

Primrose Hill



HS2 Tunnel Settlement

HS2 Local Engagement for Residents

Local public and private engagement and planning consultation:

- 1 HS2 engagement:** HS2 Act engagement Assurances with LBCamden & residents
 - Quarterly ECRG meetings (Assurance to HS2 Euston Action Group & CHARGE)
 - Contractor Engagement with residents (Assurance to LBCamden)
 - Euston Local Engagement Plan (Financed by HS2 – unique to Camden)
- 2 Other consultations:**
 - DfT, The Euston Partnership (TEP) & Development Corps)
 - Camden (inc Schedule 17) and Community Liaison Team (CLT)
 - TfL (eg Old Oak Lane Station and proposed Western Orbital)
- 3 Private engagement:**
 - CPO
 - Settlement Deeds

HS2 Euston Tunnels and the Law

The HS2 Act Supplementary Environmental Statement (SES):

This sets the tunnelling alignment parameters (both vertical and horizontal).

Tunnelling Contract:

HS2's Design & Build Contractor (SCS) for tunnelling package must design tunnels within parameters and engage with the public on behalf of HS2.

Assurances:

Legal Assurances given to LBCamden require SCS to keep residents informed...
But not publicly provide information on tunnelling impact on individual property.

Settlement Deeds:

The HS2 Act however enables property owners to sign HS2 Settlement Deeds...
So HS2 will provide them with settlement information for their property.
Deeds also provide £500 towards Surveyors fees.

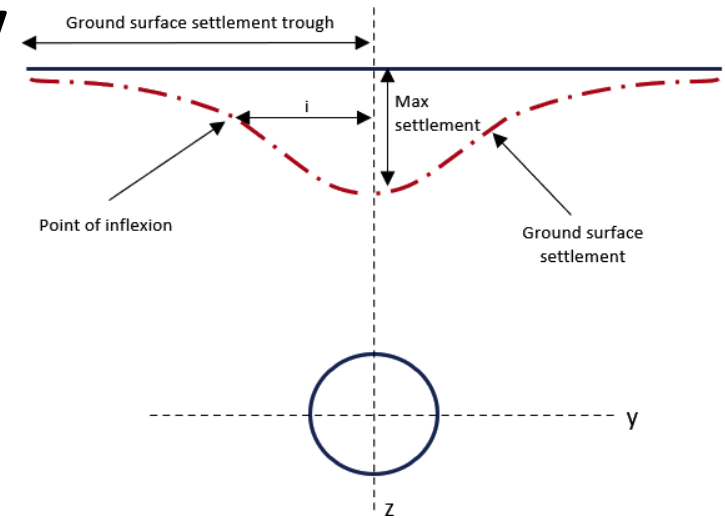
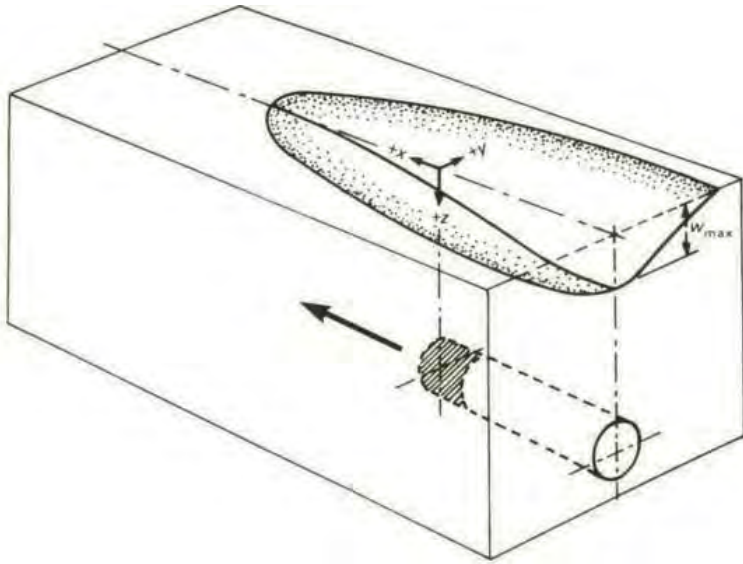
Damage:

Settlement Deeds don't confer enhanced rights should damage result.

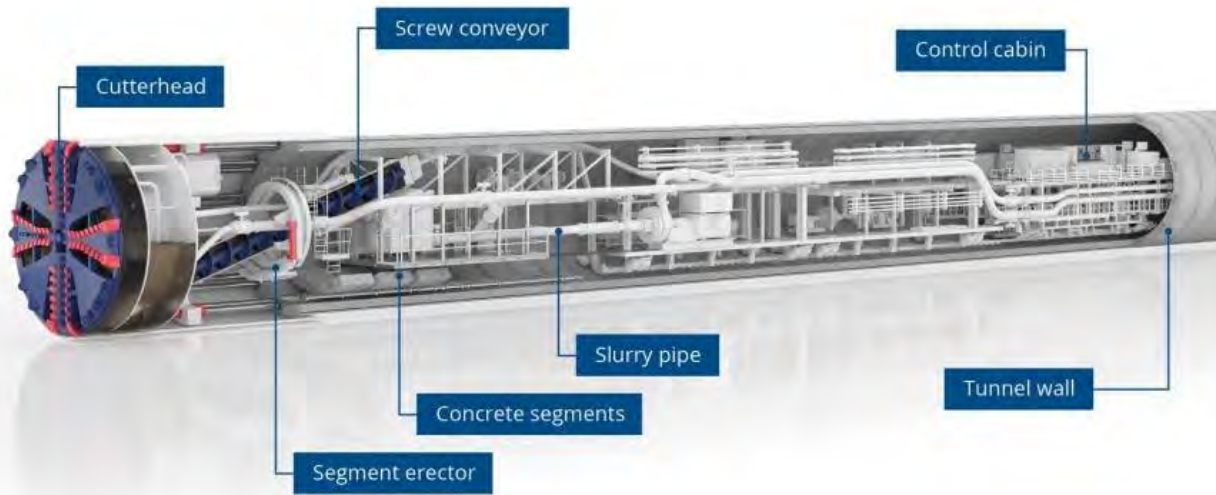
HS2 Tunnel Settlement definition

HS2 settlement definition...

