*6* fencing 7* high with 8*3*4*5*	m
4	(05/01) Concrete foundation to timber 15* for 13* fencing	no
5	(05/01) 10*9*11* gate 7* high 14* wide	no
6	(05/01) 10*9*11* gate 7* high 14* wide with 5*	no
7	(05/01) 10*9* stile 12*7* high 14* wide	no
8	(05/01) 10*9* stile 12*7* high 14* wide with 5*	no
9	(05/01) 13* 16* to existing 2* fencing 7* high	m
10	(05/01) 13* 16* to existing 6* fencing 7* high	m
11	(05/01) 13* 16* to existing 9*11* gate 7* high 14* wide	no
12	(05/01) Fenced tree guards 13*	no
	Remove from Store and Re-erect Fencing, Gates and Stiles	
13	(05/01) Remove from store and re-erect 10*2* fencing 7* high with 8*3*4*5*	m
14	(05/01) Remove from store and re-erect 10*6* fencing 7* high with 8*3*4*5*	m
15	(05/01) Concrete foundation to timber 15* for re-erected 13* fencing	no
16	(05/01) Remove from store and re-erect 10*9*11* gate 7* high 14* wide	no
17	(05/01) Remove from store and re-erect 10*9*11* gate 7* high 14* wide with 5*	no
18	(05/01) Remove from store and re-erect 10*9* stile 12*7* high 14* wide	no
19	(05/01) Remove from store and re-erect 10*9* stile 12*7* high 14* wide with 5*	no
	Excavation in Hard Material (05/01)	
20	(05/01) Extra over excavation for excavation in Hard Material in fencing works	m^3

Group	*Variables*	
1*	(i)	=Type 1
	(ii)	=Type 2
	(iii)	=Type 3
	(iv)	=Type 4
	(v) etc	=[stated Type]
2*	(i)	=three rail
	(ii)	=four rail
	(iii)	=five rail
	(iv) etc	=[stated Type]
3*	(o)	=No entry
	(i)	=one strand of galvanized barbed wire
	(ii)	=two strands of galvanized barbed wire
	(iii)	=three strands of galvanized barbed wire
	(iv) etc	=[stated material]
4*	(o)	=No entry
	(i)	=one strand of galvanized plain wire
	(ii)	=two strands of galvanized plain wire
	(iii)	=three strands of galvanized plain wire
	(iv)	=one strand galvanized plastic coated plain wire
	(v)	=two strands galvanized plastic coated plain wire
	(vi)	=three strands galvanized plastic coated plain wire
	(vii) etc	=[stated material]
5*	(o)	=No entry
	(i)	=galvanized pig netting
	(ii)	=plastic coated pig netting
	(iii)	=galvanized sheep netting
	(iv)	=galvanized large hexagon sheep netting
	(v)	=galvanized small hexagon chicken netting
	(vi)	=galvanized chain link
	(vii)	=plastic coated chain link
	(viii) etc	=[stated material]
6*	(i)	=plastic coated chain link
	(ii)	=galvanized chain link
	(iii)	=cleft chestnut pale
	(iv)	=mild steel bar
	(v)	=wrought iron bar
	(vi)	=woven wire
	(vii)	=strained wire
	(viii)	=close boarded
	(ix)	=timber palisade
	(x)	=woven wood
	(xi) etc	=[stated material]

7*(05/01)	(i) etc	=[unique height]
8*	(i)	=concrete posts
	(ii)	=concrete posts with cranked top
	(iii)	=concrete posts with bonded plastic coated extension arm
	(iv)	=timber posts
	(v)	=timber posts with bonded plastic coated extension arm
	(vi)	=steel angle posts
	(vii)	=steel angle posts with cranked top
	(viii)	=steel angle posts with extension arm
	(ix)	=plastic coated steel RHS posts
	(x)	=plastic coated steel RHS posts with cranked top
	(xi)	=plastic coated steel RHS posts with extension arm
	(xii)	=plastic coated steel pylon posts
	(xiii)	=steel standard and pillars
	(xiv)	=cast iron posts
	(xv)	=wrought iron posts
	(xvi)	=mild steel posts
	(xvii) etc	=[stated Type or material]
9*	(i)	=steel tubular frame
	(ii)	=timber
	(iii) etc	=[stated material]
10*	(o)	=No entry
	(i)	=Painted
11*(05/01)	(i)	=single field
	(ii)	=half mesh single field
	(iii)	=extra wide single field
	(iv)	=double field
	(v)	=Type 1 wicket
	(vi)	=Type 2 wicket
	(vii)	=kissing
	(viii)	=bridle
	(ix) etc	=[stated Type]
12*	(i)	=Type 1
	(ii)	=Type 2
	(iii) etc	=[stated Type]
13*	(i) etc	=[stated Type]
14*(05/01)	(i) etc	=[unique width]

15*(05/01)	(i)	=main posts
	(ii)	=straining posts
	(iii)	=struts
	(iv)	=intermediate posts
16*(05/01)	(i)	=wire
	(ii)	=wire mesh

Series 400: Road Restraint Systems (Vehicle and Pedestrian) (05/04)

Item	*Root Narrative*	*Unit*
	(05/04) **Safety Barriers**	
1	(05/04) Safety barrier 5*7*15*12*	m
2	(05/04) Transition from 5*7* to 5*7*15*	no
	(11/04) **Terminals**	
3	(11/04) Terminal section 22*25*15*	no
	(11/04) **Connections to Existing Systems**	
4	(11/04) Connection to existing system 5*7*11*	no
	(05/04) **Crash Cushions**	
5	(11/04) Crash cushion 26*21*22*23*20	no
	(11/04) **Vehicle Parapets**	
6	(11/04) Vehicle parapet 5*7*16*20*14*	m
	(11/04) **Pedestrian Parapets and Pedestrian Guardrails**	
7	(11/04) Pedestrian parapet 19*16* high 20*14*	m
8	(11/04) Pedestrian guardrail 19*16* high 20*17*	m
	(05/04) **Anti-glare Screens**	
9	(11/04) Anti-glare screen 24*12*	m

(05/04) **Remove from Store and Re-erect Safety Barriers**

10	(11/04) 1* untensioned 3*2*12*	m
11	(11/04) 1* tensioned 3*2*12*	m
12	(11/04) 1*4* driven post 9* for 3*2*	no
13	(11/04) 1*4* post 9* for setting in concrete or socket for 3*2*	no
14	(11/04) 1*8* surface mounted post 9* fixed to structure or foundation for 3*2*	no
15	(11/04) 1* mounting bracket 10* fixed to structure for 3*2*	no
16	(11/04) 1* terminal section for untensioned 3*2*	no
17	(11/04) 1* terminal section for tensioned 3*2*	no
18	(11/04) 1* full height anchorage for 3*2*	no
19	(11/04) 1* expansion joint anchorage for 3*2*	no
20	(11/04) 1*11* connection of 3*2* to bridge parapet	no
21	(11/04) 1*11* connection piece for 3* open box beam to 3* corrugated beam	no
22	(11/04) 6* concrete foundation for post 1* for 2*	no
23	(11/04) Concrete foundation 13* spanning filter drain for post 1* for 2*	no
24	(11/04) 6* socketed foundation for post 1* for 2*	no

Post Extension Unit

25	(11/04) Post extension unit 11*	no

Raising Existing Sockets

26	(11/04) Raising existing sockets 11*	no

Group	*Variables*	
1*	(i)	=remove from store and re-erect
	(ii)	=removed from store and re-erected
2*	(i)	=corrugated beam
	(ii)	=open box beam
	(iii)	=open box beam with standard stiffeners
	(iv) etc	=open box beam with non-standard stiffeners [stated Type]
	(v)	=rectangular hollow section beam size 100 mm x 100 mm
	(vi)	=rectangular hollow section beam size 100 mm x 200 mm
	(vii)	=double rail open box beam

3*	(i)	=single sided
	(ii)	=double sided
	(iii)	=top fixed
	(iv)	=side fixed
4*	(o)	=No entry
	(i)	=short
	(ii)	=long
	(iii) etc	=non-standard [stated Type]
5*(05/04)	(i)	=containment performance class
6*	(o)	=No entry
	(i)	=standard
	(ii) etc	=non standard [stated Type]
7*(05/04)	(i)	=working width class
8*	(i) etc	=Fixed height [stated height]
	(ii)	=Adjustable
	(iii) etc	=Non-standard [stated Type]
9*	(o)	=No entry
	(i) etc	=with off-set brackets [stated Type]
	(ii)	=with standard spacers
	(iii) etc	=with non-standard spacers [stated Type]
10*	(o)	=No entry
	(i) etc	=on adaptor platform [stated Type]
11*	(i) etc	=[stated Type]
12*	(i)	=straight or curved exceeding 120 metres radius
	(ii)	=curved exceeding 50 metres radius but not exceeding 120 metres radius
	(iii)	=curved not exceeding 50 metres radius
13*(05/01)	(i)	=permanent vertical
	(ii)	=higher permanent vertical
	(iii)	=British
14*(05/01)	(i)	=straight or curved exceeding 50 metres radius
	(ii)	=curved not exceeding 50 metres radius

15*(05/04)	(i)	=designed to be impacted on one side only
	(ii)	=designed to be impacted on both sides
16*(05/01)	(o)	=No entry
	(i) etc	=[unique height]
17*(05/01)	(o)	=No entry
	(i) etc	=formed to radius of [unique radius] metres
18*(11/04)	(i)	Not used
19*(05/04)	(o)	=No entry
	(i)	=Class 1
	(ii)	=Class 2
	(iii)	=Class 3
	(iv)	=Class 4
20*(11/04)	(o)	=No entry
	(i)etc	=[stated location]
21*(11/04)	(i)	=velocity class
22*(11/04)	(i)etc	=[stated lateral displacement zone class]
23*(11/04)	(i)	=redirective
	(ii)	=non-redirective
24*(11/04)	(i)etc	=[stated type of anti-glare screen]
25*(11/04)	(i)etc	=[stated performance class]
26*(11/04)	(i)etc	=[stated performance level]

Series 500: Drainage and Service Ducts

Item	*Root Narrative*	*Unit*
	Drains and Service Ducts (excluding Filter Drains, Narrow Filter Drains and Fin Drains) (05/01)	
1	(05/01) 1* diameter drain specified design group 2*3*4*5*	m
2	(05/01) 1* diameter 6* drain 7*3*4*5*	m
3	(05/01) 1* diameter service duct specified design 9*3*4*5*	m
4	(05/01) 1* diameter 6* service duct 7*3*4*5*	m
5	(05/01) Adjustment on last item for variation greater than 150 mm above or below the average depth of ... per 25 mm of variation in excess of 150 mm	m (rate only required)
	Filter Drains	
6	(05/01) 1* diameter filter drain in trench specified design group 2*4*5*	m
7	(05/01) 1* diameter 6* filter drain in trench specified design type 10*4*5*	m
8	(05/01) 1* diameter 6* filter drain in trench with 8*11* filter material 4*5*	m
9	(05/01) Adjustment on last item for variation greater than 150 mm above or below the average depth of ... per 25 mm of variation in excess of 150 mm	m (rate only required)
10	(05/01) 11* filter material contiguous with filter drain	m^3
11	(05/01) 12* sub-base material	m^3
12	(05/01) 13* lightweight aggregate infill	m^3
13	(05/01) Excavate and replace 8*11* filter material 4*	m^3
	Fin Drains and Narrow Filter Drains	
14	Fin drain specified design group 2* depth not exceeding 1.5 metres	m
15	Fin drain 14* depth not exceeding 1.5 metres	m
16	Narrow filter drain specified design group 2* depth not exceeding 1.5 metres	m
17	Narrow filter drain 15* depth not exceeding 1.5 metres	m

Connections

18	(05/01) Connection of 1* diameter pipe to existing 1* diameter drain or existing piped culvert 37*	no
19	Connection of 1* diameter pipe to existing chamber 37*	no
20	Connection of 1* diameter drain to permanently severed land or mole drain 37*	no

Chambers and Gullies

21	Chamber specified design group 16* 36* with 17* and frame depth to invert 18*	no
22	Chamber specified design group 16* with 17* and frame depth to uppermost surface of base slab 18*	no
23	19* chamber 9* with 17* and frame depth to invert 18*	no
24	19* chamber 9* with 17* and frame depth to uppermost surface of base slab 18*	no
25	20* gully specified design group 9* with 17* and frame	no
26	21*20* gully with 17* and frame	no

Headwalls and Outfall Works (05/01)

27	(05/01) Headwall 22*23* to pipe 24*	no
28	(05/01) Revetment 22*23* to pipe 24*	no

Soft Spots and Other Voids

29	Excavation of soft spots and other voids in bottom of trenches, chambers and gullies	m^3
30	Filling of soft spots and other voids in bottom of trenches, chambers and gullies with 25*	m^3

Supports Left in Excavation

31	35* supports 27* left in 26*	m^2

Drainage and Service Ducts in Structures (Including Reinforced Earth Structures and Anchored Earth Structures)

32	28* substructure - end supports	item
33	28* substructure - intermediate supports	item
34	28* superstructure	item
35	28* reinforced earth structure	item
36	28* anchored earth structure	item

Filling to Pipe Bays and Verges on Bridges

37	Filling to pipe bays and verges on bridges with 29*	m^3

Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies (05/05)

38	(05/05) Renewal of 31*17* cover and frame on 31*19* chamber	no
39	(05/05) Renewal of 31*17* grating and frame on 31*34* gully	no
40	(05/01) 30* the level of 31*17* cover and frame on 31*19* chamber 32*	no
41	(05/01) 30* the level of 31*17* grating and frame on 31*34* gully 32*	no

Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames

42	(05/01) Remove from store and reinstall 31*17* cover and frame on 19* chamber	no
43	(05/01) Remove from store and reinstall 31*17* grating and frame on 34* gully	no

Grouting up of Existing Drains and Service Ducts (05/01)

