

A9 Dualling

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Luncarty to Pass of Birnam
Project newsletter



Balfour Beatty

JACOBS



Inspiring The Next Generation

Young People in Construction: Plugging the Skills Gap

Construction Scotland, the construction industries Industry Leadership Group (ILG) reported that, in 2018, construction employed more than 170,000 people making up around 10% of the Scottish workforce and contributed £21.5bn to gross domestic products (GDP).

The A9 Dualling programme, represents approximately £3bn of investment in Scotland's roads infrastructure, which is expected to create numerous employment and training opportunities for young people.

Data collated by the Construction Industry Training Board (CITB) shows that the flow of new entrants into construction has

not matched demand with the industry now facing a skills shortage as long-standing and experienced engineers, construction operatives and supervisors near retirement and leave the industry. Therefore, it is hugely important to promote careers in the construction industry to encourage the next generation of young, talented engineers.

The Balfour Beatty team delivering the A9 Dualling: Luncarty to Pass of Birnam project has committed to making young people a central part of our community benefits agenda. Balfour Beatty is working hand-in-hand with Transport Scotland and our project partners, to provide opportunities to learn about the construction industry, experience life

on site and to begin a rewarding career, shaping the world we live in.

In this month's newsletter, we have extended our regular 'In Profile' section to focus on the opportunities the project has brought to benefit the career prospects of local young people.

“What you leave behind is not what is engraved in stone monuments, but what is woven into the lives of others.” **Pericles**

Academy9 Site Visits

To inspire young people to consider a career in construction, Balfour Beatty believe it's important to spark an interest in designing, building and making things as early as possible. This is just one objective of Transport Scotland's Academy9 Programme and Balfour Beatty has been working closely with the Academy9 team to develop 'hands-on' learning through the A9 Dualling: Luncarty to Pass of Birnam project.

Earlier this year, the project team and the Academy9 team visited local primary schools to develop their understanding of the risks on construction sites, how to assess those risks and how we put in place measures to mitigate risk. Following these workshops, the project team developed a site-based experience, aimed at primary seven pupils, which gave the children an opportunity to visit the construction site and learn more about the major engineering works taking place on their doorstep.

Stanley, Murthly, Luncarty and Auchtergaven Primary schools visited the project compound and were given a tour of the on site laboratory used for testing materials such as concrete. The visit followed the journey of the raw materials

(natural stone) from our on site quarry to show how the stone is processed on site to make concrete that is then used to construct bridges.

The pupils visited three stations within the project site. The first was the latest viewing platform to be constructed, overlooking the quarry, processing and batching plant, adjacent to the site office. Here, the pupils learned about how materials are excavated, screened, graded, stored and then used as aggregates or as part of the recipe for concrete or asphalt.

The next station was our on site United Kingdom Accreditation Service (UKAS) accredited materials testing laboratory, where pupils were shown how the quality of concrete is tested using 'slump' tests and how concrete is tested for strength.

Finally, the pupils travelled to the viewing platform at Pitlandie where they were able to see Pitlandie Overbridge under construction. The pupils learned about foundations, steel reinforcement, formwork and witnessed how the concrete made from materials extracted from the on-site quarry is used to make structures like the Pitlandie overbridge.



Structures Sub Agent, Gary Cameron, talking to primary seven pupils about the construction of Pitlandie Overbridge



Gary Strachan showing pupils asphalt cores and explaining how we use water baths to cure concrete cubes at set temperatures

Testing Concrete Quality and Strength

In order to ensure that what we build will last, our laboratory undertakes testing to check and confirm that the materials used on our site, meet with required standards. This involves a variety of different tests with various different materials. Some of the tests carried out in the on-site laboratory are described below.

'Slump tests' are used to test the workability of concrete, measuring how much a cone of concrete 'slumps' when unsupported. Too much or too little water can affect the strength and durability of the concrete.

Concrete cubes are made in special moulds from every single batch of concrete used on the project. They are formed to exacting standards and measurements and cured in the laboratory in water baths. The water allows the cubes to be cured at a set temperature to ensure conformity before being crushed to the point of failure in a pneumatic press.

Look out for a full tour of our laboratory in a future edition of our newsletter.



Concrete cube being crushed to destruction to test strength

Cabinet Secretary visit

Balfour Beatty and Transport Scotland both recognise the importance of supporting, developing and inspiring the next generation of construction professionals. The A9 Dualling: Luncarty to Pass of Birnam project and the wider A9 Dualling Programme, aims to leave a legacy for surrounding communities built on career opportunities and training.

The Cabinet Secretary for Transport, Infrastructure and Connectivity, Michael Matheson, visited the site in June to meet with some of the young people who are already benefitting from the project through employment and training, including apprentices and young operatives.

The A9 Dualling: Luncarty to Pass of Birnam project has already engaged with 2,271 pupils and students from nursery through to university level education, which includes supporting Transport Scotland's Academy9 Schools Programme to promote STEM (Science Technology Engineering and Mathematics) subjects and engineering as a career.

