

**REF:**

**CONTRACT DOCUMENT**



**TRANSPORT FOR LONDON  
AND  
LONDON UNDERGROUND LIMITED**

**CONTRACT**

**BETWEEN**

**TRANSPORT FOR LONDON  
AND  
LONDON UNDERGROUND LIMITED**

**AND**

**Delatim Limited**

**FOR**

**THE**

**NORTHERN LINE EXTENSION – DARK FIBRE ENABLING WORKS**

**LOT 4  
VALUE BAND A**

**ON THE**

**SWIP: ASPIRE  
WORKS & SERVICES PROGRAMME**

**CONTRACT NUMBER [3101084217]**

***NLE Dark Fibre Enabling Works***

Section	Description	Notes
1.0	Task Order	
2.0	Contract Data Part 1 and 2	
3.0	Scope of Works/Service Information	
4.0	Copy PO 3101084217	
5.0	Programme	Rev 2
6.0	Activity Schedule and Price List	Rev 2 Lump Sum £206,579.79
7.0	Worked example for Compensation Events under Lump Sum Task orders	
8.0	QUENSH	Rev 1
9.0	Contact details of key personnel	
10.0	Risks identified by Contractor	
11.0	WRRR	
12.0	Proposed Sub Consultants	

Transport for London

# London Underground Limited



## *NLE Dark Fibre Enabling Works*

### 1.0 Task Order



# DASPIRE LOT 4A ELECTRICAL

## TASK ORDER

### Task Order

Task Order form for use when work within the *service period* is instructed to be carried out within a stated time period of time on a Task by Task basis

Task Order No 20536 *service* Northern Line Extension – Dark Fibre Enabling Works

To Delatim Limited (Contractor)

We propose to instruct you to carry out the following Task:

Description: NLE – Dark Fibre Enabling Works as per 2 - Scope of Works/Service

Information Document reference: WCC-NLE-P894-JNP-SOW-00001 Rev 3.0

Starting Date: 4th July 2019

Completion Date: 15th October 2019

The site is: multiple as per below

Highgate Service Control Centre	Highgate Sidings, Woodside Avenue, London N6 4LY
Highgate Station	Archway Road, London N6 5AA
Archway Station	Junction Road, London N19 5RQ
Turnpike Lane Station	Westbury Avenue, London N15 3NX
Kentish Town Station	Kentish Town Road, London NW5 2AA
Camden Town Station	Camden High Street, London NW1 8QL
Mornington Crescent Station	Hampstead Road, London NW1 2JA
Euston Station	Euston Road, London NW1 2AE
Warren Street Station	134 Tottenham Court Road, London NW1 3AA
Goodge Street Station	72 Tottenham Court Road, London W1T 2HE
Tottenham Court Road Station	Oxford Street, London WC2H 0EH



Leicester Square Station	Cranbourn Street, London WC2H 0AP
Charing Cross Station	11 Strand, London WC2N 5RJ
Embankment Station	Villiers Street, London WC2N 5AQ
Waterloo Station	York Road, London SE1 7ND
Kennington Station	Kennington Park Road, London SE11 4JQ

The assessment day is: Monday of Week 2

Delay damages per day: £0

The retention percentage: 0%

Assurance retention: 5%

Cap on liability: 10% of the Contract Sum

The *Employer* requires the *Contractor* to have the following insurance

Professional Indemnity Insurance: £5,000,000

Public Liability Insurance: £5,000,000

Product Liability Insurance: £5,000,000

Please submit your price and programme proposals below.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Name: \_\_\_\_\_ Position \_\_\_\_\_  
(for Employer)

Basis of pricing: Lump Sum

Total of Prices for items of work Task Order: £206,579.79

Total of Prices for items of work not on the Task Order Price List: N/A

The programme for the Task is Ref : Included in the Programme Submission Section of the Tender Return Documents

The Contractor's Representative for the Task is: REDACTED

The Contractor's Representative for the site is: REDACTED

The key persons are: REDACTED



Signed \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_ Position \_\_\_\_\_ (for Contractor)

To be completed during contract award period

I accept the above price and programme and instruct you to carry out the Task

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name: \_\_\_\_\_ Position \_\_\_\_\_

(for Employer)

Transport for London

# London Underground Limited



## ***NLE Dark Fibre Enabling Works***

### 2.0 Contract Data Part 1 and 2



**ASPIRE – LOT 4A ELECTRICAL  
NORTHERN LINE EXTENSION – DARK  
FIBRE ENABLING WORKS  
SCHEDULE 1 - CONTRACT DATA  
PART 1 AND PART 2**

**TERM SERVICE SHORT CONTRACT –  
SWIP: ASPIRE WORKS & SERVICES**



## CONTRACT DATA

### Part one - data provided by the *Employer*

The *conditions of contract* are the SWIP:ASPIRE TSSC Conditions of Contract based on the NEC3 Term Service Short Contract, September 2008 as amended for this contract

The *service* is the provision of Lot 4: Electrical Works along with incidental works and services to various locations on the *Employer's* property all as ordered via the Task Order mechanism set out in these *conditions of contract*.

The *Employer* is      Transport for London  
                                 55 Broadway  
                                 London  
                                 SW1H 0BD  
                                 and  
                                 London Underground Limited  
                                 55 Broadway  
                                 London  
                                 SW1H 0BD

including their successors in title and assigns

Represented by:      REDACTED  
                                 Head of Commercial – Capital Delivery  
                                 Construction  
                                 55 Broadway  
                                 LONDON  
                                 SW1H 0BD  
  
                                 REDACTED  
                                 REDACTED

The *starting date* is – 4<sup>th</sup> July 2019

The *service period* is 60 months with an option for the *Employer* to extend for a further 36 months in 12 month periods. Such extension shall take effect upon written notice by the *Employer* to the *Contractor*.

The *period for reply* is seven (7) days unless otherwise stated in a Task Order  
The *assessment day* is determined by the *Employer* to suit the *Employer's* accounting periods and notified to the *Contractor* by the *Employer* on commencement of each Task.



## **Part two - data provided by the Contractor**

The *Contractor* is:

Name: Delatim Limited

Address: Unit 33 The I.O. Centre, Armstrong Road, London SE18 6RS

Contact: REDACTED

E-mail address REDACTED

Percentage Additions to Cost are as defined in Section 7

The percentage for overheads and profit added to the cost of resources as detailed in Sections 7.1 and 7.2.3 Part One (A) is 15%

The percentage for overheads and profit added to the cost of material supply as detailed in Section 7.2.3 Part One (B) is 15%

The percentage for PPE, equipment and consumables as detailed in Section 7.2.3 Part Two is (Not Applicable – For Cost Reimbursable Task Orders only)%



***NLE Dark Fibre Enabling Works***

**3.0 Scope of Works/Service Information**





## Document History

Revision	Date	Summary of changes
1.0	18/03/19	First Issue
2.0	03/04/19	Comments from BB, EN, KM, LJA incorporated
3.0	24/04/19	Final comments update prior to ITT

## Abbreviation Table

ATC	Automatic Train Control
AWC	Authority to Work Certificate
CDF	Cutting Drilling Fixing
CDM	Construction Design Management Regulations 2015
CDS	Conceptual Design Statement
CRMS	Cable Route Management System
FODR	Fibre Optic Distribution Rack
FOSE	Fibre Optic Splice Enclosure
HSCC	Highgate Service Control Centre
ILC	In Line Closure
ILM	Insertion Loss Measurement
ITP	Interface Termination Panel
JNP	Jubilee Northern Piccadilly
JNUP	Jubilee & Northern Upgrade Programme
LU	London Underground
MPD	Major Projects Directorate
MPIC	Major Projects Integration Centre
NB	Northbound
NL	Northern Line
NLE	Northern Line Extension
OTDR	Optical Time Domain Reflectometer
PWT	Protecting Workers on the Track
SB	Southbound
SER	Signalling Equipment Room
SPJ	Step Plate Junction
TBTC	Transmission Based Train Control
TO	Technical Officer
TQ	Technical Query
SIM	Signalling Incident Manager
SPC	Site Person in Charge