44	(05/01) Grouting up of existing 1* diameter drain and service duct with 33*	m

Excavation in Hard Material

45	(05/01) Extra over excavation for excavation in Hard Material in drainage	m^3

Concrete Bagwork (05/01)

46	(05/01) Concrete bagwork 38*39*	m^3

Cleaning Existing Drainage Systems (05/01)

47	(05/01) Cleaning 40*31*41*	m
48	(05/01) Cleaning of bridge drainage system 41*	item
49	(05/01) Cleaning of chambers 31*41*	no
50	(05/01) Cleaning of gullies 31*41*	no

Group	*Variables*	
1*	(i)	=75 mm internal
	(ii)	=100 mm internal
	(iii)	=150 mm internal
	(iv)	=200 mm internal
	(v)	=225 mm internal
	(vi)	=250 mm internal
	(vii)	=300 mm internal
	(viii)	=375 mm internal
	(ix)	=400 mm internal
	(x)	=450 mm internal
	(xi)	=500 mm internal
	(xii)	=525 mm internal
	(xiii)	=600 mm internal
	(xiv)	=675 mm internal
	(xv)	=700 mm internal
	(xvi)	=750 mm internal
	(xvii)	=800 mm internal
	(xviii)	=825 mm internal
	(xix)	=900 mm internal
	(xx)	=One number 100 mm internal
	(xxi)	=Two number 100 mm internal
	(xxii)	=Three number 100 mm internal
	(xxiii)	=Four number 100 mm internal
	(xxiv) etc	=[stated number and diameter]

2*	(i)	=2
	(ii)	=3
	(iii)	=4
	(iv)	=5
	(v)	=6
	(vi)	=7 [Note. These group reference numbers allow for
	(vii)	=8 all types of bed combination. Where a
	(viii)	=9 particular bed is excluded from any one
	(ix)	=10 group the group reference should be
	(x)	=11 followed by the suffix X and the
	(xi)	=12 excluded bed type, eg 3XD]
	(xii)	=13
	(xiii)	=14
	(xiv)	=15
	(xv) etc	=16 [for fin drains only]
	(xvi) etc	=[stated Group]
3*	(i)	=in trench
	(ii)	=in heading
	(iii)	=by jacking or thrust boring
	(iv)	=suspended on discrete supports
4*	(o)	=No entry
	(i)	=in side slopes of cuttings or side slopes of embankments
5*	(i)	=depth to invert not exceeding 2 metres, average depth to invert ...
	(ii) etc	=depth to invert exceeding 2 metres but not exceeding 4 metres (and so on in stages of 2 metres), average depth to invert ...
6*	(i)	=vitrified clay - standard strength
	(ii)	=vitrified clay - extra strength
	(iii)	=vitrified clay - super strength
	(iv)	=vitrified clay - higher strength
	(v)	=vitrified clay - perforated
	(vi)	=concrete strength Class L
	(vii)	=concrete strength Class M
	(viii)	=concrete strength Class H
	(ix)	=concrete strengthened by glass fibre rovings or galvanized steel fibres
	(x)	=concrete - perforated
	(xi)	=concrete - porous
	(xii)	=concrete - standard
	(xiii)	=asbestos cement Class L
	(xiv)	=asbestos cement Class M
	(xv)	=asbestos cement Class H
	(xvi)	=plastic - glass reinforced
	(xvii)	=iron - ductile Class K9
	(xviii)	=UPVC
	(xix)	=UPVC - perforated or slotted

	(xx)	=plastic
	(xxi)	=plastic - perforated
	(xxii)	=corrugated steel
	(xxiii)	=vitrified clay
	(xxiv)	=ductile cast iron
	(xxv)	=ultrarib
	(xxvi) etc	=[stated Type]
7*	(o)	=No entry
	(i)	=on bed Type A
	(ii)	=on bed Type B
	(iii)	=on bed Type F
	(iv)	=on bed Type N
	(v)	=on bed Type S
	(vi)	=on bed Type T
	(vii)	=on bed Type Z
	(viii) etc	=[on stated Type of bedding detail]
8*	(i) etc	=[stated material]
9*	(i) etc	=[stated Type for ducts]
	(ii) etc	=[stated Type for chambers and street gullies]
10*	(i)	=Type G
	(ii)	=Type H
	(iii)	=Type I
	(iv)	=Type J
	(v)	=Type K
	(vi)	=Type L
	(vii)	=Type M
	(viii) etc	=[stated Type]
11*	(i)	=Type A
	(ii)	=Type B
	(iii)	=Type C
12*	(i)	=Granular Type 1
	(ii)	=Granular Type 2
13*	(i) etc	=[stated Type]
14*	(o)	=No entry
	(i)	=Type 5
	(ii)	=Type 6
	(iii)	=Type 7

15*	(o)	=No entry
	(i)	=Type 8
	(ii)	=Type 9
	(iii) etc	=[stated Type]
16*(05/01)	(i)	=Type 1
	(ii)	=Type 2
	(iii)	=Type 3
	(iv)	=Type 4
	(v)	=Type 5
	(vi)	=Type 6
	(vii)	=Type 7
	(viii)	=Type 8
	(ix) etc	=[stated Group or Type]
17*	(i) etc	=[stated Type of cover]
	(ii) etc	=[stated Type of grating]
18*	(i)	=not exceeding 1 metre
	(ii) etc	=exceeding 1 metre but not exceeding 2 metres (and so on in steps of 1 metre)
19*	(i)	=Brick
	(ii)	=Precast concrete
	(iii) etc	=In situ concrete grade/mix [direct entry]
	(iv)	=Corrugated galvanized steel
20*	(i)	=Trapped
	(ii)	=Untrapped
21*	(i)	=Precast concrete
	(ii)	=Sumpless
	(iii)	=Cast iron
	(iv) etc	=In situ cast [stated type]
22*	(i) etc	=[stated Type]
23*	(o)	=No entry
	(i)	=in brickwork
	(ii)	=in mass concrete
	(iii)	=in reinforced concrete
	(iv) etc	=[stated material]

24*(05/01)	(i)	=not exceeding 100 mm internal diameter
	(ii)	=exceeding 100 mm but not exceeding 300 mm internal diameter
	(iii)	=exceeding 300mm but not exceeding 600mm internal diameter
	(iv)	=exceeding 600mm but not exceeding 900mm internal diameter
25*	(i)	=pipe bedding material
	(ii) etc	=in situ concrete mix [direct entry]
	(iii) etc	=acceptable material class [direct entry]
26*	(o)	=No entry
	(i)	=trench
	(ii)	=pits
	(iii)	=heading
27*	(i) etc	=[stated Type]
28*	(i)	=Drainage of
	(ii)	=Service ducts in
29*	(i) etc	=[stated material]
30*	(i)	=Raise
	(ii)	=Lower
31*	(i) etc	=[unique size as required]
32*	(i)	=150 mm or less
	(ii) etc	=exceeding 150 mm but not exceeding 300 mm (and so on in stages of 150 mm)
33*	(i)	=cement/PFA grout
	(ii) etc	=[stated Type]
34*	(i)	=precast concrete
	(ii)	=vitrified clay
	(iii)	=cast iron
	(iv)	=in situ concrete
35*	(i)	=Timber
	(ii)	=Steel
	(iii) etc	=[stated material]

36*	(i)	=a
	(ii)	=b
	(iii)	=c
	(iv)	=d
	(v)	=e
	(vi) etc	=[stated sub-type]
37*	(i)	=depth to invert not exceeding 2 metres
	(ii) etc	=depth to invert exceeding 2 metres but not exceeding 4 metres (and so on in stages of 2 metres)
38*(05/01)	(i)	=in headwalls
	(ii) etc	=[stated location]
39*(05/01)	(o)	=No entry
	(i)	=with battered face
40*(05/01)	(i)	=piped drainage system
	(ii)	=drainage channels
	(iii)	=linear drainage system
	(iv)	=combined drainage and kerb system
41*(05/01)	(i) etc	=[stated location]

Series 600: Earthworks

Item	*Root Narrative*	*Unit*
	Excavation	
1	Excavation of acceptable material Class 5A	m^3
2	Excavation of acceptable material excluding Class 5A in 3*	m^3
3	Excavation of acceptable material excluding Class 5A in 4*5* in depth	m^3
4	Excavation of unacceptable material 2* in 3*	m^3
5	Excavation of unacceptable material 2* in 4*5* in depth	m^3
	Excavation in Hard Material	
6	Extra over excavation for excavation in Hard Material in 6*	m^3
	(11/04) **Processing of Unacceptable Material Classes U1A and U1B**	
7	(11/04) Processing of unacceptable material class U1A 7* into 8* acceptable material	m^3
8	(11/04) Processing of unacceptable material class U1B 7* into 8* acceptable material	m^3
	Deposition of Fill	
9	(11/04) Deposition of acceptable material 9* in 10*	m^3
	Disposal of Material	
10	(11/04) Disposal of 11*	m^3

Imported Fill

11	(11/04) Imported acceptable material 12* in 10*	m^3
12	(11/04) Imported topsoil Class 5B	m^3

Compaction of Fill

13	(11/04) Compaction of acceptable material 9* in 10*	m^3

Soil Stabilisation

14	(11/04) Soil stabilisation 13* with 14*	m^3

Geotextiles

15	(11/04) Geotextile 15*16*	m^2

Soft Spots and Other Voids

16	(11/04) Excavation of soft spots and other voids 17*	m^3
17	(11/04) Filling of soft spots and other voids 17* with 18*	m^3

Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies

18	(11/04) Removal of disused 19*20* with 21* of cover to formation level	m
19	(11/04) Backfilling of disused 19*20* with 21* of cover to formation level with 18*	m^3
20	(11/04) Backfilling of disused basements, cellars and the like with 18*	m^3
21	(11/04) Backfilling of disused gullies 20* with 18*	no

Supports Left in Excavation

22	(11/04) 22*23* supports left in excavation	m^2

Topsoiling and Storage of Topsoil

23	(11/04) Topsoiling 24* thick to surfaces sloping 25* to the horizontal	m^2
24	(11/04) Permanent storage of topsoil	m^3

Completion of Formation and Sub-formation

25	(11/04) Completion of 28* on 29*	m^2

Lining of Watercourses

26	(11/04) Lining 30*31* with 32*24* thick	m^2

Clearing of Existing Ditches

27	(11/04) Clearing of existing ditch at 33*	m

Ground Improvement - Establishment of Plant

28	(11/04) Establishment of dynamic compaction plant at 33*	item
29	(11/04) Establishment of vibrated stone columns plant at 33*	item

Ground Improvement - Dynamic Compaction

30	(11/04) Dynamic compaction in 34* compaction with 35* pounder	m
31	(11/04) Dynamic compaction plant standing time	hr
32	(11/04) 12* material in granular blanket	t

Ground Improvement - Vibrated Stone Columns

33	(11/04) Vibrated stone column 65* installed by 66* in columns 67*	m
34	(11/04) Vibrated stone column plant standing time	hr

Gabion Walling and Mattresses

35	(11/04) Gabion walling with 36* mesh 37* filled with 24* Class 6G material 38*	m^3
36	(11/04) Mattress with 36* mesh 37* filled with 24* Class 6G material installed 25* to the horizontal 38*	m^3

Crib Walling

37	(11/04) Crib walling 39*40*41*42* and 43* infill	m^2

Filling and Caps to Mine Working, Well, Swallow Hole and the Like

38	(11/04) Filling 44* with 43*	t
39	(11/04) Caps to 44* with 45*	m^3

Ground Anchorages - Ground Anchorage Plant

40	(11/04) Establishment of ground anchorage plant at 33*	item

Ground Anchorages

41	(11/04) Ground anchorages 39*47* in length in 34* anchorages	m

Ground Anchorages - Waterproofing Anchorage Boreholes

42	(11/04) Waterproofing borehole by 48* grouting	m

Instrumentation and Monitoring - Boring Plant

43	(11/04) Establishment of boring plant at 33*	item

Instrumentation and Monitoring - Boring Holes

44	(11/04) Boring 49* holes 50* in depth	m

Instrumentation and Monitoring - Instrumentation

45	(11/04) Installation of 51*	no
46	(11/04) Installation of 52* tubing 53* in length or depth	m
47	(11/04) Installation of 52* cabling 53* in length or depth	m
48	(11/04) 48* grouting 53* in length or depth	m

Instrumentation and Monitoring - Instrument Hut or Cabinet

49	(11/04) 54* instrument 55* for the Overseeing Organisation 56*	item

Instrumentation and Monitoring - Monitoring Equipment

50	(11/04) Monitoring equipment 39*	item

Ground Water Lowering

51	(11/04) Ground water lowering 33*	item

Trial Pits

52	(11/04) Trial pit 5* in depth	m^3

Breaking Up and Perforation of Redundant Pavements

53	(11/04) 61* of redundant 57*58*59*60* deep	m^2

Perforation of Redundant Slabs, Basements and the Like

54	(11/04) Perforation of redundant 57* 62* 63* 64* thick	m^2

Group	*Variables*	
1*	*Not used	
2*(11/04)	(i)	=Class U1A
	(ii)	=Class U1B
	(iii)	=Class U2
3*	(i)	=cutting and other excavation
	(ii)	=new watercourses
	(iii)	=enlarged watercourses
	(iv)	=intercepting ditches
	(v)	=clearing abandoned watercourses
	(vi)	=removal of surcharge
4*	(i)	=structural foundations
	(ii)	=gabion walling and mattresses
	(iii)	=crib walling
	(iv)	=caps to mine working, well, swallow hole and the like
	(v)	=foundations for corrugated steel buried structures and the like
5*	(i)	=0 to 3 metres
	(ii)	=0 to 6 metres
	(iii) etc	=0 to 9 metres (and so on in steps of 3 metres)
6*	(i)	=cutting and other excavation
	(ii)	=structural foundations
	(iii)	=foundations for corrugated steel buried structures and the like
	(iv)	=new watercourses
	(v)	=enlarged watercourses
	(vi)	=intercepting ditches
	(vii)	=clearing abandoned watercourses
	(viii)	=gabion walling and mattresses
	(ix)	=crib walling

