

To the Chairperson and members  
of the Central Area Committee

Date: 24th February 2014.

**RE: Flooding – Cabra East Area**

As requested previously by members of the Central Area Committee set out hereunder is a report on the above:-

Over the last number of years there have been significant rainfall events in the Cabra East Area leading to property flooding in the following areas:

- Leix Road
- Cuala Road
- Imaal Road
- Cabra Road
- Offaly Road

The Drainage Division together with Regional Projects Division examined the following options to defend against the future flooding of properties at these locations.

**Option 1:**

**Gravity partial solution from Dowth Avenue to un-used railway line (New Luas Line BXD).**

This option involved the construction of an overflow pipe from the combined sewer on Dowth Avenue to the adjacent catchment of the Luas line BXD via the lane at the rear of Cabra Road (Length 220m, costing €200,000). However following consultation with the RPA it was confirmed that there is no spare capacity in the drainage system to accommodate any additional discharges. Furthermore the proposal could give rise to an increased risk of flooding at other locations.

**Option 2:**

**Partial gravity solution from Leix Road to the Bradogue Stream at Cabra Road.**

On foot of previous flood events it is estimated that the volume of flood waters equating to 2,335m<sup>3</sup> would need to be drained from this area in order to reduce the flood water level by 100-200mm. This option involved the construction of an additional surface water sewer from the lowest point of Leix Road via Dowth Avenue to a manhole on the Cabra Road located on the Bradogue Stream. The pipe size required would have been 600mm in diameter and 160m in length and would have cost approximately €200,000. This proposal was examined in detail and involved digging a trial opening on Dowth Avenue and conducting a Ground Penetrating Radar (GPR) survey at the junction of Dowth Avenue and Cabra Road. These investigations revealed that it would not be possible to install a 600mm pipe (or even a number of smaller pipes with a similar diameter) due to the presence of existing services.

**Option 3:**

**Pumped partial solution from Leix Road to Bradogue Stream at Cabra Road.**

This proposal required the provision of a pumping facility on Leix Road which would discharge flood waters through a 400mm diameter rising main, 160m in length, from the junction of Leix Road and Cuala Road to the Bradogue Stream on New Cabra Road opposite Dowth Road.

The cost of this option is approximately €340,000 in addition to running costs of €5,000 per annum. Due to the size of the pumping facility required, it would not be possible to situate this tank underneath Leix Road. Furthermore there would also be issues of existing services, as outlined in option 2 above. The cost of this solution is also significantly higher than others.

**Option 4:**

**Gravity partial solution from Leix Road to the Bradogue in Laneway south of Leix Road plus upgrading of Bradogue Stream downstream.**

This proposal involves the construction of a new surface water sewer from the lowest point of Leix Road to a manhole over the Bradogue Stream located on the private lane to the rear of the Cabra Area Office. The proposed 600mm diameter sewer would be 125m long. However, 33m of this is located in the back yards of 56, 58 & 60 Dowth Avenue. Consent to carry out this work would have to be obtained from the landowners of these properties. In addition the Bradogue culvert would have to be upgraded to a 700mm diameter pipe over a length of 43m at the junction of Dowth Avenue and Cabra Road. The cost of this option would be in the region of €250,000. Difficulties with laying pipes along this route proved impossible ruling this option out.

**Conclusion:**

The City Council has devoted a considerable amount of time and resources to finding a solution to flooding in the Cabra East area. Four possible options have been examined and were found to be unviable. The only remaining option is for a scheme to be developed involving the provision of suitable defences for the individual properties at risk of flooding. The City Council, on request, will provide advice to individual house owners on the measures required to defend their houses against flood events. Unfortunately at present the Council is not in a position to assist with the cost of these measures. In the recent past the City Council has made representations to both the Department of the Environment, Community and Local Government and the OPW recommending that a suitable grant scheme be considered to assist householders, whose properties had experienced flooding, with the provision of flood defences. To date neither of these agencies has responded positively to this proposal.

This report is submitted for consideration by the members.

Charlie Lowe,  
Area Manager