

Information Note CONFIDENTIAL

Project Title:	Rail consultancy advice to the Royal Borough of Kensington & Chelsea
MVA Project Number:	C3489200
Subject:	Physical and technical review on three potential sites for an additional Crossrail station
Note Number	IN002 Version 5
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Reviewer(s):	Duncan Cross (approved), James Vickers (approved)
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1 Introduction

1.1 Information Note 001 (IN001) required an assessment of physical and technical feasibility for an additional station on Crossrail. Three sites have been investigated following the client's request:

- Westbourne Park;
- Wornington Green; and
- Ladbroke Grove.

1.2 This note concludes that:

- the Crossrail tunnel will exit between Royal Oak and Westbourne Park and potentially makes the latter site physically unfeasible for an additional station;
- an additional station at Wornington Green would require significant track rationalisation causing severe disruption during construction, especially as it is within a narrow corridor. The engineering challenge makes this site prohibitively expensive for an additional station; and
- Crossrail's plans for changing the track layout in Ladbroke Grove present an opportunity for constructing an additional station at the same time. However, this would only be possible after successful lengthy and detailed negotiations with Crossrail, which would be difficult given the already delayed schedule.

2 Westbourne Park

- 2.1 The former mainline platforms at this station were closed in 1993 - demand being low due to its proximity to Paddington and convenient access to the Underground. The mainline platforms were demolished during electrification of the area in connection with Heathrow Express.
- 2.2 Figure 2.1 below shows the location of the Westbourne Park site (where photos 1 and 2 were taken) and the Crossrail tunnel exit. These sites are shown in Figures 2.2 and 2.3 on Crossrail’s plans.

