



26 OCTOBER 2018

Cycle Superhighway 10 Reassignment Analysis

Operational Modelling & Visualisation

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EVERY JOURNEY MATTERS

Modelling Notes

This briefing pack will outline the expected pattern of traffic flow and rerouting in the CSH10 impact area for 2021. The ONE (Operational Network Evaluator) model has been used to assess the following scenarios:

Base: Representing the current situation on the network, before any work is carried out.

Future Base: Represents the predicted 2021 network, including all strategically significant schemes planned for implementation, including a London-wide Active Traffic Management (ATM) mitigation strategy, but excluding CSH10 itself.

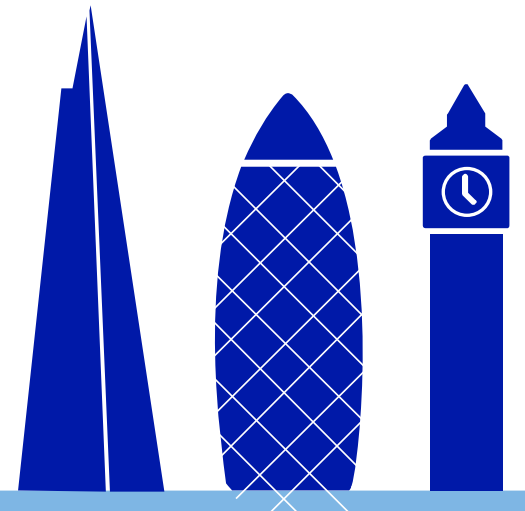
Do Something: Represents the predicted 2021 network, as in the Future Base, but also including the CSH10 scheme.

The CSH10 designss were coded into the ONE Model and iterated with junction models to obtain the most efficient network operation for 2021 model flows.

Following iteration between ONE and junction models, flow and routing information was extracted from ONE and input into VISSIM for a more detailed journey time assessment.

This pack compares the ONE Do Something and Future Base scenarios for the AM and PM peaks, to better understand where traffic is expected to reroute to as a result of the implementation of CSH10.

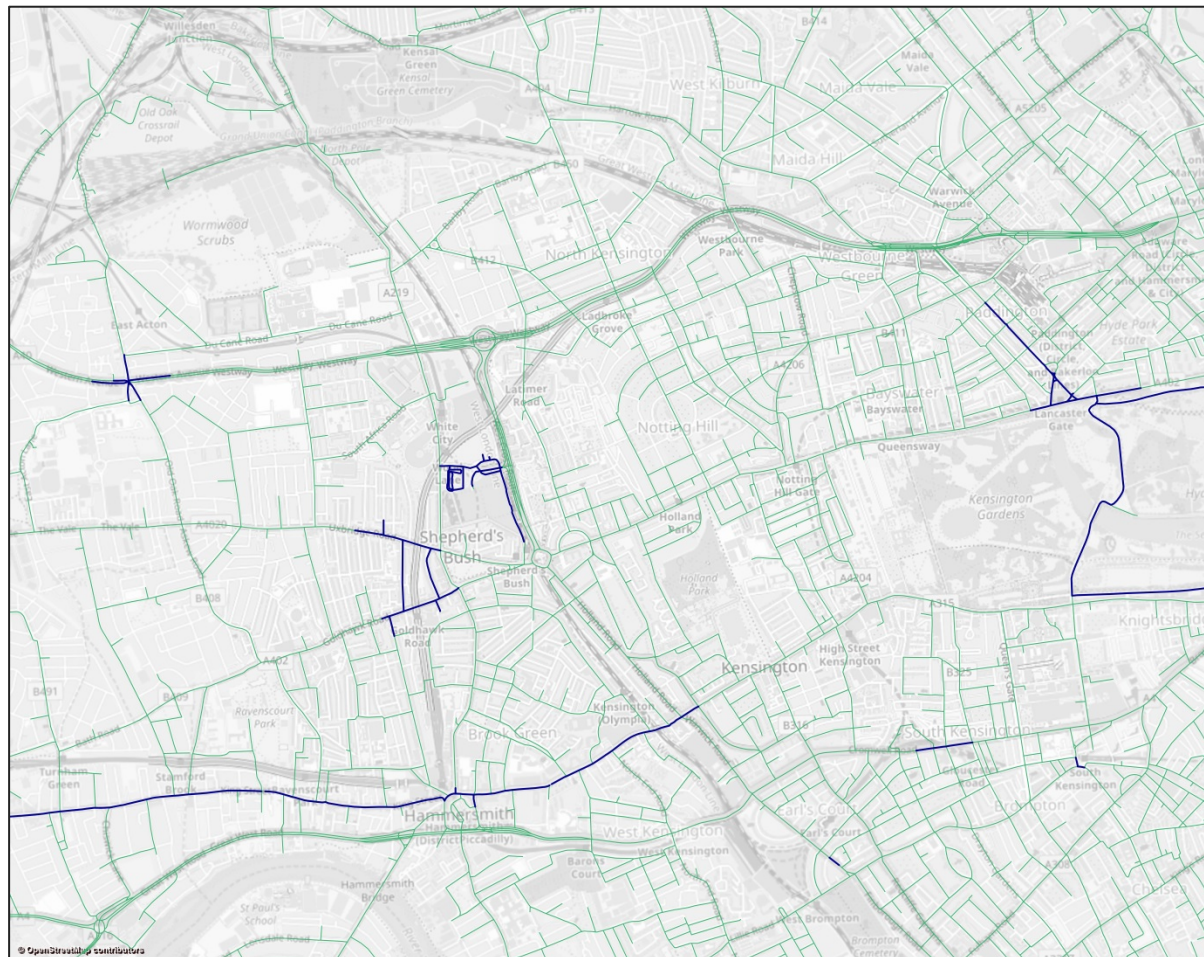
Traffic Reassignment Analysis for 2021



Schemes included in the Future Base 2021 ONE Model range from road closures and cycle superhighways to two-way conversions.

Schemes in the local vicinity:

- Shepherds Bush Town Centre West
- Savoy Circus
- Westfield White City
- Cycle Superhighway 9
- East – West Cycle Superhighway



AM Peak – Flow Difference between 2021 Do Something and Future Base

Predicted increases eastbound on Ladbroke Rd, southbound on Pembridge Rd and southbound on Clarendon Rd of up to 200veh/hr, with traffic rerouting following the southbound closure of Ladbroke Terrace.

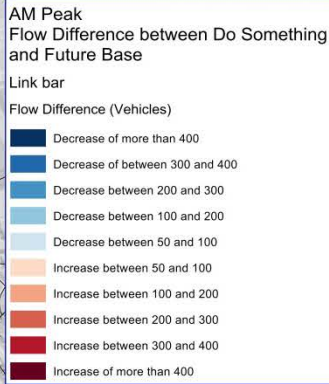
Predicted increase of up to 200 veh/hr on A40 Westbound, with some trips avoiding the full extent of the scheme due to capacity reductions. Corresponding reduction predicted on Bishop's Bridge Road and Westbourne Grove.

Reduced capacity at the northern end of Wood Lane

Number of traffic lanes reduces at Uxbridge Rd eastbound approach to Holland Park Roundabout, leading to a reduction in capacity on this approach. A small amount of reassignment predicted northbound on Wood Lane/Ariel Way/West Cross Route

Some traffic previously accessing Campden Hill Rd Southbound via Ladbroke Terrace is now predicted to meet Holland Park Avenue further west and use Aubrey Walk as an alternative route to Campden Hill Rd. Predicted decrease in traffic using Aubrey Walk, with corresponding increase in flows using Kensington Church Street

Implementation of contra-flow cycle lanes on Holland Park East and West is likely to result in traffic switching between East and West for north/southbound movements



PM Peak – Flow Difference between 2021 Do Something and Future Base

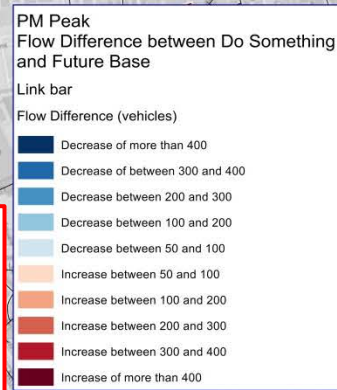
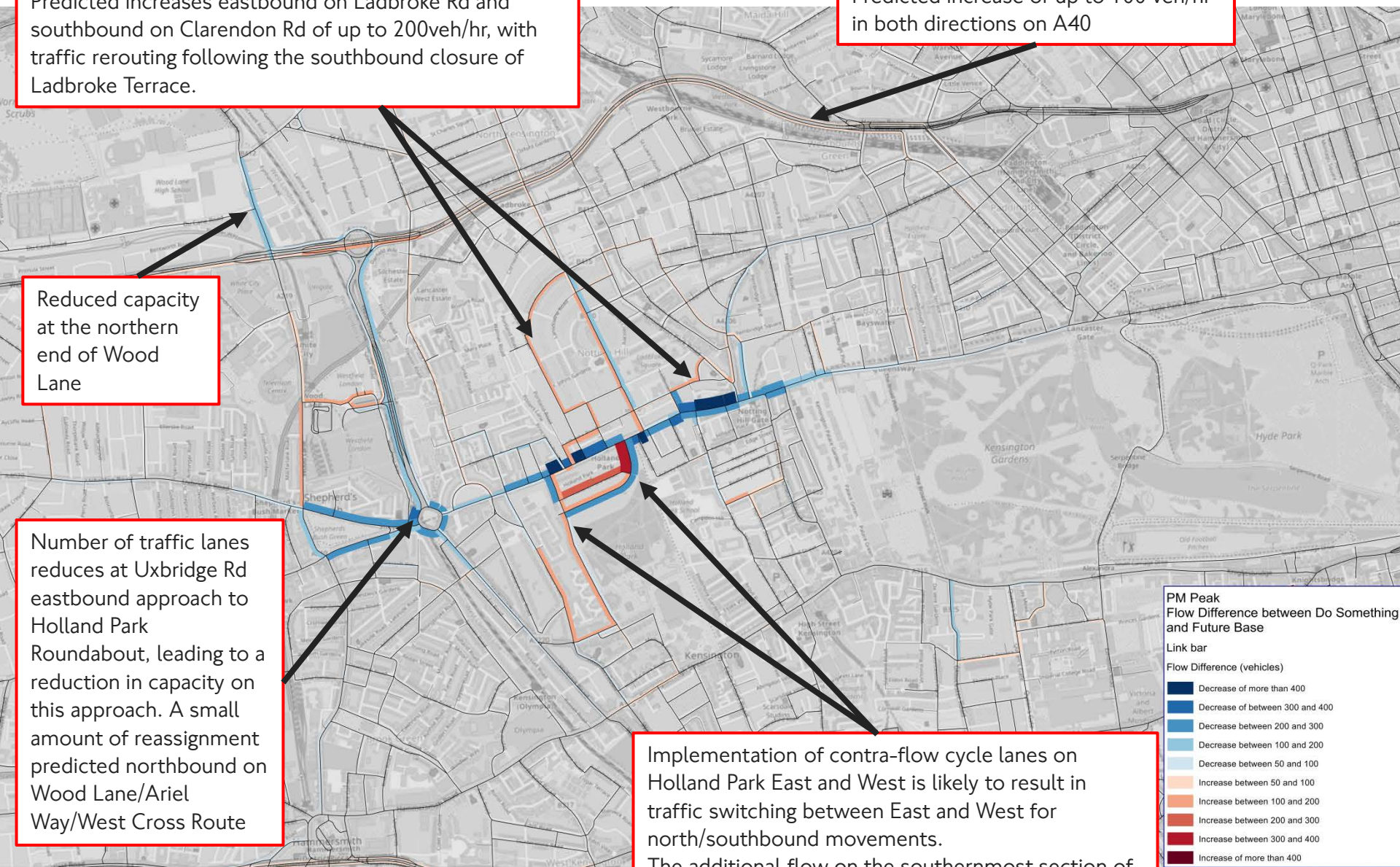
Predicted increases eastbound on Ladbroke Rd and southbound on Clarendon Rd of up to 200veh/hr, with traffic rerouting following the southbound closure of Ladbroke Terrace.

Predicted increase of up to 100 veh/hr in both directions on A40

Reduced capacity at the northern end of Wood Lane

Number of traffic lanes reduces at Uxbridge Rd eastbound approach to Holland Park Roundabout, leading to a reduction in capacity on this approach. A small amount of reassignment predicted northbound on Wood Lane/Ariel Way/West Cross Route

Implementation of contra-flow cycle lanes on Holland Park East and West is likely to result in traffic switching between East and West for north/southbound movements. The additional flow on the southernmost section of Holland Park is predicted to proceed north via Ladbroke Grove.



Flow Bundle Analysis

The following plots show Flow Bundle Comparisons for different locations.

Flow bundles show the paths traversed by vehicles which go through a selected link. It should be noted that flow bundles may not only show traffic using the highlighted link, but also all the traffic from and to zones which may potentially use the link.

This means that one plot shows all vehicles potentially using a link in one scenario and another plot shows where these vehicles go instead

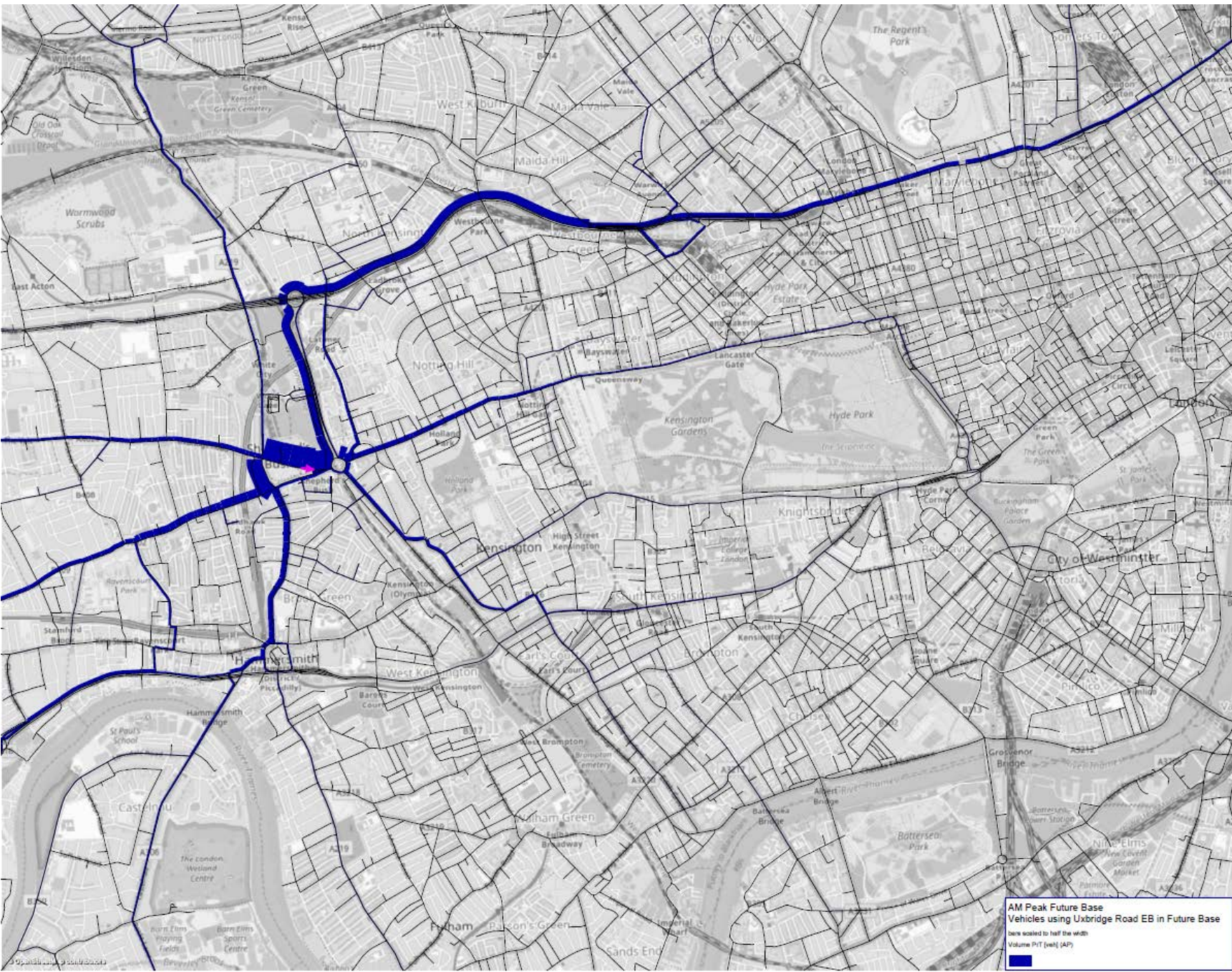
The following scenario were produced for different locations

- Vehicles in the Future Base potentially using a link vs. Where do these vehicles go in the Do Something

