Norwich Western Link

Transport Assessment

Appendix 12: Construction Traffic Data

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Contents

Tables

Figures

1 Construction Traffic Data

1.1.1 A series of traffic flow diagrams are presented, showing the typical peak hour (Figures 1-1 to 1-5) and peak daily (Figures 1-6-1-9) HGV and LGV construction traffic movements on the local highway network within the vicinity of the Proposed Scheme.

1.1.2 The following scenarios were tested for HGV peak construction traffic movements during the 'Busy' period of construction which is anticipated to be March to October 2027. However, this is expected to be the maximum threshold applicable for the entire duration of construction and enabling works 2025-2029. Table 1-3 shows the construction data used to derive the inputs to Figures 1-1 to 1-9.

- Typical Day Scenario (equal split of earthworks HGV movements arriving/departing site via Wood Lane and Marl Hill Road plus platform material via Marl Hill Road);
- Sensitivity test for Marl Hill Road (100% earthworks HGV movements arriving/departing site via Marl Hill Road and platform material via Marl Hill Road); and
- Sensitivity test for Wood Lane (100% earthworks HGV movements arriving/departing site via Wood Lane and platform material via Marl Hill Road).

1.1.3 All scenarios have an extra uplift of 20% applied for a robust assessment. For LGV movement vehicle occupancy of 1.2 is assumed based on 2011 data from DfT Personal Travel Factsheet: Commuting and Business Travel (publishing.service.gov.uk).

1.1.4 Two additional tables are also enclosed – Table 1-2 shows enabling works HGV movements requiring access via Back Lane, Ringland as Back Lane is not shown in Figures 1-1 to 1-9.

1.1.5 Table 1-3 shows the likely LGV movements at Back Lane. The activities listed in this table would be managed so that the maximum threshold of 34 LGV vehicles two way per day is not exceeded during overlapping works.

Figure 1-1 - HGV Peak Hour Construction Traffic – Platform and Earthworks Equal Split North and South Typical Day (Busy Period)

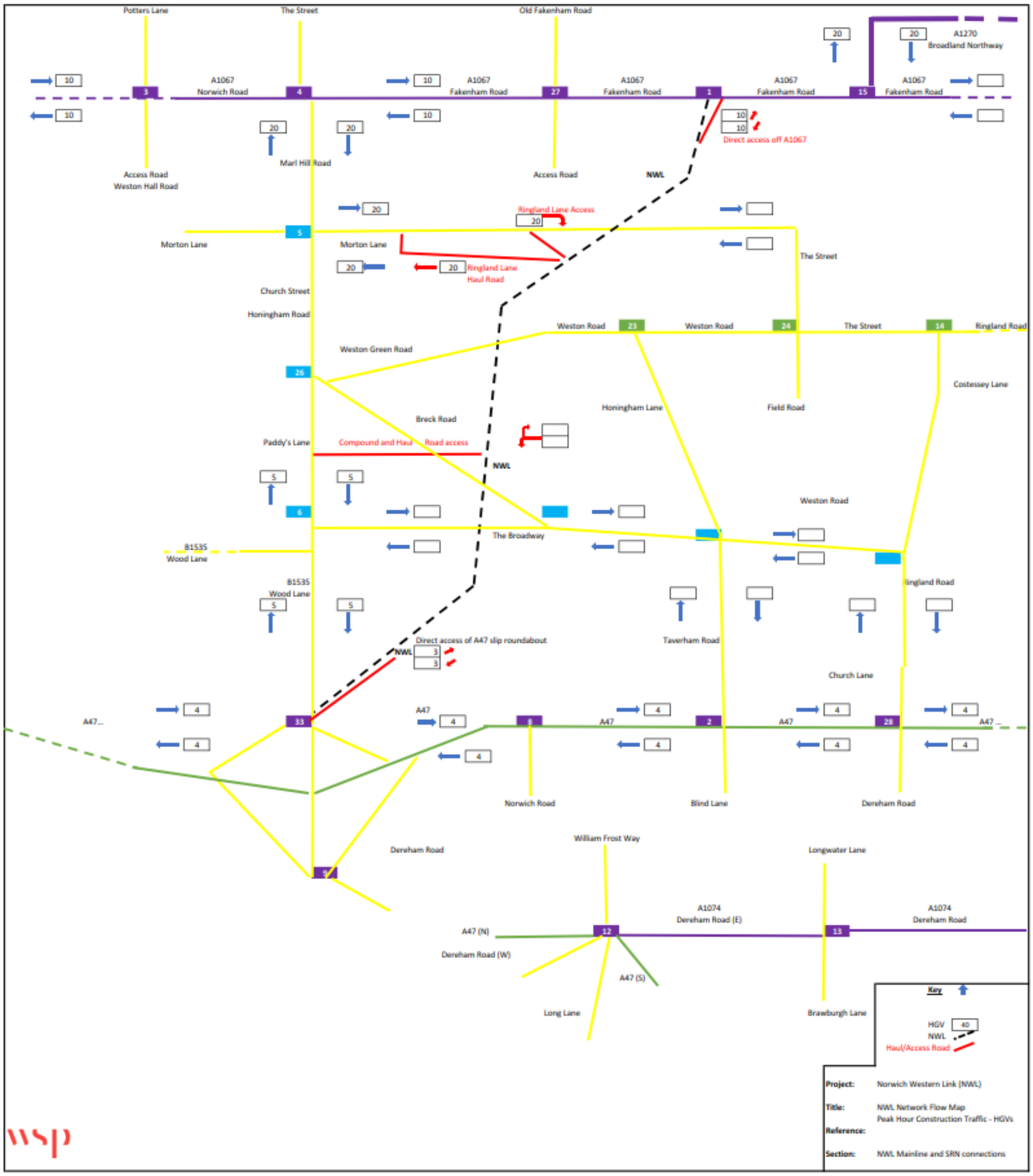

Figure 1-2 - HGV Peak Hour Construction Traffic – Platform and Earthworks North (Sensitivity Test – Marl Hill Road)