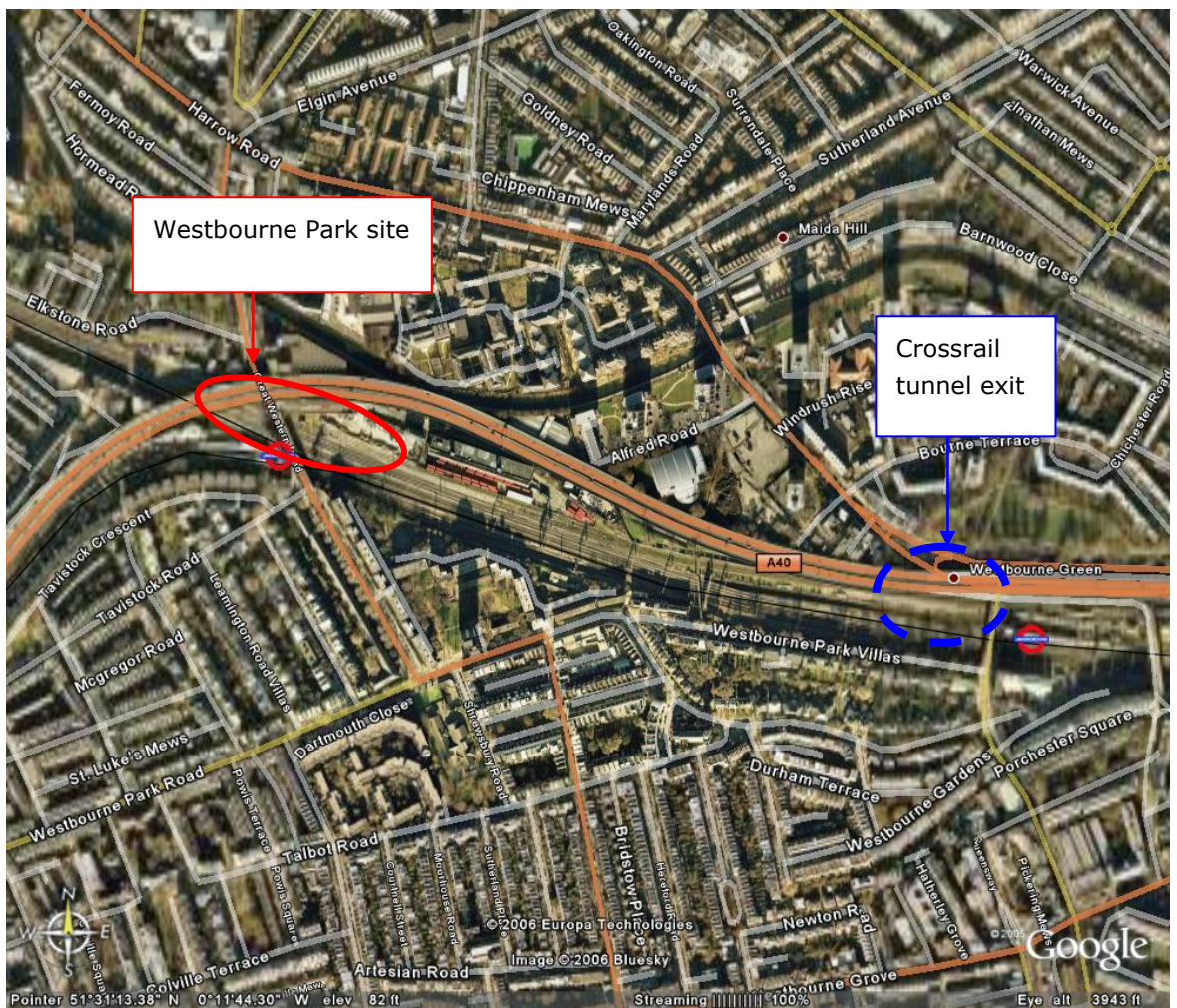


Figure 2.1 Crossrail western tunnel exit (Google Earth)

2.3 According to the plans presented to Parliament by Crossrail (see Figures 2.2 and 2.3), the west exit from the tunnel will surface in the Westbourne Park area with running lines located between the existing slow lines and the railway boundary on the A40 side of the site. Although the alignment of the relief lines (slow lines) has not been substantially altered, the advent of Crossrail will result in major changes for the whole site parallel with Westway (A40).

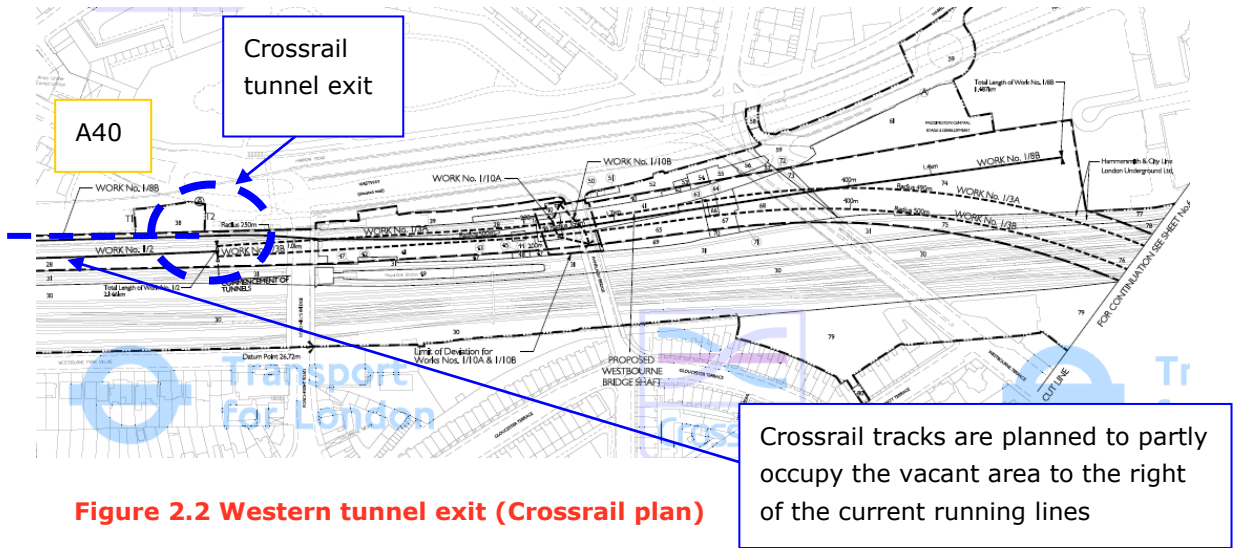


Figure 2.2 Western tunnel exit (Crossrail plan)

