

Case Study

Elfield Park Phase 1 Industrial & Logistics Campus, Milton Keynes

Client

Beyond Collaboration

Sector

Industrial & Logistics Development

Location

Milton Keynes, Buckinghamshire

Project Period

2022 – 2024 (Phase 1 complete, Phase 2 ongoing)

Egniol Services Provided

- Civil Engineering
- Structural Engineering
- Geotechnical Engineering
- Planning & Technical Support

Project Lead

Dan Shoesmith, Civil Engineering
Services Director, Egniol



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Introduction to the Project

Elfield Park is a major development by Beyond Collaboration, transforming a previously constrained and inaccessible site in Milton Keynes into a next-generation industrial and logistics campus focused on sustainability, wellbeing and long-term value.

Phase 1 of the development, completed in late 2024, delivered a **41,829 sq ft industrial building on a five-acre site**, creating the foundation for a multi-phase campus expected to generate **over 200 new jobs**.

Beyond Collaboration appointed Egniol to provide a fully integrated package of **civil, structural and geotechnical engineering services**, alongside planning and technical support.

Egniol's role was central to unlocking the site's development potential - designing access infrastructure, overcoming

complex ground conditions, delivering sustainable drainage solutions and guiding the project from planning permission through to construction completion.

The success of the engineering strategy contributed to the project achieving a **BREEAM Excellent sustainability rating**, reflecting Egniol's environmentally conscious and innovative approach.



Project Implementation & Use

From the outset, Elfield Park presented significant technical and logistical challenges.

Key Challenges

Landlocked Site with No Existing Access
The irregularly shaped site had no direct road access. Unlocking its value required the creation of a new access road through an extremely narrow corridor connecting to a major Milton Keynes grid road. Strict highway design standards had to be achieved within very limited space.

Difficult Ground Conditions
Historic spoil deposits from nearby highway construction had created major level differences across the site. The development area sat between raised embankments of the A5 and the West Coast Main Line railway, creating a tightly constrained development envelope requiring sensitive ground engineering.

Cost and Design Control
As the contractor joined the project and introduced alternative designers, Egniol

needed to actively manage and challenge design proposals that risked unnecessary cost increases.

Sustainability & Drainage Aspirations
Beyond Collaboration wanted a landscaped development with nature integrated into the scheme. A key feature was a prominent open attenuation pond for stormwater management and placemaking, aligned with best-practice Sustainable Drainage Systems (SUDs).

Egniol's Engineering Solutions

Egniol delivered a range of tailored engineering solutions combining innovation, collaboration and value engineering.

Bespoke Site Access Design

Egniol’s civil engineering team worked closely with local Council highways officers to design a compliant access junction within the extremely tight land corridor.

Through:

- Multiple design iterations
- Close stakeholder consultation
- Detailed technical justification

Egniol secured approval for a safe and adoptable access road that unlocked the previously landlocked site and enabled planning permission to be granted.

This collaborative process was critical to the project’s viability.

Earthworks & Ground Improvement

To create a suitable development platform, Egniol designed a balanced cut-and-fill earthworks strategy.

Approximately six metres of engineered fill material from the future Phase 2 area was reused in Phase 1, reducing waste and avoiding costly retaining structures.

Rather than using expensive piled foundations, Egniol implemented a vibro stone column ground improvement solution, stabilising the made ground and creating a robust base for:

- Standard shallow foundations
- Ground-bearing floor slabs

This approach delivered major cost savings while ensuring long-term structural performance.

As Dan Shoesmith commented:

“We were looking at a vibro stone column solution which stabilises the ground underneath so standard foundations and slabs could be used. That saved a lot of money.”

Sustainable Drainage & Landscape Integration

Egniol designed the site’s drainage infrastructure to meet flood risk requirements and the client’s sustainability vision.

