## THE CENTRAL LONDON RAILWAY'S TUNNEL SIDINGS

by John Hawkins

I have long wondered the original intention for the three Central London Railway (CLR) tunnel sidings. I assume that advice was sought from the pioneer City & South London Railway (C&SLR), the only operating tube line at the time, which had intended cable haulage until late in construction and only provided a single centre siding north of Elephant & Castle, probably a remnant from earlier plans when this was the southern terminus. This siding was an extended trailing crossover, linking from the southbound tunnel to the northbound. The only other siding was at the southern terminal at Stockwell, and linked with the small surface depot. As early adopters of electric traction, with a small loco for each three-car train, the C&SLR no doubt experienced service disruptions with unanticipated problems.

The CLR planned a much longer line along a route with higher demand, from Shepherd's Bush to Bank, and ordered larger camel-back electric locos to haul seven-car trains. I believe that to minimise disruption, they originally planned central sidings a quarter way from, and facing, each terminus at Queen's Road and British Museum. These could well have suited disposal of a train that developed problems after leaving its terminal, remembering that a loco was freshly coupled to each reversing train whilst the arriving loco was detached to haul the following train. Another central siding was later added to the plans at Marble Arch, one station west of the mid-point and facing towards Bank. This could well have been sited to meet traffic demand from the City, at the end of Oxford Street with north/south horse bus routes. It is the only one of these sidings to see timetabled service reversal over the years, meeting shopping traffic needs from the 1930s. The other two saw little use and were finally removed; Queensway (formerly Queen's Road) in 1984 and Holborn in 2016<sup>1</sup>.

Each CLR siding originally provided a loco spur for reversing a series of trains, and also included a facing crossover to reverse trains from the opposite direction. Loco spurs were not provided at the termini, the double track stations providing sufficient flexibility for regular loco changes. The sidings could have been used to hide a defective train, or equally they could have been used to reverse the service short of a defective train obstructing the running line. Sited between the running lines, their use did not interfere with trains operating in the opposite direction.

The Queen's Road siding, facing towards the west, was unlikely to meet a traffic demand at the country end of the line. However, it could have proved useful for trial runs after maintenance at Wood Lane depot and, in fact, before the line opened, each loco had to haul a 7-car train there and back whilst construction works continued on the rest of the line.

The 1920 length of Marble Arch siding was 629ft, with Queen's Road and British Museum sidings of a similar length, quoted at 617ft, and 622ft respectively, so all would have accommodated two 6-car multiple-unit trains of that time, some 558ft in all, although only Marble Arch, the longest, timetabled the stabling of two and I suspect may have been signalled accordingly. A defective train assisted by the following train could then have been pushed totally into these sidings to promptly clear the running line. The three sidings total around at least a third of a mile of tunnel, which must have been achieved at some cost.

I wonder why sidings of 617ft or more were constructed on a line designed for trains of a loco with 7 cars of 355½ft, or 385½ft with a second loco to pull the train from the siding<sup>2</sup>. And yet two trains would require a siding of 741ft. When locos were abandoned as early as 1903, the original cars were topped and tailed by similar length motor cars to form 7-car multiple-unit trains of 325½ft, so still requiring at least 651ft to fit two. Trains were reduced to 6-car length from around 1908 when some were split into 3-car formations, with the conversion of some control trailer cars for off-peak services, so only from then would the sidings have fitted two trains. In 1913, some trains were even reduced to 5-car formations.

Serious tunnel end collisions in Tooting Broadway siding in 1960 and 1971, the second fatal for the driver, and the 1975 collision at Moorgate platform 9, resulted in progressive protection measures which leave the current Marble Arch siding only providing 150½ metres (493ft 9ins) of usable stabling for a current 132.6 metre 8-car train<sup>3</sup>.

These sidings were pretty unique in their day. As the C&SLR extended over time, it provided sidings for stabling of additional trains which could not fit at Stockwell, but none of these were sited between the running lines, and so could delay the service as trains entered or departed. Actually, the London Bridge

Where the signal cabin had been resited after British Museum station closed to the public in September 1933.

