



Ewood Park, Blackburn Rovers FC pitch reconstruction

project **summary**

A complete stadium pitch build. An 84-day delivery window. And a playing surface built from the ground up for the demands of professional football.

Carrick Construction was appointed to deliver the build of the stadium pitch at Ewood Park, home of Blackburn Rovers Football Club, undertaking a comprehensive construction of the playing surface and the critical infrastructure beneath it.

key **facts**

- Design and build
- Pitch reconstruction
- Irrigation
- Drainage
- Construction monitoring

project summary

Working alongside STRI's sports surface design and technical consulting team, Carrick delivered a new integrated pitch system encompassing primary drainage, a completely rebuilt soil profile, upgraded irrigation, undersoil heating and pitch perimeter works.

The project was about more than installing a new playing surface. Every element of the construction needed to work together to create a more resilient and consistent pitch, while giving the club greater control over its management and performance.

All of this had to be delivered within just 84 days and inside a live stadium environment, requiring meticulous planning, specialist construction expertise and close coordination between Carrick, STRI, Blackburn Rovers and the wider project team.



the challenge

A high-performance pitch is only as good as the infrastructure beneath it.

At Ewood Park, the existing pitch profile and supporting infrastructure required comprehensive redevelopment to provide a more resilient and higher performing platform for elite football. With drainage, the pitch construction profile, irrigation and undersoil heating all forming part of the overall system, the construction needed to be carefully coordinated from the formation upwards.

The tightly defined programme added another layer of complexity. Each stage of the pitch build had to be carefully planned and sequenced to ensure it was completed to the required specification while maintaining progress towards the final playing surface.

Working within an operational stadium also required careful management of site logistics, access and deliveries, alongside close coordination with the club, design team and specialist suppliers.



the solution

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The Ewood Park project was delivered as an integrated design and build project, bringing STRI's specialist sports surface design and technical consultancy together with Carrick Construction's delivery expertise.

STRI developed the design for the new pitch and supporting infrastructure, with Carrick responsible for translating that design into the completed construction on site. Working as one integrated team provided Blackburn Rovers with a single point of contact throughout the project, creating a clear line of accountability from design through to delivery.

This joined-up approach also meant design and construction were closely coordinated throughout the programme. STRI's technical specialists worked alongside Carrick's construction team, allowing site requirements and technical decisions to be addressed quickly while ensuring the design intent was maintained through every stage of the build.

Rebuilding from the ground up

Carrick excavated the existing pitch profile before laser grading the formation to establish the precise levels required for the new construction.

A new primary drainage system was installed across the pitch using 80mm perforated drainage pipes and a new main collector drain. The drainage network was covered with a gravel raft, providing the foundation for the new pitch profile and supporting efficient water movement through the construction.



the solution

Above this, Carrick installed a lower layer of pure sand followed by an upper 85:15 rootzone profile. Together, the drainage, gravel raft, sand and rootzone layers form an integrated system designed to support effective water movement, stability and long-term pitch performance.

Greater control over irrigation

A completely new pitch irrigation system was installed, bringing the infrastructure up to modern standards and giving the club significantly greater control over how and when the playing surface is watered. The new pump station incorporates twin variable speed drives (VSDs), with the pitch pipe network sized to allow up to four irrigation stations to operate simultaneously. This increases the system's capacity and reduces the time needed to complete a full watering programme.

Each irrigation station can be controlled independently, allowing the grounds team to target specific areas of the pitch rather than operating the entire system. The installation includes 16 valve-in-head (VIH) sprinklers, eight block-controlled sprinklers and two additional sprinklers dedicated to the goalmouth areas.

This level of control is particularly valuable on matchdays, when irrigation may need to take place around other activity on the field of play or within the limited half-time window.

The control system also includes a handheld wireless remote and cloud-based connectivity, enabling the grounds team to monitor the system, adjust settings, view weather forecasts and receive immediate notifications of important system alarms.

Carrick also undertook bespoke welding work on the water pump system, adapting the installation to accommodate the existing tank and resolve the practical challenges presented by the existing infrastructure.

Completing the pitch infrastructure

Undersoil heating was installed as part of the redevelopment, helping the club manage playing conditions during colder periods.

Perimeter kerbs were installed to final levels, with the pitch run-off areas also incorporated into the redevelopment.

Throughout construction, laser grading and careful sequencing were used to maintain the specified pitch profile and ensure each component was installed in the correct order.



testimonial

This was a significant investment by Blackburn Rovers Football Club at Ewood Park and an important project for the club. Following a detailed tender and evaluation process, we appointed STRI and Carrick Construction to work alongside our team to deliver the full reconstruction of the stadium pitch. The project required extensive planning and close coordination to ensure that such a substantial programme of work could be completed within a demanding 84-day close-season window.

Throughout the process, STRI and Carrick worked closely with the club, providing the specialist technical expertise and support required to deliver the project to the agreed specification and programme. Since the start of the season, we have now played five competitive fixtures at Ewood Park. A significant early test came in the final week of August, when the pitch hosted three competitive fixtures – two league games and one cup tie – within the space of just one week. We were particularly pleased with how the playing surface performed and responded to such an intensive schedule so soon after completion.

The quality and resilience demonstrated during this period gives us confidence in the investment we have made and in the long-term benefits of the new pitch infrastructure. It represents an important investment in Ewood Park and reinforces the club's commitment to providing the best possible playing environment for our team. "On behalf of the club, I would like to thank STRI and Carrick Construction for their expertise, professionalism and commitment throughout the project, as well as our own team at Blackburn Rovers for the considerable work that went into delivering such a significant project within a very demanding timeframe. We are delighted with the outcome and look forward to seeing the benefits of this investment for many seasons to come."

– Suhail Shaikh, Chief Operations Officer, Blackburn Rovers Football Club

the result

The completed construction has provided Blackburn Rovers with a fundamentally upgraded stadium pitch, with new drainage, irrigation, undersoil heating and pitch construction working together as one integrated system.

The result is a more resilient and consistent playing surface, designed to manage water more effectively and meet the demands of professional football over the long term.

The Ewood Park redevelopment demonstrates what can be achieved when specialist sports surface design, technical consultancy and construction expertise are brought together from the outset.

STRI provided the specialist sports surface design and technical consultancy, while Carrick brought that design to life on site – managing the construction programme, specialist pitch build, drainage, irrigation and infrastructure installation within a demanding live stadium environment.

84 days. One complete stadium pitch redevelopment. One integrated project team.