	(x)	=caps to mine workings, well, swallow hole and the like
7*	(i) etc	=[stated location reference]
8*	(i) etc	=[stated Class or Classes of acceptable material]
9*	(o)	=No entry
	(i)	=Class 1C
	(ii)	=Class 6B
10* (05/02)	(i)	=embankments and other areas of fill
	(ii)	=strengthened embankments
	(iii)	=reinforced earth structures
	(iv)	=anchored earth structures
	(v)	=landscape areas
	(vi)	=environmental bunds
	(vii)	=fill to structures
	(viii)	=fill above structural concrete foundations
	(ix)	=fill on sub-base material, base and capping
	(x)	=fill on bridges (under footways, verges and central reserves)
	(xi)	=upper bedding to corrugated steel buried structures and the like
	(xii)	=lower bedding to corrugated steel buried structures and the like
	(xiii)	=surround to corrugated steel buried structures and the like
	(xiv)	=fill above corrugated steel buried structures and the like
11*(11/04)	(i)	=acceptable material excluding Class 5A
	(ii)	=acceptable material Class 5A
	(iii)	=unacceptable material Class U1A
	(iv)	=unacceptable material Class U1B
	(v)	=unacceptable material Class U2
12*(05/01)	(o)	=No entry
	(i)	=Class 1A
	(ii)	=Class 1B
	(iii)	=Class 1C
	(iv)	=Class 2A
	(v)	=Class 2B
	(vi)	=Class 2C
	(vii)	=Class 2D
	(viii)	=Class 2E
	(ix)	=Class3
	(x)	=Class 4
	(xi)	=Class 6A
	(xii)	=Class 6B
	(xiii)	=Class 6C
	(xiv)	=Class 6D
	(xv)	=Class 6E
	(xvi)	=Class 6F1

	(xvii)	=Class 6F2
	(xviii)	=Class 6F3
	(xix)	=Class 6G
	(xx)	=Class 6H
	(xxi)	=Class 6I
	(xxii)	=Class 6J
	(xxiii)	=Class 6K
	(xxiv)	=Class 6L
	(xxv)	=Class 6M
	(xxvi)	=Class 6N
	(xxvii)	=Class 6P
	(xxviii)	=Class 6Q
	(xxix)	=Class 6R
	(xxx)	=Class 7A
	(xxxi)	=Class 7B
	(xxxii)	=Class 7C
	(xxxiii)	=Class 7D
	(xxxiv)	=Class 7E
	(xxxv)	=Class 7F
	(xxxvi)	=Class 7G
	(xxxvii)	=Class 7H
	(xxxviii)	=Class 7I
	(xxxix)	=Class 8
	(xl)	=Class 9A
	(xli)	=Class 9B
	(xlii)	=Class 9C
	(xliii)	=Class 9D
	(xliv)	=Class 9E
	(xlv)	=Class 9F
	(xlvi)etc	=[stated Class]
13*	(o)	=No entry
	(i)	=of capping
14*	(i)	=cement
	(ii)	=lime
15*	(o)	=No entry
	(i) etc	=[stated Type]
16*	(o)	=No entry
	(i) etc	=[stated Grade]
17*	(i)	=below cuttings or under embankments
	(ii)	=in side slopes
	(iii)	=below structural foundations and foundations for corrugated steel buried structures

18*	(i)	=acceptable material
	(ii) etc	=acceptable material Class [direct entry]
	(iii) etc	=in situ concrete mix [direct entry]
19*	(i)	=sewer or drain
	(ii)	=cable
	(iii)	=duct
	(iv)	=pipeline
	(v) etc	=[stated service]
20*	(i) etc	=internal diameter [direct entry]
	(ii) etc	=external diameter [direct entry]
21*	(i)	=one metre or less
	(ii)	=exceeding one metre but not exceeding two metres
	(iii) etc	=exceeding two metres but not exceeding three metres (and so on in steps of one metre)
22*	(i)	=Timber
	(ii)	=Steel
	(iii) etc	=[stated material]
23*	(o)	=No entry
	(i)	=trench sheeting
	(ii)	=sheet piling
24*	(i)	=25 mm
	(ii)	=50 mm
	(iii)	=75 mm
	(iv) etc	=100 mm (and so on in steps of 25 mm)
25*	(i)	=at 10^{o} or less
	(ii)	=more than 10^{o}
26*(05/01)	*Not used	
27*(05/01)	*Not used	
28*	(i)	=sub-formation
	(ii)	=formation
29*	(i)	=material other than Class 1C, 6B or rock in cuttings
	(ii)	=Class 1C material
	(iii)	=Class 6B material
	(iv)	=rock in cuttings

30*	(i)	=new watercourse
	(ii)	=enlarged watercourse
	(iii)	=intercepting ditches
31*	(i)	=invert
	(ii)	=side slopes
32*	(i)	=precast concrete units
	(ii) etc	=in situ concrete grade/mix [direct entry]
	(iii)	=uncoursed random rubble
	(iv)	=coursed random rubble
	(v)	=bagwork
	(vi) etc	=[stated material]
33*	(i) etc	=[stated location reference]
34*	(i)	=trial
	(ii)	=main
35*	(i) etc	=[stated weight]
36*	(i)	=plastic coated galvanized wire
	(ii)	=geomesh
	(iii) etc	=[stated material]
37*	(i) etc	=[stated mesh size]
38*	(o)	=No entry
	(i)	=in environmental bunds
39*	(i) etc	=[stated Type and capacity]
40*	(o)	=No entry
	(i)	=curved on plan
41*	(o)	=No entry
	(i)	=with a battered face
42*	(o)	=No entry
	(i)	=surface finish Class F1
	(ii)	=surface finish Class F2
	(iii) etc	=[stated Class of surface finish]

43*	(i)	=sand
	(ii) etc	=in situ concrete grade/mix [direct entry]
	(iii)	=acceptable material except Class 5A
	(iv) etc	=[stated material]
44*	(i)	=mine working
	(ii)	=well
	(iii)	=swallow hole and the like
	(iv) etc	=[stated Type of cavity]
45*	(i)	=precast concrete units
	(ii) etc	=in situ concrete grade/mix [direct entry]
46*(05/01)	*Not used	
47*	(i)	=not exceeding 5 metres
	(ii) etc	=exceeding 5 metres but not exceeding 10 metres (and so on in steps of 5 metres)
48*	(i)	=standard
	(ii)	=pressure
49*	(i)	=vertical
	(ii)	=raking
50*	(i)	=not exceeding 10 metres
	(ii) etc	=exceeding 10 metres but not exceeding 20 metres (and so on in steps of 10 metres)
51*	(i) etc	=[stated type of instrument]
52*	(i) etc	=[stated material]
53*	(i)	=not exceeding 10 metres
	(ii) etc	=exceeding 10 metres but not exceeding 50 metres (and so on in steps of 50 metres)
54*	(i)	=erection of
	(ii)	=servicing of
	(iii)	=dismantling of
55*	(i)	=hut
	(ii)	=cabinet

56*	(i)	=until completion of the works
	(ii)	=after completion of the works
57*	(o)	=No entry
	(i)	=reinforced
58*	(i)	=concrete
	(ii)	=rigid composite
	(iii)	=rigid
	(iv)	=flexible
	(v)	=flexible composite
	(vi) etc	=[stated type of slab construction]
59*	(i)	=slab
	(ii)	=pavement
	(iii)	=paved area
	(iv) etc	=[stated Type of slab]
60*	(i)	=not exceeding 100 mm
	(ii)	=exceeding 100 mm deep but not exceeding 200 mm
	(iii) etc	=exceeding 200 mm deep but not exceeding 300 mm (and so on in steps of 100 mm)
61*	(i)	=Breaking up
	(ii)	=Perforation
62*	(i)	=concrete
	(ii)	=brickwork
	(iii) etc	=[stated material]
63*	(i)	=slab
	(ii)	=basement
	(iii) etc	=[stated structure]
64*	(i)	=not exceeding 100 mm
	(ii)	=exceeding 100 mm thick but not exceeding 200 mm
	(iii) etc	=exceeding 200 mm thick but not exceeding 300 mm (and so on in steps of 100 mm)
65*(05/01)	(i) etc	=[stated minimum diameter]
66*(05/01)	(i) etc	=[stated Type of installation]
67*(05/01)	(i)	=not exceeding 5 metres in length
	(ii)	=exceeding 5 metres but not exceeding 10 metres in length (and so on in steps of 5 metres)

Series 700: Pavements

Item	*Root Narrative*	*Unit*
	Sub-base	
1	1* sub-base 8*	m^3
	Pavement (05/02)	
2	2*6*5* base 7* thick 8*	m^2
3	2*6* lower base 7* thick 8*	m^2
4	2*6* upper base 7* thick 8*	m^2
5	3*6* binder course 7* thick 8*22*	m^2
6	4*6* surface course 7* thick 8*22*	m^2
7	4*6* surface course 7* thick with 12* coated chippings 8*22*	m^2
8	Pavement comprising 5* slab 7* thick 8*	m^2
	Regulating Course	
9	10*6*11* regulating course	t
10	10*6*11* regulating course	m^3
11	9*11* regulating course	m^3
	Surface Treatment	
12	Slurry sealing 13*7*17*	m^2
13	(05/01) Surface dressing 13*7*23*17*	m^2
14	Bituminous spray 13*17*	m^2
15	(05/01) Resin based surface treatment 13*7*23*17*	m^2

Tack Coat

16	Tack Coat 13*17*	m^2

Cold Milling (Planing)

17	14* pavement 15*	m^2

In Situ Recycling - The Remix and Repave Processes

18	21* in situ recycle process 15*	m^2

Reinstatement of Paved Areas

19	Reinstate paved area with 16*15*	m^2

Thin Bonded Repairs and Joint Repairs to Existing Concrete Carriageway (05/01)

20	Thin bonded repairs 18*19*15*	m^2
21	Joint repairs 18*20*15*	m
22	(05/01) Saw-cutting grooves 24*	m
23	(05/01) Sealing grooves 25*	m

Full Depth Repairs and Bay Replacement Repairs to Existing Concrete Carriageway (05/01)

24	Full depth repairs 26*27* thick	m^2
25	Bay replacement repairs 26*27* thick	m^2
26	Reinstatement of sub-base	m^3

Saw Cutting, Cracking and Seating Existing Jointed Reinforced Concrete Pavements (05/01)

27	Removal of existing bituminous overlay	m^2
28	Main trial	item
29	Re-assessment trial	no
30	Saw-cutting existing pavement 28*	m^2
31	Cracking existing pavement 29*	m^2
32	Seating existing pavement 29*	m^2

Cracking and Seating of Existing Jointed Unreinforced Concrete Pavements and CBM Bases (05/02)

33	Removal of existing bituminous overlay	m^2
34	Main trial	item
35	Re-assessment trial	no
36	Cracking 30*29*31*	m^2
37	Seating 30*29*	m^2

Overbanding and Inlaid Crack Sealing Repair Systems (05/01)

38	Simple overbanding repair system with 32*	m
39	Fill and overbanding repair system 36*32*	m
40	Inlaid sealing repair system 37*32*	m

Maintenance of Arrester Beds (05/01)

41	Maintenance of arrester bed 33*	item

Repairs and Patching (05/01)

42	Repairs to potholes with 34*	kg
43	Repairs to depressions with 34*	kg
44	Patching 27* thick with 34*35*	m^2

Group	*Variables*	
#1* (05/09)	(i)	=Type 1 unbound mixture
	(ii)	=Type 2 unbound mixture
	(iii)	=Type 3 (open graded) unbound mixture
	(iv)	=Category B (close graded) unbound mixture
	(v)	=Type 4 (asphalt arising) unbound mixture
	(vi)	=Cement Bound granular mixture A
	(vii)	=Cement Bound granular mixture B
	(viii)	=Cement Bound granular mixture C
	(ix)	=Wet lean concrete 1
	(x)	=Wet lean concrete 2
	(xi)	=Wet lean concrete 3
	(xii)	=Wet lean concrete 4
	(xiii)	=Slag bound mixture B1 - 1
	(xiv)	=Slag-bound mixture B1 - 2
	(xv)	=Slag-bound mixture B1 - 3
	(xvi)	=Slag bound mixture B1 - 4
	(xvii)	=Slag bound mixture B2
	(xviii)	=Slag bound mixture B3
	(xix)	=Fly ash bound mixture 1
	(xx)	=Fly ash bound mixture 2
	(xxi)	=Fly ash bound mixture 3
	(xxii)	=Fly ash bound mixture 5
	(xxiii)	=Hydraulic road binder bound mixture 1
	(xxiv)	=Hydraulic road binder bound mixture 2
	(xxv)	=Hydraulic road binder bound mixture 3
	(xxvi)	=Soil treated by cement
	(xxvii)	=Soil treated by slag
	(xxviii)	=Soil treated by fly ash
	(xxix) etc	=[stated type or material]
2* (05/09)	(o)	=No entry
	(i)	=Cement bound granular mixture A
	(ii)	=Cement bound granular mixture B
	(iii)	=Cement bound granular mixture C
	(iv)	=Wet lean concrete 1
	(v)	=Wet lean concrete 2
	(vi)	=Wet lean concrete 3
	(vii)	=Wet lean concrete 4
	(viii) etc	=Hot rolled asphalt [stated recipe mix]
	(ix)	=Stone mastic asphalt
	(x)	=Slag-bound mixture B1 - 1
	(xi)	=Slag-bound mixture B1 - 2
	(xii)	=Slag-bound mixture B1 – 3
	(xiii)	=Slag bound mixture B1 – 4
	(xiv)	=Slag bound mixture B2
	(xv)	=Slag bound mixture B3
	(xvi)	=Fly ash bound mixture 1
	(xvii)	=Fly ash bound mixture 2

