

# PICCADILLY TO THE WEST

by Eric Stuart

Unlike the true 'Tube' lines, the Sub-Surface lines were more adventurous in making early attempts at pressing into the outer London suburbs. However, since the Piccadilly Line's history is linked in a number of ways with that of the District Line and its predecessors, the development of the Piccadilly Line services will likewise be interwoven.

At first, the Metropolitan District Railway (the 'Metropolitan' is now generally dropped) was occupied with building railways nearer central London, starting from South Kensington, where it was adjacent to the Metropolitan Railway's line. It had a parallel double line between South Kensington and Gloucester Road, later extended to High Street Kensington. On 12 April 1869 it reached West Brompton, although an intermediate station at Earl's Court was not initially included. On 3 July, 1871, a link from High St Kensington<sup>1</sup> to the West Brompton line opened, with a station at Earl's Court opening a few months later, on 30 October. Another line not heading west opened on 1 February 1872. This was the line to Addison Road, which has been featured in recent *Underground News* articles on London's Orbital railways and the various Circle lines.

On 9 September 1874, 'going west' continued when the District reached Hammersmith, building its own station there. This was additional to that of the Hammersmith & City and the adjacent Grove Road station of the London & South Western Railway (LSWR), those having arrived in 1864 and 1869<sup>2</sup> respectively. Of those two, the former plays no further part in this story, but the latter does.

It seems strange to those who have been brought up with maps of the Underground showing the next section of line as part of the system, that the line onward from here for the next few miles (and to Richmond) was built before the District reached Hammersmith, being built by a company which stopped operating the line nearly a hundred years ago! The LSWR built this section as part of its route from London (Waterloo and Ludgate Hill) to Richmond via Battersea, Kensington and Shepherd's Bush. Passing through Grove Road station, their line turned west on to the alignment now used by the District and Piccadilly lines. The District built a short link from their Hammersmith station to this line, then operated trains, effectively supplementing the LSWR trains on this section that veered south at Turnham Green towards Richmond, joining the North & South Western Junction Railway at Gunnersbury<sup>3</sup>. There were also, at different times, Great Western and Metropolitan Railway trains, switching from the Hammersmith and City (H&C) line just north of Hammersmith H&C station to Grove Road station and then on to Richmond. In fact, this section between Hammersmith and Turnham Green was not owned entirely by the District or London Transport until nationalisation took effect on 1 January 1948. However, as if to act as a reminder, British Railways freight trains came along these tracks en route to depots in the Kensington area until 1965<sup>4</sup>.

Arguably, the most interesting part of the Underground west of London is this section between Hammersmith and Acton Town. I must mention a personal preference, being introduced to the area on one of the late John Gillham's Saturday afternoon transport walks<sup>5</sup>.

As explained earlier, this section was opened and still owned by the LSWR when the District arrived. The number of trains operated at the west end of the District was increasing and this was proving to be a problem on the double-track section between Studland Road Junction (just east of Ravenscourt

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<sup>1</sup> So well-known was this station, that it was frequently given as "HIGH ST" as a destination, amongst all the other High Streets in London!

<sup>2</sup> Brief details of this service have been given in issues of *Underground News* in the last year or so.

<sup>3</sup> Gunnersbury was once a five-platform station, the south facing junction being just south of the station. It was reduced to two platform status from 9 May 1932. It became notorious when, on 8 December 1954, a freak wind ('tornado') blew the station canopies off, leaving the station in a sorry state for years.

<sup>4</sup> The LSWR section of track included a triangular connection northward to South Acton. London and North Western and now London Overground trains from north London also reached Richmond using the west side of the triangle. Freight trains came from Brent to serve the depots in Kensington using the north chord. This northbound connection was also briefly used by the Midland Railway's outermost circle from St. Pancras to Mansion House via Cricklewood and Acton between 1879 and 1880, but otherwise not used by passenger trains. Kensington High Street goods yard (as it was known) closed 25 November 1963 and West Kensington goods yard 14 July 1965.

<sup>5</sup> John Gillham's walks were not as well-known as Julia Bradbury's! But they were just as interesting for the transport enthusiast, covering tram, trolleybus and rail modes. One difference from Julia's walks was that the rails were usually still in situ. Perhaps this article can be a little homage to JCG, rightly described as "a legend" and "highly respected" for his encyclopædic transport knowledge.

Park) and Turnham Green where District electric trains had to share with the steam LSWR trains, which they could do, using their running powers. (Ironically, the LSWR became a minor player on the section, as most trains on the line were now those of other companies). The District found this situation unacceptable and so the LSWR built a parallel set of double tracks on the same alignment, to the south of their original double line. The District ceased their use of the LSWR tracks from 3 December 1911. Studland Road Junction then ceased to be a junction. A new station, Stamford Brook, was opened between Ravenscourt Park and Turnham Green on 1 February 1912. As it was served only by the District, a single island platform was built between the two District tracks. A flying junction was built at Turnham Green to keep the Ealing service from crossing the LSWR Richmond line on the level. From 11 December that year, the District introduced an improved timetable. However, there were further ironies. The GWR had withdrawn their trains to Richmond on New Years' Eve 1910<sup>6</sup>. Now the LSWR began to reduce their Richmond service, finally withdrawing it west of Addison Road with effect from 3 June 1916. The LSWR tracks thus became almost redundant and the northern island platforms at Ravenscourt Park and Turnham Green disused<sup>7</sup>. However, as we shall see, all that work was not wasted.

On 1 July 1879, the District opened an extension from a junction with the line to Gunnersbury at Turnham Green. This went as far as Ealing, terminating at what is now called Ealing Broadway. For a short period (1 March 1883 to 30 September 1885), the District ran trains to Windsor that way, by a connection with the GWR at Ealing Broadway (which had been commissioned for 'training' from 12 February 1883). Where the line to Ealing turned northward for a short distance, there was a station called Mill Hill Park. A junction was made there and the District forged its own route westward, opening to Hounslow Town station on 1 May 1883. This terminal station was on a line that was on a south-facing stub, leaving the generally west pointing line just north of the station. The siting of this station was elevated, so as to allow continuation to join the LSWR nearby, but the LSWR was not happy with this possibility.