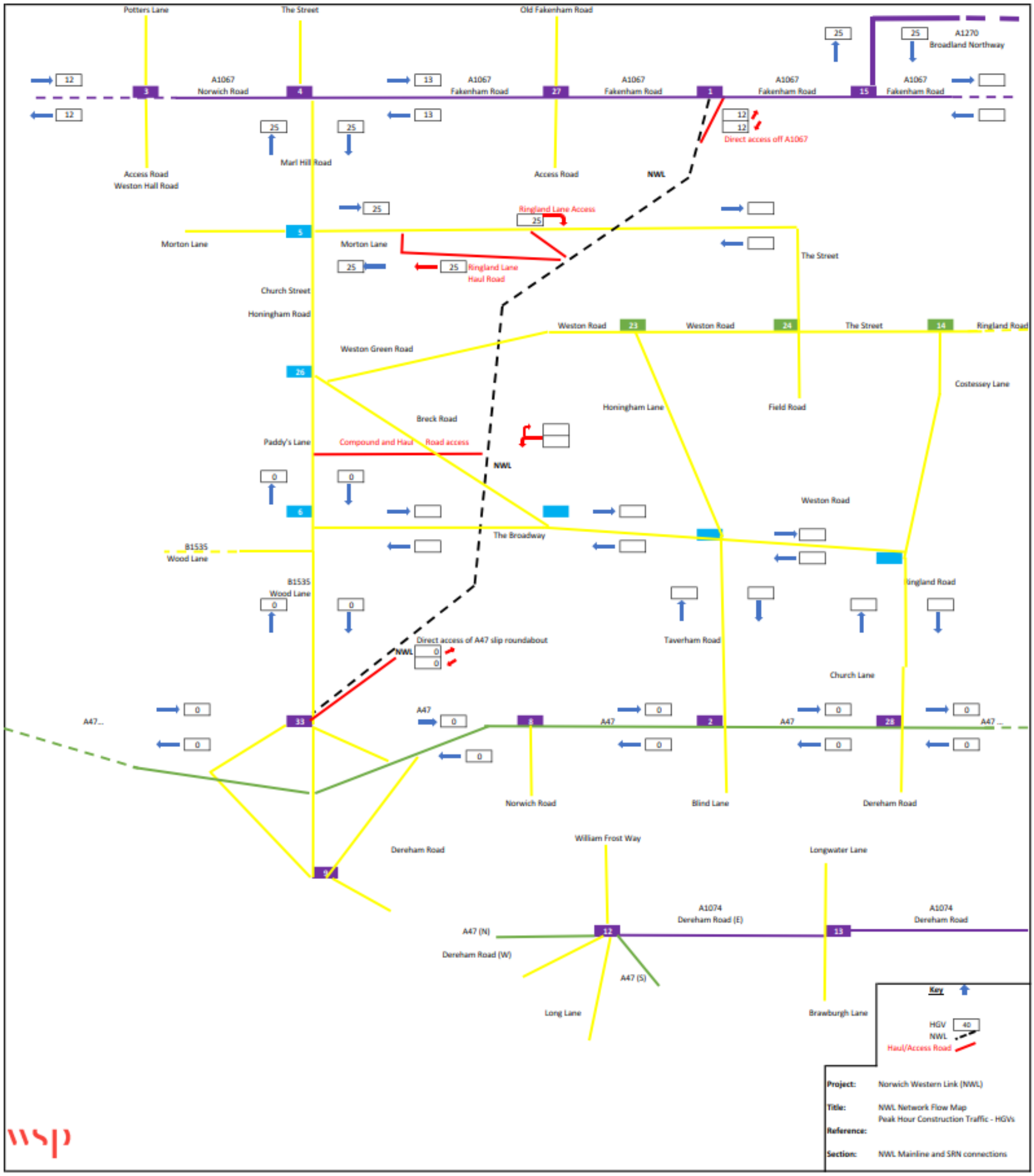

Figure 1-3 - HGV Peak Hour Construction Traffic - Platform and Earthworks South (Sensitivity Test – Wood Lane)