In the first 12 months of the project, we are well on the way to achieving our target of creating 30 new jobs over the anticipated two-year duration of the works.



Michael Matheson MSP meets with some of the new entrants and apprentices employed through the project

Construction Careers – 'Myths' explored

As a major employer in the construction industry, we understand that there are a lot of misconceptions around jobs in construction. In this section, we have put together some of the most common myths and preconceptions and explain how things really work in our industry.

We take safety seriously...

The safety of our operatives and those affected by our works is our top priority. We work hard to provide our operatives with the correct training, equipment and experience to undertake their roles safely. Our safety culture means that construction site risks are managed daily to ensure everyone goes home safe each day.

Construction is for females and males alike...

The industry has changed a lot over the past few decades and more and more women are choosing a career within the construction industry. Building the projects that will improve the world around us and make life better for the community

around us, means that we need the best and brightest talent. According to Engineering UK 2018,

- 12 % of all engineers are women in the UK
- 21 % women work in the engineering sector
- 46 % of girls 11-14 would consider a career in engineering, compared to 70.3% of boys

It takes all skills to build things...

While construction offers the opportunity to get away from a desk and work physically in the outdoors for those who want that from their career, there are numerous other skills that are needed to make projects run smoothly. Whether it's the designers who produce the plans for the project, the Quantity Surveyors who manage the costs, the administrators who manage information or any number of other roles, there is a career for everyone.

We get to grips with new technology and innovations...

Through the integration of 3D design, Building Information Modelling (BIM), the increasing importance of drones and virtual reality technology, construction is at the forefront of the digital revolution. As technology advances, the construction industry requires the sharpest minds to harness its potential to make projects more cost effective, to deliver them more quickly and, above all, to make them even safer.

Perth Academy Work Experience

Balfour Beatty has been working in partnership with Perth Academy for more than three years to support science, technology, engineering and mathematics (STEM) subjects, and to promote careers in the construction industry to pupils.

Central to this has been the sponsorship of the Design...Engineer...Construct! (DEC!) programme – an accredited learning programme for secondary pupils devised by social enterprise, 'Class of Your Own', which uses a project-based approach to teach students about modern construction using cutting-edge technology and industry support.

Now in its third year, the course has provided the opportunity for students to learn from industry experts about all aspect of construction.

In September, the A9 Dualling: Luncarty to Pass of Birnam project hosted four students from Perth Academy on work experience placements, two of whom have taken part in the DEC! programme. These placements gave students the opportunity to experience a week in the life of a major construction project, spending time both in the office and on site.

The placements were accredited through the Engineering Development Trust's 'Industrial Cadets' programme. This programme creates a structure for the week and ensures that students get the most from their experience. Pupils complete a daily diary, recording their experiences throughout the week, and their diary is used to produce a presentation which the pupils deliver to the project management team at the end of the week.

All four candidates successfully completed their placements and were awarded a Bronze certificate.

“It is no exaggeration to state that the four students returned to us following this experience with changed perspectives and challenged aspirations... We remain extremely grateful and privileged to call Balfour Beatty partners and we look forward to the next chapter in our journey together.” **Johnny Lothian, Rector, Perth Academy**

Elliot Moir – Oakbank Apprentice

Apprenticeships are an important way for young people to have the opportunity to study towards a qualification whilst gaining work experience, meeting and developing relationships with people in the industry and earning money, all at the same time.

Balfour Beatty is a founding member of the 5% club – an employer-led movement which champions investment in the next generation through workplace training. It challenges its members to work towards having a minimum 5% of their UK workforce enrolled on formalised apprentice, sponsored student and/or graduate development schemes within five years of joining.

An apprenticeship is a long-term commitment for both the individual and the employer, and our approach to recruiting apprentices focusses on engaging early and building a relationship with young people with a keen interest in the industry. Elliot Moir is one such individual.

Elliot Moir, from Oakbank in Perth, was a student at Perth High School when he undertook a Foundation Apprenticeship at Perth College UHI in Civil Engineering. Balfour Beatty has been supporting the college for several years and Elliot had been on site visits to meet our construction teams on previous projects in Perth.

Our Community Liaison Officer, Duncan Gardner, met Elliot again at a Jobs and Apprenticeships Fair organised by the Developing the Young Workforce team. Elliot expressed an interest in a civil engineering apprenticeship and the Balfour Beatty project team was able to



Elliot Moir setting out at the new Stanley/Tullybelton junction

offer an interview through the Luncarty to Pass of Birnam Project, part of the A9 Dualling Programme. Elliot was employed in May 2019, as an engineer's assistant.

This role gave him the opportunity to work over the summer to see what the job entailed and decide whether it was for him. Elliot had a very successful summer placement and was accepted at Dundee and Angus College to complete an HNC in Civil Engineering which Balfour Beatty is now supporting through day release.

Duncan said: “The goal of our community benefits agenda is to invest in the communities in which we operate in a structured and meaningful way that can deliver real, tangible outcomes for local people. I'm extremely happy to see Elliot joining us on the project after being involved for a number of years through our wider programme of engagement.”