However, looking further westward, on 21 July 1884, the District opened a junction a few hundred yards north of the (Hounslow) Town station and a single line branch on to Hounslow Barracks (now Hounslow West). Frustrated with the LSWR's disinterest in a connection, the District concentrated on the Hounslow Barracks branch, the Town station closing after a short first life on 31 March 1886. A new station, then called Heston (&) Hounslow (with or without the ampersand) further west, opened the next day. It was later renamed Hounslow Central.

On 1 March 1903, the District re-opened Hounslow Town station. Through trains were at first operated but were divided and recoupled at Osterley. From 1 October 1903 through coaches to Hounslow Town were discontinued and a shuttle service introduced between there and Osterley. From 1 May 1904 the shuttle trains were withdrawn and in their place, trains were run alternately to Hounslow Barracks and Hounslow Town, giving an hourly service to each. Hitherto, of course, all services had been by steam, but a step-change in the operation of the Sub-surface Underground lines occurred in the first few years of the 20th century.



The Ealing & South Harrow Railway was opened from Hanger Lane Junction (with the line to Ealing Broadway), being operated by the District. It has an important part in Underground railway history. Opening on 23 June 1903, it was the first public service of electric trains by the District Railway. This ran between Mill Hill Park and Park Royal, providing a service to the Royal Agricultural Show, which also opened that day. The line was extended to South Harrow five days later on 28 June. The new trains would have been familiar to any New Yorker visiting the Show – although the view from the window would have been somewhat different from the 3rd

<sup>6</sup> The connection between the H&C and LSWR line just north of Grove Road station was lifted in 1914.

<sup>7</sup> Even today, some 100 years after the last LSWR train called there, Turnham Green for example shows much of its LSWR ancestry.

## Avenue 'E' in the Bronx!

**Opposite:** (Lower) Park Royal & Twyford Abbey looking west towards what was then Perivale-Alperton in the early days, taken from the footbridge, which survived long after the station was resited in 1931. A double-ended motor car heads away for South Harrow which was then sufficient for off-peak traffic.

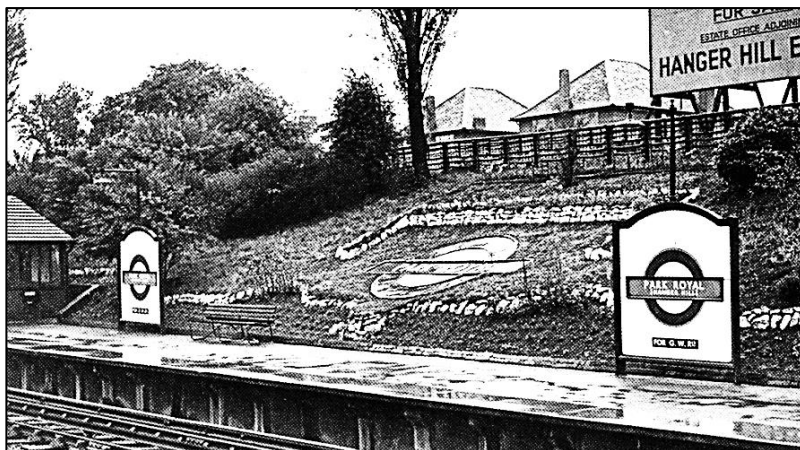
Turnham Green looking west with its LSWR canopies. The right-hand platform fell out of use from June 1916 until resurrected for the Piccadilly Line extensions in 1932.

Photo: Eric Stuart



Although the replacement Park Royal station comprised an iconic station building, it also boasted a station garden on the westbound platform, which incorporated a bullseye sign. Note the suffix 'Hanger Hill' which lasted on some signs well into the 1950s.

Photo: London Transport Museum



Electrification was introduced on the Hounslow line on 13 June 1905 and a new system of operation with it. This was combined with more modern signalling, including automatic signals on the Hounslow line. The direct line from Osterley to Hounslow Barracks between the east and west junctions<sup>8</sup> north of Hounslow Town was closed and trains ran into Hounslow Town and out again, running onto the Barracks by the third side of a triangle to join the east-west line. This format lasted a bit longer, ceasing on 1 May 1909, when the Town station finally closed<sup>9</sup>. The east – west chord came back in to use the next day with a new Hounslow Town station built on it, approximately 300 metres north of the previous Town station.

On 1 August 1905, District electric trains began operation between Turnham Green and Richmond, completing the west end District electrification.

On 22 July 1909, the first Ealing to Southend through train ran – a feature that was to last for just over 30 years. However, this through train was an 'excursion' but paved the way for a timetabled service to Southend to begin from 1 June 1910, extended to serve Shoeburyness from 1 October 1910.

On 10 February 1910, a new flyover was opened west of Mill Hill Park to take Ealing trains over the Hounslow line. Later in the month, Mill Hill Park was enlarged as a four-platform station with three tracks, instead of two of each as before. The District ran through to Uxbridge from 1 March 1910 by an end-on connection at South Harrow with a Metropolitan Railway branch from Rayners Lane.

The line from Lampton Junction westward to Heston-Hounslow station had been single since opening, but was doubled from 24 April 1910, although the line from Kingsley Road Junction, through a new, double track Hounslow Town did not open until 1 November 1912. This station was renamed Hounslow East on 1 December 1925.

On 1 January 1915, the District's only named train, "*The Harrovarian*" commenced running as the 08.15 from South Harrow to Mansion House. However, a rush-hour (but un-named) morning through train had been operating from South Harrow since 19 December 1909.

From then on, the status quo remained, with detailed differences, for about 15 years including the re-siting of Osterley station and the alteration of Hounslow line trains, no longer running to and from South Acton but to other eastern District destinations. Some peak hour District trains began to reverse at Northfields from 4 October 1920.

<sup>8</sup> These were called Lampton Road and Kingsley Road junctions respectively.

<sup>9</sup> The site had a transport future, becoming the London General Omnibus Company's bus garage which later passed to London Transport.



