

# **ANNEX A**

## **METHOD OF MEASUREMENT**

## **A.1. INTRODUCTION**

A.1.1 This Annex A to Schedule 30 (Standard Price Items and Measurements) interfaces between Annex B (Menu of Standard Prices) and the Statement of Requirements (Schedule 1), providing cross-references and supporting information where necessary to describe the tasks or services included in the Standard Prices. Where appropriate, this Annex also describes the units of the Standard Prices and how the units are to be determined. Note: The terms "Standard Price" and "Standard Price item" used in this Annex A to Schedule 30 are synonymous with the terms "Call Off Price" and "Call Off task" used in Schedule 30, respectively.

A.1.2 The Annex is divided into sections, one for each group of Standard Prices in the menu (see Annex B).

A.1.3 Within this Annex, the tasks underlying the Standard Prices are known as Standard Price items. Each section of this Annex provides, where applicable, detail of:

- the itemisation,
- item coverage,
- units of measurement and
- measurement associated with the Standard Price items in that section.

The Call-Off Charge for each item is calculated by multiplying the relevant Standard Price and the unit of measurement for that item as set out in this Annex A.

A.1.4 "Itemisation" describes how each group of Standard Prices is divided into different items and where appropriate types of item the completion of each of which makes the corresponding Call-Off Charge payable. The items are listed in Annex B.

A.1.5 "Item coverage" describes the coverage of each item described in other schedules and additional description and cross references where necessary.

A.1.6 "Unit" describes the basic unit of the completed task which forms the basis of measurement.

A.1.7 "Measurement" describes where applicable, the method of measuring the quantity of units for each group of items.

A.1.8 Finally, the Annex includes any other details to describe items where necessary.

## **A.2. GENERAL**

### **A.2.1 Standard Prices**

A.2.1.1 All Standard Prices set out in Annex B are all-inclusive and for each Standard Price item Called-Off and no extra charge shall be payable by the HA to NRTS Co in addition to the Call-Off Charge for the relevant item.

A.2.1.2 NRTS Co cannot charge the HA for any costs borne by NRTS Co that are a consequence of the Standard Price item being delivered, other than the applicable Standard Price.

A.2.1.3 In response to a Task Authorisation Form (TAF) from the HA, NRTS Co shall deliver all the Standard Price items requested in the relevant Task Authorisation. The Call-Off Charge for such item(s) shall be payable when the relevant task is completed.

### **A.2.2 Roadside Infrastructure and Traffic Management**

A.2.2.1 Provisioning and Regrade work may be tasked in one of four different ways:

- including Roadside Infrastructure and including Traffic Management;
- including Roadside Infrastructure and excluding Traffic Management;
- excluding Roadside Infrastructure and excluding Traffic Management;
- excluding Roadside Infrastructure and including Traffic Management

A.2.2.2 The term "Traffic Management" is defined in paragraph 3.1.1 of Schedule 1.3.

A.2.2.3 Prices defined as "including Traffic Management" shall be all the inclusive price for completing the relevant Task including all necessary traffic management. Prices defined as "excluding Traffic Management" shall be the all-inclusive price for completing the relevant Task including Traffic Management for:

- design (including surveys and other activities on site during the design stage), and
- testing and commissioning of all cable and transmission equipment of the relevant Service Type and tasks associated with Excess Distance (see Section A.4) but excluding any other traffic management.

A.2.2.4 Standard Prices defined as "excluding Roadside Infrastructure" means the all-inclusive price for completing the relevant task, except that the site-specific highways design and installation of Roadside Infrastructure shall be excluded.

A.2.2.5 The term "Roadside Infrastructure" and the responsibilities for Provisioning within a scheme are defined in paragraph A.1.1.4 of Schedule 1.3.

A.2.2.6 The "site-specific highways design" means any work to adapt the standard specification and drawings for Roadside Infrastructure and NRTS Co's site-specific schematic design and specification for Roadside Infrastructure, to provide a tailored design solution as dictated by site conditions within the scheme.

A.2.2.7 For the avoidance of doubt, NRTS Co will still be responsible for all other design activities, for specification of the Roadside Infrastructure, for consents, auditing, liaison and interfacing, and for the supply, installation, jointing, testing and commissioning of all cable and transmission equipment.

### **A.3. MARGINAL SERVICE CHARGE**

The Marginal Service Charge in respect of STIs is paid as defined in Schedule 30.

### **A.4. PROVISIONING**

#### **A.4.1 Itemisation**

A.4.1.1 There is a series of different Service Types, as listed in Annex B to Schedule 30.

A.4.1.2 Each Service Type may be Provisioned either including or excluding Roadside Infrastructure, unless the provision of Roadside Infrastructure is irrelevant to the Service Type.

A.4.1.3 Each Service Type may be Provisioned either including or excluding Traffic Management for Roadside Infrastructure unless the provision of Traffic Management is irrelevant to the Service Type.

A.4.1.4 The itemisation for Provisioning includes an Excess Distance Rate. The Excess Distance Rate is used to calculate an Excess Distance Charge, which can be applied under specific circumstances for roadside SDPs (the circumstances are defined in section A.4.2).

