A Brief Guide to Space, Design and Other Technical Issues in Providing for the Bedford Milton Keynes Waterway

Introduction

This guide has been produced to provide guidance on appropriate space, on design and on other technical issues in relation to provision for the Bedford Milton Keynes Waterway as required by the three planning authorities covering the route of the waterway.

A companion guide, 'A Brief Guide to the Value of Providing for the Bedford Milton Keynes Waterway in Development', introduces the Waterway and provides information on its value to developments along the route.

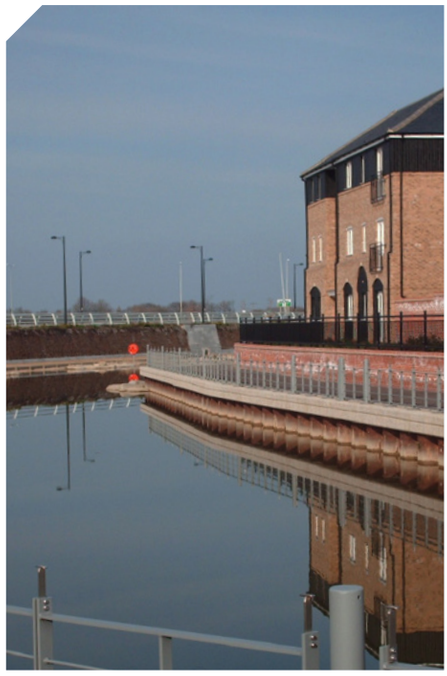
General Design Matters

The majority of the route will be an open aspect Waterway with a 15m minimum navigable channel and 1 in 3 sloping sides that are planted margins.

In cases where space is limited, visibility good and no obstructions, the width can be reduced (eg to 9m) for short distances in consultation with the Canal & River Trust.

These dimensions along with a 2m channel depth (1.5m water depth) and verge and multi-user, Equality Act compliant, towpath requirements suggest a minimum 35m overall corridor. See over for more details/illustrations.

However, in some sections, approaching bridges, locks and other structures and for moorings, traditional vertical sided canal construction may be required.



The minimum water width requirement is still as set out above for open aspect channel, reducing to 4.5m for locks and 6m for underpasses. See over for more details/illustrations.

There are a number of relevant standards and legal documents, including in particular:

- Code of Practice for works affecting British Waterways 2010 - engineering, design and construction manual. Contact Canal & River Trust at www.canalrivertrust.org.uk
- Flood & Water Management Act and Land Drainage Act. Contact Internal Drainage Board at www.idbs.org.uk
- Equality Act compliant multi-user foot-and-cycleway ie towpath (see the Environment Agency's Access for all design guide at www.environment-agency.gov.uk/research/library/publications/141756.aspx
- Town and Country Planning Association Policy Asdvice Notre 'Inland Waterways'. See www.tcpa.org.uk/data/files/InlandWaterways.pdf

Access for Maintenance

Access for maintenance of the navigation is a particular requirement.

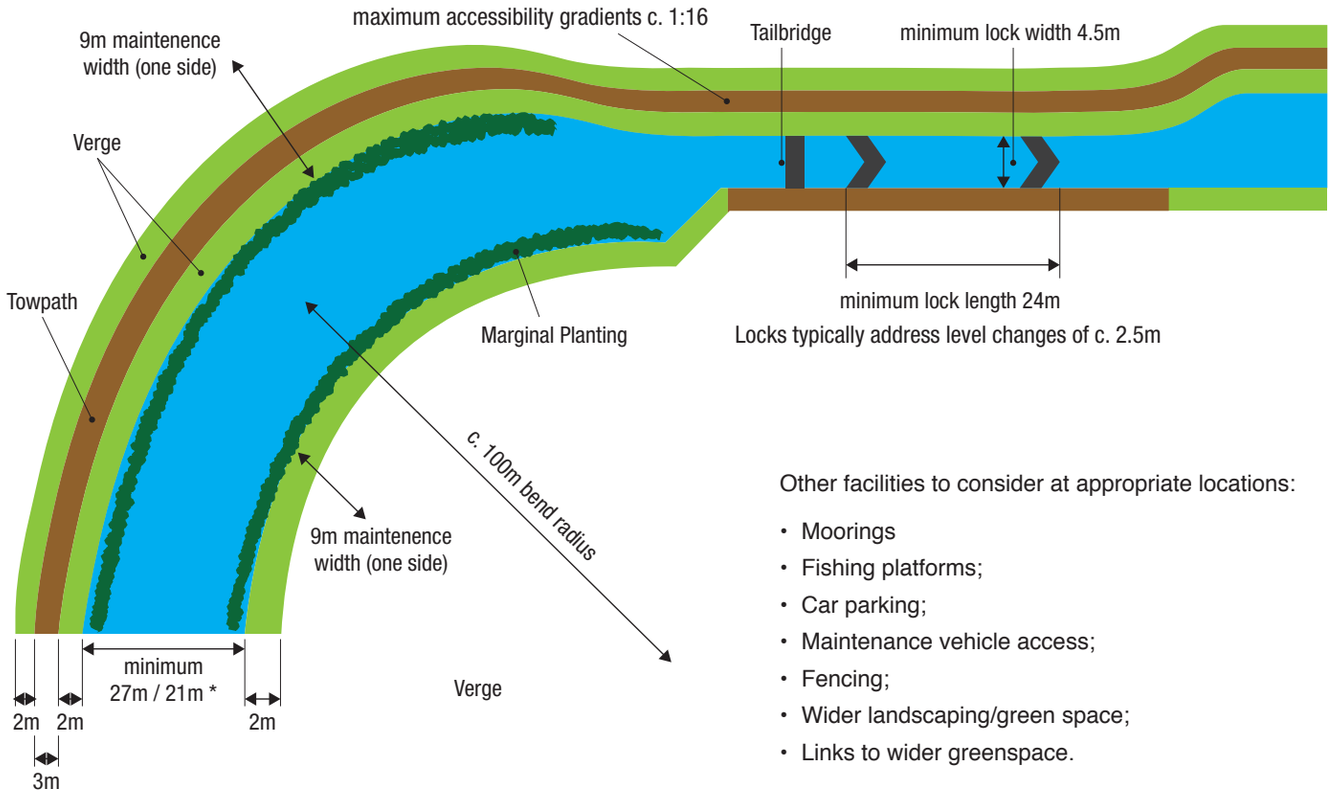
Machines capable of dredging a channel up to 15m wide are of necessity large – usually a 360 excavator.