## Station Abbreviations

ARC	Archway	BPS	Battersea Power Station
CHX	Charing Cross	CTN	Camden Town
EMB	Embankment	EUS	Euston
GDG	Goodge Street	HGA	Highgate
KEN	Kennington	KTN	Kentish Town
LSQ	Leicester Square	MCS	Mornington Crescent
NIE	Nine Elms	TCR	Tottenham Court Road
TPK	Tufnell Park	WAT	Waterloo
WST	Warren Street		



## Contents

1. Introduction .....	4
2. Description of Works .....	5
2.1 Key Dates .....	6
2.2 Termination of existing Dark Fibre.....	6
2.3 Installation of new ITP-FOSE boxes.....	7
2.4 New 48 core cable WAT > KEN .....	7
3. Testing Requirements .....	8
4. Access .....	9
4.1 The Sites.....	9
4.2 Working Times .....	10
4.3 Activities adjacent to site .....	10
4.4 Parking.....	10
5. Health, Safety, Environmental & Quality.....	11
6. Design.....	14
6.1 Detailed Design.....	14
6.2 Designers Risk Assessment.....	14
6.3 Temporary Works.....	15
6.4 Technical Queries .....	15
6.5 Concept Design Statement.....	15
7. Programme & Reporting.....	15
7.1 Programme .....	15
7.2 Meeting Schedule .....	15
7.3 Daily Reporting.....	15
7.4 Notification of Works .....	16
8. Deliverables .....	16
9. Responsibility Matrix .....	16
10. Project personnel & key contacts.....	17
11. Standards and Specifications.....	18
12. Appendices & Supporting Documents.....	18



## 1. Introduction

The Northern Line Extension (NLE) is a new section of underground line extending the existing Charing Cross branch of the Northern Line between Kennington and a new terminus station Battersea Power Station via an intermediate station at Nine Elms.

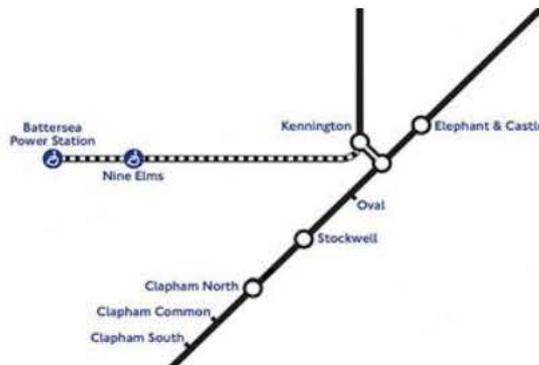


Figure 1 - Northern Line Extension

The NLE is made up of two individually bored tunnels running 3.2km each. They join the existing Northern Line (NL) from Kennington Loop via two interface connections; The Southbound Step Plate Junction (SB-SPJ) and The Northbound Step Plate Junction (NB-SPJ) as outlined in figure 2 below.

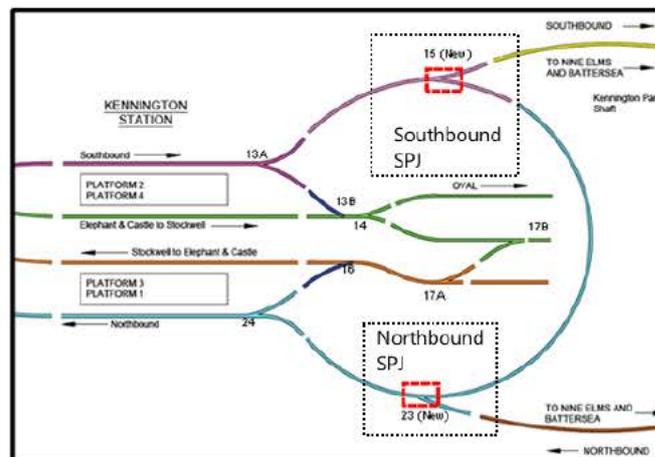


Figure 2 - Step Plate Junction connections to existing Kennington Loop

Thales have been contracted separately by LU to extend the existing TBTC Signalling System on the NL to cover the Northern Line Extension from **Kennington** to **Battersea Power Station**.

The backhaul fibre optic connection from **Kennington** through to **Highgate Service Control Centre** is to be enabled by the *Contractor* in order to fulfil the LU Railway Systems obligation.

This scope of works and supporting information is relation to 3 specific items in order to fulfil the LU Railway Systems obligation;

- Termination of existing 'Dark' Fibre availability from Highgate Service Control Centre through to Waterloo Station inclusive (15 sites)



- 2x new FOSE box installations at Kennington
- 2x new (C19 type) 48 core cables to be ran in NB and SB tunnels from Kennington to Waterloo and terminated at each end (*incl. new additional CRMS at intermittent locations as described*)
- End to End testing and support to Thales

## 2. Description of Works

As part of the NLE signalling contract, Thales will be installing a total of 2x 24 core fibre optic cables for the NLE TBTC System from Battersea Power Station to Kennington, where 24cores are in the NB leg and 24 cores are in the SB leg, as highlighted in red below. This accounts for the TBTC system requirement plus 100% spare capacity. By utilising the existing Northern Line fibre network shown in blue (and new cables shown in green), a suitable backhaul fibre connection will be provided as part of this scope of works, for Thales NLE by splicing through 24 cores at each splice enclosure, on each leg, between HSCC and Kennington as shown in figure 3.

