



**OXFORDSHIRE
COUNTY COUNCIL**

2025

HGV Analysis Report



Henley-on-Thames

Henley HGV Analysis Report

Analysis

Data Collection

A total of 35 ANPR cameras were deployed to collect survey data on 25th & 26th September 2024.

The raw data provided Timestamp for the capture, Direction of travel and Vehicle technical details (vehicle type, fuel type, Euro standard & vehicle weight).

ANPR cameras provided a good capture rate: 108 of 139 included cameras were greater than 90%. Few Cameras with below 60% (15 IN & OUT (Reading), 17 IN & OUT (A404), 22 N (Henley) and 29 S (Oxford)), while camera 02 E (Henley bridge), 16 IN (reading) and 21 E (Henley) counts too low to include in the analysis but were compensated by subsequent cameras.

Methodology

HGVs were divided into 3 weight groups to support understanding of analysis. They were:

- ≥ 3.5 tonnes, and < 7.5 tonnes (typically small vehicles)
- ≥ 7.5 tonnes, and < 18 tonnes (typically medium vehicles)
- ≥ 18 tonnes (typically large vehicles)

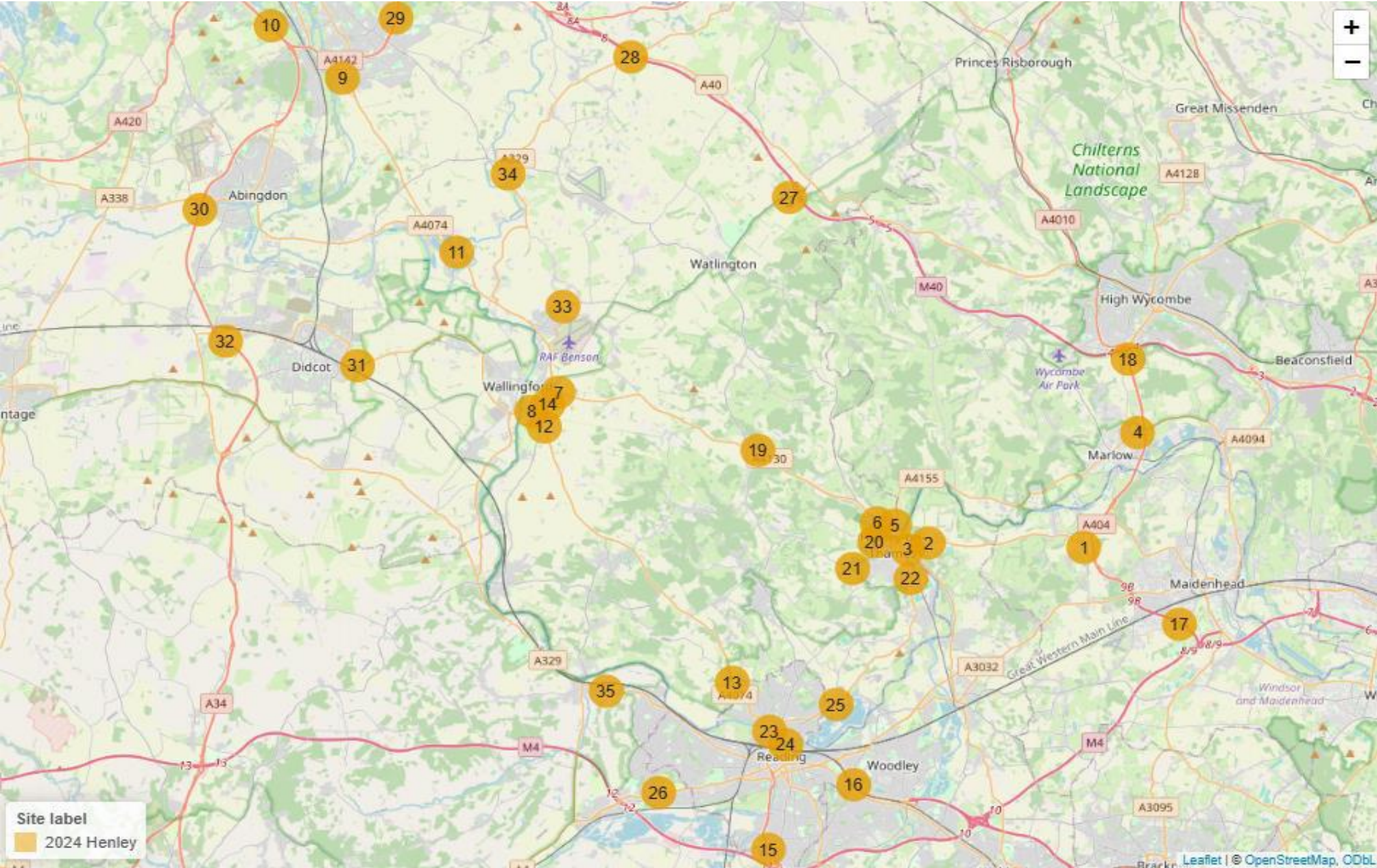
The initial analysis provided routing in 2 forms:

- **Direct:** Movement of a vehicle starting at a camera and then the first camera after that.
- **Direct & Indirect:** Movement starting at a camera and passing through any cameras until it exceeded the threshold (explained on page 2) or went out of the last camera in the study.

Further analysis of HGV Direct routing is used to understand movement in more detail, providing:

- Map visualisation of HGV movement for all weight groups including total volume, stopping volume.
- Map visualisation of HGV movement at macro level (whole area) and micro level (towns)

Camera Locations



Analysis Findings

Weight Group	Total	Links within threshold time (count)	Links within threshold time (%)	Links exceeding threshold time (count)	Links exceeding threshold time (%)	Invalid links or no subsequent capture (count)	Invalid links or no subsequent capture (%)
3.5-7.5 tonnes	6634	2274	34.3	2502	37.7	1858	28.0
7.5-18 tonnes	3251	1222	37.6	1179	36.3	850	26.1
>= 18 tonnes	15995	6484	40.5	5877	36.7	3634	22.7
HGV missing weight	32	9	28.1	13	40.6	10	31.3

Exceeding threshold (Stopping HGVs): HGV's making stops between cameras.

Within threshold (Travelling HGVs): HGV's just passing through the cameras

Threshold has been estimated by calculating time between each camera link and determined separately to account for:

- Distance between sites
- Speed limits
- Traffic calming measures (junctions, traffic lights, roundabouts)
- Levels of congestion