“Commonly described as...
an inverted normal probability (Gaussian) curve in the transverse direction
and
a cumulative probability (Gaussian) curve in the longitudinal direction of the tunnel”



HS2 Tunnel Settlement: **TBM**s



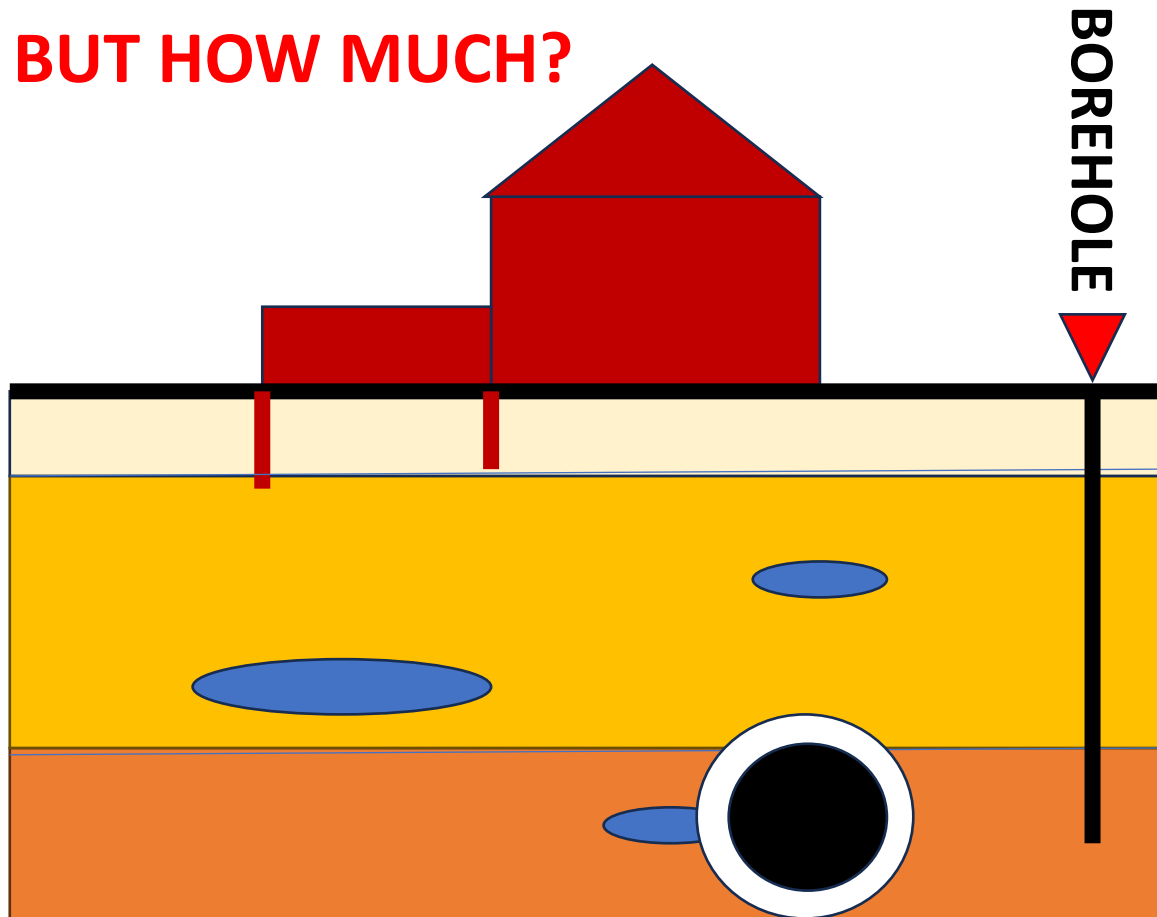
**TBM DESIGNED TO MINIMISE SETTLEMENT
BUT SETTLEMENT OCCURS AS CLAY DRIES OUT**

HOW THEY WORK

- TBM assembled below ground at Old Oak Common
- Tunnels bored from Old Oak Common to Parkway Cavern
- Spoil removed to Willesden by rail
- TBM monitors settlement
- Precast lining installed as TBM bores
- Voids grouted automatically

HS2 Tunnel Settlement: 3 risks

**NB SOME BASELINE GROUND
MOVEMENT OCCURS NATURALLY
BUT HOW MUCH?**



Mixed structural systems of buildings:
Differential settlement risk due to building form and relation to tunnel location

eg rear extensions

Uncertainty of ground conditions:

Insufficient ground investigation

eg clay inconsistency and risk of bogy pockets

Tunnel excavation method:

TBM or machine excavation?

eg sprayed concrete addits

HS2 EUSTON TUNNELS

SCS Design & Build Contract paused till Xmas? or big cost penalty?