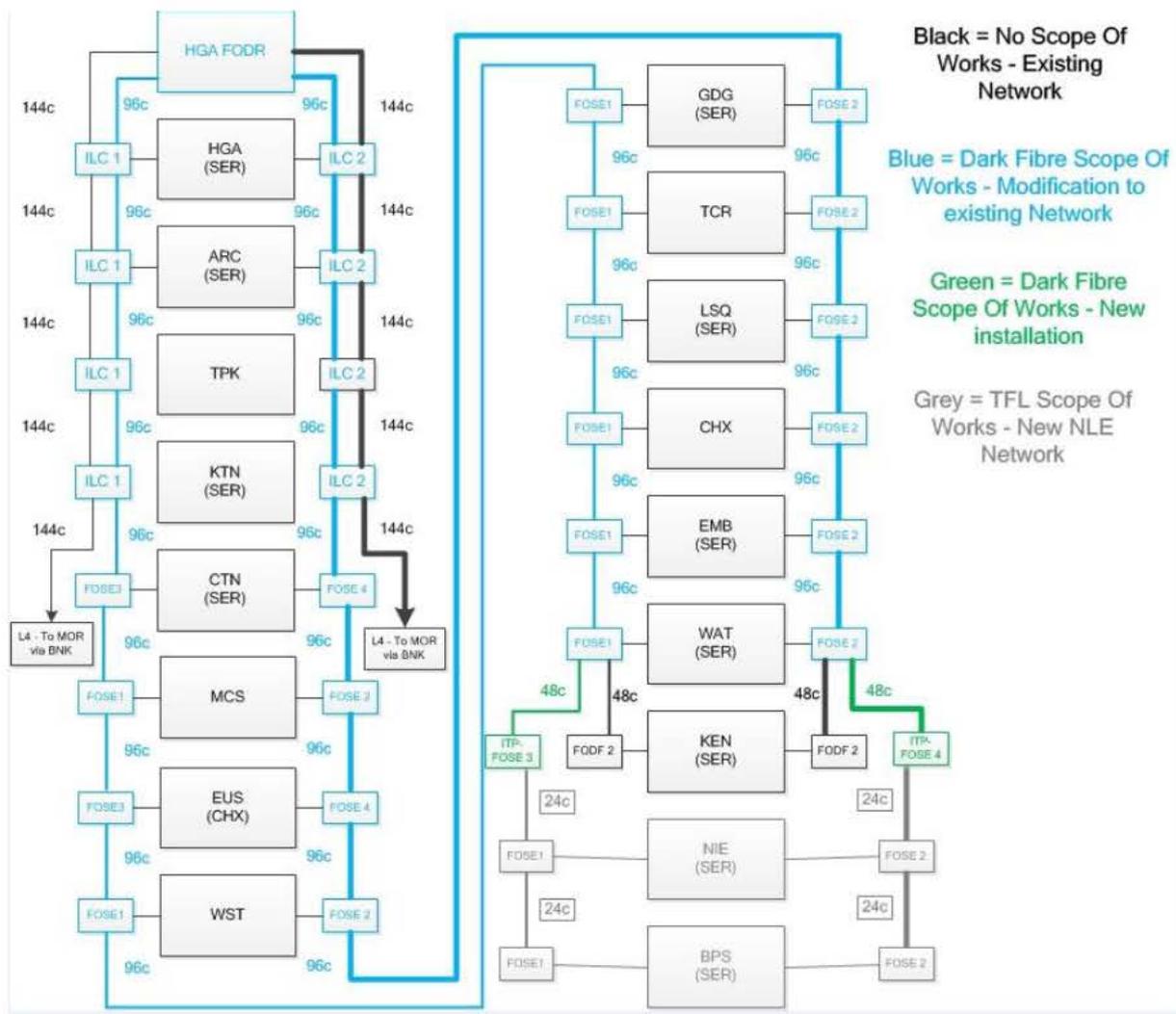


Figure 3 – Fibre Network Architecture for NLE TBTC



## 2.1 Key Dates

This scope of works is to be fully completed including the handover of all deliverables no later than **15<sup>th</sup> October 2019**.

## 2.2 Termination of existing Dark Fibre

The existing JNUP Fibre Network (as highlighted in figure 3, in blue), has enough unused and unterminated spare capacity (Dark Fibre) to support the NLE requirement. Of the 96 cores in each leg of the existing JNUP cable network, there are 48 cores used (Bookwiring Tubes - U1, U2, U7 & U8) and 48 cores unused / un-spliced (Bookwiring Tubes - U3, U4, U5 and U6), which run from HSCC to Waterloo.

In order to provide Thales with the backhaul fibre connection required for the NLE utilising the existing Northern Line Dark Fibre, the *Contractor* is required to;

- Splice through 24 cores per leg (of the spare cores available) at each FOSE (Fibre Optic Splice Enclosure) and ILC (In-Line Closure) from Highgate Service Control Centre to Waterloo, (as shown in blue).
  - Terminate the 24 cores per leg into the existing HSCC FODR1 (rack one), and the newly installed ITP-FOSEs at Kennington station (see 2.2 below). This is to provide the interface required for Thales' NLE network.
  - SCC FODR1 the cables will need to be spliced in to the existing spare patch panel ready for Thales to patch into
  - all works (installation, test, correlation etc.) is to be conducted by competent Fibre Optic installation, splicing and testing Engineers
  - As works are to be undertaken within commissioned enclosures, activities are to be planned so that works only take place on a single Leg of the network at any one time as to reduce risk to the operating railway.
- *Extra care will need to be taken at In-Line Closures (ILCs) at HGA, ARC, TPK and KTN as these contain the fibre network to Kennington via Charing Cross (Bookwiring leg L3, 96 Cores) as shown in blue and the network to Morden via Bank (Bookwiring leg L4, 144 Cores) as shown in black.*
  - *Note the 8x ILCs will require additional Cassettes to be installed by the Contractor as there are currently no spare cassettes available for splicing, but there is capacity for additional cassettes to be installed. A minimum of two cassettes will be required for each ILC for splicing 24 cores (12 cores per Cassette).*
  - *All works that interface with the commissioned network must take place during Engineering Hours with an AWC in place. AWC/s will be arranged by LU Project team and issued to the Contractor undertaking the scope of works.*
  - *An LU Technical Officer will be supplied by LU and in attendance for supervision of all works undertaken within commissioned enclosures.*

For existing ILC / FOSE box identification and locations, please refer to Appendix A – JNUP – NL FOSE Box Locations.

The following is to be carried out by the *Contractors* fibre optic tester upon completion of each splicing activity;



1. Test fibres (OTDR) single direction from station back to HSCC and record results (ensure healthy connection)
2. Conduct splicing works
3. Complete correlation sheet (independent operative from splicing operative)
4. Update Maintenance Prints on site
  - a. Red Line existing bookwiring (splice enclosure sheet)
  - b. Insert relevant sheets from standalone dark fibre design into bookwiring (3x sheets at HSCC, 2x sheets for all other enclosures)
5. Complete Inspection Test Plans (independent operative from installation operative)
6. Update Maintenance Prints at SIM office
  - a. Red Line existing bookwiring (splice enclosure sheet)
  - b. Insert relevant sheets from standalone dark fibre design into bookwiring (3x sheets at HSCC, 2x sheets for all other enclosures)
7. Issue the Correlation sheet, Inspection test Plans and OTDR (test results) back to project team

## 2.3 Installation of new ITP-FOSE boxes

This section details the requirement for the installation of two new Interface Termination Point Fibre Optic Splice Enclosures (ITP-FOSEs) at Kennington station (as shown in green Fig.3).

The *Contractor* is required to install 2 no. ITP FOSE boxes which are to be free issued by LU and to be located as follows;

- For the Northbound road, ITP-FOSE is to be housed on Platform 1, Room 3/382
- For the Southbound Road, ITP-FOSE is to be housed on Platform 2, Room 4/901

For each network leg, the ITP-FOSE box locations are detailed in Appendix B – Space Applications;

Fixing arrangements are detailed in Appendix C – FOSE Box CDF Logs;

- 3-382 Kennington FOSE Box CDF Log
- 4-901 Kennington FOSE Box CDF Log

All supplementary fixings are to be provided by the *Contractor*.

## 2.4 New 48 core cable WAT > KEN

The *Contractor* is required to install two new 48 core cables (one per leg), free issued by LU, from Waterloo FOSE 1 & 2 to Kennington station (KEN ITP FOSE3 Platform 1 and KEN ITP FOSE4 Platform 2), (as shown in green in Fig.3).

One cable is to be pulled onto the NB road (2km), and one onto the SB road (2.5km).

LU will arrange for the free issue of 1x 2km & 1x 2.5km 48 core fibre C19 signalling cable drums to be delivered to the *Contractors* designated storage facility. Upon delivery, the *Contractor* will be required to undertake Insertion Loss Measurement (ILM) & Continuity tests to both cable drums and provide test sheets to the Project team as part of 'acceptance receipt' for handover.

The *Contractor* is also to propose methodology for cable pulling activities from Kennington to Waterloo as part of their tender submission.

For temporary storage, there are 2x cross passages along the route at 650m and 950m from KEN towards WAT.



Total length of the route is approximately 1850m in NB tunnel and 1980m in SB tunnel.

