

This document is a tool to help ensure appropriate due diligence has been taken prior to site clearance/works. Evidence is required to demonstrate all tree clearance has been suitably reviewed and can be justified.

Note: this document should be read in conjunction with the HS2 Tree Panel Terms of Reference and take into account historic information and data.

	Name	Signature		Date
Application made by:	CSJV			20/12/19
Location (Sector/Site Name):	Sector 3 –Utility Diversions – North Gower Street			
LAA/LAP/Site Reference	Not applicable.			
Work Package number:	WP92A – WP131			
Date of Tree Panel:	06/01/2020	Meeting No:		
Site Description:	<p>The scope of works for this Work Package is the diversion of existing utilities and installation of new utilities to facilitate future construction of the HS2 Euston Station. Works will involve the installation of 24 Way 11 kV ducts, 16 BT ducts, 8 way 132kV ducts and 1-6 way Vodafone ducts.</p> <p>Works will occur on the intersection of North Gower Street and Euston Road within the footpath and road.</p>			
Reason for clearance:	Direct impact on works			
	Yes (Date)	No (Date)	N/A (Date)	Comments
Has the Stage 1 Survey been completed and logged on the Register	07/10/19			
	Yes (Date)	No (Date)	N/A (Date)	Comments
Has the Stage 2 Survey been completed with retention and protection measures logged on the Register	07/10/19			

Have all practicable means to negate need for works to tree been investigated? Please provide details

CSJV have explored a range of means to avoid direct impacts to tree LP00820_T_F011. These are noted below, along with a brief description as to why alternative options to avoid direct impacts to the tree are not feasible.

Consideration of Alternative Tree Protection Methodologies

The following tree protection methodologies were reviewed for tree LP00820_T_F011, namely:

- Option 1: Use of a steel frame surrounding the tree, supported by sheet piles. Works would then occur immediately adjacent.
Reasoning: Considered unfeasible due to increased construction costs and redesign. Option would also destabilise or kill the tree, from the severing of structural roots when installing sheet piles. The root protection area for the tree extends 9.2m radius from the tree. This is within the existing buried power ducts and communication cables. This option would also require the long-term closure of North Gower Street.

- Option 2: Use of soil vacuum and threading ducts through and around tree roots.
Reasoning: Considered unfeasible, given the highly congested existing utilities in area, and number of tree roots which would need to be avoided. The high number of ducts requiring installation would present a challenge to threading around existing roots. Additionally, the area comprises London clays, which present operating difficulties for the vacuum equipment (more suited to soils with a higher sand fraction).

- Option 3: Use of third party land for installing utilities.
- Reasoning: Considered unfeasible, due to difficulties in obtaining long-term legal access agreements, as well as access for ongoing maintenance. Existing London Underground underpass has insufficient space to accommodate the number of power and communication ducts, as well as enabling continued safe pedestrian access.

- Option 4: Tunnelling deeper / Use of service tunnel.
Reasoning: Considered unfeasible due to significantly increased cost, health and safety implications (from deep excavations) and re-design. Residents and businesses would be impacted for a longer period of time, from long-term road closures and closure of the footpath. Deeper excavation may also trigger a requirement for dewatering of the area.

	<p>Consideration of Alternative Utility Routes</p> <p>Several alternative utility routes were reviewed, which could avoid impacting the tree LP00820_T_F011. These included alignments along:</p> <ul style="list-style-type: none"> • Hampstead Road, Grafton Way and Gordon St; and • Hampstead Road, Euston Road, Gower St and Gower Place. <p>These routes presented a number of additional environmental, logistical and cost implications, namely:</p> <ul style="list-style-type: none"> • All routes were considerably longer distances (increased construction cost). • Significant traffic management would be required on Hampstead Rd and the crossover with Euston Road (lane closures). • Direct removal and/or impacts upon the root protection areas of up to 16 additional street trees on Hampstead Rd, Grafton Way and Gower Place. Significantly more street trees would require removal/disturbance with an alternative alignment. • Delayed works programme from re-design, as well as the requirement for additional trial holes, desktop feasibility studies and increased construction costs.
<p>Trees Affected and Scope of Works:</p> <p>Trees for removal: LP00820_T_F011, London Plane (<i>Platanus x acerifolia</i>)</p> <p>Works will involve the installation of new buried utility services, comprising 8 Way 132KV ducts, 16 Way BT and 1-6 way Vodafone. The area is highly congested with existing buried services.</p>	

Site Sketch/ Diagram / Photos attached:

