

SYSTEMS FACTFILE

No. 189 West Midlands
Metro, UK

Restricted to the as-opened route for 15 years, this system's potential as a much-needed service for central England's biggest urban area is now being delivered.



West Midlands has two main British interpretations. The elder refers to urban and rural communities across historic counties including Warwickshire, Worcestershire and Staffordshire. The newer and officially defined West Midlands dates from 1974. Rather than being sprawls from Birmingham, Wolverhampton and Coventry, this metropolitan county with a population approaching 2.7 million is an agglomeration of those cities and many distinct towns. A new West Midlands authority incorporated the West Midlands Passenger Transport Executive (WMPTE) dating from 1969 as a coordinating and promotional body. WMPTE adopted a

▲ **CAF Urbos 100 48 descends from the crest of Corporation Street towards Grand Central on 18 April 2023. One of Birmingham's many fine buildings, the neglected Methodist Central Hall dominates the background.**

Words and pictures
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now-defunct Centro brand, mainly covering bus services and local rail services on the national rail network. Birmingham has central and suburban railway coverage notably on the north-south Cross-City Line and through Snow Hill/Moor Street stations. Yet overall the West Midlands still lacks the level of fixed-link coverage that is commonplace in Europe's conurbations.

Within that context, the double-track, low-platform 1435mm gauge called Midland Metro (stock badged 'The Metro') was developed. Long after the area's many tramways had closed – Birmingham being the last in 1953 – the new system opened on 30 May 1999. Despite the title, it

is not a metro, being identified by the present owners as "the region's tram service". It began as a 20km (12.5-mile) connection between Birmingham and Wolverhampton.

Much used an alignment which once included the northern end of Great Western Railway 7ft ¼-in (2140mm) gauge operations, abandoned here by 1869 in favour of standard (1435mm) gauge. With British Rail ending passenger services in 1972 and freight use over by 1992, redeployment for light rail became possible.

Main line trains returned in 1995 over twin tracks between the rebuilt stations, Birmingham Snow Hill and The Hawthorns. Now an imposing structure with linked tram and train platforms, the latter had been a match-day halt for the nearby West

THE FLEET

The two fully low-floor CAF *Urbos* versions are longer and more capacious than the *T69*. Stock is bi-directional and runs as single units. Both types are 2.65 metres wide, with five sections over 33 metres. Delivered 2013-2015, *Urbos 3* (17-37) have capacity for 208, including 52 seated and designated wheelchair areas. An GBP83.5 million (EUR96m) order

for 21 *Urbos 100* (38-58) was placed in 2019, with the first received in May 2021 and deliveries continuing into 2023.

The deal included an option for 29 more, also technical support for 30 years. The types are similar: differences include *Urbos 3* having a more prominent fairing around the roof batteries and a high-level light on cab ends. *Urbos 100* has

prominent surveillance equipment inside the main cab window and a different configuration of fleet number and logo.

The practice of naming trams after significant local figures begun with the *T69* is continued on *Urbos* trams. Most stock has the blue livery, although some advertising panels and full wraps (apart from cab ends) have appeared.



▲ ABOVE: The last *Urbos 3* (37) and first *Urbos 100* (38) cross at St Paul's. The deviation from the original route into Birmingham Snow Hill (right) is clear, with Metro tracks now gaining street level between the station and the office towers.

➤ RIGHT: The railway origins of the initial route are apparent at Lodge Road West Bromwich Town Hall, with the deep cutting needing lift and stair access.



Bromwich Albion football stadium. As a legacy of the wide alignment, Metro used separate tracks between those stations. The modes diverge at The Hawthorns, with light rail only towards Wolverhampton. Metro became a viable local service by adding stops to supplement those which had replaced railway stations.

Accessibility was increased by installing paths to housing and commercial areas, with lift access for in-cutting sites such as Bilston and Lodge Road. About 2km (1.2 miles) west of Priestfield stop did not use the old railway, mainly set on the A41 Bilston Road to approach Wolverhampton St George's terminus, sited near the main shopping area.