During a recent site survey, it is apparent that on the NB road, in 3 separate locations, additional CRMS will be required – the total gap in the CRMS across the 3 sections equates to approximately 60m. On the NB road, close to KEN, there are redundant cable hangers on the opposite side of the primary cable route that can be recycled and used to complete the missing sections. Please refer to Appendix D – KEN to WAT CRMS Route for further detail. The *Contractor* will be required to complete the missing CRMS route prior to running the cable. The LU Project Team will provide the *contractor* with the relevant Track Clearance Approvals, Inspection Test Plans, and CDF Logs for installation.

The SB route is deemed sufficient to pull cables the full length and there is enough capacity on existing routes to utilise.

Once the cables are pulled and dressed into the CRMS, the ILM and Continuity tests are to be repeated to ensure no damage to the cable has been caused during transportation and/or install.

Labelling for the newly run cables will be provided free issue by the LU Project Team. The labels are to be secured to the cable at 100m intervals, and at any transition points along the route.

As per Appendix F – F3333 Forms (Asbestos / Hazardous Materials), there is known asbestos sound proofing within the tunnels as well as asbestos sheathed cabling within existing ductwork at Kennington & Waterloo. Although the works are not expected to affect / damage the known asbestos, LU will provide asbestos accredited personnel to monitor, oversee and advise the work group undertaking the works to mitigate against any accidental situations.

### 3. Testing Requirements

Optical Fibre testing at the relevant phases of the fibre installation is necessary to prove acceptance criteria and provide confidence that the optical performance of the fibre trunk is in accordance with the specification and BS-EN-60793 Standards. It is therefore recommended that the Fibre network is installed and tested sequentially from HSCC to Kennington in order to monitor and provide confidence that network will remain within the target budget and to ensure that no damaged fibre is spliced into the network prior to handover.

All cables must have a loss no greater than 0.25dB/km and each splice must be less than 0.1dB, any deviation from this must be agreed by the Project Manager.

It is the *Contractor's* responsibility to ensure each individual Splice (HSCC to KEN), and any new cable installation (WAT to KEN) is within tolerance. LU will be responsible for ensuring that any existing cable is within tolerance (HSCC to WAT).

The *Contractor* will be required to document and submit to LU for approval all Fibre Optic test results, in a format agreed with the Project Manager.

The *Contractor* will be required to use an Optical Time Domain Reflectometer (OTDR) to ensure each fibre is within tolerance (0.25 dB/km), (single direction fed). If a fibre fails, the contractor will be required to conduct additional testing of fibres from other Spare tubes and



report results back to LU within 24hours. This is to facilitate a design change should a fibre / tube need to be swapped between enclosure locations.

The splicing equipment will give an indication of the quality and loss of a splice. The contractor will be expected to rectify any splices that fail to meet the tolerance of 0.1dB.

For any new cable installation the contractor is required to conduct a drum test prior to installation to ensure the quality and compliance of the cable (within 0.25dB/km).

Prior to Handover the contractor will be required to conduct a full ODTR and Power metering test in both directions across all spliced fibres. The pass / fail criteria for Power Metering from HSCC FODR1 to KEN ITP-FOSE (in both directions) needs to be within 14dB, +/-10%.

The *Contractor* will be required to supply all specialist tooling required to conduct the works including (but not limited to) the OTDR, launch leads and power / light meters.

Please refer to *Appendix L – Fibre optic Test Plan Northern Line WCC-NLE-P894-JNP-TEP-0002* for further information.

## 4. Access

The LU Project Manager can support with arranging access for the *Contractor* via the MPD Access Team and Highgate Service Control Centre.

RailSys numbers, formerly SABRE, are to be requested and obtained by the *Contractor*.

Protection staff (PWT) are to be arranged by the *Contractor*.

### 4.1 The Sites

Site	Address	LCS
Highgate Service Control Centre	Highgate Sidings, Woodside Avenue, London N6 4LY	
Highgate Station	Archway Road, London N6 5AA	N075
Archway Station	Junction Road, London N19 5RQ	N081
Turnpike Lane Station	Westbury Avenue, London N15 3NX	N083
Kentish Town Station	Kentish Town Road, London NW5 2AA	N085
Camden Town Station	Camden High Street, London NW1 8QL	N091
Mornington Crescent Station	Hampstead Road, London NW1 2JA	N093
Euston Station	Euston Road, London NW1 2AE	N095
Warren Street Station	134 Tottenham Court Road, London NW1 3AA	N101
Goodge Street Station	72 Tottenham Court Road, London W1T 2HE	N103
Tottenham Court Road Station	Oxford Street, London WC2H 0EH	N105
Leicester Square Station	Cranbourn Street, London WC2H 0AP	N107



Charing Cross Station	11 Strand, London WC2N 5RJ	N109
Embankment Station	Villiers Street, London WC2N 5AQ	N113
Waterloo Station	York Road, London SE1 7ND	N115
Kennington Station	Kennington Park Road, London SE11 4JQ	N143

## 4.2 Working Times

Works are to be undertaken during Engineering hours and subject to NEPA and EWSA Late Notice Publications. For reference, the *Contractor* is advised to refer to Appendix M - Publication 'Guide to Switching Current On and Off' for specific timings. It is anticipated that access to splice enclosures will not require track access, please refer to enclosure location sheet in Appendix A – JNUP – NL FOSE Box Locations.

At the time of writing, there are no known possessions or closures that could be utilised for this package of works.

The *Contractor* must factor in Night Tube operations on the Northern Line into their programme.

## 4.3 Activities adjacent to site

Thales, the ATC Signalling contractor, and their suppliers, are also undertaking works within the area, amongst other 3<sup>rd</sup> party contractors.

The *Contractor*, as the appointed Principle Contractor, is to ensure co-ordination is undertaken with 3<sup>rd</sup> Party suppliers and works are effectively managed on site. The Project Manager can assist with co-ordinating with other MPD Construction teams.

Whilst on site, the *Contractor* is to ensure working areas are well demarcated and liaison is undertaken with other contractors throughout the works when sites are in close proximity of each other.

## 4.4 Parking

There is no allocated parking at the sites for contractors. The *Contractor* is to comply with local parking restrictions within the vicinity of the Station chosen for access and respect local residents and businesses at all times.

Please refer to Appendix E – *HSE Information* for specific constraints at Kennington Station.

For access to Highgate Depot (and Service Control Centre), any persons & vehicles attending must be booked in with security at least **24hrs** prior to attendance. Without notification, staff may be refused entry. On site parking within HSCC is extremely limited with only a single access road, it is therefore recommended that site staff park off site in accordance with local restrictions and carry equipment required to site. Any large / bulky equipment maybe dropped off with permissions in place.

It is recommended that staff and visitors for all sites who are not transporting plant, equipment and materials, use public transport to and from the work sites.



## 5. Health, Safety, Environmental & Quality

### 5.1 CDM Roles & Responsibilities

**Client:**

Transport for London – Major Projects Directorate  
5 Endeavour Square, Westfield Avenue, London E20 1HZ  
Representative – Geoff Pearce

**Principle Designer:**

Transport for London – Major Projects Directorate  
5 Endeavour Square, Westfield Avenue, London E20 1HZ  
Representative – Baldeep Bassi

**Principal Contractor:**

*The appointed Contractor will act as PC for this package of works.*

### 5.2 F10 Notification

This scope of works is anticipated to exceed one or more of the thresholds to trigger the requirement of an F10 HSE/ORR Notification. The LU Project Manager will submit the notification upon contract commencement, and a copy of which will be forwarded to the *Contractor* and must be held on site during the works.

### 5.3 Construction Phase Plan

The *Contractor* is to submit a Construction Phase Plan to the Project Manager no later than 4 weeks prior to the start of on site works.

For guidance please see HSE website; <http://www.hse.gov.uk/pubns/cis80.pdf>

A LU template document can be issued upon request, however if content is in accordance with HSE guidance then the *Contractor* can use a template of choice.

