



Preliminary Environmental Information Report

Volume 4 Appendix 17.2

Heavy Goods Vehicle Flows Generated by Transportation of
Excavated Materials

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Heavy Goods Vehicle Flows Generated by Transportation of Excavated Materials

1 Introduction

1.1.1 This Appendix sets out our current estimate of the number of two-way daily Heavy Goods Vehicle (HGV) trips associated with moving material excavated through creation of the proposed River Thames Scheme (RTS) flood channel. The HGV trips include those associated with moving some materials between project sites (for processing etc) and some materials offsite. The note supports the traffic and transport chapter of the Preliminary Environmental Information Report, and has been informed by:

- Approximate excavated material volumes, types and likely use identified through a materials management plan for the RTS (see Section 2.2.6 of the PEIR);
- Assumptions on construction programming, working areas and sequencing, that have been developed to inform a preliminary understanding of the scale of likely significant effects resulting from HGV movements associated with transporting excavated material. It should be noted that construction programming, working areas and sequencing is yet to be confirmed and will be informed by feedback from statutory consultation regarding local sensitivities. Hence the assumptions used for this Appendix are indicative only;
- Assumed HGV transportation routes from the project area to the strategic road network, based upon consultant judgement of most likely routes which have been discussed with the Surrey County Council highways team (illustrated on Figure 17.1 provided within Volume 3 of the PEIR). Again, these will also be informed by feedback from statutory consultation regarding local sensitivities.

1.1.2 The HGV estimates in this Appendix do not include estimates for additional vehicle requirements associated with the delivery of materials, plant required or other construction traffic associated with the project as this is currently unknown. Given the nature of the project, delivery of materials and plant are likely to be less than on other major infrastructure projects and will use many of the same routes that are being considered for the movement of excavated material. This Appendix will be updated with this information once available to inform the Environmental

Statement, along with any feedback from statutory consultation regarding local sensitivities to be aware of.

- 1.1.3 For each route the following two-way (inbound and outbound) HGV data has been provided associated with the transportation of excavated material during construction:
- Annual Average Daily Traffic (AADT) for the HGV construction route by programme year.
 - Maximum two-way daily HGVs per year.
- 1.1.4 The HGV flow has been calculated based on the assumption of an HGV lorry having a capacity of 8m³.
- 1.1.5 The required total amount of material (alluvium, made ground and gravels and landfill derived wastes) being transported from each channel section to a destination via an assigned construction route was divided by the 8m³ capacity to calculate the total number of HGV movements.
- 1.1.6 The AADT has been calculated by calculating the total two-way HGV trips each year on each route and dividing by 365 days (or 366 days in 2028). It was advised by the project's air quality team that the number of HGV's generated on each construction route within each year should always be divided by 365 days regardless of whether HGV's were using the routes less than a year.
- 1.1.7 The hourly HGV flows can be calculated based on the average daily flow divided by 10, assuming a uniform movement rate over a 10 hour construction day from 08:00 – 18:00.
- 1.1.8 As the routes have been adapted from previous iterations of the RTS design, they begin with Route F due to previous Routes A-E facilitating the creation of the Berkshire channel which has since been removed from the RTS. Route M is a potential barge route along the River Thames and so does not generate HGV trips within this assessment.

2 Route F

- 2.1.1 Route F has a start point of the Royal Hythe materials processing site with an end point at the M25 Junction 13 (see Figure 17.1 in Volume 3). Our current understanding of construction sequencing assumes that the route will be utilised intermittently between 2026 and 2030.

2.1.2 The AADT for two-way HGV's using Route F per year over the construction period is included in Table 1 below.

2.1.3 During construction there are periods when multiple channel excavation activities are occurring at the same time and therefore using construction Route F concurrently to move material. Table 1 below shows the maximum two-way daily HGV trips per year when multiple channel excavation activities are occurring and thus creating higher HGV volumes on this route.

Table 1: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route F

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	18	136
2027	35	128
2028	19	86
2029	11	74
2030	15	150

3 Route G

3.1.1 Route G has a start point at the Staines Road slip road with an end point of the Royal Hythe materials processing site (see Figure 17.1 in Volume 3). The route will be used intermittently during the construction period.

3.1.2 Our current understanding of construction sequencing assumes that Route G does not have any periods where multiple activities are being undertaken that would cause HGVs on the route at the same time.

3.1.3 The AADT for two-way HGV's using Route G per year over the construction period is included in Table 2 below. Table 2 also shows the maximum two-way daily HGV trips per year.

Table 2: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route G

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	23	154
2027	74	292
2028	0	0
2029	12	108
2030	0	0

4 Route H

- 4.1.1 Route H has a start point on Littleton Lane/ Chertsey Bridge Road Junction with an end point at the Sheepwalk materials processing site (see Figure 17.1 in Volume 3).
- 4.1.2 Our current understanding of construction sequencing assumes the route will be utilised in 2028 and 2029.
- 4.1.3 The AADT for two-way HGV's using Route H per year over the construction period is included in Table 3 below.
- 4.1.4 During construction there are periods when multiple channel excavation activities are occurring at the same time and therefore using Route H concurrently to move excavated material. Table 3 below shows the maximum two-way daily HGV trips per year when there are multiple excavation activities occurring and thus creating higher HGV volumes on this route.

Table 3: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route H

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	0	0
2027	0	0
2028	9	28
2029	20	72

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2030	0	0

5 Route I

- 5.1.1 Route I has a start point on Littleton Lane slip road with an end point at the Littleton Lane/ Chertsey Bridge road junction (see Figure 17.1 in Volume 3).
- 5.1.2 Our current understanding of construction sequencing assumes that the route will be utilised between 2028 and 2029. Route I does not have any periods where multiple activities are being undertaken that would cause HGVs on the route at the same time.
- 5.1.3 The AADT for two-way HGV's using Route I per year over the construction period is included in Table 4. Table 4 also shows the maximum two-way daily HGV trips per year.