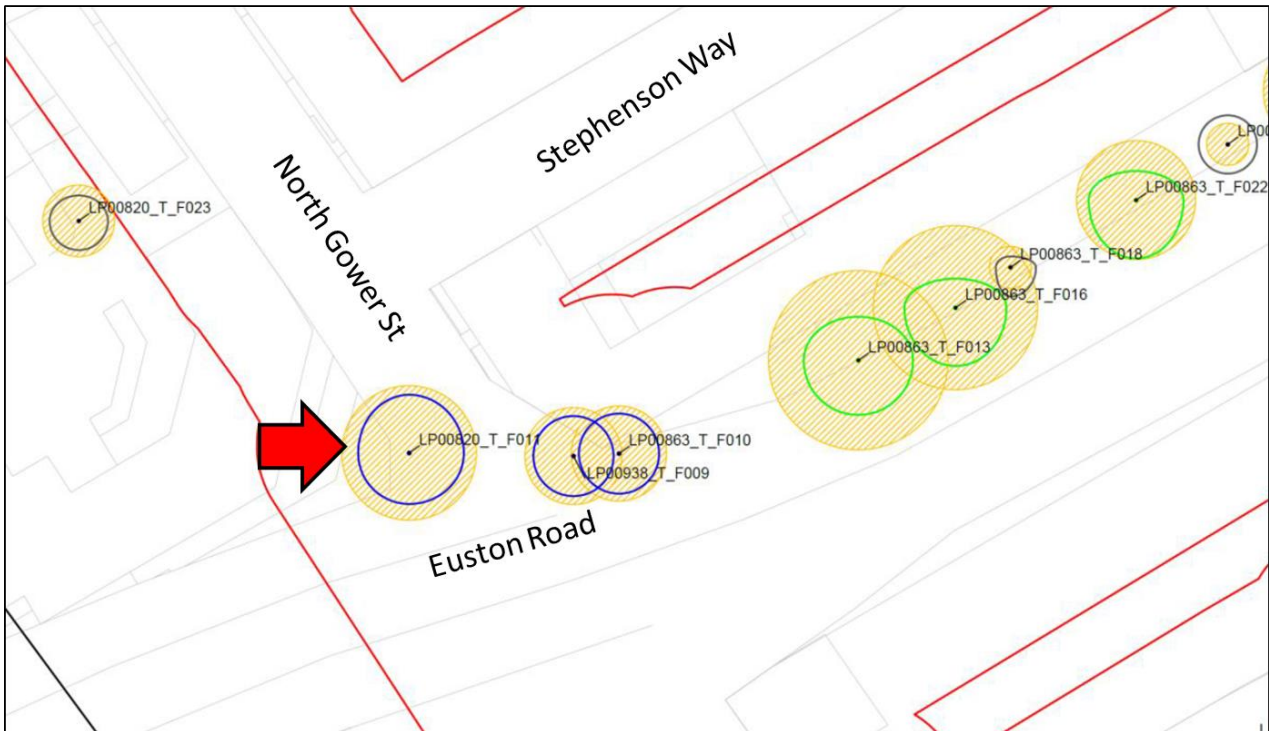


Figure 1 Location of tree to be removed (red arrow). Shaded area shows Root Protection Area

