

Proposed alterations and improvements to:  
The Engineering Department  
Summer 2015



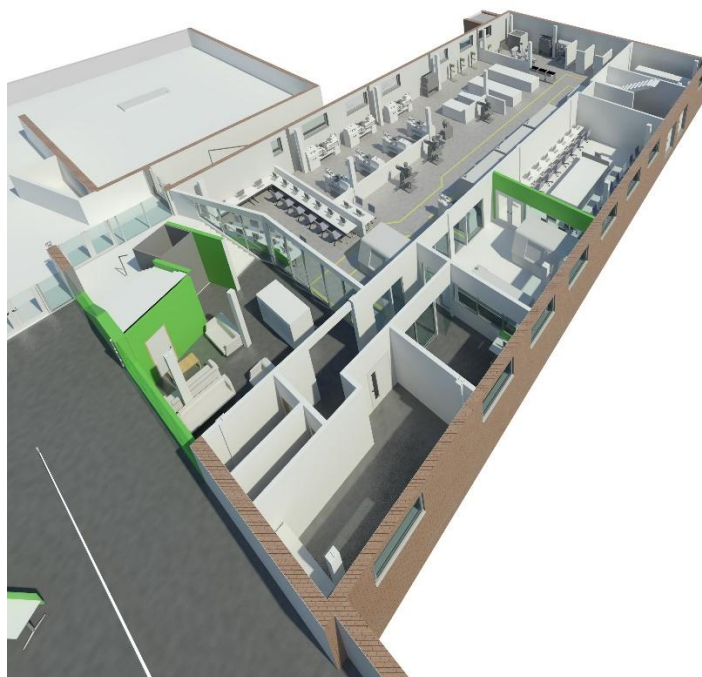
## The project

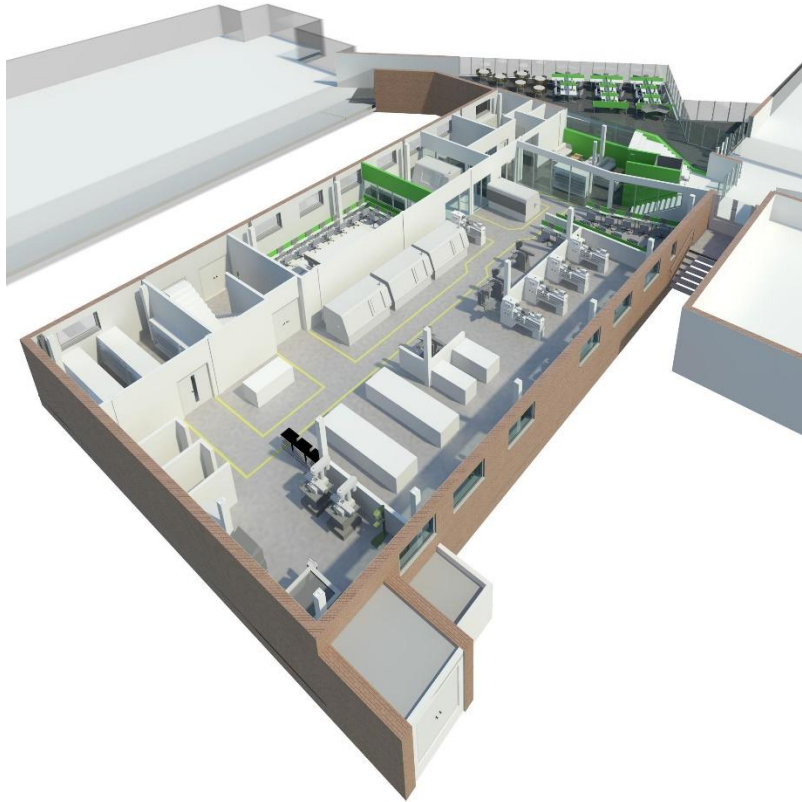
A full refurbishment and enhancement of the existing Engineering department for Nelson and Colne College. The project involves the creation of a new entrance and lobby area opening out to the main central corridor and triangle area with views into the main engineering workshops.

The existing workshops will be enlarged to accommodate a range of new state of the art engineering machinery and will include a new advanced engineering and innovation lab.

At first floor a series of new engineering IT labs will be created, staff rooms, WC's and a small open learning zone.

The existing MIS, Finance, Exams and HR offices will be fully refurbished and the existing polycarbonate external cladding is to be replaced with a new fully insulated rendered wall.





## BREEAM Targets

BREEAM sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance. It encourages designers, clients and others to think about low carbon and low impact design, minimising the energy demands created by a building before considering energy efficiency and low carbon technologies.

A BREEAM assessment uses recognised measures of performance, which are set against established benchmarks, to evaluate a building's specification, design, construction and use. The measures used represent a broad range of categories and criteria from energy to ecology. They include aspects related to energy and water use, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes

BREEAM ratings are as below:

- Pass
- Good
- Very good
- Excellent
- Outstanding

As an existing building the credits available are restricted. This proposal is therefore targeting a 'Very Good' rating.

### Building information

Build/project cost	£615/sqm
Building services costs	£235/sqm
External works costs	£Nil
Gross floor area	1200 sq/m
Total area of site	650 sq/m
General accommodation	
IT labs	178 sq/m
Advanced engineering lab	55.5 sq/m
Innovation lab	31.3 sq/m
Staff rooms	42.6 sq/m
Engineering workshops	345 sq/m
Stores	130 sq/m
Lobby	42.5 sq/m
WC/Changing facilities	28.8 sq/m
Offices	181 sq/m

Circulation 64.7 sq/m

## Energy

Predicted Electricity consumption kWh/m<sup>2</sup>

110 kWh/m<sup>2</sup>

Predicted fossil fuel consumption - kWh/m<sup>2</sup>

10 kWh/m<sup>2</sup>

Predicted renewable energy generation - kWh/m<sup>2</sup>

Zero kWh/m<sup>2</sup>

Predicted water use - m<sup>3</sup>/person/year

0.67 m<sup>3</sup>/person/year

% predicted water use to be provided by rainwater or greywater

Nil

## **Steps taken during the construction process to reduce environmental impacts**

Nelson Joinery and building have been appointed to carry out the refurbishment works and they are committed to:

- Compliance with all environmental legislation, regulations and codes of practice relevant to the construction industry sector
- Preventing pollution
- Continue to research and apply improvements to our environmental performance

It is the policy of Nelson Joinery & Building Limited to:

- Use recycled construction materials and sustainably sourced materials whenever these can be commercially justified
- Work with suppliers who recognise and actively reduce the environmental impact of their products
- Conserve energy and water, minimise waste and recycling where possible
- Keep transportation to a minimum and regularly service company vehicles to maintain their efficiency
- Inform employees of the company's environmental objectives and how they may assist in achieving them
- Meet our duty of care requirements in relation to waste by ensuring safe keeping, transportation and subsequent recovery or disposal of such waste.