**Left:** Hounslow Town (latterly Hounslow East) opened on 1 November 1912 with rather basic facilities as this view of the westbound platform looking west shows, complete with 'tombstone' signs. The eastbound platform, from where this photo was taken, shows the supports for the 'train ready to start' wires.

**Photo: London Transport Museum**

Until this point, the history of the Hounslow line had largely been a District affair. The District ran services to Richmond, Hounslow, Ealing Broadway and South Harrow.

However, we must now consider a rather different railway: the Great Northern, Piccadilly & Brompton, hereinafter the Piccadilly or 'the Picc'. This is, of course, one of the true 'tube' lines. It came about by the amalgamation of two tube schemes already 'in the pipeline'. At the turn of the 19th/20th century, there were a number of tube lines at various stages of development. Two of these were the Great Northern & Strand<sup>10</sup> (GN&S), and the Brompton & Piccadilly Circus (B&PC): the first leading to the West End from the north and the second feeding in from the west. Essentially, the Piccadilly was these two lines joined at a junction just north of Holborn. The Piccadilly Line itself opened in December 1906.



**Left:** 1959 Tube Stock at Barons Court westbound in the early-1960s which was originally the eastbound District track (with the westbound District unchanged out of the photo to the right). Left is the eastbound Piccadilly (which was previously the westbound Piccadilly) and at far left the eastbound District with a mixed goods train for West Kensington passing. This was originally the eastbound Piccadilly. Until spring 1962, the Piccadilly Line had only 19 trains of 1959 Tube Stock with the remainder on the Central.

The B&PC was closely connected with the District, both coming within the ambit of the Underground Electric Railways group. As the Picc extended westward, it reached the surface at Barons Court in 1906, with a Finsbury Park – Hammersmith service starting on 15 December that year. Over time, further extensions affected the District itself to a considerable extent.

On 28 November 1926 the double track was extended from Heston-Hounslow to Hounslow Barracks, with a three-platform station at the terminus being available from 27 March 1927.

In 1931, much track and other rebuilding took place at Hammersmith to permit the extension of the Piccadilly westward. Major changes also took place west of Hammersmith. As the LSWR lines through Grove Road station were no longer in use, the connecting tracks from Studland Road Junction

<sup>10</sup> The Great Northern, of course, also had a tube connection to the City, the Great Northern & City, both lines starting at Finsbury Park.

northward were lifted. To facilitate the Piccadilly extension, the LSWR lines were used, but the lines were now paired by direction, rather than by company, as before. From north to south, the tracks are District eastbound (EB), Piccadilly eastbound (EB), Piccadilly westbound (WB) and District westbound (WB). Ravenscourt Park and Turnham Green both had island platforms for the WB and EB lines, but none had been provided for the LSWR lines at Stamford Brook, so a platform was built on the north side of the WB District, as Piccadilly trains would not call there. The inner tracks, used by the Picc, became known as the 'fast' lines.



**Above:** The new layout at Hammersmith in June 1931 looking east at an early stage of reconstruction. It shows the new District Line track layout and adjacent platform 1, which has been widened to accommodate the track curve (in the foreground). The remains of (dismantled) platform 2 stand midground centre amidst a pile of debris and line of sleepers. The third platform with tiled canopy stands foreground to background right. At top right can be seen the new signal cabin, which opened the previous month.

**Photo: LT Museum**

**Above:** Taken in the late-1950s, a four-car set of Pre-1938 Tube Stock is in the westbound Piccadilly platform at Hammersmith. The 'light box' indicator also shows 'Non-stop to Acton Town' whereas the one at the far end listed the stations to be non-stopped. **Photo: LURS Collection**



**Above:** Although the District was segregated from the LSWR from 3 December 1911, rendering Studland Road Junction no longer a junction, the remaining tracks only became disused after the withdrawal of the remaining service since 3 June 1916. From this view of Studland Road 'junction' during work on the Piccadilly Line extensions, it appears that some of the tracks remained in situ. What will become the eastbound District is at far left, the eastbound Piccadilly on the right.

**Below:** Looking east at Stamford Brook from the 'new' platform added on 1 February 1912. This is on an occasion of a children's outing to South Harrow on 20 August 1926 which were frequent occurrences on during summer months as well as to Eastcote and Ruislip. Leading is a then still fairly new G class motor car. The abandoned LSWR can be seen to the left, the Up very overgrown but with track still visible in the Down direction.

**Photo: London Transport Museum**



During 1932, the flyover west of Turnham Green was re-built and the tracks in the area progressively altered. The electrified WB line from the District toward Gunnersbury remained, as did the EB line going under the tracks to and from Acton Town (as Mill Hill Park had become), but this now fed into the EB ex-LSWR line. However, the non-electrified EB line went under the lines to Acton Town and led into the EB Piccadilly. This was used by the LMS and later BR freight trains that came via the north curve at Gunnersbury and normally using a loop between the EB Piccadilly and District lines east of Turnham Green, where they could wait if necessary to be slotted into the EB District service as convenient to serve yards in the Kensington area<sup>11</sup>. The four-tracking continued over the rebuilt flyover towards Acton Town.

<sup>11</sup> These trains sometimes used the Piccadilly Line as far as Hammersmith, although a notice was provided near Turnham Green to warn enginemen of the fact that the Piccadilly Line was not their normal route. The steep climb from Hammersmith up to Studland Road junction in the reverse direction had to be tackled robustly by the small loco hauling the return empty wagons, despite the notice requiring a maximum of 5mph. For a time, special signalling arrangements were in force, so that these trains had a clear road to Ravenscourt Park, as a train having to slow or stop on the way might stall, wreaking considerable disruption to the westbound District service.



From 8 February 1932, a partial service of Piccadilly trains commenced between South Acton/Acton Town and South Harrow/Hounslow.

The track layout in the Acton Town area was changed from 14 February 1932, with the line to South Acton being reduced to a single line and the track arranged for the extension of the Piccadilly Line, allowing cross-platform interchange between District and Piccadilly trains, plus a special short platform for the new South Acton shuttle, as longer trains from the west no longer ran through. This one-car train was the first use of One Person Operation on the Underground<sup>12</sup>.