**PRIMROSE HILL BORED
TUNNELS & HEADHOUSE**

**CUTTING EXCAVATED
TUNNELLED DIVEUNDER,
CAVERN, PORTAL &
BRIDGE**

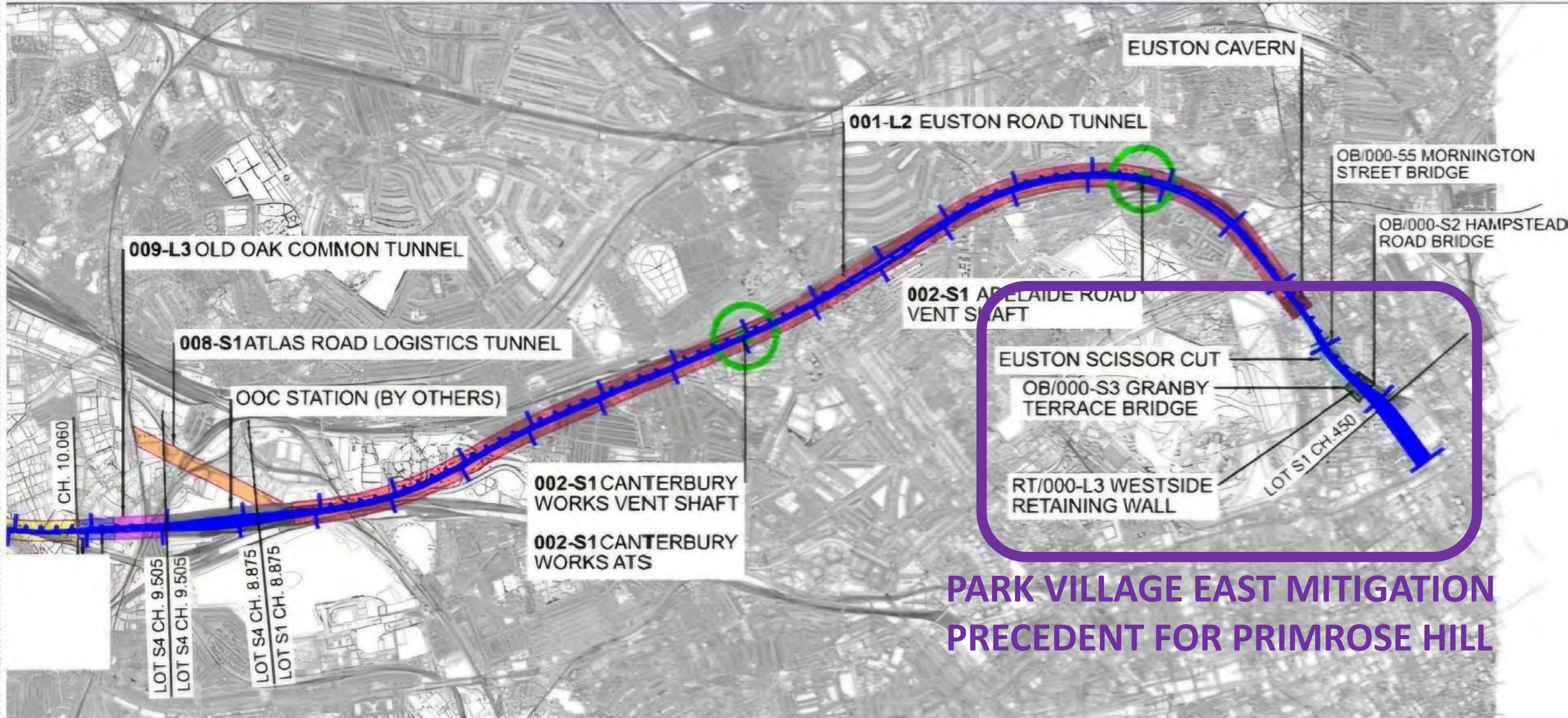
SCS EUSTON TUNNELS, PORTAL & BRIDGE EXTENT

Two SCS Contract Teams:

- 1 Cutting Team (Park Village East)**
- 2 Euston Tunnels Team (Primrose Hill)**

HS2 EUSTON TUNNELS

SCS Design & Build Contract : Map of the Engineering Structures

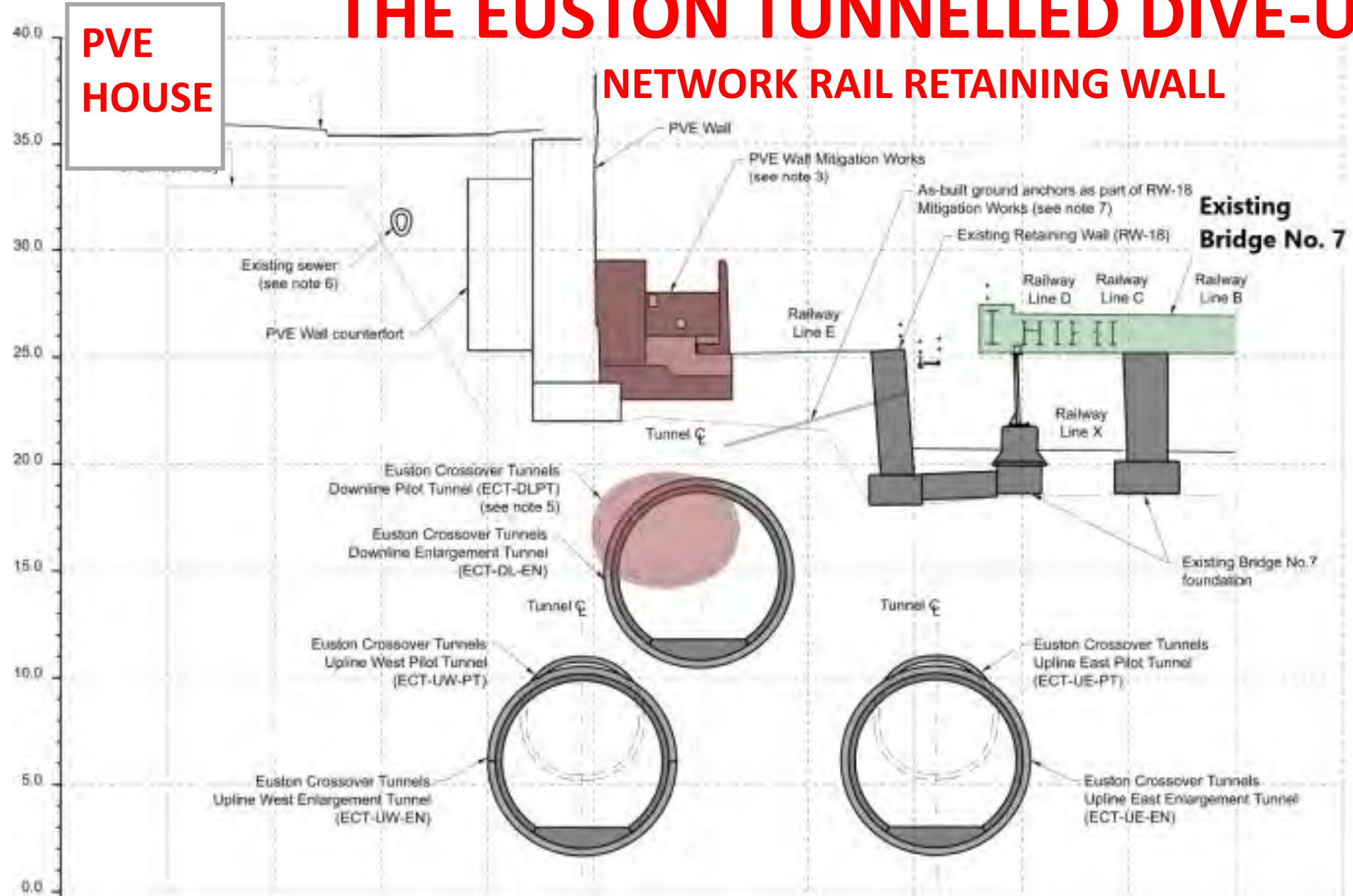


**PARK VILLAGE EAST MITIGATION
PRECEDENT FOR PRIMROSE HILL**

PARK VILLAGE EAST PRECEDENT

THE EUSTON TUNNELLED DIVE-UNDER

NETWORK RAIL RETAINING WALL



PARK VILLAGE EAST PRECEDENT

THE EUSTON TUNNELLED DIVE-UNDER

**EUSTON
PORTAL**



**PARKWAY CAVERN, EUSTON PORTAL &
THREE GRADE SEPARATED TUNNELS FOR
THE SCRAPPED 10 PLATFORM HS2 STATION**

**PARKWAY
CAVERN**



**PARK VILLAGE
EAST CAVERN
HEADHOUSE**



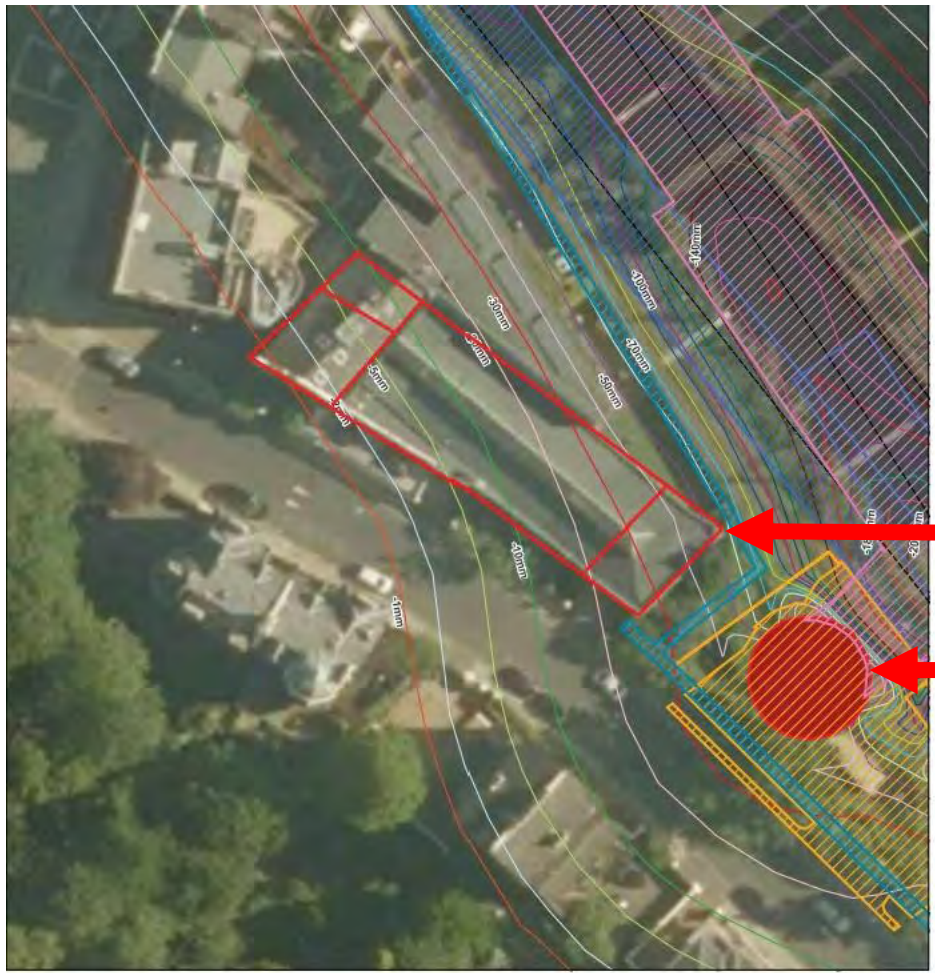
EXAMPLE ONLY

PARK VILLAGE EAST PRECEDENT

EUSTON TUNNEL IMPACT

HS2 IMPACTED PROPERTY SURVEY REPORT re PARK VILLAGE EAST STUDIO (EXTRACT)

NEGOTIATED MITIGATION (EG UNDERPINNING) HAS STARTED FOR SEVERAL PROPERTIES



PREDICTED 70MM SETTLEMENT CONTOUR

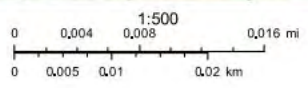
PARK VILLAGE EAST CAVERN HEADHOUSE

THE PLAN IS YEARS OUT OF DATE.

SCS HAVE RECENTLY ISSUED CURRENT INFORMATION AFTER MONTHS OF REPEATED REQUESTS

THERE IS NO SUCH INFORMATION FOR PRIMROSE HILL

July 21, 2020
E - S1 S2 Asset List - Scheme Design
Bored Tunnel
Building (ATS / Headhouse)
Cavern
Mined Tunnel
Retaining Wall
Shaft
E - HS2 Alignment Form C Rev C03 PMA Rev 3 NGW Shift
Alignment C03



IMPORTANT: THIS DOCUMENT IS UNCONTROLLED
The data shown within this map could be out-of-date. Please ensure that you are always using the latest available data.