Limitations

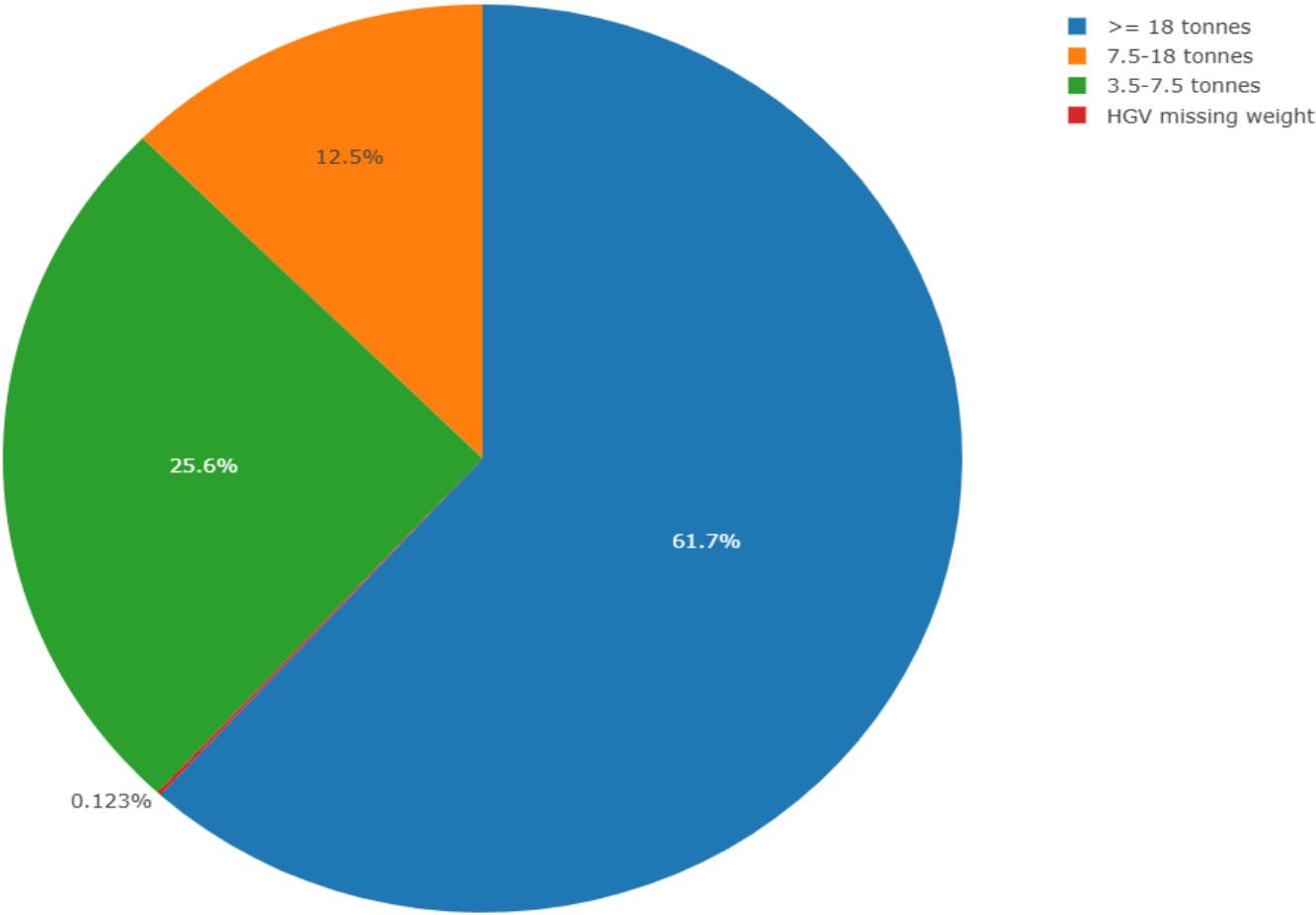
- Only 2 days of data (Storm on 26th September 2024)
- HGV movements are very complex as they disperse, circle around and returns to the same or another camera in area from different direction
- Around 25% (estimated total of all weight groups) of vehicles are recorded with **no subsequent capture** (Not used the main routes to go out or cameras missed them for some reason)
- There is no way to know the purpose of HGV (construction, agriculture, waste, containerized etc)
- Routing constraints:
 - Captures within threshold and exceeding threshold from a camera but starts afresh when looking at the next camera.

Fleet composition by HGV weight group

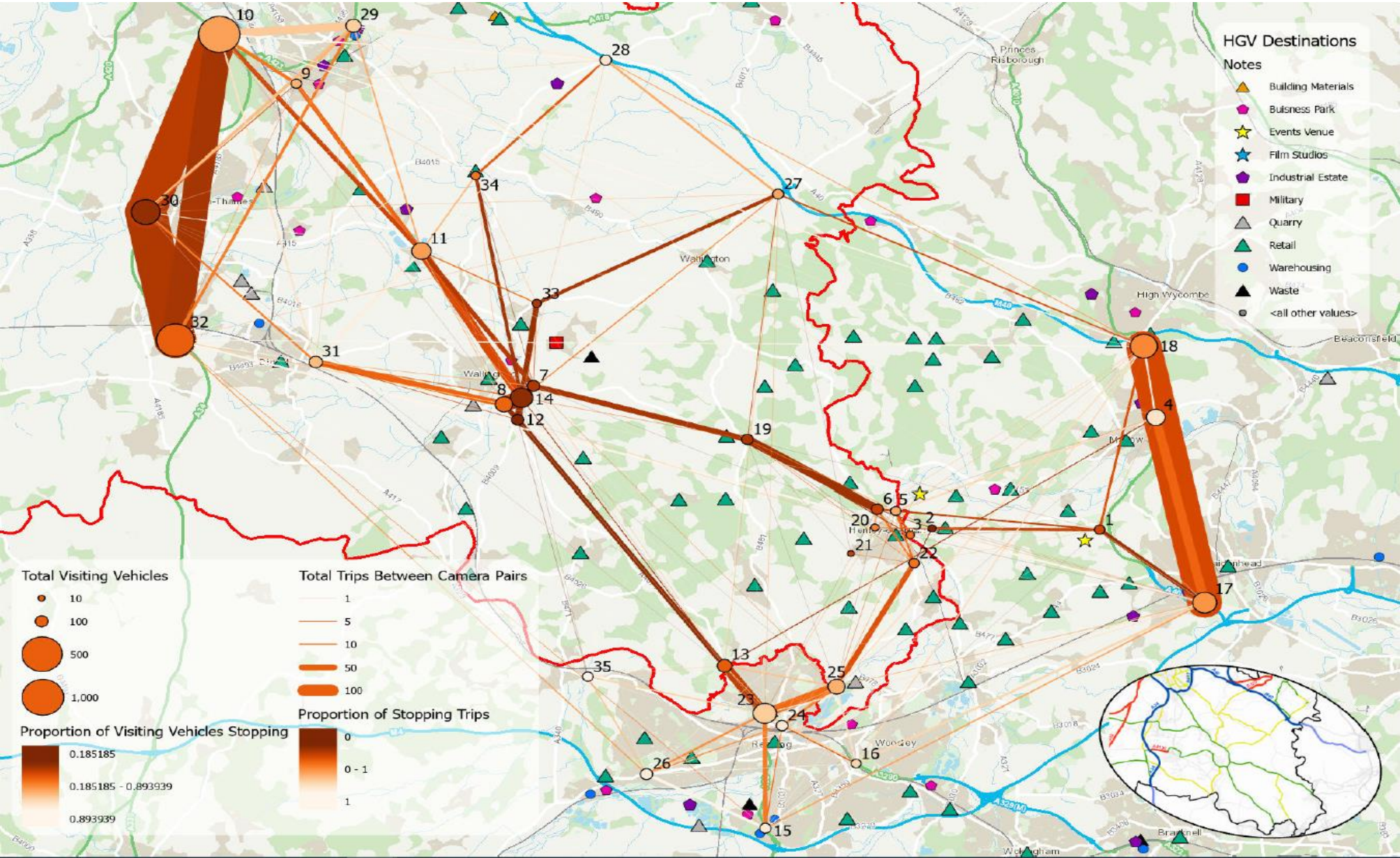
Year: 2024

Location: Henley

Site grouping: All



Macro Analysis: 3.5 to 7.5 Tonnes HGVs (2 days of data)



- Bottom right image on the map shows an HGV advisory route map of Oxfordshire Network.
- Majority of the movement is on major roads (A34, A404)
- HGV destination shows possibility of HGV's making stops at these locations.
- A4130 is a A-road with link to smaller town.

