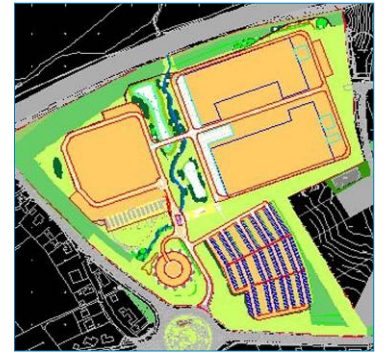




PROJECT PROFILE



Alexander Dennis (Transbus), Glenbervie, Falkirk

THE TASK

Alexander Dennis (Transbus) commissioned TPS to prepare a masterplan and to design the buildings with in their new 'Greenfield' industrial campus location on the edge of Falkirk. The buildings included 2 large assembly buildings together with office headquarters building, paint shop, research & development facility and repair/service centre for existing customers. The operation is the largest industrial manufacturer in Scotland and utilises cutting edge technologies to assemble buses, this includes exports to significant overseas markets including Hong Kong and Singapore. Existing facilities were outdated leaving little scope for expansion, flexible production or the opportunity to reorganise industrial processes. The design proposals incorporate sustainable design and minimise impact on the site.

TPS were appointed by ERDC to masterplan the site and design individual buildings. The project also involved significant involvement with the building user in understanding requirements and developing a comprehensive brief. The brief development required understanding complex sequential production, supply and logistical requirements, together with their consequent spatial demands.

THE DESIGN

Through development of the design brief, TPS were able to understand the building user's precise needs and the interrelationship between buildings. This included supplies materials and chassis entering the site and the storage of completed vehicles.

Reducing running costs and providing optimal light for bus production and painting were prime considerations in providing clerestory translucent cladding panels to the buildings.

CLIENT

ERDC Glenbervie and
Alexander Dennis
(Transbus)

PROJECT VALUE

£17m (shell & core)

PROJECT TYPE

Masterplanning (industrial)

SERVICES

Multi-disciplinary
masterplanning and
building design
(Architecture,
Civil/Structural Engineering,
M&E Engineering,
Landscaping,
Environmental Impact
Assessment, Traffic
assessment, Green Travel
Plan)

Alexander Dennis (Transbus), Glenbervie, Falkirk

The building complex is visible from the Stirling to Glasgow motorway. In the dusk and during night shifts the building will form an internally illuminated landmark. During the day artificial lighting levels can be significantly reduced. This is also assisted in providing to parallel assembly halls each with narrower plan, allowing increased light penetration. Providing two buildings suited the project funders (allowing greater longer term flexibility). This also allowed the creation of an external storage area for semi complete vehicles, not visible from outside the site.

On entering the site visitors would first encounter the office building and adjacent gatehouse, in front of which lies the landscaped permeable surface car parking fitting into site contours. Beyond the offices are two wetland ponds to absorb run-off from the site, this necessity forming a significant landscape feature for the building groups. Sustainable urban drainage was a key part for this design, which also incorporated the open diversion of a small stream, in order to accommodate the large production platforms. The finished product: double decker buses, were used to form a memorial landmark at the site entry from the Glenbervie roundabout. With excess spoil from cut and fill operations forming a circular raised display area within the site, for vehicles ready for collection.

THE SERVICE

Through our multi-disciplinary approach, TPS were able to provide our client with a robust proposal, which also addressed various engineering design issues affecting the masterplan and building layouts. This included calculating the optimal platform level across a significantly sloping site, minimising retention and achieving a cut and fill balance. A particular challenge was accommodating an unusually large floor plate onto a sloping site to deliver a cost effective and integrated solution that met the client's functional and budgetary requirements.

Following a comprehensive geotechnical site investigation study, various conceptual option studies were prepared which were evaluated in terms of minimising site works and offering optimal production efficiency for the building user and also meeting funder requirements for long term flexibility. These masterplanning studies which encompassed site engineering proved vital in identifying the optimal solution for site development.

THE RESULT

Through our multi-disciplinary team approach to both the site masterplanning and design of individual buildings, TPS were able to submit a comprehensive planning application for this site. Due to the nature of the submission together with the successful preplanning negotiations carried out by TPS, this major application was approved within the statutory period. The submission included a full environmental impact assessment, (following an initial scoping study), which TPS coordinated with external consultants and also a traffic impact analysis and green travel plan



START DATE

January 2003

COMPLETION DATE

July 2003

PROJECT PARTNERS

- Main Contractor:
ERDC (D&B client)
- Environmental
Consultant: RPS
- Acoustic consultant:
Hamilton McGregor

FURTHER DETAILS

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