

APPENDIX 3

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Infrastructure at Carcur-Park, Wexford



MOR
MALONE O'REGAN
CONSULTING ENGINEERS

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Introduction

Roadstone Provinces Ltd. wish to have their lands at Park, Wexford developed in accordance with the Action Area Plan for the townlands of Carcur and Park prepared in May 2003 by Murray O' Laoire Architects with advice from Malone O'Regan Consulting Engineers.

Malone O'Regan have subsequently been employed by Roadstone Provinces Ltd. to advise them with regard to the provision of infrastructure and drainage to facilitate development of their lands. Wexford County Council wish to provide the infrastructure to enable the Action Area Plan to come to fruition and have entered a partnership with Roadstone Provinces Ltd. with the intention that Wexford County Council be the contracting body for the purposes of providing the infrastructure. This report outlines the work undertaken to date to establish locations for the access roads in the area, the recommended location for these roads and budget costs for provision of the infrastructure.

Proposed Road Access

The roads proposed to provide access to the Carcur-Park Area are outlined on the overall Masterplan for Carcur-Park Urban Design Framework in the Area Action Plan and these alignments are indicated on Sk 2003-10-08. The access road from Redmond Road to service the area is provided in the Masterplan to facilitate the objectives as stated in the Wexford Town and Environs Plan 2002 with the alignment of the road leaving open the potential for a new bridge over the river (objective T5 in the Development Plan). Following discussions with Wexford County Council we understand that T5 is no longer an objective of Wexford County Council and it is proposed to have this removed from the Development Plan in 2007. The alignment was provided to divide the Carcur Area into two with an area currently zoned as Residential to the West of the road and an area to the East consisting mostly

of tidal mudflats. A second road is indicated on the Masterplan to provide access to the playing fields and proposed residential area.

Based on the access roads proposed in the Masterplan, Malone O'Regan Consulting Engineers organised a geotechnical investigation in July 2003 to assist in preparing budget costs for providing these roads. Five boreholes were carried out on the access road from Redmond Road to Park with a further three on the proposed access to the playing fields. A number of these boreholes encountered domestic fill material to a depth of up to 8m. The domestic fill material appeared in boreholes over a wide area and was of such depth that providing a road along the routes proposed in the Masterplan would prove very difficult. There are essentially two options available if a road is proposed over areas of domestic fill:-

1. Excavate out all of the fill material and backfill with suitable material to the proposed road level.
2. Pile through the fill material at close centres and cast a reinforced concrete slab on top of the piles to carry the road.

Both of these solutions are very expensive in this case due to the depth of fill on site under the location of the proposed roads.

Based on the costs associated with dealing with the fill ground and the lack of fill material in a number of the boreholes it was agreed between Roadstone Provinces Ltd. and Wexford County Council to seek an alternative route for the access roads to avoid if possible the area of fill ground.

A meeting was held on site in early September 2003 with Roadstone Provinces Ltd., Wexford County Council, Mr. Billy Byrne (formerly Wexford County Council) and Malone O'Regan in attendance. Mr. Byrne had previously been in charge of fill operations on the site and outlined the extent of the fill in the area. It was found that the existing access laneway used by Roadstone runs close to the area of fill on original ground and that by following this as closely as possible, a route with reasonable ground

conditions for siting the access roads was available. This laneway also bounds the existing playing fields over part of its length and by following its route, minimal disruption of the playing areas would be necessary.

Using this information we have reviewed the access proposals and have prepared a preliminary revised access road layout for the site. (See Sk. 2003-10-08 and Dwg. No. W03007/01). This route avoids most of the area of fill ground and also avoids having to disturb the playing fields on which significant development work has been carried out in the recent past. Further preliminary geotechnical investigative work was carried out along this alignment and the ground in general was found to be of a suitable nature for carrying the proposed access roads. The routes do however cross some areas of fill material and there will be significant cost involved in dealing with these areas.

These proposed routes deviate somewhat from those proposed in the Masterplan included in the Action Area Plan. We have issued the preliminary layout of the proposal to Murray O' Laoire Architects and Wexford County Council. Initial comments from both parties are positive and while some modification of the Action Area Plan will be necessary, the proposed roads appear to fit into the overall concept for the area as envisaged by Murray O' Laoire. One possible consequence of relocating the primary access road further west is that in the future a branch road may be required to access lands to the east of the road towards the mudflats. A junction similar to that provided for the access road to the playing fields/residential area could be provided if this is deemed necessary at a later date.

The Action Area Plan states the desire to have pedestrian and cycle access incorporated with the access roads. The access is provided as a 7m wide carriageway with a 1.8m wide footpath on either side of the road and a 2.3m wide two way cycle lane on one side.

Road Specification

Although T5 is no longer an objective of Wexford County Council, the road is likely to be reasonably heavily trafficked due to the development of the area as a Local Neighbourhood hub, incorporating a mix of office, retail, community and residential uses. The road pavement specification is provided to suit the expected usage and will consist of:-

45mm of Clause 911 Wearing Course Asphalt on;

55mm of Clause 906 Basecourse Dense Bitumen Macadam on;

85mm Dense Bitumen Macadam Roadbase, with 28mm Aggregate.

Foul Drainage

The area is low lying and the foul drainage will be collected in a sump and pumped via rising main to the Carcur Catchment Pumping Station located at Spawell Road. The route for this rising main is taken to follow the access from Redmond Road due to the need to accommodate the proposed Residential Area in Carcur.

Budget Cost Estimate

A budget cost estimate has been prepared for provision of the infrastructure outlined above. The estimate has been broken down into 5 separate parts:-

- A – B: Entrance at Redmond Road to Junction with Access Road to Playing Fields/Residential.
- B – C: Junction with Access Road to Bridge over Railway Line
- C: Bridge over Railway Line.
- B – D: Access Road to Playing Fields/Residential.
- A – S: Entrance at Redmond Road to Pumping Station at Spawell Road.

The budget cost estimates are based on preliminary survey work carried out on site to date and on information obtained from a limited number of boreholes. A more extensive site investigation will be required on site and a more detailed topographical survey will also have to be undertaken to progress the proposals. The budget includes for dealing with an area of fill ground that may be encountered depending on the exact location of the road. A method for dealing with fill material encountered on site has yet to be concluded and an agreement on how to proceed in the event of encountering fill material should be put into place to help finalise costs in this area.

Appendix A:
Budget Cost Estimate

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