As well as needing access routes to the waterside, the practicable space is a 9m wide access area either side of the water also ensuring that trees, structures and furniture do not obstruct operations.

Key Dimensional Data

The following diagrams (not to scale) provide key indicative dimension data for the waterway itself and related facilities (including of channels, bends, towpaths, verges, locks, underpasses etc.)

1. Vertical Perspectives (widths, lengths, bends and facilities)

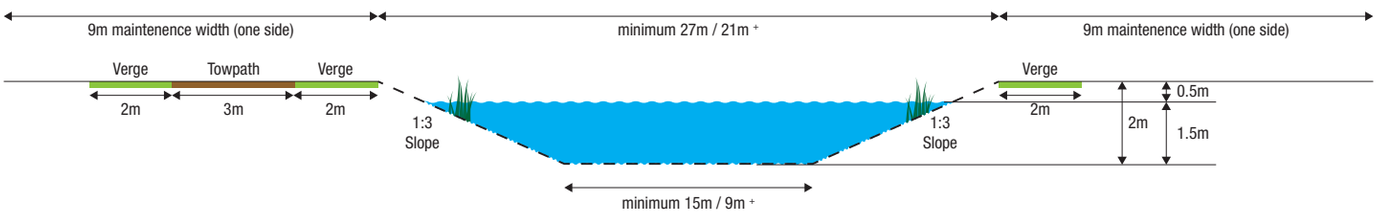


Other facilities to consider at appropriate locations:

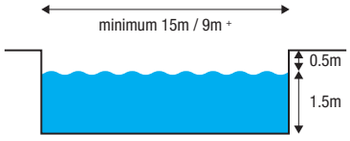
- Moorings
- Fishing platforms;
- Car parking;
- Maintenance vehicle access;
- Fencing;
- Wider landscaping/green space;
- Links to wider greenspace.

2. Elevations and Cross-Sections (widths, heights, depths)

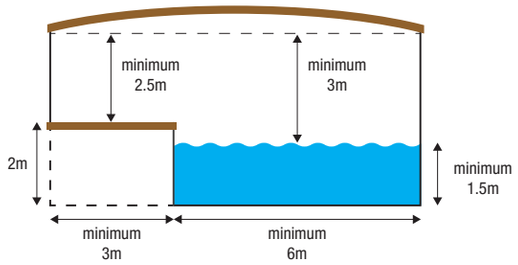
- **Open Aspect Waterway**



- **Vertical Hard Sided Waterway**
  - Two boat Width Waterway



  - One Boat Width Underpass



* Towpaths should be multi-user (footpaths and cycleways) and Equality Act compliant with surfacing appropriate to their location – see Equality Act reference above and SUSTRANS Technical Note 8 re surfacing: www.sustrans.org.uk/assets/files/design and construction/Technical Note 8 - Path surfaces(1).pdf

\+ The larger 'minimums' (27m and 15m at full depth) apply to unconstrained open aspect waterway sections. The lower 'minimums' (21m and 9m at full depth) can be applied to shorter (eg less than 500m) constrained sections with good visibility and no moorings.