Table 4: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route I

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	0	0
2027	0	0
2028	9	28
2029	17	28
2030	0	0

6 Route J

- 6.1.1 Route J has a start point on Thames Side with an end point at the Littleton Lane/ Chertsey Bridge road junction (see Figure 17.1 in Volume 3). The route will be utilised in 2029.

6.1.2 Our current understanding of construction sequencing assumes that Route J does not have any periods where multiple activities are being undertaken that would cause HGVs on the route at the same time.

6.1.3 The AADT for two-way HGV's using Route J per year over the construction period is included in Table 5. The table also shows the maximum two-way daily HGV trips per year.

Table 5: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route J

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	0	0
2027	0	0
2028	0	0
2029	4	44
2030	0	0

7 Route K & N

7.1.1 Route K has a start point at the Sheepwalk materials processing site with an end point at the M25 junction 13 (see Figure 17.1 in Volume 3). Route K is being utilised intermittently between 2026 and 2030.

7.1.2 Our current understanding of construction sequencing assumes that Route K and N are the only construction routes which have an overlap. Route N has a start point at Sunbury Depot with an end point at Sheepwalk Materials processing hub and so travels in the opposite direction to Route K. The crossover of these routes occurs on the B375 between Gaston Bridge Road roundabout and the processing site.

7.1.3 During construction there are periods when multiple channel excavation activities are occurring at the same time and therefore using construction Route K concurrently to move material.

7.1.4 Route N only has one activity period with HGV movements of excavated material occurring only in 2029.

7.1.5 The AADT for two-way HGV's using Route K & N per year over the construction period is included Table 6.

Table 6: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Routes K and N

Year	AADT Two-way HGV – Route K	AADT Two-way HGV – Route N	Maximum two-way daily HGVs (Route K and N)
2026	3	0	32
2027	34	0	134
2028	54	0	148
2029	15	9	106
2030	44	0	244

8 Route L

8.1.1 Route L has a start point on Thames Side LA7 compound area with an end point at the Thames Side access point to Littleton Lake South (below the M3) (see Figure 17.1 in Volume 3).

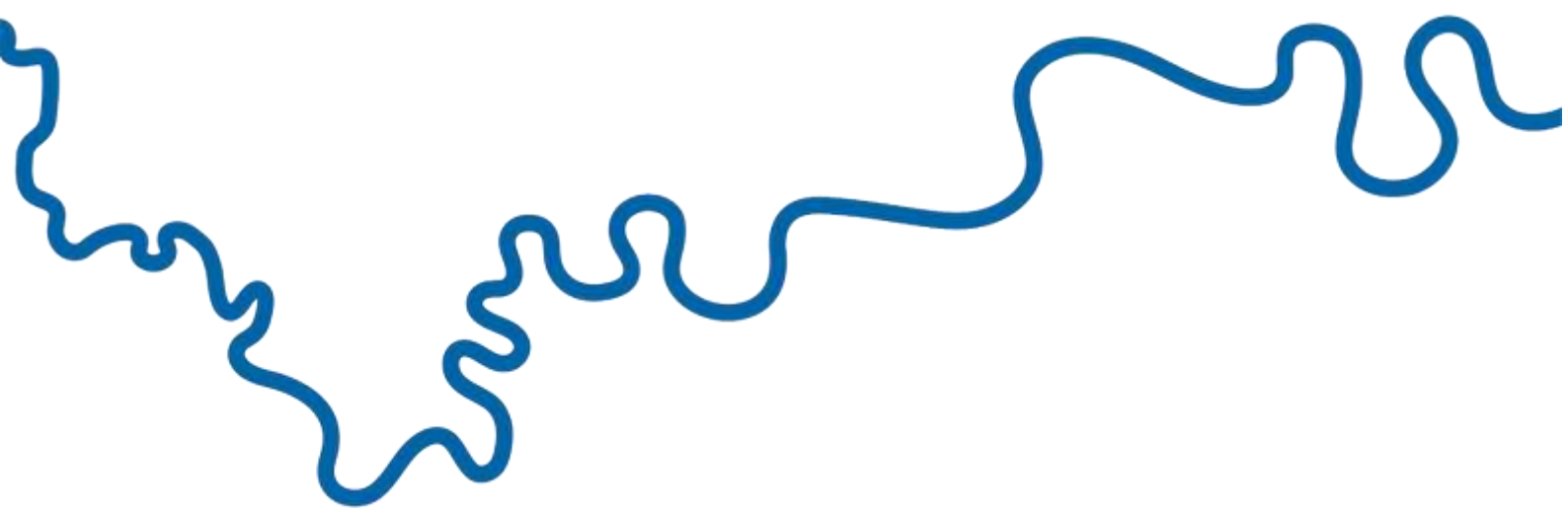
8.1.2 Our current understanding of construction sequencing assumes that the route will be utilised in 2029. Route L does not have any periods where multiple activities are being undertaken that would cause HGVs on the route at the same time.

8.1.3 The AADT for two-way HGV's using Route L per year over the construction period is included in Table 7. The table also shows the maximum two-way daily HGV trips per year.

Table 7: Construction AADT two-way HGV movements and maximum two-way daily HGV movements per year on Route L

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2026	0	0
2027	0	0

Year	AADT Two-way HGV	Maximum two-way daily HGVs
2028	0	0
2029	10	126
2030	0	0



The River Thames Scheme represents a new landscape-based approach to creating healthier, more resilient and more sustainable communities by reducing the risk of flooding and creating high quality natural environments.