	(xviii)	=Fly ash bound mixture 3
	(xix)	=Fly ash bound mixture 5
	(xx) etc	=Dense asphalt concrete [stated recipe mix]
	(xxi) etc	=Dense asphalt concrete [stated design mix]
	(xxii) etc	=EME2 Asphalt concrete [stated mix]
	(xxiii) etc	=[stated type or material]
3* (05/09)	(i) etc	=Hot rolled asphalt [stated recipe mix]
	(ii) etc	=Hot rolled asphalt [performance related design mix]
	(iii)	=Stone mastic asphalt
	(iv) etc	=Dense asphalt concrete [stated recipe mix]
	(v) etc	=Dense asphalt concrete [stated design mix]
	(vi) etc	=EME2 Asphalt concrete [stated mix]
	(vii) etc	=[stated type or material]
4* (05/09)	(i) etc	=Hot rolled asphalt [stated design mix]
	(ii) etc	=Hot rolled asphalt [stated recipe mix]
	(iii) etc	=Hot rolled asphalt [performance related design mix]
	(iv)	=Close graded asphalt concrete
	(v)	=Open graded asphalt concrete
	(vi)	=Fine graded asphalt concrete
	(vii)	=Dense asphalt concrete
	(viii)	=Porous asphalt
	(ix)	=Thin
	(x) etc	=[stated type or material]
5*	(o)	=No entry
	(i)	=special permitted alternative design for concrete
	(ii)	=jointed reinforced concrete
	(iii)	=unreinforced concrete
	(iv)	=continuously reinforced concrete
6* (05/09)	(o)	=No entry
	(i)	=with 6 mm aggregate
	(ii)	=with 10 mm aggregate
	(iii)	=with 14 mm aggregate
	(iv)	=with 20 mm aggregate
	(v)	=with 32 mm aggregate
	(vi) etc	=with [stated size of aggregate]
7*	(o)	=No entry
	(i) etc	=[stated thickness]
8*	(i)	=in carriageway, hardshoulder and hardstrip
	(ii)	=in emergency crossing
	(iii)	=in lay-by and bus bay

9* (11/04)	(i)	=Cement bound granular mixture A
	(ii)	=Cement bound granular mixture B
	(iii)	=Cement bound granular mixture C
	(iv)	=Wet lean concrete 1
	(v)	=Wet lean concrete 2
	(vi)	=Wet lean concrete 3
	(vii)	=Wet lean concrete 4
	(viii) etc	=[stated type or material]
10* (05/09)	(i) etc	=Hot rolled asphalt [stated design mix]
	(ii) etc	=Hot rolled asphalt [stated recipe mix]
	(iii) etc	=Hot rolled asphalt [performance related design mix]
	(iv)	=Stone mastic asphalt
	(v)	=Dense asphalt concrete
	(vi)	=Close graded asphalt concrete
	(vii)	=Open graded asphalt concrete
	(viii)	=Fine graded asphalt concrete
	(ix) etc	=[stated type or material]
11* (05/02)	(o)	=No entry
	(i)	=lower base
	(ii)	=upper base
	(iii)	=base
	(iv)	=binder course
	(v)	=surface course
12*	(i)	=10mm
	(ii)	=14 mm
	(iii)	=20 mm
	(iv) etc	=[stated size]
13*	(o)	=No entry
	(i) etc	=[stated type, material or specification reference]
14*	(i)	=Milling
15*	(i) etc	=[stated depth or thickness]
16*	(i) etc	=[Unique type of pavement]
17*	(o)	=No entry
	(i) etc	=[stated rate of spread]
18*	(i) etc	=[unique type]

19*	(i)	=individual areas not exceeding 1 square metre on plan
	(ii) etc	=individual areas exceeding 1 square metre but not exceeding 2 square metres on plan (and so on in steps of 1 square metre)
20*	(i)	=individual lengths not exceeding 1 linear metre
	(ii) etc	=individual lengths exceeding 1 linear metre but not exceeding 2 linear metres (and so on in steps of 1 linear metre)
21*	(i)	=Repave
	(ii)	=Remix
	(iii)	=Remix/repave
22* (05/01)	(o)	=No entry
	(i)	=in overlay
23* (05/01)	(o)	=No entry
	(i)	=stated colour
24* (05/01)	(i)	=depth of cut not exceeding 50mm
	(ii) etc	=depth of cut exceeding 50mm but not exceeding 75mm (and so on in steps of 25mm)
25* (05/01)	(i) etc	=[stated thickness or depth]
26* (05/01)	(i)	=in unreinforced slabs
	(ii)	=in reinforced slabs
27* (05/01)	(i) etc	=[stated thickness]
28* (05/01)	(i)	=saw-cuts exceeding 50mm but not exceeding 70mm in depth
	(ii)	=saw-cuts exceeding 70mm but not exceeding 90mm in depth
	(iii) etc	=saw-cuts exceeding 90mm but not exceeding 110mm in depth (and so on in steps of 20mm)
29* (05/01)	(i)	=thickness not exceeding 50mm
	(ii)	=thickness exceeding 50mm but not exceeding 100mm
	(iii) etc	=thickness exceeding 100mm but not exceeding 150mm (and so on in steps of 50mm)
30* (05/02)	(i)	=jointed unreinforced concrete pavement
	(ii)	=CBM base

31* (05/01)	(i)	=transverse cracks exceeding 1.00 metre but not exceeding 2.00 metres centres
	(ii)	=transverse cracks exceeding 2.00 metres but not exceeding 3.00 metres centres
	(iii)	=transverse cracks exceeding 3.00 metres but not exceeding 4.00 metres centres
	(iv) etc	=transverse cracks exceeding 4.00 metres but not exceeding 6.00 metres centres (and so on in steps of 2.00 metres)
32* (05/01)	(i) etc	=[stated material]
33* (05/01)	(i) etc	=[stated location]
34* (05/01)	(i) etc	=[stated repair material or system]
35* (05/01)	(i)	=in areas not exceeding 5 square metres
	(ii)	=in areas exceeding 5 square metres but not exceeding 10 square metres
	(iii) etc	=in areas exceeding 10 square metres but not exceeding 15 square metres (and so on in steps of 5 square metres)
36* (05/01)	(i)	= crack exceeding 5 mm but not exceeding 10 mm wide
	(ii)	= crack exceeding 10 mm but not exceeding 15 mm wide
	(iii)	= crack exceeding 15 mm but not exceeding 20 mm wide
37* (05/01)	(i) etc	= [stated width of crack]

NATIONAL ALTERATIONS OF THE OVERSEEING ORGANISATION OF SCOTLAND

Group	*Variables*	
1* SO (11/04)	(i)	=Type 1 unbound mixture
	(ii)	=Type 2 unbound mixture
	(iii)	=Cement Bound granular mixture A
	(iv)	=Cement Bound granular mixture B
	(v)	=Cement Bound granular mixture C
	(vi)	=Wet lean concrete 1
	(vii)	=Wet lean concrete 2
	(viii)	=Wet lean concrete 3
	(ix)	=Wet lean concrete 4
	(x) SO	=Crushed Gravel Type 1
	(xi) etc	=[stated type or material]

NATIONAL ALTERATIONS OF THE OVERSEEING ORGANISATION OF NORTHERN IRELAND

Group	*Variables*	
1* NI (11/04)	(i)	=Type 1 unbound mixture
	(ii)	=Type 2 unbound mixture
	(iii)	=Cement Bound granular mixture A
	(iv)	=Cement Bound granular mixture A
	(v)	=Cement Bound granular mixture A
	(vi)	=Wet lean concrete 1
	(vii)	=Wet lean concrete 2
	(viii)	=Wet lean concrete 3
	(ix)	=Wet lean concrete 4
	(x) NI	=Granular Type 3
	(xi) etc	=[stated type or material]

Series 800 is not taken up

Series 900 is not taken up

Series 1000 is not taken up

Series 1100: Kerbs, Footways and Paved Areas

Item	*Root Narrative*	*Unit*
	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems (05/01)	
1	Permitted alternative 3*1*4*	m
2	2*3*1*4*	m
	Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems (05/01)	
3	Additional 18* for 1*2*3*	m^3
	Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems (05/01)	
4	Remove from store and relay 2*3*1*4*	m
	Footways and Paved Areas	
5	19* specified design group 1*10* thick 15*11*	m^2
6	19* comprising 5* sub-base 10* thick 6*8*10* thick 7*8*10* thick with surface dressing 9*15*11*	m^2
7	10*18*19* on 5* sub-base 10* thick 15*11*	m^2
8	13*12* in 19* on 5* sub-base 10* thick and 14* bedding 15*11*	m^2
9	16* regulating course	m^3
10	17*8* regulating course	t

Remove from Store and Relay Paving Flags, Slabs and Blocks (05/01)

11	Remove from store and relay 13*12* in 19* on 5* sub-base 10* thick and 14* bedding 15*11*	m^2

Steps

12	Flight of steps 20*	no

Remove from Store and Re-erect Street Furniture (05/05)

13	(05/05) Remove from store and re-erect street furniture 21*	no

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Group	*Variables*	
1*	(o)	=No entry
	(i) etc	=[stated Group, Type or Design]
2*	(o)	=No entry
	(i)	=precast concrete
	(ii)	=in situ unreinforced concrete grade [direct entry]
	(iii)	=in situ reinforced concrete grade [direct entry]
	(iv)	=in situ asphalt
	(v)	=granite
	(vi)	=granite sett
	(vii) etc	=[stated material]
3*(05/01)	(i)	=kerb(s)
	(ii)	=channel(s)
	(iii)	=edging(s)
	(iv)	=combined drainage and kerb blocks
	(v)	=linear drainage channel systems
4*	(i)	=laid straight or curved exceeding 12 metres radius
	(ii)	=laid to curves not exceeding 12 metres radius
5* (11/04)	(o)	=No entry
	(i)	=Type 1 unbound mixture
	(ii)	=Type 2 unbound mixture
	(iii)	=cement bound granular mixture A
	(iv)	=cement bound granular mixture B
	(v)	=cement bound granular mixture C
	(vi)	=wet lean concrete 1
	(vii)	=wet lean concrete 2
	(viii)	=wet lean concrete 3
	(ix)	=wet lean concrete 4
	(x) etc	=[stated type or material]

6* (11/04)	(i)	=heavy duty macadam (HDM50) binder course
	(ii)	=dense macadam binder course
	(iii)	=rolled asphalt binder course
	(iv)	=dense bitumen macadam (DBM50) binder course
	(v) etc	=[stated material]
7* (05/02)	(i) etc	=rolled asphalt [stated design mix] surface course
	(ii) etc	=rolled asphalt [stated recipe mix] surface course
	(iii)	=close graded macadam surface course
	(iv)	=dense macadam surface course
	(v)	=open graded macadam surface course
	(vi)	=fine graded macadam surface course
	(vii) etc	=[stated material]
8*	(o)	=No entry
	(i)	=with 10 mm aggregate
	(ii)	=with 14 mm aggregate
	(iii)	=with 20 mm aggregate
	(iv)	=with 28 mm aggregate
	(v)	=with 40 mm aggregate
	(vi) etc	=with [stated size of aggregate]
9*	(o)	=No entry
	(i) etc	=[stated type]
10*	(i) etc	=[stated thickness in mm]
11*	(o)	=No entry
	(i)	=as cycle track
	(ii)	=as police observation platform
	(iii)	=as hardened central reserve
	(iv)	=beneath structures
	(v) etc	=[other]
12*	(o)	=No entry
	(i)	=precast concrete slabs
	(ii)	=stone paving flags
	(iii)	=concrete block paving
	(iv)	=clay block paving
	(v)	=cobble paving
	(vi)	=brick paving
	(vii)	=granite sett paving
	(viii)	=grass/concrete paving
	(ix) etc	=[stated type]

13*	(o)	=No entry
	(i) etc	=[stated size and thickness reference]
14*	(o)	=No entry
	(i)	=mortar
	(ii)	=fine aggregate to BS 882 Grading C
	(iii)	=fine aggregate to BS 882 Grading M
	(iv) etc	=[stated material]
15*	(o)	=No entry
	(i)	=surfaces sloping at 10° or less to the horizontal
	(ii)	=surfaces sloping at more than 10° to the horizontal
16* (11/04)	(i)	=Cement bound granular mixture A
	(ii)	=Cement bound granular mixture B
	(iii)	=Cement bound granular mixture C
	(iv)	=Wet lean concrete 1
	(v)	=Wet lean concrete 2
	(vi)	=Wet lean concrete 3
	(vii)	=Wet lean concrete 4
	(viii) etc	=[stated type or material]
17* (11/04)	(i) etc	=Rolled asphalt [stated design mix]
	(ii) etc	=Rolled asphalt [stated recipe mix]
	(iii)	=Dense bitumen macadam (DBM50)
	(iv)	=Close graded macadam
	(v)	=Open graded macadam
	(vi)	=Fine graded macadam
	(vii)	=Bitumen macadam
	(viii)	=Heavy duty macadam (HDM50)
	(ix) etc	=[stated type or material]
18*	(i) etc	=in situ concrete mix [direct entry]
19*	(i)	=Footway
	(ii)	=Paved area
20*	(i) etc	=[stated location reference]
21* (05/05)	(i) etc	=[stated type]

Series 1200: Traffic Signs and Road Markings

Item	*Root Narrative*	*Unit*
	Traffic Signs	
1	1*2* traffic sign to 4*3*5* in area on 6*7*	no
	Remove from Store and Re-erect Traffic Signs	
2	Remove from store and re-erect 2* traffic sign to 4*3* 5* in area on 6*7*	no
	Road Markings	
3	8* solid area in 17*9*10*	m^2
4	8* continuous line in 17*9*10*11* wide	m
5	8* intermittent line in 17*9*10*11* wide with 11* line and 11* gap	m
6	8* ancillary line 17*9*10*11* wide 12*	m
7	8* raised rib lines in 17*9*10*11* with ribs at 11* centres	m
8	8* triangle in 17*9*10* to 4*	no
9	8* circle with enclosing arrows in 17*9*10*11* diameter to 4*	no
10	8* arrow in 17*9*10*11* long 13* to 4*	no
11	8* kerb marking in 17*9*10*11* long to 4*	no
12	8* letters in 17*9*10*11* high	no
13	8* numerals in 17*9*10*11* high	no
14	8* symbols in 17*9*10*14* to 4*	no
	Road Studs (05/01)	
15	14*15*16* road stud with 17*18* reflectors	no