### 5.4 Method Statements

The *Contractor* is required to submit an outline methodology statement for the cable pulling activities between Kennington and Waterloo as part of their tender submission.

The *Contractor* is to produce and submit method statements for all works no later than 2 weeks prior to the start of on site works.

The *Contractor* will also provide Task Briefing Sheets no later than 1 week prior to the start of on site works.

### 5.5 Risk Assessment

The *Contractor* is required to evaluate all risks associated with the works and put in place required mitigations. The risks identified should be included with the Method Statements and Task Briefing Sheets.

### 5.6 Site Management

The *Contractor* shall provide a competent and experienced SPC to manage the on site works from a health, safety, environmental and quality aspect.

The *Contractor* is responsible for providing all Safety Critical resources, such as PWTs, T002/3 and any other staff required to safely deliver the works.



All associated costs for Safety Critical Resources are to be covered by the *Contractor*.  
LU may at times provide a site inspector to oversee site works on behalf of the Project.

## 5.7 Skills

Staff assigned to deliver these packages of works shall be appropriately skilled, trained and experienced for the type of work that they are engaged to undertake. All staff are required to hold valid, in date certification to which should be available for inspection at all times.

For access to LU infrastructure, all staff are required to have in date SENTINEL cards, with LU Industry Common Induction competency (or LU-CAS cards if still in date).

All fibre works (installation, test, correlation, etc.) is to be conducted by competent Fibre Optic Engineers with either a City & Guilds or supplier training on fibre optics & splicing accreditation; 5+ years practical experience; including demonstrable experience on operational railway systems.

## 5.8 Track Clearances

The LU Project Engineer will apply for and manage Track Clearance Applications. Any equipment installed 3m laterally, or 5m vertically from any running rail must be reviewed and approved by the London Underground Track Engineering department.

The CRMS to be installed between WAT and KEN will require Track Clearance Applications; these will be made available to the *Contractor* upon their approval.

During the works, the *Contractor* shall provide an LU approved T002/3 personnel to gauge clearances and provide Fit For Traffic forms after each shift where the 3m / 5m rules apply.

## 5.9 Confined Spaces

Confined Space working will be required at Kennington and Waterloo platform inverts in order to access the cable routes for the installation of new cabling.

Confined Space working must be undertaken in accordance with HSE Regulations – information can be found on the HSE website; <http://www.hse.gov.uk/confinedspace/>

## 5.10 Existing Structures & Assets

A joint walk through of the site/s can be undertaken at the request of the *Contractor* and LU will provide a representative to highlight any existing assets and/or structures that may be directly or in-directly affected by the works.

For fibre splicing into existing networked enclosures, LU will provide a JNP Technical Officer (TO) to be on site during splicing of the dark fibre, the TO will oversee the works to ensure integrity to the Operational functions are protected and maintained at all times. **No works to existing Operational fibre enclosures can be undertaken without an LU Technical Officer on site and overseeing the works.**

The *Contractor* is to actively take steps in reducing the risk to the operational network by; segregating (where possible); ensuring only one operative is working in the enclosure at any one time; only one leg of the network is being worked on any one time; taking extra care when dressing in fibres etc.



Asset protection measures will need to be documented in the applicable method statement and task briefing sheets.

## 5.11 Heritage

Not applicable.

## 5.12 Air Pollution

The *Contractor* will use best practice to minimise air pollution. All plant, machinery and generators will be switched off when not in use.

Plant and machinery should be of good condition and compliant with European & British Standards.

## 5.13 Noise

It is not envisaged that this scope of works will result in any additional noise levels than already within the local environment when undertaking works within stations or trackside; however, outside the station environments the residential nature of the environment will need to be considered for staff and deliveries. The *Contractor* is to comply with the Section 61 directive where applicable. Refer to Appendix E – *HSE Information* for site specific noise constraints, taking particular attention to the Safety Bulletin relating to Kennington Station.

## 5.14 Buried Services

Buried Services are not deemed to be an issue with the provision of this scope of works, however, should any sites require service drawings during the pre-construction or construction phases, then the LU Project Manager should be notified immediately.

Approved LU apparatus should be used for scanning floors and walls prior to any penetration and a relevant Permit to Drill / Permit to Dig should be completed.

## 5.15 Asbestos & Hazardous Materials

Please refer to Appendix F – *F3333 Forms*

- F3333 - ES11421 WAT to KEN SB
- F3333 - ES11422 KEN to WAT NB

Due care and attention must be observed for all site works. Known asbestos exists within the running tunnels of both NB & SB between WAT and KEN. Throughout the London Underground network there is potential to come across asbestos containing materials, such as cable braiding, cladding panels and discarded materials. The management of asbestos and reporting of finding asbestos must be contained within the Method Statement for the works.

All staff assigned to delivering this package of works must have completed the TfL Asbestos Awareness Course to ensure they are comprehensively familiar with the unique types of asbestos containing materials within London Underground Infrastructure.

LU will provide trained personnel to oversee any works that are deemed to be at medium to high risk of asbestos disturbance.

## 5.16 Waste & Litter



The *Contractor* will keep good housekeeping on site at all times and clear waste and debris on a daily basis in accordance with Waste Management Regulations.

A copy of the *Contractor* waste carriers licence will be provided to the Project Manager, and a copy made available within the site file for the works.

All waste transfer notices must be kept for record purposes.

## 5.17 Lighting & Power

The *Contractor* is responsible for ensuring adequate lighting and power is made available on site.

There maybe 110v supplies within the working area, however these will need to be checked for functionality prior to works commencing. Battery back up lights should always be available in the event of a 100v supply failing.

## 5.18 Permits & Licences

Permits and Licences must be put into place by the *Contractor* in order to undertake the works, the below provides guidance as to what may be required;

- Permit to Work at Height
- Permit to Enter Confined Spaces
- Movement of Materials (Lifts or Escalators)
- Permit to Dig / Drill
- Fire Isolations

## 5.19 Welfare

The *Contractor* is responsible for the provision of welfare facilities. The use of Station facilities could be permitted with the Station Supervisors prior agreement.

The *Contractor* will be responsible for maintaining any welfare provided at the Station and failure to comply may result in the welfare provision being withdrawn.

# 6. Design

## 6.1 Detailed Design

Please refer to Appendix J – *NLE Fibre Network Detailed Design DRAFT*.

The draft design is to be used for costing and planning purposes only. It is not envisaged the information contained within will deviate prior to final approvals being in place.

It is not anticipated that the *Contractor* will be required to undertake any Detailed Design work as part of this package.

## 6.2 Designers Risk Assessment

Designers Risk Assessment has been undertaken by the LU Project team.



## 6.3 Temporary Works

It is not envisaged that delivering this scope will require any Temporary Works. However, should the *Contractor* deem TW as a requirement, this must be detailed in the tender submission along with proposals for the management of Temporary Works.

## 6.4 Technical Queries

All Technical Queries are to be submitted by the *Contractor* to the Project Manager, detailing the query, response date required, and impact of delay. A TQ register is to be maintained by the *Contractor* for periodic review during progress meetings.

## 6.5 Concept Design Statement

Please refer to Appendix G – ‘CDS – Utilising JNUP Dark Fibre for NLE TBTC’. This has been included for information purposes.

## 7. Programme & Reporting

### 7.1 Programme

The *Contractor* is to submit a programme in pdf & msp format as part of their tender submission. Once in contract, the programme is to be updated and issued to the Project Manager two weekly on a Monday.

The *Contractor* is also to provide a 2 week look-ahead on a weekly basis to the Project Manager, every Monday detailing the locations and activities to be undertaken.