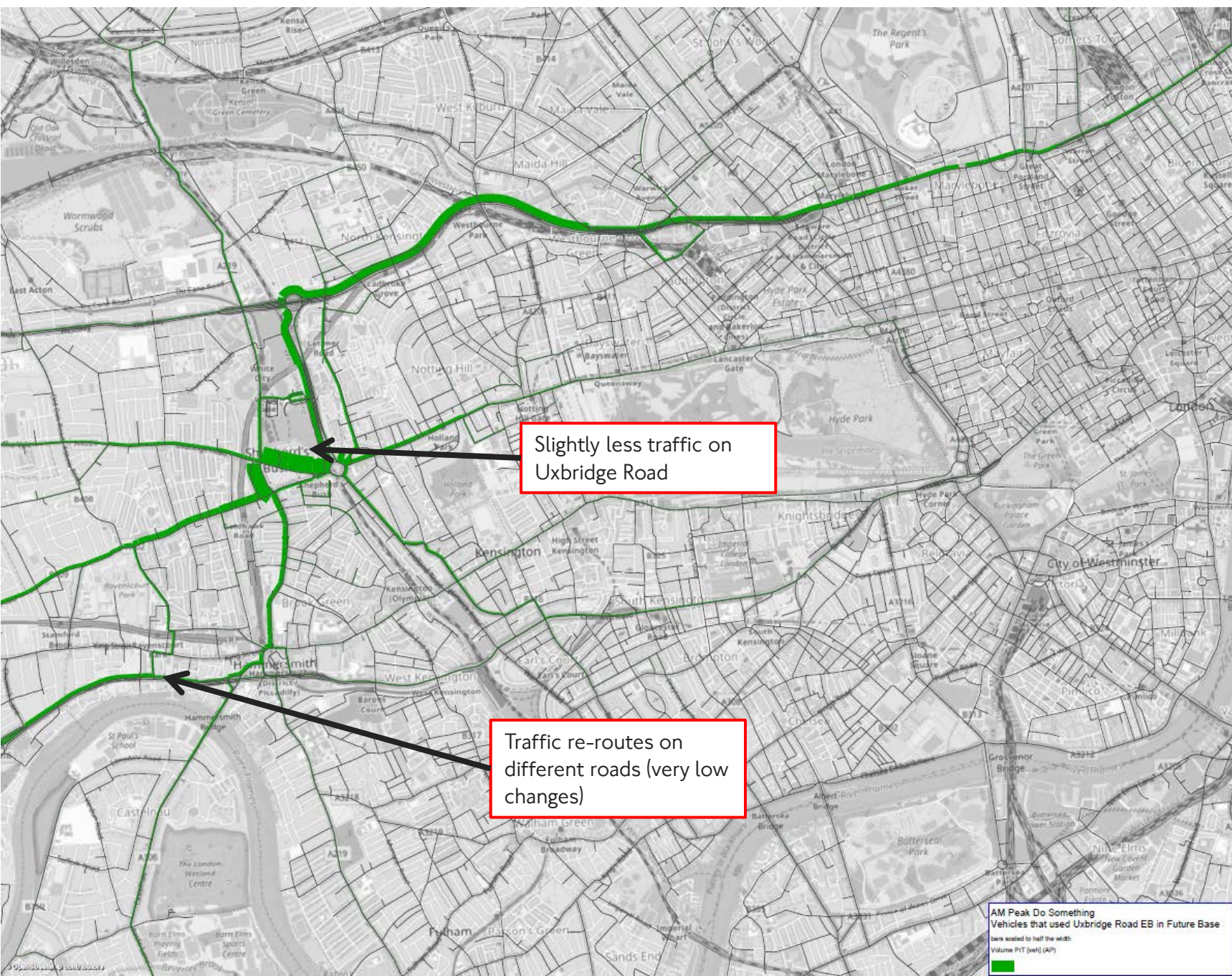
The link in question is highlighted in pink



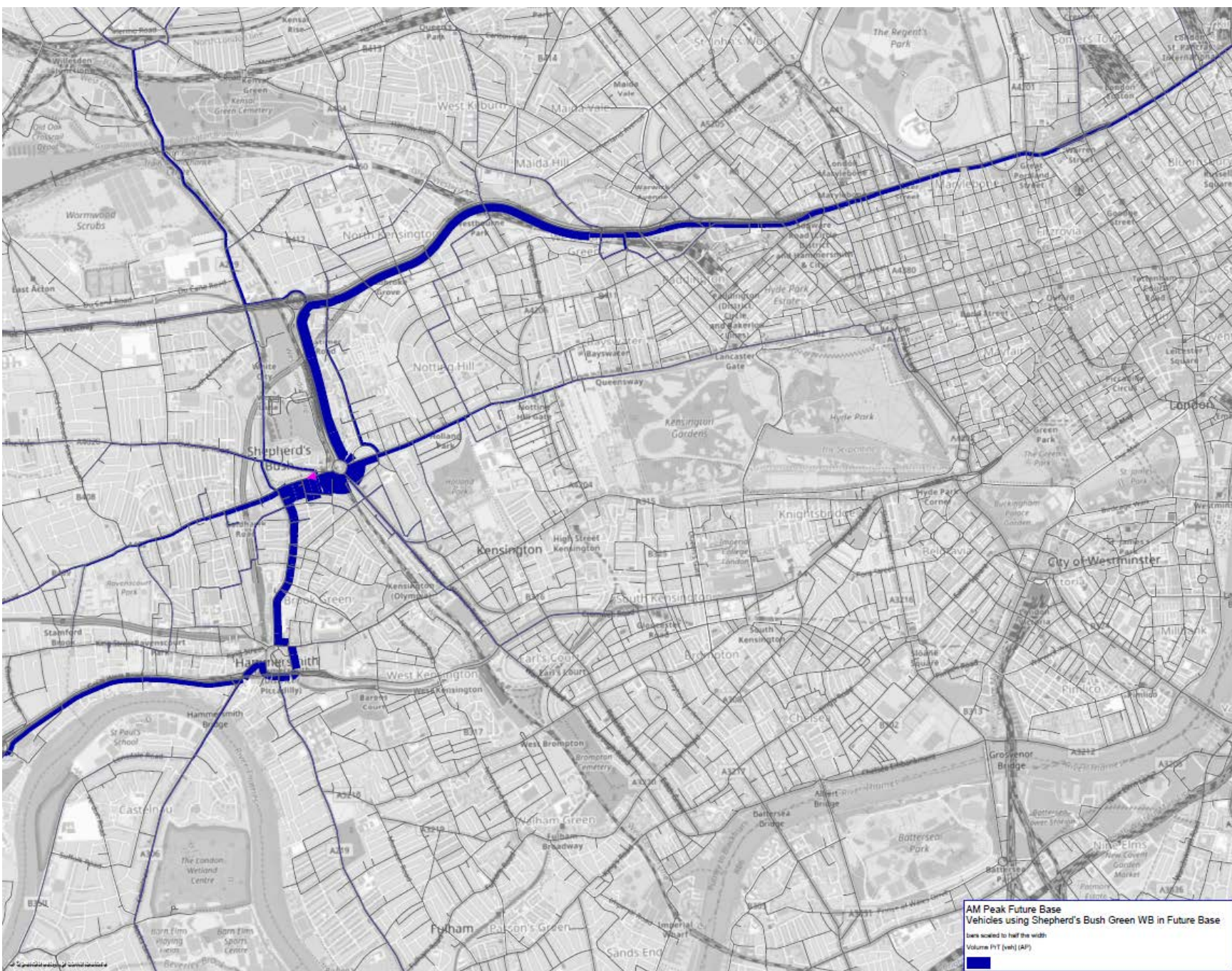
AM Peak – Vehicles using Uxbridge Road EB in the Future Base



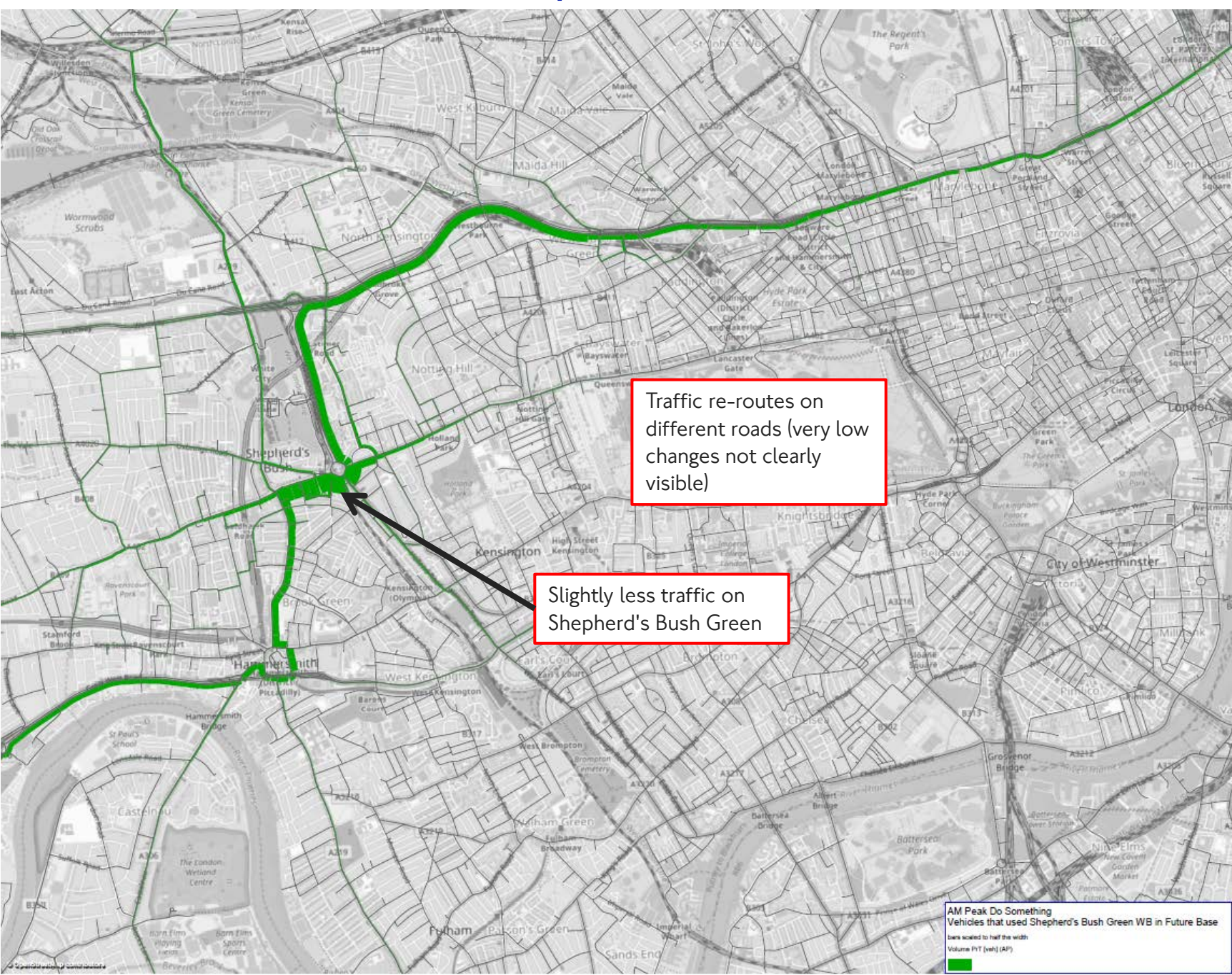
AM Peak – Vehicles that used Uxbridge Road EB in the Future Base



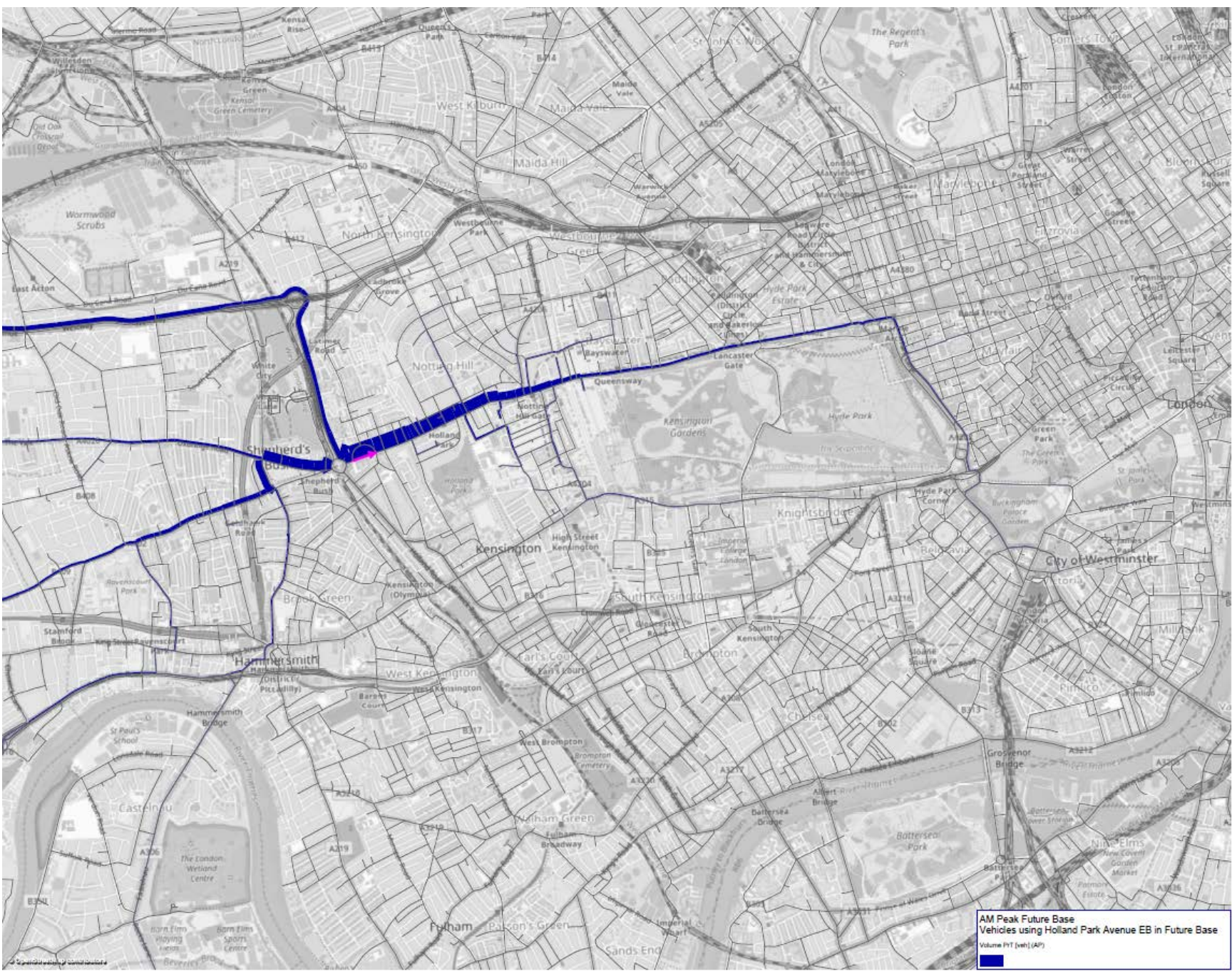
AM Peak – Vehicles using Shepherd's Bush Green WB in the Future Base