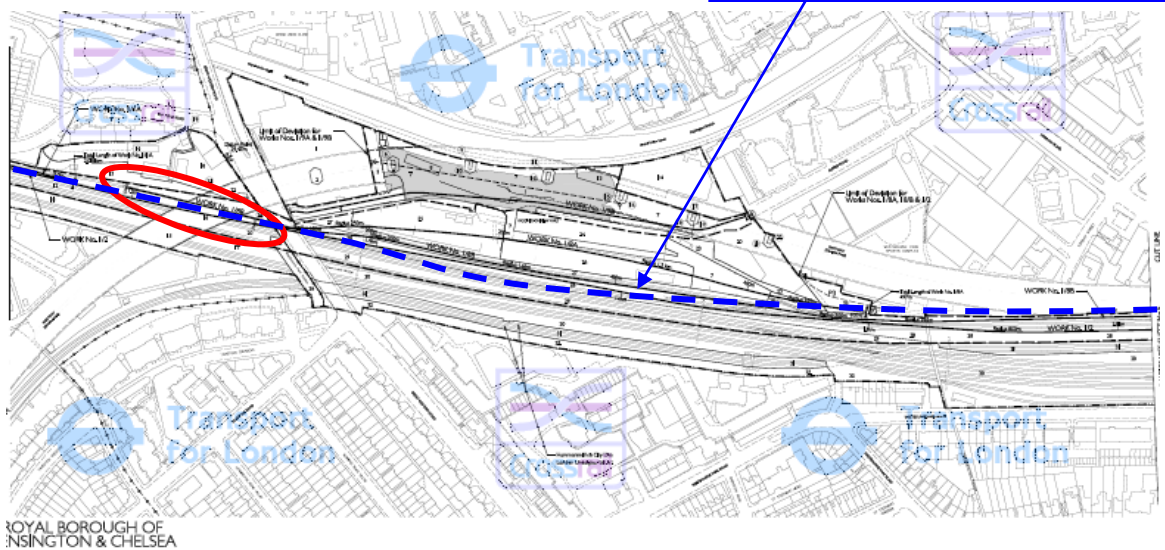
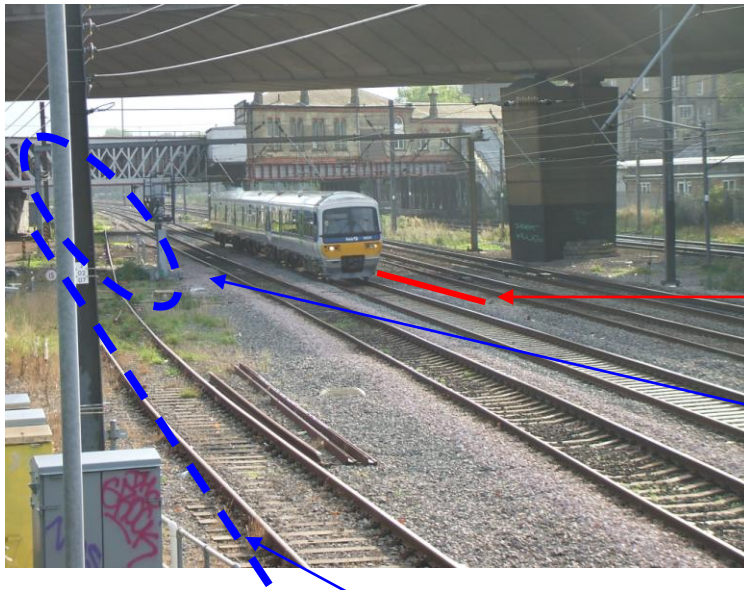


Figure 2.3 Site for a potential new Crossrail station (circled in red): Westbourne Park (Crossrail plan)

2.4 At this point within the present Network Rail boundaries, the site is very narrow and would not be able to accommodate additional platforms. Consequently it is recommended that no further work should be undertaken at this location. Photos 1 and 2 were taken at the Westbourne Park site and they show the limited space at this site.

