

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

18.6.6 Written Statement of Oral Case ISH2 [Appendix F - Assessment of HGV Impacts]

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1. INTRODUCTION

1.1 Concerns were raised during the Hinckley National Rail Freight Interchange ISH Hearing on 31 October 2023 regarding the assessment of HGV movements in the vicinity of the site. This Technical Note (TN) has been produced to address these concerns, which include:

- The effects of the HGV Route Management Plan & Strategy (Document Ref: APP-362) on the junction modelling within the Transport Assessment (Document Ref REP1-001) as development HGVs assigned to the local villages would be re-routed onto the strategic highway network.
- The impact of HGVs being reassigned through Sapcote, as a result of the proposed south facing slip roads at M69 Junction 2 and whether a weight restriction should be considered to prevent this.
- The effect that the proposed increased bridge clearance height at Nutts Lane would have on the number of HGVs routing via the A5 corridor between the A5/A47 Longshoot and M69 Junction 1 junctions.

1.2 Peak hour traffic data within this TN has been taken from the Pan Regional Transport Model (PRTM), which was used as part of the Transport Assessment. The PRTM was run at an opening year of 2026 and a future year of 2036. Both have been considered in this TN for the following scenarios:

- Without Development (WoD) – background traffic growth only
- Without Development, with scheme (WoDWS) – which includes the proposed south facing slips at M69 Junction 2 and the A47 link road which forms the access infrastructure for the development.
- With Development, With Schene (WDWS) – with the proposed development and the A47 link road and the south facing slips at M69 Junction 2.

2. IMPACT OF HGVs ON EASTERN VILLAGES

Peak Hour Development HGVs

2.1 Output data from the PRTM shows the peak hour assignment of development HGVs across the network based on the specific freight gravity model as outlined in the trip distribution Technical Note (APP-142). The PRTM data has been reviewed for the 2036 WDWS scenario to establish the number of development HGVs assigned through each of the villages to the east of the M69 and in the Rugby Rural area. The data is summarised in **Table 1**.

Table 1. Peak Hour Development HGVs through Villages

		Inbound	Outbound	Two-way
B4669 through Sapcote	AM peak hour	0	8	8
	PM peak hour	2	4	6
B581 through Elmesthorpe & Stoney Stanton	AM peak hour	0	0	0
	PM peak hour	0	0	0
B4112 through Wolvey (includes Pailton HGVs)	AM peak hour	5	6	11
	PM peak hour	7	7	14
B4112 through Pailton	AM peak hour	3	3	6
	PM peak hour	3	3	6
B4114 through Sharnford	AM peak hour	0	0	0
	PM peak hour	0	0	0

2.2 **Table 1** shows only a low number of development HGVs have been assigned through the local villages by the PRTM. Nevertheless, the 'HGV Route Management Plan & Strategy' (APP-362) would be implemented for the proposed development to restrict development HGVs from travelling through these local villages. All future occupiers of the development would be required to sign up to the HGV Route Management Plan & Strategy, which would involve 24-7 monitoring of HGV movements using ANPR cameras.

2.3 The main purpose of the HGV Route Management Plan & Strategy is to minimise the environmental implications of development HGVs throughout the day. However, concerns have been raised regarding the implications of peak hour development HGV reassignment on the junction modelling within the Transport Assessment.

2.4 The PRTM outputs have been used to understand the origins/destinations of the HGVs that are routing through the villages within PRTM. It shows the following:

- HGVs travelling through Sapcote are heading to/from Leicester.
- HGVs travelling through Wolvey are heading to/from both Rugby and Coventry.
- HGVs travelling through Pailton are heading to/from Rugby.

2.5 With the HGV Route Management Plan & Strategy, it is anticipated that these HGVs would be reassigned to the M69 towards M1 Junction 21 (Leicester) and the M6 (Coventry and Rugby) as these would be the most direct routes. **Table 2** shows how

these additional HGVs would impact traffic flows on the M69 Junction 2 slip roads during the 'WDWS scenario, which includes the south facing slip roads.