A standout feature is the open attenuation pond at the site entrance:

- Designed to serve both Phase 1 and future Phase 2 runoff
- Eliminated the need for underground attenuation tanks
- Reduced construction costs
- Enhanced site aesthetics and biodiversity

The pond performed effectively even during extreme summer conditions in 2025, validating Egniol’s robust SUDs design.

This solution demonstrates how Egniol integrates green infrastructure for both functional drainage and placemaking benefits.

Outcomes & Benefits

Despite the initial complexity, Elfield Park Phase 1 was delivered successfully, on programme and in line with Beyond Collaboration’s sustainability and commercial objectives.

Key Outcomes

- 41,829 sq ft industrial building completed and ready for occupation by Q3 2024
- Outline planning permission secured in 2022 with Egniol’s technical input
- BREEAM “Excellent” rating achieved
- EPC A+ energy performance for the Phase 1 building
- Foundation platform created for future campus expansion

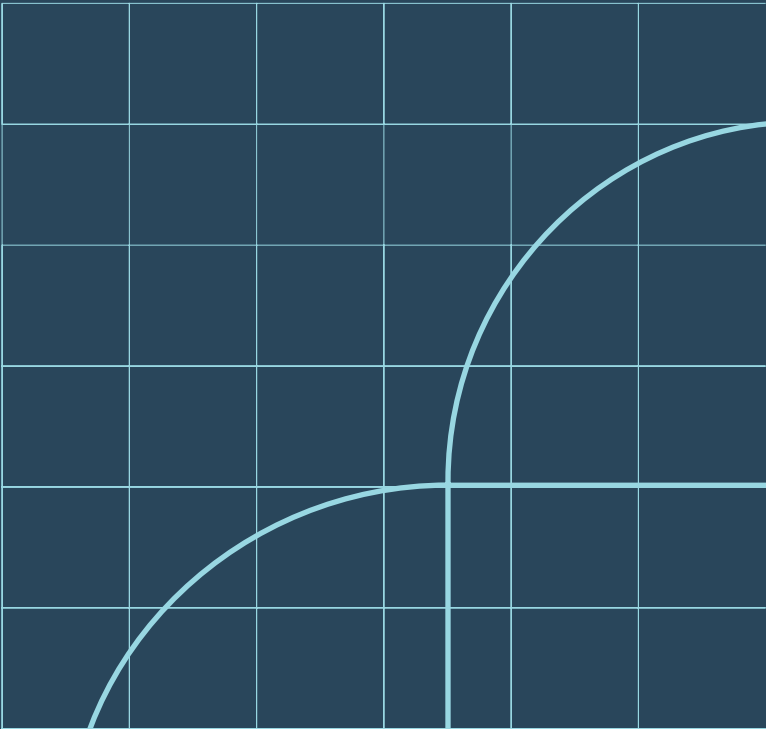
Technical & Strategic Benefits

-  **Regulatory Compliance**
Egniol successfully navigated planning, highways and drainage approvals, working closely with local authorities and flood risk regulators.
-  **Cost Savings**
 - Vibro stone columns removed the need for piling
 - Open SUDs pond avoided underground storage systems
 - Balanced earthworks reduced material disposal and imports
-  **Innovation & Sustainability**
Landscape-led drainage design improved environmental performance and site appeal.
-  **Site Unlocking**
Egniol’s access road solution transformed a previously inaccessible site into a viable industrial development.
-  **Future Readiness**
Infrastructure designed to support future development phases efficiently.



Key Project Benefits at a Glance

- Landlocked site unlocked for development
- Major cost efficiencies through smart engineering
- Fully compliant highways and drainage infrastructure
- Sustainable, BREEAM Excellent development delivered
- Long-term campus masterplan enabled





Satisfaction & Ongoing Relationship

Beyond Collaboration reported a highly positive experience working with Egniol, praising the consultancy’s proactive approach, technical expertise and collaborative working style.