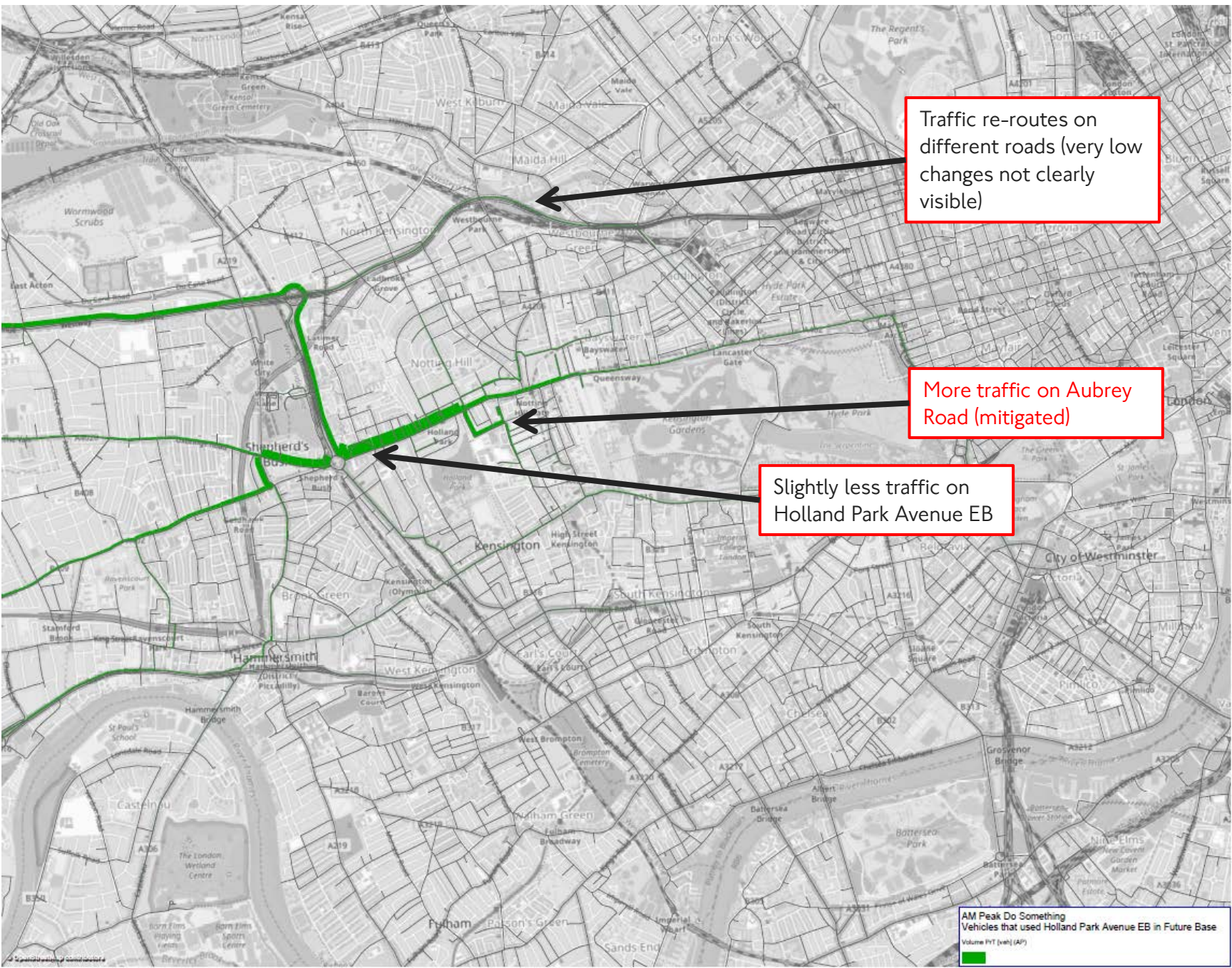
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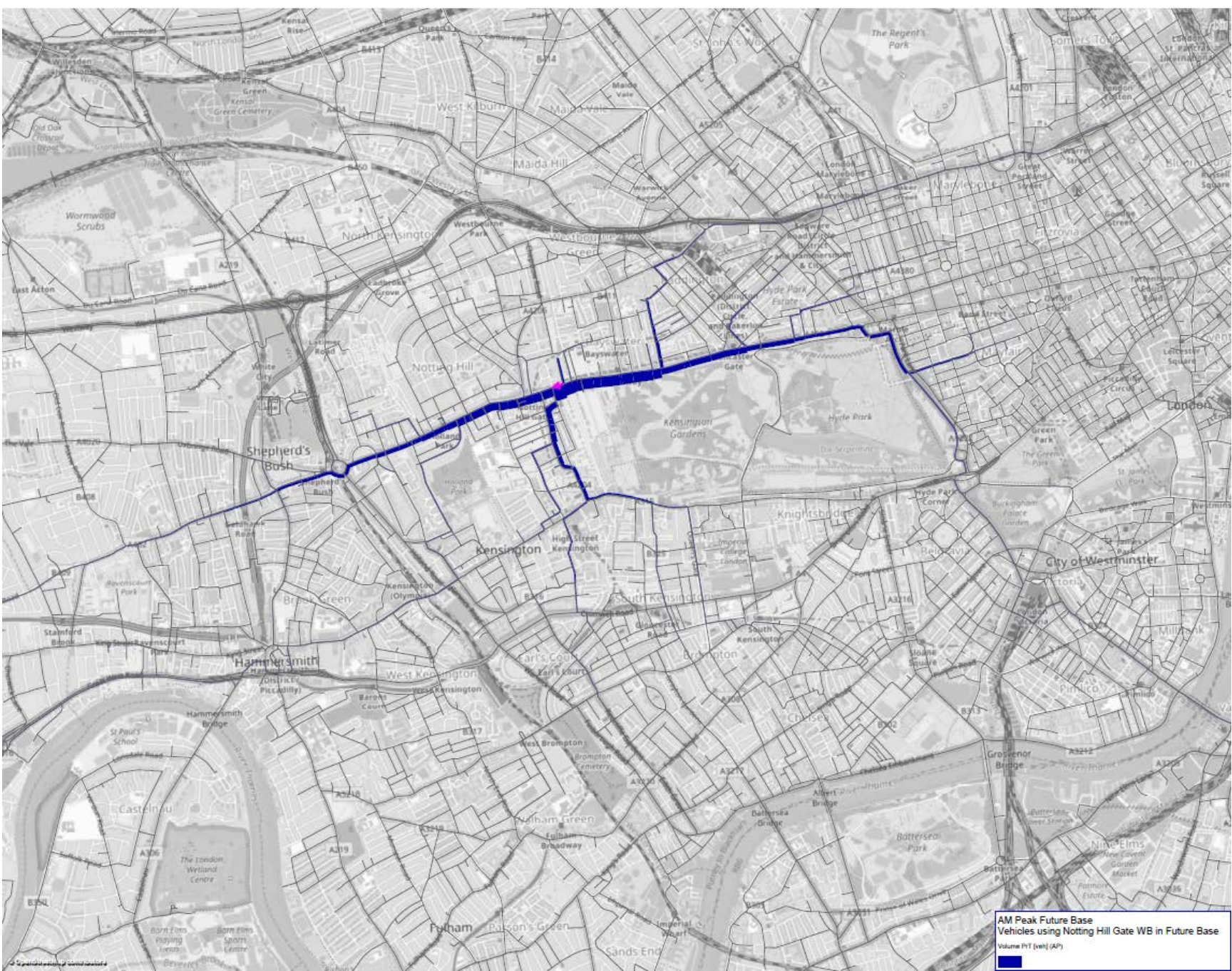
AM Peak – Vehicles using Holland Park Avenue EB in the Future Base



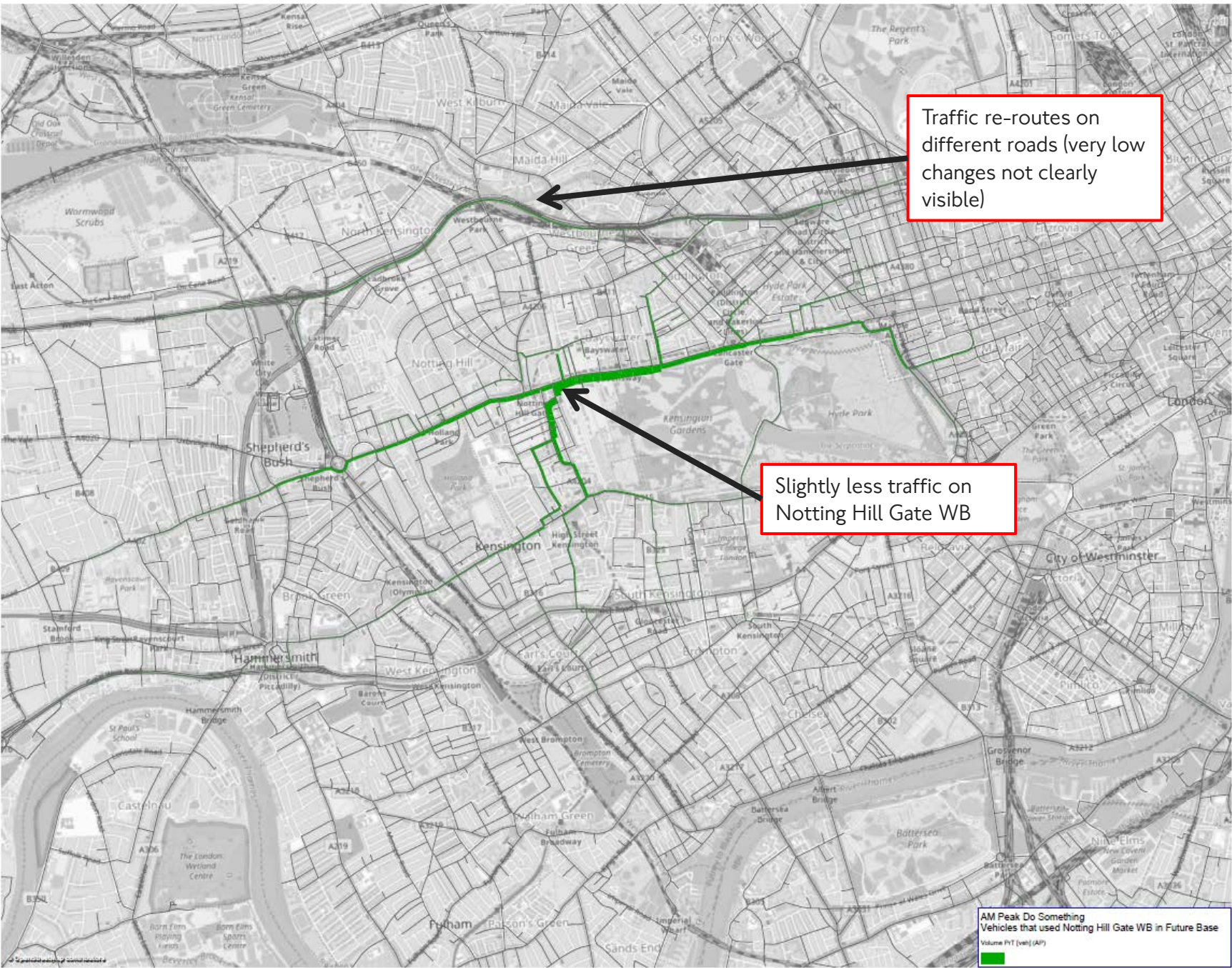
AM Peak – Vehicles that used Holland Park Avenue EB in the Future Base



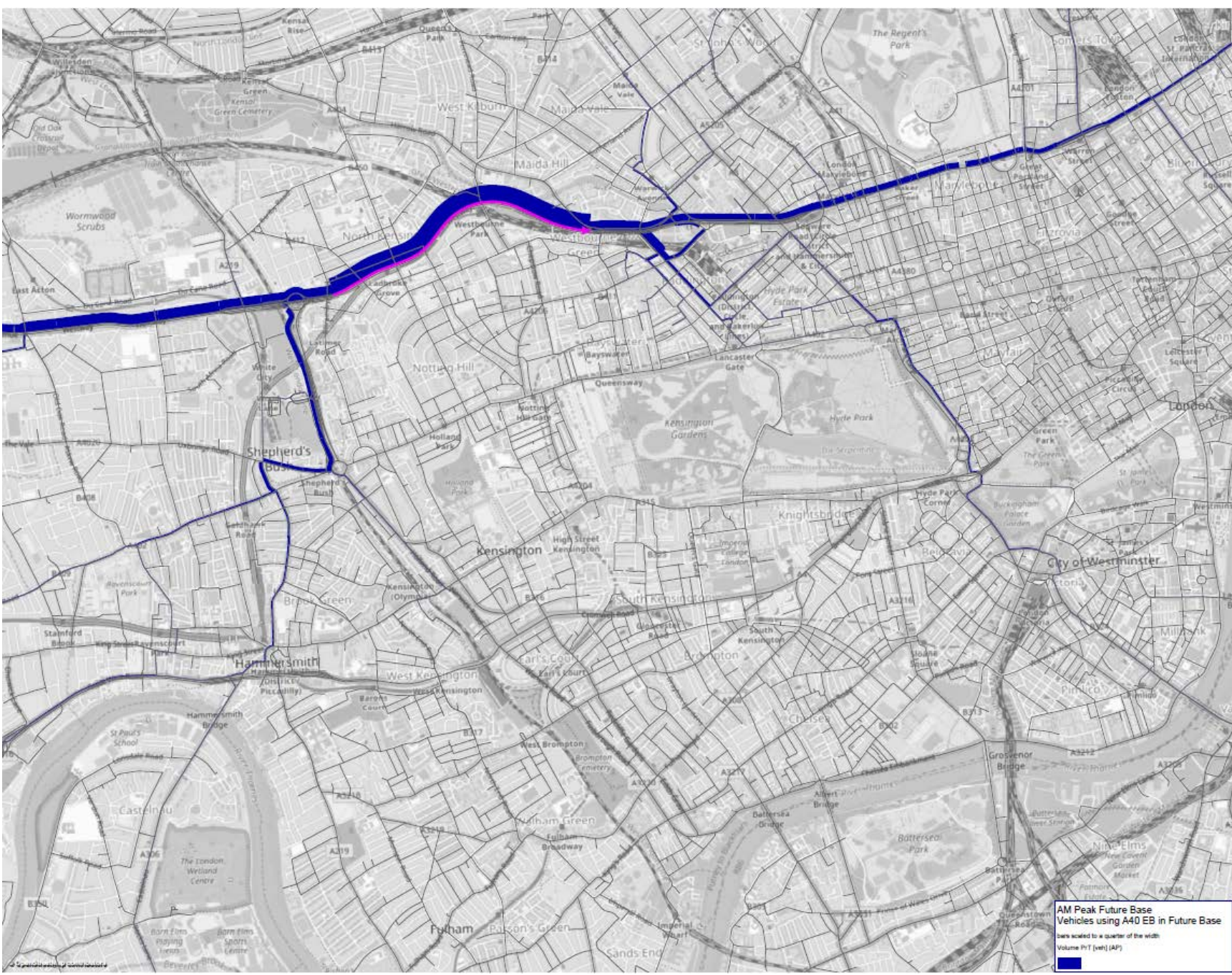
AM Peak – Vehicles using Notting Hill Gate WB in the Future Base



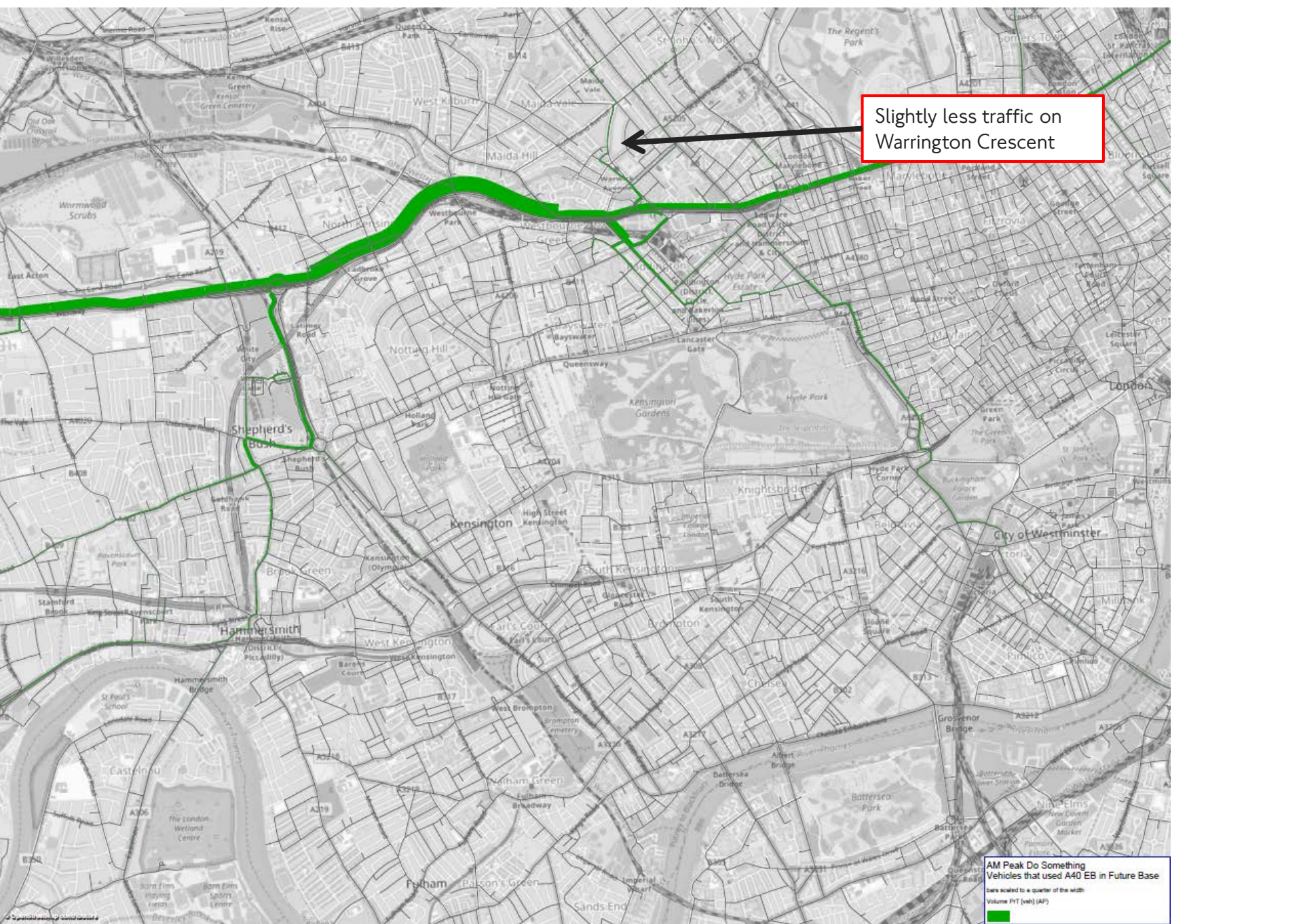
AM Peak – Vehicles that used Notting Hill Gate WB in the Future Base