PARK VILLAGE EAST PRECEDENT

EUSTON TUNNEL IMPACT

HS2 IMPACTED PROPERTY

10 PAGE SURVEY REPORT :

103-105 PARKWAY

(3 PAGE EXTRACT)

SCSMW_15785 103/105 Parkway - Building damage assessment

1 Building Information

Building ID: SCSMW_15785
Building Name: 103/105 Park Way
Building Address: 103/105 Parkway, London, NW1 7PP, United Kingdom
Grade of Listing: Not Listed
Ground Level: 33.9 mOD



Figure 1 - SCSMW_15785: Location plan (JV Maps)

Phase 2 assessment result: 0

Building class: 2B

Reason for Phase 3 assessment: The building is classified as Exceptional in accordance with the definition of 'exceptional' structures provided in HS2 Technical Standard – Ground Movement and Assessment from Below Ground Construction (HS2-HS2-TN-STD-000-000005, P03)

1.1 Available information

Exterior walkover

An exterior walkover has not been performed due to COVID-19 restrictions.

Interior walkover

2 Building Photographs



Figure 3 - SCSMW_15785: North-West elevation (Google Maps)

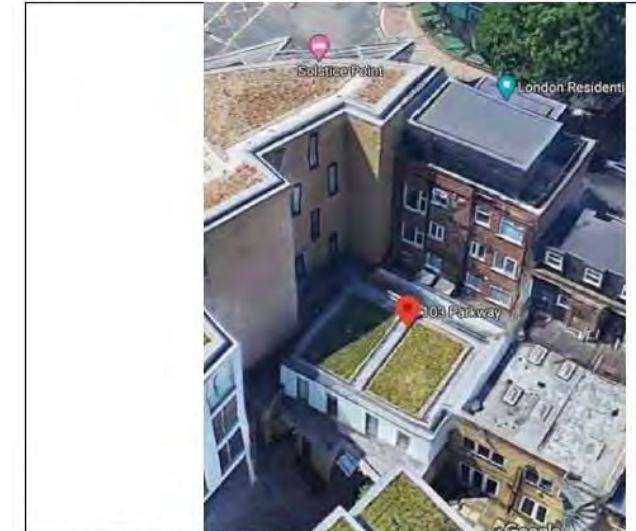


Figure 4 - SCSMW_15785: East elevation (Google Maps)

PRIMROSE HILL TUNNEL IMPACT

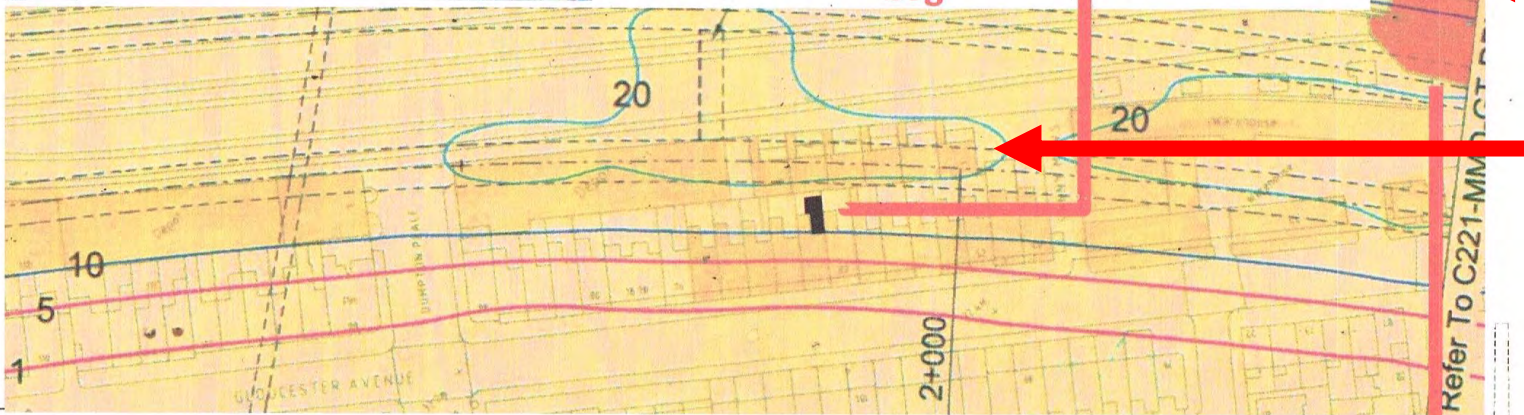
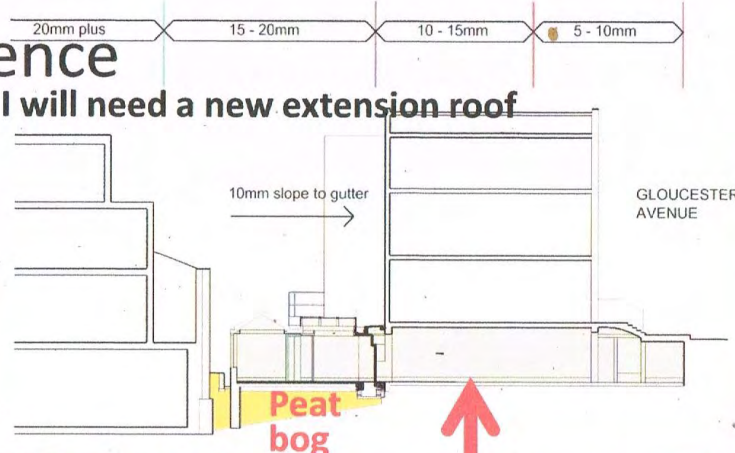
GLOUCESTER AVENUE

Rear Extension

(2015 Petition Exhibit)