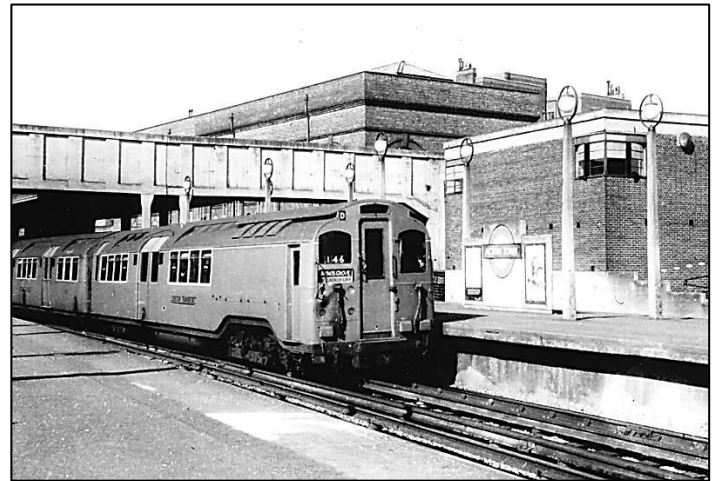
**Left:** The approach to the single line terminus at South Acton taken from the cab of one of the G23 double-ended motor cars.

**Photo: LURS Collection**



Taken from the then new Acton Town signal cabin looking west, with the double-ended B Stock motor car in the short platform 5. Two G Stock motor cars, each double-ended, replaced this car in 1941, one for service and one as a spare.

**Photo: London Transport Museum**



With the signal cabin in the right background and the substation to the left of that, an eastbound Piccadilly Line train is in platform 3 at Acton Town with a 1931/34 motor car leading. The motorman's window wiper seems to be as delivered and hand-worked.

**Photo: LURS Collection**

Between Acton Town and Northfields, the line is four-tracked. Piccadilly Line trains normally used the middle two, the outer tracks being used for the District Line and special workings.

Further developments of the Piccadilly service, with concomitant changes to the District, were as follows:

- From 15 February 1932, the South Harrow service became a shuttle from Acton Town.
- Trial running of Piccadilly trains between Hammersmith and South Harrow started on 27 June, with full service starting on 4 July.
- On 6 January 1933, the Piccadilly service was extended to Northfields and on 13 March through to Hounslow West.
- On 23 October 1933, District trains to Uxbridge were replaced by Piccadilly Line trains.

<sup>12</sup> Then called One-Man-Operation (OMO). The Victoria Line opened with OMO in 1968/69 but it was to be March 1984 before OMO/OPO was introduced on the Underground on non-ATO lines – and took a further 16 years to complete.



- From 29 March 1935, District Line trains ran to Hounslow only in the peaks and this only ceased on 9 October 1964. Also, Picc trains commenced calling at South Ealing and Boston Manor from 29 March 1935.

Looking east from the westbound platform at Boston Manor before being served by the Piccadilly Line from 1933. A two-car train of B Stock is seen berthed, operating one of the west end shuttles. To accommodate the Piccadilly Line and the new Northfields depot, access would be provided beyond the fence on the right and the station building at street level at top right 'would have to go'.



Osterley & Spring Grove MDR station in December 1930, looking west. The wooden canopies with glazed roof sections can be seen. Both platforms have glazed screens at right angles to the platform walls to act as draught excluders. 'Tombstone'-style bullseyes are on the left-hand platform. This station was replaced by a new Osterley station (without suffix) on the Great West Road, a short distance to the west.



**Above:** Two view of the original Osterley & Spring Grove station in December 1930 from the west end of the platforms looking east. Short wooden canopies on both platforms provide some shelter for waiting passengers. The street-level building is visible at the far end, much of which remains in use today but not for railway purposes.

#### All photos: London Transport Museum

From 11 December 1935, a limited number of Piccadilly Line trains that had hitherto reversed at South Harrow were extended to Rayners Lane. The number of these trains was gradually increased over the years but daytime South Harrow reversers continued in limited form in rush hours until finally eliminated in June 1961.

From 25 March 1934, Osterley & Spring Grove station<sup>13</sup> was closed, being replaced by a new Osterley station, although much of the original station exists to intrigue passengers unaware of the history (q.v.). One aspect of Underground working that is almost forgotten nowadays is the practice of not stopping at certain stations by certain trains on certain lines<sup>14</sup>. This was a regular feature, not just in emergency, or because a station shut on certain days or at certain times. The aim was to speed up certain trains,

<sup>13</sup> This earlier station seems to have also been known as Osterley for Spring Grove, Osterley Park & Spring Grove and just Osterley! Osterley was the station for one of London Transport's erstwhile sports grounds.

<sup>14</sup> On the Underground, this was announced on trains by a board on the front of trains stating 'NON STOP', sometimes supplemented by boards on the sides of the trains stating which stations were omitted. 'Next Train' indicators at stations also gave this information. This practice is more accurately called 'Skip Stopping' on other railways.

but one wonders if this tended to be psychological as far as passengers were concerned! In one or two cases, this system was aided by supplementary tracks, allowing non-stopping trains to overtake stopping ones (e.g. Brent (Cross) on the Northern Line and Gloucester Road and South Kensington, District Line), but mainly the effect was restricted by the tendency of a 'Non Stop' trains to catch up the train in front on two-track sections and non-stopping demanded strict adherence to timetabling, especially when headways are reduced to a minimum. There is, of course, a saving on wear and tear and power as trains should slow and start less frequently.

Non-stopping was common on the District and was introduced on the Piccadilly line on 11 October 1909 but, at stations east of Hammersmith, finally ceased as from 7 February 1947<sup>15</sup> at Piccadilly Line stations. True non-stopping now only features on the Metropolitan Line at some surface stations, where separate tracks are available for travel in the same direction. However, west of Hammersmith, Piccadilly Line trains non-stopped stations between Hammersmith and Acton Town as a normal practice, where District trains formed the stopping function, a practice which remains today. In emergency situations, Piccadilly Line trains could call at those stations where there were platforms for them, such as Ravenscourt Park and Turnham Green and also Stamford Brook (westbound only).