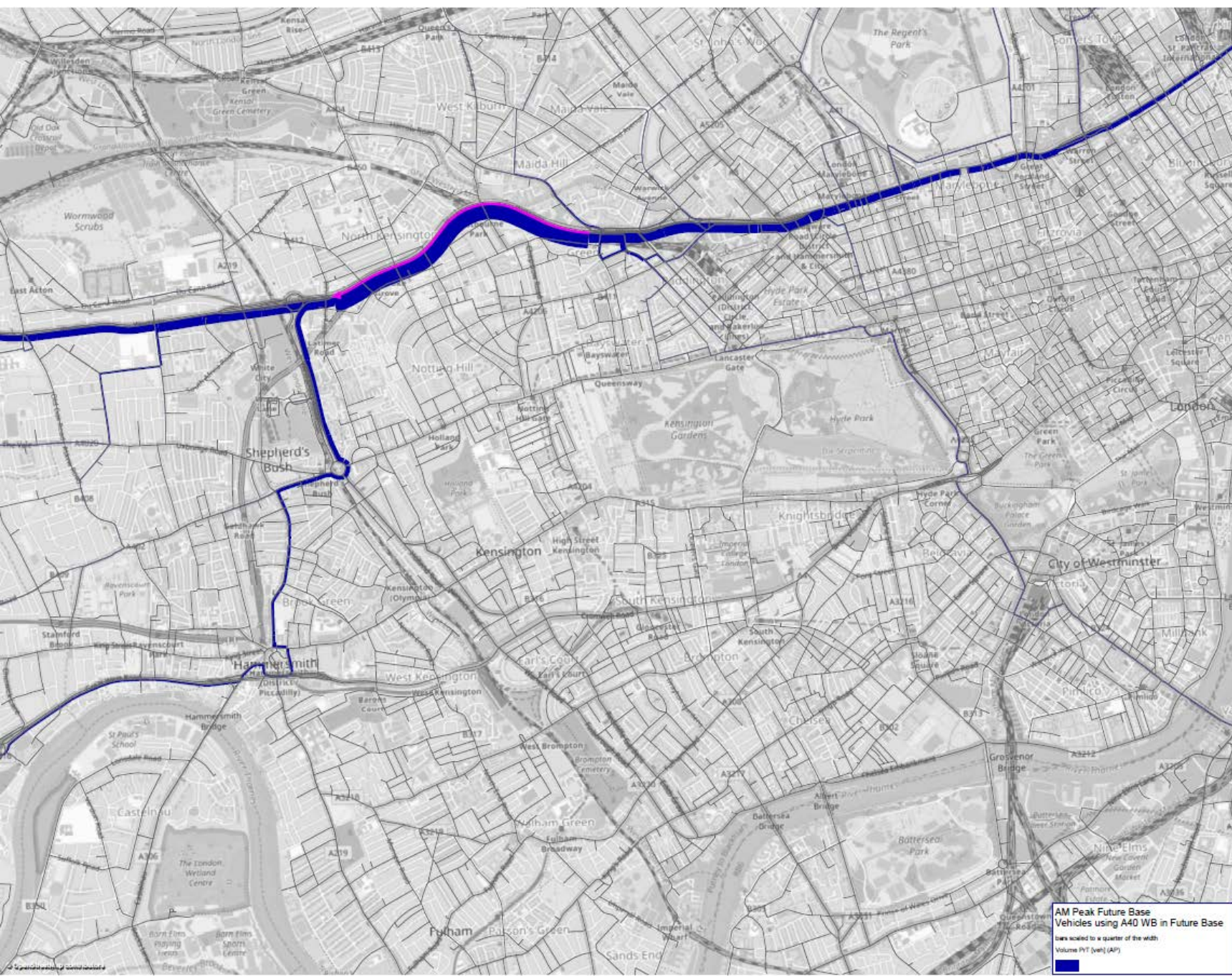
AM Peak – Vehicles using A40 EB in the Future Base



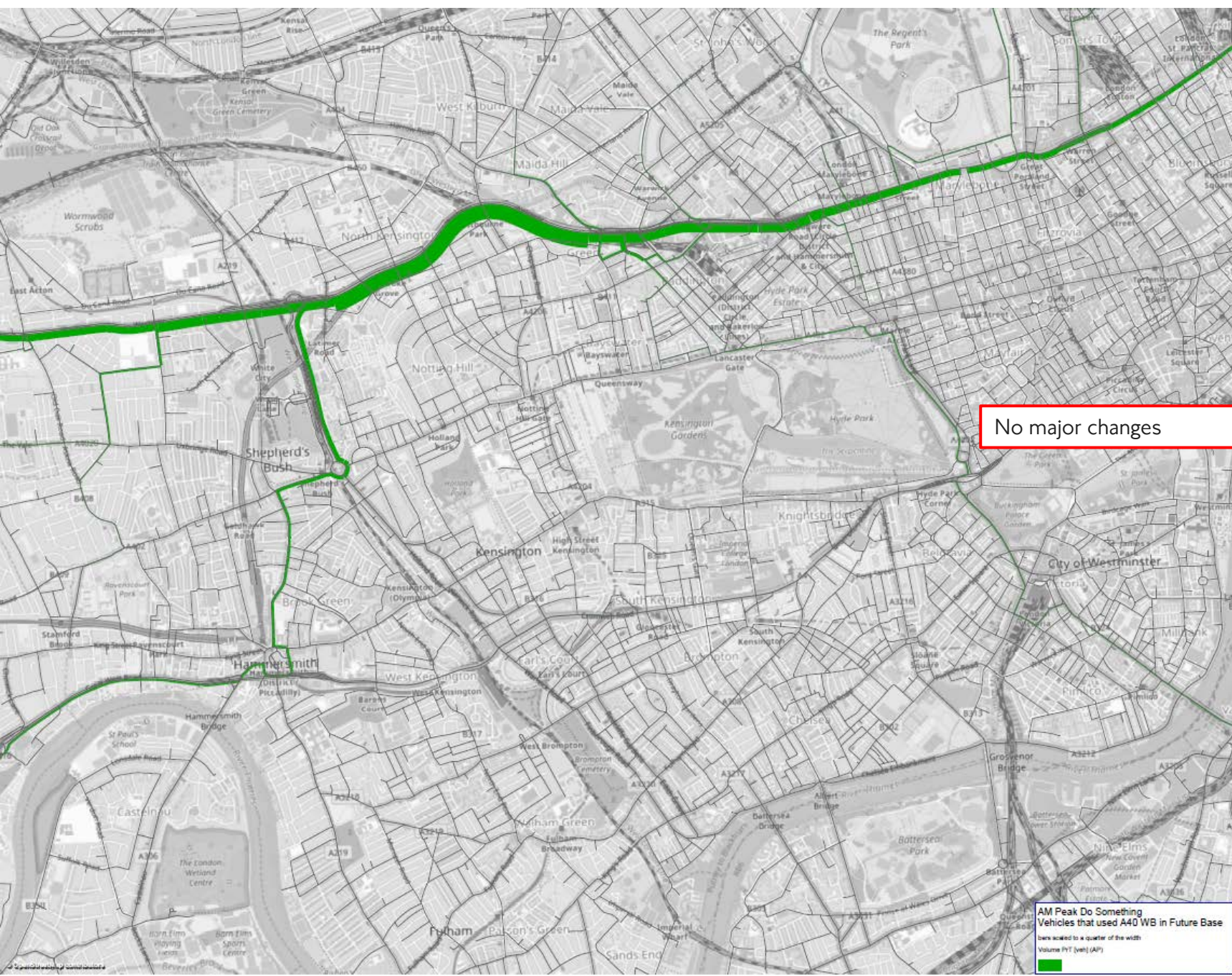
AM Peak – Vehicles that used A40 EB in the Future Base



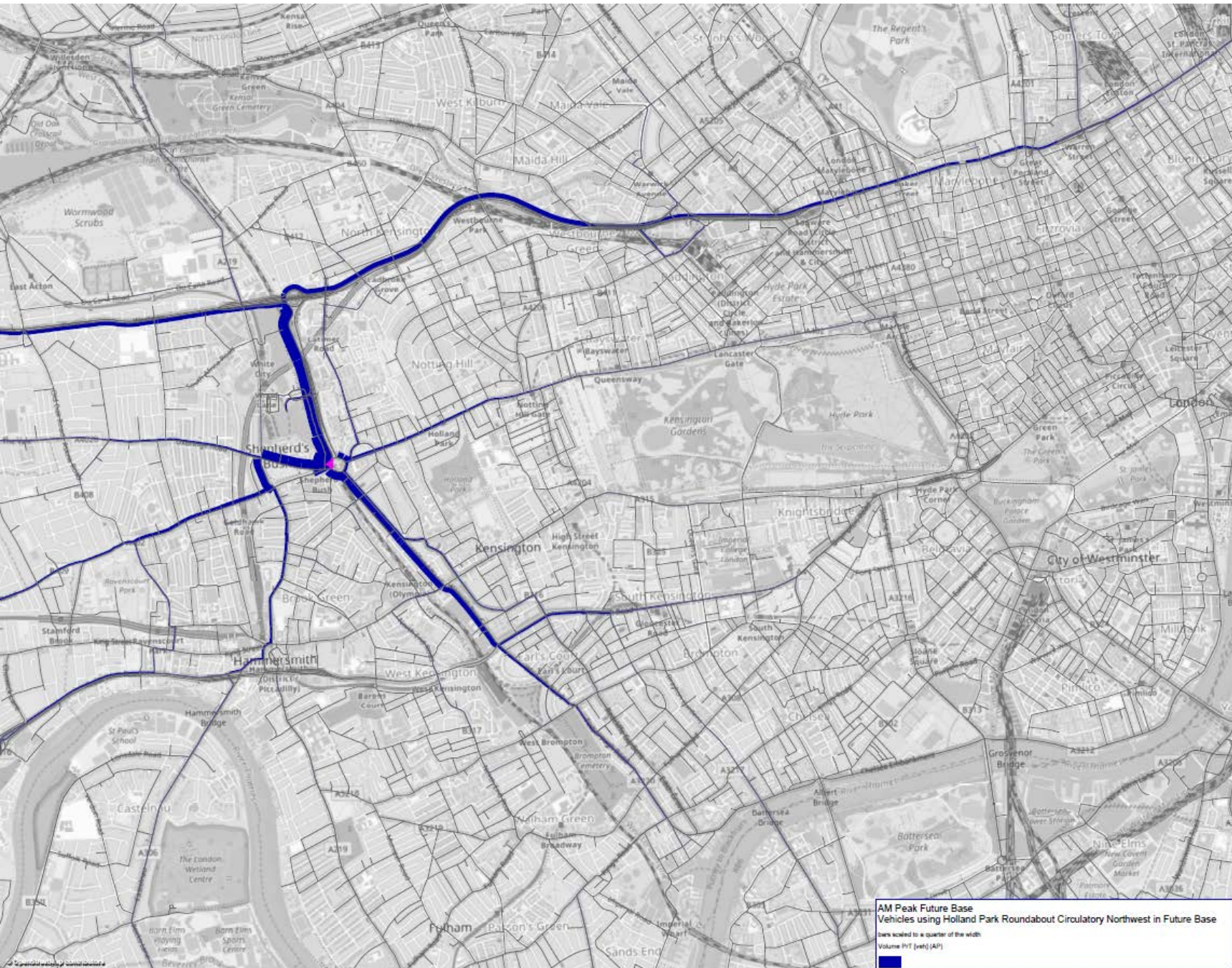
AM Peak – Vehicles using A40 WB in the Future Base



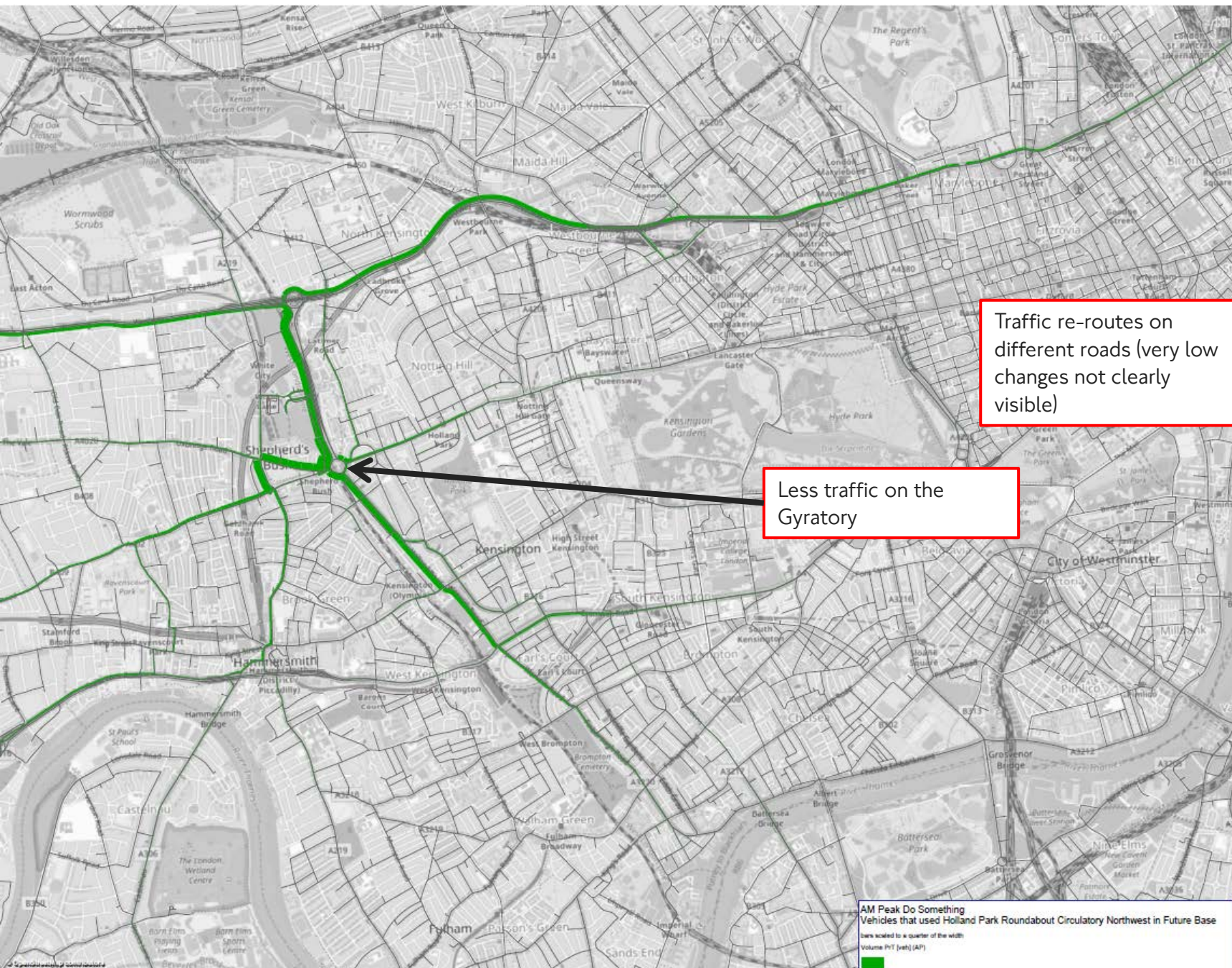
AM Peak – Vehicles that used A40 WB in the Future Base