Table 2. Change in Traffic Flows at M69 Junction 2

		2036 WDWS Flows	Additional HGVs	% Increase
AM peak hour	Northbound on-slip	1,469	8	0.54%
	Northbound off-slip	1,053	0	0.00%
	Southbound on-slip	813	9	1.11%
	Southbound off-slip	466	8	1.72%
PM peak hour	Northbound on-slip	1,034	4	0.39%
	Northbound off-slip	1,497	2	0.13%
	Southbound on-slip	398	10	2.51%
	Southbound off-slip	458	10	2.18%

2.6 The details show that the reassigned HGVs would have a minimal impact on the M69 Junction 2 slip roads, with an increase of no more than 10 HGVs across the peak hours. Beyond this junction, peak hour flows on the M69 are in region of 6,500 vehicles and the percentage impact would be approximately 0.4%. Hence, the additional HGVs would have a negligible effect on the current junction modelling and the conclusions of the Transport Assessment.

Impact of Daily Background HGV Re-Assignment

2.7 The PRTM shows few development HGVs routing through the local villages. However, the construction of the M69 Junction 2 southern slip roads and the A47 Link Road has been shown to draw background HGVs towards M69 Junction 2. Thereby, reducing the number of HGVs routing through Hinckley and Burbage and altering the routes of HGVs travelling through the local villages.

2.8 **Table 3** and **Table 4** show the total number of background HGVs predicted to route through each of the villages shown in **Figure 1** during the 2026 opening year and 2036 future year respectively (orange cells showing an increase at the WDWS scenario).

Figure 1. Locations of Routes through Villages

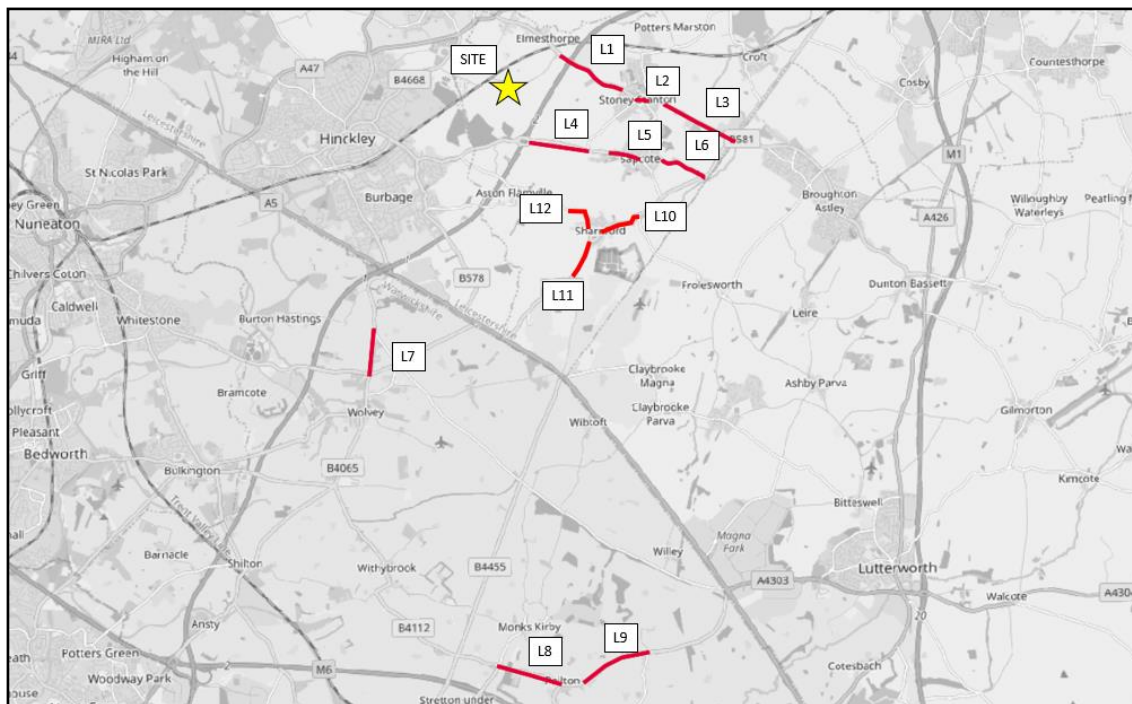


Table 3. HGV Flows (2026 Opening Year with HGV Route Management Plan & Strategy)