**Left:** Chiswick Park station looking east on 19 April 1932. The new concrete platform for the eastbound District Line is on left and on the right the unfinished platform for what will be for the westbound District Line. The wooden platform in the middle of the photo is still in use for westbound District trains. Note the various stopping marks on the track – these could vary from '1' to '8' at that time. Just one month later, the new platform on the right would be in use.

**Photo: LT Museum**



**Left:** A mixed six-car train of Q Stock departs Chiswick Park eastbound on 8 June 1951. Of interest here is that the rear motor car is Q31 (former L class) motor car 4378. All Q31 and Q35 motor cars were converted to trailers between 1947 and 1956, the Q Stock motor car fleet afterwards comprising Q23 (ex-G), Q27 (ex-K) and Q38.

**Photo: John Gillham**

From 18 June 1962, Piccadilly Line trains called at all District Line stations west of Hammersmith after 23.30 on Mondays to Fridays and after midnight on Saturdays. A year later Piccadilly Line trains were booked to stop at Turnham Green throughout Sundays. From October 1964 late-night services were further altered to run via fast lines between Hammersmith and Acton Town, but to call additionally at Turnham Green after 23.00 Mondays to Fridays and 24.00 Saturdays. Even today, after variations, the station is served by the Piccadilly Line only early and late in the day.

Incidentally, the section of line west of West Kensington was among the last on the District and Piccadilly lines to be converted from semaphore to colour-light signalling<sup>16</sup>. Those converted on 22 November 1953 at Hanger Lane Junction were the last genuine LT semaphore signals.

<sup>15</sup> Off-peak non-stopping east of Hammersmith was much reduced from 16 December 1940.

<sup>16</sup> This comment excludes sections of British Railways lines over which the District ran.

Passenger operation of doors of some trains at stations west of Earl's Court (except Hammersmith and Acton Town) was introduced on the District Line from 6 June 1955. This was restricted to six-car Q Stock trains, but from 7 May 1956 it was introduced on all R Stock and eight-car Q Stock train formations. It was operative west of Earl's Court (except Hammersmith and Acton Town) and east of Bow Road.

After traffic on 9 October 1964 saw a number of changes on the District Line:

- Services to Hounslow finally ceased.
- All non-stopping on the District was discontinued, together with the 'fast roads', which had allowed overtaking, between Gloucester Road and South Kensington, inclusive.

Following the withdrawal of freight trains to the yards in Kensington in the mid-1960s, the goods connections in the Turnham Green area were de-commissioned on 26 September 1965.

The next step-change for the Hounslow line of the Piccadilly was, of course, the extension to Heathrow Airport – or "Fly the Tube" as the publicity advocated.

West of Hammersmith, the Piccadilly Line had been built at ground level or above until it reached Hounslow. Physically, there was an impediment, in that Hounslow West (*née* Barracks) was a terminal station at surface level. Presumably a level crossing was inconceivable(!), so it was necessary for this arrangement to be replaced by platforms at a lower level, so that the line could continue sub-surface to the airport.

A rail connection at Hounslow West to the new line was available from 29 September 1974, allowing Engineers' trains to enter the site. The first stage of the Airport extension was built (unusually for a 'tube' line) partly in a trench and partly in a tunnel containing a double-track line until reaching the tunnel station at Hatton Cross. The station comprised an island platform with a facing and trailing crossover at the eastern end, allowing the service to be reversed there.

The new signalling was commissioned from 14 July 1975 and trains ran into the new sub-surface platforms at Hounslow West, running empty between there and Hatton Cross until the extension opened to passengers on 19 July. A shuttle bus service connected with the Airport Terminals<sup>17</sup>, but, as the station was close to many airport facilities and other commercial premises, it had a significant passenger traffic base of its own, apart from air passengers. A detector was fitted above the tracks approaching Hounslow West, in case surface stock attempted to access the extension.

Reversing facilities were no longer provided at Hounslow West, although in emergency, trains could (and still do) reverse at Hounslow Central.

The next segment of the route was built as two single-track tube tunnels to Heathrow Central, as it was initially named. On 28 October 1975, a rail connection was made at Hatton Cross to the extension and the extension opened to passengers on 16 December 1977. Again, the layout was an island platform with scissors crossover at the east end. The reversing facility at Hatton Cross was retained, so that trains could reverse there in the event of some emergency at the Airport.

The airport continued to develop and the Piccadilly Line along with it.

The next extension was to serve Terminal 4, which opened on 12 April 1986 (trains had been running via the loop and non-stopping T4 since 7 April). Yet another variation was used for this. One single-track tube tunnel was built heading in a loop southwards and then eastwards, entering Heathrow Central from the west, the line dividing to serve both platforms. The general practice was for all trains to leave Hatton Cross and traverse the loop, pausing at the new Heathrow terminal 4 station, which was a single platform underground station (which had to be built in a 'box'). On arrival at Heathrow Terminals 1, 2 & 3 (as Heathrow Central was renamed), trains would lay over there, with a train departing as one arrived, so there was normally a train waiting in a platform to take passengers to central London. This also allowed crews a short 'relief' and helped smooth out any service perturbations. A small number of late evening trains ran directly from Hatton Cross to Heathrow T123 for crew 'road' knowledge and to keep the equipment in working order, otherwise the westbound line from Hatton Cross to Heathrow T123 was unused.

<sup>17</sup> To promote Heathrow Airport, London Transport had introduced an express bus service, route A1 between Hounslow West and the Airport from 23 August 1969 and continued until 16 December 1977 when the Piccadilly Line reached Heathrow Central.



Above: The old terminus at Hounslow West with a Piccadilly Line train of 1959 Tube Stock arriving. By this time the third platform had been decommissioned to make way for the forthcoming Heathrow extension, the civils work for which can be seen to the left of the train.

**Photo: LURS Collection**

The extension to Terminal 5 was opened on 27 March 2008, along with the new air terminal itself. Once again, an island platform was provided. The layout was similar to that previously provided at Hatton Cross and Heathrow Central, but a scissors crossover was located west of the station. This meant that all westbound trains had to detrain and proceed to one of two sidings to reverse and then return eastbound to the opposite platform. By this way, passenger flows (exit and entry) were kept separate.