The first substantial change came in October 2015. Trams stopped using Snow Hill terminus, with replacement track diverging east of St Paul's. This gave street access by way of St Chads (replacing the Snow Hill name in January 2017) and Bull Street. Both serve a modern office district, with Bull Street the most convenient stop for Snow Hill station. No longer just another corridor for local journeys between Wolverhampton and Birmingham – a faster railway service between the two exists – the potential as a much-needed regional provision was clear. By May 2016, an extension along shop-lined Corporation Street took trams to Grand Central, a retail complex bordering Stephenson Street and sited above Birmingham New Street. Although buildings can mask the city's hilly setting, significant gradients are evident in both directions from Grand Central.

The original vehicles, Ansaldo Trasporti *T69* (01-16), proved unreliable and were judged to have no future on the system. They were mainly withdrawn from 2014, with tram 16 the last to go during August 2015. The *T69* overlapped with CAF *Urbos 3* built in Zaragoza, Spain, which entered service in September 2014.

The depot adjoins Wednesbury Great Western Street stop, with tram access from near Wednesbury Parkway. The new stock represented a considerable service improvement, but structural faults led to partial and total service suspensions in 2021-22. A continuing programme of remedial work and new deliveries enabled service restorations.

Day-to-day operations and the system's future role followed local government changes. Created in 2016, West Midlands Combined Authority (WMCA) assumed transport responsibilities exercised through their Transport for West Midlands (TfWM) arm. Between 1999 and 2018, Metro operations were contracted to the National Express company which was and remains the area's principal bus operator. TfWM opted to run the Metro directly however, constituting



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Midland Metro Ltd for that purpose in 2017. Tram liveries changed from 2018, with pink, white and silver being replaced by two shades of blue.

The system was renamed West Midlands Metro, with a Network West Midlands symbol replaced by a blue TfWM diamond logo variant. Each mode has a colour, as with orange for trains and red for buses. In a similar role to MPT during Manchester Metrolink’s growth, Midland Metro Alliance (<https://metroalliance.co.uk>) was created in 2016 to deliver system improvement and expansion. It is a consortium of design, engineering and project management companies working with WMCA.

The first 840-metre phase of the 1.35km (0.8-mile) mainly road-based Birmingham Westside extension from Grand Central opened in December 2019, the first modern UK use of wire-free trams. This was enabled by retrofitting Urbos 3 vehicles with roof-mounted traction batteries, with the extension combining wired and wire-free supply. Running past the Town Hall to a temporary terminus at Library, the system became prominent amongst Birmingham’s civic institutions. The second phase opened in July 2022, adding contrasting

➤ **RIGHT: Retrofitted with roof-top traction batteries, tram 19 is on Bull Street on 20 January 2020. The temporary livery commemorated the system’s 20th anniversary.**



➤ **RIGHT: Despite the shown destination, tram 47 heads towards Birmingham from West Bromwich Central, a busy stop handling demand from nearby shops and a college.**



▼ Edgbaston Village opened in July 2022, as the terminus of Birmingham Westside extension's second phase. Overhead supply here recharges batteries used on wire-free parts of this extension.



“The second phase opened in July 2022, adding contrasting surroundings along the ‘Golden Mile’ entertainment district.”

◀ LEFT: An Alexander Dennis Enviro 400 MMC of former Metro National Express emerges from Five Ways underpass, now restricted to tram and bus use.

NETWORK FACTS

- ▶ **Opened:** May 1999
- ▶ **Lines:** 1
- ▶ **Depots:** 1
- ▶ **Weekday hours (full route):** 05.15-23.30
- ▶ **Main frequency:** 10 minutes
- ▶ **Gauge:** 1435mm
- ▶ **Power:** 750V dc overhead supply + stored energy
- ▶ **Fleet:** 42 (delivered and ordered)
- ▶ **Operator:** Midland Metro Ltd (MML)
- ▶ **Service information:** <https://westmidlandsmetro.com>
- ▶ **Regional network:** Transport for West Midlands www.tfwm.org.uk
- ▶ **Civic information:** West Midlands Combined Authority www.wmca.org.uk
- ▶ **Visitor information:** <https://visitbirmingham.com> and <https://win.wolverhampton.gov.uk>



▲ ABOVE: The depot is between Wednesbury Great Western Street and Wednesbury Parkway. Works for expansion and direct track access to the Dudley extension began in early 2023.



