

Organising construction site visits for university students

Site visits for engineering students provide an excellent shop window for the many and varied career opportunities that construction industries have to offer. They can benefit everyone involved: the construction company looking to its long term recruitment needs; the university or college needing to fulfil its JBM (Joint Board of Moderators) accreditation requirements; and not least the students, looking to fulfil their career aspirations.

This Guidance Note has been prepared primarily for companies that wish to recruit engineering graduates, and university departments looking to organise site visits for their students.

The JBM seeks to maintain and strengthen links with educational establishments offering accredited degree programmes on all matters concerned with first degree programmes, and periods of Further Learning in those engineering disciplines of relevance to the JBM member institutions. The JBM is appointed by, and answerable to, the Councils/Executive Boards of the sponsoring institutions – ICE (Institution of Civil Engineers), IStructE (Institution of Structural Engineers), IHT (Institution of Highways & Transportation) and the IHIE (Institute of Highways Incorporated Engineers). All members involved in the accreditation activities are experienced engineers, capable of making balanced judgements on the ability of an educational establishment to create a high standard of graduate output. For more information see: <http://www.jbm.org.uk/>

A common theme arising from JBM accreditation visits to universities is the lack of opportunity afforded to students to visit sites, and observe construction activities being carried out in the workplace. Reasons cited by the universities as being a barrier to students visiting sites centre on the following:

- health and Safety legislation
- a lack of local projects

This Note gives some pointers to help, and encourage companies and universities to work together to organise a successful site visit.

Health and safety requirements

This Guidance Note has been prepared with reference to UK legislation, and students on accredited programmes available outside the UK should check their local health and safety guidelines.

Health and safety legislation does not prevent site visits. Anyone can visit a site provided the visit is carried out in a controlled manner with appropriate procedures in place to address the specific hazards that are current at the time of the visit.

The legislation does not permit someone to enter a site and wander around in an unsupervised manner without having received the necessary site induction and training. It does allow anyone to be escorted around a site, provided they comply with basic site rules.

A visitor to a site will be required to:

- Attend a basic induction pertinent to the visit.
- Wear appropriate footwear and personal protective equipment (PPE).
- Comply with the instructions of their guide or host.

The site induction will cover the basic site rules relevant to the visit and should not last an excessive amount of time. It is no more onerous than the requirement to brief visitors to a university on the safety procedures operating within the campus. Visitors may be asked to sign an appropriate form acknowledging they have received an induction and signifying their agreement to comply with the visit procedures.

All construction sites require that appropriate safety footwear is worn at all times. Most importantly, footwear should be sturdy, providing ankle support and reasonable protection against puncture and/or permeation of substances. Steel toecaps and midsoles are very useful and may be necessary in areas where ground conditions are hazardous or where risks of falling objects/materials cannot be prevented. This is a potential area of difficulty where large groups are being shown around as the average site will normally have a limited range available. Students should have access to appropriate footwear as this is required in laboratories and on field trips where the risk of foot injury is present and therefore should be available either on a personal basis, or through the university. It is always helpful if protective equipment such as hard hats, goggles, high visibility clothing, and ear protection can be made available on site. However, if students are able to provide their own PPE, clearly this can reduce the site workload in organising the visit.

Students will generally be shown around by contractor's staff in small groups of about five. This has the benefit in that the construction processes can be explained and discussed in detail with the students, and that the appropriate levels of supervision can be provided to ensure the safety of all is maintained.

As mentioned, visits to site are not restricted by legislation per se, but by the ability of the site team to organise the necessary guides to ensure the safety of the visitors and provide the necessary PPE. Major construction sites operated by leading contractors should not have these issues. However, it is generally understood there are limited areas where visits would not usually be appropriate due to the highly specialised risks encountered and the training necessary for safe working.

These areas are:

- Underground tunnelling.
- Confined spaces.
- Work at height on isolated piers.
- Underwater and diving operations.
- Trackside on railway networks.
- Hazardous areas or operations e.g. asbestos removal, nuclear decommissioning.

Local Site Projects – Maximising Benefit of Construction on Campus

Many universities are carrying out significant construction work on campus as new facilities are provided to cater for increased student numbers and provision of new courses.

This provides an unrivalled opportunity for site visits as the university is the client for the works and can control contractual arrangements. When commissioning a project the university may well seek to negotiate a programme of visits throughout the construction period at no cost. Indeed in today's market where engineering resources are at a premium, contractors should consider such arrangements a recruitment opportunity, to demonstrate their capability to provide employment to students when they graduate.

In this situation, the JBM consider a monthly visit would not be unreasonable for a large group of students.

The provision of vacation employment for an agreed number of students could also be considered. Depending on the scale of the project this may attract a small additional cost for universities in procuring the project. Further mutual benefit could be gained by the compilation of a video showing the construction methods and highlighting any innovation, or new technologies being employed. Contracts almost always include a requirement for progress to be documented photographically and the extension to provide video, if included in the tender instructions, should be possible at minimal cost.

Provision of site visits can form part of a contractor's Corporate and Social Responsibility Policy (CSR) by contributing directly towards sustainability issues. All major contractors now have CSR in place as part of corporate governance. JBM advise universities that when seeking tenders for construction work, or consultancy commissions, they should require organisations to submit their

CSR and provide a proposal for addressing sustainability issues in the academic environment. This will enable a university to gain maximum benefit for its student cohort from its position as a construction client at minimal cost.

Local Site Projects – Using Industrial Liaison Panels

If you or your company are concerned about higher education and professional skills issues, consider getting involved in the Industry Liaison Panel of your local or regional university. If you want to know more, university websites will usually provide details. Alternatively contact JBM for advice.

Most industrial panels are proactive in providing vacation employment for selected students. Organisations that contribute resources on a voluntary basis to the panel receive payback through the ability to recruit the most talented graduates.

Industrial panel members are encouraged to arrange a site visit to one of their current projects in order that the engineering student cohort as a whole can benefit. The ICE's Regional Support Teams (RST) may also be able to give guidance to universities on possible local site visits, Please visit the ICE website for contact details of your local RST.

Jointly produced by:

**JBM (Joint Board of Moderators) and
Construction Sector Unit,
BERR (Department for Business Enterprise and Regulatory Reform),**

August 2008