	AM Peak Hour			PM Peak Hour			AAWT		
	WoD	WoDWI	WDWI	WoD	WoDWI	WDWI	WoD	WoDWI	WDWI
Stoney Stanton									
L1 (Elmesthorpe)	24	14	13	23	14	13	267	154	150
L2	23	22	21	22	15	14	263	213	204
L3	14	13	13	14	11	11	155	198	130
Sapcote									
L4	41	48	47	13	18	16	314	382	312
L5	28	31	31	8	14	12	205	258	189
L6	6	15	16	2	6	5	44	116	60
Wolvey									
L7	116	118	115	101	114	104	1227	1320	1147
Pailton									
L8	37	37	62	29	32	40	379	402	394
L9	29	29	60	26	30	37	288	307	344
Sharnford									
L10	70	57	2	49	40	42	669	533	575
L11	68	55	16	47	38	40	666	525	566
L12	2	2	0	2	2	2	0	0	0

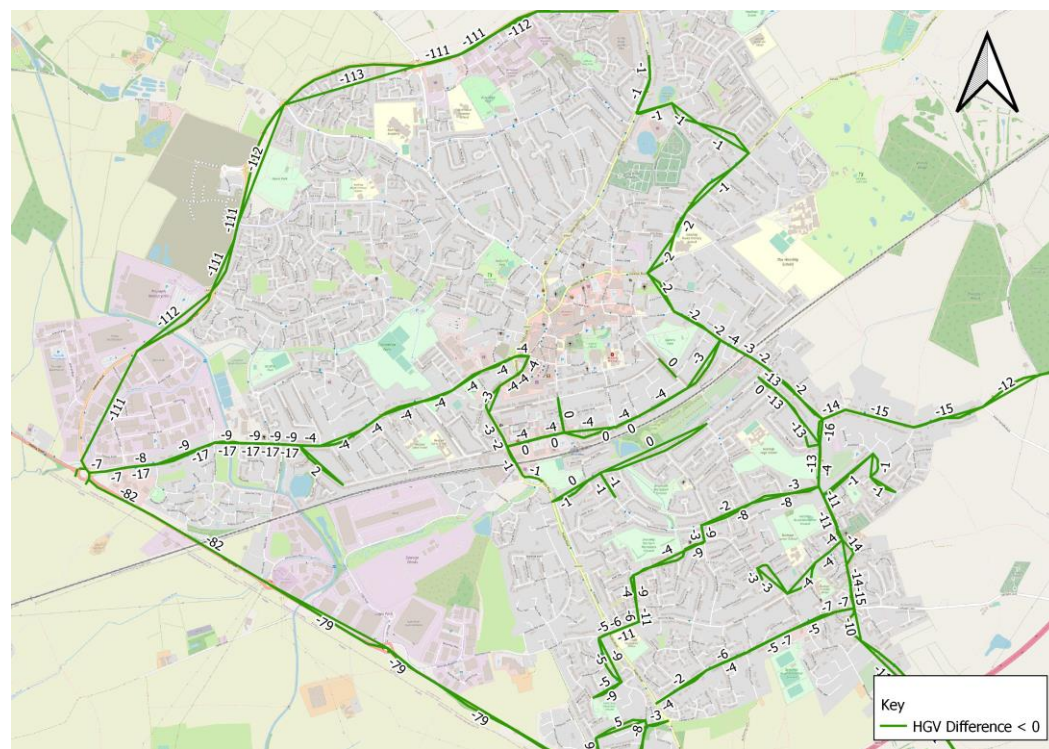
Table 4. HGV Flows (2036 Future Year with HGV Route Management Plan & Strategy)

	AM Peak Hour			PM Peak Hour			AAWT		
	WoD	WoDWI	WDWI	WoD	WoDWI	WDWI	WoD	WoDWI	WDWI
Stoney Stanton									
L1 (Elmesthorpe)	28	15	16	24	14	16	295	164	183
L2	25	22	23	23	15	17	285	217	235
L3	16	13	13	15	12	12	175	138	133
Sapcote									
L4	42	67	68	13	25	23	318	542	474
L5	28	51	52	8	21	18	206	419	349
L6	7	35	37	3	14	12	54	279	218
Wolvey									
L7	116	117	114	104	114	87	1248	1317	1057
Pailton									
L8	50	50	50	50	46	50	580	560	535
L9	40	40	41	48	44	47	474	453	473
Sharnford									
L10	77	67	74	57	47	51	758	630	694
L11	75	65	72	55	45	49	753	620	683
L12	2	2	2	2	2	2	0	0	0

2.9 **Tables 4** shows that HGV flows are predicted to reduce through Elmsthorpe, Stoney Stanton, Sharnford, Wolvey and Pailton at the 2036 future year. Therefore, the proposed development is expected to provide benefit to these villages.