▲ ABOVE: Awaiting a summer 2023 opening, the Wolverhampton City Centre extension at the city's re-modelled main station in April 2023.



◀ LEFT: A few months after entering service, tram 29 in the original condition heads towards Wolverhampton from Dudley Street Guns Village on 20 May 2015.

phase of the 11km (6.9-mile) Brierley Hill extension will have a terminus at Flood Street, Dudley. It passes close to the Very Light Rail National Innovation Centre, now working on the future Coventry-based application of the mode.

Despite system growth, as of May 2023 the service remains represented as a single line, although a Line 1 designation once carried by trams has been dropped. Most services run between the end termini, scheduled for 54 minutes. Shorter workings are distinguished on destination displays, platform screens and by audio announcements. All located on the original Wolverhampton-Birmingham route, there are five free designated West Midlands Metro park and ride sites. **TAUT**

surroundings along the 'Golden Mile' entertainment district on Broad Street. Serving a revived industrial and canal area, Brindleyplace stop takes the conflated name adopted by the district's developers. Shops and offices feature around Five Ways, where trams and buses use the underpass at the intersection. Edgbaston Village terminus is to one side of a key thoroughfare, Hagley Road, a setting that would facilitate further westward extension.

As TAUT went to press, opening a much-delayed and partially wire-free 0.7km (0.4-mile) line from a junction on Bilston Road to Wolverhampton's remodelled railway station was imminent. The new terminus and an intermediate stop at Pipers Row bus station will gain a more intensive service than the retained St. Georges.

Birmingham Eastside extension works are very apparent, as with track extending downhill on Bull Street, demolition of buildings and road closures along the future route. The first phase will create a service

for the under-construction London-Birmingham high speed line (HS2) Curzon Street terminus which is also near a university campus. Metro will support regeneration on a 1.7km (one-mile) route to High Street Deritend terminus, Digbeth. This is the projected starting point for an extra 17km (10.6 miles) to Solihull and an interchange station on the core HS2 route.

Already represented in places like West Bromwich and Bilston, the Metro is extending coverage in the amorphous former industrial area called The Black Country.

Under-construction route partly re-uses abandoned railway running south-west of the present system from near Wednesbury Great Western Street. Potentially opening in 2024, the first 6.5km (4.1-mile) nine-stop

ESSENTIAL FACTS

Local travel: The 'My Metro' phone app is recommended for live service conditions. On-board conductors for ticket sales and inspections, also helpful for local information. Ticketing based on four zones (unrelated to other modes), from GBP2.00 (EUR2.30) for a single zone; one-day Metro all zones at GBP6.50 (EUR7.47), but see websites for the many permutations. Railways and buses combine well with Metro for exploring the West Midlands: the TfWM Daytripper off-peak day ticket at GBP6.40 (EUR7.35) is useful for visitors, as May 2023. Regular users would gain from using the Swift smartcard (details www.tfwm.org).

What is there to see? Birmingham has the region's greatest concentration of retailing, museums and cultural venues. The Library of Birmingham (with open roof terrace), the Selfridge store and Jewellery Quarter exemplify the city's varied and striking buildings. In Dudley, industrial heritage at Black Country Living Museum (<https://bclm.com>); also combined castle and zoo (www.dudleyzoo.org.uk). Good rail links for regional attractions such as the Severn Valley Railway, Stratford-upon-Avon and Coventry's cathedral site and transport museum.



◀ LEFT: A junction for the Birmingham Eastside extension has been installed at the intersection of Bull Street and Corporation Street.