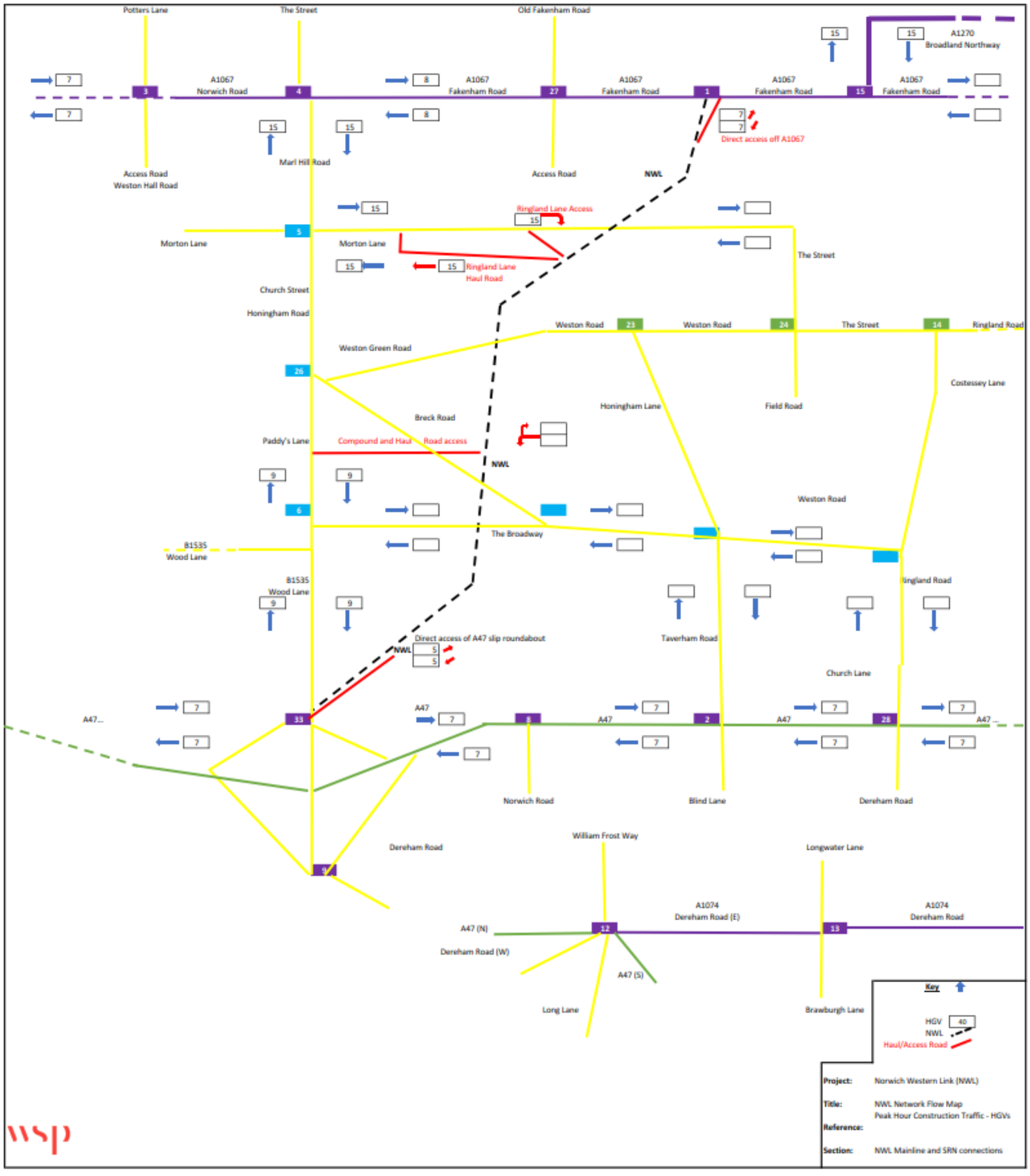

Figure 1-4 - LGV AM Peak Construction Traffic (Typical Day)

