

Office of Public Works

**River Bride (Blackpool) Certified
Drainage Scheme**

**Flood Risk Management Options
Supplementary Report**

230436/REP/2

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Appendix A

Examples of Illegal Dumping in River Bride Channel at Orchard Court

1 Introduction

As part of the statutory exhibition process for the River Bride (Blackpool) Certified Drainage Scheme, several submissions were received from local residents expressing opposition to the proposed culvert option in Orchard Court. The submissions were generally concerned with the perceived negative impact of the proposed culvert on security, privacy, and the natural environment. Several of these submissions also queried the decision to change the proposed solution at Orchard Court from high flood defence walls (as shown at the second Public Information Day in July 2014) to a closed culvert (as shown on the scheme exhibition drawings).

This supplementary report aims to further clarify the process and reasoning which lead to the adoption of the proposed culvert solution.

This report should be read in conjunction with the “River Bride (Blackpool) Certified Drainage Scheme Flood Risk Management Options Report” (hereafter “Blackpool options report”). Both options in question are described in detail in section 5.4 and section 5.5 of the Blackpool options report.

2 Preliminary Development of Alternative Options

The preliminary development of alternative options is documented in detail in the Blackpool Options Report. Notwithstanding the absolute requirement to meet the design standard of the scheme (1 in 100 year return period), it is noteworthy that the options which were developed sought to balance a number of sometimes competing considerations, including:

- Potential for illegal dumping to cause blockages in the watercourse. Anecdotal evidence suggested that this had been a contributing factor to some past floods (blockage or partial blockage was reported by Cork City Council as being a contributing factor to flood events in November 2002 and March 2013).
- Desire to preserve the natural ecological environment including fisheries insofar as possible.
- Concerns regarding security and privacy in a residential area.
- Future maintenance, including access and health and safety considerations.
- Social impact / opportunities.

It was recognised that balancing the above considerations at Orchard Court would be extremely challenging. Several solutions were developed (as documented in the Blackpool options report), however each solution necessitated some compromise on one or more of the above considerations.

The project Steering Group (which included representatives from OPW, Cork City Council, Cork County Council, ESB, as well as the engineering design team and environmental team) recognised that the views of stakeholders would be extremely valuable in informing the decision on the final option.

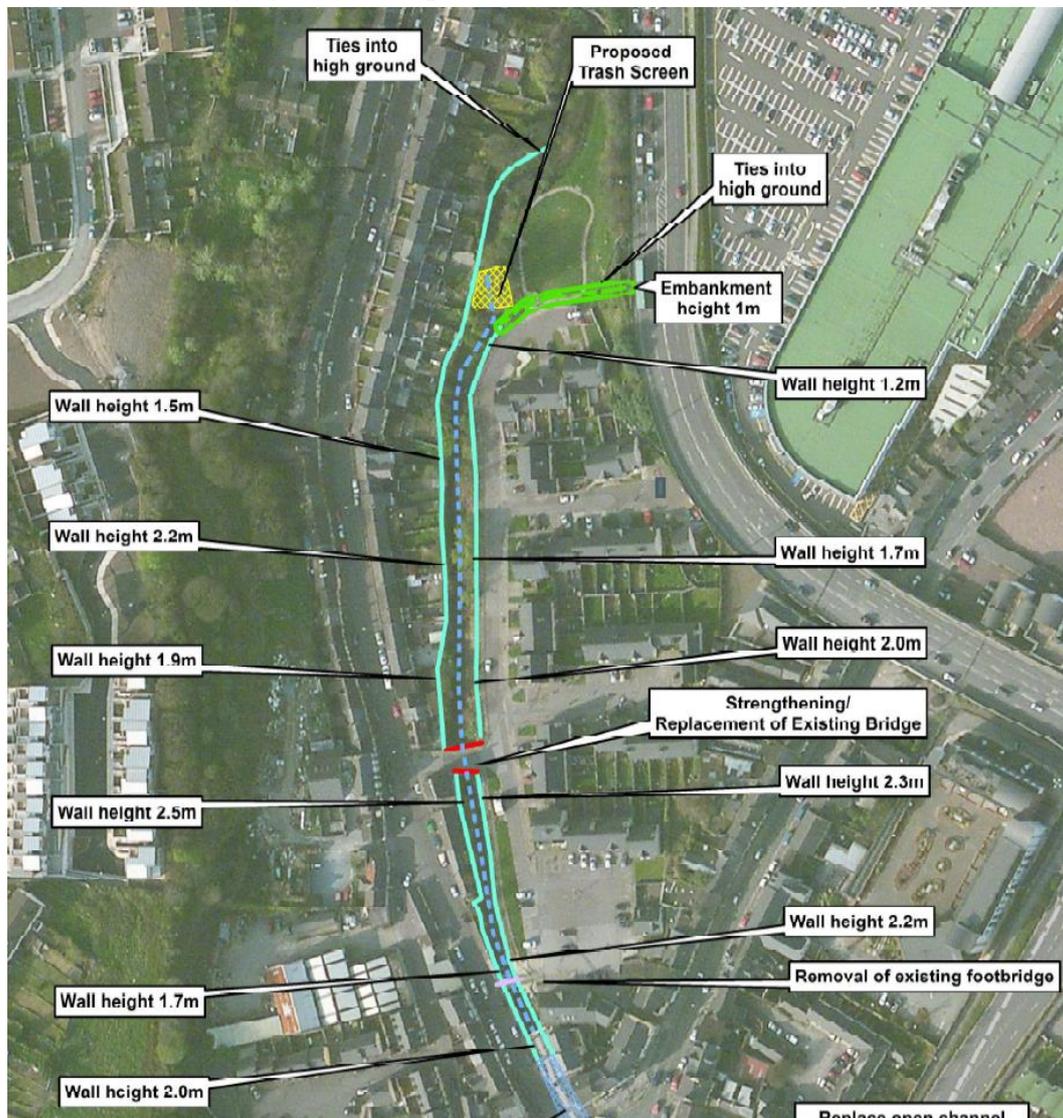
3 Public Information Day July 2014 (PID No. 2)