### 7.2 Meeting Schedule

The following meeting schedule will be adhered to for this package of works;

Meeting Title	When	Frequency
Contract Kick Off Meeting	Within 1 week of contract award	Once
Pre-Start Meeting	1 week prior to works starting on site	Once
Progress Meeting	TBC	Every two weeks for duration on contract
Close Out Meeting	At completion of deliverables	Once

*Meetings will be held at the Client Office, 5 Endeavour Square, London E20 1HZ*

### 7.3 Daily Reporting

The *Contractor* will issue daily site reports no later than 09:00am the following morning of works being undertaken to the Project Manager. Site reports should contain the following as a minimum;

Date	Before / After photos
Staff on site	Description of planned works
Location	Description of works completed
Booking On / Off times	Any incidents / issues



## 7.4 Notification of Works

All works are to be communicated to the Project Manager no later than 24 hours in advance. The communication should contain, works location, date, planned activities, risk level and contact details for the work group. A template will be issued by the Project Manager which shall be populated by the *Contractor* and submitted back to the Project Manager by midday on a daily basis.

On site, all works under the NLE Programme must report on and report off with the Major Projects Integration Centre (MPIC) and is done so via the *Contractor* SPC or lead representative contacting via text or call to 07515 500 840

## 8. Deliverables

The following deliverables listed are deemed required for the delivery of this scope and as such the *Contractor* will be asked to provide;

### When planning the works;

- Programme
- Construction Phase Plan
- Method Statement/s
- Task Briefing Sheets
- Permits & Licences

### During the works;

- Daily Site Reports
- Two Week Look-Aheads
- HSE Data (hours worked, waste generated/processed, incident/eirf data)

### Upon completion of the works;

- Photographic completion report
- Signed & completed Track Clearance Approvals
- Signed & completed CDF Logs
- Red Line As-Built detailed design
- Correlation sheets
- Conformity of Materials certificates
- Specification / Data sheets for products used
- Inspection Test Plans
- OTDR Test Sheets

## 9. Responsibility Matrix

R – Responsible      A – Accountable      I – Inform      C - Consulted

	<b>Contractor</b>	<b>LU</b>
Producing the Installation Bookwiring Design (Generic or bespoke)	I&C	R&A
Producing any supporting mechanical Design	I&C	R&A
Producing field delivery documentation such as	R	A



Method Statements		
Producing the Test Plan	R	A
Providing a suitable space for the KEN ITP-FOSE boxes	I	R
Conducting the Installation and Test works	R	A
Ensuring the Splice is within 0.1dB	R	A
Ensuring the Cable loss is less than 0.25dB/kM (For Existing Cables)	I&C	R&A
Ensuring the Cable loss is less than 0.25dB/kM (For New Cables - up to the point of handover)	I&C	R&A
Ensuring the Cable loss is less than 0.25dB/kM (For New Cables - post handover)	R	A
Rectifying any issues to the commissioned network as a result of the works	I	R&A
Booking Access	R	
Agreeing the ITP-FOSE Specification	I&C	R&A
Procuring and supplying the ITP-FOSE	I&C	R&A
Agreeing the Fibre Cable Specification	I&C	R&A
Procuring and supplying the Fibre Cable	I&C	R&A
Procuring and supplying the Cassettes for ILC enclosures (and FOSE boxes if required)	I&C	R&A
Providing any specific Tooling requirements for the works (OTDR, Power Meter)	R	A
End to End Testing (HSCC - KEN)	R	A
End to End Testing (HSCC - BPS)	I&C	R&A

## 10. Project personnel & key contacts

Name	Job Title	Contact
REDACTED	Project Manager TfL - MPD	<a href="#">REDACTED</a> REDACTED
REDACTED	Project Engineer TfL - MPD	<a href="#">REDACTED</a> REDACTED
REDACTED	Construction Manager TfL - MPD	<a href="#">REDACTED</a> REDACTED
REDACTED	HSE Manager	<a href="#">REDACTED</a>



	TfL - MPD	REDACTED
REDACTED	Ast Commercial Manager TfL - MPD	<a href="#">REDACTED</a>
MPIC	Major Projects Integration Centre	<a href="mailto:MPIC@tfl.gov.uk">MPIC@tfl.gov.uk</a>
LU Incident Reporting		0844 292 0292
Northern Line Controller		Auto 106 (906 Emergency) 0800 616 813 (Freephone)
British Transport Police		0800 405040

## 11. Standards and Specifications

LU Standards are to be adhered to, with particular reference to the following:

- S1198 Signalling & Signalling Control – Installation, Testing, Commissioning & Handover
  - S1114 Safe Systems of Work On Or Near Electrical Equipment
  - S1145 Wired Communication Systems
  - S1085 Fire Safety Performance of Materials
  - S1156 Gauging and Clearances (Track)
  - S1050 Civil Engineering – Common Requirements
  - S1063 Cutting Drilling Fixing to and supporting from existing structures
  - Fibre optic Test Plan Northern Line WCC-NLE-P894-JNP-TEP-0002
- Latest versions can be supplied upon request.*

## 12. Appendices & Supporting Documents

Appendix	Title
A	JNUP NLE FOSE Box Locations
B	Space Applications
C	FOSE Box CDF Logs
D	KEN to WAT CRMS Route
E	HSE Information
F	F3333 Forms (Asbestos / Hazardous Materials)
G	CDS
H	Northern Line Fibre Optic Cable Route Plan
I	QUENSH
J	NLE Fibre Network Detailed Design <i>DRAFT</i>
K	Inspection Test Plans
L	Fibre optic Test Plan Northern Line WCC-NLE-P894-JNP-TEP – 0002
M	Guide to Switching Current ON/OFF Northern Line

Transport for London

# London Underground Limited



## ***NLE Dark Fibre Enabling Works***

4.0 Copy PO 3101084217



# Purchase order

## Vendor address

Delatim Limited  
Unit 38, The IO Centre  
Armstrong road; Woolwich  
London  
SE16 6RS

## Contact

**Requested by** : Kerrie Mitchell  
**Telephone** : REDACTED  
**Email** :  
REDACTED

## Invoice to

London Underground Ltd  
Accounts Payable  
1st Floor  
PO Box 45276, 14 Pier Walk  
London SE10 1AJ  
**Telephone:** 0343 222 5100  
**Fax:** 020 3054 5331  
**Email:** invoices@tfl.gov.uk

## Information

**Purchase order no.** : 3101084217  
**Creation date** : 03.07.2019  
**Vendor no.** : 10015760  
**Currency** : GBP  
**Payment terms** : SME Payment in 10 days

## Delivery address

London Underground Ltd.  
55 Broadway  
London  
SW1H 0BD  
**Or as agreed below**

## Instructions to vendor

The supply of goods/services under this purchase order is subject to the terms and conditions of the contract number referenced above. Supply of goods or services under this purchase order indicates your acceptance of such conditions.

Item	Description	Quantity	UM	Net price	Total price
0010	NLE Dark Fibre Enabling Works Delivery Date: 04.07.2019 WBS Elements: UIP2363.005.009 Company code: 1005 PO for Call-Off contract under ASPIRE Framework Agreement 4600005806.	1.000	EA	206,580.00	206,580.00

**Procurement Department:** Fleet/Helen Blackley/0207 0885 494

**Date:** 05.07.2019

London Underground Limited.

Registered Office: 55 Broadway, London SW1H 0BD . Registered in England and Wales no. 01900907.

VAT number: 756 2770 08. London Underground Limited is a company controlled by a local authority within the meaning of Part V of the Local Government and Housing Act 1989. The controlling Authority is Transport for London.

