

M74 Completion NEWS

ISSUE 5 / DECEMBER 2009



Welcome to the fifth edition of our M74 Completion project newsletter.

Since the last issue our progress has stepped up a gear and the changes in the landscape are there for all to see. Planning and programming the works

in great detail in advance is a very necessary function – we expected to achieve what we have achieved - but still, the results are quite breathtaking.

To get to where we are right now has taken a tremendous amount of effort from many parties and I would like to acknowledge the culture of working together as a team which has grown stronger and stronger as the works have progressed. The teamwork is not just between the joint venture partners and their subcontractors; it also includes the project funders, namely Transport Scotland, Glasgow City Council, South Lanarkshire and Renfrewshire Councils and the other stakeholders such as SEPA, Network Rail, the public utilities and Strathclyde Police all of whose approach to the challenge has been very positive and helpful.

A vitally important component in the whole mechanism is our relationships with our neighbours, the general public and businesses all along the route. Minimising the impact of the works has been a considerable challenge over the past eighteen months but it is impossible to build a motorway in an urban environment without disturbance. However, the level of complaints has been very low and this is testament to the patience and understanding of the residents and business owners of Cambuslang, Rutherglen and Glasgow. I would like to thank you all most sincerely for your tolerance.

As we approach Christmas, progress will continue in the same vein albeit with reduced working hours and in the New Year we have the launch of the first main span of Port Eglinton Viaduct to look forward to.

During the Christmas holidays the site will be secured and closed down as far as the majority of operations are concerned but we will have a security presence on site in addition to progressing some essential operations.

Again, the holiday period can be a worrying time for those with children in their care without the security of school in the daylight hours. I would urge parents and guardians to ensure that their young people stay well away from the site which can seem like an attractive playground when operations are suspended but, in fact, is still strictly out of bounds to unauthorised visitors.

Finally I would like to wish you all a very merry Christmas and a prosperous and happy New Year and I look forward to the great teamwork that has brought the project so much success to date continuing throughout 2010.

David Welsh,

David Welsh,
Project Director, Interlink M74 JV

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Interlink M74 JV



Apprentices on the Road to Career Success



Transport Minister Stewart Stevenson recently welcomed fifteen young people on the road to career success as they were formally inducted to an M74 Completion Modern Apprenticeship scheme.

The apprentices, who are mainly from the Glasgow and South Lanarkshire area, started working on the project last year as a result of the M74 Employability Partnership. They will now have the opportunity to maximise the benefits of this work experience as they start out on the Interlink led Modern Apprenticeship scheme that allows them to become 'time-served' within two years.

Speaking at the induction Mr Stevenson said:

"The M74 Completion project is playing a vital role in providing employment for the construction industry in a period of economic difficulty, around 900 jobs at the project's peak. Supporting and developing young people is a key part of this and I am delighted with the ways in which Interlink has proactively developed training opportunities for these young people and ensured their training will continue beyond the M74 Completion project.

"Not only will these Modern Apprenticeships provide the candidates with a strong starting point for their careers, the valuable experience and transferable skills they will gain as a result will stand them in excellent stead for the future.

"Transport Scotland's work alone supports over 25 per cent of the civil engineering contracting sector's workload in Scotland. Access to skilled employees is key to the success of our major infrastructure projects and investing in our people through programmes such as the Modern Apprenticeships is essential, not only to meet current needs, but also to ensure ongoing sustainable economic growth for Scotland."

The scheme, which has been developed by Interlink in conjunction with Construction Skills, will offer real employment opportunities for all fifteen involved.

Glasgow City Council's Executive Member for Business and the Economy, Cllr George Ryan, said:

"I am very proud of the role we played - along with Interlink, the Glasgow East Regeneration Agency and our local government partners - in establishing the M74 Employability Partnership.

"That project has given these young people the skills and opportunity to secure Modern Apprenticeships on one of the biggest engineering projects in the country and support from Interlink in forging long and successful careers in a great industry."