#### A.4.2 Item Coverage

- A.4.2.1 The Provisioning Task is defined in Section 6.4 of Schedule 1.2.
- A.4.2.2 The inclusion of Roadside Infrastructure (with or without Traffic Management) and the exclusion of Roadside Infrastructure is described in Section A.2.2 of this Annex.
- Excess Distance
- A.4.2.3 There is an Excess Distance Rate which, under certain circumstances defined in the following paragraphs of this section A.4.2, may be used to calculate an Excess Distance Charge which is applied to the Provisioning of any Service Type Instance that has a roadside SDP. The Excess Distance Rate may be applied either including or excluding Roadside Infrastructure.
- A.4.2.4 The Standard Prices apply to all Provisionings where the distance (S) between the SDP and the longitudinal cable is equal to or no more than the Local Access Limit (100m). except for Service Types 10AFCab, 10APCab and 8RDCab and the 8RD series of Service Types. The application of the Excess Distance Charge for these exceptions is defined in paragraphs A.4.2.8 and A.4.2.9. The definition of the Local Access Limit is provided in paragraph H.1.2.2 of Schedule 1.1a.
- A.4.2.5 For all Service Types other than 10AFCab, 10APCab and 8RDCab and the 8RD series of Service Types, when the distance (S) in metres between the SDP and the longitudinal cable exceeds the Local Access Limit (100m) the price of the STI shall be equal to the Standard Price plus the Excess Distance Charge.
- A.4.2.6 When S exceeds 100m, the Excess Distance shall be S minus 100.
- A.4.2.7 The Excess Distance Rate in all cases excludes Traffic Management for Roadside Infrastructure. Traffic Management relating to Excess Distance is included in the Standard Price for provisioning of the STI as described in paragraph A.2.2.3.
- A.4.2.8 For Service Types 10AFCab, 10APCab and 8RDCab, the SDP is always located in a cabinet located adjacent to the longitudinal infrastructure and as such the Excess Distance Charge, Excess Distance Rate and the Excess Distance do not apply. Note that Service Types 10AP and 10AF cater for the situation where the cabinet containing the SDP is not constrained to being adjacent to the longitudinal infrastructure.
- A.4.2.9 For the 8RD series of Service Types only, the Standard Price applies when the roadside SDP is located in a cabinet adjacent to an access point in the longitudinal infrastructure, where the access point is the cable joint in the longitudinal multi-pair copper cable (where "adjacent to an access point" means 5 meters or less from the access point). Where the cabinet housing an SDP for a Service Type from the 8RD series is not located in a cabinet adjacent to an access point in the longitudinal infrastructure, the price shall be the Standard Price plus the Excess Distance Charge. In this case:
- the Excess Distance shall be the distance from the cabinet containing the SDP to the longitudinal infrastructure minus 5 meters;
  - the Excess Distance Rate shall be the rate given in Table 1D of Annex B to this Schedule 30;
  - any additional type B chambers required in the Longitudinal Infrastructure agreed with the HA as necessary resulting from the Excess Distance

requirement shall be charged to the HA at the prices contained in the Cost Model; and

- any additional cable joints, agreed with the HA as necessary resulting from the Excess Distance requirement, shall be charged at the rate shown in Table 1D of Annex B to this Schedule 30. Note: the cable joints at the access point and at the SDP are included in the Standard Price.

#### Requirements in Relation to Generic CCTV

- A.4.2.10 The first 200 Instances, taken in aggregate, of Service Types 10APvo, 10APCabvo, 10AFvo and 10AFCabvo are to be reduced in price by the amount stated in Note 3 to Table 1 in Annex B to this Schedule 30.
- A.4.2.11 At its discretion, the HA may Call Off Service Types in the 10AP or 10AF series with either video only (vo) or data plus video mux (dv) subject to the following constraints:
- A video only Service Type may only be deployed in conjunction with a video only SC10 TS Enablement i.e. an SC10 TSvo Enablement;
  - A data plus video Service Type may only be deployed in conjunction with a data plus video SC10 TSdv Enablement
- A.4.2.12 Where a Service Type in the 8RPTZ series is Provisioned at the same time as Service Type 10APdv or Service Type 10APCabdv, then Service Type 8RPTZdv is deployed and the Standard Price for Provisioning the Service Type 8RPTZdv is zero. Where Service Type 8RPTZ is Provisioned after the associated Instance of Service Type 10APdv or 10APCabdv has been commissioned then the Standard Price for Service Type 8RPTZdv (delayed) as set out in Annex B is applied.
- A.4.2.13 If Service Type 8RPTZ is Called Off at a location that supports a Service Type 10APvo or 10APCabvo, then the Standard Price for 8RPTZvo applies.
- A.4.2.14 Where Service Types in the 10AP series are Called Off in an SPC ATMg area then such Service Types are charged at the rate for the corresponding 10AF Service Type i.e. Service Type 10APdv is charged at the rate for Service Type 10AFdv; Service Type 10APCabdv is charged at the rate for Service Type 10AFCabdv; Service Type 10APvo is charged at the rate for Service Type 10AFvo; Service Type 10APCabvo is charged at the rate for Service Type 10AFCabvo.
- A.4.2.15 Where Service Types in the 10AF series are Called Off in an SPC A area then such Service Types are charged at the rate for the corresponding 10AP Service Type i.e. Service Type 10AFdv is charged at the rate for Service Type 10APdv; Service Type 10AFCabdv is charged at the rate for Service Type 10APCabdv; Service Type 10AFvo is charged at the rate for Service Type 10APvo; Service Type 10AFCabvo is charged at the rate for Service Type 10APCabvo.