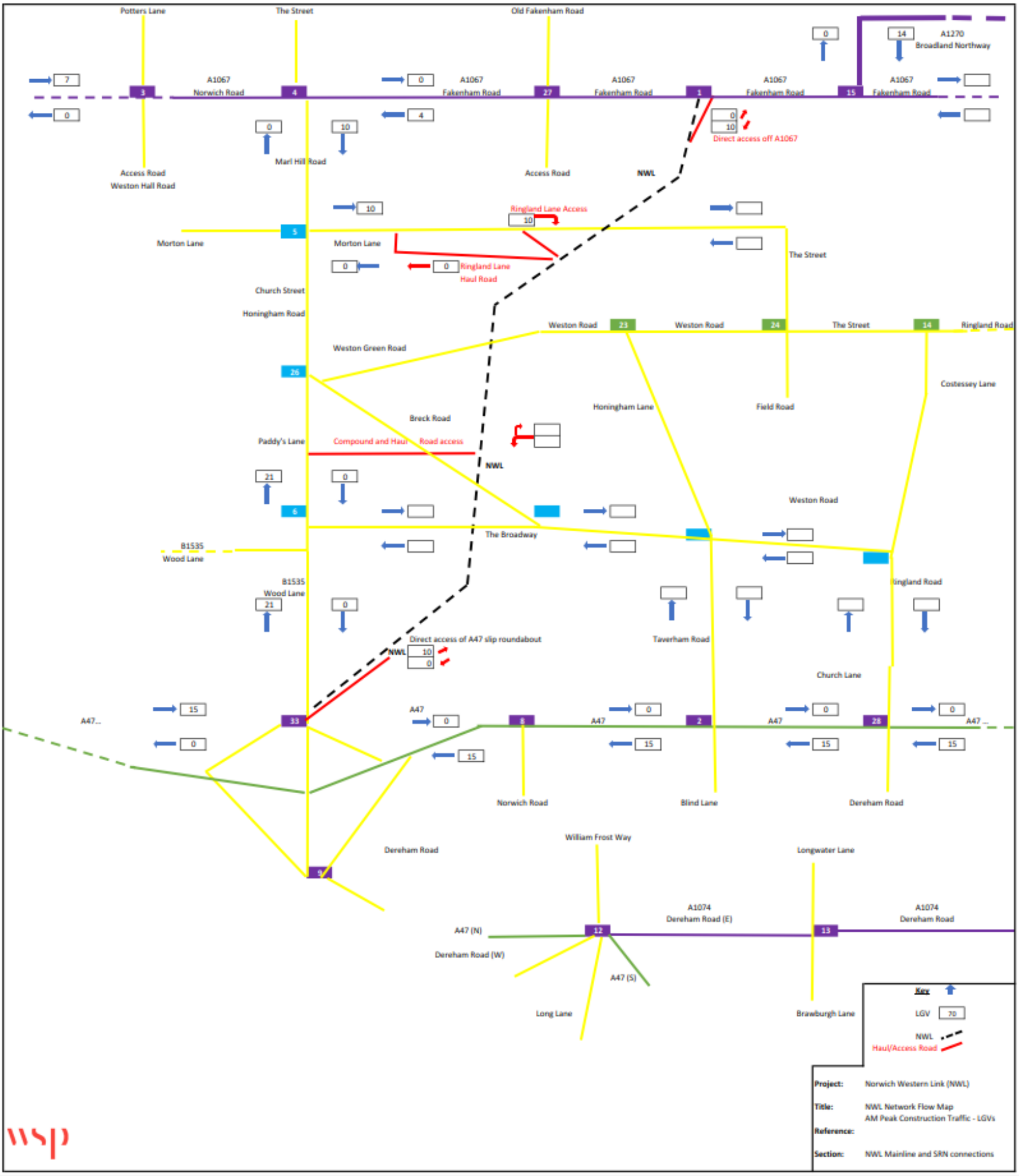

Figure 1-5 – LGV PM Peak Construction Traffic (Typical Day)