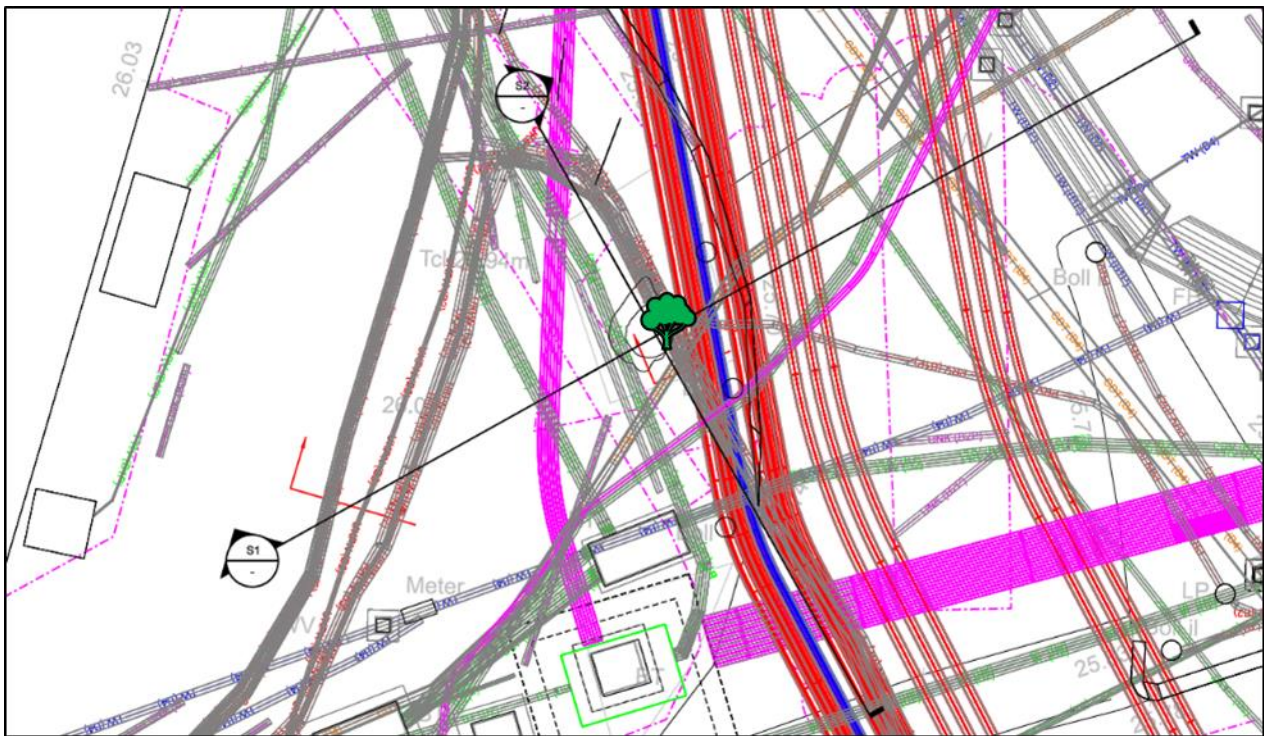


Figure 2 Location of tree in relation to existing buried services (red = existing UKPN cables, pink = telecommunication cables), showing highly congested buried services

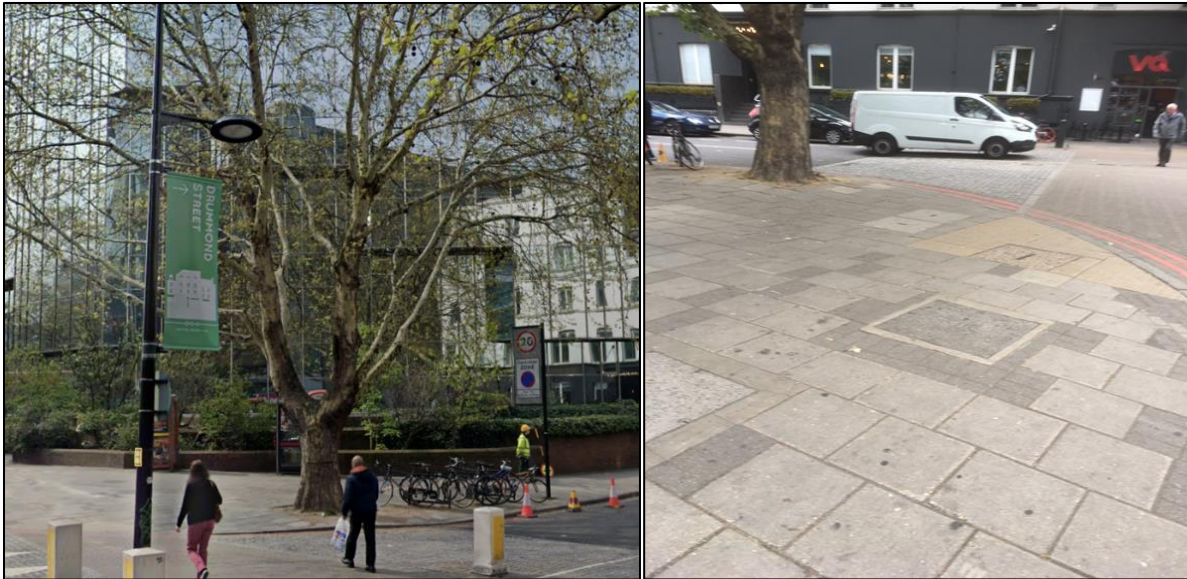


Figure 3 Photo of Tree (LP00820_T_F011), London Plane (*Platanus x acerifolia*) and utility covers



Figure 4 Photo of Tree (LP00820_T_F011), London Plane (*Platanus x acerifolia*)

Tree Panel Outcomes

Proposal Endorsed/Not Endorsed:	Endorsed with conditions
Conditions	<p>The tree will not be removed prior to the end of January. A new tree will be planted in the area following works.</p>