#### A.4.3 Units

- A.4.3.1 The unit of measurement of a Provisioning shall be by the number of Instances for each Service Type.
- A.4.3.2 The unit of measurement of Excess Distance shall be by metre.

#### A.4.4 Measurement

- A.4.4.1 Measurement of the Excess Distance shall be rounded to the nearest 10 metres.
- A.4.4.2 The Excess Distance Charge = Excess Distance x Excess Distance Rate.

- A.4.4.3 The Excess Distance Rate, including Roadside Infrastructure = (Cost Model input cost rate per metre for duct, supply cable, pull cable and reinstatement) x (Mark-up used in the Cost Model for converting relevant input cost rates to output price).
- A.4.4.4 The Excess Distance Rate, excluding Roadside Infrastructure = (Cost Model input cost rate per metre for supply cable and pull cable) x (Mark-up used in the Cost Model for converting relevant input costs to output price).
- A.4.4.5 For cases where an Excess Distance Rate is applicable to the 8RD series of Service Types, the Excess Distance Rate shall be that rate given in Table 1D of Annex B to Schedule 30.

#### **A.4.5 Advance Payment**

- A.4.5.1 Note: in Annex B to Schedule 30 there is a percentage figure shown as an Advance Payment for Provisioning on Completion of Design. This is an advance payment of a percentage of the Standard Price for Provisioning and is not a separate or additional Standard Price. The Advance Payment for Provisioning on Completion of Design is described in, Section 6.3 of Schedule 1.2.

### **A.5. REMOVAL OF A SERVICE TYPE INSTANCE**

#### **A.5.1 Itemisation**

- A.5.1.1 The individual Service Types are listed in Annex B to Schedule 30.
- A.5.1.2 Each Service Type Instance may be Removed using one of two standard prices:
- Removal of STI ("Full STI Removals")
  - Removal of STI Transmission Equipment Only ("STIs (Transmission Equipment Only) Removals")
- A.5.1.3 For Full STI Removals, each Service Type may be Removed either including or excluding Traffic Management.

#### **A.5.2 Item Coverage**

- A.5.2.1 The Remove Service task is described in, Section 6.7 of Schedule 1.2.
- A.5.2.2 Where NRTS Co is tasked with the Standard Price item for Removal of STI, NRTS Co shall be responsible for the removal of that STI in its entirety and disposal off site of all physical infrastructure uniquely associated with that STI, such Removal to be complete in all respects and (if required by the HA) demonstrably to the satisfaction of the HA.
- A.5.2.3 Where NRTS Co is tasked with the Standard Price item for Removal of STI Transmission Equipment Only, NRTS Co shall be responsible for the removal of the Transmission Equipment including all electronic equipment and cables (but excluding directly buried cables) associated with that STI, such Removal to be complete in all respects and (if required by the HA) demonstrated by NRTS Co to the satisfaction of the HA.

#### **A.5.3 Units**

- A.5.3.1 The unit of measurement of Removal of STI shall be, for each Service Type, the number of Service Type Instances (see Paragraphs 2.17 of Schedule 30, Part 4).
- A.5.3.2 The unit of measurement of Removals of STI Transmission Equipment Only shall be, for each Service Type, the number of Service Type Instances (see Paragraph 2.17 of Schedule 30, Part 4).

**A.5.4 Measurement**

Refer to the relevant paragraph(s) in Schedule 30.

**A.6. CONVERSIONS**

**A.6.1 Itemisation**

The individual conversions are listed in Annex B to Schedule 30.

**A.6.2 Item Coverage**

The Convert Service task is described in, section 6.8 of Schedule 1.2

**A.6.3 Units**

The unit of measurement of conversions shall be by the number of Service Type Instances.

**A.6.4 Measurement**

Refer to the relevant paragraph(s) in Schedule 30.

**A.7. ENABLEMENT**

**A.7.1 Itemisation**

The individual Enablements are listed in Annex B to Schedule 30.

**A.7.2 Item Coverage**

The types of Enablements required to Provision STIs are defined in the SPC Rules; see Annex H of Schedule 1.1a.

**A.7.3 Units**

The unit of measurement of Enablement shall be by the number of Enablements (see, Paragraph 2.18 of Schedule 30, Part 4).

**A.7.4 Measurement**

The quantity and types of Enablement required are defined in the SPC Rules as defined in Annex H of Schedule 1.1a.

**A.8. REGRADING SECTIONS OF ROAD**

**A.8.1 Itemisation**

A.8.1.1 The individual items of Regrading are listed in Annex B to Schedule 30.

A.8.1.2 There are two sets of Standard Price items for Regrading: one set for the Service Provisioning Capability (SPC) of a Section of Road and another set for Regrading the SPC of a Transmission Station.

A.8.1.3 The Service Provisioning Capability (SPC) of a Section of Road may be Regraded either including or excluding Roadside Infrastructure and either including or excluding Traffic Management for Roadside Infrastructure.

**A.8.2 Item Coverage**

A.8.2.1 The rules which determine whether or not Regrading the SPC of a Section of Road is required are defined in Annex H of Schedule 1.1a.

A.8.2.2 The inclusion of Roadside Infrastructure (with or without Traffic Management) and the exclusion of Roadside Infrastructure is described in section A.2.2.