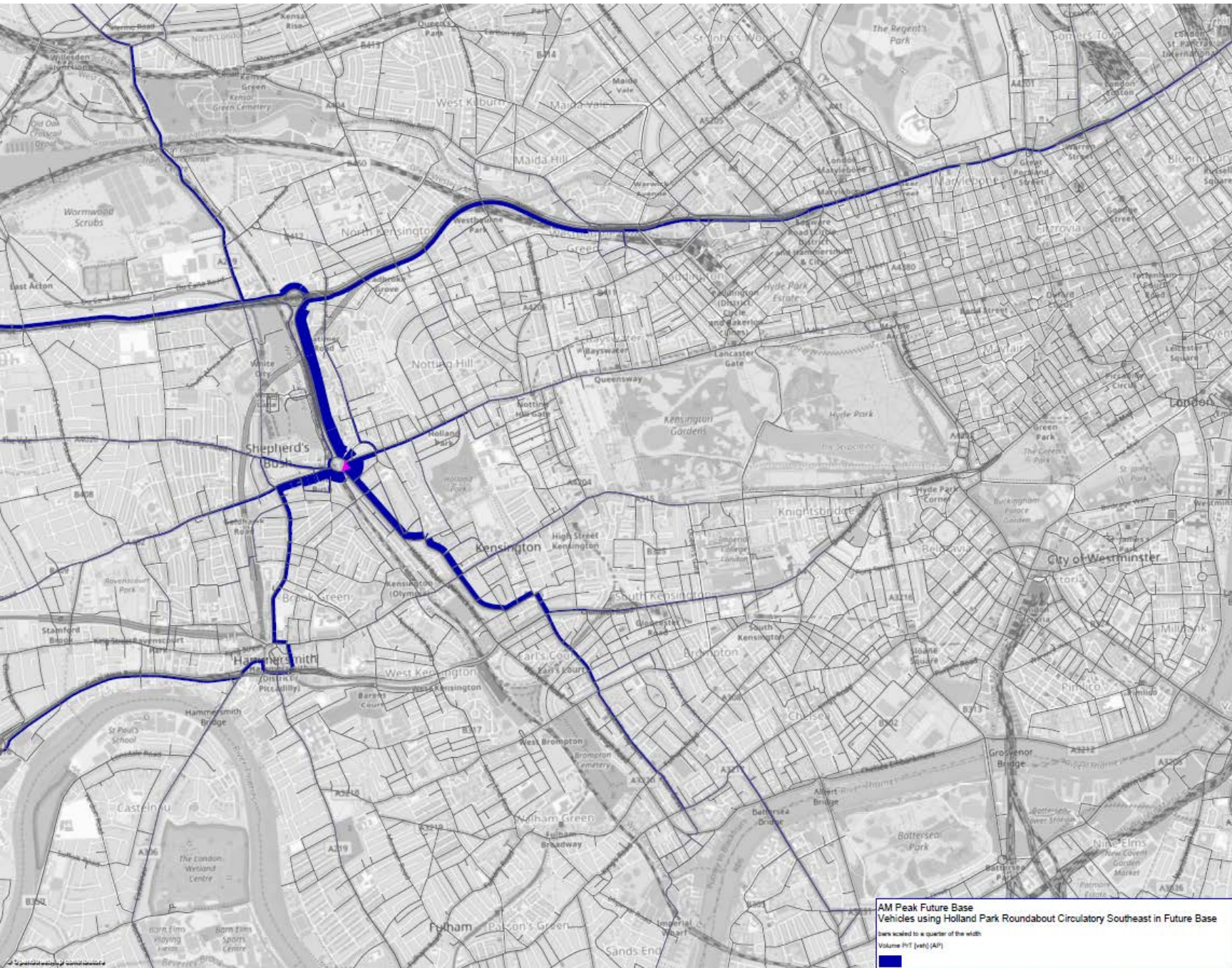
AM Peak – Vehicles using Holland Park Roundabout Gytratory Northwest in the Future Base



AM Peak – Vehicles that used Holland Park Roundabout Gyratory Northwest in the Future Base

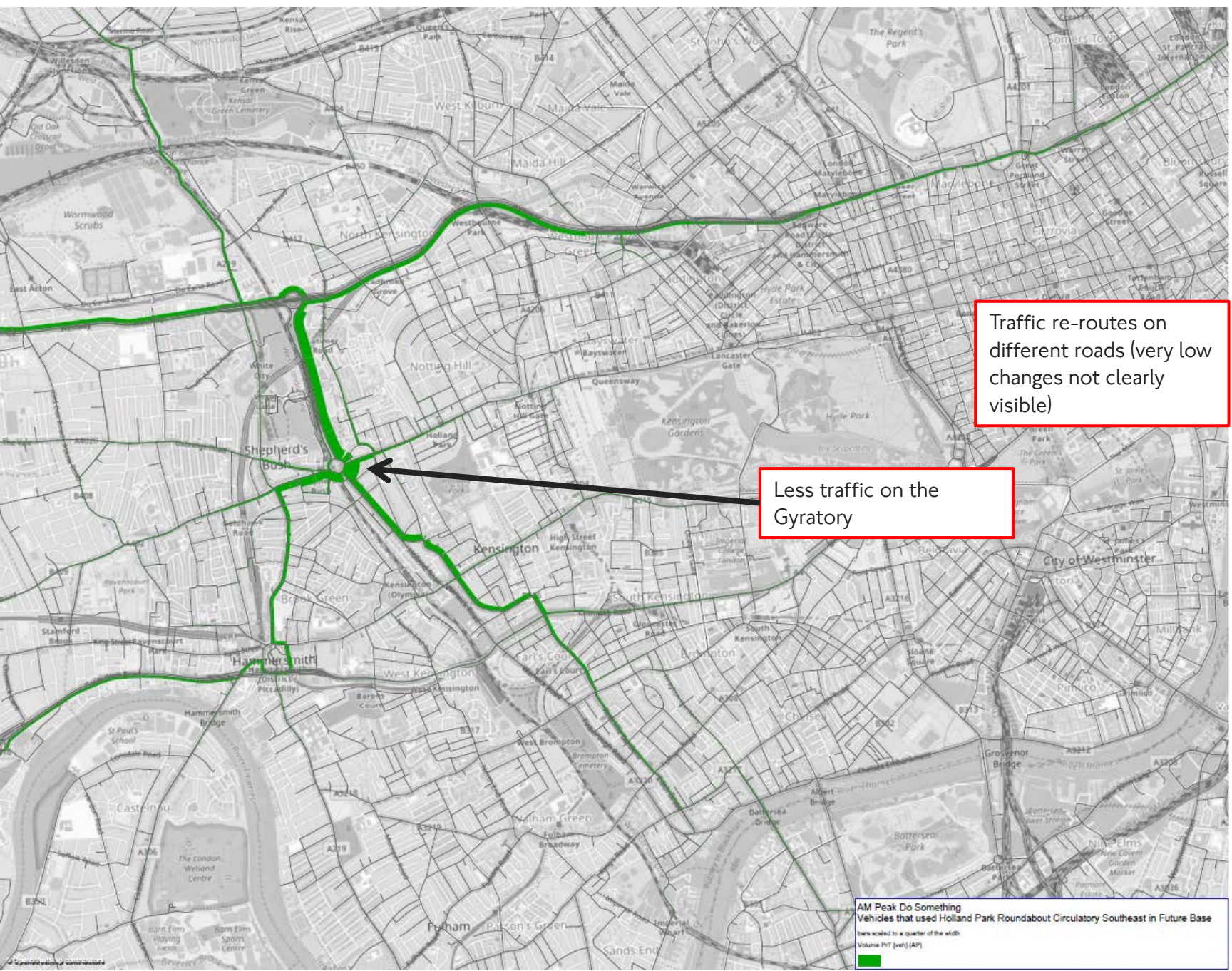


AM Peak – Vehicles using Holland Park Roundabout Gytratory Southeast in the Future Base

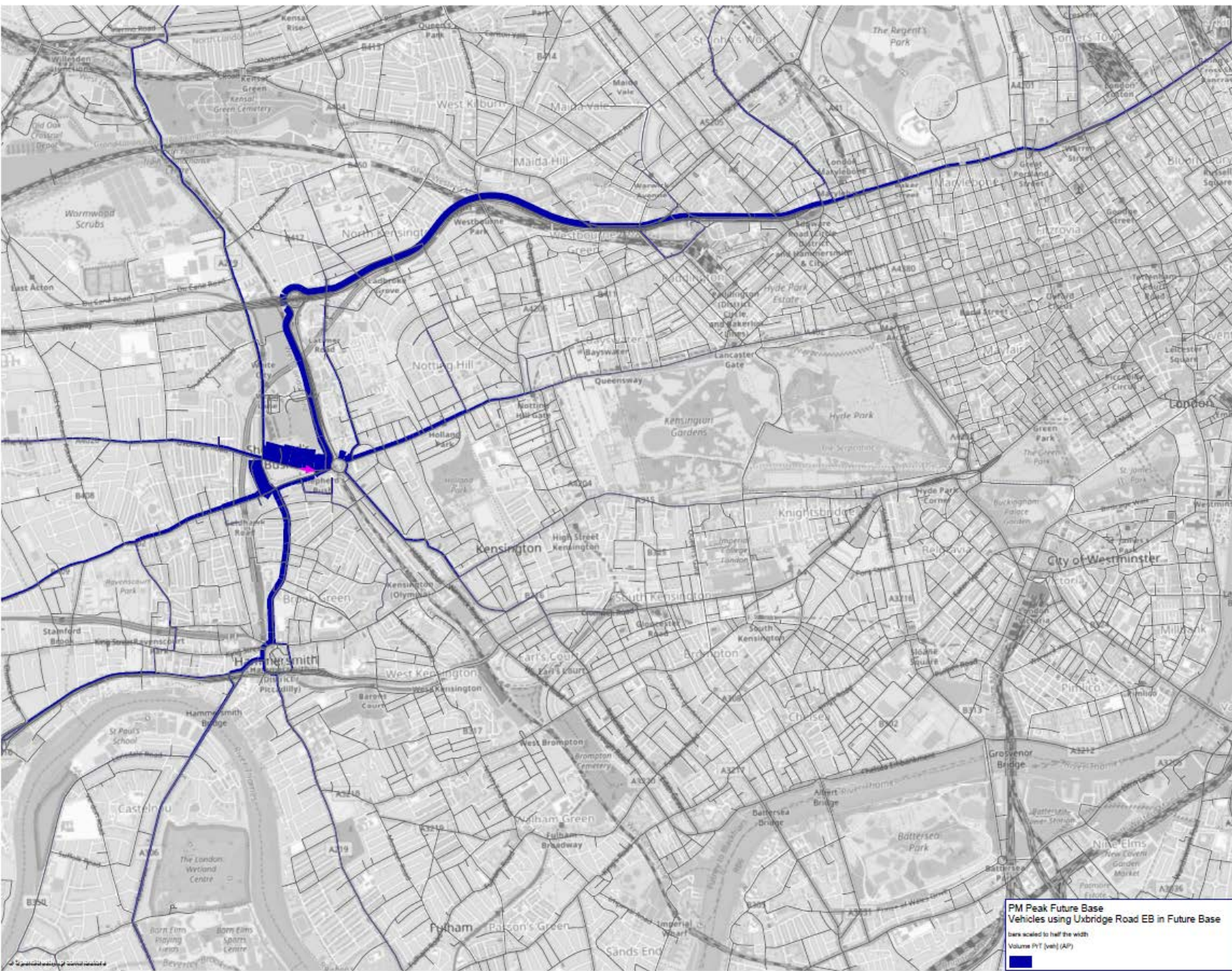


AM Peak Future Base
Vehicles using Holland Park Roundabout Circulatory Southeast in Future Base
Views scaled to a quarter of the width
Volume PVT (veh) (AP)

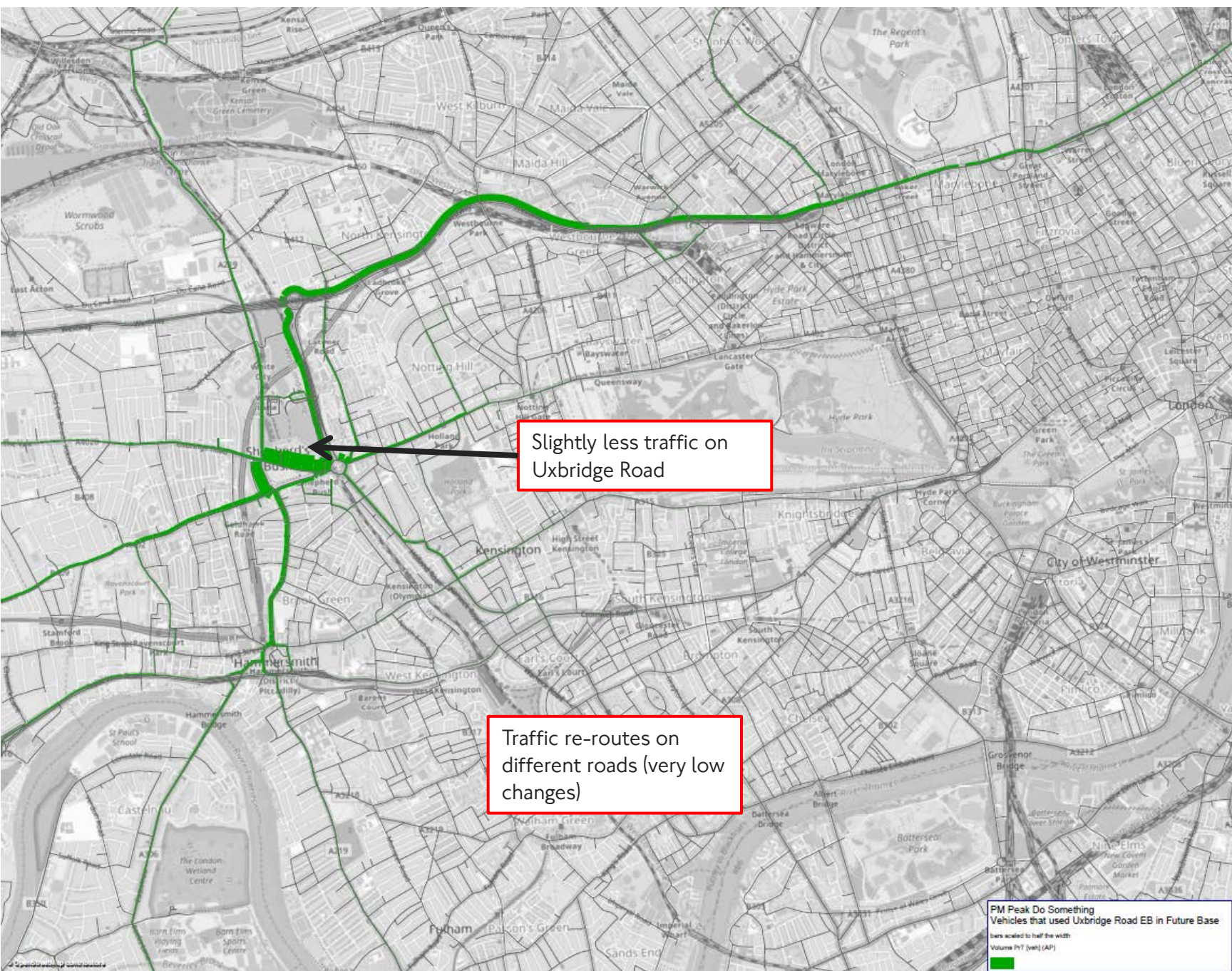
AM Peak – Vehicles that used Holland Park Roundabout Gyrotory Southeast in the Future Base



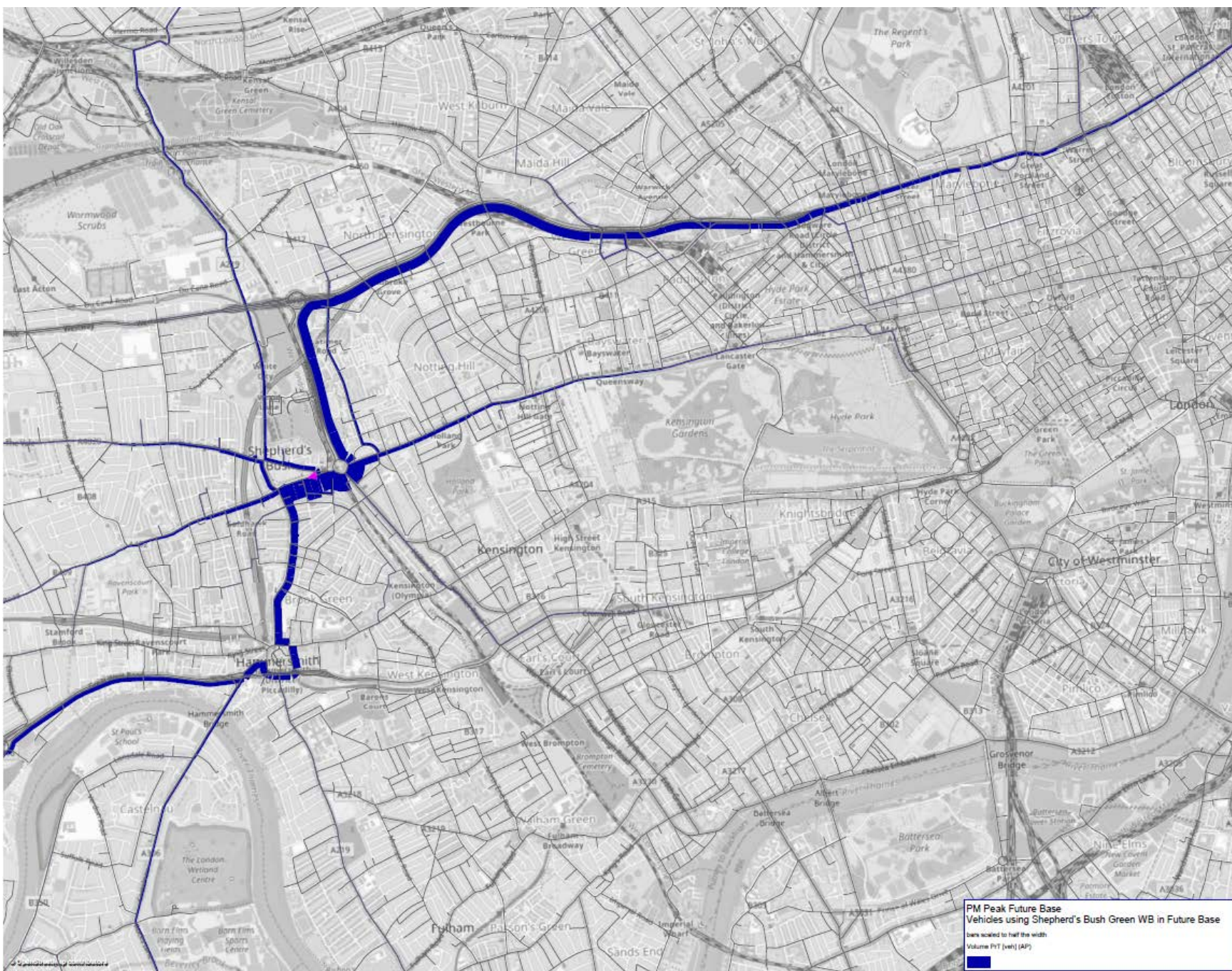
PM Peak – Vehicles using Uxbridge Road EB in the Future Base