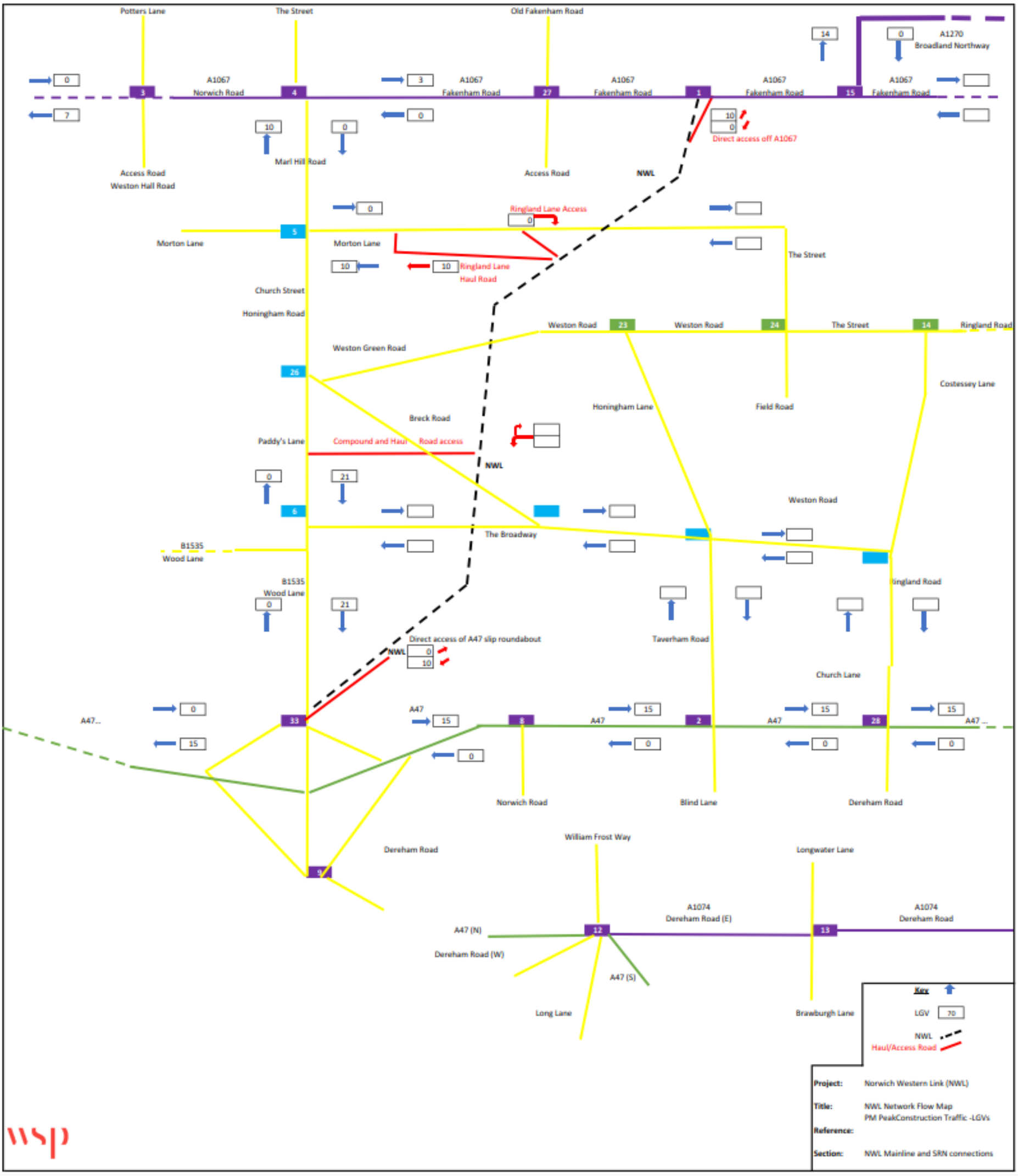

Figure 1-6 – HGV Peak Daily Construction Traffic – Platform and Earthworks Equal Split North and South Typical Day (Busy Period)

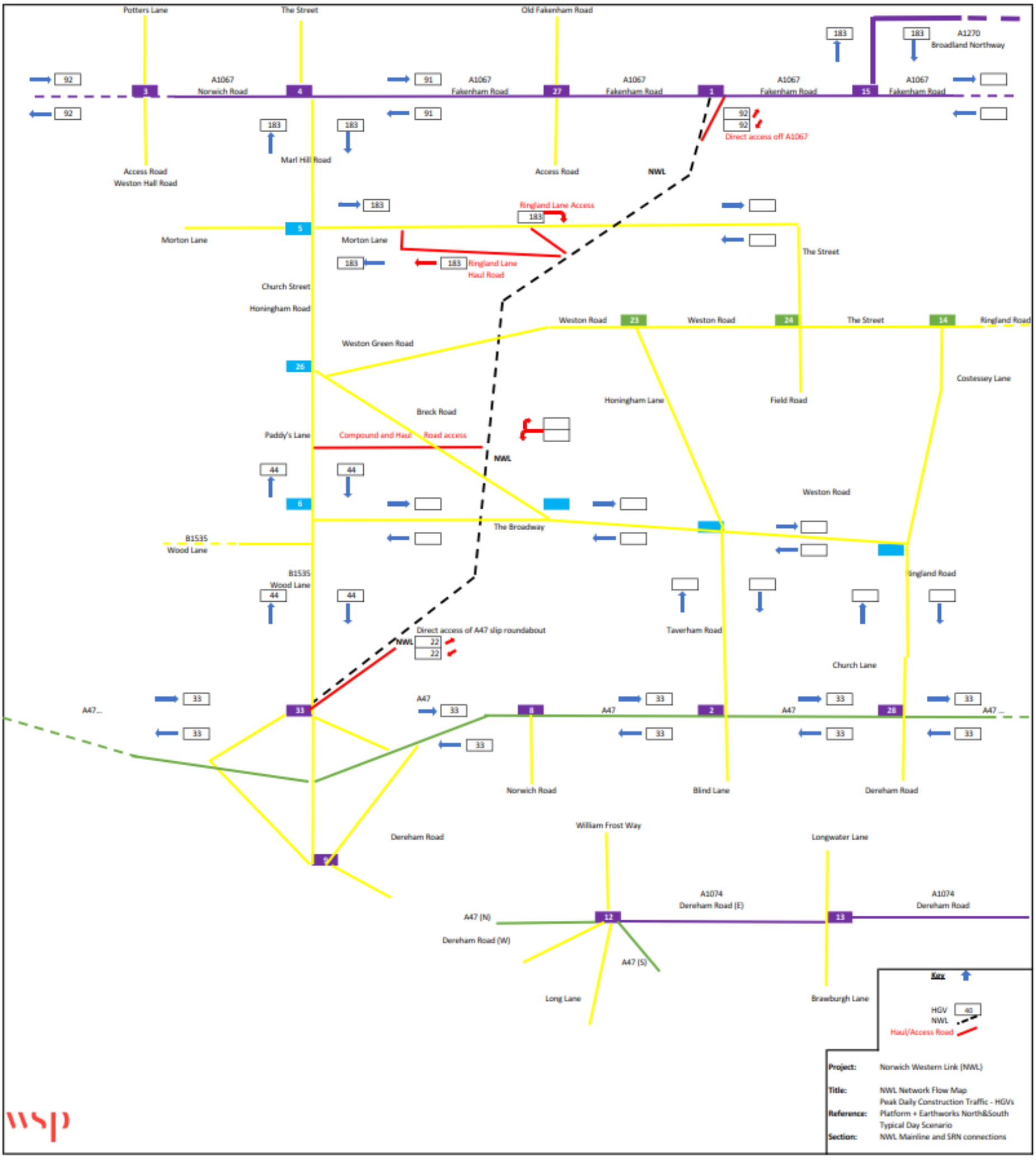

Figure 1-7 - HGV Peak Daily Construction Traffic - Platform Earthworks North (Sensitivity Test Marl Hill Road)

