

# NEWSLETTER



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## CELTIC ROADS GROUP DUNDALK

### The Dundalk Western Bypass PPP Scheme

#### Construction Progress

Despite the advent of winter with its short days and wet weather conditions, construction of the Dundalk Western By Pass in recent months has been progressing well and the project is currently expected to achieve its programmed opening date on 11<sup>th</sup> February 2006.

Construction of the motorway pavement is currently being progressed at the southern end of the motorway. A cement bound layer is being laid at present in these areas and will shortly be overlaid with blacktop.



Meanwhile drainage, bulk earthworks and bridge construction are nearing completion between the Castleblaney (N53) and Doylesfort (CR102) Roads. Final pavement construction is scheduled to commence in these areas in the new year.

While there will then be a significant amount of finishing work such as lighting, safety barriers, signs and landscaping to be completed, the CRGM1 are confident that, weather permitting, the construction programme will be achieved. **Continue in page 2**

#### Largest Salt Vehicle

##### Winter Maintenance Operations

Winter maintenance is one area critical to successful execution of the Operation and Maintenance obligations. The winter maintenance operations under the DWB PPP contract commenced in October 2004, the first privately managed winter maintenance operation to commence in Ireland. The latest technologies for winter maintenance operations have been sourced to assist with successful execution of the operations, namely:



**Salting Vehicles:** At present there are three winter maintenance vehicles used for the gritting routes on the CRGM1 motorway, with two 6 cu.m. salting trucks and a 12cu.m. dedicated salting vehicle. This is the largest salting vehicle in the country.

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# Construction Progress

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CRGM1's main Contractor (the Dundalk Joint Venture Ltd) and their Design Consultants Mott MacDonald EPO are seeking to speed the completion of the by pass through integrated Design and Build and Quality Management Systems which facilitate the rapid advancement of construction in tandem with the design process. The DJV also operates a Safety Management System which promotes and demands a high standard of safety awareness and compliance from all personnel working on the site.



In excess of 800 people have been employed at some stage on the Dundalk Western By Pass site with approximately 320 people currently attending site on a daily basis.

## Construction Side Roads

The motorway crosses a number of local roads along its route and the new bridge structures being built at these locations have been designed to be of similar construction and appearance. The form of construction of the underbridges was selected to minimise disruption by minimising the need to use the existing road space and reducing the construction period

Flagman control will remain on the Castleblaney Road (N53) until the new alignment is open in April

2005, on Tateetra Road (CR111) and Scotch Green Road (CR109) until March 05 and the Armagh Road (R177) until May 05.

## Future Traffic Management Arrangements

Much of the work to date has concentrated on the southern end of the by pass however in recent months construction has commenced in the Ballymascanlan area. A multi phased traffic management system is being developed for these works in conjunction with Louth Co. Co. and the Gardai and will commence early next year. This will be explained in more detail in our next Newsletter.

## Motorway Pavement

CRGM1 has implemented the latest design technology to optimise the construction works. One example has been the introduction of the Cement Bound Material (CBM) within the motorway pavement structure.

Cement Bound Material is a mix of crushed rock and cement in a well proportioned mix to obtain a fairly dry material. This material is easy to handle and compact with mechanical means like rollers. This mix is then used as a base or sub-base layer at the bottom of the road pavement. In a road the cement bound sub-base layer generally provides the structural strength of the road and the black layers (bituminous layers) provide impermeability to water and ride quality. With this kind of material the road will have longer and better service life for the user.

The production of this material starts with the selection of suitable crushed material which fulfils certain physical and chemical characteristics. The crushed material, cement and water are mixed in a specialised batching plant on site which can produce up to 2,000 tons of mixed concrete per day.

The laying of the CBM is carried out by a tracked paver (similar to the asphalt) and is compacted by rollers in following behind. On the Dundalk Western By Pass, CRGM1 expect to lay between 100,000 tons and 240,000 m<sup>2</sup> of CBM.

CBM has been used in motorway construction in Europe for some time with very good results particularly for its durability. On this project CRGM1 expect the same high standard of quality and benefit of the road users.



It is recognised by CRGM1 and the DJV that construction of the motorway and in particular the construction of the associated side roads can be disruptive to many local residents and those whose properties are affected by the proposed works. The construction team continues to liaise with relevant residents and landowners to ensure that the construction process is as efficient as possible and to ensure that construction is advanced in a manner that least impacts on their daily lives. To this end side road construction has been programmed in a manner that facilitates completion of the works in a timely manner after construction to provide for minimal disruption to local residents and the general public.



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**Weather Forecasting:** One of the key areas related to a successful winter maintenance operation is the decision making criteria of when to carry out precautionary salting by using the computerised 'IceCast' system. There are two roadside weather stations located one on the Boyne Bridge and one on the Dunleer Bypass. These stations collect real-time information about weather conditions on the project road on an hourly basis that enables an informed decision to be taken including enabling immediate reaction to sudden adverse changes in weather conditions.



**Depot:** A depot has been sourced beside the Drogheda south interchange to store all equipment and material for the winter maintenance. The depot is in 9000 sq. ft in size, with the facility to store in excess of 400ton of fine grade rock salt.



The CRGM1 and their contractors DJV and Northlink M1 will continue to endeavour to minimise all disruption resulting from ongoing works. Your patience in dealing with these matters is much appreciated and we wish you all a safe, happy and prosperous Christmas and New Year.

## M1 Motorway Toll Charges from 1st January 2005 (Inclusive of 21% VAT)



VEHICLE CLASS	TOLL CHARGE
Motor Cycles (exceeding 50cc)	€0.80
Motor Cars	€1.60
Bus, Coach, Light goods Vehicle	€2.90
HGV with 2 or 3 Axles	€4.10
HGV with 4 or more axles	€5.20

**In line with the M1 Bye-Laws, a discount of 10% of the prevailing toll charge is available for customers who pre-pay for 20 journeys**

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