3.1 Introduction

The second public information day (PID No. 2) on the proposed flood relief scheme took place on 29 July 2014 in Cork City Hall. Its objective was to inform the public and stakeholders of the progress made since the project commenced, and outline the emerging preferred options for alleviating flooding in the Lower Lee, including Blackpool. PID No. 2 was widely advertised in local print and broadcast media by OPW and in social media by Cork City & County Councils.

The “emerging preferred option” for Blackpool showed flood defence walls along the River Bride through Orchard Court, varying in height from 1.2m to 2.5m. An extract from the displayed drawing is shown in Figure 1 below.

Figure 1: “Emerging Preferred Option” at Orchard Court (July 2014)



3.2 Stakeholder Comments

PID No. 2 was attended by approximately 180 people, and of these, more than 40 indicated that they either lived in or were employed in Blackpool. Among the addresses indicated by these 40 people who signed the attendance sheet were: Watercourse Road, Commons Road, Thomas Davis Street, Great William O'Brien Street, all in Blackpool.

The following written observations were received from the public and stakeholders in relation to the high walls option at Orchard Court.

“...the proposed flood walls at Orchard Court in my view is a disaster. If this should go ahead the ongoing dumping problem (a) will not be seen and (b) will be harder to address. In my view the section of river in Orchard Court needs a box culvert, any other option is a waste of time and money...”

- Blackpool Resident

“...the wall heights are too much, don't want a concrete jungle made in Blackpool as it's an historical area...”

- Blackpool Resident

“...the high walls will be an impediment to removing dumped material from the river for which there is no filtering measures downriver of the trash screen. Illegal dumping and antisocial behaviour are a risk along the high walls...”

- Blackpool Resident

“...I would have concerns with regard to this proposal on a number of grounds.

1. The visual effect of flood walls of approx. 8 feet in height would be substantial and would have the effect of isolating Orchard Court from the rest of the community. This could potentially contribute to a ghetto like effect for the area with goes against social inclusion policy.

2. The proposed flood defence walls would be designed in order to increase the pressure of water going through the culverts. However with an increased pressure of water, should there be a blockage (from rubbish dumping) in the culverts or at the flood defence wall then the time period for a flood to develop with be much shorter.

3. A Box Culvert along this stretch of river would have a much less visual and social impact. Although there are no doubt concerns re fisheries I believe that these are outweighed by the benefits in terms of reduced flood risk and reduced visual impact on the area.”

- Cllr. John Sheehan

“A most striking aspect of the proposal is the plan to erect eight foot walls on each bank of the river in Orchard court. The committee are concerned these walls will cut the estate off from the village, running the risk of marginalising the estate. We are not convinced that is a good solution from a social/people aspect.

We are lead to believe that it is cost neutral to have a “box culvert” along this stretch and would much prefer that solution. The walls are promoted as providing a better habitat for fish but the committee feels this needs to be balanced with the marginalising aspect for residents in Orchard Court. Illegal dumping is a constant issue on this stretch of river and having eight foot walls will make it more difficult to get problem items out of the river...”

- Blackpool Flood Committee

“...I wish to state my strong opposition to any proposal to build a 9 foot wall at Orchard Court as a flood prevention measure.

