



***UnbeLEAFable!? Tram projects as part of
responsible and sustainable urban development***

Maria Ion, Project Director, *Midland Metro Alliance / Colas Rail*

12 July 2023

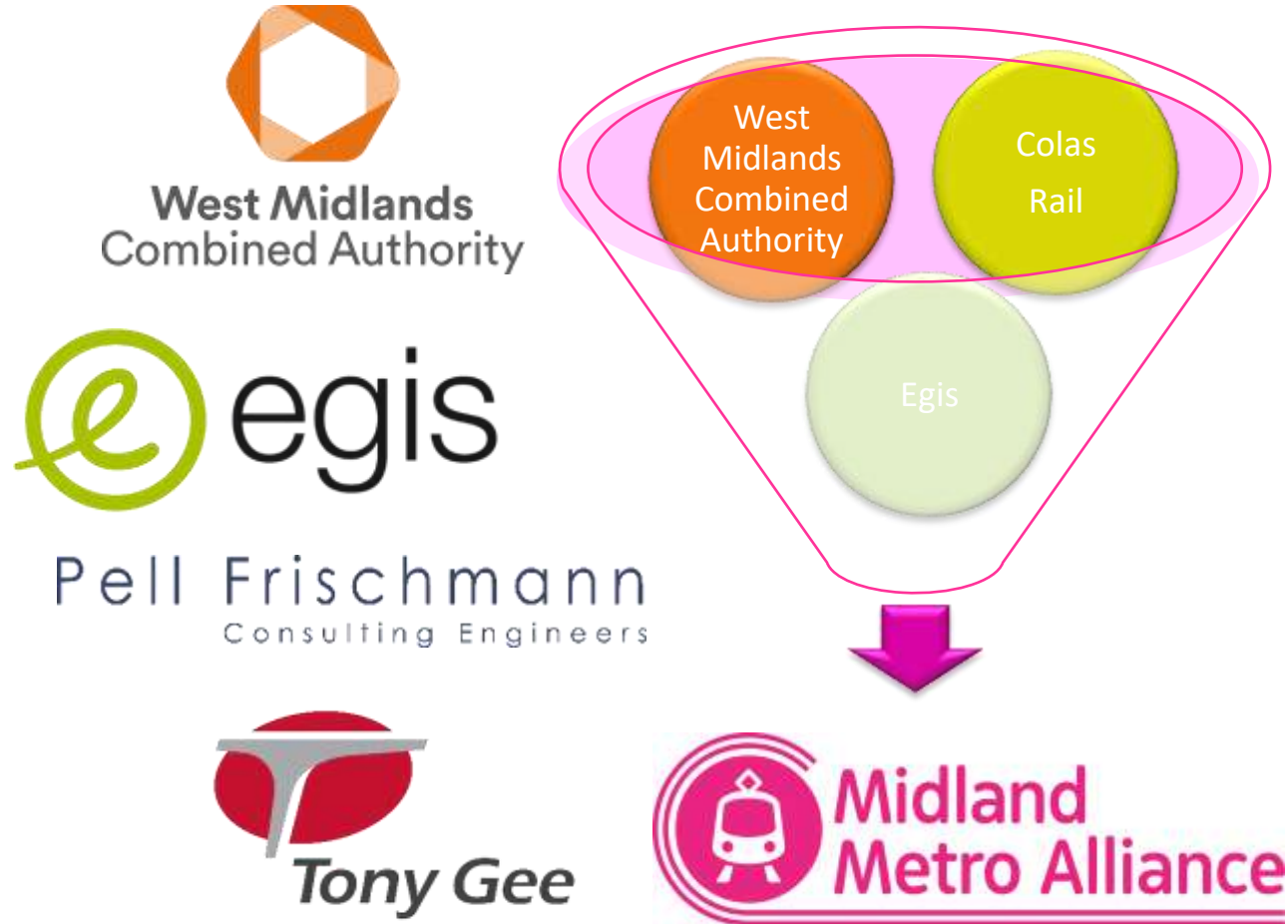


- A **brief introduction** to the **alliance** (for those who don't know us!);
- What a **typical project** looks like at the MMA;
- Birmingham always was a **cutting-edge** city with a focus on **sustainability**;
- Introducing **the Birmingham Eastside Metro extension**;
- How delivering at the alliance **actually works**:
 - Sustainability
 - Safety
 - Community Support
 - Benefiting local people and businesses
 - Innovation
- Some of the **challenges we face on a day-to-day business**.

About us:

- **Nine** international partners
- A **decade** of light rail activity and **investment** in the region
- **Four** tram extensions + **two** renewals
- More than **34km** of track to be added
- **25+ new** tram stops
- **Catenary free** in places
- Adding **social benefit** for the West Midlands **now and in the future**







West Midlands Metro Expansion Programme

- Existing route
- Extensions under construction
- Extension in development
- Interchange location
- Metro stop

Not all tram stops shown. Not to scale.

Birmingham – a trailblazer for sustainability and light rail:



- The city of Birmingham has shown a massive commitment to **being green**
- From implementing measures like **the Clean Air Zone**
- To championing **green transport expansions** like the Metro, cross-city lines and suburban station refurbishments
- The 2022 Commonwealth Games illustrated the city's ability to bring online **additional green transport links**
- And we're proud that the **Birmingham Eastside Metro Extension** will add to the sustainable transport offerings for the city
- And linking more citizens in the **West Midlands** to greener transport offerings including **High Speed Rail at Curzon Street Station** and local and national trains at **Moor Street interchange**



- **Scope:** The main route: 1.7km of double track + urban realm programme in Birmingham's creative quarter, Digbeth (completed at the end of 2022);
- **Construction timeline:** being delivered in sections with sections one (City Centre), two (Moor Street Queensway) and five (Digbeth) to be completed by April 2025, and the rest after HS2 delivery;
- **Safety:** Our No1 priority (with multiple "Free to be Safe" Champions who helped us to achieve incredible safety performance in the last year);
- **Award-winning:** Delta junction design and construction scooped Global Light Rail Awards Engineering Initiative of the Year in 2021
- **Giving back as we deliver:** Championing EDI, upskilling local people and ensuring we deliver sustainably at all times.
- **A global, yet local, high-profile project** for Birmingham, designed to help more of the West Midlands make the most out of High Speed Rail