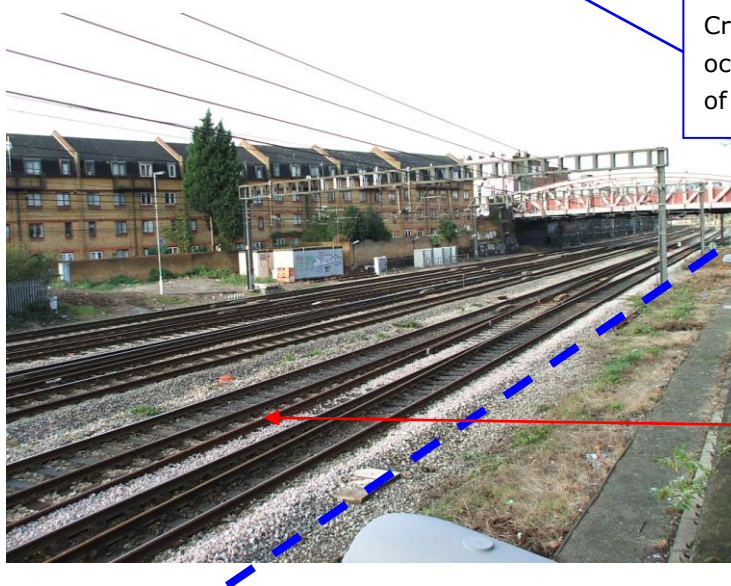
Photo 1: view looking east



Former island platform located between these lines

Crossrail tunnel exit

Photo 2: view looking west



Crossrail tracks are planned to partly occupy the vacant area to the right of the current running lines

Relief (slow) lines

3 Wornington Green

3.1 The railway at this point is contained within steep brick-lined walls and there has never been a station in this locality. Figure 3.1 and 3.2 shows this site on Google Earth and Crossrail's plan.