In 2015, the station first known as Heathrow Central had another name change, as Terminal 1 was closed and so it was renamed Heathrow Terminals 2 & 3 (although the re-naming is slow in being applied – the cost of renaming, not only at the station, but at other Piccadilly Line stations, is said to be the stumbling block for the slow progress).

The service at the time of writing is that half the Airport trains run via the Terminal 4 loop, with a pause at Terminal 4, not serving Terminal 5 whilst the other half reverse at Terminal 5, with all trains thus serving Terminals 2 & 3 in the eastbound direction. Six other trains per hour go to Rayners Lane with three per hour continuing to Uxbridge. The Terminal 5 service will become part of the Night Tube when it finally starts – with no date yet known for the Picc. as this issue closed for press.

### **TERMINAL 5 – “THE FINAL FRONTIER”?**

- The proximity of Crossrail will probably make a simple extension into the further suburbs unnecessary.
- Presumably the line's facilities would change to accord with any further developments at the airport – something under governmental review and the cause of much strong feeling!
- Park Royal station is on the edge of possible developments in the Old Oak area and may be affected by that development.

My personal view is that the Piccadilly should be diverted to Ealing Broadway, *vice* Rayners Lane/Uxbridge. Why? The advantages would be that there would be no problems with incompatible signalling or platform heights on the Rayners Lane/Uxbridge section. Also, if airport Piccadilly Line passengers get on the wrong train and end up at Uxbridge, there is a problem; whereas, if they end up at Ealing Broadway, there is a direct connection available there to Heathrow.

With new signalling and trains, together with the promised considerable increase in carrying capacity, the future should be interesting, although funding is currently in question.

## ROLLING STOCK

### DISTRICT

The lines were first served by the Metropolitan District Railway steam trains consisting of their 4-4-0 tank locomotives and 4-wheeled coaches, except that the LSWR were first on the section just west of Hammersmith and the GWR and Metropolitan Railways later also served this section and those companies used their own rolling stock.

As stated above, the Ealing and South Harrow section was the first to be served by the District's electric trains: firstly, with what became the A Stock and then by the successive stocks introduced on the District over the years including the F Stock ('Tanks) and the modernisation of older stock into the 'Q' stock.

The 'Silver' era came early on the District, as later R Stock cars were aluminium and some of them were left unpainted. The red R Stock cars, both steel and red-painted aluminium, were painted a *faux* silver/grey to match between 1963 and 1968, also then making an easy distinction between them and the flare-sided CO/CP and the flare-sided Q38 Stocks.

The 1938-built and later District trains then contrasted with the older Pre-1938 Tube Stock on the Piccadilly Line.

One feature of operation, now also often forgotten, is the fact that District trains were, for many years, either 6- or 8-cars – many 6-car trains having a 2-car unit added for peak-hour service. From 4 October 1971, a standard length of 7-cars was introduced, except for trains working between High Street Kensington and Edgware Road, which remained 6-cars only.

The next stage was the introduction of the C Stock. These trains (C69) were introduced on the Hammersmith & City and Circle lines. Being found successful, a further series (C77) were ordered for the Edgware Road – Wimbledon service, although the two variants were not kept separate. The C Stock also visited all other District destinations on occasion (but empty east of Barking).

From 26 March 1972, all CO/CP stock trains were turned round, so that the 'A' ends faced west – a procedure that was completed within three months.

The stock that worked most trains and became especially associated with the line is the D or D78 stock.

Finally, of course, we come to the present, with the 7-car variant of the standard sub-surface stock, with all longitudinal seating, the S7 stock. With the withdrawal of the C Stock completed, and of the D Stock under way<sup>18</sup>, they will soon be in full control of all sub-surface lines.

### PICCADILLY

The earlier stock used on the Piccadilly is not involved in this article, as the last Piccadilly Line 'Gate Stock' ran in June 1929. From then on, for many years, the service was provided by the trains known as 'Standard' or Pre-1938 Tube Stock (with 15 trains of 1938 Tube Stock from 1952).

On 9 September 1957, the 'Silver' train era finally arrived on the Piccadilly Line, in the form of the three trains of 1956 Prototype Tube Stock, to be followed by the production 1959 Tube Stock. The last of the remaining Standard Stock was withdrawn from the Piccadilly main line in June 1964 followed by the Aldwych branch the following month.

On 19 July 1975 the first of the new 1973 Tube Stock entered service on a special working for the opening of the Hatton Cross extension. Normal operation began from 18 August 1975. Over a period of four years they took over all services and have worked the entire line, with refurbishments, ever since.

## SUMMARY OF PICCADILLY LINE WESTERN EXTENSIONS PRINCIPLE ALTERATIONS

### SOUTH HARROW BRANCH

19.06.32 Final track and signal arrangements commissioned at South Harrow. New No.12 facing crossover 300ft west of station commissioned and new sidings east of station commissioned.

<sup>18</sup> One issue currently causing great interest is the possible introduction on the National Rail system of diesel powered conversions of the D Stock on regional lines.

- 07.08.32 Resignalling South Harrow. New style Calling-on disc signal introduced which will become the future standard in open sections.
- 01.10.32 Resignalling South Harrow – Sudbury Town eastbound.
- 16.10.32 Resignalling Sudbury Town – Alperton eastbound.
- 23.10.32 Resignalling Alperton – Park Royal eastbound.
- 30.10.32 Resignalling Park Royal – North Ealing eastbound.
- 13.11.32 Resignalling North Ealing – Park Royal westbound.
- 20.11.32 Resignalling Park Royal – Alperton westbound.
- 27.11.32 Resignalling Alperton – Sudbury Town westbound.
- 04.12.32 Resignalling Sudbury Town – Sudbury Hill westbound.
- 11.12.32 Resignalling Sudbury Hill – South Harrow westbound.

