

Lowland Canals : Towpath Upgrade : Method

Towpath usable finished widths : Forth & Clyde Canal 2.0 – 2.5 metres
: Union Canal - 1.8 metres

1. Establish compound and material storage areas fenced, signed and secure.
2. Provide adequate construction works ahead signage at least 50 metres in advance of the works location and signage of approaching the works advising escorted passage only through works area. Towpath users to be escorted through works by onsite staff, when safe to do so.
Special care to be taken during DBM and final bitumen emulsion operations when escorting the public near hot materials.
3. Identify / locate all services under ground and overhead.
4. Upgrade lengths to be undertaken in localised, agreed lengths.
5. Scarify existing towpath make up to a depth not exceeding 100mm.
6. Remove any vegetation encroachment to achieve the correct towpath width F&C 2.0– 2.5metres and UN 1.8 metres. Locally dispose off scraping arisings on the back edge of the towpath embankment side slope or as agreed with the project manager. All arisings to be thinly graded out and not left in humps to promote vegetation growth.
7. Regulate and re-compact scarified towpath, introduce cross fall typically 1 : 40 towards the canal channel. Where the cross fall towards the canal channel cannot be achieved a gravel drain must be provided on the back edge of the towpath with cross drain(s) to the canal channel. Depth to suit existing underlying ground conditions.
8. Overlay towpath with 50mm of Dense Bitumen MacAdam (DBM) machine laid and evenly distributed.
9. Roll DBM, to maintain introduced crossfall 1:40, whole width of towpath.
10. Apply bitumen emulsion – first layer with 6mm stone chips included to laid DBM only. Width not to exceed the agreed towpath widths as specified.
11. Apply bitumen emulsion – second (final) layer with 6mm grey, whin stone chips to create final grey, stone surface. Width not to exceed the agreed towpath widths as specified.
12. Carefully sweep off any excessive residual stone at surface.
13. Soil towpath edges with imported top soil width not exceeding 400mm in width and depth 50mm.
14. Grass seed (mix to be agreed) for soil edges.
15. Reinstate turning areas, access points and compound / material storage areas.

Assume import of Type 1 material where areas are potholed and existing towpath make up thin. Generally works are to be mainly carried out as a “cut and fill” to create uniform sub base and introduce positive cross fall with existing onsite towpath make up.