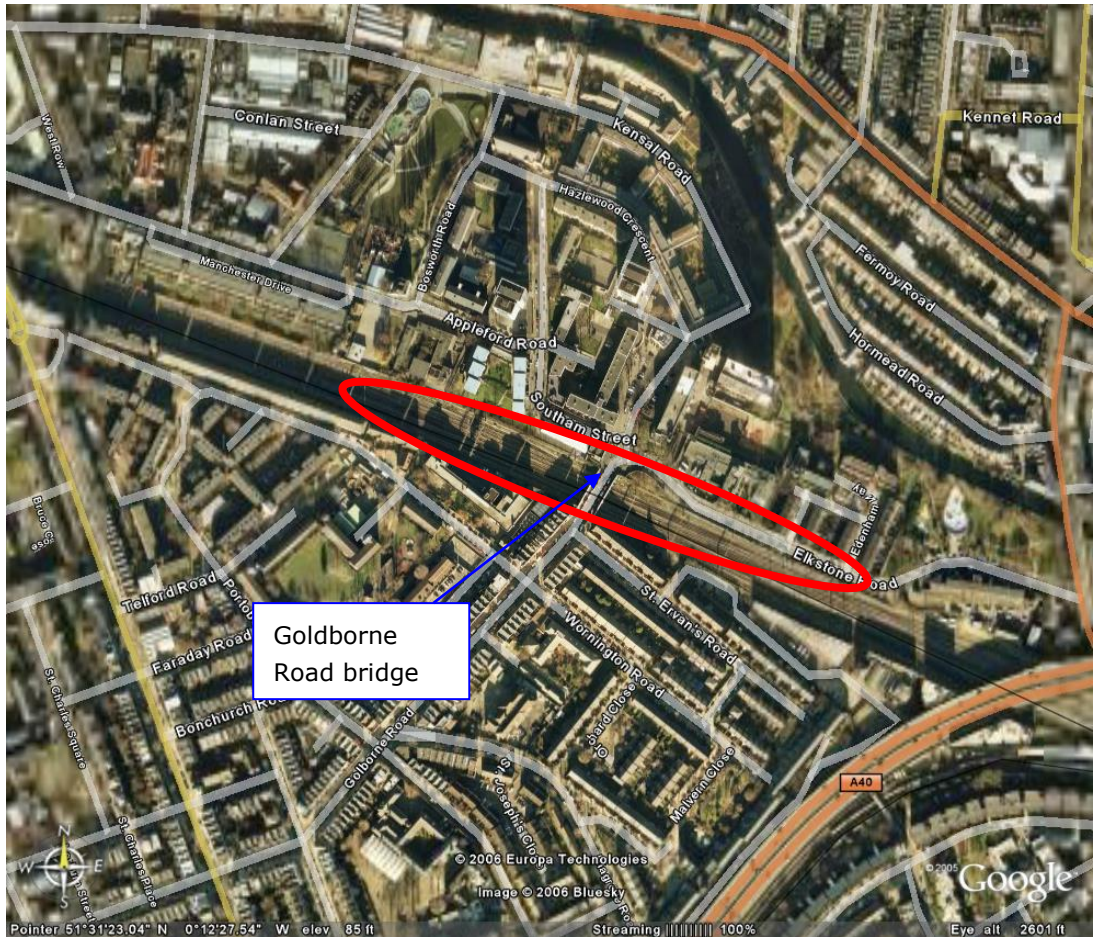


Figure 3.1 Site for a potential new Crossrail station (circled in red): Wornington Green (Google Earth)

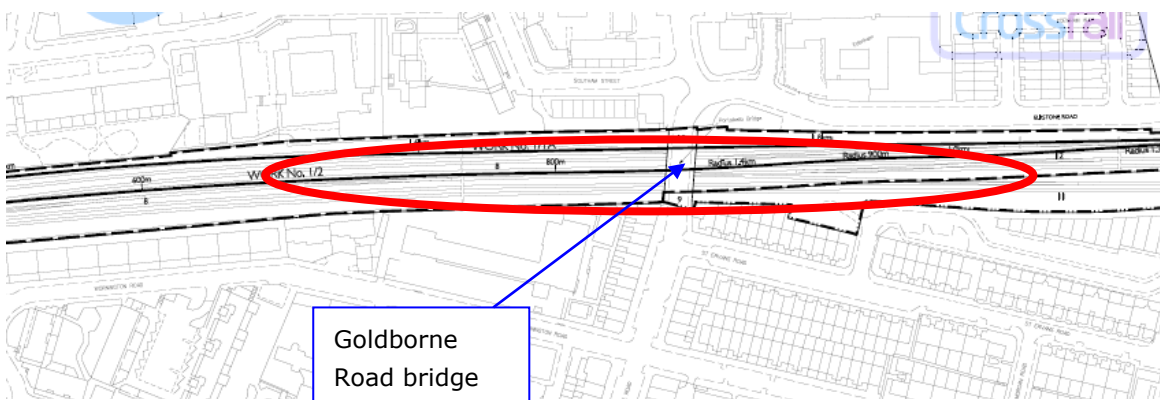


Figure 3.2 Site for a potential new Crossrail station (circled in red): Wornington Green (Crossrail plan)

- 3.2 There are 7 running lines wholly within the Network Rail boundary, together with 3 sets of switches and crossings. Construction of a station here would require a rationalisation of these lines to accommodate platforms as well as relocation of the switches and crossings, plus associated overhead line alternations. Photo 3 shows the area looking west from Goldborne Road bridge.

Photo 3: looking west from Goldborne Road bridge



7 lines within a confined space (although can only see 5 here, 2 more after the bridge)

- 3.3 Although Crossrail will have an impact on this area, the intention is only to connect with the existing layout. The construction of a station here would cause severe disruption. The location is only $\frac{3}{4}$ mile from Westbourne Park. All costs for the alterations to Network Rail's infrastructure and service disruption would have to be borne by the developer of this new station.
- 3.4 In conclusion, the construction of an additional station at this narrow site would pose significant engineering and technical difficulties. It is estimated (without a detailed engineering study) that construct a station at this site would be in the order of over £50 million and have to include layout alterations and service disruption compensation.