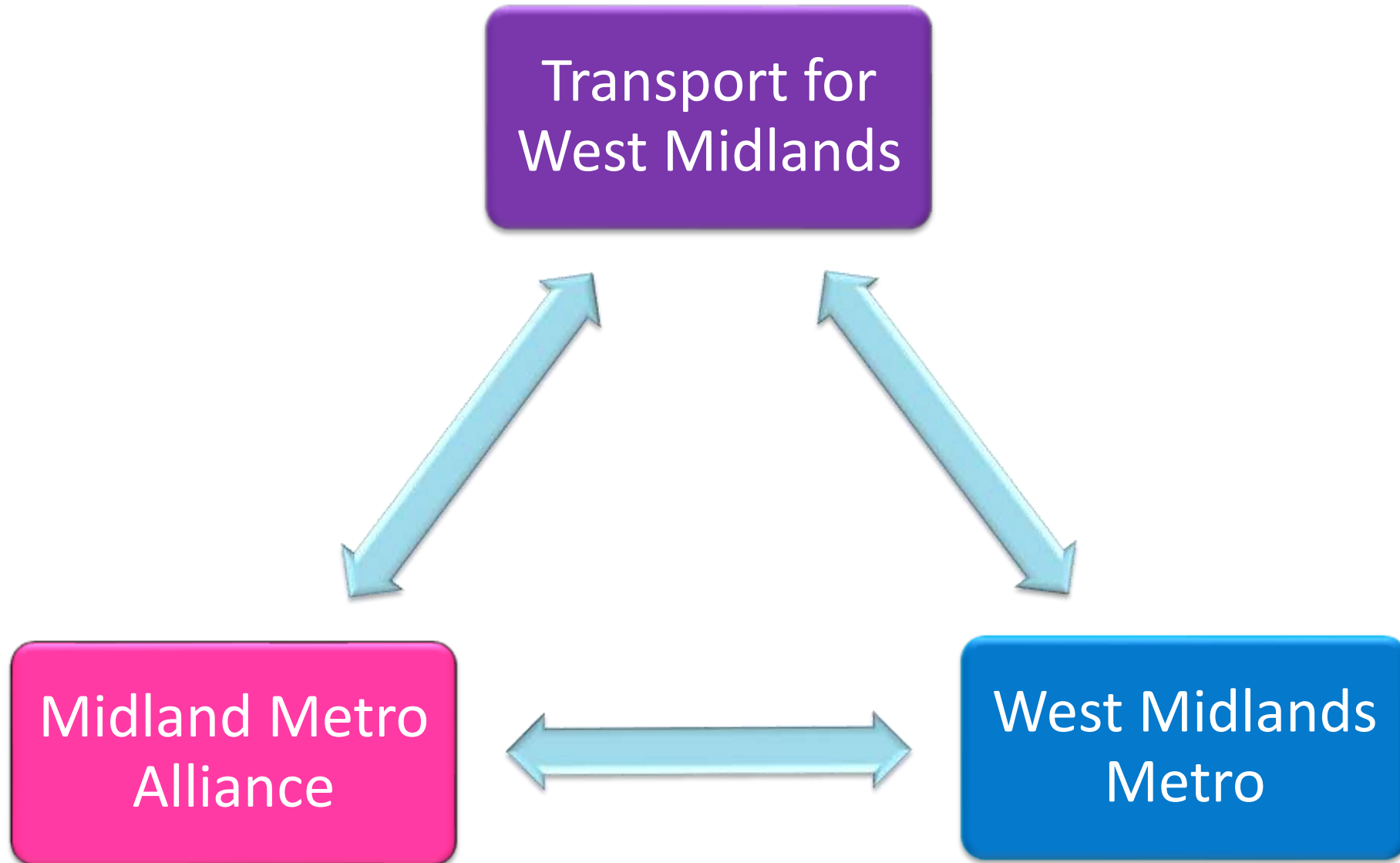




The scheme: An update from Hamish

Hamish Falconer
Project Manager
Birmingham Eastside Metro Extension
Midland Metro Alliance





