

Inland Waterways Association of Ireland

Ulster Canal Restoration - Requirements Document

1. Background

At a meeting of the North South Ministerial Council in Armagh on 17th July 2007 it was announced that restoration work is to commence on the Western Section of the Ulster Canal from the Erne to Clones. The project is to be funded 100% by the southern exchequer. Waterways Ireland (the North/South body with responsibility for most of the major navigations) has been given responsibility to manage the project.

A further meeting of the NSMC (inland waterways sector) will take place in Mid-October when further details of the project will be announced. After that it is expected that Waterways Ireland will see tenders from competent contractors to manage the project.

It was proposed by the Ulster Canal Working Group of IWAI that a draft "specification" for the restored canal be drawn up to ensure that matters of concern to waterways enthusiasts are addressed from the outset of the project.

Since a key reason for restoring this waterway (aside from providing additional cruising grounds for boaters) is to act as an engine of socio-economic regeneration, a number of these recommendations are aimed at encouraging non-boating visitors to the waterway and at providing the conditions where waterway related business can start up and prosper.

2. Purpose

The purpose of this document is to initially act as a discussion tool for developing the "specification" and ultimately be the vehicle for communicating our requirements to Waterways Ireland and their contractors.

It is not intended that this document be an all-encompassing engineering specification but rather as a way of ensuring that the needs and desires of the users of the waterway are captured and transmitted to those responsible for the actual restoration work.

The various items in the following section are not in any particular order.

3. Requirements

3.1. Overall Dimensions

The canal should be constructed to the same minimum dimensions as the Shannon-Erne Waterway:

Locks:	26m x 6m
Bridges:	6m beam at waterline 3.5m headroom over a span of 3m

Channel: 13m width at water surface
8m width at channel base

3.2. Locks

- a) Locks should be electro-hydraulic operation with operation controlled by the standard Waterways Ireland “Smart-Card”
- b) Lock control panels to be ideally sited such that the lock can be operated from the vessel itself (facilitates lock operation when the vessel is short handed).
- c) If control panels such as the SEW are used they should be sited such as to provide the panel user with a clear view into the chamber and of a vessel in the chamber when the water levels are lowest. (This is not the case on the SEW and has been known to give rise to problems.
- d) Locks should be fitted with either an auxiliary power supply, a hydraulic accumulator, or some other back up system such that a lock operation can be completed in the event of a power or equipment failure.
- e) Mooring bollards to be located at regular intervals along both sides of all locks to allow correct use of a stop rope. (Should be standard WI cast iron type, but without “horns”)
- f) All lock chambers to be fitted with ladders usable at all times (not located behind the lock gates)
- g) Riser bars installed in all locks for tying to when going up or down.
- h) Landing stages capable of accommodating at least two large boats (with full navigation depth) to be installed above and below all locks.
- i) Locks should be constructed so as to avoid water-surges from higher locks over-topping the breast gate and inundating vessels locking down. (e.g. this happens on the Kilclare flight on the SEW)

3.3. Winding Holes

- a) Winding holes (turning places) to be provided at regular intervals (say every 10 km) to allow the largest vessel capable of using the system to reverse course.
- b) Winding holes should be constructed such that there is full navigation depth available over the full length of the vessel. The bank in the winding hole should be constructed so that a vessel can be safely driven into it to facilitate a turning manoeuvre.

3.4. Jetties

- a) Jetties should be provided at regular intervals to facilitate casual stopping. Where appropriate, bank mooring facilities may be adequate.
- b) Cleats should be substantial, standard WI, cast iron type as far as possible.
- c) Cleats should be spaced no more than 5m apart.