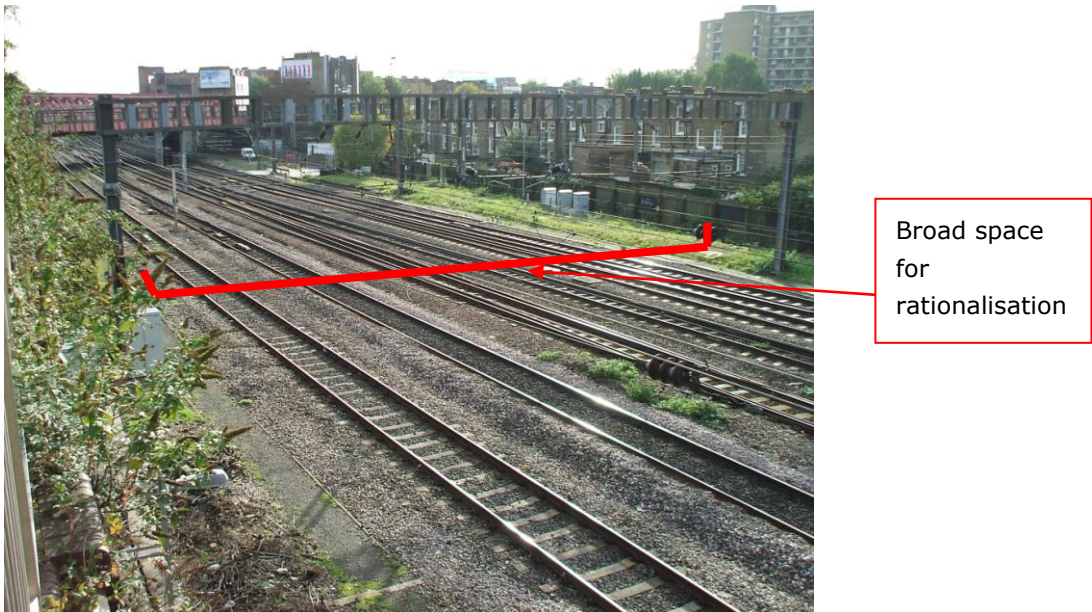
4 Ladbroke Grove

4.1 By contrast to the Worrington Green site, the Network Rail site adjacent to Canal Way and the Sainsbury Super Store is very broad as shown by photos 4 and 5 below.

Photo 4: looking west from Canal Way



Photo 5: looking east from Canal Way



4.2 Currently, it accommodates 6 running lines and an access line on the south side to Old Oak Common depot, and 2 to the north (Canal Way). A disused carriage cleaning platform is situated between these tracks. Figure 4.1 and 4.2 show this site on Google Earth and Crossrail plan.