2.10 In addition, following plot shows a small reduction in the number of HGVs routing through Hinckley and Burbage is expected.

Figure 2. Daily HGV reductions in Hinckley and Burbage



- 2.11 Background HGVs are expected to increase through Sapcote. However, daily increases are modest in the opening year of 2026 becoming more significant with the traffic growth predicted to 2036. Consequently, the Applicant has proposed the following measures to reduce the number of background HGVs using this route and minimise the environmental impacts of the residual HGVs:
- **B4669 Hinckley Road/Stanton Lane junction:** Introduction of traffic signals at the junction located at the western side of Sapcote.
 - **Stanton Lane:** Reduction of the speed limit to 40mph from the National Speed Limit and introduction of a gateway traffic calming feature.
 - **B4669 Hinckley Road/Leicester Road:** Implementation of traffic calming features and public realm with junction improvements, bus stop relocation and new pedestrian crossing at the Church Street/B4669 junction.
- 2.12 Whilst the above measures are considered a reasonable and proportionate response to the predicted increase in background HGVs, it is recognised that these increases are largely a consequence of background traffic growth. Therefore, the Applicant also proposes to monitor the background traffic growth through Sapcote as part of the HGV Route Management Plan & Strategy, reporting the results to the HGV Strategy Working Group on a quarterly basis.
- 2.13 The Applicant will provide a contribution to fund additional measures that the HGV Strategy Steering Group considers necessary to further discourage HGVS routing via Sapcote. These measures could include signage, road markings, traffic calming, Traffic Regulation Orders etc. This fund would be topped up on an annual basis with any occupier fines collected for breaching the HGV Route Management Plan & Strategy.

Potential Weight Restrictions Through Sapcote

- 2.14 At the Hearing on 31 October 2023, the Examiner questioned whether consideration had been given by the Applicant to introducing weight restrictions on the B4669 to prevent, rather than discourage HGVs from routing via Sapcote. Such a solution has been discounted for the following reasons:
- Enforcement of weight restrictions is notoriously labour intensive and time consuming, as a potentially offending vehicle has to be observed by police entering and leaving a zone without having delivered or collected any goods. Consequently, it is not something supported by LCC.
 - A weight restriction is not considered necessary as the combination of the HGV Route Management Plan & Strategy and traffic management measures are considered a reasonable and proportionate response to managing the effects of increased HGVs.
 - Preventing HGVs from routing via Sapcote would result in existing HGVs having to divert to other villages in the area thereby simply moving increases elsewhere. Monitoring and managing the effects is considered preferable.

3. IMPACT OF HIGH SIDED HGVs ON A5 CORRIDOR

- 3.1 The existing A5 Watling Street railway bridge at Nutts Lane currently has a clearance of 4.6 metres, meaning it is unsuitable for high sided HGVs which must take alternative routes.
- 3.2 As part of the Padge Hall Farm planning application (Rugby Borough Council Planning ref: R21/0985, Nuneaton & Bedworth Borough Council planning ref: 038340 Hinkley & Bosworth Borough Council planning Ref:21/01191/HYB) is expected to receive consent soon as reported by LCC, NH and WCC Highway officers.
- 3.3 As part of these proposals there is a scheme to increase the clearance height to 5.1 metres by lowering the road levels. Concerns were raised as part of this development and subsequently now for the HNRFI that the PRTM flows and therefore the current traffic modelling does not account for these additional high sided HGVs that could now use this route following the further lowering of the road.
- 3.4 **Table 5** shows the number of HGVs that were recorded travelling under the A5 bridge in both directions from the 2036 WoD flows in HNRFI PRTM.