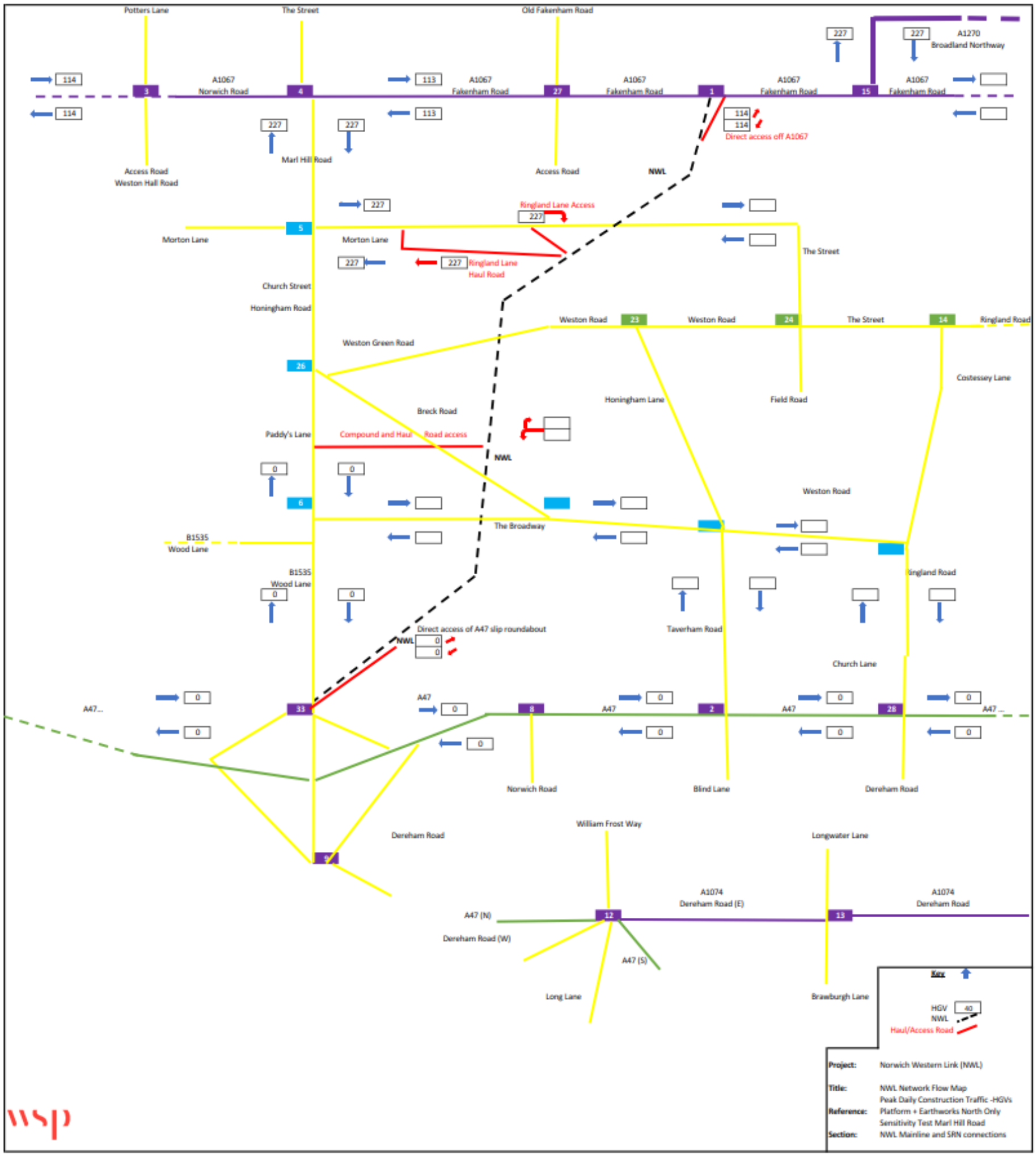

Figure 1-8 - HGV Peak Daily Construction Traffic – Platform + Earthworks South (Sensitivity test for Wood Lane)