A.8.2.3 The Standard Price for Regrading the SPC of a Section of Road including Roadside Infrastructure are all-inclusive prices with the following exceptions, the

provision of each of which is paid for separately under the relevant paragraphs of Schedule 30:

- Cross Carriageway Ducts (only where the requirements in Schedule 1.3, section 2.14 and Schedule 1.3, Annex A are satisfied)
- Duct Preparation (only where the requirements in Schedule 1.3, section 2.14 and Schedule 1.3, Annex A are satisfied)
- Duct Termination (only where the requirements in Schedule 1.3, section 2.14 and Schedule 1.3, Annex A are satisfied)

A.8.2.4 The Regrading rate "SPC C to SPC A" is used:

- where there is no pre-existing SPC B, or
- where civil works scheme, such as a roadwidening scheme, has removed the pre-existing SPC A

A.8.2.5 The Regrading rate "SPC A (Ducted) to SPC ATMg (Ducted)" is used where the existing SPC A cable infrastructure is ducted and the SPC ATMg cable infrastructure is able to make use of the same longitudinal ducts.

A.8.2.6 The Regrading rate "SPC A (Buried) to SPC ATMg (Ducted)" is used where the existing SPC A cable infrastructure is directly buried and the SPC ATMg cable infrastructure is ducted.

A.8.2.7 The Regrading rate "SPC C to SPC ATMg" is used where HA civil works associated with an ATMg scheme have removed the existing SPC A or SPC B roadside infrastructure.

A.8.2.8 All Regrading rates include all the arrangements necessary to maintain continuity of service during the task of Regrading.

### A.8.3 Units

A.8.3.1 The unit of measurement of Regrading the Service Provisioning Capability (SPC) of a Section of Road shall be by Regrading Length (as referred to in Paragraph 2.17 of Schedule 30, Part 4).

A.8.3.2 The units of measurement of Regrading Length shall be by linear metre.

A.8.3.3 The minimum total length of Regrading in any RCC area than can be ordered under a Task Authorisation is 1km.

### A.8.4 Measurement

A.8.4.1 Measurement of the Regrading Length shall be rounded to the nearest 10 metres.

A.8.4.2 The measurement of Regrading Length shall be the distance measured along the centre line of the road on which the SPC is provided:

- starting at a point where a line perpendicular to the centre line of the road intersects the beginning of the longitudinal cable that provides the SPC and
- finishing at a point where a line perpendicular to the centre of the road intersects the end of the longitudinal cable that provides SPC.

## A.9. REGRADING TRANSMISSION STATION CAPABILITY

### A.9.1 Itemisation

A.9.1.1 The Regrading of a TS Capability is as follows:



- Transmission Station Capability: Minor Node (Regen) Regrade to SPC A
- Transmission Station Capability: Minor Node (OADM) Regrade to SPC A
- Transmission Station Capability: Major Node Regrade to SPC A
- Transmission Station Capability: SPC A to SPC ATMg Regrade

A.9.1.2 For Provision of a new Transmission Station building, see section A.11.

#### **A.9.2 Item Coverage**

A.9.2.1 The Minor Node (Regen) Regrade to SPC A, the Minor Node (OADM) Regrade to SPC A and the Major Node Regrade to SPC A are required when a Transmission Station equipped for SPC B supports sections of road that are being Regraded to SPC A. The circumstances that determine which type of Regrade is required shall be as defined in the Service Solution Specification.

A.9.2.2 The Transmission Station Capability: SPC A to SPC ATMg Regrade is required where a Transmission Station equipped for SPC A supports a section of road that is being Regraded from SPC A to SPC ATMg.

#### **A.9.3 Units**

The unit of measurement of Regrading the SPC of a Transmission Station Capability shall be by the number of Transmission Stations.

#### **A.9.4 Measurement**

By the number of Transmission Stations Capabilities Regraded.

### **A.10. TELECOMMUNICATIONS BYPASS**

#### **A.10.1 Itemisation**

The individual items of Telecommunications Bypass are listed in Annex B to Schedule 30, which sets out Standard Prices for each of Installation, Removal and Maintenance of Telecommunications Bypasses.

#### **A.10.2 Item Coverage**

A.10.2.1 The types of Telecommunications Bypass are described in section 5.3 of Schedule 1.2.

A.10.2.2 Each Standard Price for Installation, Removal and Maintenance of Telecommunications Bypasses includes Traffic Management.

#### **A.10.3 Units**

A.10.3.1 The unit of measurement of Telecommunications Bypass installation and of Telecommunications Bypass removal shall be by linear metre.

A.10.3.2 The unit of measurement of Telecommunications Bypass maintenance shall be by linear metres per month.

A.10.3.3 The minimum total length of Telecommunications Bypass that can be ordered under a Task Authorisation is 100m.

#### **A.10.4 Measurement**

A.10.4.1 Measurement of the Telecommunications Bypass installation and removal shall be rounded to the nearest 10 metres.

A.10.4.2 Measurement of the Telecommunications Bypass maintenance shall be rounded to the nearest 10 metres and to the nearest day.

A.10.4.3 The measurement of the length of a Telecommunications Bypass shall be the distance measured along the centre line of the road on which the SPC is provided:

- starting where a line perpendicular to the centre line of road meets the point of intersection between the works boundary and the route of the longitudinal cables and
- finishing where a line perpendicular to the centre line of the road meets the point of intersection between the opposite extent of the works boundary and the route of the longitudinal cables.