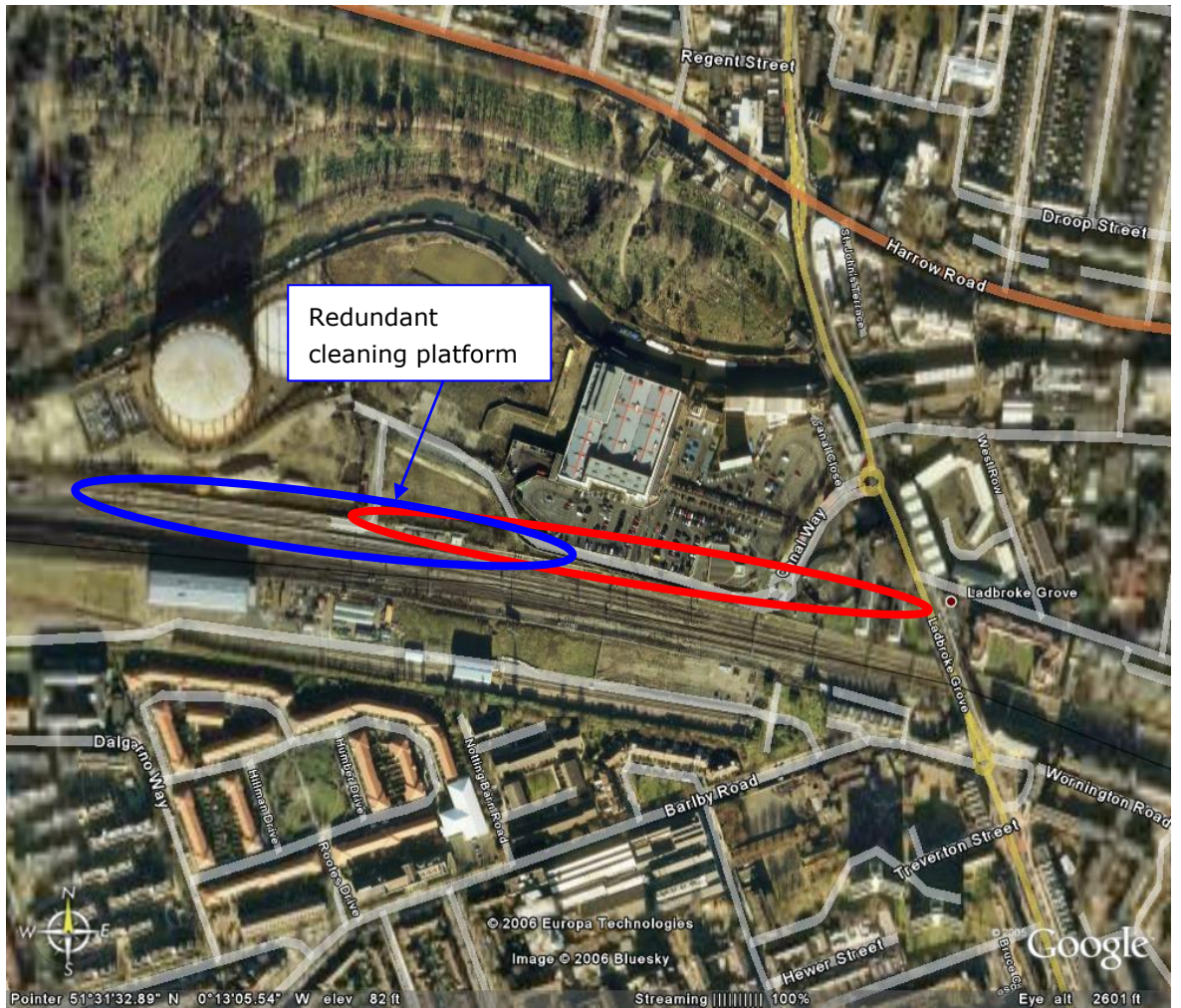


Figure 4.1 Site for a potential new Crossrail station (circled in red): Ladbroke Grove (Google Earth)