Transport for West
Midlands

Outline Business
Case

Transport and
Works Act Order

Detailed Design

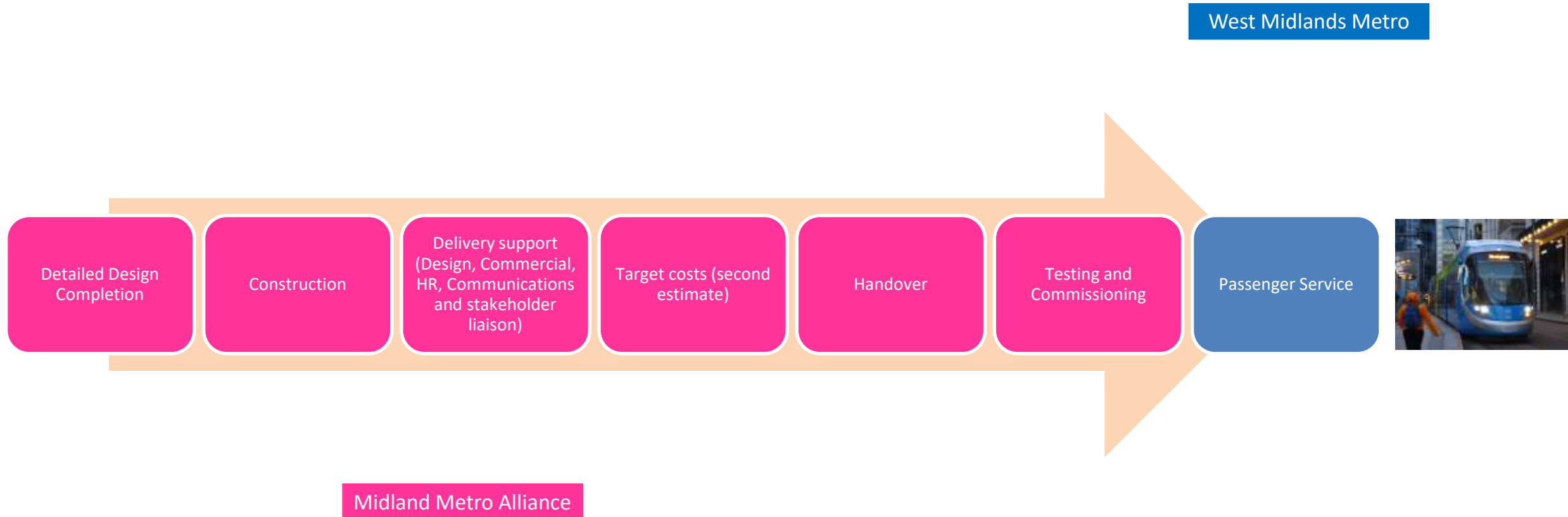
Commercial (QS for
materials, plant,
etc.)

Target Cost first
estimate

Design
Management,
including review
processes



Midland Metro Alliance





Sustainability at the heart of what we do...

Green initiatives like switching to plant-based fuel options, ditching diesel generators for solar to power lighting and site welfare and using earth-friendly concrete mixes helped us prevent **almost 2,000 tons of CO2 last year** across the alliance.

And we're on track to save even more this year with colleagues considering **both personal and professional impacts** they have on the environment.

As an organisation, the MMA continues to have an enviable safety record

*recently celebrating the milestone of a whole year
(equating to 1.5m working hours)
without a lost time injury.*

- Our positive performance isn't just down to:
 - Safety meetings
 - Close calls / Safety conversations, or
 - our policies and procedures

But because everyone in the organisation recognises the importance of safety – from **back-office support staff**, to the **teams on-site** and **middle / senior managers**

Everyone knows safety is our main priority

...and wellbeing is massively important to us too as a main workstream for our colleagues



Wellbeing Conversations



Winter Wellness

'Tis the season for bugs and viruses but there are several things you can do to help reduce the risk, including getting your winter vaccinations and using the NHS 111 service first for any urgent medical need.

Ways you can reduce or slow the spread of infections include:

- Wash your hands frequently: Cleaning your hands is one of the simplest, cheapest and most effective ways to prevent germs being passed from person to person (it is recommended to wash for 20-40 seconds to effectively clean hands)
- Stay home if you are sick (so you do not spread the illness to other people)
- Use a tissue, or cough and sneeze into your arm, not your hand. Turn away from other people.
- Use single-use tissues. Dispose of the tissue immediately
- Wash your hands after coughing, sneezing or using tissues
- At home, with children, have them play with hard surface toys that can be easily cleaned.
- Do not touch your eyes, nose or mouth (viruses can transfer from your hands and into the body)
- Do not share cups, glasses, dishes or cutlery

Sepsis:



Sepsis is the body's life-threatening overreaction to an infection. Without timely treatment, sepsis can rapidly lead to organ failure and death, but it's often treatable if caught quickly! That's why it's important to know the signs to look for.

Festive Self-Care Advent Calendar



The lead up to Christmas can be a busy, stressful and overwhelming time. It is an especially important time to take a break and make sure that you're looking after yourself, to be able to stay healthy.