A.10.4.4 The works boundary is the area of land the responsibility for which is passed from the HA's maintaining agent to a contractor for the purpose of the works for which the Transmission Bypass is required.

A.10.4.5 [Not Used]

A.10.4.6 The measurement of duration of Telecommunications Bypass maintenance shall be by Contract Month:

- starting on the later of the date stated on the completed Task Authorisation Form by when the Telecommunications Bypass is required to be in service and the date on which the Telecommunications Bypass is put into service, and
- ending on the sooner of the date on which the service ceases to be provided and on the date instructed by the HA for the service provided by the Telecommunications Bypass to end.

A.10.4.7 The measurement of duration of Telecommunications Bypass maintenance shall be rounded up to the nearest day and nearest 10 meters.

## **A.11. PROVISION OF A TRANSMISSION STATION BUILDING**

### **A.11.1 Itemisation**

There is one item only in this section i.e. Provide Transmission Station Building.

### **A.11.2 Item Coverage**

A.11.2.1 The Standard Price for Providing a Transmission Station Building includes provision of a full size Transmission Station building in accordance with Highways Agency specification MCL 10470 (or as otherwise agreed with the HA) including the foundations, building services, power supply from the ESC supply cabinet, lightning protection, cables, cable containment and termination equipment, Access Infrastructure, perimeter fencing, Protection Infrastructure, Traffic Management and connection to the longitudinal communications network.

A.11.2.2 Where either a Transmission Station Major Node Regrade to SPC A or a Transmission Station Minor Node Regrade to SPC A is required (see section A.8) this shall be charged as follows:

- (a) if no existing TS building exists at a suitable location then the sum of the Standard Price for Providing a Transmission Station Building and the Standard Price for the Transmission Station Capability, as required, or
- (b) if a TS building exists at a suitable location then the Standard Price for the Transmission Station Capability, as required.

A.11.2.3 If an existing TS already equipped with Transmission Station Capability is to be removed and rebuilt as part of a scheme then the existing transmission equipment

shall, where appropriate, be recovered, stored and re-installed as an Ad Hoc Project.

#### **A.11.3 Units**

The unit of measurement of Provide Transmission Station Building shall be by the number of Transmission Stations.

#### **A.11.4 Measurement**

By the number of Transmission Stations provided.

### **A.12. CROSS CARRIAGEWAY DUCTS**

#### **A.12.1 Itemisation**

A.12.1.1 There are three sets of items in this group the Standard Prices for which are listed in Annex B to Schedule 30:

- Cross Carriageway Duct: Level Ground
- Cross Carriageway Duct: Cutting
- Cross Carriageway Duct: Embankment

A.12.1.2 Cross Carriageway Ducts may be provided either including or excluding Traffic Management (see also paragraph A.14.1.3).

#### **A.12.2 Item Coverage**

A.12.2.1 Each item includes the provision of a set of new 4 x 100mm underground ducts installed by trenchless technique from the verge on one side of a road to the verge on the other side of the road and may either include or exclude Traffic Management.

A.12.2.2 The HA have allowed cables to cross carriageways using gantries in some parts of the network e.g. the M42. These Standard Prices only apply to underground cross carriageway ducts.

A.12.2.3 Level ground shall be defined as a site where the datum point at each end of the cross carriageway duct is located on ground that has a slope in any direction from the centre to a radius of 2m of no greater than 20%.

A.12.2.4 The datum point shall be defined as a point at ground level located vertically above the centre-line of the cross carriageway ducts and in the verge 2m from the edge of the carriageway (including any hardshoulder or hard strip).

A.12.2.5 An embankment shall be defined as a site where the road is raised above the surrounding ground level and a datum point at either end of the cross carriageway duct is located on ground that has a slope from the centre to a radius of 2m greater than 20%.

A.12.2.6 A cutting shall be defined as a site where the road surface is built below the level of the surrounding ground and a datum point at either end of the cross carriageway duct is located on ground that has a slope from the centre to a radius of 2m greater than 20%.

#### **A.12.3 Units**

The unit of measurement of Cross Carriageway Duct shall be by linear metre.

#### A.12.4 Measurement

The measurement of Cross Carriageway Duct shall be the distance from the edge of the carriageway (including any hardshoulder or hard strip) at one end of the cluster of ducts to the edge of the carriageway (including any hardshoulder or hard strip) at the other end measured perpendicular to the centre line of the road or as otherwise agreed with the HA.

### A.13. DUCT PREPARATION

#### A.13.1 Itemisation

A.13.1.1 There are four sets of items in this group the Standard Prices for which are listed in Annex B to Schedule 30:

- Duct Preparation for Ducts in Structures
- Duct Preparation for Cabled Cross Carriageway Ducts
- Duct Preparation for Empty Cross Carriageway Ducts
- Duct Preparation for Networked Cross Carriageway Ducts

A.13.1.2 Duct Preparation may be provided either including or excluding Traffic Management.

A.13.1.3 Each of the four items of Duct Preparation includes a Standard Price for an Activity Fee.

A.13.1.4 For Duct Preparation for Cabled Cross-Carriageway Ducts and Duct Preparation for Empty Cross-Carriageway Ducts there is a Standard Price for a Bonus which will, in certain circumstances defined in A.13.2, be paid to NRTS Co. The Bonus does not apply to Duct Preparation for Ducts in Structures or to Duct Preparation for Networked Cross-Carriageway Ducts.