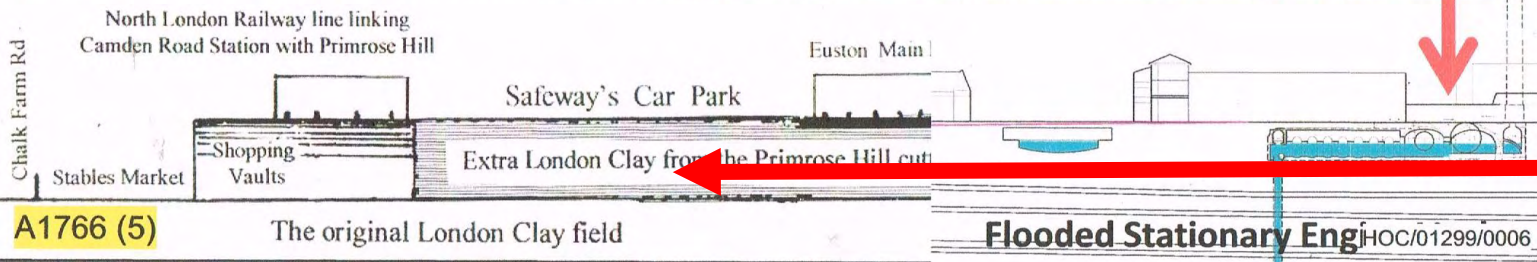
A05 Tunnel Subsidence

The effect on my home : I will need a new extension roof



← WINDING ENGINE VAULTS

← HAND DUG ADDIT CONTOUR (20MM)



← C19 FILL FROM PH CUTTING

A1766 (5)

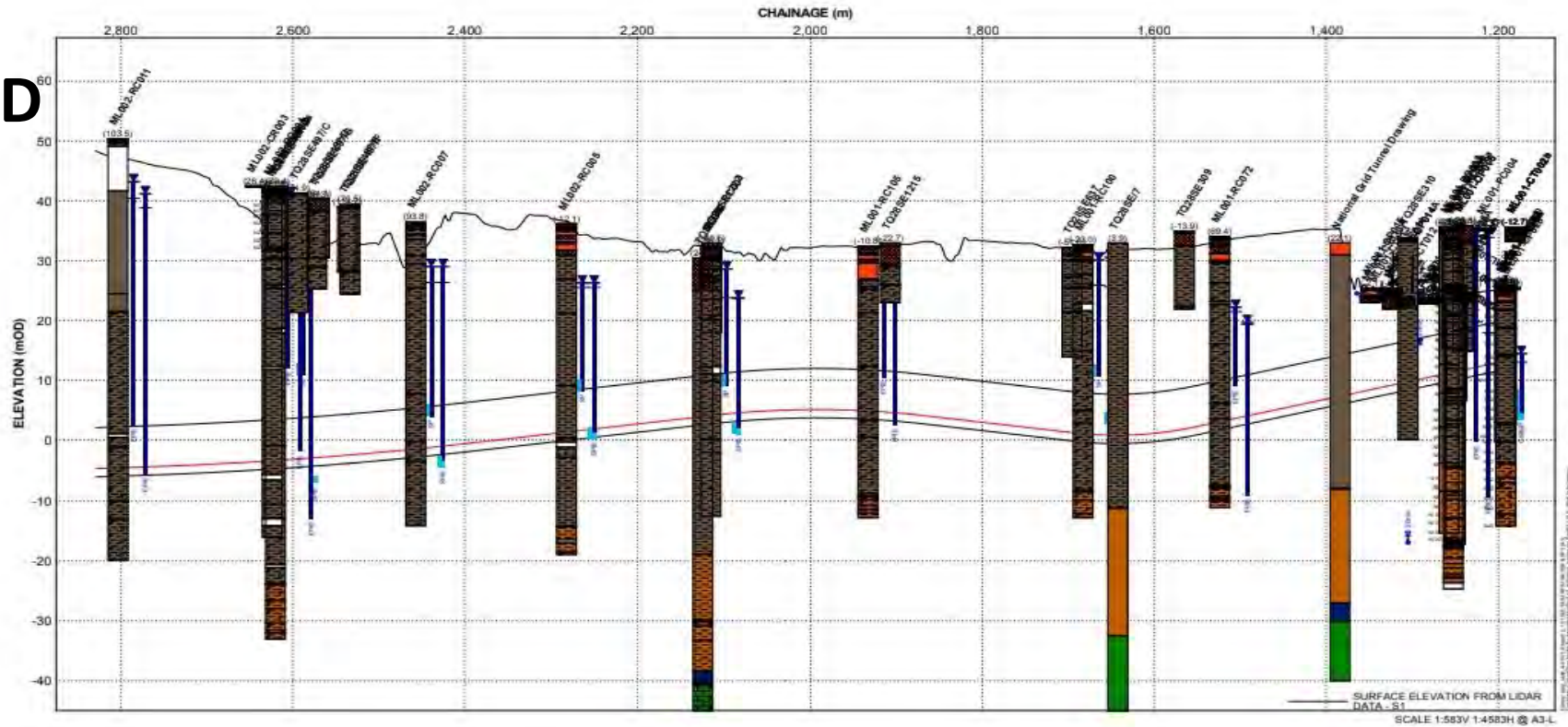
The original London Clay field

Flooded Stationary Engine HOC/01299/0006

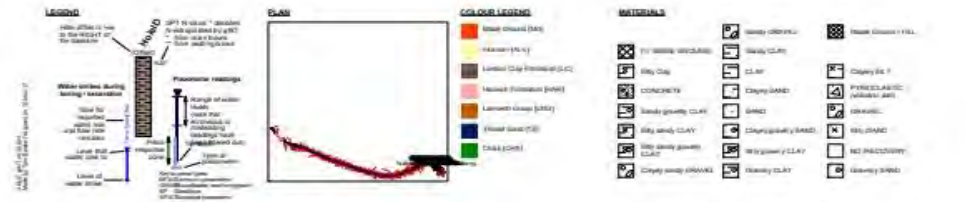
PRIMROSE HILL TUNNEL IMPACT

ONLY A FEW BOREHOLES (EUSTON TO ADELAIDE ROAD)
re Ground Conditions to Predict Settlement Contours