This Self-Care Advent Calendar is full of great ideas to support wellbeing through a busy period, helping you to relax and unwind in the lead up to Christmas!

Cost of Living Support

Some of us can also feel deflated over the winter months, especially with the rising cost of living.

Millions of people across the UK are struggling to cover their essential household costs.

The 'cost of living crisis' means we're all paying a lot more for energy and food, as well as things like rent and fuel.





Making sure no-one is excluded...



Encourage and appreciate difference...

We celebrate and support neurodivergent colleagues on apprenticeship programmes and graduate schemes with training and mentorship

Mobility for all...

We ensure mobility for the future generation by conceiving and building an inclusive design, both for definitive or temporary measures.

As well, as creating an inclusive working environment, via safe walking zones for external visitors to site and ramps for disabled access.

Raising our level...

We consider Equity, Diversity and Inclusion as a huge opportunity for improvement, and not as a compliance criteria;

We work hard to be open about our organisation being supportive of diversity backgrounds such as age, nationality, religion, sexuality, gender identify, education etc.



Antony (He/They) @RemyLeBeau

It's #BirminghamPride this weekend and I'm proud to work for an organisation that's got into the spirit and has the rainbows out on our site fencing (this time, for the design's first outing, in Digbeth).

It also means it's time for my annual #PRIDESelfie!



Laura Creaven @lauracreaven · 24/05/2023

Replying to @RemyLeBeau

they've been up for a while and I'm very please they are as they're a delight to see

Design team bag "commended" status for bridge designs from industry body



Colleagues in the design and Wednesbury to Brierley Hill teams are celebrating after their designs for three structures in the second phase of the Metro scheme were recognised at a recent awards ceremony.

The designs (for MMA2, MMA3, and MMA4) which are planned to be constructed to guide the tram from the Waterfront businesses to the disused rail corridor, were commended in the infrastructure category of The Institution of Structural Engineers annual awards ceremony for the Midland Counties which took place in Birmingham on 17 November.

Eastside project receives stamp of approval from BSI - by Richard Crute Morris

In the last issue of *Inside Track*, we mentioned the British Standards Institution's (BSI) annual audit, assessing our Alliance Management System and our quality, health and safety, sustainability and environmental and wellbeing processes.

The audit was held over three days (7 to 9 June), with the middle day taking place at Summer Lane and incorporating a site visit.

The outcome of the audit was excellent, with no nonconformities being found. This is the first time the MMA has achieved this in the six years of having independent BSI assessments. Huge congratulations to all those who engaged with the audit this year.

Scheme earns top marks in Considerate Constructors Scheme audit

Monitors from the Considerate Constructors Scheme (CCS), who inspect construction sites to check employee satisfaction, sustainability and respect for the community, have awarded the Wednesbury to Brierley Hill construction project top marks in a recent audit.

Inspectors praised the environmental awareness across the site, including using sustainable materials and recycling heavily and they also recognised the health and wellbeing support provided for team members, including considerable focus on mental health and safety training.

The MMA's commitment to education was also spotlighted with a particular focus on introducing local people to the industry through work placements, apprenticeships, graduate schemes and a considerable programme of engagement with local schools and colleges. You can read more about these initiatives on in our new Scoop on Skills page.



Team go above and beyond

The WCCE team have been praised for going 'above and beyond'.

They ensured that replacement buses could be used across the Station Plaza during the Commonwealth Games, amid potential oil strikes as well as making sure the area is presentable for the event.



Super sweepers praised by public

Operatives working at the Sedgley Road East compound have been complimented by a local resident for their 'superb' job in keeping the entrance to the site clear.

Kuldeep Singh and Rajesh Kumar have been recognised for the pride they take in ensuring the area is clean and tidy.

In a post on social media, the resident said: "Whoever sweeps the pavement and road outside the site does a superb job."