Table 5. HGV Flows on A5 (2036 WoD)

	AM peak Hour	PM Peak Hour
Eastbound	137	87
Westbound	148	110
Total	285	197

- 3.5 As part of the Padge Hall Farm Transport Assessment Addendum, it was agreed with National Highways that high sided vehicles equate to approximately 20% of the UK HGV fleet. This was considered to be a robust figure and has consequently been used for this assessment.
- 3.6 **Table 6** shows the additional high-sided HGVs this would equate to on the A5 following these same principles for the HNRFI 2036 WoD flows above.

Table 6. Additional 2036 HGV Flows with Bridge Clearance Height Increased

	AM peak Hour	PM Peak Hour
Eastbound	27	18
Westbound	30	22
Total	59	40

3.7 The Transport Assessment for the proposed development reviewed the impacts at the following three junctions on the A5:

- A5/A47 Longshoot Signal Junction
- A5/A47 Dodwells Roundabout
- M69 Junction 1 Stretton Baskerville

3.8 Reviewing these three junctions for Hinckley HNRFI **Table 7**, **Table 8** and **Table 9** show the percentage increase in traffic resulting from these additional high sided HGVs through each of the three junctions in the 2036 future year. As a worst case, it has been assumed that these additional high sided HGVs would route via all three junctions, rather than disperse.

Table 7. Percentage Impact of Additional HGVs (A5/A47 Longshoot Junction)

	2036 WoD Flows	Additional HGVs	% Increase
AM Peak Hour	2,955	59	1.99%
PM Peak Hour	3,112	40	1.3%

Table 8. Percentage Impact of Additional HGVs (A5/A47 Dodwells Roundabout)

	2036 WoD Flows	Additional HGVs	% Increase
AM Peak Hour	3,842	59	1.53%
PM Peak Hour	3,937	40	1.02%

Table 9. Percentage Impact of Additional HGVs (M69 Junction 1)

	2036 WoD Flows	Additional HGVs	% Increase
AM Peak Hour	5,765	59	1.02%
PM Peak Hour	5,874	40	0.68%

3.9 The above demonstrates that the additional high sided HGVs would equate to less than a 2% increase in traffic at all three junctions and would therefore have a negligible effect on the current junction modelling and the conclusions of the Transport Assessment. Nevertheless, the flows will be incorporated into the VISSIM modelling to be undertaken at these junctions.

4. SUMMARY

4.1 This Technical Note has been produced to address concerns raised regarding the assessment of HGV movements in the vicinity of the site. The key conclusions are as follows:

- The number of development HGVs assigned through the local villages during the peak hours is low and their re-routing due to the HGV Route Management Plan & Strategy would have a negligible effect on the current junction modelling and the conclusions of the Transport Assessment.
- The introduction of the south facing slips at M69 Junction 2 and A47 Link Road would reduce the number of HGVs routing through Hinckley and Burbage, as well as the villages of Elmsthorpe, Stoney Stanton, Sharnford, Wolvey and Pailton when compared with the Without Development scenario.
- Sapcote would experience an increase in HGV flows, but a combination of the HGV Route Management Plan & Strategy and traffic management measures are considered a reasonable and proportionate response to managing the effects of these HGVs.
- It is recognised that these increases are largely a consequence of background traffic growth. Therefore, the Applicant also proposes to
 - Monitor the background traffic growth through Sapcote as part of the HGV Route Management Plan & Strategy.
 - Report the results to the HGV Strategy Working Group on a quarterly basis.
 - Provide an appropriate contribution to fund additional measures that the HGV Strategy Working Group considers necessary to further discourage HGVS routing via Sapcote.
 - Top up the fund on an annual basis with any occupier fines collected for breaching the HGV Route Management Plan & Strategy.
- A weight limit through Sapcote was discounted as it would not be supported by LCC, would be difficult to enforce by the police and result in HGVs pushed elsewhere onto the network.
- The additional high-sided HGVS predicted to route via the A5 as a result of the bridge height clearance increase being delivered by Padge Hall Farm would have a negligible effect on the current junction modelling and the conclusions of the Transport Assessment. Nevertheless, the flows will be incorporated into the VISSIM modelling to be undertaken at these junctions.