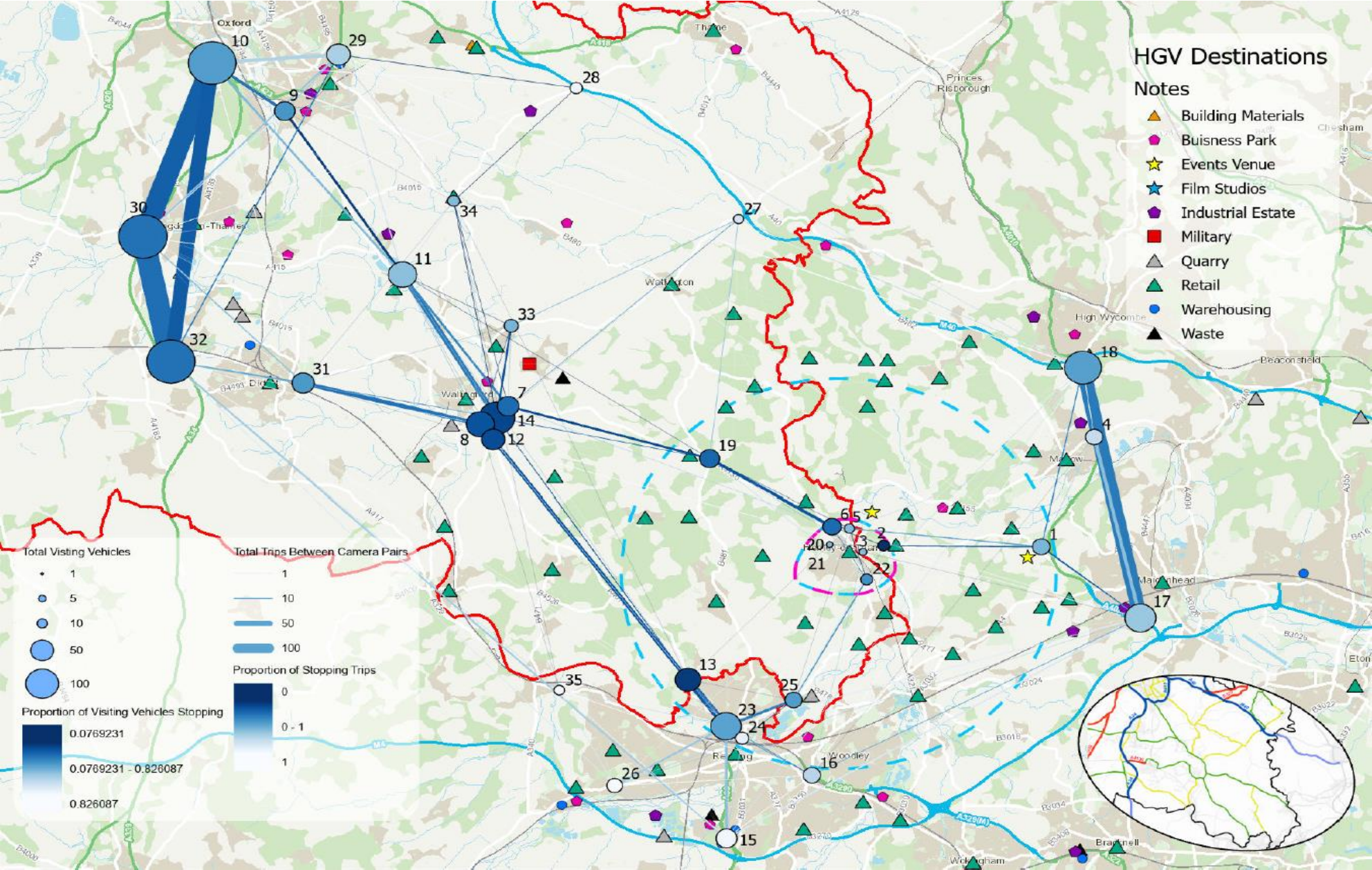
Table 2 below provide details regarding **3.5 to 7.5 Tonnes HGVs** volume captured at each camera point:

- Total Vehicle Count refreshes at each camera providing HGV counts at each camera hence there is a high possibility of same HGV passing through multiple cameras
- Henley focused cameras with details below

Camera number (Henley)	Common Name or associated town	Oxfordshire network road designation	Freight	Total vehicles	Stopping vehicles	Not Stopping Vehicles
1	A4130	Link to Smaller Town		65	23	42
2	A4130 Remenhill Church Lane*	Link to Smaller Town		27	5	22
3	A321	Not on Freight Network		38	18	20
5	A4155 North	A road not on freight network		61	38	23
6	Fair Mile	Link to Smaller Town		88	29	59
19	Nettelbed	Link to Smaller Town		85	24	61
20	Graven Hill	Not on Freight Network		27	14	13
21	Greys Road*	Not on Freight Network		6	2	4
22	A4155 South	A road not on freight network		67	32	35

Details of other camera points are in Table 3 and Table 4 for **3.5 to 7.5 Tonnes HGVs** have been added in appendix

Macro Analysis: 7.5 to 18 Tonnes (2 days of data)



- Bottom right image on the map shows an HGV advisory route map of Oxfordshire Network.
- Majority of the movement is on major roads (A34, A404)
- HGV destination shows possibility of HGV's making stops at these locations.
- A4130 is a A-road with link to smaller town.