Jenny shortlisted for Wellbeing Hero Award

Jenny Mullett is in the running to scoop a top award in recognition of her work to promote health and wellbeing at the MMA.

Jenny has been shortlisted in the Wellbeing Hero category of the Rail Wellbeing Live Wellbeing Hero Awards, which recognises individuals and teams who go above and beyond their day job to support others in the rail industry.



Simon and Aaron's lifesaving actions recognised by ambulance service

Following our story in February's issue about Simon Dicken and Aaron Lynch helping to save the life of a member of the public, the West Midlands Ambulance Service has praised their quick-thinking actions.

The BEE operatives bravely sprang into action to administer first aid on a man who had suffered a cardiac arrest in Lower Bull Street, helping to save his life.

A spokesperson from the West Midlands Ambulance Service, said: "[We] would like to take the opportunity to praise the actions of the quick-thinking bystanders who played a significant part in helping save the man's life by starting CPR. Every second is vital when trying to save someone's life who is in cardiac arrest, and by acting quickly, the man was given the very best chance of surviving in this case. We would encourage anyone who can, to undertake first aid training, as one day it could be your turn to save a life."

Our works can be disruptive...

So we do our best to try and ensure those businesses we're working beside and prepared and supported;

Dedicated liaison...

We employ a dedicated team to work the residents and businesses and keep them updated about what the next phase of works might mean for the local area;

And award-winning progress updates...

We publish regular updates, across social media, engaging with the media and through dedicated publications so locals see the benefit of the works we're undertaking;

With proactive marketing support as needed...

If our works mean that a business a bit more support, we work with them to offer bespoke marketing to promote the business and that the area in which we're working is open as usual;

...and we procure our supplies from local businesses, where possible, too.




Innovation is encouraged...


From technological marvels including drone and AI progress updates and combining satellite data with ground penetrating radar data, we're always looking forward to the next big thing to make design and construction faster, safer and more cost efficient;

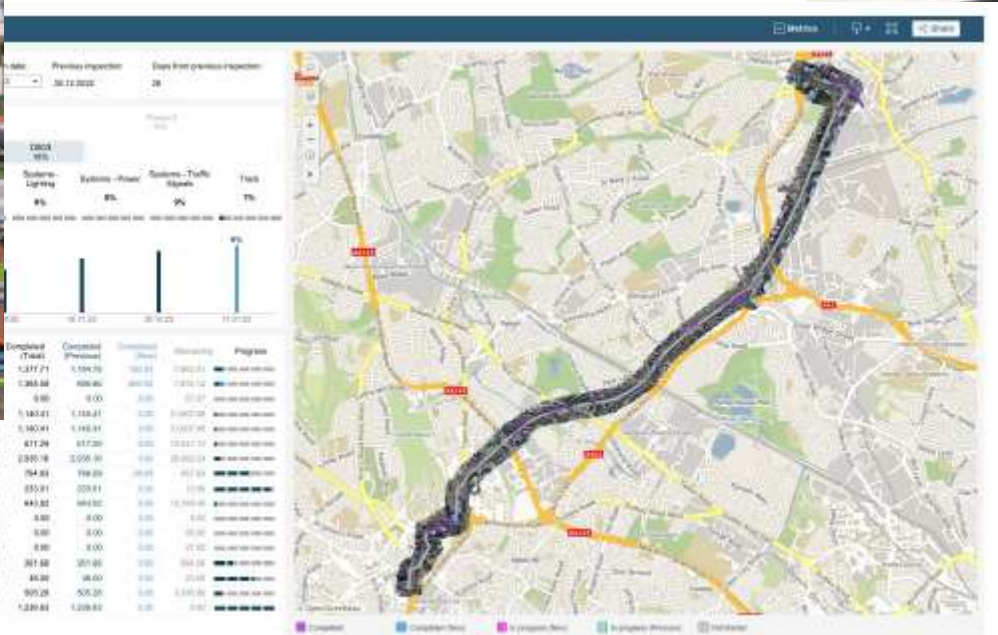
...But innovation doesn't need to be high-tech