A.13.1.5 The Standard Prices for these Standard Price items are listed Tables 9A, 9B, 9C and 9D of Annex B to Schedule 30.

#### A.13.2 Item Coverage

A.13.2.1 Duct Preparation is defined in Section 2.14 of Schedule 1.3 and includes the location, clearing and proving of ducts in structures and cross carriageway ducts. The circumstances in which Duct Preparation is applicable are described in section 2.14 of Schedule 1.3 and in Annex A "Table of Responsibilities" of Schedule 1.3.

A.13.2.2 For the avoidance of doubt the Standard Prices for Duct Preparation apply only where provision of the ducts is the responsibility of the HA i.e. certain ducts in structures and cross carriageway ducts where defined in Paragraphs 2.14.2.16 to 2.14.2.18 inclusive of Schedule 1.3 and in, Annex A "Table of Responsibilities" of Schedule 1.3. The Standard Prices for Duct Preparation apply only to pre-existing ducts and not to new ducts installed for NRTS Co's cables for which no charge is made to the HA e.g. the Standard Prices for Duct Preparation do not apply to ducts newly installed for NRTS Co by the scheme contractor on a road widening scheme.

A.13.2.3 Duct Preparation for ducts in structures includes the location, clearing and proving of all ducts through a structure that are intended for the purpose of carrying cables.

A.13.2.4 Duct Preparation for Cabled Cross Carriageway Ducts includes the location, clearing and proving of all ducts within a cluster of cross carriageway ducts

which already contains one or more communications or power cables and that is not part of a network of ducts.

A.13.2.5 Duct Preparation for Empty Cross Carriageway Ducts includes the location, clearing and proving of all ducts within a cluster of cross carriageway ducts which contains no communications or power cables and that is not part of a network of ducts.

A.13.2.6 Duct Preparation for Networked Cross-Carriageway Ducts includes the location, clearing and proving of all ducts within a cluster of cross-carriageway ducts that is part of a network of ducts.

A.13.2.7 The Activity Fee for an item of Duct Preparation is payable when the applicable Duct Preparation item is Called Off by the HA and NRTS Co provides evidence that it has made reasonable endeavours to locate, clear and prove the ducts that were the subject of the item, and the ducts meet the criteria defined in A.13.2.9. Such evidence shall include a record of the activities undertaken.

A.13.2.8 The Bonus is payable when NRTS Co successfully completes a Duct Preparation activity (and produces evidence of having done so) and at least two ducts in the cluster of ducts (referred to as a Duct Cluster) have been cleared by NRTS Co and proved by NRTS Co to be suitable for the installation of cable(s). NRTS Co is required to use reasonable endeavours to prove and clear all the ducts in a cluster.

A.13.2.9 The criteria for Duct Clusters used for the payment of the Activity Fee are:

- For Duct Preparation in relation to the Provisioning of an STI, the Duct Cluster must be within 600 metres of the location of the STI;
- For Duct Preparation in relation to the failure of a cross carriageway duct that has damaged NRTS Co's cable, the Duct Cluster must be within 600 metres of that failed cross carriageway duct.

A.13.2.10 For Duct Preparation in relation to the terms of paragraph 2.14.2.16 of Schedule 1.3 and in the case where the HA is providing an alternative cross carriageway duct, the Duct Cluster must be within 600 metres of that failed cross carriageway duct.

### **A.13.3 Units**

A.13.3.1 The unit of measurement of the Activity Fee is the number of Duct Clusters that NRTS Co is tasked to endeavour to locate, clear and prove as part of a Duct Preparation.

A.13.3.2 The unit of measurement of the Bonus is the number of Duct Clusters that contain at least two ducts that have been cleared and proved by NRTS Co as part of Duct Preparation.

### **A.13.4 Measurement**

A cluster of ducts (referred to as a Duct Cluster) shall be taken as all ducts, the ends of which could be contained within a circle of one metre diameter.

## **A.14. DUCT TERMINATION**

### **A.14.1 Itemisation**

A.14.1.1 There are two items in this group the Standard Prices for each of which are listed in Annex B to Schedule 30:

- Duct Termination for Ducts in Structures,
- Duct Termination for Cross Carriageway Ducts.

A.14.1.2 Duct Termination may be provided either including or excluding Traffic Management.

A.14.1.3 If Duct Termination is required for cross carriageway ducts and the tasks of providing the ducts (as itemised in Section A.12) and terminating them are called-off at the same time, the Standard Price for Duct Termination for Cross Carriageway Ducts excluding Traffic Management shall apply as the cost of Traffic Management is covered within the Standard Price item for Cross Carriageway Ducts including Traffic Management.

#### **A.14.2 Item Coverage**

A.14.2.1 Duct Termination is defined in Schedule 1.3, section 2.14 and covers all activities relating to the provision of chambers at each end of ducts through structures and at each end of cross-carriageway ducts. The circumstances in which Duct Termination is applicable is described in, section 2.14 of Schedule 1.3 and in Annex A "Table of Responsibilities" of Schedule 1.3.

