Alan Wood & Partners

Engineer / Manage / Deliver /

Science and Innovation Centre

Location: Isle of Man

Client: Peel NRE

Architect: Garry Stewart Design Associates (GDSA)

Value: Circa £100m

Civil Engineering | Structural Engineering | Building Consultancy | Geotechnical and Geoenvironmental Engineering | Project Management | Specialist services

Development of a science innovation and research centre (SIRC), sustainable energy park and medicinal cannabis cultivation facility at Cooil Road in Braddan on the Isle of Man.

With a mix of cannabis cultivation space and research/development the scheme will also feature a solar farm to power the site which would be the Island's only grid-scale renewable project, contributing to the Isle of Man Government's ambitions on climate change.

Plans for the £100m complex on the Isle of Man to grow and export medicinal cannabis have been described as "game-changing", by Peel NRE the firm who are behind the scheme.

Engineering and Design Factors

Alan Wood and Partners provide civil and structural design services to the project. The Challenge to the Alan Wood & Partners team was to provide a number of linked development plateaus on this site which was, steeply sloping and had a significant change in levels across it, that coordinated with the existing road infrastructure surrounding the site. Whilst at the same time seeking to minimise the removal of materials from the site and the requirements for substantial retaining structures hence meeting the project goals in terms of commercial viability and sustainability. In addition, this needed to work with both the Architect and Landscape Architects aspirations with regards to the proposed massing of the development.

Description of the Works

Peel NRE have outlined proposals to build indoor cultivation facilities alongside a new research campus on land near Cooil Road in Braddan, Isle of Man. Alan Wood & Partners have been appointed by Peel to provide Civil & Structural services on the project. Initial feasibility commenced with Alan Wood & Partners being involved in both the feasibility and as a key contributor to the planning application. With the site having significant changes in level, it was vital to ensure the scheme worked in terms of the proposed development plateaus and linking to the existing road infrastructure. In conjunction with the architect we initially created 3-D earthworks proposals in Civils 3-D to ensure the plateau strategy worked effectively whilst at the same time minimising the need for

removal of materials off-site and hence positively contributing to the overall sustainability of the project. The successful earthworks modelling of the development plateaus for the project then fed into the drainage modelling for the site and assisted in developing the drainage impact assessment for inclusion within the Planning application.

With regards to the structural building elements Alan Wood & Partners have assisted in developing the concept design for the projects which includes the construction of atmospherically controlled buildings to develop high potency cannabis products for the pharmaceutical market and research/development facilities laboratories. In addition, the need for "comprehensive security measures" to protect the cultivation units led to some interesting discussions with security specialist with regards to this element of the works in terms of both buildings and surrounding infrastructure

It is anticipated that the development will bring specific education and employment opportunities to the Isle of Man in a "high-tech, scientific research" area.

Core services

Civil Engineering / Structural Engineering