Remove from Store and Re-install Road Studs (05/01)

16	Remove from store and re-install 14*15*16* road stud with 17*18* reflectors	no

Traffic Signal Installations (05/01)

17	1* traffic signal installation at 21*	item

Controlled and Uncontrolled Crossings

18	1* controlled crossing at 21*	item
19	1* uncontrolled crossing at 21*	item

Marker Posts

20	19* marker post 20*	no

Permanent Bollards

21	Permanent bollard 22*23*24*	no

Node Markers

22	25* node marker 26*	no

Group	*Variables*	
1*	(o)	=No entry
	(i)	=Permanent
	(ii)	=Prescribed temporary
2*	(o)	=No entry
	(i)	=retroreflective
	(ii)	=non-retroreflective
	(iii)	=enhanced retroreflective
3*	(o)	=No entry
	(i)	=as Lit Sign Unit
	(ii)	=as non-Lit Sign Unit
4*	(o)	=No entry
	(i) etc	=[stated Traffic Signs Regulations and General Directions Diagram Number]
	(ii) etc	=[stated authorised sign number]
5*	(i)	=sign face not exceeding 0.25 square metre
	(ii)	=sign face exceeding 0.25 square metre but not exceeding 0.50 square metre
	(iii)	=sign face exceeding 0.5 square metre but not exceeding 0.75 square metre
	(iv)	=sign face exceeding 0.75 square metre but not exceeding 1 square metre
	(v)	=sign face exceeding 1 square metre but not exceeding 2 square metres
	(vi)	=sign face exceeding 2 square metres but not exceeding 3 square metres
	(vii) etc	=sign face exceeding 3 square metres but not exceeding 4 square metres (and so on in steps of 1 square metre)
6*	(o)	=No entry
	(i)	=existing
	(ii)	=one
	(iii)	=two
	(iv)	=three
	(v)	=four
7*	(i)	=timber supporting post(s)
	(ii)	=reinforced concrete post(s)
	(iii)	=prestressed concrete post(s)
	(iv)	=rectangular steel post(s)
	(v)	=tubular steel post(s)
	(vi)	=rectangular aluminium post(s)
	(vii)	=tubular aluminium post(s)
	(viii)	=bridge superstructure

	(ix)	=building
	(x)	=gantry
	(xi)	=lighting column
8*	(o)	=No entry
	(i)	=Removal of
9*(05/01)	(i)	=thermoplastic screed
	(ii)	=thermoplastic spray
	(iii)	=thermoplastic extrusion
	(iv)	=road marking paint
	(v)	=preformed material
	(vi) etc	=[stated material]
10*	(o)	=No entry
	(i)	=with applied solid glass beads
11*	(i) etc	=[stated width, length or diameter]
12*	(i)	=in zigzags
	(ii)	=in hatched areas
	(iii)	=in chevrons
	(iv)	=in boxed areas
13*	(i)	=straight
	(ii)	=curved
	(iii)	=turning
	(iv)	=double headed
	(v) etc	=[stated Type]
14*	(o)	=No entry
	(i) etc	=[stated size]
15*	(o)	=No entry
	(i)	=square
	(ii)	=circular
	(iii)	=rectangular
16*	(o)	=No entry
	(i)	=one way
	(ii)	=bi-directional
	(iii) etc	=[stated Type]

17*(05/01)	(o)	=No entry
	(i)	=yellow
	(ii)	=white
	(iii)	=red
	(iv)	=green
	(v)	=amber
	(vi)	=green/yellow
18*	(o)	=No entry
	(i)	=corner cube
	(ii)	=bi-convex lens
19*	(i)	=timber
	(ii)	=glass reinforced plastic
	(iii) etc	=[stated material]
20*	(i)	=Type 1
	(ii)	=Type 2
	(iii)	=Type 3
	(iv)	=Type 4
	(v)	=Type 5
	(vi)	=Type 6
	(vii)	=Type 7
	(viii)	=Type 8
	(ix)	=Type 9
21*	(i) etc	=[stated location reference]
22*	(i)	=internally illuminated
	(ii)	=non-illuminated
23*	(i) etc	=[stated Type]
24*	(o)	=No entry
	(i) etc	=[stated size]
25*	(i)	=cored thermoplastic
	(ii) etc	=[stated Type]
26*	(i) etc	=[stated diameter]

Series 1300: Road Lighting Columns and Brackets, CCTV Masts and Cantilever Masts (11/03)

Item	*Root Narrative*	*Unit*
	Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts (11/03)	
1	1* road lighting column of 3*2* and 4*5* with 6*7*8*9*	no
2	10*11* wall mounting 2*4*5* with 6*7*8*9*	no
3	(11/03) CCTV mast of 13*2*	no
4	(11/03) Cantilever mast 12*2* of 14*15*	no
	Remove from Store and Re-erect Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts (11/03)	
5	Re-erection of 1* road lighting column of 3*2* and 4*5* with 6*7*8*9*	no
6	Re-erection of 10*11* wall mounting 2*4*5* with 6*7*8*9*	no
7	(11/03) Re-erection of CCTV mast of 13*2*	no
8	(11/03) Re-erection of cantilever mast of 12*2* of 14*15*	no

Group	*Variables*	
1*	(o)	=No entry
	(i)	=steel
	(ii)	=prestressed concrete
	(iii)	=reinforced concrete
	(iv)	=aluminium
	(v)	=cast iron
	(vi)	=glass fibre reinforced plastic
	(vii) etc	=[stated material]
2*	(o)	=No entry
	(i)	=with planted base
	(ii)	=with flange plate base
	(iii) etc	=[stated Type]

3*	(i)	=5 m nominal height
	(ii)	=6 m nominal height
	(iii)	=8 m nominal height
	(iv)	=10 m nominal height
	(v)	=12 m nominal height
	(vi)	=18 m nominal height
	(vii)	=20 m nominal height
	(viii) etc	=[stated height]
4*	(o)	=No entry
	(i)	=with single bracket arm
	(ii)	=with double bracket arm, each arm
	(iii) etc	=[stated Type]
5*	(o)	=No entry
	(i)	=having a projection of 0.5 m
	(ii)	=having a projection of 1.0 m
	(iii)	=having a projection of 1.5 m
	(iv)	=having a projection of 2.0 m
	(v)	=having a projection of 2.5 m
	(vi)	=having a projection of 3.0 m
	(vii) etc	=[stated projection]
6*	(i)	=a luminaire unit
	(ii)	=a non cut off luminaire
	(iii)	=a semi cut off luminaire
	(iv)	=a cut off luminaire
	(v)	=a subway lighting unit
	(vi)	=a floodlight
	(vii) etc	=[stated Type]
7*	(o)	=No entry
	(i)	=incorporating a 35 w SOX lamp
	(ii)	=incorporating a 55 w SOX lamp
	(iii)	=incorporating a 90 w SOX lamp
	(iv)	=incorporating a 135 w SOX lamp
	(v)	=incorporating a 180 w SOX lamp
	(vi) etc	=[stated Type]
8*	(o)	=No entry
	(i)	=incorporating a low pressure sodium lamp to provide not less than 2000 lumens in the lower hemisphere
	(ii)	=incorporating a low pressure sodium lamp to provide not less than 7200 lumens in the lower hemisphere
	(iii)	=incorporating a low pressure sodium lamp to provide not less than 12,000 lumens in the lower hemisphere
	(iv)	=incorporating a low pressure sodium lamp to provide not less than 20,000 lumens in the lower hemisphere
	(v) etc	=[stated lighting intensity]

9*	(o)	=No entry
	(i)	=and photo-electric control set to switch on at 70 lux
	(ii)	=and photo-electric control set to switch on at 100 lux
	(iii)	=and photo-electric control set to switch on at 120 lux
	(iv)	=and one part photo-electric control unit for luminaire
	(v)	=and one part dummy photo-electric control unit for luminaire
	(vi)	=and two part photo-electric control unit for luminaire
	(vii) etc	=[stated photo-electric control]
10*	(o)	=No entry
	(i) etc	=[stated Type]
11*	(o)	=No entry
	(i)	=surface mounted
	(ii)	=recessed
12* (11/03)	(i)	=for traffic signals
	(ii)	=for speed cameras
	(iii) etc	=[stated Type]
13* (11/03)	(i)	=25 m nominal height
	(ii) etc	=[stated height]
14* (11/03)	(i)	=5 m nominal height
	(ii)	=6 m nominal height
	(iii)	=8.5 m nominal height
	(iv) etc	=[stated height]
15* (11/03)	(i)	=having a projection of 8.5 m
	(ii) etc	=[stated projection]

Series 1400: Electrical Work for Road Lighting and Traffic Signs

Item	*Root Narrative*	*Unit*
	Locating Buried Road Lighting and Traffic Signs Cable	
1	Locating buried road lighting and traffic signs cable in 1*	m
	Trench for Cable or Duct (05/01)	
2	(05/01) Trench 2*3* wide 4* in 1*	m
	Cable and Duct (05/01)	
3	(05/05) 5*6* cable 7*8* laid in trench 4*	m
4	(05/05) 5*6* cable 7*8*22*	m
5	(05/05) 20* 19* diameter duct specified design 12* in trench 4*	m
6	(05/05) 20* 19* diameter duct specified design 12* 22*	m
7	(05/05) 20* 19* diameter 17*18* duct in trench 4*	m
8	(05/05) 20* 19* diameter 17*18* duct 22*	m
	Cable Joints and Terminations	
9	(05/05) 9*5*6* cable with 5*6* cable	no
10	(05/05) 10* termination to 5*6* cable in 11*	no
	Feeder Pillars	
11	(05/05) 12* feeder pillar 8*	no
	Earth Electrodes	
12	(05/05) Earth electrodes 12*13*	no

Chambers

13	(05/05) Chamber specified design group 14* with 15* and frame depth to uppermost surface of base slab 21*	no
14	(05/05) 16* chamber 12* with 15* and frame depth to uppermost surface of base slab 21*	no

Remove from Store and Re-erect Feeder Pillars (05/05)

15	(05/05) Remove from store and re-erect feeder pillars 12*	no

Group	*Variables*	
1*(05/01)	(i)	=carriageways, footways, bridge decks and paved areas
	(ii)	=verges and central reserves
	(iii)	=side slopes of cuttings or side slopes of embankments
	(iv) etc	=[other stated location]
2*	(i)	=for cable
	(ii)	=for duct
3*	(i)	=not exceeding 300 mm
	(ii)	=exceeding 300 mm but not exceeding 450 mm
	(iii)	=exceeding 450 mm but not exceeding 600 mm
	(iv)	=exceeding 600 mm but not exceeding 750 mm
	(v)	=exceeding 750 mm but not exceeding 900 mm
	(vi) etc	=[stated width]
4*	(i)	=depth not exceeding 1.5 metres
	(ii) etc	=depth exceeding 1.5 metres but not exceeding 2.0 metres (and so on in steps of 0.5 metres)
5*	(i)	=6 mm^2
	(ii)	=10 mm^2
	(iii)	=16 mm^2
	(iv)	=25 mm^2
	(v)	=35 mm^2
	(vi)	=50 mm^2
	(vii)	=70 mm^2
	(viii)	=95 mm^2
	(ix)	=120 mm^2
	(x)	=150 mm^2
	(xi)	=185 mm^2
	(xii) etc	=[stated size]

6*	(i)	=2 core PVC/SWA/PVC
	(ii)	=3 core PVC/SWA/PVC
	(iii)	=2 core PVC/ASA/PVC
	(iv)	=3 core PVC/ASA/PVC
	(v)	=2 core XLPE/SWA/XLPE
	(vi)	=3 core XLPE/SWA/XLPE
	(vii)	=2 core XLPE/ASA/XLPE
	(viii)	=3 core XLPE/ASA/XLPE
	(ix)	=2 core XLPE/SWA/MDPE
	(x)	=3 core XLPE/SWA/MDPE
	(xi)	=2 core XLPE/ASA/MDPE
	(xii)	=3 core XLPE/ASA/MDPE
	(xiii)	=2 core and earth
	(xiv)	=split concentric
	(xv) etc	=[stated Type]
7*	(o)	=No entry
	(i)	=with copper conductors
	(ii)	=with aluminium conductors
8*	(o)	=No entry
	(i)	=supplied by the Overseeing Organisation
9*	(i)	=Straight joint
	(ii)	=Tee joint
	(iii)	=Breeches joint
	(iv) etc	=[stated Type]
10*	(i)	=Single way cut out
	(ii)	=2 way cut out
	(iii)	=3 way cut out
	(iv)	=Looped
	(v) etc	=[stated Type]
11*	(i)	=Lit Sign Unit
	(ii)	=traffic signals installation control unit
	(iii)	=pedestrian crossing control unit
	(iv)	=road lighting column
	(v)	=wall mounting
	(vi)	=subway distribution box
	(vii)	=gantry distribution box
	(viii)	=feeder pillar
	(ix) etc	=[stated Unit]
12*	(i) etc	=[stated Type]
13*	(i) etc	=[stated size]

14*(05/01)	(i)	=Type 1
	(ii)	=Type 2
	(iii)	=Type 3
	(iv)	=Type 4
	(v)	=Type 5
	(vi)	=Type 6
	(vii)	=Type 7
	(viii)	=Type 8
	(ix) etc	=[stated group or Type]
15*(05/01)	(i) etc	=[stated Type of cover]
	(ii) etc	=[stated Type of grating]
16*(05/01)	(o)	=No entry
	(i)	=Brick
	(ii)	=Precast concrete
17*(05/01)	(o)	=No entry
	(i)	=Type A
	(ii)	=Type B
18*(05/01)	(o)	=No entry
	(i)	=Clay
	(ii)	=UPVC
	(iii)	=Ductile iron
	(iv) etc	=[other stated]
19*(05/01)	(i)	=[Stated diameter of duct]
20*(05/01)	(i)	=[Stated number of ducts]
21*(05/01)	(i)	=not exceeding 1 metre
	(ii)	=exceeding 1 metre but not exceeding 2 metres (and so on in steps of 1 metre)
22*(05/05)	(i)	=No entry =in duct =fixed above ground