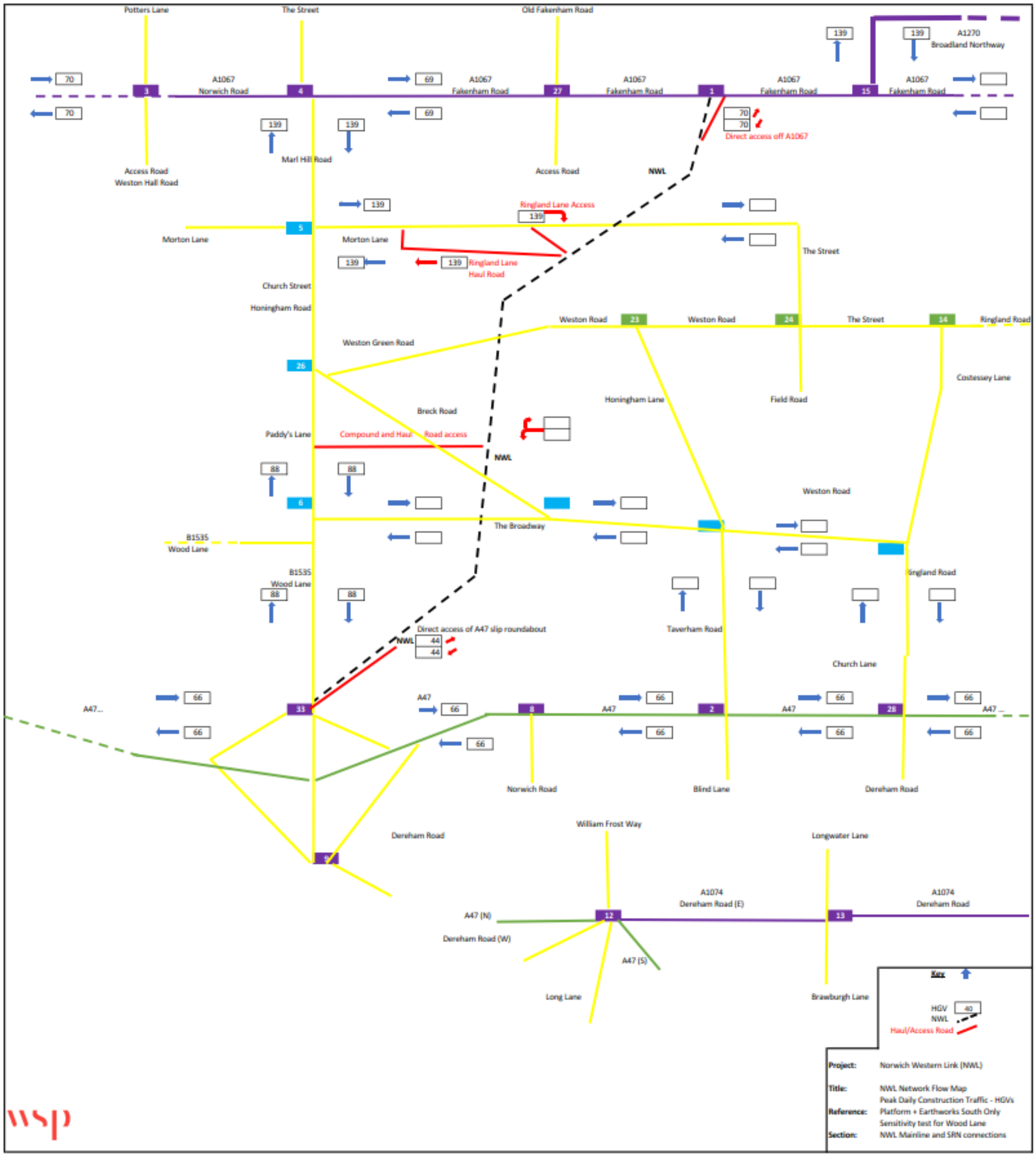

Figure 1-9 - LGV Peak Daily Construction Traffic (Typical Day)

