

NEWSLETTER



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CELTIC ROADS GROUP DUNDALK

The Dundalk Western Bypass PPP Scheme

Construction Progress

Works have progressed very well through the winter period and the project is on schedule for delivery on time in February 2006. 4 minor roads across the new Dundalk Western By Pass motorway are running on their new alignment. The bridges over the



Kilcurry and Castletown rivers are now also complete and construction traffic can use them to pass over the rivers. More significantly we have “pushed” the new railway bridge into position over the Easter weekend. The bridge was moved into its final position using a very modern proprietary French technique that has never been used in Ireland previously. It proved very successful and the 7,500 tonne bridge was moved from its temporary location in just 10 hours. A more technical explanation of this technique is given below. At the moment most of the bulk earthworks are complete and our activities are concentrated on pavement laying, generally moving from south to north. Our next significant event will be the temporary movement of the traffic around the Ballymascanlan Roundabout.

Sliding of Ballynahattin Railway Bridge (B13)

Celtic Roads Group are extremely proud of the successful *sliding* of this bridge. This is a major event in our short history and marks a significant milestone on our path to delivering the final leg of our part of the M1 motorway.



This bridge supports the Dublin - Belfast railway line over the new M1 Dundalk Western By Pass. The bridge is 79m from end to end, split over 4 spans (17m, 23m, 23m, 16m). The structure is up to 12m high and weighs 7,500 tonnes. Prior to the weekend closure of the railway the bridge was first pre-constructed as close to the final bridge location as possible. In our case this was 44m to the west of the existing Dublin - Belfast railway line. The bridge was constructed using traditional techniques of in-situ concrete construction.

Over the past year we have been planning the closure of the railway line for Easter 2005. Iarnród Éireann closed the track after the last train on Thursday 24th March 2005. When Iarnród Éireann had removed the old track they granted possession of the area to allow the commencement of our operations. Once we received possession of the railway, we removed 23,000 cubic meters of clay embankment beneath the railway to create a gap for the new bridge to fit into.



Through a series of channels, 6 sets of wire looms connect the rear side of the bridge base slab to the front anchorages of the guide raft (close to the railway). A system of 6 hydraulic rams connected to the bridge to pull themselves along the cables thus pushing the bridge ahead. The whole system moved the bridge at a speed of up to 6 m per hour.



Then we commenced the operation of moving the bridge from its temporary position into its final position along the railway line.

The system employed to move the bridge was a proprietary French technique call Autoripage. Using this method requires the bridge to sit on a base slab which in turn sits on a guide raft. The surfaces between these elements are smooth and lubricated with bentonite (a clay-like lubricant fluid).



Directional movement was constantly monitored and measured by lasers and GPS (Global Positioning System). Any adjustments to the direction of the slide were made by increasing or decreasing the loads on the appropriate sides of the bridge via the hydraulic rams.

Once the bridge was in place all the gaps around the structure were filled with concrete and pressurised grout (a cement / water mix). Finally the old railway embankment was dressed with a full height gravel apron around the new exposed perimeter. The bridge was then handed over to Iarnród Éireann to relay the tracks and signalling equipment.

The whole operation was completed on time and normal train traffic resumed first thing on Easter Tuesday.



THE PARTNERS — The following parties have contributed to delivering this project as part of the Dundalk Western Bypass PPP Scheme:

National Roads Authority - Contracting Authority

Iarnród Éireann – Railway Operator

Louth County Council

Maeth County Council

Celtic Roads Group (Dundalk) Ltd – PPP Company

RPS-MCOS & Roughan & O' Donovan – National Roads Authority Representatives

Dundalk Joint Venture – Main Contractor

Mott MacDonald EPO Ltd – Designer

JMB Methodes – Autoripage Designer and Patent Holder

VSL – Autoripage Subcontractor

Logan Earthmoving Ltd – Earthworks Subcontractor



THE SPONSOR COMPANIES

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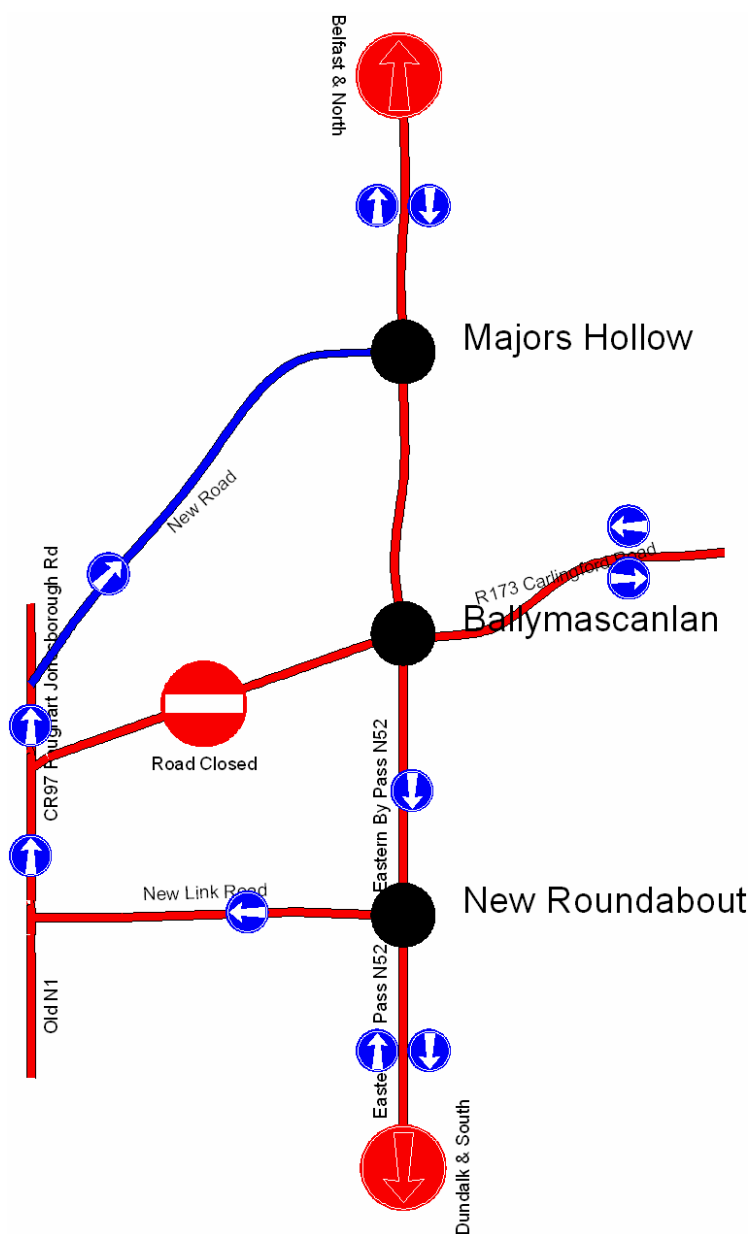
TRAFFIC MANAGEMENT AT BALLYMASCANLAN

The traffic management is made up of 3 principal phases. We are currently in phase 1. We expect to implement phase 2 towards the end of April 2005. This will involve splitting the present Dundalk – Belfast traffic in to two streams. See the map below.

During phase 2 the north bound traffic will be diverted west along our new link road just south of the Ballymascanlan roundabout, turning right on to the old N1. This traffic will then move to the left along the CR97 (Faughart / Jonesborough Road) to where it meets the new motorway. It will then be diverted

north on to the new road up as far as the new Majors Hollow roundabout just north of the Ballymascanlan Roundabout. Here it will merge with the old traffic route to proceed north.

The Southbound traffic will follow its old course through the Ballymascanlan Roundabout unchanged. The existing N1 and the CR97 Faughart / Jonesborough Roads will be temporarily one way only, within the confines of the traffic management system. All other traffic will follow their normal patterns. This phase will be in place for about 2 months. Traffic routes in Phase 3 will be the same for northbound traffic. Only southbound traffic will be altered in Phase 3. Southbound traffic will only be moved to different lanes along its present path. These changes will be relatively minor and will be fully coned and signed. Phase 3 will last for approximately 1 month. Upon completion of Phase 3, the traffic will revert to its present routes pending completion and opening of the full Motorway bypass.



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