Series 1500: Motorway Communications

Item	*Root Narrative*	*Unit*
	Locating Buried Communications Cable	
1	Locating buried communications cable in 1*	m
	Trench for Communications Cable or Duct (05/01)	
2	(05/01) Trench for communications 2*3* wide depth 4* in 1*	m
	Communications Cable and Communications Duct (05/01)	
3	(05/05) 5*6*7*8* communications cable 18* laid in trench depth 4*	m
4	(05/05) 5*6*7*8* communications cable 18*36*	m
5	(05/05) 35*33* diameter communications duct specified design 26* in trench depth 4* 31*	m
6	(05/05) 35*33* diameter communications duct specified design 26*36*31*	m
7	(05/05) 35*33* diameter 32* communications duct in trench depth 4*31*	m
8	(05/05) 35*33* diameter 32* communications duct 36*31*	m
	Communications Cable Joints and Terminations	
9	(05/05) 9*5*6*7*8* cable with 5*6*7*8* cable	no
10	(05/05) 9*5*6*7*8* cable with 5*6*7*8* cable and 5*6*7*8* cable	no
11	(05/05) Termination of 5*6*7*8* cable to 10* in 11*	no
	Communications Equipment	
12	(05/05) 14*18*24* on/in 13*18*24* including 12*17*24*	no
13	(05/05) 15*18*24* on/in 16*18*24* and 14*18*24* on/in 13*18*17*24*	no

Remove from Store and Re-install Communications Cabling and Equipment

14	(05/05) 19*5*6*7*8* communications cable 18*	m
15	(05/05) 19*14*18* on/in 13*18*19* including 12*17*	no
16	(05/05) 19*15*18* on/in 16*18*19* and 14*18*19* on/in 13*18*19*17*	no

Loop Detector Installations

17	(05/05) Loop detector installation 20*21* in 22*17*	no

Site Records

18	(05/05) Site records	Item

Stage 2 Commissioning of Cable

19	(05/05) Stage 2 commissioning of 5*6*7*8*23*	Item

Modifications to Existing Communications Equipment

20	(05/05) 25*14*24* on/in 13*24* including 12*24*17*	Item

Chambers

21	(05/05) Chamber specified design group 28* with 29* and frame depth to uppermost surface of base slab 34*	no
22	(05/05) 30* chamber with 29* and frame depth to uppermost surface of base slab 34*	no

Group	*Variables*	
1* (05/01)	(i)	=carriageways, footways, bridge decks and paved areas
	(ii)	=verges and central reserves
	(iii)	=side slopes of cuttings or side slopes of embankments
	(iv) etc	=[other stated location]
2*	(i)	=cable
	(ii)	=duct
3*	(i)	=not exceeding 300 mm
	(ii)	=exceeding 300 mm but not exceeding 450 mm
	(iii)	=exceeding 450 mm but not exceeding 600 mm
	(iv)	=exceeding 600 mm but not exceeding 750 mm
	(v)	=exceeding 750 mm but not exceeding 900 mm
	(vi) etc	=[stated width]
4*	(i)	=not exceeding 1.5 metres
	(ii) etc	=exceeding 1.5 metres but not exceeding 2.0 metres (and so on in steps of 0.5 metres)
5*	(o)	=No entry
	(i)	=0.9mm dia
	(ii)	=2.5mm^2
	(iii)	=6mm^2
	(iv)	=10mm^2
	(v)	=16mm^2
	(vi)	=25mm^2
	(vii)	=50 ohms
	(viii)	=75 ohms
	(ix) etc	=[stated Type]
6*	(o)	=No entry
	(i)	=single core
	(ii)	=2 core
	(iii)	=3 core
	(iv)	=1 pair
	(v)	=2 pair
	(vi)	=6 pair
	(vii)	=8 pair
	(viii)	=12 pair
	(ix)	=20 pair
	(x)	=24 pair
	(xi)	=30 pair
	(xii)	=2 core/3 pair/8 multi mode
	(xiii)	=2 core/8 pair/8 mono mode
	(xiv)	=Coaxial with 21 core
	(xv)	=Coaxial with 35 core
	(xvi) etc	=[stated Type]

7*	(o)	=No entry
	(i)	=PVC/SWA/PVA
	(ii)	=PVC/ASA/PVC
	(iii)	=double insulated
	(iv)	=split concentric
	(v)	=coaxial
	(vi)	=communications
	(vii)	=telephone
	(viii)	=fibre optic
	(ix)	=composite copper/fibre optic
	(x)	=interrupter
	(xi)	=loop detector feeder
	(xii) etc	=[stated Type]
8*	(o)	=No entry
	(i)	=armoured
9*	(i)	=straight joint
	(ii)	=straight joint in loop detector chamber, box or pit
	(iii)	=tee joint
	(iv)	=breeches joint
	(v)	=breeches joint in loop detector chamber, box or pit
	(vi) etc	=[stated Type]
10*	(i)	=Electricity suppliers interface
	(ii)	=British Telecom interface
	(iii)	=Telephone
	(iv)	=Responder
	(v)	=Signal
	(vi)	=Loop detectors
	(vii)	=Basic Network cable
	(viii)	=Fibre optic cable
	(ix)	=Variable message sign responder
	(x)	=Lighting control
	(xi)	=Meteorological equipment
	(xii)	=Telephone bridge unit
	(xiii)	=CCTV
	(xiv)	=Video amplifier
	(xv)	=Carrier
	(xvi)	=Meteorological equipment
	(xvii)	=Telephone responder
	(xviii)	=Signal transponder
	(xix)	=ATS transponder
	(xx)	=VMS transponder
	(xxi) etc	=[stated Type]
11*	(i)	=gantry distribution box Type [direct entry]
	(ii)	=feeder pillar Type [direct entry]
	(iii)	=cabinet Type [direct entry]
	(iv)	=telephone Type [direct entry]
	(v)	=signal post distributor box Type [direct entry]
	(vi)	=gantry distribution unit Type [direct entry]

	(vii)	=camera pole
	(viii)	=box Type [direct entry]
	(ix)	=sign lighting control and distribution cabinet
	(x)	=connection box
	(xi) etc	=[stated Type]
12*	(o)	=No entry
	(i)	=paved area and footing
	(ii)	=footing
	(iii)	=paved area
	(iv)	=base and footing
	(v)	=plinth and skirt Type [direct entry] supplied by the Overseeing Organisation
	(vi)	=paved area and base
	(vii)	=paved area, plinth and skirt Type [direct entry] supplied by the Overseeing Organisation
	(viii) etc	=[stated Type]
13*	(o)	=No entry
	(i)	=CCTV camera pole
	(ii)	=lighting column
	(iii)	=fibre optic cabinet
	(iv)	=telephone post Type [direct entry]
	(v)	=post Type [direct entry]
	(vi)	=post Type [direct entry] with post extension
	(vii)	=housing Type [direct entry]
	(viii)	=Motorwarn post and backing board
	(ix)	=cabinet Type [direct entry]
	(x)	=transmission station building
	(xi) etc	=[stated Type]
14*	(o)	=No entry
	(i)	=One way signal Type [direct entry]
	(ii)	=Two way signal Type [direct entry]
	(iii)	=Signal Type [direct entry] for [direct entry] lane(s)
	(iv)	=Signal Type [direct entry]
	(v)	=Variable message sign (VMS)
	(vi)	=Meteorological equipment
	(vii)	=Telephone Type [direct entry] in housing Type [direct entry]
	(viii)	=Motorwarn equipment Type [direct entry]
	(ix)	=CCTV camera with pan and tilt head
	(x)	=CCTV camera with fixed bracket
	(xi)	=Connector box
	(xii)	=Box Type [direct entry]
	(xiii)	=Additional box Type [direct entry]
	(xiv)	=Power distribution unit (PDU)
	(xv)	=Power distribution unit and heater
	(xvi) etc	=[stated Type]

15*	(o)	=No entry
	(i)	=detector unit for [direct entry of number] road loop(s)
	(ii)	=video launch amplifier
	(iii)	=video intermediate amplifier
	(iv)	=2 video intermediate amplifiers
	(v)	=video terminal amplifier
	(vi)	=video coaxial amplifier
	(vii)	=Type [direct entry] cabinet
	(viii)	=capacitors and tag strip
	(ix)	=multiway terminal connectors
	(x) etc	=[stated Type]
16*	(o)	=No entry
	(i)	=British Telecom interface
	(ii)	=Electricity suppliers interface
	(iii)	=local power cabinet equipment
	(iv)	=loading frame Type [direct entry]
	(v)	=lighting control
	(vi)	=responder Type [direct entry]
	(vii)	=telephone bridge unit
	(viii)	=signal transponder
	(ix)	=ATS transponder
	(x)	=VMS transponder
	(xi)	=MET transponder
	(xii)	=telephone responder
	(xiii)	=CCTV camera control equipment
	(xiv)	=new empty 19" rack
	(xv)	=existing 19" rack
	(xvi)	=transmission rack 2400 series
	(xvii)	=fibre optic transmission
	(xviii) etc	=[stated equipment]
17*	(o)	=No entry
	(i) etc	=[stated location reference]
18*	(o)	=No entry
	(i)	=supplied by the Overseeing Organisation
19*	(i)	=Remove from store and re-install
	(ii)	=Removed from store and re-installed
20*	(i)	=Type 1 single lane
	(ii)	=Type 2 double lane
	(iii)	=Type 3 three lane
	(iv)	=Type 4 four lane
	(v)	=Type 5 five lane
	(vi)	=Type 6 six lane
	(vii) etc	=[stated Type]

21*	(o)	=No entry
	(i)	=and hard shoulder
22*	(o)	=No entry
	(i)	=existing pavement
23*	(i) etc	=[stated section]
24*	(o)	=No entry
	(i) etc	=[stated size]
25*	(o)	=No entry
	(i)	=Modification to
26*	(i) etc	=[stated Type for duct]
27*(05/01)	*Not used	
28*	(i)	=Type 1
	(ii)	=Type 2
	(iii)	=Type 3
	(iv)	=Type 4
	(v)	=Type 5
	(vi)	=Type 6
	(vii)	=Type 7
	(viii)	=Type 8
	(ix) etc	=[stated group or Type]
29*	(i) etc	=[stated Type of cover]
	(ii) etc	=[stated Type of grating]
30*	(i)	=Brick
	(ii)	=Pre-cast concrete
	(iii) etc	=[stated Type]
31*	(o)	=No entry
	(i)	=in side slopes of cuttings or side slopes of embankments
32*	(i)	=vitrified clay - standard strength
	(ii)	=vitrified clay - extra strength
	(iii)	=vitrified clay - super strength
	(iv)	=vitrified clay - higher strength
	(v)	=vitrified clay - perforated
	(vi)	=concrete strength Class L
	(vii)	=concrete strength Class M

	(viii)	=concrete strength Class H
	(ix)	=concrete strengthened by glass fibre rovings or galvanised steel fibres
	(x)	=concrete - perforated
	(xi)	=concrete - porous
	(xii)	=concrete - standard
	(xiii)	=asbestos cement Class L
	(xiv)	=asbestos cement Class M
	(xv)	=asbestos cement Class H
	(xvi)	=plastic - glass reinforced
	(xvii)	=iron - ductile Class K9
	(xviii)	=UPVC
	(xix)	=UPVC - perforated or slotted
	(xx)	=plastic
	(xxi)	=plastic - perforated
	(xxii)	=corrugated steel
	(xxiii)	=vitrified clay
	(xxiv)	=ductile cast iron
	(xxv)	=ultrarib
	(xxvi) etc	=[stated Type]
33*(05/01)	(i)	=[stated diameter of duct]
34*	(i)	=not exceeding 1 metre
	(ii)	=exceeding 1 metre but not exceeding 2 metres (and so on in steps of 1 metre)
35*(05/01)	(i)	=[stated number of ducts]
36*(05/05)	(i)	=No entry =laid in duct =fixed above ground

Series 1600: Piling and Embedded Retaining Walls

Item	*Root Narrative*	*Unit*
	Piling Plant	
1	Establishment of piling plant for 4*7*1*2*15*	item
2	Moving piling plant for 4*7*1*2*15*	no
	Precast Concrete Piles	
3	3*4* precast concrete piles 16*5* in length 2*	m
4	Driving 6*3*4* precast concrete piles 5* in length 2*	m
5	Lengthening 6*3*4* precast concrete piles 16*5* in length 2*	m
6	Driving lengthened 6*3*4* precast concrete piles 5* in length 2*	m
7	Stripping 6*3*4* precast concrete pile heads 2*	no
	Cast-in-place Piles	
8	6*7* cast-in-place piles 16*3*5* in length 2*	m
9	6*7* empty bores 2*	m
10	Enlarged base to 7* cast-in-place piles 2*	no
	Reinforcement for Cast-in-place Piles	
11	8* steel bar reinforcement nominal size 9*10* in length	t
12	8* steel helical reinforcement nominal size 9*	t
	Steel Bearing Piles	
13	3* steel bearing piles 5* in length 2*	m
14	3* lengthening pieces for steel bearing piles 5* in length 2*	m
15	Driving 6*3* steel bearing piles 5* in length 2*	m
16	Driving lengthened 6*3* steel bearing piles 5* in length 2*	m
17	Welding on lengthening pieces to 6*3* steel bearing piles 2*	no
18	Cutting or burning off surplus length of 6*3* steel bearing piles 2*	no