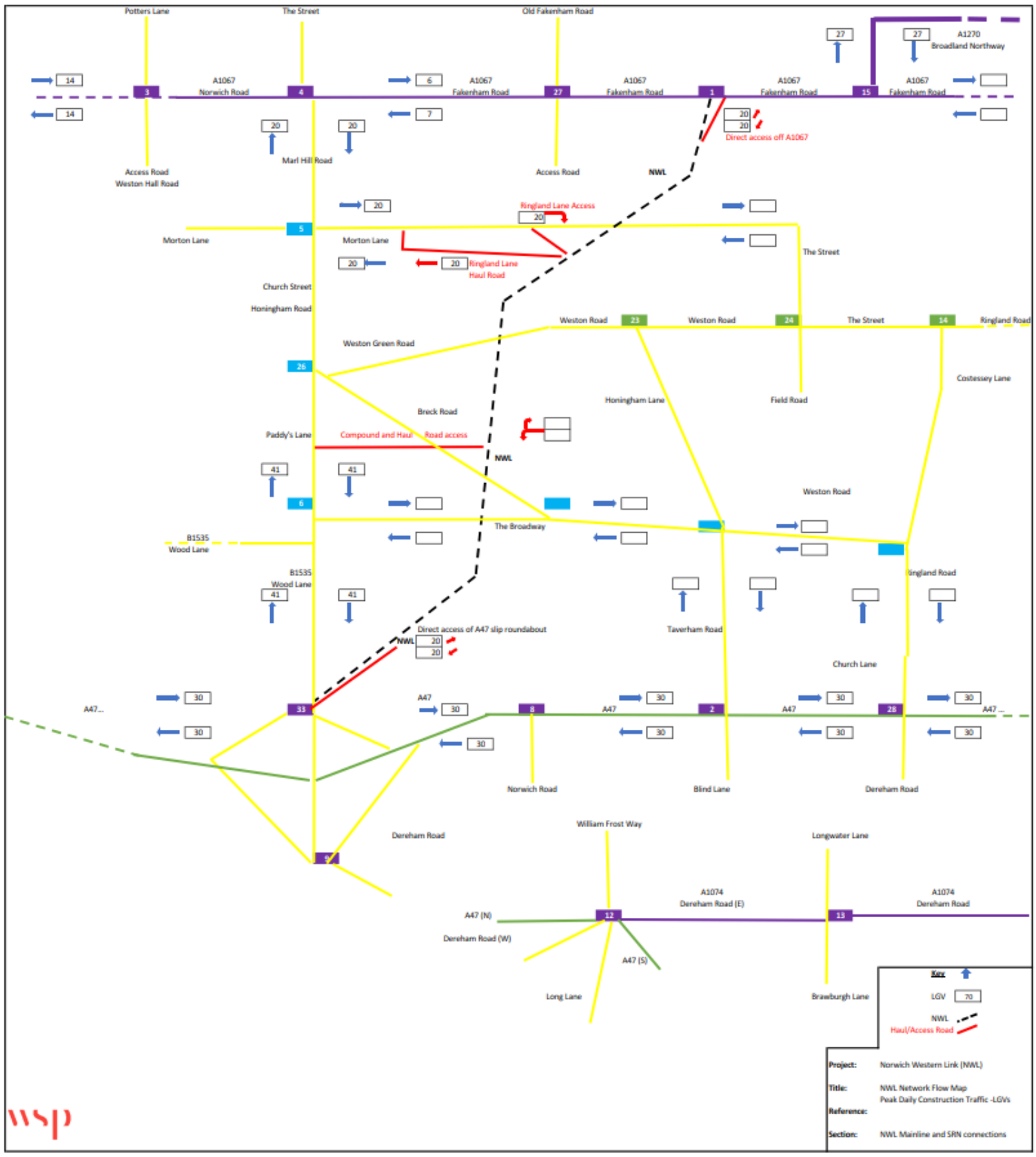

Table 1-1 Construction HGV Data and Earthworks Volumes

Activity	**Volume**	**Tonnes**	**Number Of Standard Loads**	**No Of Trips Per Day (Considering 22 Days Per Month)**
Platform Construction	M3	T	One Way	**One Way**
Organic Soils Disposal (25% Bulk Factor Applied) (8m3 Per Lorry)	69,670	Not applicable	8,709	66
Imported 6a/6f5 Below Existing Ground (20tns Per Lorry)	71,276	163,935	8,197	62
Imported 6f5 Above Existing Ground Level (20tns Per Lorry)	49,978	114,949	5,747	44
Sheet Piles Walls- 665m (Including Sheet Piles And Other Materials)	Not applicable	Not applicable	90	1
Sheet Piling Plant (Including Cranes)	Not applicable	Not applicable	Not applicable	0
Concrete Culverts	Not applicable	Not applicable	45	0
Relief Culverts	Not applicable	Not applicable	50	0
Geotextiles And Other Materials	Not applicable	Not applicable	20	0
Total Traffic For Installation	Not applicable	Not applicable	**22,858**	**173**
Platform Removal	Not applicable	Not applicable	One Way	**One Way**
Disposal 6a/6f5 Below Existing Ground (0.5m Layer To Put The Topsoil Back) (20tns Per Lorry)	15,540	35,742	1,787	20
Disposal 6f5 Above Existing Ground Level (20tns Per Lorry)	49,978	114,949	5,747	65
Sheet Piles (Including Sheet Piles And Other Materials-Disposal)	Not applicable	Not applicable	90	1
Sheet Piling Plant (Including Cranes)	Not applicable	Not applicable	Not applicable	0
Concrete Culverts (Disposal)	Not applicable	Not applicable	45	1
Relief Culverts (Disposal)	Not applicable	Not applicable	50	1
Geotextiles And Other Materials (Disposal)	Not applicable	Not applicable	20	0
Total Traffic For Removal	Not applicable	Not applicable	**7,740**	**88**
Earthwork Disposal Excluding Tw Platform Works	**115272**	**Not applicable**	**14409**	**109**

Table 1-2 Back Lane Enabling Works HGV Traffic Flows

Enabling Works Activity	Total Months	Total 2 way HGVs	Months active in Peak period March to Oct 26	HGVs in March to Oct 26	Duration Weeks	Peak (Mar-Oct) HGVs per week	HGVs per Day
Water Vole Habitat Creation	3	2	0	0%	4	0	0
Water Vole Translocation	5	4	4	80%	6	1	0
Barn Owl Habitat creation	2	2	1	50%	4	0	0
Closure of Barn Owl Nests	10	0	2	20%	1	0	0
Badget Sett closure	5	2	4	80%	20	0	0
Bat Inspection and roost proofing	8	2	8	100%	4	1	0
Ecology surveys	24	0	8	33%	1	0	0
Installing tree RPAs	1	4	0	0%	1	0	0
De-Veg	10	8	2	20%	4	0	0
De-watering & pumping	12	10	8	67%	6	1	0
Groundwater monitoring	16	0	8	50%	6	0	0
Installing SW management	4	6	1	25%	5	0	0
Install culverts	12	32	8	67%	5	4	1
Install Temp crossings	12	18	8	67%	2	6	1
Archaeology strip map sample	15	20	8	53%	6	2	0
Paleo-environmental boreholes	8	16	8	100%	6	3	1
GI	16	40	8	50%	6	3	1
Pre-drill	8	30	8	100%	8	4	1
utility survey	8	2	8	100%	1	2	0
Total HGVs	**Not Applicable**	**198**	**Not Applicable**	**Not Applicable**	**Not Applicable**	**27**	**5**

Table 1-3 Back Lane Enabling Works LGV Traffic Flows

Enabling Works Task	Staff on site (minimum)	Staff on site (maximum)	Average staff on site	Assumed average vehicle occupancy	LGVs one way	LGVs two way
Ecology mitigation	2	15	9	1.2	8	16
Environmental mitigation	2	15	9	1.2	8	16
Archaeological mitigation	10	30	20	1.2	17	34
Installing Culverts and Water Crossings	5	20	13	1.2	11	22
Ground Investigation	15	25	20	1.2	17	34
Site trials	10	15	13	1.2	11	22
Site surveys	2	10	6	1.2	5	10