David Welsh, Interlink M74 Joint Venture Project Director, added:

"This is a fantastic day for the civil engineering industry as employers have been working for a number of years to put these apprenticeships in place; all candidates will be registered with Scottish Building Apprenticeship Council. We at Interlink are delighted to show faith in the future of the industry and the young people of the Glasgow and surrounding areas."

The scale and nature of the M74 Completion project has allowed the development of a Modern Apprenticeship programme that covers a diverse range of construction skills such as formwork, steelfixing, plant operation and general construction. The young people will serve their time with one of the four joint venture partners and remain with these companies to complete their apprenticeship after the new M74 is open in 2011.

Taking Construction into the Classroom



Calderwood children learn about film making

While the three Rs are still very much the cornerstone of a child's education, schools are increasingly working with external organisations and businesses to ensure pupils are as prepared as possible for the world of work beyond their classroom years.

Since the start of the new school year we have been asked to talk to children and young adults of all ages about our work and the opportunities for employment, something in which we have been delighted to be involved. It is vital that young people - our employees of the future - are supported and encouraged in achieving the qualifications and developing the skills required to sustain the industry in the coming years.

Civil engineering and the construction industry in general are extremely diverse in terms of the opportunities available and skills required.

Industry President Praises Project

The M74 Completion project recently played host to the president of the Institution of Civil Engineers (ICE), the global organisation for the promotion and advancement of civil engineering around the world. Paul Jowitt was joined by representatives of ICE, GCC and Interlink when he visited the project in late November as part of his President's Visit to Scotland.

Guests were taken through the fly through videos which provide a virtual model of what the new motorway will look like upon



Paul Jowitt (2nd from right) and fellow visitors on site tour

On a project the scale of the M74 Completion it really could be said that there is something for everyone. On this project alone we have identified at least seventy different job titles which need different, albeit sometimes overlapping, sets of skills to make it operate as it should.

Since the summer we have been working with the following schools:

Burnside Primary: assisting in the preparation of the new school garden

Calderwood Primary: participating in the school's World of Work Day

Cairns Primary: hosting a progress visit to Auchenshuggle Bridge as part of the school's long term project

Craigholme Primary: giving a talk to P1s on road building

Eastbank Academy: supporting the school's Work Experience Week

Holyrood Secondary: helping with the school's Maths Challenge

We have also hosted site visits from students from Heriot-Watt University, Reid Kerr College, the University of the West of Scotland and Dresden University in Germany. Other groups including the Rotary Club, the Institution of Highways and Transportation, the Institution of Civil Engineers and Construction Skills Scotland have also visited the project in the period.

completion before being given a tour of the site. The group visited two of the key structures on the route of the new motorway which is one of the largest infrastructure schemes currently on the ground in Scotland. The M74/M8 link viaduct will carry both carriageways of the M74 over the M8 while the Port Eglinton Viaduct, the largest of the project's thirteen structures, will allow the new motorway to pass over a number of surface streets and rail lines.

Mr Jowitt left the project impressed with what he had seen and said:

"The M74 Completion project is a real gem. It combines some challenging engineering on a constrained urban site - not least the impending launch of the Port Eglinton Viaduct - with factors that don't usually spring to mind with most motorway projects: positive support from the local community, minimal disruption, urban regeneration together with contaminated land clean-up and materials reuse. All this reflects the very positive and seamless working relationships within the Interlink M74 JV team."

Progress Overview

WEST SECTION



M74/M8 Link Viaduct Parapet

M74/M8 Eastbound Link Bridge – With the substructure now complete and the planks for the bridge decking installed, all eight concrete deck pours have now taken place. The siting of the pre-cast parapets on the edge of the bridge, is 50% complete.

M74/M8 Westbound Link Bridge – Backfilling to the abutments of the bridge is continuing and the reinforced earth wing walls which retain soil behind the abutment are 70% complete.

Port Eglinton Viaduct – All substructure works are complete with the exception of the columns under the launch position. All temporary trestle bases, which provide temporary support to the structure during construction, are now concreted with intermediate support bases complete where traffic management allows. Piling behind the west abutment is also finished.