In my opinion this is an ugly and unsightly measure which provides flood prevention on the cheap at the expense of the residents of Blackpool in general and Orchard Court in particular...”

- Cllr. Mick Barry

“...We would also have some concerns that the visual aspects of the emerging preferred solution in relation to the proposed works in Blackpool...”

- Cork Chamber

4 Selection of Orchard Court Culvert Option

This Section should be read in conjunction with Section 10 of the Blackpool options report. As stated in that report, a final decision on the preferred option was made based on a holistic evaluation of the following key aspects:

- Findings of Cost Benefit Analysis
- Findings of Multi-Criteria Analysis
- Consideration of the key core messages which arose during the stakeholder consultation process
- Consideration of Key Risks
- Consideration of Climate Change Adaptability
- Combined professional judgement of the steering group members

Following PID No. 2, the comments received were reviewed before finalising the preferred option. It was evident that the high walls solution proposed at Orchard Court was unacceptable to many stakeholders for the following reasons:

- Negative visual impact
- Negative social impact
- Continuing risk of illegal dumping into the channel

The following further points were also considered:

- Further examples of illegal dumping to the channel within Orchard Court have been observed by the project team. Photos of such dumping have also been submitted to the project team by members of the public since PID No. 2. Refer to Appendix A for examples. The option of a culvert through Orchard Court would alleviate this risk. Also, the residual risk of debris travelling down the channel from upstream could be managed by providing a new trash screen at a more suitable location in Blackpool Retail Park.
- The consequences of a blockage of the culvert system following completion of the scheme were considered further, and the following important points were noted:
 - A blockage may result in flood water overtopping the defence walls in Orchard Court, which would result in more dangerous flooding than the current scenario.
 - Furthermore, it would be very difficult to clear a blockage and the associated health and safety risks would be unacceptably high.
- It was recognised by the Steering Group that the high walls option could increase the risk of marginalisation / isolation of the Orchard Court estate. This could exacerbate existing anti-social behaviour issues in the area.
- It is considered that the proposed culvert option minimises the visual impact of the scheme works. It is acknowledged that the proposed culvert solution still necessitates a security wall along the boundary of the

Commons Road properties, however this is still considered to be an improvement on the “emerging preferred option”.

All of the above issues were taken into consideration in carrying out the multicriteria analysis (MCA) of the scheme options. The MCA is documented in the Blackpool Options Report. The MCA suggested that all options are very close in terms of MCA benefit/cost ratios, with option 4 (culvert through Orchard Court) being marginally the most favourable.

Section 10 of the Blackpool Options Report also outlines in detail the various reasons why the other options considered were not selected. These other options included measures such as upstream storage or culvert replacement, in addition to direct defences and conveyance improvements.

Therefore, all of the above considerations fed into the decision to adopt the proposed culvert option through Orchard Court which was then put forward for Statutory Public Exhibition in December 2015.

5 Conclusion

This supplementary report aims to clarify some aspects of the process and reasoning which lead to the adoption of the proposed culvert solution at Orchard Court. The other aspects of the options selection process are documented in detail in the Blackpool Options Report.

As discussed in section 10 of the Blackpool Options Report, a final decision on the preferred option was made based on a holistic evaluation of a number of key aspects, including the extensive stakeholder consultation which took place during scheme development. When reviewed holistically in comparison with the other potential options, this resulted in the option of a culvert through Orchard Court being chosen.

The concerns of the Commons Road residents submitted following the Statutory Public Exhibition regarding the impact of the proposed culvert on security, privacy, and the natural environment have been considered in detail.

However, following consideration of same, it has been concluded that the culvert option remains the best solution overall, and the concerns of the Commons Road residents will therefore be addressed through the inclusion of appropriate mitigation measures in the final scheme, as outlined in the report on Public Exhibition Observations and as summarised below:

- Planting of thorny shrubs along the base of the wall on the Orchard Court side.
- Increase the height of the proposed security wall to 2.2m.
- Specification of a round-top coping to hinder climbing.
- Addition of an anti-climb detail to the top of the wall on the Orchard Court side.
- Installation of CCTV cameras in Orchard Court

Implement environmental mitigation measures:

- Implementation fisheries compensatory measures on a length of channel upstream on the River Bride
- Installation of a mammal ledge within proposed culvert, and retrofit of a mammal ledge downstream as far as Maddens Junction.
- Installation of light wells in the proposed Orchard Court culvert
- Construction of otter habitat enhancement measures within the Bride catchment

Appendix A

Examples of Illegal Dumping in
River Bride Channel at Orchard
Court

A1