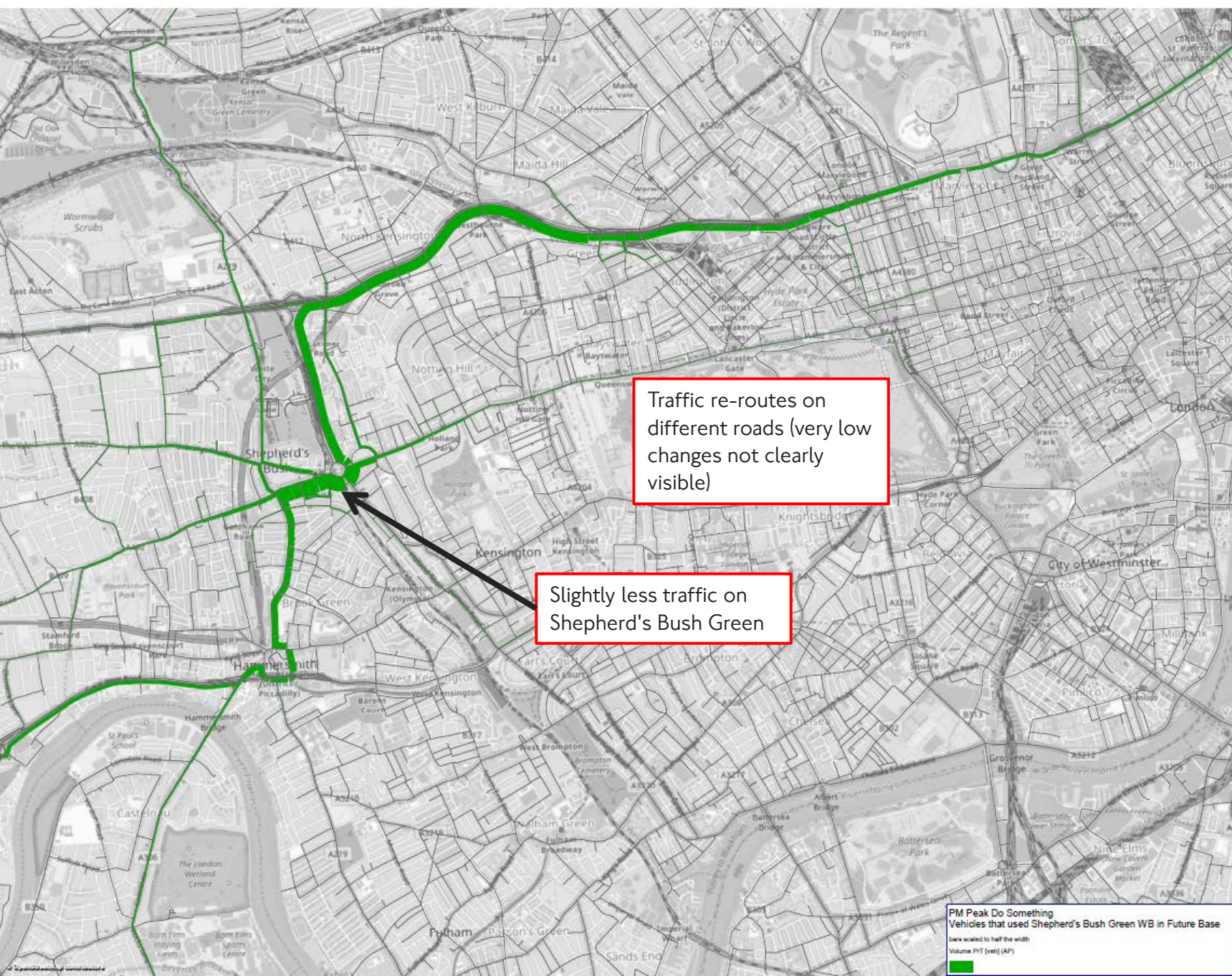
PM Peak – Vehicles that used Uxbridge Road EB in the Future Base



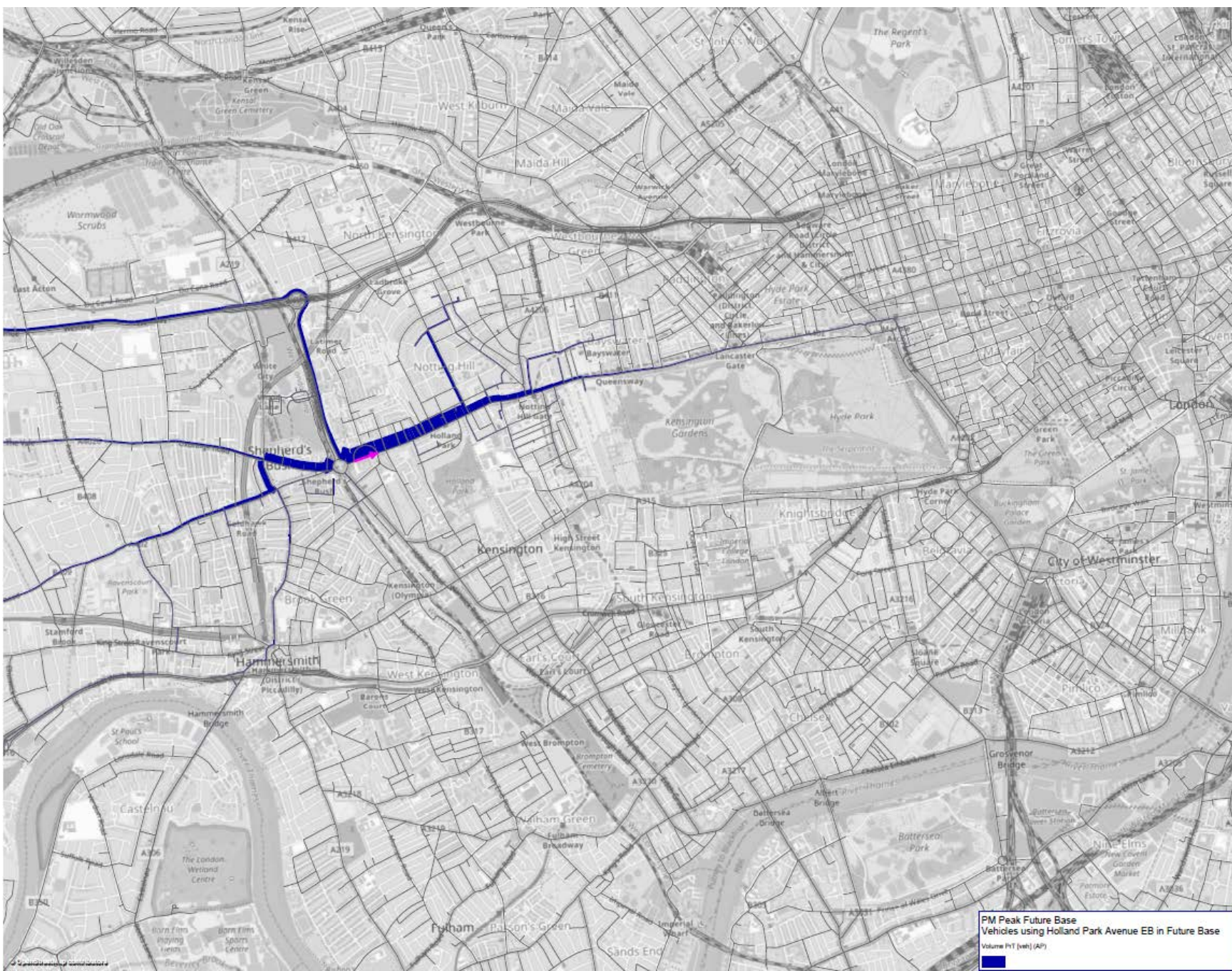
PM Peak – Vehicles using Shepherd's Bush Green WB in the Future Base



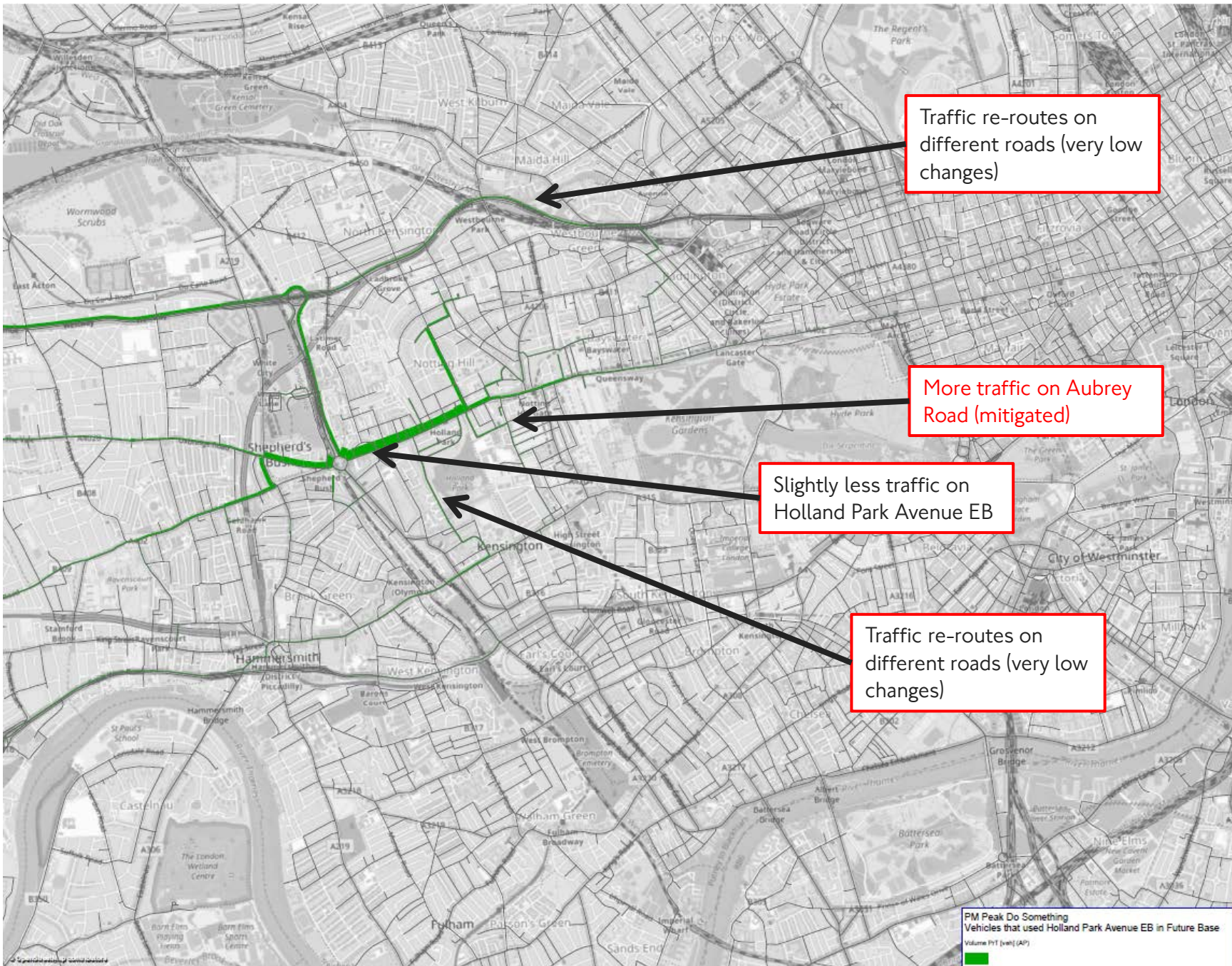
PM Peak – Vehicles that used Shepherd's Bush Green WB in the Future Base



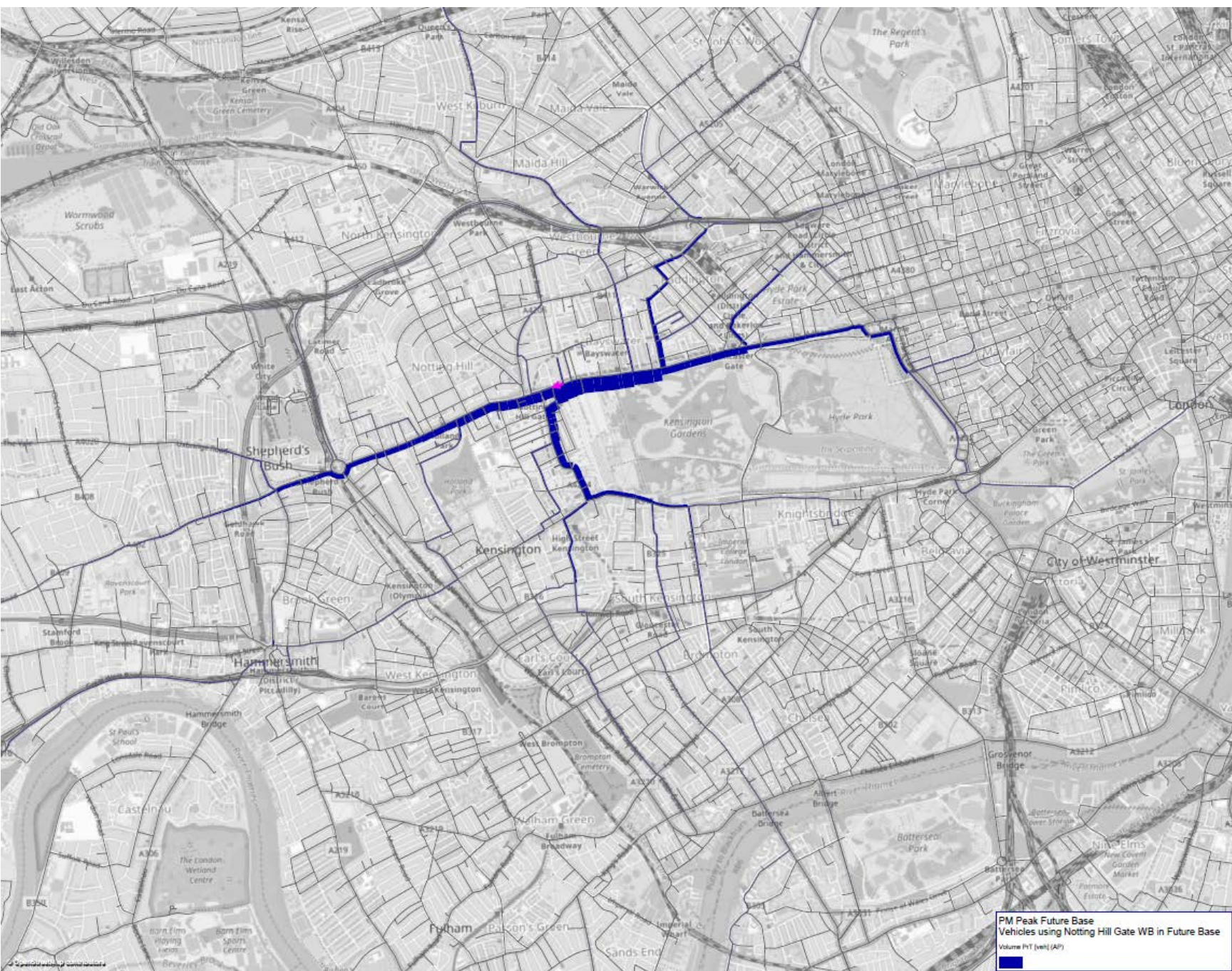
PM Peak – Vehicles using Holland Park Avenue EB in the Future Base