<sup>&</sup>lt;sup>2</sup> CLR rolling stock details from Piers Connor's *Underground News* series commencing November 2012.

Thanks to the late MAC Horne for background on tunnel siding lengths by private correspondence.

siding was sited between the running tunnels but was only reached from the northbound platform via a crossover tunnel. At Old Street, a siding between the running tunnels was connected to the southbound line only.

The three Yerkes tube lines, that opened with electric multiple-unit trains in 1906-07, felt no need for central sidings. Defective trains could have been stored in the terminal overrun tunnels at Elephant & Castle, Finsbury Park and Highgate (now Archway), and later on the CLR extension at Liverpool Street, but only Highgate provided berths long enough for two trains. I presume that operating reliability of electric traction had improved by this time.

Interestingly, later line extensions resulted in the construction of central tunnel sidings at Kennington<sup>4</sup> and at Down Street<sup>5</sup>, both of which were long enough to fit two trains. Perhaps experience with longer runs of tube trains from Watford on the Bakerloo Line had shown a need for these, although Queen's Park provided a double road shed long enough for three trains to the south of the station. The C&SLR Morden extension had the central reversing siding at Tooting Broadway, the Piccadilly Line extension saw a centre siding at Wood Green, and New Works extensions provided a centre siding at Archway and two centre sidings at Liverpool Street. The Victoria Line was also provided with a central siding at King's Cross and two at Victoria, anticipating lower demand than soon eventuated! All of these sidings were used for scheduled short-working services in their earlier years.

The original Queen's Road and British Museum sidings stand out among this collection, with no evidence of use for regular scheduled short working services. The only explanation I can think is that they were provided in anticipation of low reliability of the electric locomotives of the time but found little use because of fast developing traction technology.

## TIMETABLED USE OF THE CLR TUNNEL SIDINGS

Back in 1986, as part of a series on tube line timetables, our current editor reviewed the Central Line timetables since LT formation for *Underground News* (available on the LURS website). Reviewing the situation in 1933, he reports that after the morning peak 12 cars (2x3 and 1x6) stabled at Marble Arch siding. The two 3-car shuttles commenced to Liverpool Street for the afternoon shopping traffic, leaving the 6-car at the far end of the siding until the evening peak.

During the War from 1940 to 1945, five trains outstabled from Wood Lane depot to Liverpool Street (2), Marble Arch (2) and Queensway (1). Perhaps the former British Museum siding was used for storage of museum relics, as was done on the Aldwych branch.

The commencement of post-war extensions, before new depots were commissioned, led to a shortage of stabling space on the Central Line. For the extension to Stratford in 1946, overnight stabling in Marble Arch and Queensway sidings recommenced. For the May 1947 extension to Leytonstone, overnight stabling was extended to Holborn (note new siding name) and Liverpool Street, with a second 6-car train at Marble Arch. The December 1947 extension to Newbury Park and Woodford saw the introduction of some 8-car trains, and the tunnel stabling of one train in each of the three CLR sidings, but by February 1948 these were transferred to Hainault leaving the sidings available for emergency reversing. I recall outstabling in these tunnel sidings was done in winters to avoid trains freezing up in the exposed new open air depots, but there is no mention of this in timetables, and it may have been by timetable notice.

Apart from service reversal in Marble Arch siding, the only other mention of these sidings in the articles is the introduction of a late evening 'rusty rail' working at Queensway in 1975, which soon led to discovery of a problem with the points there and the cancellation of the working. This led eventually to its removal, and the later laying of a facing crossover on the site of the one provided on opening, although commissioning of signalling for the move took until 2005. In 1976 a late evening Marble Arch 'rusty rail' reverser was introduced due to withdrawal of the former noon to peak shuttle service to Liverpool Street.

<sup>&</sup>lt;sup>14</sup> Accessible from all branches.

<sup>&</sup>lt;sup>15</sup> Making use of the platform area of this recently closed station for its entry points.