Appendix 4

Surfacing options

Bituminous macadam Surface

A bituminous macadam surface would be built up on the existing towpath compacted stone surface, or on a new layer of 100mm thickness compacted type 1 sub-base for the widened section of path. A 50mm layer of binder course would provide the bituminous running surface of the path.

A bituminous macadam path would be smooth, durable, hard wearing and would require minimal maintenance. However, in the non-urban setting of this section of path, the standard black colour of the surface would be highly intrusive.

Coloured finishes can be applied by adding a tint to the binder, but these can be fairly garish in colour and do not have a “natural” appearance. An alternative would be to consider a coloured aggregate which would provide a more natural appearance but can be fairly dull in colour. Neither of these alternatives would be likely to produce an aesthetically pleasing finish for the towpath at this location.

A smooth bituminous finish to the path could also result in high cyclist speeds on the path.

Tar Spray and Chip Surface

This surface would comprise of stone chips laid on a tar sprayed bituminous binder course. The rougher texture of the finish would give a more organic and sensitive feel when compared with the smooth, stark finish of a bituminous path.

Careful selection of locally sourced and appropriate stone would help to reduce the visual impact of this low maintenance type of surface.

Appropriate information would need to be relayed to the media and towpath users both prior to and during the construction of this type of path to allay any fears that a tarmac path alone was being constructed. This is because a tarmac path would need to be constructed prior to laying the coloured stone chip surface.

From information supplied by C&RT, a tar spray and chip surface would be of the order of 40% more expensive than a bituminous macadam surface. This is the surface that is recommended by the C&RT following their preliminary assessment and design work.

Resin Bound Gravel

Resin bound gravel surfacing provides a level, hard wearing and low maintenance finish. It uses a stone aggregate (usually 0-6mm in size) that is set into a resin bonding layer which prevents loose material from dispersing and provides good slip resistance.

Resin bound gravel is again applied to a bituminous macadam surface, but should provide an aesthetically pleasing surface finish. Resin bound gravels such as “Addastone” have been used to finish paved areas at high profile public locations such as the British Museum and Ascot Racecourse.

The smooth nature of this type of surface might still encourage high cyclist speeds.

The C&RT have indicated that a resin bound gravel path would be more expensive again than a tar spray and chip surface (possibly another 40% to 50%).

Dust/stone path

This is the current path surface. This type of path can suffer under heavy usage especially where there is poor drainage and areas of high wear i.e. adjacent to bridges and narrow sections etc (p.46 Canal and River Trust Towpath Design, Guidance for Towpath Design, Version 2 – January 2013). Where towpaths have heavy tree cover a build-up of leaf litter can help trap water and accelerate surface degradation during winter months. It is estimated that the dust/stone path will require significant maintenance after approximately 5-6 years in this location. The CRT wants to minimise future maintenance costs and so aim to construct paths that does not require maintenance for 15 +years.

Feedback from the consultation cited the example of a project at Llangollen in North Wales where a stone/dust path has been used. Here the CRT have used three different surface types, macadam (tarmac) over the aqueduct itself and in the town, tar spray and chip and self-bind green granite (stone to dust). In terms of the cycle route guide between Llangollen and Pontcysyllte aqueduct on their website it says; “the route is not recommended for road bikes as the towpath is mainly a crushed gravel surface with some tarmac along the way”.

This type of surfacing is therefore not recommended because of the maintenance issues and it is felt that there is minimal difference in appearance from crushed stone and tar spray and chip surface with locally sourced and appropriate stone.