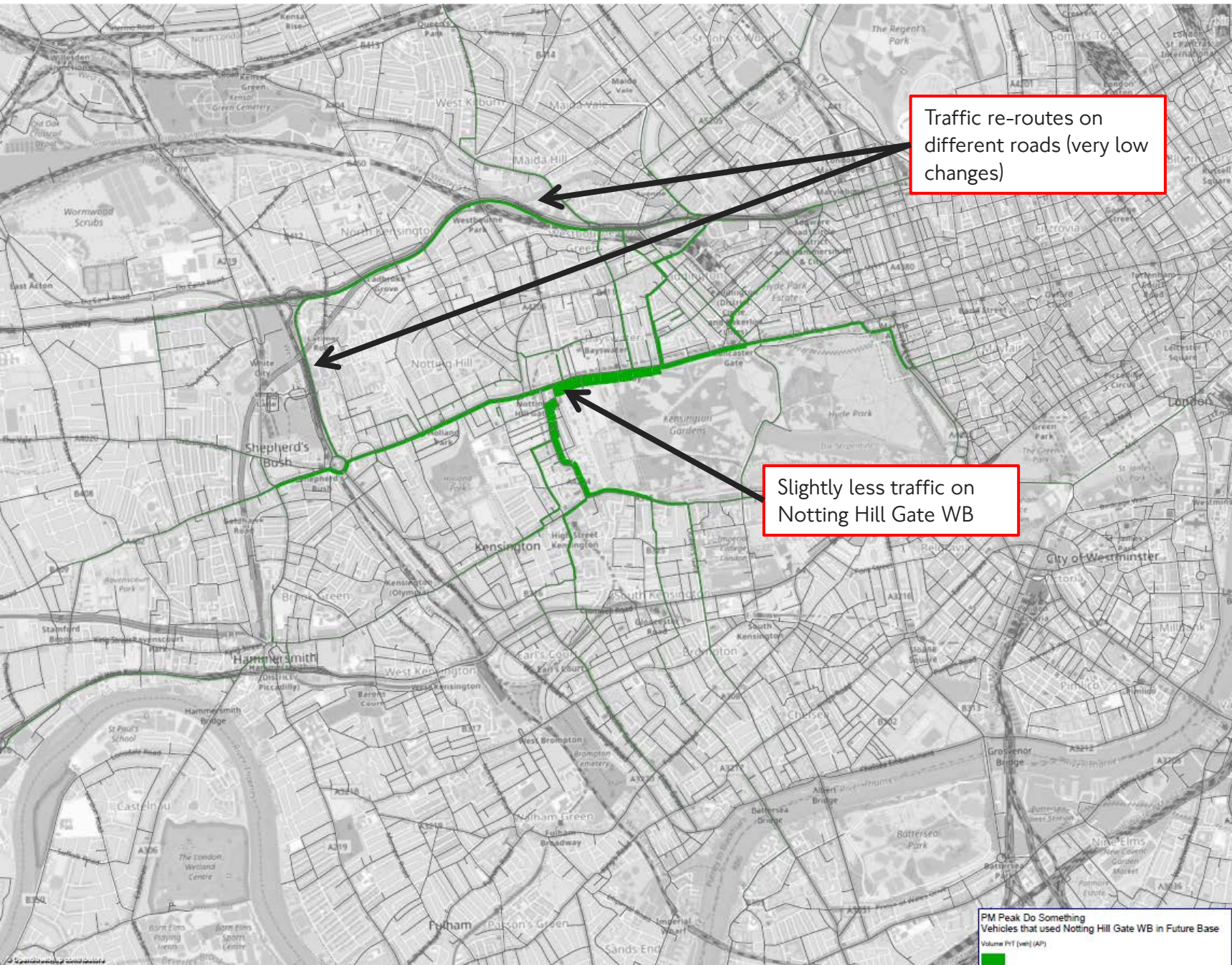
PM Peak – Vehicles that used Holland Park Avenue EB in the Future Base



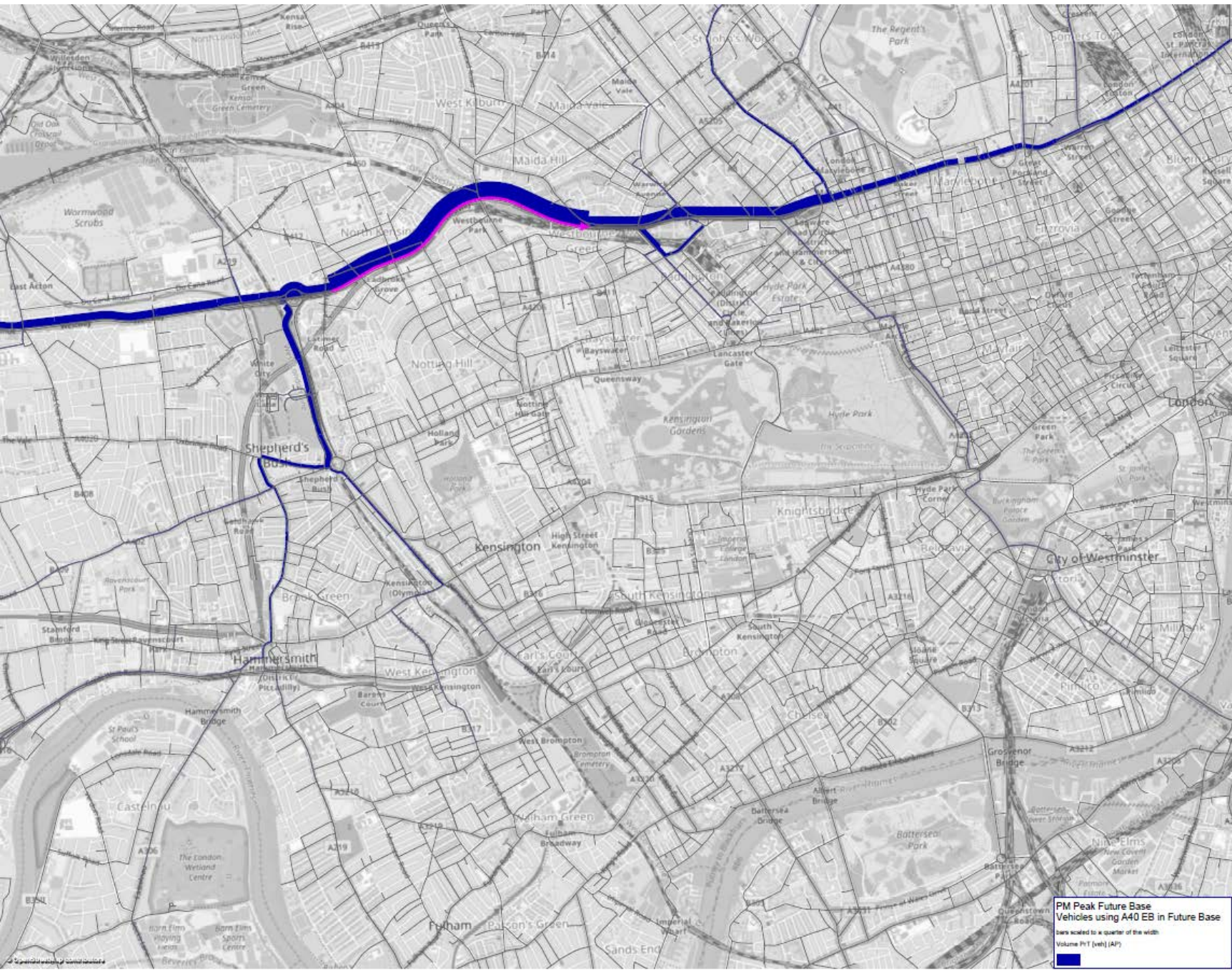
PM Peak – Vehicles using Notting Hill Gate WB in the Future Base



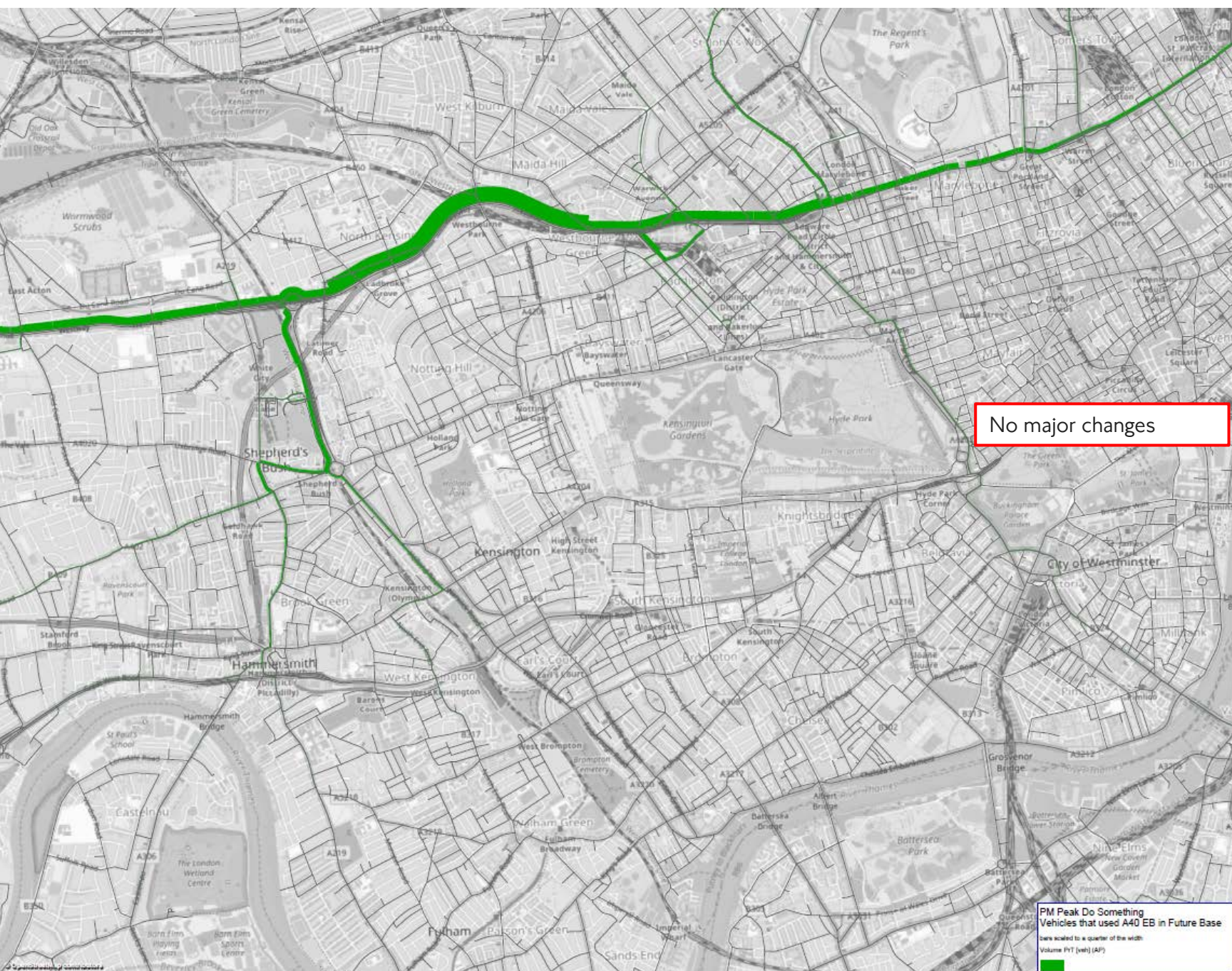
PM Peak – Vehicles that used Notting Hill Gate WB in the Future Base



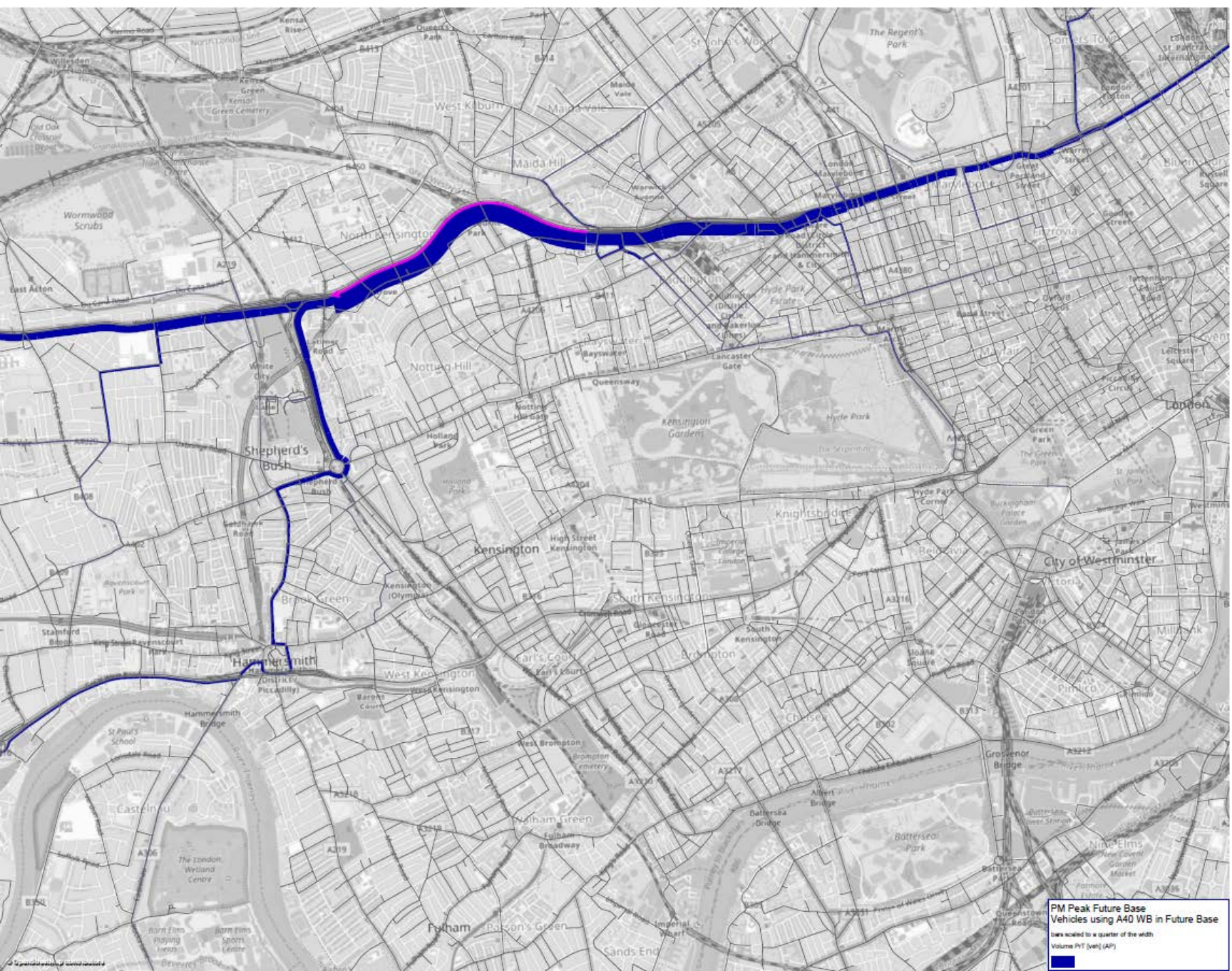
PM Peak – Vehicles using A40 EB in the Future Base



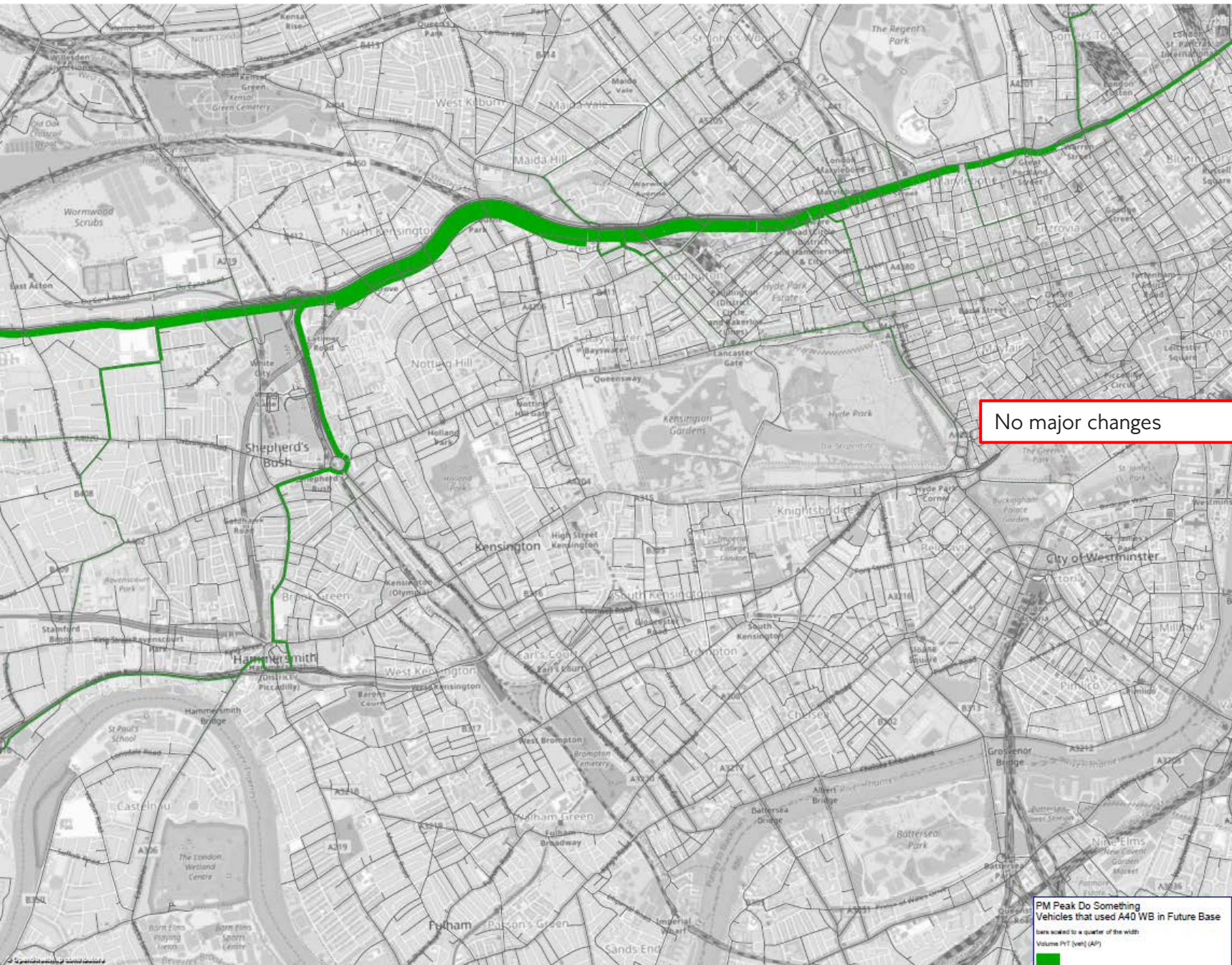
PM Peak – Vehicles that used A40 EB in the Future Base