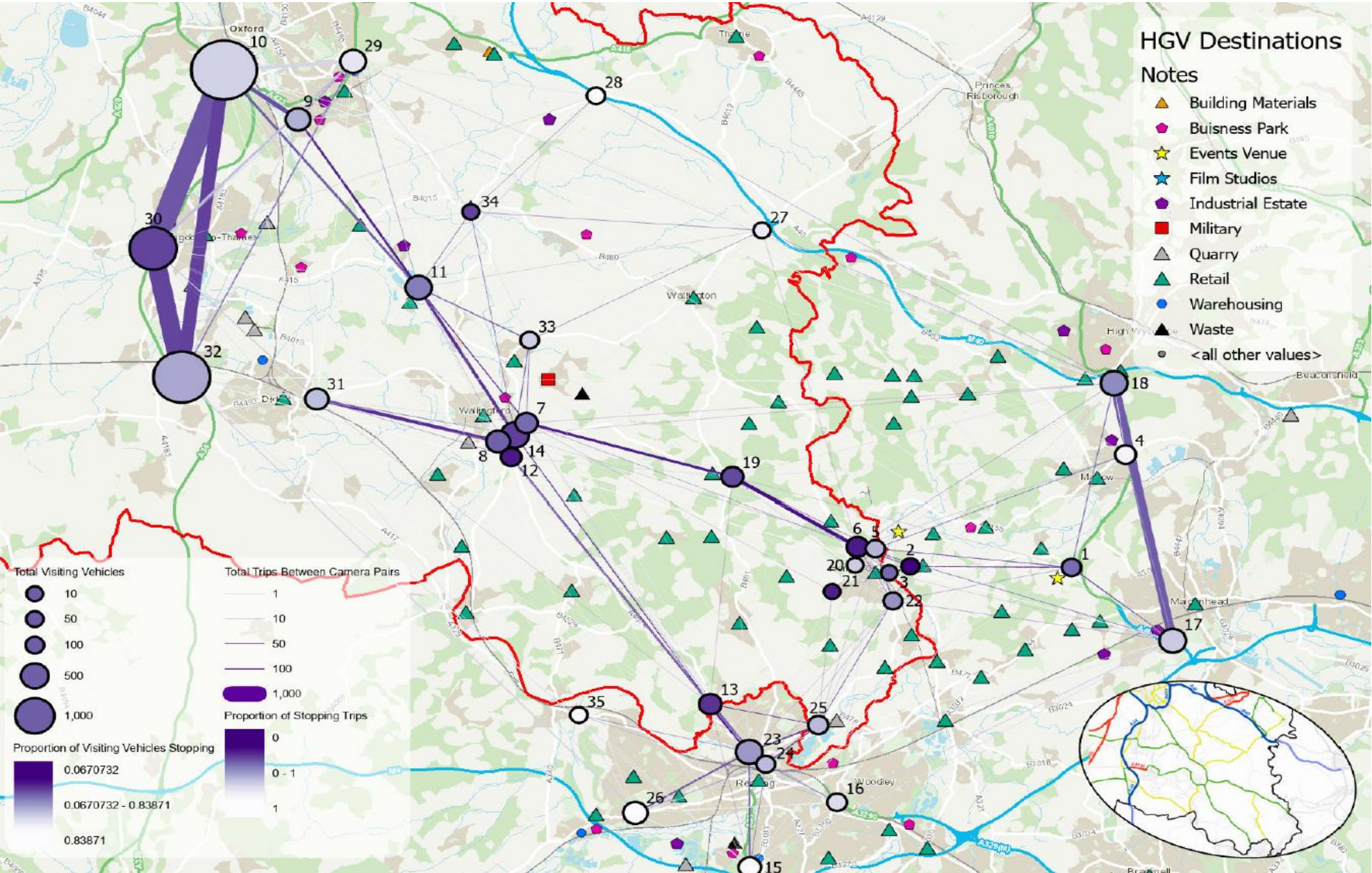
Table 5 below provide details regarding **7.5 to 18 Tonnes HGVs** HGV volume captured at each camera point:

- Total Vehicle Count refreshes at each camera providing HGV counts at each camera hence there is a high possibility of same HGV passing through multiple cameras
- Henley focused cameras with details below

Camera number (Henley)	Common associated town	Name	or	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Vehicles	Stopping
1	A4130			Link to Smaller Town	29	14	15	
2	A4130 Lane*	Remenhill	Church	Link to Smaller Town	13	1	12	
3	A321			Not on Freight Network	6	3	3	
5	A4155 North			A road not on freight network	10	5	5	
6	Fair Mile			Link to Smaller Town	32	8	24	
19	Nettelbed			Link to Smaller Town	38	9	29	
20	Graven Hill			Not on Freight Network	4	2	2	
21	Greys Road*			Not on Freight Network	0			
22	A4155 South			A road not on freight network	14	5	9	

Details of other camera points are in Table 6 and Table 7 for **7.5 to 18 Tonnes HGVs** have been added in appendix

Macro Analysis: Over 18 Tonnes (2 days of data)



- Bottom right image on the map shows an HGV advisory route map of Oxfordshire Network.
- Majority of the movement is on major roads (A34, A404)
- HGV destination shows possibility of HGV's making stops at these locations.
- A4130 is a A-road with link to smaller town.

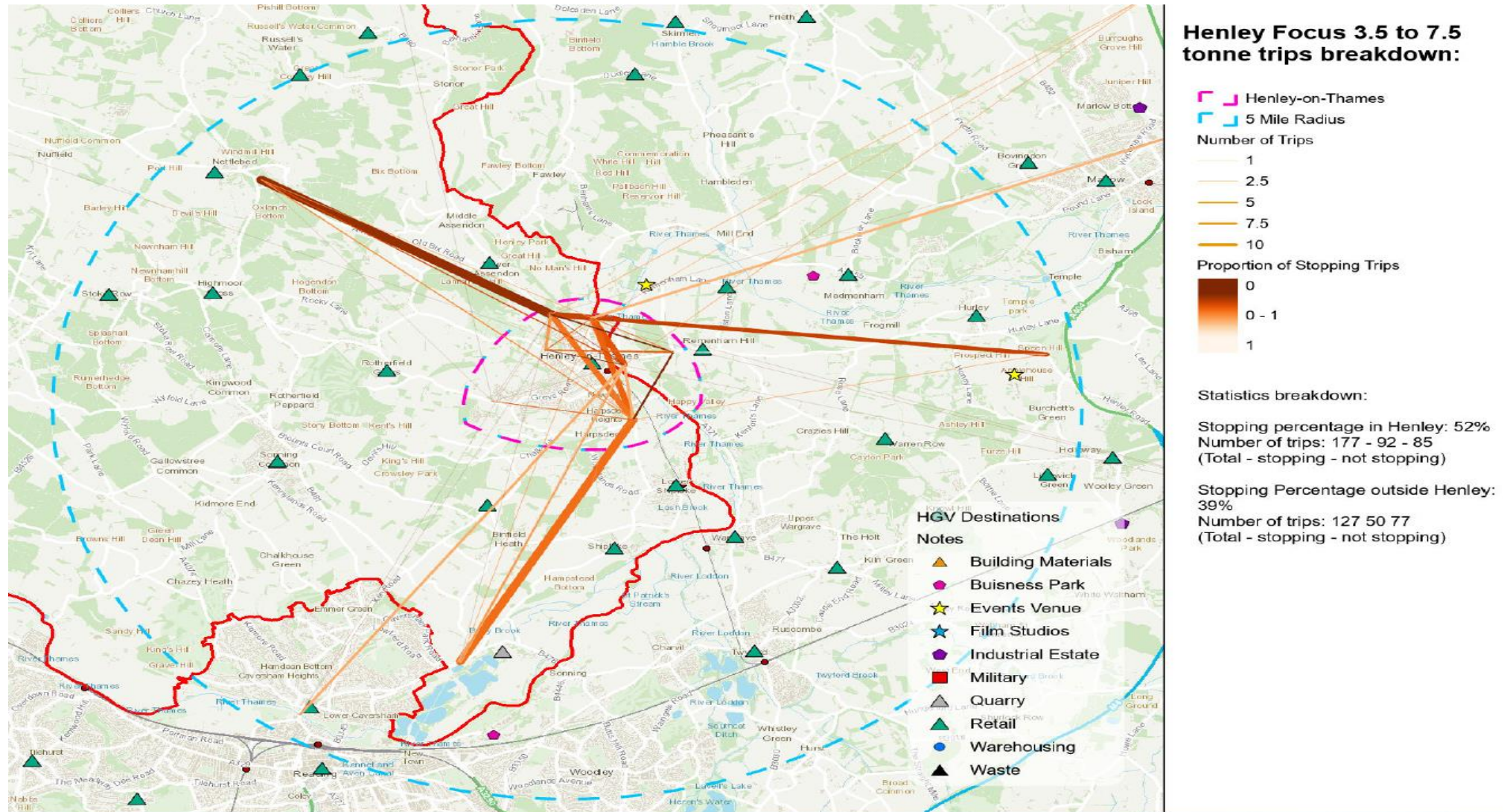
Table 8 below provide details regarding **Over 18 Tonnes HGVs** volume captured at each camera point:

- Total Vehicle Count refreshes at each camera providing HGV counts at each camera hence there is a high possibility of same HGV passing through multiple cameras
- Henley focused cameras with details below

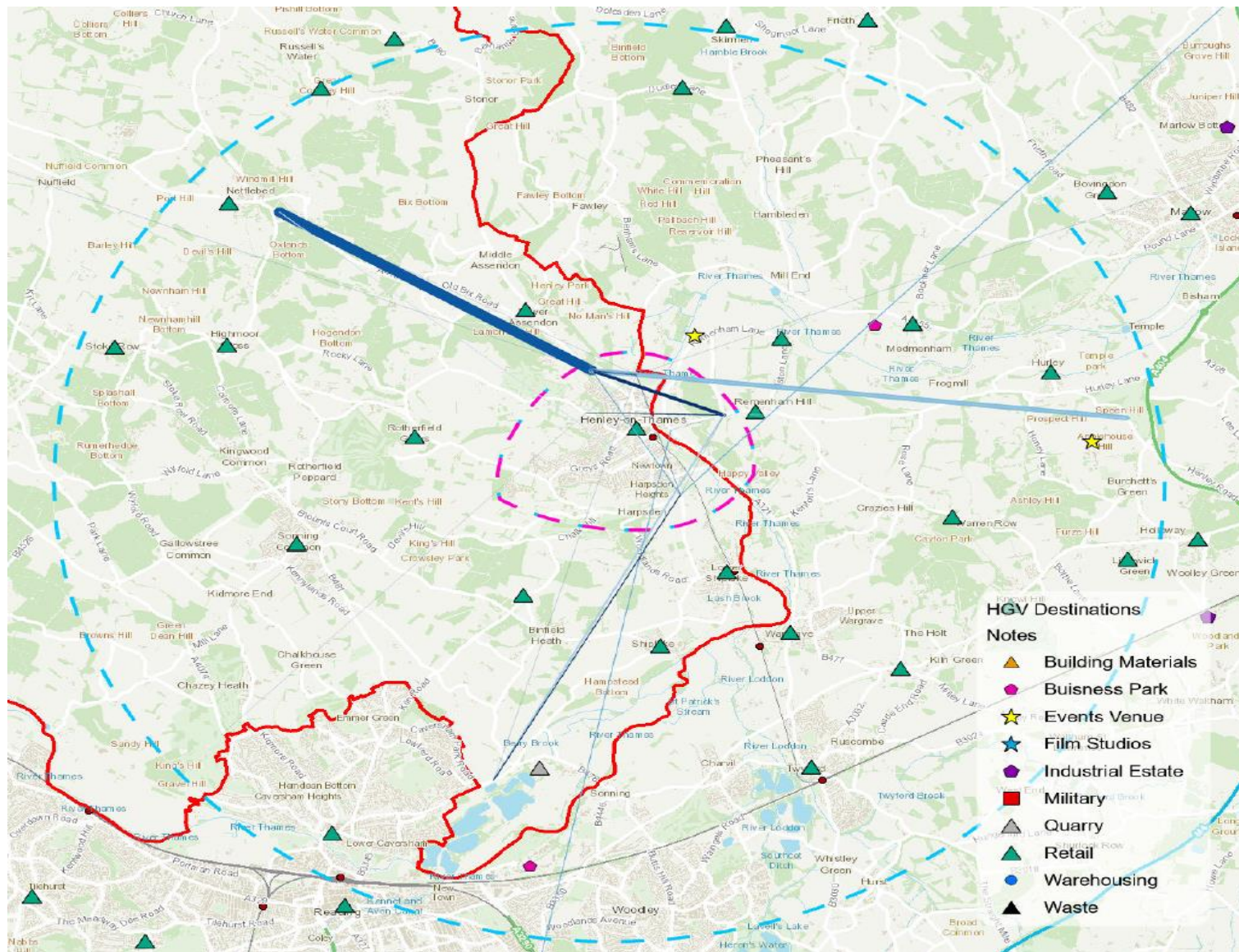
Camera number (Henley)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Vehicles	Stopping
1	A4130	Link to Smaller Town	131	42	89	
2	A4130 Remenhill Church Lane*	Link to Smaller Town	71	5	66	
6	Fair Mile	Link to Smaller Town	247	34	213	
19	Nettelbed	Link to Smaller Town	245	59	186	
20	Graven Hill	Not on Freight Network	10	6	4	
21	Greys Road*	Not on Freight Network	7	1	6	
3	A321	Not on Freight Network	16	5	11	
5	A4155 North	A road not on freight network	128	68	60	
22	A4155 South	A road not on freight network	109	47	62	

Details of other camera points are in Table 9 and Table 10 for **Over 18 Tonnes HGVs** have been added in appendix

Micro Analysis



- **2 days** of 3.5-7.5t HGVs with max volume of **177 (89 per day)** with estimated **80%** stopping within **5 miles** radius. (**18/day** through traffic)
- **A4130** is HGV advisory route for smaller town.
- Max volume taken by taking the highest number between 2 areas as total counts may differ between areas due to no subsequent capture.



Henley Focus 7.5 to 18 tonne trips breakdown:

Henley-on-Thames

5 Mile Radius

Number of Trips

1
2.5
5
7.5
10

Proportion of Stopping Trips

0
0 - 1
1

Statistics breakdown:

Stopping percentage in Henley: 21%
Number of trips: 24 - 5 - 19
(Total - stopping - not stopping)