### **NORTHFIELDS / HOUNSLOW BRANCH**

- 29.03.31 Facing connection to new sidings provided 850ft west of Northfields station.
- 29.02.32 Partial electrification of new Northfields depot.
- 21.04.32 Eastbound road east of Northfields diverted onto new alignment north of the new eastbound island platform.
- 05.05.32 Westbound road diverted on new alignment on south side of the new eastbound island platform at Northfields.
- 19.05.32 New station at Northfields opened but with temporary facilities. Old station closed and demolished.
- 11.09.32
  - New signal cabin commissioned at Northfields and old District Railway box closed.
  - Existing depot connections at Northfields replaced by new connections.
  - Present eastbound District diverted to north side of the future westbound island platform, from 1,000ft west of Northfields to 500ft east of Northfields. Future LER crossover east of Northfields secured for through running for temporary District eastbound line.
  - Westbound District road between Acton Town flyover and east of Boston Manor in use.
- 18.12.32 Final arrangement of tracks Acton Town – Boston Manor:
  - Emergency trailing crossover commissioned on LER lines east of Northfields station.
  - Three new sidings (Nos.7/8/9) commissioned west of station.
  - Depot connection west of Boston Manor to be commissioned later.
- 26.02.33 West end of Northfields depot commissioned.
- 05.03.33 Resignalling Boston Manor – Osterley both roads.
- 12.03.33 Resignalling Hounslow East – Osterley eastbound.
- 02.07.33 Resignalling Osterley – Hounslow East westbound.
- 09.07.33 Resignalling Hounslow East – Hounslow West westbound.
- 15.07.33 Resignalling Hounslow West – Hounslow east eastbound.
- 06.08.33 Final signalling arrangements for working of trains into and out of Northfields depot east end.
- 26.11.33 Resignalling Osterley eastbound in connection with provision of new station.
- 03.12.33 Resignalling Osterley westbound in connection with provision of new station.

### **ACTON TOWN**

- 06.09.31 Westbound platform Acton Town out of commission. All trains to use middle platform and all eastbound trains to use eastbound platform.
- 05.10.31 Approx. 250ft of depot road from Acton Town out of use and trains to/from depot to enter or leave via the fan west of No.4 ground frame points. Ground frame signal No.2 abolished.
- 13.12.31 Tack and signalling alterations Acton Town:
  - Westbound road slewed 50ft southwards between 1,600ft and 600ft west of Acton Town.
  - All westbound trains to use the south side of the south island.
  - No connection from new westbound to the new eastbound (existing middle road).
  - Existing No.1 siding slewed 20ft southwards and new connection installed between new No.1 siding and new westbound road.

- All signalling east of station on westbound road out of use and replaced by new signalling.
- 24.01.32 New signal cabin opened at Acton Town and westbound line diverted onto new alignment from Chiswick Park to adjacent to Acton Works.
- 25.01.32 New section of track commissioned north of disused eastbound road at Acton Town for trains to and from Ealing Common depot only.
- 14.02.32 Revised layout for access to/from Acton Works. South Acton branch becomes single line and South Acton cabin closed.
- 28.02.32 Acton Town signalling alterations:
- No.75 crossover west of station commissioned.
  - Disused eastbound line commissioned for passenger service.
  - Crossovers between eastbound and middle road at east end of station removed.
  - East sidings 1/2/3 on temporary alignment.
- 06.03.32 New connection commissioned between eastbound main line and 1/2/3 sidings at east end of Acton Town station.
- 24.04.32 Crossover between South Acton branch and eastbound District converted to a slip connection between the South Acton branch and future LER eastbound line.
- 01.05.32 Acton Town signalling alterations:
- New crossover between 2/3 roads at west end of Acton Town commissioned for eastbound trains from Hounslow to No.3 platform.
  - New No.68 crossover between eastbound LER and eastbound District commissioned with a slip connection to the South Acton branch.
  - Eastbound line from Ealing diverted on new alignment (using present Ealing Common Depot No.20 road) from 350ft east of Ealing Common to immediately west of Acton Town connecting to platform No.4 at Acton Town.
- 02.05.32 Connections at east end of Ealing Common depot re-laid and the eastbound line from Ealing connected through No.71 crossover to No.3 platform at Acton Town.
- 29.05.32 Whole of final track layout west of Acton Town commissioned, except for centre siding and District eastbound line from Hounslow.
- 19.06.32 New road Acton Town from westbound LER towards Ealing Common commissioned.
- 24.12.33 Tripcock testers commissioned at Acton Town platforms 1-4.

## **TURNHAM GREEN AREA**

- 02.06.31 Signal Engineer's Department took over the mechanical frame at Turnham Green from the Southern Railway.
- 25.06.31 Eastbound District from Acton Lane to Turnham Green disconnected at Acton Lane Junction and eastbound trains from Richmond to use eastbound coal road which has been electrified. New crossover installed between eastbound coal road and eastbound District west of Turnham Green
- 20.09.31 New eastbound platform commissioned Chiswick Park. Eastbound track slewed to the left from east of bridge No.68 (over the LMS line) to east of bridge No.70 (east of Acton Lane) bringing into use new spans of bridge No.69 (over Bollo Lane) and bridge No.70.
- 01.11.31 New locking frame commissioned at Turnham Green.
- 15.11.31 Westbound track diverted to serve temporary platform at Chiswick Park about 30ft north of the original platform road.
- 17.01.32 Eastbound track east of Acton Town to Chiswick Park slewed to new alignment on north side of existing line.
- 10.04.32 Eastbound District Chiswick Park – Turnham Green diverted onto final alignment 50ft north of present alignment. Connection between Acton Lane East Junction and eastbound District Line recommissioned for use by all eastbound District Line trains from Richmond. Eastbound goods line from Acton Lane Junction to connect only with present platform track at Turnham Green, the connection to the north side of northern island removed. Abolition of current rails on eastbound goods line.

- 14.04.32 New train starting device commissioned Turnham Green eastbound in new platform (old apparatus decommissioned end of traffic 09.04.32).
- 15.05.32 Westbound District Railway Chiswick Park – Acton Town diverted to its final alignment.
- 12.06.32 Trailing points Turnham Green Junction on eastbound District where Ealing and Richmond branches converge converted to 'loose' points.
- 19.06.32 New road Acton Town from westbound LER towards Ealing Common commissioned. New LER siding between EB and WB LER roads commissioned at Hammersmith. New signalling commissioned Stamford Brook – Hammersmith EB District.
- 31.01.33 Eastbound District realigned west of Turnham Green.
- 29.01.33 Eastbound LER line realigned west of Turnham Green.