Proof Loading of Piles

19	Establishment of proof loading equipment for piles 1*2*	item
20	Proof loading of 6*3*1* with 17*2*	no

Steel Sheet Piles

21	3* steel sheet piles 5* in length 11*	m^2
22	3* steel sheet piles lengthening piece 5* in length 11*	m^2
23	Extra over 3* steel sheet piles 5* in length 11* for 12*3*	m
24	Extra over 3* steel sheet piles lengthening pieces 5* in length 11* for 12*3*	m
25	Driving 3* steel sheet piles 5* in length 11*	m^2
26	Driving lengthened 3* steel sheet piles 5* in length 11*	m^2
27	Extra over driving 3* steel sheet piles 5* in length 11* for driving 12*3*	m
28	Extra over driving lengthened 3* steel sheet piles 5* in length 11* for driving 12*3*	m
29	Welding on lengthening piece to 3* steel sheet piles 11*	m
30	Cutting or burning off surplus length of 3* steel sheet piles 11*	m
31	3* walings	t
32	3* tie rods	t

Embedded Retaining Wall Plant

33	Establishment of 18* plant 15*	item

Diaphragm Walls

34	Diaphragm wall 13*14*	m^2
35	Empty excavation 13*14*	m^2

Secant Pile Walls

36	19* secant pile wall with 7* piles 20*14*	m^2
37	Empty bore 7* 20* 14*	m^2

Contiguous Bored Pile Walls

38	Contiguous bored pile walls with 7* piles 21*14*	m^2
39	Empty bores 7* 21* 14*	m^2

Reinforcement for Embedded Retaining Walls

40	8* steel bar reinforcement nominal size 9*10* in length	t
41	8* rolled sections as reinforcement size 10* in length	t

King Post Wall Plant

42	Establishment of piling plant for 7* 22* 15*	item
43	Moving piling plant for 7* 22* 15*	no

King Posts

44	6* 7* cast-in-place king post piles 16* 3* 5* in length	m
45	6* 7* king post empty bores	m

Reinforcement for King Post Piles

46	8* steel bar reinforcement size 9* 10* in length	t
47	8* rolled section members size 10* in length	t
48	3* precast concrete members size 10* in length	m

King Post Walling

49	3* king post walling 13*	m^2

Group *Variables*

1* (i) =precast reinforced and prestressed concrete piles
(ii) =precast reinforced concrete segmental piles
(iii) =bored cast-in-place piles
(iv) =bored piles constructed using continuous flight auger and concrete or grout through hollow auger stems
(v) =driven cast-in-place piles
(vi) =steel bearing piles
(vii) =steel sheet piles

2* (i) =in preliminary piling as a separate operation in advance of main piling
(ii) =in main piling

3* (o) =No entry
(i) etc =[stated Type]

4* (o) =No entry
(i) =300 x 300 mm
(ii) =350 x 350 mm
(iii) =400 x 400 mm
(iv) =450 x 450 mm
(v) =500 x 500 mm
(vi) =550 x 550 mm
(vii) =600 x 600 mm
(viii) etc =[stated size or cross-section]

5* (i) =not exceeding 5 metres
(ii) =exceeding 5 metres but not exceeding 10 metres
(iii) = exceeding 10 metres but not exceeding 15 metres
(iv) etc =exceeding 15 metres but not exceeding 20 metres (and so on in steps of 5 metres)

6* (i) =vertical
(ii) =raking

7* (o) =No entry
(i) =300 mm diameter
(ii) =350 mm diameter
(iii) =400 mm diameter
(iv) =450 mm diameter
(v) =500 mm diameter
(vi) =550 mm diameter
(vii) =600 mm diameter
(viii) =750 mm diameter
(ix) =900 mm diameter
(x) =1050 mm diameter
(xi) =1350 mm diameter
(xii) =1500 mm diameter
(xiii) etc = [stated diameter]

8*	(i) etc	=[stated type or grade of steel]
9*	(i)	=16 mm and under
	(ii)	=20 mm and over
10*	(i)	=not exceeding 12 metres
	(ii)	=exceeding 12 metres but not exceeding 13.5 metres
	(iii) etc	=exceeding 13.5 metres but not exceeding 15.0 metres (and so on in steps of 1.5 metres)
11*	(i)	=in main construction
	(ii)	=in anchorage
12*	(i)	=corner pile
	(ii)	=junction pile
	(iii) etc	=[stated special pile]
13*	(i) etc	=[stated thickness or width]
14*	(i)	=0 to 5 metres in depth
	(ii)	=0 to 10 metres in depth
	(iii) etc	=0 to 15 metres in depth (and so on in steps of 5 metres)
15*	(o)	=No entry
	(i) etc	=[stated location]
16*	(o)	=No entry
	(i) etc	=[stated material]
17*	(i)	=maintained load
	(ii)	=constant rate load
	(iii)	=dynamic load
18*	(i)	=diaphragm walling
	(ii)	=hard/hard secant pile walling
	(iii)	=hard/soft secant pile walling
	(iv)	=contiguous bored pile walling

19*	(i)	=hard/hard
	(ii)	=hard/soft
20*	(i) etc	=[stated spacings and overlap of piles at commencing level]
21*	(i) etc	=[stated spacings]
22*	(i)	=bored cast-in-place king post piles
	(ii)	=bored king post piles constructed using continuous flight auger and concrete or grout through hollow auger stems
	(iii)	=driven cast-in-place king post piles

Series 1700: Structural Concrete

Item	*Root Narrative*	Unit
	In Situ Concrete	
1	(05/04) In situ concrete reference 1*2*	m^3
2	(05/04) In situ concrete ST 3*2*	m^3
	Precast Concrete	
3	Precast concrete 4*5*8*9*10* size 12*	no
4	Precast concrete 4*6*8*9* cross section 11*	m
5	Precast concrete 4*7*8*9* size 12*	m^2
	Surface Finish of Concrete-Formwork	
6	25* Formwork 13*8*14* more than 300 mm wide	m^2
7	25* Formwork 13*8* 300 mm wide or less at any inclination	m^2
8	25* Curved formwork 13*8* of both girth and width more than 300 mm at any inclination	m^2
9	25* Curved formwork 13*8* of girth or width 300 mm or less at any inclination	m^2
10	25* Domed formwork 13*8*	m^2
11	Void former cross section 11*8*	m
	Surface Finish of Concrete-Patterned Profile Formwork	
12	Patterned profile formwork 8*14*	m^2
13	Curved patterned profile formwork 8* at any inclination	m^2
	Steel Reinforcement for Structures	
14	15* 16* bar reinforcement nominal size 17*18* in length 19*	t
15	Fabric reinforcement to BS 20*	m^2
16	15* 16* helical reinforcement 17*	t
17	15* dowel 21*	no

Reinforcement for Reinforced and Anchored Earth Structures

18	15* vertical rods nominal size 17*10* metres in length	m
19	15* strip reinforcing elements cross section 11*22*10* metres in length	m
20	15* bar reinforcing elements nominal size 11*22*10* metres in length	m
21	15*23* reinforcing elements 8*	m^2

In Situ Post-tensioned Prestressing for Structures

22	8* tendon 24* construction 10* metres long	no
23	Stressing and grouting internal tendon 8* 24* construction 10* metres long	no
24	Stressing external tendon 8*24* construction 10* metres long	no
25	Final stressing and grouting 8* tendon 24* construction 10* metres long of member supplied partially prestressed	no
26	Protective covering to 8* external tendon 24* construction 10* metres long	no

Group	*Variables*	
1*(05/04)	(i) etc	=[stated reference]
2*	(o)	=No entry
	(i)	=in blinding 75 mm or less in thickness
3*	(i)	=1
	(ii)	=2
	(iii)	=3
	(iv)	=4
	(v)	=5
4*	(o)	=No entry
	(i)	=pretensioned prestressed
	(ii)	=post-tensioned prestressed
5*	(i)	=member
	(ii)	=slab
	(iii)	=segmental unit
	(iv)	=hinge
	(v)	=specially moulded block

6*	(i)	=coping
	(ii)	=capping unit
	(iii)	=plinth
	(iv)	=culvert
7*	(i)	=facing units
8*	(o)	=No entry
	(i) etc	=[stated Type or reference]
9*	(o)	=No entry
	(i)	=curved
10*	(o)	=No entry
	(i) etc	=[unique length]
11*	(o)	=No entry
	(i) etc	=[unique cross section]
12*	(o)	=No entry
	(i) etc	=[unique dimensions]
13*	(i)	=Class F1
	(ii)	=Class F2
	(iii)	=Class F3
	(iv)	=Class F4
	(v)	=Class F5
	(vi) etc	=[stated Class]
14*	(i)	=horizontal
	(ii)	=inclined
	(iii)	=vertical
15*	(i) etc	=[stated Type or grade of steel]
	(ii)	=Aluminium alloy
	(iii)	=Copper
	(iv) etc	=[stated material]

16* (o) =No entry
(i) =deformed Type 1
(ii) =deformed Type 2

17* (i) =16 mm and under
(ii) =20 mm and over

18* (i) =not exceeding 12 metres
(ii) etc =exceeding 12 metres but not exceeding 13.5 metres (and so on in steps of 1.5 metres)

19* (o) =No entry
(i) =threaded through holes in members

20* (i) etc =[stated BS]

21* (i) etc =[stated diameter and length]

22* (o) =No entry
(i) etc =[unique load carrying capacity]

23* (i) =sheet
(ii) =grid
(iii) =mesh

24* (i) =for in situ concrete
(ii) =for segmental

25* (o) =No entry
(i) =Permanent

Series 1800: Steelwork for Structures

Item	*Root Narrative*	*Unit*
	Fabrication of Steelwork	
1	Fabrication of 1* comprising 2*3*4*5*	t
	Erection of Steelwork	
2	Trial erection at the place of fabrication	item
3	Permanent erection of 6*7*	t
	Miscellaneous Metalwork	
4	Metal 8*6*9* in 10*	no
	Corrugated Steel Buried Structures	
5	Corrugated steel buried 11*6*12*13*14* metres in length	no
	Metal Facing Units for Reinforced Earth Structures	
6	15* facing units 6*9*13*16*17*	m^2
7	15* capping units 6*9*13*16*17*	m

Group	*Variables*	
1*	(i)	=main members
	(ii)	=deck panels
	(iii)	=subsidiary steelwork
2*	(i)	=rolled sections
	(ii)	=plated rolled sections
	(iii)	=plated girders
	(iv)	=box girders

3*	(o)	=No entry
	(i) etc	=[stated reference for different combinations of grades of steel]
4*	(o)	=No entry
	(i)	=curved on plan or elevation
5*	(o)	=No entry
	(i)	=and tapering
6*	(o)	=No entry
	(i) etc	=[stated reference]
7*	(i)	=substructure
	(ii)	=superstructure
8*	(i)	=ladder
	(ii)	=bracket
	(iii)	=handrail
	(iv)	=access cover and frame
	(v)	=mesh panel
	(vi)	=walkway panel
	(vii)	=screen
	(viii)	=grille
	(ix)	=cattle grid
	(x) etc	=[stated Type]
9*	(o)	=No entry
	(i) etc	=[unique dimensions]
10*	(i)	=steel
	(ii)	=aluminium
	(iii) etc	=[stated material]
11*	(i)	=pipe
	(ii)	=arch
	(iii)	=pipe culvert
	(iv)	=arch culvert

12*	(i) etc	=[unique span or diameter]
13*	(i) etc	=[stated thickness or gauge]
14*	(i) etc	=[unique length]
15*	(i)	=Galvanized steel
	(ii)	=Stainless steel
	(iii)	=Aluminium
	(iv) etc	=[stated material]
16*	(o)	=No entry
	(i)	=curved on plan
17*	(o)	=No entry
	(i)	=built to a batter

Series 1900: Protection of Steelwork Against Corrosion

Item	*Root Narrative*	*Unit*
	Protective System	
1	Protective system 1*	m^2

Group	*Variables*
1*	(i) etc =[stated Type]

Series 2000: Waterproofing for Structures

Item	*Root Narrative*	*Unit*
	Waterproofing	
1	Waterproofing with 1*2*3*	m^2
	Surface Impregnation of Concrete	
2	Surface impregnation 4*5*	m^2
	Removal of Existing Waterproofing (05/01)	
3	(05/01) Removal of existing waterproofing 2*3*	m^2

Group	*Variables*	
1*	(i)	=mastic asphalt or proprietary waterproofing system
	(ii)	=two coats of tar
	(iii)	=two coats of bitumen
	(iv) etc	=[stated types or materials]
2*	(o)	=No entry
	(i)	=more than 300 mm wide horizontal or at any inclination up to and including 30° to the horizontal
	(ii)	=more than 300 mm wide at any inclination more than 30° up to and including 90° to the horizontal
	(iii)	=300 mm wide or less at any inclination
3*	(o)	=No entry
	(i)	=to domed surfaces
4*	(i)	=to plain surfaces
	(ii)	=to patterned surfaces
5*	(o)	=No entry
	(i) etc	=[stated Type of system]

Series 2100: Bridge Bearings

Item	*Root Narrative*	*Unit*
	Bearings	
1	Bearing 1*	no
2	Installation of 1* bearing	no

Group	*Variables*
1*	(i) etc =[stated Type]

Series 2200: Not taken up (05/04)

Series 2300: Bridge Expansion Joints and Sealing of Gaps

Item	*Root Narrative*	*Unit*
	Bridge Deck Expansion Joints	
1	1* joint 2* with 3* mm gap width and 4* in length	no
	Sealing of Gaps	
2	5* joint filler board 3* thick	m^2
3	6* joint sealant 7*3*	m
4	7* water bar 3*	m
5	7* water stop 3*	m

Group	*Variables*	
1*	(i)	=expansion
	(ii)	=fixed
	(iii)	=contraction
2*	(i) etc	=[stated type]
3*	(i) etc	=[unique dimension or cross section]
4*	(i) etc	=[unique length]
5*	(o)	=No entry
	(i) etc	=[stated material]
6*	(o)	=No entry
	(i) etc	=[stated Type]
7*	(i) etc	=[stated Type]