- d) Where finger jetties are built they should be wide enough and have sufficient buoyancy to provide adequate stability. Finger jetties should be built sufficiently large to accommodate the majority of vessels and where this can not be done, adequate provision must be made to accommodate larger vessels alongside.
- e) Where finger jetties are installed in water with an appreciable flow, jetties should be angled downstream so as vessels can safely approach them against the current. On no account should jetties be angled upstream.
- f) All jetties should be provided with adequate potable water points. Water points should NOT be of the press & hold type but either lever or screw operated type. Spigots on water points should be designed to easily attach a hose. (e.g. the type installed at Shannon Harbour is not appropriate – the spigot is oval shaped and hose attachment is very difficult and the push button operation is not user friendly.)
- g) Water points should have adequate pressure such that several vessels can take on water at the same time.

3.5. Sanitary Services

- a) Sanitary services blocks to be provided at regular intervals. For the initial restoration, it is proposed that one be provided at the first rising lock and one at Clones. Locations TBD for the remainder of the canal.
- b) Sanitary Service block should contain
 - a. Male & female toilets
 - b. Male & female showers
 - c. Chemical toilet sluicing facilities including a water point for rinsing and re-charging holding tank.
 - d. Coin/card operated washer/dryer facilities.
- c) Pump-out stations should be provided at the same intervals as the sanitary services blocks.

3.6. Towpaths

- a) Reinststate towpath along the length of the canal. (May not be possible under all bridges but route can be lead over road with suitable gates etc where needed)
- b) Where space permits provide cycle way beside the towpath.
- c) Towpath planting/maintenance to be such that permits horse-drawn boat traffic as far as possible.
- d) New build bridges should carry towpath under road beside water.
- e) Suitable seating and other “street furniture” should be provided at appropriate locations along the towpath and at jetties and locks.

- f) Road access and car-parking should be provided at appropriate locations to allow land based visitors easy use of the towpaths for walking, angling etc.
- g) Vehicular traffic along the towpaths should as far as possible be discouraged.

3.7. Signage

- a) All bridges and lock names and numbers to be clearly displayed
- b) Interpretive and informational signage to be installed at all points of interest covering built heritage, natural heritage and available amenities and attractions.

3.8. Slipways

- a) Slipways for trailable vessels should be provided at several locations along the canal. Ideally they should be in locations where their use can be managed so as to avoid inappropriate vessels entering the water.

3.9. Vessel Berthing & Maintenance

- a) Consideration should be given during the design phase to providing “ready to go” sites for entrepreneurs to start up marinas and related facilities along the waterway.
- b) Consideration should be given during the design and construction phase to the provision of “ready to go” sites for the location of vessel maintenance (or even construction) facilities.
- c) Dry-docks capable of taking the largest vessels on the system to be provided at key locations. At least one at either end of the canal and one in the Monaghan area.

3.10. Water Supply

- a) Water supply to the canal should be such that the canal is capable of operating through extended dry periods and be capable of coping with the effects of climate change.
- b) Where back-pumping is used, pump outlets should be constructed so as not to cause a strong cross-flow in the canal, particularly on the approach to a lock, bridge or other narrow section.

3.11. Angling Facilities

- a) At appropriate locations, stands should be provided for both able-bodied anglers and those with disabilities.

3.12. Security

- a) Consideration should be given to constructing all facilities such that the security of vessels and their crew and other visitors is assured as far as

possible. This could include the provision of adequate public lighting, design of the facilities themselves and if appropriate the provision of CCTV

3.13. Wildlife

- a) While there are undoubtedly a number of trade-offs to be considered in the design and construction of the canal, a high priority should be given to the retention or even creation of wetland habitats along the line. While steeper banks are more appropriate for bank-mooring of vessels, shallower banks are better from an ecological perspective. Consideration could be given to acquiring parcels of land adjacent to the canal in suitable locations and constructing wetlands to (i) enhance the appeal of the canal for visitors and (ii) act as mitigation measures for any environmental impact caused by the construction. (The Montgomery Canal in Wales is an excellent example of this)

4. Feedback and Revision

This is the first working draft of this document.

Any and all feedback is welcome. Please send you comments to:

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