Egniol was one of the few consultants retained throughout the entire project journey - from early concept to Phase 1 completion and into Phase 2 in 2026. Egniol have remained a trusted partner due to the quality and reliability of their work.

The client particularly valued Egniol’s ability to:

- Challenge costly contractor design changes
- Protect budgets
- Navigate difficult stakeholder negotiations
- Provide quick, solution-focused responses

Client Testimonial

“The main challenges for Elfield Park related to transport, earthworks and landscape. Egniol’s expertise in these areas, together with planning and wider technical support, added massive value to the project team.

Working collaboratively with Egniol, we navigated the project’s issues and successfully achieved Phase 1, meaning we are now ready to progress Phase 2 with Egniol to create a cohesive industrial campus.”

Ben Davies – Senior Development Manager, Beyond Collaboration

Egniol Project Lead Testimonial

“Egniol were proactive in dealing with the project as a whole and managing external stakeholders. It would have been easy to incur more cost had Egniol not been challenging the wider team’s designers as we did.”

Dan Shoesmith – Civil Engineering Services Director, Egniol



Project Impact Summary

Elfield Park Phase 1 demonstrates Egniol’s ability to deliver complex industrial and logistics developments through:

- Multi-disciplinary engineering expertise
- Innovative ground improvement solutions
- Sustainable drainage and landscape integration
- Strong stakeholder management
- Cost-effective, buildable designs

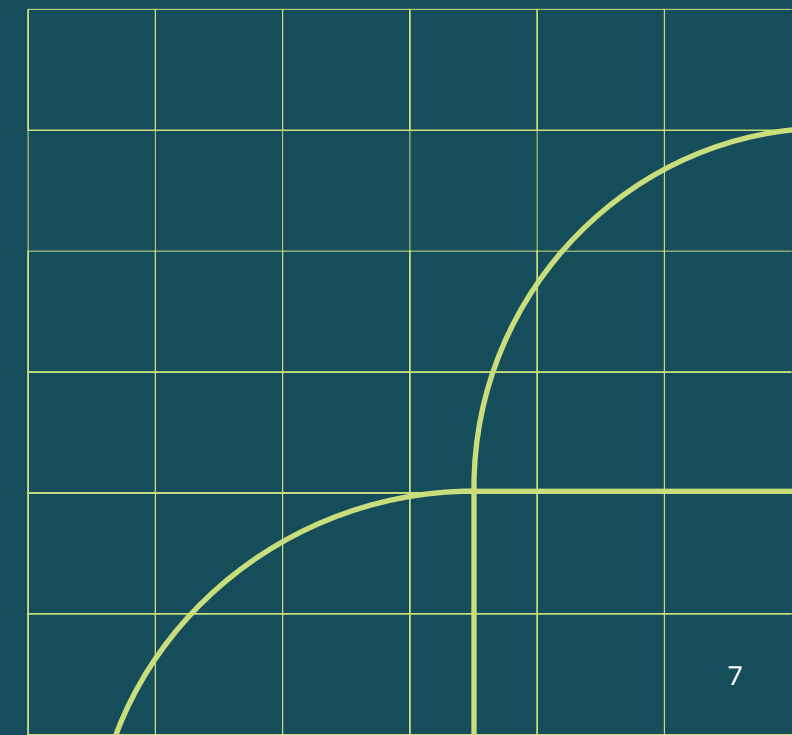
By unlocking a challenging site, managing regulatory complexity and delivering significant value engineering savings, Egniol helped Beyond Collaboration realise its vision for a sustainable, high-quality industrial campus.

The continuation of Egniol’s appointment into Phase 2 highlights the strength of the partnership and the trust built through successful delivery.

This project stands as a strong example of Egniol’s capability in:

- Civil engineering
- Structural engineering
- Geotechnical engineering
- Planning and technical consultancy
- Sustainable development solutions

and reinforces Egniol’s position as a proactive, experienced and solutions-focused engineering consultancy.





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