Series 2400: Brickwork, Blockwork and Stonework

Item	*Root Narrative*	*Unit*
	Brickwork	
1	Brickwork in 1*2* bricks in 5*3* thick 4*6*7*8*	m^2
2	Extra over 1* brickwork 4* for facing with 2* bricks in 5*	m^2
3	Brick coping in 18*1*2* bricks in 5*16*17* 6*19*	m
4	18*1*2* bricks in 5*16*17* string courses 6*19*	m
	Blockwork and Stonework	
5	9* blockwork 6*7*10* in 5*8*	m^3
6	15* stonework in 5*10*6*7*8*	m^3
7	14* coping 11* in 5*6*	m
8	14* shaped and dressed string course 11* in 5*6*	m
9	20*12*11*13* in 5*	no
	Remove from Store and Relay Brickwork, Blockwork and Stonework	
10	Remove from store and relay 9* blockwork 6*7*10* in 5*8*	m^3
11	Remove from store and relay 15* stonework in 5*10*6*7*8*	m^3
12	Remove from store and relay brickwork in 1*2* bricks in 5*3* thick 4*6*7*8*	m^2
13	Extra over relayed 1* brickwork 4* for facing with 22*2* bricks in 5*	m^2
14	Remove from store and relay 18*1*2*21* coping 11* in 5*16*17*6*19*	m
15	Remove from store and relay 18*1*2* bricks in 5*16*17* string courses 6*19*	m
16	Remove from store and relay 14* shaped and dressed string course 11* in 5*6*	m
17	Remove from store and relay 20*12*11*13* in 5*	no

Group	*Variables*	
1*	(o)	=No entry
	(i)	=common
	(ii)	=engineering

	(iii)	=engineering Class A
	(iv)	=engineering Class B
	(v) etc	=[stated brick]
2*	(o)	=No entry
	(i) etc	=[stated facing brick]
3*	(i)	=half brick
	(ii)	=one brick
	(iii)	=one and a half brick
	(iv)	=two brick
	(v)	=two and a half brick
	(vi)	=three brick
4*	(o)	=No entry
	(i)	=in stretcher bond
	(ii)	=in Flemish bond
	(iii)	=in English bond
	(iv) etc	=[stated bond]
5*	(o)	=No entry
	(i)	=in cement mortar designation (i)
	(ii)	=in cement mortar designation (ii)
	(iii)	=in cement mortar designation (iii)
	(iv)	=lime mortar
	(v) etc	=[stated Type]
6*	(o)	=No entry
	(i)	=curved on plan
7*	(o)	=No entry
	(i)	=with a battered face
8*	(i)	=in walls
	(ii)	=in facework to concrete
	(iii)	=in arches
	(iv)	=in alteration work

9*	(o)	=No entry
	(i) etc	=[stated material]
10*	(o)	=No entry
	(i) etc	=[stated coursing]
11*	(o)	=No entry
	(i) etc	=[unique dimensions]
12*	(i)	=corbel
	(ii)	=finial
	(iii)	=keystone
	(iv) etc	=[stated individual block, feature, or stone]
13*	(i) etc	=[stated mark reference]
14*	(i)	=blockwork
	(ii)	=stonework
15*	(o)	=No entry
	(i)	=reconstituted stone
	(ii)	=natural stone rubble
	(iii)	=natural stone ashlar
	(iv)	=random rubble uncoursed
	(v)	=random rubble coursed
	(vi)	=squared random rubble uncoursed
	(vii)	=squared random rubble coursed
	(viii)	=dry rubble
	(ix) etc	=[stated Type]
16*	(o)	=No entry
	(i)	=in headers
17*	(o)	=No entry
	(i)	=on edge
18*	(o)	=No entry
	(i)	=bullnose

19*	(o)	=No entry
	(i)	=with two courses of tile creasing
20*	(i)	=Natural stone
	(ii)	=Reconstituted stone
21*	(i)	=blockwork
	(ii)	=stonework
	(iii)	=brickwork
22*	(i)	=new
	(ii)	=re-used

Series 2500: Special Structures

Item	*Root Narrative*	*Unit*
	Special Structures Designed by the Contractor	
1	1*2* designed by the Contractor 3*	item

Group	*Variables*	
1*	(i) etc	=[stated name or reference]
2*	(i)	=Buried structure
	(ii)	=Earth retaining structure
	(iii)	=Environmental barrier
	(iv)	=Underbridge up to 8 metres span
	(v)	=Footbridge
	(vi) (05/01)	=Piped culvert
	(vii) (05/01)	=Box culvert
	(viii) (05/01)	=Drainage exceeding 900mm diameter
	(ix) etc	=[Other structure]
3*	(i) etc	=[stated location reference]

Series 2600 is not taken up

Series 2700: Accommodation Works, Works for Statutory Undertakers, Provisional Sums and Prime Cost Items

Item	*Root Narrative*	*Unit*
1	Allow the 1* £.... for 2* to be 3* by 4*	sum
2	Add for labours	Lump sum
3	Add for all other charges and profit	%
4	Installation of goods and materials into the Works	Measurement as appropriate

Group *Variables*

1* (i) =Provisional Sum of
(ii) =Prime Cost (PC) Item of

2* (i) etc =[stated goods or materials]
(ii) etc =[stated service]

3* (i) =executed
(ii) =supplied

4* (i) =the Main Contractor
(ii) =a firm to be nominated by the Overseeing Organisation

Series 3000: Landscape and Ecology (05/01)

Item	*Root Narrative*	*Unit*
	Ground Preparation and Cultivation	
1	1* to surfaces sloping 2* to the horizontal	m^2
	Seeding and Turfing	
2	3*4*5* to surfaces sloping 2* to the horizontal	m^2
3	Turfing to surfaces sloping 2* to the horizontal	m^2
	Planting	
4	6*7*8*9* to surfaces sloping 2* to the horizontal	no
5	Bulbs 7*9* to surfaces sloping 2* to the horizontal	m^2
	Mulching	
6	Organic mulching 12* to a depth of 23* in planting areas to surfaces sloping 2* to the horizontal	m^2
7	10*11*25* 8* in planting areas to surfaces sloping 2* to the horizontal	m^2
8	Sheet mulch collars 11*25*8* at 13* to surfaces sloping 2* to the horizontal	no
	Weed Control	
9	Total weed control 26* with 28* to surfaces sloping 2* to the horizontal	m^2
10	Total weed control to waterbodies 21* with 28*	m^2
11	Total weed control 27* with 28*	no
12	Selective weed control 26* with 28* to surfaces sloping 2* to the horizontal	m^2

13	Selective weed control to waterbodies 21* with 28*	m^2
14	Selective weed control 27* with 28*	no
15	Weed control by spot application 26* with 28* to surfaces sloping 2* to the horizontal	m^2
16	Weed control by spot application to waterbodies 21* with 28*	m^2
17	Weed control by spot application 27* with 28*	no
18	Hand weeding 26* to surfaces sloping 2* to the horizontal	m^2
19	Hand weeding to waterbodies 21*	m^2
20	Hand weeding 27*	no
21	Cutting weeds 26* to surfaces sloping 2* to the horizontal	m^2
22	Cutting weeds to waterbodies 21*	m^2
23	Cutting weeds 27*	no

Maintenance of Established Trees and Shrubs

24	14*7* at 13* to surfaces sloping 2* to the horizontal	m^2
25	15*7*18* at 13*	m
26	16*7* tree size category 29* 17* at 13*	no

Maintenance of Established Grassed Areas

27	Grass cutting 19* at 20* frequency	m^2

Maintenance of Wildflower Areas, Areas of Nature Conservation Value and Ornamental Planting Areas

28	Maintenance of wildflower areas at 13* to surfaces sloping 2* to the horizontal	m^2
29	Maintenance of areas of nature conservation value at 13* to surfaces sloping 2* to the horizontal	m^2
30	Maintenance of ornamental planting areas at 13* to surfaces sloping 2* to the horizontal	m^2

Control of Rabbits and Deer

31	Rabbit control within the highway boundary	item
32	Rabbit clearance in fenced areas of planting at 13*	item
33	Deer clearance in fenced areas of planting at 13*	item

Management of Established Waterbodies

34	Removal of rubbish and debris 21* at 13*	item
35	Inspections of inlets and outlets 21* at 13*	item
36	Silt inspection 21* at 13*	item
37	Reed bed inspection at 13*	item
38	Silt removal 21* at 13*	m^3

Special Ecological Measures

39	Installation of tunnels and underpasses at 13*25*8*	item
40	Installation of 22* at 13*24*8*	no
41	Maintenance of tunnels and underpasses at 13*25*8*	item
42	Maintenance of 22* at 13*24*8*	no

Group Variables

1*	(i)	= vegetation clearance
	(ii)	= subsoil treatment
	(iii)	= final preparation of soils
	(iv)	= final cultivations
2*	(i)	= at 10^o or less
	(ii)	= more than 10^o
3*	(i)	= grass seeding
	(ii)	= wildflower seeding
4*	(o)	= No entry
	(i) etc	= [stated mixture]

5*	(i)	= by conventional sowing
	(ii)	= by hydraulic seeding
6*	(i)	= trees
	(ii)	= shrubs
	(iii)	= wildflower plants
	(iv)	= hedge plants
	(v)	= emergent, marginal and aquatic plants
7*	(i) etc	= [stated species and type]
8*	(o)	= No entry
	(i) etc	= [stated size]
9*	(i)	= in pits
	(ii)	= in trenches
	(iii)	= in beds
	(iv)	= in grassed areas
	(v)	= in or adjacent to water areas
10*	(i)	= mulch mats
	(ii)	= sheet mulch
11*	(o)	= No entry
	(i) etc	= [different thickness, gauge or weight]
12*	(o)	= No entry
	(i)	= timber mulch
	(ii)	= chipped conifer bark
	(iii)	= composted wood chips or bark
	(iv)	= other stated type
13*	(i) etc	= [stated location]
14*	(i)	= pruning shrubs and climbers
	(ii)	= thinning and coppicing
	(iii)	= scrub control
15*	(i)	= hedge cutting
	(ii)	= hedge laying
16*	(i)	= maintenance of trees in urban streets
	(ii)	= tree surgery
	(iii)	= tree felling

17*	(o)	= No entry
	(i) etc	= [different type of felling]
18*	(i) etc	= [different type of hedge laying]
19*	(i)	= on central reserves
	(ii)	= on verges
	(iii)	= on visibility splays
	(iv)	= on islands and roundabouts
	(v)	= on areas outside the highway boundary
	(vi)	= on banks and ditches
	(vii)	= on planting areas
	(viii)	= on side slopes to embankments and cuttings
	(ix) etc	= [on other stated areas]
20*	(i)	= high
	(ii)	= medium
	(iii)	= low
	(iv)	= minimal
21*	(i)	= in ditches
	(ii)	= in ponds
	(iii)	= in rivers
	(iv)	= in streams
	(v)	= in lagoons
	(vi) etc	= [in other different types of waterbody]
22*	(i)	= otter ledges
	(ii)	= otter-proof grilles
	(iii)	= reflectors
	(iv)	= artificial nests
	(v)	= boxes
	(vi)	= perches
	(vii) etc	= [other stated habitat creation measures]
23*	(i)	= 75mm
	(ii) etc	= [other stated depth]
24*	(i) etc	= [different types of special ecological measures]
25*	(o)	= No entry
	(i) etc	= [stated type]

26*	(i)	= to hardstandings and paved areas
	(ii)	= to topsoil heaps
	(iii)	= to planted beds
	(iv)	= to open ditches
	(v)	= to filter drains
	(vi)	= to grassed areas
	(vii)	= to wildflower areas
27*	(i)	= to individual trees
	(ii)	= to individual shrubs
28*	(i) etc	= [stated type of herbicide]
29*	(i) etc	= [stated tree size category]

Series 5000: Maintenance Painting of Steelwork (05/03)

Item	*Root Narrative*	*Unit*
	Surface Preparation	
1	Surface preparation to general surfaces by 2* to remove 3* down to 4*1*	m^2
2	Surface preparation to 5* by 2* to remove 3* down to 4*	m
3	Surface preparation to 6* 8* by 2* to remove 3* down to 4*	no
	Protective System	
4	Protective system 7* to general surfaces prepared down to 4* 1*	m^2
5	Protective system 7* to 5* on surfaces prepared down to 4*	m
6	Protective system 7* to 6* 8* on surfaces prepared down to 4*	no

Group	*Variables*	
1*	(o)	=No entry
	(i)etc	=[stated location]
2*	(i)	=abrading
	(ii)	=dry blast cleaning
	(iii)	=low pressure wet blast cleaning
	(iv)	=high pressure wet blast cleaning
	(v)	=ultra high pressure wet blast cleaning
	(vi)	=combined wet/dry blast cleaning
	(vii)	=grinding
	(viii)etc	=[other stated methods]
3*	(i)	=unsound paint
	(ii)	=all paint
	(iii)	=unsound metal coating
	(iv)	=all metal coating
4*	(i)	=sound paint
	(ii)	=clean steel
	(iii)	=Sa 2 quality steel
	(iv)	=Sa 3 quality steel
	(v)	=St 3 quality steel
	(vi)	=bright steel
	(vii)	=sound metal coating
	(viii)	=bright metal coating
	(ix)etc	=[other sound coatings]

5*	(i)	=parapet
	(ii)	=pedestrian guardrail
	(iii)etc	=[other stated feature]
6*	(i)	=bearings
	(ii)	=CCTV mast
	(iii)	=steel lighting column and bracket arms
	(iv)	=equipment boxes
	(v)	=cabinets
	(vi)etc	=[other stated feature]
7*	(i)	=Type I (M)
	(ii)	=Type II (M)
	(iii)	=Type III (M)
	(iv)	=Type IV (M)
	(v)	=Type V (M)
	(vi)etc	=[other stated Type]
8*	(i)	=No entry
	(ii)	=[stated size]