Elliot said: “I'm really enjoying the opportunity so far. The team is really supportive and the chance to be out on site, putting what I am learning into action, is the best part of my apprenticeship.”



Perth Academy work experience students with their Industrial Cadets Bronze Award certificates

Project Update

Mixed weather on site over the summer has created some challenges, however, the project continues to make good progress.

With the precast beams successfully installed at the new Stanley/Tullybelton Junction, works have continued to construct the bridge deck and complete the surrounding earthworks, bringing the structure closer to completion every day.

Road users will have noted the appearance of concrete columns at some other locations along the length of the project at Pitlandie, Coltrannie and Gelly. We are currently planning for the installation of precast beams at two bridges: Pitlandie Overbridge and Coltrannie Overbridge towards the end of 2019.

Works have also started to construct new sections of road for the northbound carriageway between Luncarty and the new Stanley/Tullybelton Junction. This first section of new carriageway, totalling approximately 2.4km in length, is being prepared using a Cement Bound Granular Material (CBGM) mixture which forms the foundation for the road.

Works on the two culverts at the Shochie and Ordie burns are now almost complete with the structures now finished. Works over the last couple of months have focused on placing fill material over the top of the culverts which will allow us to construct the foundation of the new pavement which will cross over the top of the culverts, forming a widened section of the A9 upon which we will lay the new road surface. Once this is complete, we will then remove the adjacent temporary Bailey bridges.

Construction of the carriageway drainage at the southern end of the site commenced during the summer period and is expected to continue until completion of the new carriageway.

We would like to thank local communities and road users for their continued patience during the ongoing works.

We want to hear from you...

Your feedback is extremely important in helping us to continually improve our practices and how we communicate and share information with those impacted and/or affected by our project. We have created a short survey to give you the opportunity to let us know how we are doing, what you feel has gone well so far and anything we could be doing better.

The survey is open to local communities, businesses, road users and anyone else interested in or affected by the project.

If you are already on our distribution list, you will receive a link to the survey by email. You can also access the survey online at <http://tiny.cc/A9L2B>. It should only take around five minutes to complete and will help us to identify any areas for improvement in 2020.

If you would prefer a paper copy of the survey, you can call us on 0800 193 7313 to arrange. We plan to share the results of the survey in a future newsletter.

The survey is now open and will remain open until the 15th of January.



New embankment and carriageway preparation at Luncarty



Progress at the Stanley/Tullybelton junction



Ordie culvert extension



Columns under construction at Coltrannie

Project opens its doors to the public

On Saturday the 7th of September, members of the public were given a unique insight into a major infrastructure project as the A9 Dualling: Luncarty to Pass of Birnam project welcomed 57 visitors to site as part of Doors Open Day 2019.

The project team, comprising engineers from Balfour Beatty and Transport Scotland, gave a first-hand account of the significant construction works currently underway to upgrade 9.5km of the A9 from Luncarty to Pass of Birnam to dual carriageway.

The visitors enjoyed a project overview presentation at the Site office, followed by a mini bus tour across the 9.5km construction site. The highlights of the tour included a stop at the public viewing platform at Pitlandie, just off the A9.

The viewing platform provides a safe zone where members of the public can view the construction of a new bridge structure and Sustainable Drainage System (SuDS) pond currently underway at Pitlandie.

The annual Doors Open Days 2019 celebration was co-ordinated by Perth and Kinross Heritage Trust and is Scotland's largest free festival that celebrates heritage and the built environment.

The event was a resounding success with one visitor commenting:

“We’ve been going to these events for a number of years and all our visits have been fascinating and well organised. It’s a great idea – a fascinating insight into the A9 Dualling project.”



Ken Brown delivers a project overview to Doors Open Day visitors

Supporting the local community

Supporting the local community is an important part of the A9 Dualling: Luncarty to Pass of Birnam project. We have received several requests from local schools, organisations and charities for support and have been delighted to have been able to assist with some of these projects.

Most recently, George Black from Luncarty, Redgorton and Moneydie Community Council mentioned that the pads for the defibrillator at the Spar in Luncarty were due for renewal. The Balfour Beatty project team was able to offer their support to replace these vital components. Ken Brown, Corporate Social Responsibility Manager for Balfour Beatty presented the replacement pads to George Black in August 2019. George said “Luncarty, Redgorton and

Moneydie Community Council is grateful for the generous offer made by Balfour Beatty to supply new pads for our public access defibrillator. The project’s community liaison team is always willing to listen to what local people have to say.”

As part of the A9 Dualling: Luncarty to Pass of Birnam project, we have set aside some funding to support local good causes through small grants.


If you have a worthy cause that will benefit local communities that could do with a little helping hand, please send any proposals to us using the details below.


Contact Us


Project Enquiries Line: 0800 193 7313
Project Email: A9L2B@BalfourBeatty.com



George Black receives the new pads for the community defibrillator

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