The erection of the bridge beams is progressing well with all twelve beams required for stage three of the structure programme erected, completing the deck beams from the west abutment to pier 5. Permanent formwork panels, which act as moulds for the concrete forming the structure, are now ready and will be erected in next period.

All 22 steel sections required for the first stage of the bridge launch are now in position and formwork panels have started to be placed. Four of the 22 steel sections of the second phase of the bridge launch are now on site.

Retaining Walls 12 and 15 – Piling is complete. The fitting of steel reinforcement bars to the bases has commenced. Two of the 6 pilecaps have been concreted.

Strathbungo Railway Underpass – The bridge parapets are now complete and work will commence on the approach parapets once backfill has been completed.

Cathcart Road Overbridge – The first stage of the deck is now concreted and permanent service diversions are underway which will be followed by the switch of traffic in the first quarter of next year.

Polmadie Road Underbridge – Piling to the centre pier is complete. Beams are ordered for March 2010 and the west bank seat is concreted with the east to follow.

Rutherglen Station Underbridge – At the west abutment piling is now complete and excavation is underway. The fitting of steel reinforcement bars to pier 3 is underway while at pier 1 piling is complete and at pier 2 piling commenced early December.

Reco Retaining Walls – At wall 17 (Polmadie), secondary settlement is now complete with cope, which caps the top of the wall, in place. Wall 9 (Kingston) is surcharged, whereby surcharge is put in place temporarily to speed up the settlement of fill materials, with settlement being monitored. Walls 6 (the wing wall of the M8/M74 Westbound Link Bridge) is 70% complete while at wall 18 (Polmadie) surcharge is now cleared and wall erection underway.

Earthworks and Roadworks – Earthworks are ongoing at Kingston with 205,000 cubic metres of the 210,000 cubic metres required in place.

Mainline roadworks have progressed well with 60,000 square metres of cement bound granular material now placed, 70% of which is now covered with blacktop surfacing.

Major utility diversions for Polmadie Road Underbridge are complete with traffic now flowing on diversion to allow access to centre pier.

EAST SECTION



Auchenshuggle Bridge East Abutment

Glasgow Road Underbridge – The beam erection is now complete and the construction of the deck is ongoing.

Farmloan Road Underbridge – The revetment blinding, which helps disguise the walls of the embankments, was cast to the slopes under the bridge.

Cambuslang Road Underbridge – The centre piers have been cast and preparation is now underway for the beam erection in early January.

Auchenshuggle Underpass – The structure has been excavated, blinded and the base cast.

Auchenshuggle Bridge – On the west side the abutment is currently sitting at bearing shelf level with backfilling now complete. The next key milestone will be delivery and erection of the precast walkway. On the east side two of the three abutment walls have been cast.

Fullarton Roundabout – At the roundabout the two main structures have progressed to the stage where both structures are complete. Work is scheduled for completion in advance of the beam deliveries in early 2010.

Earthworks – Overall around 100,000 cubic metres of material remains to be placed in structures approaches, between Farmloan and Rutherglen structures and the centre of Fullarton Roundabout.

At Glasgow Road the westbound carriageway earthworks is substantially complete. Progress on the eastbound carriageway will continue upon completion of the Westburn culvert manhole and the removal of the soil treatment centre.

The Rutherglen Station area is presently under surcharge and work has commenced on the small reinforced earth retaining wall adjacent to old Quay Road.

Some surcharge has now been removed from Cambuslang Road and placed as fill behind west abutment of Auchenshuggle Bridge. Works elsewhere have included completing the excavation and capping of the westbound merge slip road from Cambuslang Road. In addition the new access road to the rail depot has progressed.

At the River Clyde the Scottish Power access track commenced while at Fullarton Road work got underway on retaining wall 29.

Drainage – To date 78% of pre-earthworks pipes have been laid and 39% of mainline pipes are in place.

Pre-earthworks drainage at Glasgow Road is well advanced with only the area at the soil treatments centre to be completed. Mainline drainage also commenced during the month.

The works at Quay Road North have progressed well with only the connection to the SUDS pond (the Sustainable Urban Drainage System deals with surface water runoff in an environmentally friendly way) and the final pipe into the Clyde outstanding.