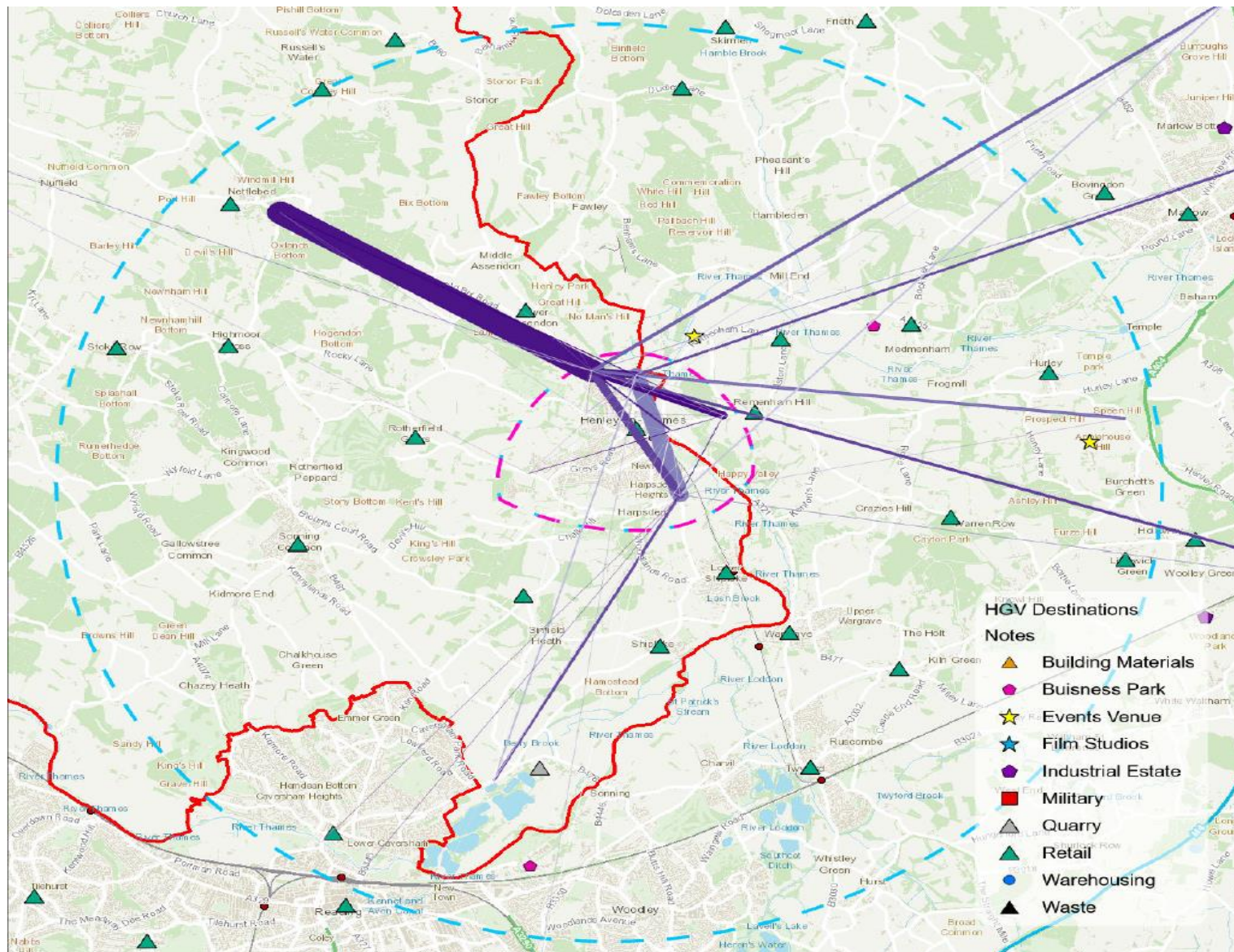
Stopping Percentage outside Henley: 50%
Number of trips: 52 - 26 - 26
(Total - stopping - not stopping)

HGV Destinations

Notes

- ▲ Building Materials
- Business Park
- ★ Events Venue
- ★ Film Studios
- Industrial Estate
- Military
- ▲ Quarry
- ▲ Retail
- Warehousing
- ▲ Waste

- **2 days** of 7.5-18t HGVs with max volume of **52 (26 per day)** with estimated **60%** stopping within **5 miles** radius. (**10/day** through traffic)
- **A4130** is HGV advisory route for smaller town.
- Max volume taken by taking the highest number between 2 areas as total counts may differ between areas due to no subsequent capture.



- **2 days** of +18t HGVs with max volume of **288 (144 per day)** with estimated **74%** stopping within **5 miles** radius. (**37/day** through traffic)
- **A4130** is HGV advisory route for smaller town.
- Max volume taken by taking the highest number between 2 areas as total counts may differ between areas due to no subsequent capture.

Movement between Slough/M Maidenhead & Didcot/Oxford (Through Henley)

East to West (Not Stopping HGV's)

- HGVs (over 18 tonnes) coming from East (A404, Maidenhead, Slough), captured from camera 1 & 2.
- Estimated only **4.5%** (6 HGV's) are going to Didcot, while only about **1.5%** (2 HGV's) are going to Oxford.

West to East (Not Stopping HGV's)

- HGVs (over 18 tonnes) coming from West (Oxford, Didcot), captured from camera 11 & 31.
- Estimated **8.5%** are coming into Henley from Didcot which lowers down to **4%** (7 HGV's), while estimated **3%** coming into Henley from Oxford which lowers down to **1.5%** (3 HGV's).

Conclusion

- 2 days of macroanalysis shows majority of the HGVs are travelling on the advisory routes for all weight groups.
- 2 days of microanalysis shows majority of the HGVs captured at Henley are local as stopping within 5 miles radius:
 - **80%** of 3.5-7.5 tonnes HGVs are making stops.
 - **60%** of 7.5-18 tonnes HGVs are making stops.
 - **74%** of over 18 tonnes HGVs are making stops.
- Movement between Didcot and Slough also show very low number of through traffic.

Evidence from HenleyHGVWatch

Dropbox link of evidence captured over the span of 4.5 years (Photographic Evidence)

<https://www.dropbox.com/scl/fo/4o8pwx7f8uti2pepcp93/ANZah2bSY3XWGiMOUDiNf3M?rlkey=9hmcm3vl5k3tfu7u1oftrk8l9&st=up06x7dp&dl=0>

Notes supporting the evidence

This is a non-exhaustive list of HGVs which are frequently seen using A4130 through Henley as a traffic corridor.

These HGVs are sent here by SAT NAVs to save journey time because there is no legal weigh limit on our river crossing. Plus the problem is compounded by the fact that OCC Highways removed the *Oxfordshire Freight Quality Partnership Lorry Route Map* which cautioned that Henley was “unsuitable for through lorry traffic”. An examination of the HenleyHGVwatch photo gallery (which has been uploaded to OCC Highway’s over the last 4.5 years) will verify what is stated below:

- a. HGVs with long trailers carrying numerous shipping containers.eg regularly seen are Evergreen (Taiwanese) Maersk (Danish) and COSCO shipping (Chinese).
- b. 44 tonne HGV’s using Henley as a traffic corridor to cut through between the M4 and their distribution warehouses at Didcot. Regularly seen are Asda, GXO Logistics and Tesco (their HGVs not servicing the Henley store at the far end of the Reading Road but using the A4130 (via Henley bridge) as a short cut between M4 and Tesco’s Distribution Centre in Didcot. Likewise going to their distribution centre in Banbury from M4 are seen regularly 44Tonne HGVs of Great Bear (which is part of the Cullina Group). These should use the M4 and A34.
- c. Bulk waste and recycling HGVs: we have very many of these 44 tonne HGVs passing through Henley daily. Of particular note are Simpsons – which have been tracked going from their home base in Slough (SL1 3GD) to FCC recycling (OX14 4PW). When tracking it was noted that speeds well in excess of 60 mph were being done on the A4130 after the Benson bend down to Crowmarsh Gifford roundabout. This is very dangerous on such a narrow road with oncoming traffic. Had the Simpson’s bulk recycling HGV stayed on the SRN (M4 to J13 and taken the A34) speeding would not have been an option because of average speed monitoring through cameras on motorway gantries.
- d. Long distance hauliers regularly come through Henley to save journey time. Frequently seen are 44 tonne HGVs destined for ports e.g. Channelfret International, International Road Ferry www. IRE.EU, Shoreham Port (a cargo operator at Shoreham in Sussex), FLS (Felixstowe Logistic Solutions). Likewise regularly seen are 44 Tonne HGVs from the haulage logistics industry: e.g. Fred Sherwood Transport (Leicestershire), Bibby, Wincanton, Lenham Logistics. These HGVs are not making local deliveries.
- e. We see numerous huge HGVs with foreign liveries/logos and plates. Examples are Polish, German, Spanish, French, Dutch and Estonian! HGVs which are no doubt coming from or going to ports.
- f. We also see numerous 44 tonne HGVs with out any liveries or logos. These are becoming increasingly prevalent. Their anonymity is concerning because it is impossible to know what they might be carrying or to easily complain to operators about particularly dangerous driving.

