

18-23 Blackfriars Road - crushed concrete case study



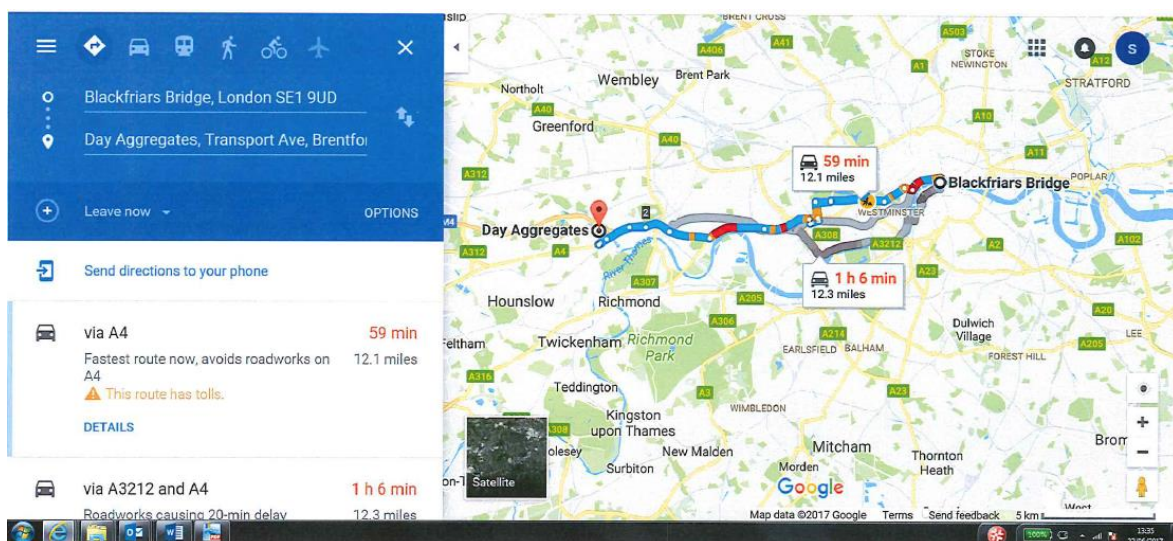
Introduction

Transport for London (TfL) is keen to reduce HGV traffic on the road network especially during major construction projects. To minimise such disruption, TfL will support and promote on-site recycling where practicable.

After receiving TfL’s preferred direction, the development site on Blackfriars Road managed to crush demolition arising (6f2) on site and has stored for use as the piling mat (totalling 7000m³ – 14,7000t)

Calculation Conversions

HGV Greenhouse Gas Conversion Factor	2.66 per km*
6f2	2.1 tonnes per m ³
Ave load	18 tonnes (per 32t gross tipper)



Based on the shortest and quickest route to the potential aggregate recycling site (Day Aggregates)

Approx. 20km one-way distance from site location.

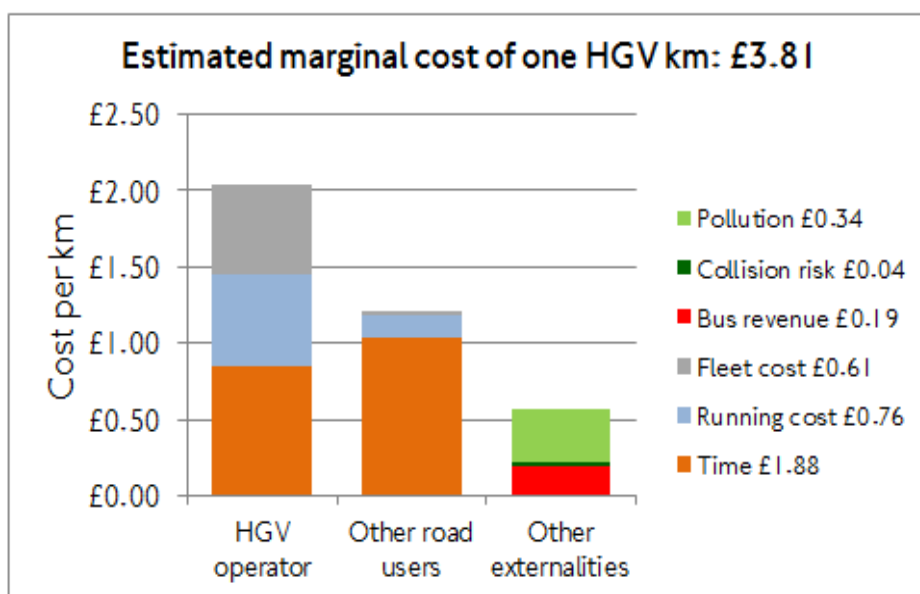
Savings - Calculation Outputs

- 1633 trips (14,700/18t) x 2(incl. return trip)
- 32,666km (1633 x 20km)
- 86.9 tonnes/CO₂ (32,666 x 2.66*)

Transport for London benefits

Reduction of HGVs on the road network:

- Reduction in network congestion
- Reduction of potential HGV/cycling/pedestrian conflict
- Reduction of public transport (bus) delays thus aiding journey time reliability
- Reduction in cumulative HGV noise and dust on the road network
- Reduction of NO_x, CO₂ and Particulate Matter (PM10) levels
- Reduction in highway maintenance costs from carriageway wear and damage



TfL HGV/km algorithm (MB/JT) 2016

Total Cost saving per HGV/km

32,666 x 3.81

£124,457 (using the TfL Algorithm)

*2.66 emissions factor: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2018>