ADELAIDE ROAD



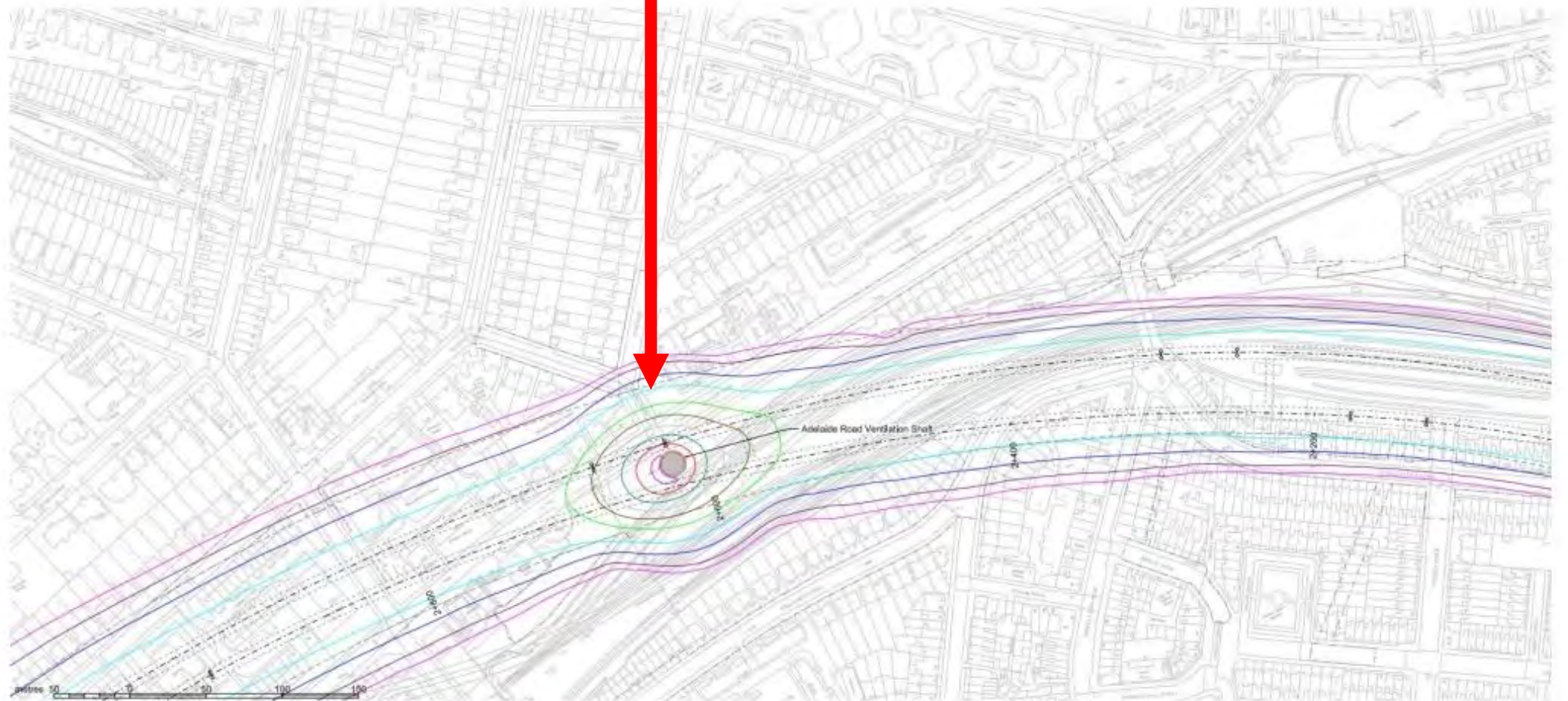
EUSTON



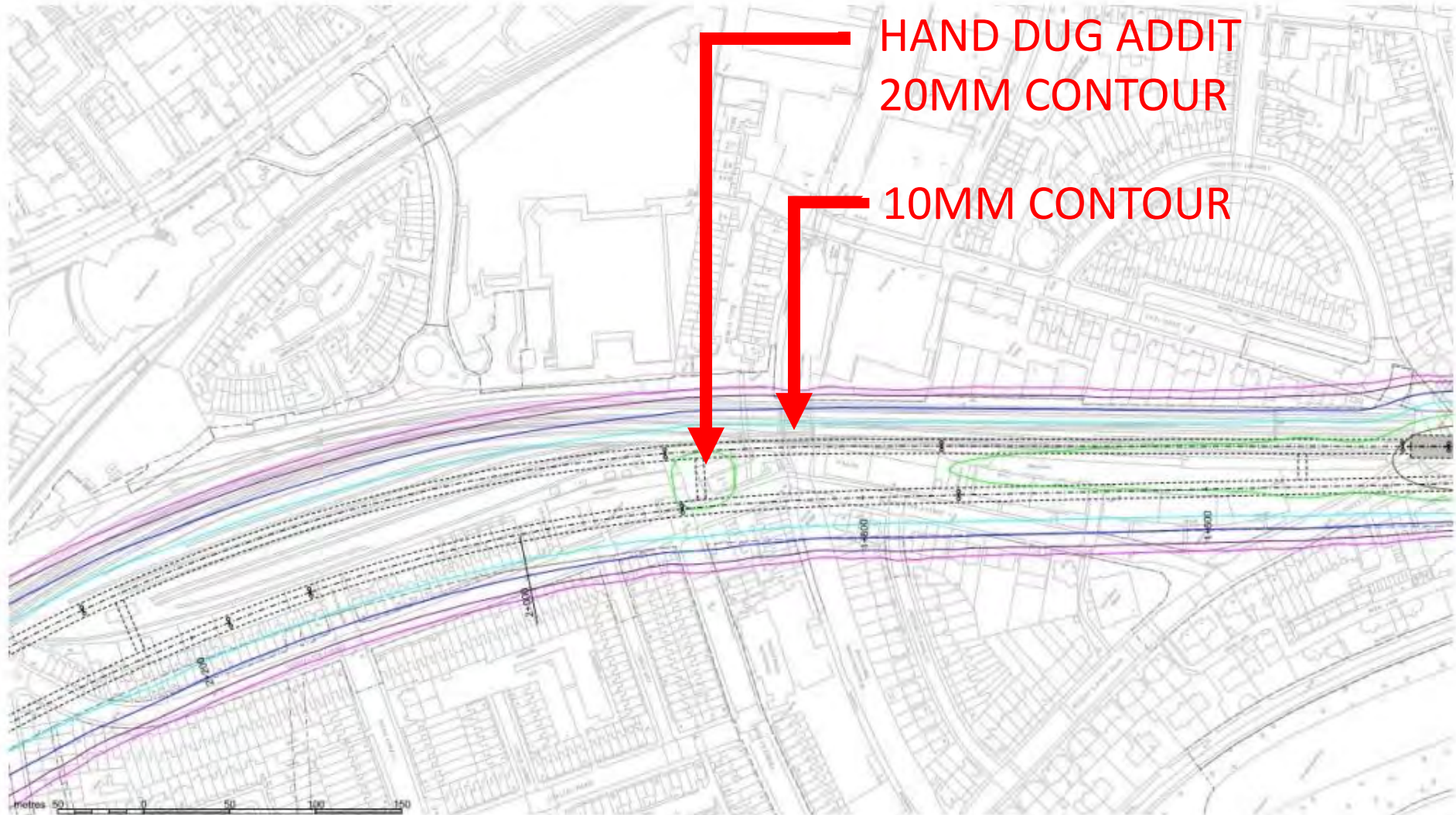
HS2
GEOLOGICAL CROSS SECTION
EUSTON PORTAL TO ADELAIDE
ROAD TUNNELS
DOWNLINE
256905; 256906
FIGURE A.7