Information	
Purchase order no.	: 3101084217
Creation date	: 03.07.2019
Vendor no.	: 10015760
Currency	: GBP
Payment terms	: SME Payment in 10 days

Item	Description	Quantity	UM	Net price	Total price
	<b>Sub Totals</b>				<b>206,580.00</b>
	<b>Total Cost (excl. VAT)</b>				<b>206,580.00</b>

Transport for London

# London Underground Limited



## *NLE Dark Fibre Enabling Works*

### 5.0 Programme



Transport for London

# London Underground Limited



## ***NLE Dark Fibre Enabling Works***

### 6.0 Activity Schedule and Price List

**Northern Line Extension - Dark Fibre  
Activity Schedule Rev 2**



Contractor to populate Cells highlighted in Yellow.					
Item No.	Description	Quant	Unit	Rate	Total
<b>1</b>	<b>Core Management</b>				
1.1	Project Management	25	1	£ 473.06	£ 11,826.50
1.2	Commercial	3	1	£ 469.12	£ 1,407.36
1.3	Planning	3	1	£ 400.00	£ 1,200.00
1.4	Method Statements / HSQE	10	1	£ 365.36	£ 3,653.60
1.5	Admin/Doc Control	2	1	£ 225.00	£ 450.00
<b>Total for item 1</b>					<b>£ 18,537.46</b>
<b>2</b>	<b>Enabling Existing Dark Fibre (2.2 of WCC-NLE-P894-JNP-SOW-00001)</b>				
1.1	Surveys and Works Planning	1	1	3,315.66	£ 3,315.66
1.2	Storage and handling of Free Issued Fibre Optic Cassettes	1	1	£ 700.00	£ 700.00
1.3	Pre Works Testing	1	1	£ 400.00	£ 400.00
1.4	Modification of Connection at Highgate Control Centre Splicing of existing fibre between and including Highgate and Waterloo (As the splicing continues the cables will be tested every third station along the route to prove the cable as works progress to avoid getting to the end to end testing and having to fault finding.	4	3	£ 400.00	£ 4,800.00
1.5		108	1	£ 43,899.84	£ 43,899.84
1.6	Post Works Testing	4	3	£ 400.00	£ 4,800.00
1.7	Handover Deliverables			Inc	
<b>Total for item 2</b>					<b>£ 57,915.50</b>
<b>3</b>	<b>Installation of new FOSE Boxes (2.3 of WCC-NLE-P894-JNP-SOW-00001)</b>				
2.1	Storage and handling of Free Issued FOSE boxes			Inc	
2.2	Installation of FOSE boxes including CMS	4	3	£ 285.21	£ 3,422.52
2.3	Materials				£ 100.00
2.4	Handover deliverables			Inc	
<b>Total for item 3</b>					<b>£ 3,522.52</b>
<b>4</b>	<b>Installation of New Fibre Optic Cable (2.4 of WCC-NLE-P894-JNP-SOW-00001)</b>				
4.1	Provision of PWT - EH	8	1	345.00	£ 2,760.00
4.2	Provision of T002/Handback	8	1	£ 350.00	£ 2,800.00
4.3	Storage and handling of Free Issued Fibre Optic Cable			Inc	
4.4	Surveys and works planning			Inc	
4.6	CMS Installation			Inc	
4.7	Cable Pull			£ 36,945.30	£ 36,945.30
4.8	Cable dressing			£ 36,945.30	£ 36,945.30
4.9	Spice at newly installing cable into FOSE boxes at Kennington			Inc	
4.10	Materials and Equipment				£ 1,150.00
4.10	Testing of free issued cable (upon delivery, and installation)			Inc	
4.11	Handover deliverables	3	1	£ 473.06	£ 1,419.18
<b>Total for item 4</b>					<b>£ 82,019.78</b>
<b>5</b>	<b>End to End Testing (2.5 of WCC-NLE-P894-JNP-SOW-00001)</b>				
5.1	End to End Testing (people)	4	2	400.00	£ 3,200.00
5.2	Testing Equipment	1	1	£ 6,400.00	£ 6,400.00
<b>Total for item 5</b>					<b>£ 9,600.00</b>
<b>6</b>	<b>Other Items Not Described</b>				
6.1	Site Safety				£ 2,001.20
6.2					
6.3					
6.4					
6.5					£ -
<b>Total for item 6</b>					<b>£ 2,001.20</b>
<b>7</b>	<b>Overhead</b>				
6.1	Percentage Overhead	1	1	19%	£ 32,983.33
<b>Total for item 7</b>					<b>£ 32,983.33</b>

**The Contractors Rates above to include for the following**

**Grand Total £ 206,579.79**

Provision for attending meetings as required on site and at Camelford house or Endeavour Square (Stratford) offices.  
 Programme of works to meet milestone dates provided  
 All preliminaries eg Commercial, Planning, Plant , Equipment, PPE etc  
 Liaison with Asset owners.  
 Site Inductions  
 Provide Safe Systems of Work (RAMS etc)

**Exclusions (I.e. items not to price - Provided by Project Team)**

Project Team will arrange access applications for working in the station  
 TfL will provide Fibre Optic cable for installation between Waterloo and Kennington, Fibre Optic splicing cassettes and FOSE boxes.  
 Project Team will provide relevant Track Clearance Approvals, Inspection Test Plans and CDF Logs for Installation.  
 Project Team will provide asbestos accredited personnel to monitor, oversee and advice the work group.

**Notes**

Please note that the lump sum price is not subject to re-measurement and the tenderer is responsible for ascertaining the accuracy or otherwise of all scope and quantities extracted by them from ITT documentation and through site surveys.  
 Non-productive People Cost is defined as site management, supervision and associated non-producers (all other costs being included in the Fee).  
 People rates are inclusive of overheads.  
 Equipment rates are inclusive of adjustments to represent market hire rates.  
 Please note the above schedule is to be priced and developed in conjunction with the issued Scope of works and ITT documents

**SWIP:ASPIRE**  
**WORKS & SERVICES**  
**PRICE LISTS TO SUPPORT THE PAYMENT MECHANISM**

**A: RATE CARD**

**#REF!**

**NOTES**

- 1 The labour rates included under this matrix shall be those used as a basis for Task Order Price Lists when the works are awarded on a cost reimbursable basis. In addition, the labour rates may be used in the assessment of Compensation Events.
- 2 The Tenderer is to complete ALL boxes highlighted thus: -
- 3 Notwithstanding 2 above, the Tender must enter "N/A" in any boxes which are not relevant to the Tenderer's work.
- 4 For key personnel only, the Tenderer is to add any other Names and/or Roles not defined in the schedule below, which they have not included in the Overhead Costs and would seek reimbursement for where they are working solely on works instructed on a Task Order under this Term Contract. An example of this would be where the Contractor employs a HSE Manager.
- 5 In accordance with Clause 104 of the Conditions of Contract, the Tenderer is to ensure that none of his employees are paid less than the London Living Wage. The Tenderer will ensure any rates entered below reflect this requirement.
- 6 Refer to Section B and Section 7 (Payment Mechanism): Cost Components for details of what is deemed included in the rates.
- 7 Rates shall be populated on a "per shift" basis for the base shift, and the overtime hourly rate shall be the rate to be paid for any hours over the base shift.
- 8 Engineering Hours: This term applies to the running line and is described as being when traction current is switched off (as published in the Guide to Switching Current On and Off subject to variance as published in an Engineering Notice) and trains are not running (ref LU Rule Book 17 for the definition of Engineering Hours). For the purpose of planning, please assume this a shift of 8 hours duration from 10:00 hours to 06:00 hours, however local variations will be identified in the Task Order and associated Access Plan.
- 9 Traffic Hours: This term applies to the running line and is described as being when traction current is switched on (as published in the Guide to Switching Current On and Off subject to variance as published in an Engineering Notice) and trains are running (ref LU Rule Book 17 for the definition of Traffic Hours) For the purpose of planning this could be any continuous 8 hour working shift (excluding breaks) between the hours of 06:00 and 22:00 hours albeit that any local variations to this will be identified in the Task Order and associated Access Plan.
- 10 Definition of 'Regularly Employed Staff': -  
Personnel (including staff and operatives) who are either directly employed by the Company, or who are self employed or employed by others and regularly used by the Company for his specific Trade and who are managed on site by staff who are either directly employed by the Company, or who are self employed and regularly used by the Company for this specific Trade. Evidence of the regular use by the Company of all such personnel may be required,
- 11 Definition of 'Staff': -  
Management, supervision and operatives however employed i.e. permanent, non permanent, part / full time, agency, regularly employed.
- 12 The Tenderer is also required to complete the schedules in Sections C and D of these Price Lists to Support the Payment Mechanism.
- 13 PRICE ADJUSTMENT: Any adjustment to the prices stated in these Price Lists to Support the Payment Mechanism are to be negotiated with the Employer on an annual basis from the date of the Agreement.