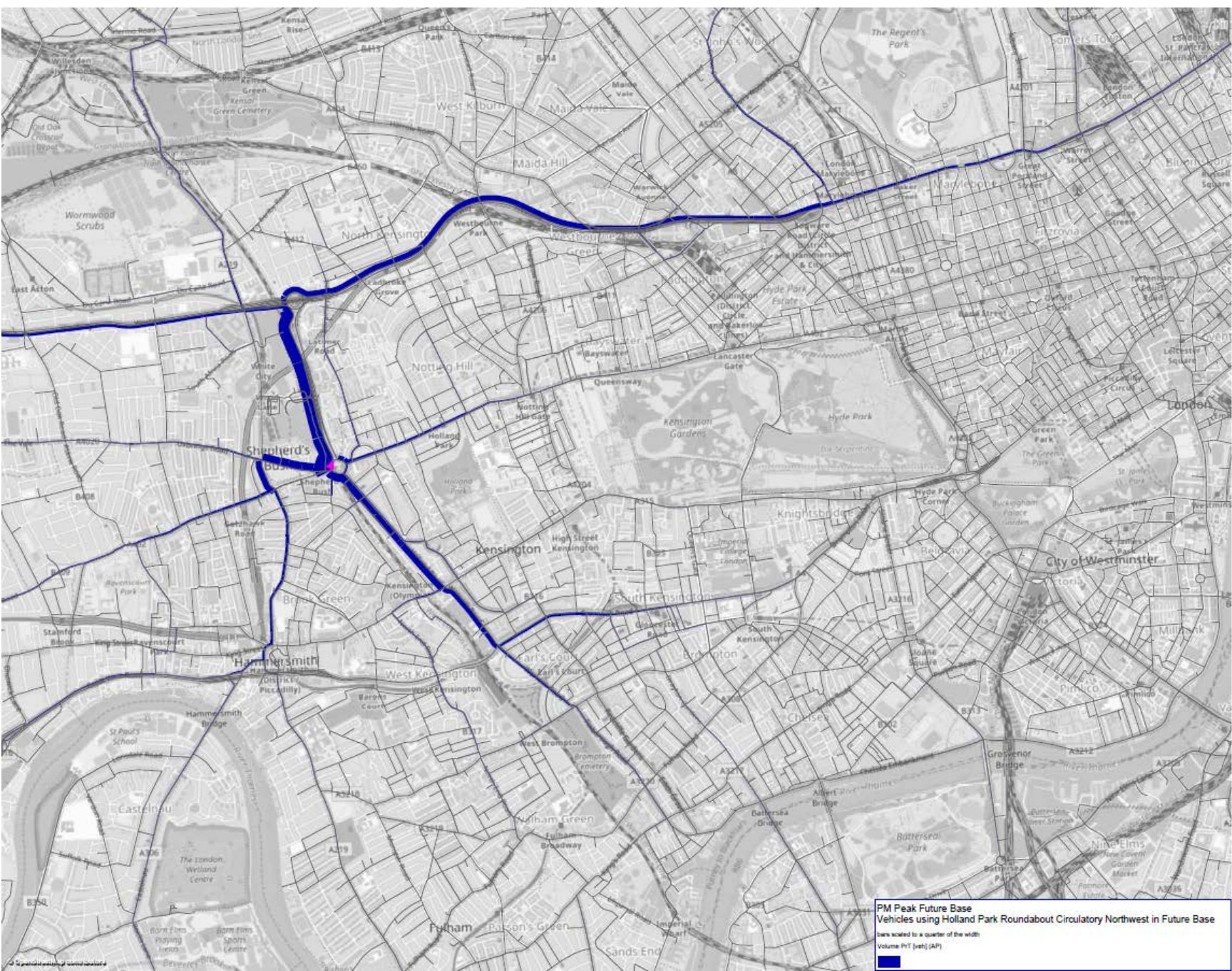
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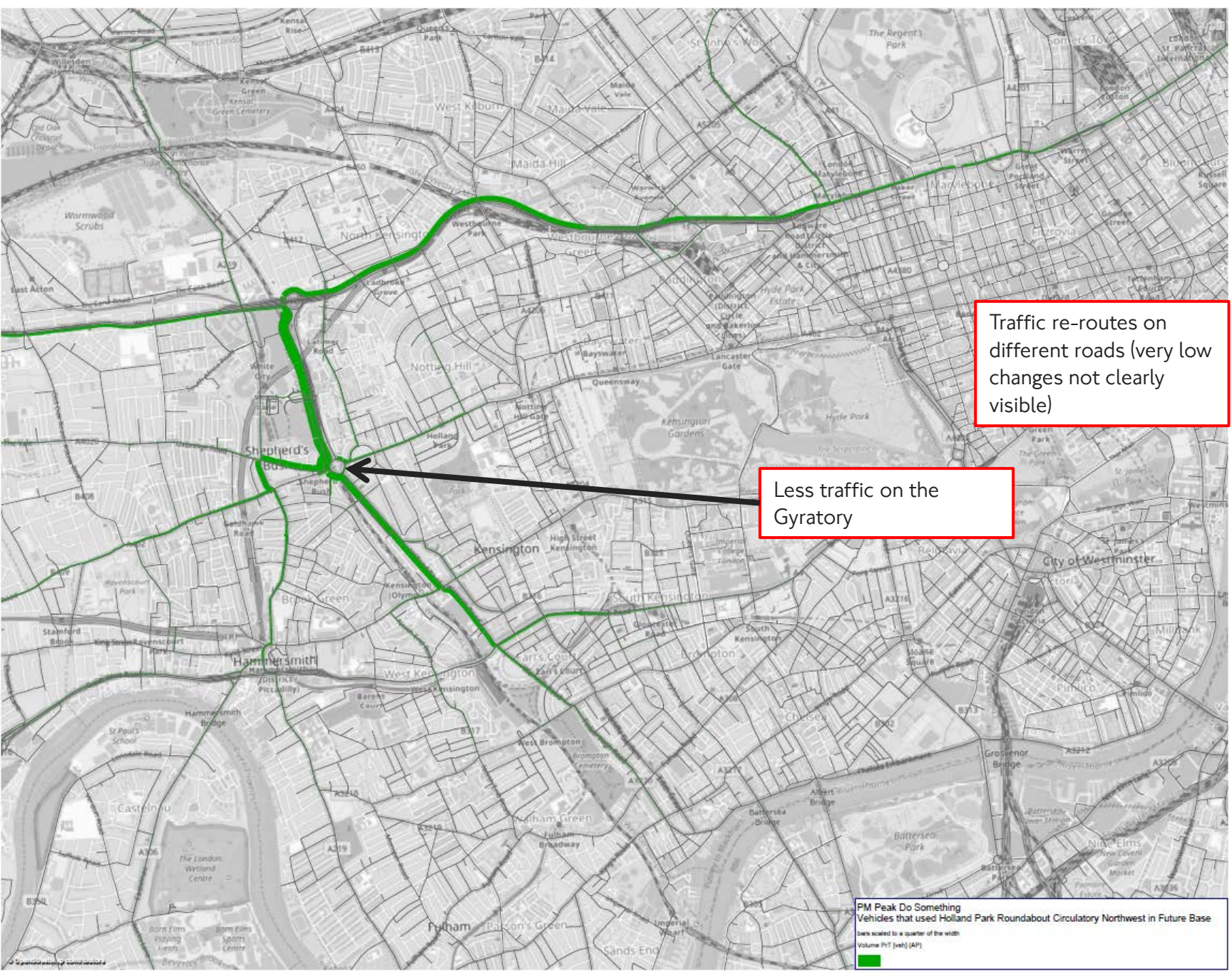
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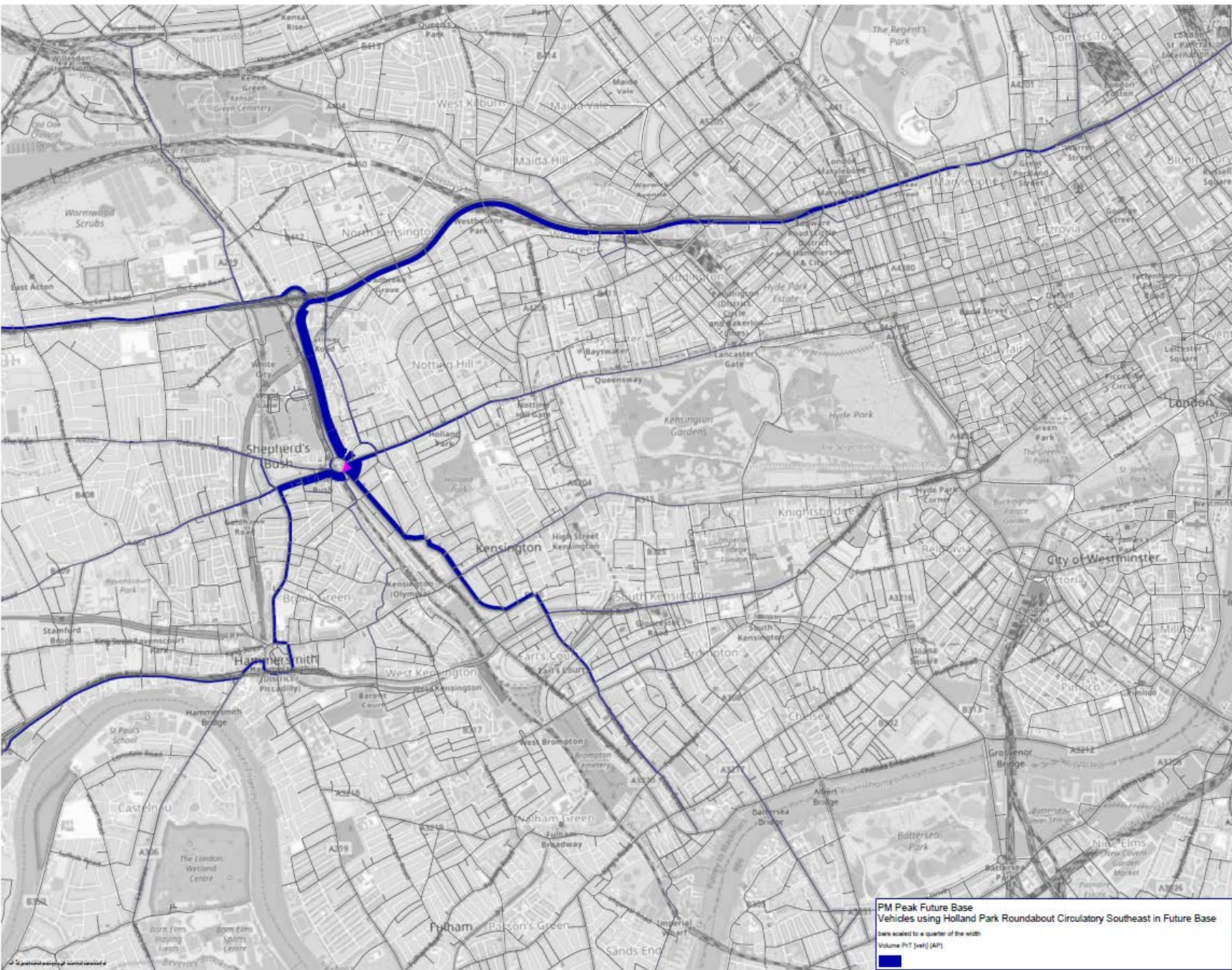
PM Peak – Vehicles using Holland Park Roundabout Gytratory Northwest in the Future Base



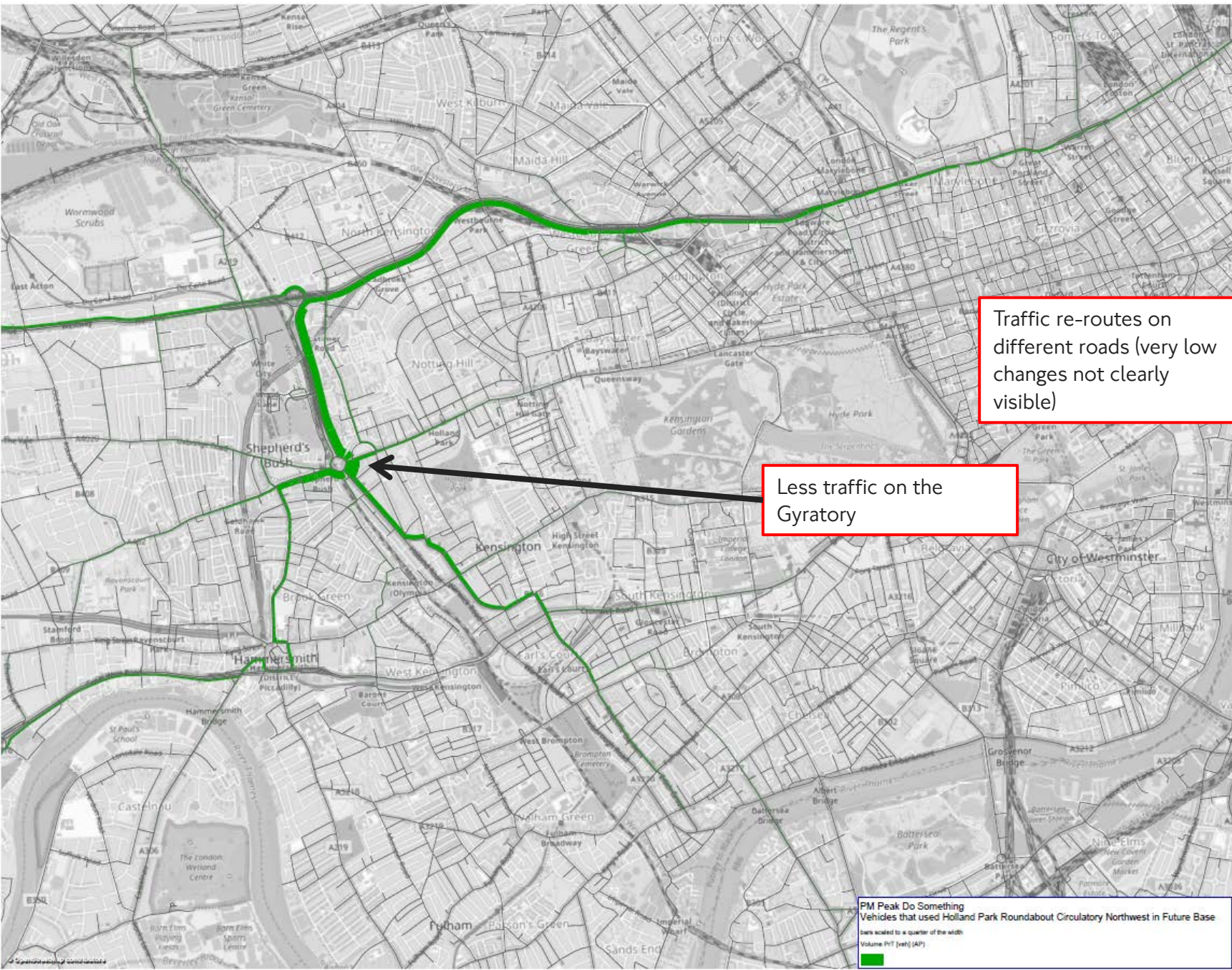
PM Peak – Vehicles that used Holland Park Roundabout Gyratory Northwest in the Future Base



PM Peak – Vehicles using Holland Park Roundabout Gytratory Southeast in the Future Base



PM Peak – Vehicles that used Holland Park Roundabout Gyratory Southeast in the Future Base



The ONE Reassignment stage of modelling has indicated the following key observations:

- The proposed scheme involves numerous capacity reductions on Holland Park Avenue and Notting Hill Gate, leading to a reduction in traffic throughput in both directions, but particularly eastbound.
- Proposed traffic calming measures for side roads along the route are leading to predicted changes in north/south movements, with some routes becoming less attractive whilst others become more so.
- Proposed capacity reductions at Holland Park Roundabout are predicted to result in flow reductions on West Cross Route, with a small amount of traffic choosing to reroute via Wood Lane / Ariel Way, and others via Pembridge Gardens.
- Proposed capacity reductions at the top of Wood Lane are predicted to result in reduced traffic throughput in this section.