- g. HGVs with long trailers carrying very heavy cranes and other industrial equipment which are unlikely to have local use are also a common sight.
- h. Many bulk tipper trucks also shortcut through Henley, full of cement and aggregates. Although these are not as long as the 44 tonne behemoths and can therefore negotiate Henley's turns and narrow roads without mounting or over hanging pavements, they are very heavy when fully loaded (circa 32-36tonnes) and tend to be driven through town with even less regard for care and at faster speeds. Examples of these are: Hazel and Jefferies, Cardiff Galaxies, National Aggregates, Hanson CRH and of course Manor concrete (The latter is arguably local but the others are not).

Henley on Thames Issues (reported through stakeholder engagement before deployment of ANPR cameras)

Roads of focus	Reported issues / challenges	Issue causes
A4130	Air quality	Traffic volume - diesel cars / vans
A4155	Road safety Impacts on historic buildings Inappropriate through traffic Congestion	Narrow footways and tight corners Proximity of buildings to road, key A road through town Key A road through town, lack of alternative routes / river crossings Traffic volume, key A road through town, lack of alternative routes, physical constraints - Henley Bridge and 1 way system

Major roads of Henley on Thames

- Bell Street, New Street, Greys Road, Reading Road, Gravel Hill

Potential Interventions

Table 12: Officers' recommended interventions (subject to further review)			
Location	Description	Anticipated time period (subject to funding)	Cost (£s)
Bell Street	Explore signalisation to stop traffic to allow for HGV's to use the full width of the road to turn left to New Street.	By 2030	To be confirmed once feasibility study is conducted
Henley Bridge	Explore shuttle working a one-way traffic light system to discourage traffic supporting walking and cycling movements. This would be linked to the LTCP targets.	By 2030	
Henley (all area)	Review Loading changes / restrictions by reducing length of loading bays via on street parking.	By 2030	
Henley town centre	Look at opportunities in introducing timed pedestrianised streets (similar to Queen Street/Cornmarket Street in Oxford)	By 2035	
Henley on-street parking review	Review all on-street parking to identify any opportunities	By 2030	
Henley road layout	Review current set up and identify any opportunities with introduction of one-way streets or quiet streets	By 2035	
M4/M40/A34/A404 – upon approach	Advisory / directional signage to discourage HGV drivers entering Henley.	By 2026	£1000s, per sign
Further work to explore possibility of intervention (s)			
Henley (all area)	Collaboration with Satnav companies to discourage through traffic from Henley. Not applicable in case HGV driver using mobile Satnavs (google maps) and unless there is a legal reason not to drive through Henley it might not be possible. Further exploration is required.	TBC, subject to further discussion with Satnav providers By 2030 – 2040	

Notes

Weight restrictions (18 tonnes or any). OCC's Analysis shows only 37 vehicles over 18 tonnes a day and 107 vehicles will still be going via Henley.

A4130 is the main route linking to smaller towns and there is a possibility that the 37 vehicles will make a delivery after 5 miles from the designated study area. This will mean they will still be able to travel through Henley. A weight restriction on the A4130 would impact HGV movements related to mineral and waste operations. The A4130 forms part of the Lorry Route which Policy C10 of the OMWLP requires access to for MW movements. Also, analysis doesn't show the time of the day hence not possible to know the impact of timed deliveries.

It is challenging to provide a definitive assessment without reviewing a specific proposal that outlines the size and geographical extent of the proposed weight restriction. Broadly speaking, the larger the restricted area, the more likely it is that HGVs will have legitimate access needs within it. This can reduce the perceived effectiveness of the restriction among residents, who may continue to observe HGV movements and assume non-compliance. Conversely, smaller restricted zones may lead to unintended consequences, such as disproportionately long detours for some HGVs or an increased likelihood of contraventions—either due to the route offering significant time or distance savings, or because drivers are unable to divert in time. In all scenarios, unless dedicated funding is secured for enforcement—such as through ANPR or CPN-based models—compliance monitoring will be limited. While the introduction of a restriction may encourage voluntary compliance among some drivers, it also risks displacing HGV traffic to other areas, potentially creating new issues elsewhere.

Appendix

Henley on Thames cameras (zoomed)