**SWIP:ASPIRE  
WORKS & SERVICES  
PRICE LISTS TO SUPPORT THE PAYMENT MECHANISM**

**A: RATE CARD**

**#REF!**

**QUESTION B1a**

Minimum hours of working	Engineering / Closed Station Hours					
	Sun - Thur		Weekend (Fri / Sat)		Bank Holidays	
	8 hours	1 hour	8 hours	1 hour	8 hours	1 hour
Job / Grade	Shift Rate £	Overtime Rate £/Hour	Shift Rate £	Overtime Rate £/Hour	Shift Rate £	Overtime Rate £/Hour
<b>Ops management</b>						
Project Manager						
Commercial Manager						
Admin / Doc Control						
Planner						
HSQE						
<b>Design Team</b>						
Design Manager						
Designer						
Design Engineer						
CAD operator						
<b>On Site Supervision</b>						
Foreman (Site Manager)	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Working Supervisor/SPC	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Senior Supervisor	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
<b>On Site Labour</b>						
SPIC / Foreman	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Craftsman	£285.21	£35.65	£427.82	£53.48	£570.42	£71.30
Technician	£285.21	£35.65	£427.82	£53.48	£570.42	£71.30
Advanced Operative	£400.00	£50.00	£600.00	£75.00	£800.00	£100.00
Labourer	£198.00	£24.75	£297.00	£37.13	£396.00	£49.50
Appren ice	£155.00	£19.38	£232.50	£29.06	£310.00	£38.75

**QUESTION B1a (cont'd)**

Minimum hours of working	Traffic Hours					
	Weekday		Weekend		Bank Holidays	
	8 hours	1 hour	8 hours	1 hour	8 hours	1 hour
Job / Grade	Hourly Rate £	Overtime Rate £/Hour	Hourly Rate £	Overtime Rate £/Hour	Hourly Rate £	Overtime Rate £/Hour
<b>Ops management</b>						
Project Manager	£59.13	£88.70	£88.70		£118.26	
Commercial Manager	£58.64	£87.96	£87.96		£117.28	
Admin / Doc Control	£28.13	£42.20	£42.20		£56.26	
Planner	£50.00	£75.00	£75.00			
HSQE	£45.67	£68.51	£68.51			
<b>Design Team</b>						
Design Manager	£58.64	£58.64				
Designer	£52.58	£52.58				
Design Engineer	£43.95	£43.95				
CAD operator	£34.40	£34.40				
<b>On Site Supervision</b>						
Foreman (Site Manager)	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Working Supervisor/SPC	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Senior Supervisor	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
<b>On Site Labour</b>						
SPIC / Foreman	£419.44	£52.43	£629.16	£78.65	£838.88	£104.86
Electrician	£285.21	£35.65	£427.82	£53.48	£570.42	£71.30
Comms Installer	£285.21	£35.65	£427.82	£53.48	£570.42	£71.30
Fibre Engnieer	£400.00	£50.00	£600.00	£75.00	£800.00	£100.00
Labourer	£198.00	£24.75	£297.00	£37.13	£396.00	£49.50
Appren ice	£155.00	£19.38	£232.50	£29.06	£310.00	£38.75

**SWIP:ASPIRE**  
**WORKS & SERVICES**  
**PRICE LISTS TO SUPPORT THE PAYMENT MECHANISM**

**A: RATE CARD**

#REF!

**QUESTION B1b**

**IMPORTANT: The Tenderer is to ensure the percentages below are as per the completed Section 4.0 Contractor's Contract Data (which is also to be submitted with the Tender)**

The percentage for overheads and profit added to the cost of resources as detailed in Section 7 Part 1 is: - 15%  
(from Contractor's Contract Data)

The percentage for PPE, equipment and consumables as detailed in Section 7.2.3 Part Two is: - 4%  
(from Contractor's Contract Data)

The percentage for overheads and profit added to Material Supply as detailed in Section 7.2.3 Part 1B: - 15%  
(from Contractor's Contract Data)

**Other Applicable People Rates For Compensation Events (Shift Rate Only)**

Project Manager	£473.04
Commercial Manager	£469.12
Commercial Assistant	£200.00
Planner	£400.00
Working SPC	£419.44
Craftsmen/Electrician/Comms Installer	£285.21
Advanced Operative	£285.21
Labourer/Electrical or Comms Mate	£198.00
Apprentice	£155.00

**SWIP:ASPIRE**  
**WORKS & SERVICES**  
**PRICE LISTS TO SUPPORT THE PAYMENT MECHANISM**

**B: COST COMPONENTS**

**Note:** This list details what is deemed to be included in the rates in Part A

Ref	Cost Component	In rate	Separate item
a	<b>LABOUR RATES</b>		
	Payments to People for:-		
	Wages and salaries	✓	
	Out of pocket expenses	✓	
	Other contributions, levies or taxes imposed by statute	✓	
	Bonuses (personal performance related)	✓	
	Bonuses (profit / company financial related)	✓	
	Working in special circumstances	✓	
	Special allowances	✓	
	Normal absence due to holidays	✓	
	Sickness	✓	
	Other authorised absences e.g. Jury Service, Maternity, Paternity Payments (> 4 weeks)	✓	
	Unauthorised absences	✓	
	Redundancy / severance of Contractor's operatives	✓	
	Redundancy / severance of Contractor's supervisory, administrative, financial or secretarial staff, related to work on the contract	✓	
	Other costs:-		
	Cost to the Contractor of providing Site / Working Area based Training Courses for People	✓	
	Costs allocated to attending Site / Working Area Based Training Courses	✓	
	Cost to the Contractor of providing Non Site / Working Area Based Training Courses for Staff and Labour (e.g. at Head Office)	✓	
	People costs allocated to attending Non Site / Working Area Based Training Courses (except expenses)	✓	
	Out of pocket expenses of People attending Non Site/Working Area Based Training Courses	✓	
	Time charges for on the job training e.g. apprentices	✓	
	Payments made in relation to People for:-		
	Travelling to, from, or in relation to the Site	✓	
	Subsistence and lodging	✓	
	Protective clothing required for the works	✓	
	Contractor's National Insurance Liability (including liability on allowable benefits in kind)	✓	
	Cars / vans / travel allowances	✓	
	Company cars / vans including insurance, tax, depreciation, maintenance, fuel, oil and grease	✓	
	Contractor's pension contributions	✓	
	Life assurance cover	✓	
	Mobile phone charges- business related calls only	✓	