One of our most successful innovations was related to reminding staff of our life saving rules by using stencils and spray painting reminders on interior of hoarding;

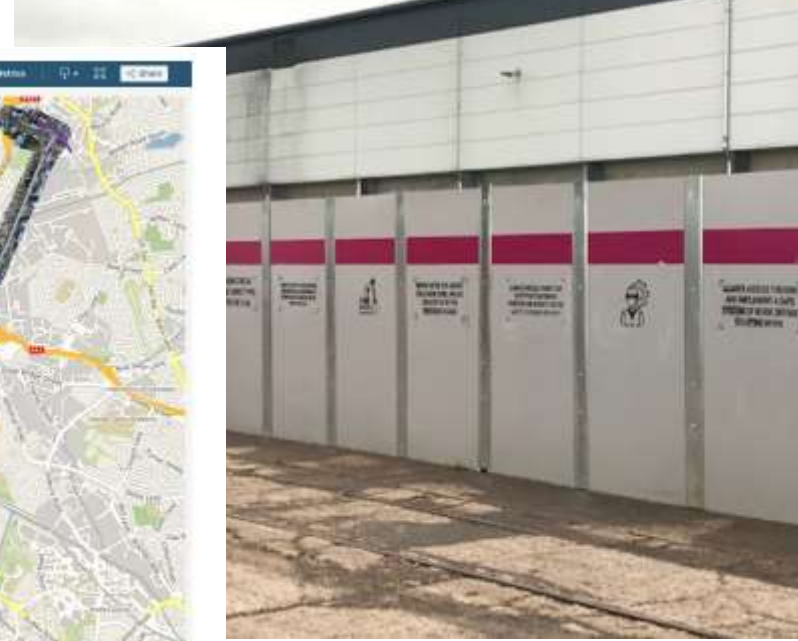


THE FUTURE OF DISCOVERY IS
NON-INTRUSIVE





Item	Quantity	Unit	Value	Completion %	Start Date	End Date
Topsoil	32,147.40	m ³	12,264.41	100%	18-07-20	18-07-20
Gravel	12,264.41	m ³	417.24	100%	18-07-20	18-07-20
Reinforcing steel	1,311.86	kg	194.83	100%	18-07-20	18-07-20
Pipes	388.81	m	855.81	100%	18-07-20	18-07-20
Concrete	11,824.23	m ³	441.82	100%	18-07-20	18-07-20
Formwork	6.00	m ²	8.00	100%	18-07-20	18-07-20
Traffic signs	15.00	nos	8.00	100%	18-07-20	18-07-20
Lighting columns	27.00	nos	8.00	100%	18-07-20	18-07-20
Professional Building Services	855.54	nos	361.68	100%	18-07-20	18-07-20
Brickwork	18.00	m ²	48.00	100%	18-07-20	18-07-20
Structure Overlay	3,542.10	m ²	505.25	100%	18-07-20	18-07-20
Concrete Base Foundation	1,328.43	m ²	1,209.82	100%	18-07-20	18-07-20



One of the biggest challenges is **scope creep**.

Some examples of out of process requests which, at times, might require some re-design:

- Technical design changes – **late approval**;
- **Moving a tram stop** to benefit their new development;
- Urban realm **finish changes**.



Assurance is **embedded in the programme**

Strengthened review and readiness processes with all partners, including...

...**close operator involvement** in alliance processes

The alliance is **collaborative by design**

Short decision time in **change process**.





Now more than half-way into the MMA's initial programme, **we've achieved a lot, in really challenging times.**

We've grown through these challenges and come out of the other side **a more resilient organisation** and offer **a real case-study of how light rail alliancing can deliver schemes**, and social change, to local areas in a cost-effective way for clients.

We're really excited for you all to experience what we've delivering in Birmingham and the Black Country.