A.14.2.2 For the avoidance of doubt the Standard Prices for Duct Termination apply only where provision of the ducts is the responsibility of the HA i.e. certain ducts in structures and cross carriageway ducts where defined in, paragraphs 2.14.2.16 to 2.14.2.18 inclusive of Schedule 1.3 and in, Annex A "Table of Responsibilities" of Schedule 1.3.

A.14.2.3 Duct Termination for Ducts in Structures includes the provision of chambers at both ends of a structure to provide an interface between communications ducts in the verge and the ducts through a structure.

A.14.2.4 The Standard Price for Duct Termination for Cross Carriageway Ducts includes the termination of both ends of a cluster of existing cross carriageway ducts into chambers and the provision of chambers to Type A HA drawing MCX 0815 or as otherwise agreed with the HA wherever there would otherwise be no termination chamber to provide an interface between a ducted communications network in the verge and a cluster of cross carriageway ducts.

#### **A.14.3 Units**

The unit of measurement of Duct Termination shall be by number for each item.

#### **A.14.4 Measurement**

A cluster of ducts shall be taken as all ducts, the ends of which could be contained within a circle of one metre diameter.

### **A.15. REMOVAL OF REDUNDANT INFRASTRUCTURE**

#### **A.15.1 Itemisation**

A.15.1.1 There are four sets of items of Redundant Infrastructure in this group the Standard Prices for each of which are listed in Annex B to Schedule 30, provided that where any Removal under this paragraph is included or should be included in section A.5, the Removal Charge under this section A.13 shall be zero:

- Cable Duct Removal.
- Buried Cable Removal.

- Transmission Station Removal.
- Aerial Site Removal.

A.15.1.2 The Cable Duct Removal, Buried Cable Removal and Aerial Site Removal services may be provided either including or excluding Traffic Management.

A.15.1.3 The Standard Price for the Transmission Station Removal service excludes Traffic Management.

#### **A.15.2 Item Coverage**

A.15.2.1 "Redundant Infrastructure", "Access Infrastructure" and "Protection Infrastructure" are defined in Clause 1 of this Agreement.

A.15.2.2 Where NRTS Co is tasked with Cable Duct Removal, NRTS Co shall be responsible for removing the ducted communications network including all cable ducts, troughs, chambers, cables and all reinstatement within the Removal Length. The task excludes the removal of anything that is included or should be included in section A.5.

A.15.2.3 Where NRTS Co is tasked with Buried Cable Removal, NRTS Co shall be responsible for removing the directly buried (non ducted) communications network including all cables, troughs, cabinets, cabinet bases, Access Infrastructure, Protection Infrastructure and all reinstatement within the Removal Length. The task excludes the removal of anything that is included or should be included in section A.5.

A.15.2.4 When NRTS Co is tasked with Transmission Station Removal, NRTS Co shall be responsible for removing the transmission station building, its foundations, Access Infrastructure, Protection Infrastructure, power supply (power cable shall be disconnected and truncated either in the TS cabinet or the cable duct leading from the TS building) and all cabinets, cables and equipment contained therein. The task excludes the provision of Traffic Management.

A.15.2.5 Where NRTS Co is tasked with Aerial Site Removal, NRTS Co shall be responsible for removing the Aerial Infrastructure and associated Aerial Electronics of the associated Aerial Site. The terms "Aerial Site", "Aerial Infrastructure" and "Aerial Electronics" are defined in paragraph 2.1.17 of Schedule 1.1b. Aerial Site Removal is only chargeable under the conditions identified in Schedule 1.2, section 6.7.

#### **A.15.3 Units**

A.15.3.1 The unit of measurement of Cable Duct Removal shall be by linear metre.

A.15.3.2 The unit of measurement of Buried Cable Removal shall be by linear metre.

A.15.3.3 The unit of measurement of Transmission Station Removal shall be by number of Removals (as defined in Paragraph 2.18 of Schedule 30, Part 4)

A.15.3.4 The unit of measurement of Aerial Site Removal shall be by number of Aerial Sites removed.

#### **A.15.4 Measurement**

A.15.4.1 Measurement of Cable Duct Removal and of Buried Cable Removal shall be rounded to the nearest 10 metres.

A.15.4.2 The measurement of length of Cable Duct Removal and of Buried Cable Removal shall be the distance measured along the centre line of the road on which the SPC is provided:

- starting at a point where a line perpendicular to the centre line of the road intersects the beginning of the cable network to be removed and
- finishing at a point where a line perpendicular to the centre of the road intersects the end of the cable network to be removed.

#### **A.16. CAMERA MAST SERVICE**

A.16.1 The Standard Prices for the Camera Mast Service are set out Tables 13A, 13B and 13C of Annex B to Schedule 30.

#### **A.17. MISCELLANEOUS**

##### **A.17.1 Itemisation**

A.17.1.1 There are three sets of items in this Section, as follows:

- Operational Support Systems Software Licences
- Additional Licences for DVR Access from standalone terminals
- Paper Copies of As-Built Drawings

A.17.1.2 NRTS Co is required to provide software and licences to provide facilities to access and use the Operational Support Systems. The software and number of licences provided under the Base Service Charge is defined in the Registered Document PS-DS 36 Section 2.3.4. Where the HA requires additional software and licences for applications that form part of the Operational Support Systems, these additional licences shall be charged for as in Table 14 of Annex B to Schedule 30. The individual items shall be available independently from one another.