Mainline drainage commenced at Fullarton Road during the period and various nightshifts were deployed to construct culverts 12, 15 and 16.

Roadworks – Roadworks have been focused on the existing M74 where reconstruction of the westbound diverge progressed to the extent where traffic was switched. Work is now ongoing in the central reserve area. In addition the utility diversions at Fullarton Roundabout have commenced.

Port Eglinton Viaduct Erection Summary (incl first launch)



Launch steel at Stromness Street

Port Eglinton Viaduct

The Port Eglinton Viaduct is the largest of the thirteen structures along the route of the new motorway, similar in scale to the Kingston Bridge. The 750 metre long bridge will cross several streets and three railways between West Street and Pollokshaws Road.

The public will now be seeing the 14,500 tonne structure starting to take shape. The erection of the viaduct has been planned in ten main stages and within each of these stages are multiple smaller phases, 116 in total to suit fabrication and delivery with each phase typically consisting of a span or pier girder. The timing of the stages has been guided by a number of factors including the overall construction programme, availability of access, logistics and interface with third parties and rail lines - four of the erection stages have a direct interface with the railway system.

The bridge is being constructed from what is known as box girders, referring to the box shape of the steel support beam. There are two types of these girders, namely shallow boxes (5.5m wide x 2.5m high) and deep boxes (5.5m wide x 4.5m high). In total 163 box girders will be required for the Port Eglinton Viaduct; 95 of these will be shallow girders and 68 deep.

These girders are too wide to transport as a whole therefore they are delivered in two halves. Both types are split in half down the longitudinal line with shallow boxes delivered standing vertically on end while the deep boxes arrive laid flat. Pre-assembly works to get the girders ready for use are carried out away from the railways and live carriageways and, when fully assembled, girders are transported to heavy lift cranes for placement via self propelled trailers.

44 of the 163 box girders will be used to construct the span of the viaduct over the West Coast Main Line adjacent to Eglinton Street which will be launched as two separate carriageways, eastbound and westbound. Each launch section is about 200 metres in length; in each case 170 metres of this will be launched forward i.e. will be slid into position rather than craned in as with the beams of other smaller structures. The first launch is scheduled for the end of January 2010 and will take approximately ten days.

Further information on the launch and traffic management arrangements will be available on www.m74completion.com in due course.

All Roads Lead to the M74



Baillie James McNally and Neil McDougall

With progress on the M74 Completion project well underway, two men who played key roles in its development and construction met recently at the site of the new motorway.

As project partner Glasgow City Council's Executive Member for Land and Environmental Services, Baillie James McNally is the political head of the council department managing one of Europe's largest engineering schemes. In the 1960s he worked on the original M74 project in his capacity as a civil engineer and town planner.

Neil McDougall's M74 association began in the same decade when in 1963, at the age of 21, he operated a digger on the first stretch of the motorway. Forty-five years later he is a Works Manager for Interlink and even helped cut the first sod with First Minister Alex Salmond when work began in May 2008.

Blood Donation Boost

In the last issue we reported that over 45 pints of blood were donated by staff to the Scottish National Blood Transfusion Service (SNBTS) travelling donor wagon in an effort to boost the ever-increasing need for blood stocks. The van returned in October and employees again did their bit to help the

SNBTS deliver vital, and often lifesaving, blood transfusions to over 100,000 patients in Scotland every year. We are delighted to report that we increased our contribution to 56 pints and look forward to a return visit and increased contributions in the spring of 2010.

Contact Us

If you have any queries please contact our freephone Community Helpline, 24 hours a day, 7 days a week on 0800 328 1697

Alternatively you can contact us at the address below:

Community Relations Team, Interlink M74 JV,
Interlink House, 150 Polmadie Road, Glasgow G5 0HD

Or email community.relations@jvm74.com

The project website is regularly updated, for the latest information please visit www.m74completion.com

The purpose of these newsletters, which are printed on environmentally friendly paper (9 Lives 200gsm Silk), is to provide the public with information about the M74 Completion project. These newsletters will be issued regularly and contain details of progress, forthcoming programme and other interesting aspects of the scheme.