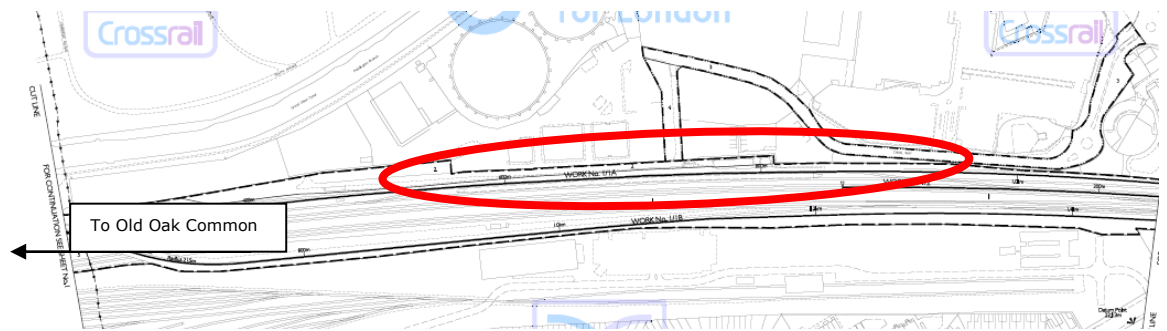
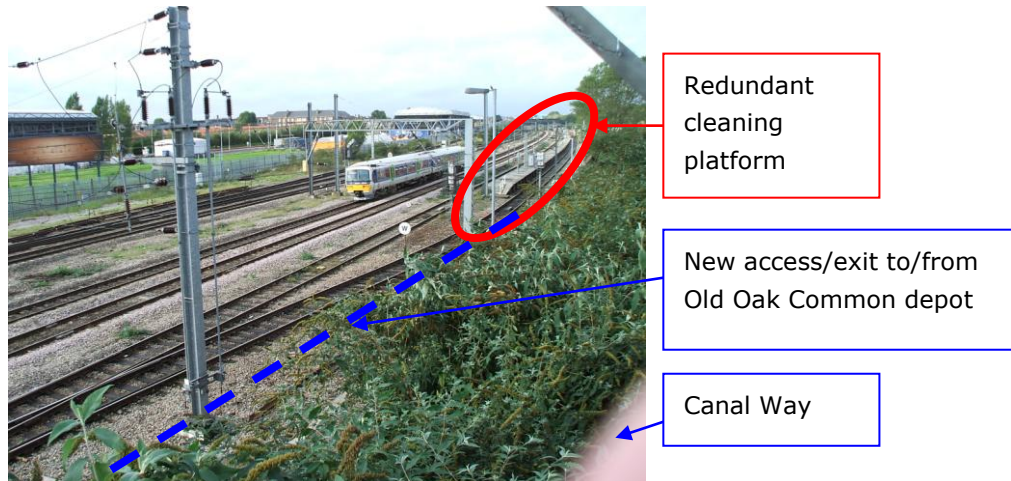


Figure 4.2 Site for a potential new Crossrail station (circled in red): Ladbroke Grove (Crossrail plan)

- 4.3 At first sight it appears there is room for a station on the Crossrail route, although there are a considerable number of switches and crossings in the area which might be affected by an additional station.
- 4.4 In this location, Crossrail are proposing alterations to the existing track layout. From the plans already put before Parliament, it appears the carriage cleaning platform will be

abolished and a new access / exit from Old Oak Common depot will be created to run along the Canal Way boundary. In addition, the eastbound Crossrail line will be relocated and creates a wide space between these two lines. On the south side of the site, the existing line into / out of Old Oak Common will be extended to run parallel to the main lines, enabling the abolition of some of the switches and crossings. Photo 6 shows the area where alterations are planned.

Photo 6: view looking west showing the redundant carriage cleaning platform



- 4.5 Without access to Crossrail's detailed drawings it is not possible to identify what other rationalisation will take place in the area - if some lines are to be made redundant or relocated. If line redundancy and relation is planned by Crossrail, it may be possible that the eastbound Crossrail line could be slewed northward to run parallel with the new access / exit line (to Old Oak Common). This may create sufficient area between the eastbound and westbound lines to accommodate an island platform.
- 4.6 In view of the Crossrail proposals, there will be considerable alterations to the track layout in this location. This will also require changes to the signalling and overhead lines, the cost of which will be borne by Crossrail. Therefore, there may be an opportunity to build a raft across the whole layout and an island platform station on the Crossrail lines at this location at the same time, minimising the disruption to services during the construction period.
- 4.7 Despite the opportunity, there are two factors which need to be addressed as soon as possible:
- the technical feasibility rests on the basis of line redundancy. Crossrail would place further demand on capacity here and we would need to have their detailed plans before commenting further; and
 - Crossrail's sensitivities pose a political challenge because building a station in this area would involve a re-working of their plans. A lengthy and detailed negotiation would be necessary to establish who would pay for what, i.e. which part of the revised plan would be paid by Crossrail and which part by the Royal Borough. At this late stage Crossrail would not welcome changes to its plans and further delays to the start of work, which is already behind schedule with Royal Assent pushed back to late autumn 2007.