PRIMROSE HILL TUNNEL IMPACT SETTLEMENT CONTOUR MAP ADELAIDE ROAD & KING HENRYS ROAD

ADELAIDE ROAD HEAD HOUSE
IMPACTS 68-72 ADELAIDE ROAD



PRIMROSE HILL TUNNEL IMPACT SETTLEMENT CONTOUR MAP GLOUCESTER AVENUE



PRIMROSE HILL TUNNEL IMPACT

PROPERTIES FORECAST TO EXPERIENCE SETTLEMENT

PROPERTY SETTLEMENT SCHEDULE (NOT CURRENT & NOT PUBLISHED)













FOR GLOUCESTER AVENUE (PART) SHOWS MAXIMUM SETTLEMENT AS 10-20MM FOR 10MM CONTOUR

	The surveyed	Settlement range		
		1-5mm	5-10mm	10-20mm
Gloucester Avenue North-east side				
90-105 Darwin Court	Y		x	x
66-89 Darwin Court	Y		x	x
46-65 Darwin Court	Y		x	x
26-45 Darwin Court	Y			x
1-25 Darwin Court	Y			x
36 Gloucester Avenue	Y			
42 Gloucester Avenue	Y			
44 Gloucester Avenue	Y		x	x
1 Sunny Mews	Y			x
2 Sunny Mews	Y			
3 Sunny Mews	Y			
4 Sunny Mews	Y			
5 Sunny Mews	Y			
6 Sunny Mews	Y			
48 Gloucester Avenue	Y		x	x
50 Gloucester Avenue	Y		x	x
52 Gloucester Avenue	Y	x	x	x
54 Gloucester Avenue	Y	x	x	x
56 Gloucester Avenue	Y	x	x	x
58 Gloucester Avenue	Y	x	x	x
60 Gloucester Avenue	Y	x	x	x
62 Gloucester Avenue	Y	x	x	x
66 Gloucester Avenue	Y	x	x	x
70-72 Gloucester Avenue	Y	x	x	x
74 Gloucester Avenue	N	x	x	
76-78 Gloucester Avenue	N	x	x	
80-82 Gloucester Avenue	N	x	x	
84 Gloucester Avenue	N	x	x	
86 Gloucester Avenue	N	x	x	
Whittlebury Mews East	Y			x
Whittlebury Mews West	Y			x
88 Gloucester Avenue Lansdowne PH	N	x	x	
90 Gloucester Avenue	N	x	x	
92 Gloucester Avenue	N	x	x	
94 Gloucester Avenue	N	x	x	
96 Gloucester Avenue	N	x	x	
98 Gloucester Avenue	N	x	x	
100 Gloucester Avenue	N	x	x	
102 Gloucester Avenue	N	x	x	
104 Gloucester Avenue	N	x	x	
106 Gloucester Avenue	N	x	x	
108 Gloucester Avenue	N	x	x	

PRIMROSE HILL TUNNEL IMPACT

PROPERTY SETTLEMENT REPORT (NOT CURRENT & NOT PUBLISHED)

**SHOWS DARWIN COURT (PART)
CLASSIFIES & CODES IMPACTED PROPERTY
PART OF BIGGER SURVEY REPORT
ON PARK VILLAGE EAST
ISSUED TO PARK VILLAGE EAST RESIDENTS
(NOT DARWIN COURT RESIDENTS)**

Asset ID	Sample Address	Building Class	Assessment result	Street View	Aerial View
2667	31, GLOUCESTER AVENUE, LONDON, NW1 7AU	4	Building Class 4 - Phase 3		
7190	FLAT 102, DARWIN COURT, GLOUCESTER AVENUE, LONDON, NW1 7BH	28	Building Class 28 - Phase 3		
7190		28	Building Class 28 - Phase 3		
7237		28	Building Class 28 - Phase 3		
7237	FLAT 70, DARWIN COURT, GLOUCESTER AVENUE, LONDON, NW1 7BQ	28	Building Class 28 - Phase 3		
7237		28	Building Class 28 - Phase 3		

PRIMROSE HILL TUNNEL IMPACT

PROPERTY SETTLEMENT REPORT (NOT CURRENT & NOT PUBLISHED)

SHOWS DARWIN COURT, GLOUCESTER AVE (SOUTH) AND PVE (NORTH)

CLASSIFIES & CODES IMPACTED PROPERTY

(PART OF BIGGER SURVEY REPORT

ON PARK VILLAGE EAST

ISSUED TO PVE RESIDENTS)



PRIMROSE HILL TUNNEL IMPACT PROPERTY SETTLEMENT REPORT (NOT CURRENT & NOT PUBLISHED) SHOWS DARWIN COURT, GLOUCESTER AVE (SOUTH) AND PVE (NORTH)

CLASSIFIES & CODES IMPACTED PROPERTY
(PART OF BIGGER SURVEY REPORT
ON PARK VILLAGE EAST
ISSUED TO PVE RESIDENTS)

NEXT STEP ?

Primrose Hill residents to engage
to obtain more information?