## HAMMERSMITH AREA

- 03.05.31 New signal cabin commissioned at Hammersmith (D&P). Box in retaining wall on south side of line. No alterations to signalling or track layout at this time.
- 26.05.31 Westbound Piccadilly Line platform at Hammersmith decommissioned.
- 28.05.31 No.17 trailing crossover between WB and EB DR east of Hammersmith decommissioned.
- 31.05.31 District eastbound diverted at Hammersmith into a position occupied by the westbound Piccadilly Line track.
- 28.06.31 Westbound loop road at Hammersmith out of commission and all westbound DR trains to use new westbound line.
- 25.10.31 Eastbound District track slewed to the north side of the westbound island platform at Hammersmith.
- 09.11.31 Remaining Piccadilly Line platform at Hammersmith out of use and trains to use a new platform road on the south side of the northern island platform.
- 14.02.32 District dead-end siding abolished at Hammersmith with signals WD13 and WD34<sup>A</sup> decommissioned.
- 06.03.32 Piccadilly Line siding at Hammersmith abolished.
- 20.03.32 Eastbound road slewed 20ft northwards for 2,000ft from Hammersmith station eastwards.
- 21.03.32 Westbound road slewed 20ft northwards for 2,000ft from Hammersmith station eastwards and new trailing crossover installed 140ft east of station to re-enable reversing of Piccadilly Line trains in both platforms restored.
- 10.04.32 District Railway siding east of Hammersmith on westbound side abolished.
- 17.04.32 Westbound District slewed 20ft southwards between Barons Court and Hammersmith. Crossover between east- and westbound District roads abolished.
- 29.04.32 Trailing crossover No.17 commissioned east end of Hammersmith between District roads.
- 22.05.32 Nos.1 & 2 sidings out of commission at Barons Court and crossover between east- and westbound Piccadilly Line out of use. New siding between existing eastbound DR and westbound Piccadilly Line commissioned and used as a through road for trains in both directions between Hammersmith and Lillie Bridge depot.
- 05.06.32 Signalling alterations Turnham Green – Hammersmith:
- Eastbound District diverted in its final alignment between Turnham Green and West Kensington.
  - Piccadilly lines east of Barons Court broken and reconnected to the existing centre lines between Barons Court and Hammersmith.
  - The existing eastbound DR between Hammersmith and Barons Court to become the final westbound Piccadilly.
  - Temporary 750ft-long sidings provided west of platforms 2 and 3 for stabling trains.
  - Existing westbound Piccadilly between Barons Court and Hammersmith becomes the final eastbound Piccadilly Line.
  - Platforms at Hammersmith renumbered 1 (WB DR), 2 (WB LER), 3 (EB LER), 4 (EB DR).
  - Surface Stock train detector commissioned on eastbound Piccadilly Line west of Barons Court and centre siding just east of Hammersmith commissioned.
  - Existing eastbound road for coal trains at Turnham Green broken and connected to the final alignment through the eastbound Piccadilly.
  - New coal train siding east of Turnham Green commissioned.



- 10.06.32 New train starting device commissioned Barons Court eastbound DR.  
 10.06.32 "Rear cab clear" sign and plunger commissioned platform 2 at Hammersmith for reversing Piccadilly Line trains.  
 12.06.32 Existing westbound District track between West Kensington and Barons Court connected to old District eastbound line.  
 10.07.32 East- and westbound District sidings east of Barons Court and crossover between LER roads east of station commissioned.  
 07.08.32 West Kensington station crossover relocated to the west end of station.  
 09.10.32 Trap points abolished west end of Hammersmith siding and replaced by a sand drag.  
 26.05.33 Two sets of catch points installed on westbound District west of Hammersmith, one 200ft west of Hammersmith platform and second on gradient east of Leamore Street bridge. This obviates the need for the Hammersmith signalman from maintaining starting signal WD41 at danger until a westbound goods or ballast train had cleared the top of the bank.

### SUMMARY OF STATIONS RENAMED

CURRENT NAME	DATE(S) OF CHANGE	PREVIOUS NAME(S)
<b>Acton Town</b>	1 March 1910	Mill Hill Park
<b>Alperton</b>	7 October 1910	Perivale – Alperton
<b>Boston Manor</b>	11 December 1911	Boston Road
<b>Chiswick Park</b>	1 March 1910	Opened as Acton Green. Renamed Chiswick Park & Acton Green March 1887.
<b>Ealing Common</b>	1 March 1910	Opened as Ealing Common. Renamed Ealing Common & West Acton in 1888. Later reverted to Ealing Common.
<b>Heathrow Terminals 2 &amp; 3</b>	January 2016 (although resigning is only slowly being applied)	Opened as Heathrow Central. Renamed 'Heathrow Central Terminals 1, 2 & 3' on 3 September 1983, and 'Heathrow Terminals 1, 2 & 3' 12 April 1986.
<b>Hounslow West</b>	1 December 1925	Hounslow Barracks.
<b>Hounslow Central</b>	1 December 1925	Heston-Hounslow.
<b>Hounslow East</b>	1st December 1925	Hounslow Town (second station of that name).
<b>Northfields</b>	19 May 1932 with station re-sited.	Opened as Northfield (Ealing). Renamed Northfields & Little Ealing 11 December 1911.
<b>Osterley Park Royal</b>	24 March 1934 and station re-sited. 1947 (see note, right).	Osterley & Spring Grove. Replaced original Park Royal MDR station which was renamed Park Royal & Twyford Abbey 1 May 1904. Station resited 6 July 1931 as 'Park Royal'. Renamed Park Royal (Hanger Hill) 1 March 1936. Suffix officially dropped from 1947.
<b>Ravenscourt Park</b>	1 March 1888	Shaftsbury Road.
<b>Turnham Green</b>	No date (see note, right).	"(Bedford Park)" suffix added from 1892 but subsequently dropped.
<b>West Kensington</b>	1 March 1877	North End (Fulham).