A.17.1.3 NRTS Co is required to provide software and licences to provide standalone PC terminals (see paragraph 12.23.31.3 of Schedule 1.1a) with the facility to access and manage the Digital Video Recorders (DVRs) that form part of NRTS Co's Service Category 10 solution. Under the Base Service Charge, NRTS Co is providing the necessary licences and software to support 8 standalone PC terminals. Where the HA requires software and licences for additional standalone PC terminals, these shall be charged for as itemised in Table 15 of Annex B to Schedule 30.

A.17.1.4 Paper Copies of As-Built Drawings are to be size A2 or larger. Each copy may be provided either in black and white or in colour. This is itemised in Table 16 of Annex B to Schedule 30.

##### **A.17.2 Item Coverage**

A.17.2.1 The item coverage for a particular Operational Support Systems Software Additional Licence encompasses, for 10.5 years, the provision of licences, software, hardware (including upgrades where required), maintenance and support to allow the required additional number of users to use that particular application.

A.17.2.2 The item coverage for additional licences for DVR access from standalone terminals encompasses, for the duration of the Contract, the provision of:



- licences to use the software (as per the licence agreement for that software), together with the software (where required and provided on a suitable media);
- the services required, as defined in paragraph 12.23.31.3 of Schedule 1.1a.

A.17.2.3 The items for providing Paper Copies of As-Built Drawings include receiving and processing the order, locating the relevant drawing, copying the drawing onto paper, sorting into sets (if requested), folding to A4 size (if requested), preparing document transmittal forms checking, packing and delivery within two Business Days of receipt or order, and including the cost of all materials and postage.

#### **A.17.3 Units**

A.17.3.1 The unit of measurement for both Operational Support Systems Software Licences shall be as set out in Table 16 of Annex B. The unit of measurement for individual Additional Licences for DVR Access from Standalone Terminals (in excess of the licences included in the Base Service Charge) shall be per licence, or per block of 17 licences. The Standard Prices for different types of licences are set out for each of these items in Annex B to Schedule 30.

A.17.3.2 The unit of measurement of Paper Copies of As-Built Drawings shall be by number of copies of the relevant drawing.

#### **A.17.4 Video Display Wall**

NRTS Co shall deploy and maintain a video display wall under the Base Service Charge. The video display wall shall consist of 12 display units, each with a 67 inch diagonal screen. The assemblage of screens and supporting software shall be such as to be capable of supporting:

- (1) a single image spanning all screens;
- (2) independent images on each screen; and
- (3) groupings of screens, with each grouping displaying a different image.

NRTS Co shall ensure that the quality of video image is maintained across all the display screens.

## **ANNEX B**

### **MENU OF STANDARD PRICES**

**For Spreadsheet  
Refer to PDF Version of this Document  
and  
Excel File "Schedule 30 Annex B Price  
Menu.xls"**

## **ANNEX C**

The amount of the Base Service Charge shall be £3,740,160 per month.

## ANNEX D

### D.1. TECHNOLOGY PRICE REVIEW ITEMS

- D.1.1 The Technology Price Review shall cover those items of electronic equipment included in the Cost Model build-up of each Call Off price. At Execution Date this shall be deemed to be those items identified in C.1.3 . During any subsequent amendments to the Cost Model, any new items of electronic equipment that are added to the Cost Model shall, subject to the agreement of the HA, also be explicitly identified and shall also become subject to the Technology Price Review.
- D.1.2 For the avoidance of doubt, the Technology Price Review shall specifically exclude Roadside Infrastructure, cables, cabinets and all civil works.
- D.1.3 The Technology Price Review items at Execution Date shall comprise all items on the Cost Matrix worksheets identified as "Worksheets containing items to be included in Technology Price Review" in the table below, except for items identified as "Items on Worksheet Excluded from Technology Price Review" in the table below.

#### Notes

1. There are several worksheets in the Cost Matrix that summarise Call Off prices. These are automatically updated as the worksheets identified below are changed.
2. There are worksheets in the Cost Matrix that relate to the Base Service Charge. The Base Service Charge is not subject to the Technology Price Review.
3. The circumstances under which the Cost Model (i.e. the Cost Databook and the Cost Matrix) is modified and requirements governing such modifications are given in Schedule 25. The Cost Model shall not be modified other than pursuant to Schedule 25.

Worksheet containing items to be included in Technology Price Review	Items on Worksheet Excluded from Technology Price Review.	Items on Worksheet Excluded from Technology Price Review. (Row number)	Comment
Re Grade Major TS	600x600 Rack	93	
	Major TS Power Backup	102 to 107	
	Generator Set	113	

Re Grade Minor TS OADM	600x600 Rack	89	
	Minor TS(30 Mins) Power Backup	96 to 101	
	Generator Set	108	
Re Grade to Minor TS Regen	600x600 Rack	92	
	Minor TS(30 Mins) Power Backup	100 to 105	
	Generator Set	112	
SPC A to SPC ATMG Regraded	None		
Enab Config	24 Hrs Power Backup for ATMG Cabinet Enablement	373 to 378	
	24 Hrs Power Backup for Genesys Cabinet	348 to 353	
	Mechanical Cabinet for Genesys Power Cabinet Bolt on to the existing ATMg Cabinet	369	
	Mechanical Cabinet for Genesys Cabinet	344	

**CONFORMED COPY**

Provisioning Config	None		The items in this worksheet are used in the Call Off items "Provisionings"
Conversion Configs	None		