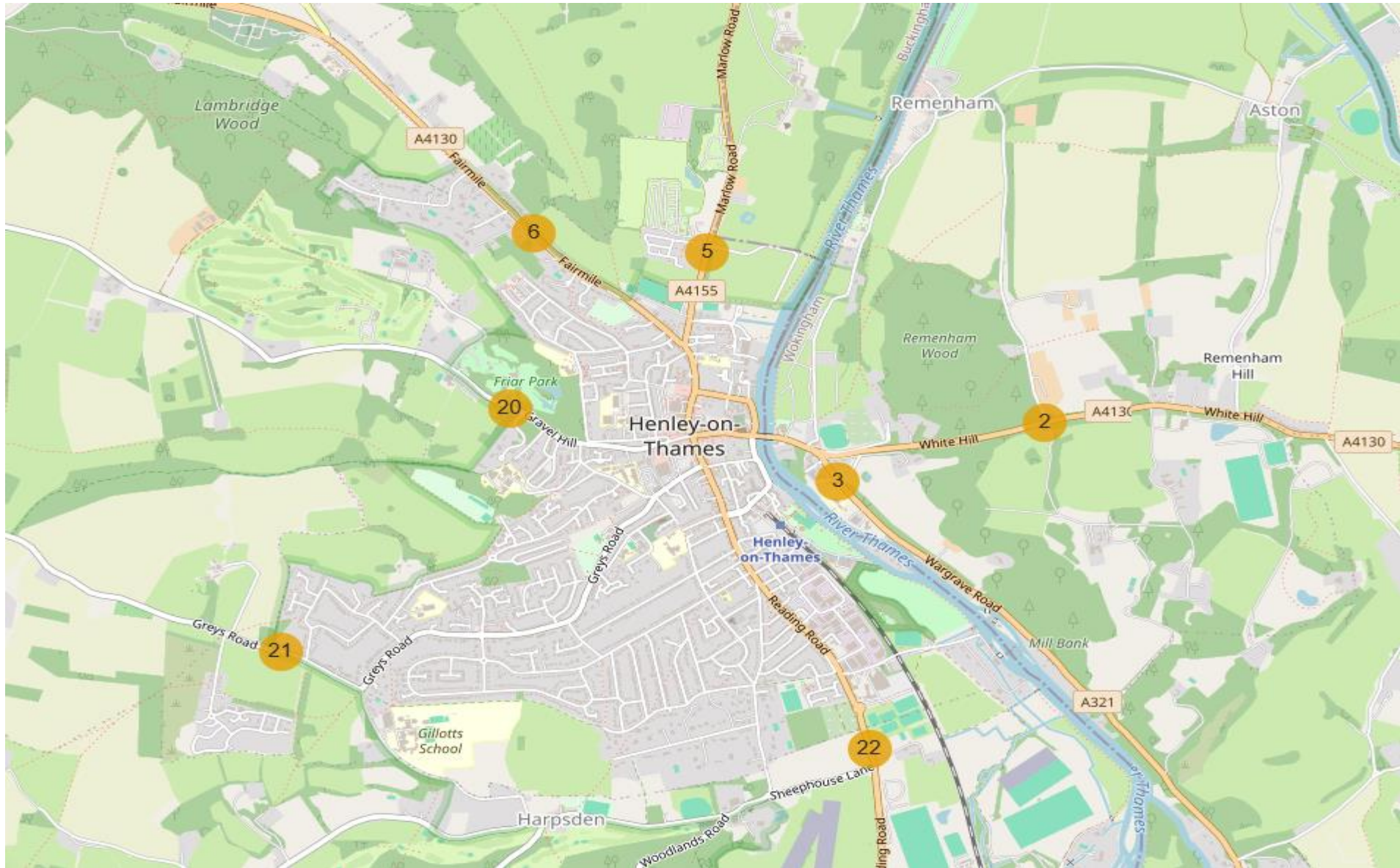


Table 3 and 4 provide details regarding **3.5 to 7.5 Tonnes HGVs** volume captured at each camera point:

Below table 3 provide details of other camera points with focus of Wallingford:

Camera number (Wallingford)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
7	A4130 East	Link to Smaller Town	96	28	68
8	A4130 South	Link to Smaller Town	166	73	93
12	A4074 South	Link to Smaller Town	88	17	71
14	A4074 North	Link to Smaller Town	239	53	186

Below table 4 provide details of camera points with focus on other areas:

Camera number (Focus)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
11 (Other)	Dorchester	Link to Smaller Town	193	113	80
31 (Other)	Didcot (east)^	Link to Larger Town	106	71	35
33 (Other)	Benson	Local Access Route	48	14	34
34 (Other)	Broodhampton	Local Access Route	50	24	26
9 (Oxford)	A4074	Link to Smaller Town	65	42	23
11 (Oxford)	Ringroad^	Through Route	131	93	38
13 (Reading)	A4074 North	Outside of County	124	52	72
15 (Reading)	A33^	Outside of County	78	65	13
16 (Reading)	A3290^	Outside of County	54	40	14
23 (Reading)	Caversham Bridge	Outside of County	250	177	73
24 (Reading)	Reading Bridge	Outside of County	82	68	14
25 (Reading)	A4155	Outside of County	160	102	58
26 (Reading)	A4^	Outside of County	95	80	15
35 (Reading)	A329 West^	Outside of County	66	59	7
10 (A34)	Oxford^	Through Route	519	308	211
30 (A34)	Abingdon*^	Through Route	330	76	254
32 (A34)	Milton^	Through Route	464	197	267
4 (A404)	Marlow^	Outside of County	184	146	38
17 (A404)	Maidenhead^	Outside of County	260	146	114
18 (A404)	High Wycombe^	Outside of County	310	163	147
27 (M40)	Lewknor^	Local Access Route	75	46	29
28 (M40)	Milton Common^	Local Access Route	79	64	15

Table 6 and 7 provide details regarding **7.5 to 18 Tonnes HGVs** HGV volume captured at each camera point:

Below table 6 provide details of other camera points with focus of Wallingford:

Camera number (Wallingford)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
7	A4130 East	Link to Smaller Town	44	11	33
8	A4130 South	Link to Smaller Town	74	13	61
12	A4074 South	Link to Smaller Town	50	8	42
14	A4074 North	Link to Smaller Town	120	17	103

Below table 7 provide details of camera points with focus on other areas:

Camera number (Focus)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
11 (Other)	Dorchester	Link to Smaller Town	76	39	37
31 (Other)	Didcot (east)^	Link to Larger Town	47	18	29
33 (Other)	Benson	Local Access Route	19	9	10
34 (Other)	Broodhampton	Local Access Route	14	7	7
9 (Oxford)	A4074	Link to Smaller Town	40	15	25
11 (Oxford)	Ringroad^	Through Route	52	30	22
13 (Reading)	A4074 North	Outside of County	62	7	55
15 (Reading)	A33^	Outside of County	41	33	8
16 (Reading)	A3290^	Outside of County	28	17	11
23 (Reading)	Caversham Bridge	Outside of County	87	36	51
24 (Reading)	Reading Bridge	Outside of County	17	13	4
25 (Reading)	A4155	Outside of County	28	11	17
26 (Reading)	A4^	Outside of County	23	19	4
35 (Reading)	A329 West^	Outside of County	11	9	2
10 (A34)	Oxford^	Through Route	219	59	160
30 (A34)	Abingdon*^	Through Route	222	60	162
32 (A34)	Milton^	Through Route	214	85	129
4 (A404)	Marlow^	Outside of County	28	18	10
17 (A404)	Maidenhead^	Outside of County	91	49	42
18 (A404)	High Wycombe^	Outside of County	127	52	75
10 (A34)	Lewknor^	Local Access Route	10	7	3
30 (A34)	Milton Common^	Local Access Route	15	12	3

Table 9 and 10 provide details regarding **Over 18 Tonnes HGVs** volume captured at each camera point:

Below table 9 provide details of other camera points with focus of Wallingford:

Camera number (Wallingford)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
8	A4130 South	Link to Smaller Town	339	100	239
7	A4130 East	Link to Smaller Town	267	85	182
12	A4074 South	Link to Smaller Town	176	22	154
14	A4074 North	Link to Smaller Town	527	116	411

Below table 10 provide details of camera points with focus on other areas:

Camera number (Focus)	Common Name or associated town	Oxfordshire Freight network road designation	Total vehicles	Stopping vehicles	Not Stopping Vehicles
11 (Other)	Didcot (east)^	Link to Larger Town	307	172	135
31 (Other)	Dorchester	Link to Smaller Town	431	157	274
33 (Other)	Benson	Local Access Route	97	60	37
34 (Other)	Broodhampton	Local Access Route	22	5	17
9 (Oxford)	Ringroad^	Through Route	406	287	119
11 (Oxford)	A4074	Link to Smaller Town	370	190	180
13 (Reading)	A4074 North	Outside of County	281	54	227
15 (Reading)	Caversham Bridge	Outside of County	455	203	252
16 (Reading)	Reading Bridge	Outside of County	112	61	51
23 (Reading)	A4155	Outside of County	174	95	79
24 (Reading)	A33^	Outside of County	263	225	38
25 (Reading)	A3290^	Outside of County	143	94	49
26 (Reading)	A4^	Outside of County	361	308	53
35 (Reading)	A329 West^	Outside of County	51	45	6
10 (A34)	Milton^	Through Route	1763	859	904
30 (A34)	Abingdon*^	Through Route	1350	312	1038
32 (A34)	Oxford^	Through Route	2141	1327	814
4 (A404)	High Wycombe^	Outside of County	468	189	279
17 (A404)	Marlow^	Outside of County	194	154	40
18 (A404)	Maidenhead^	Outside of County	453	269	184
10 (A34)	Lewknor^	Local Access Route	41	30	11
30 (A34)	Milton Common^	Local Access Route	89	75	14