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8.5 Urban riverside access

RIVER MARDEN

LOCATION – Town centre at Calne, Wiltshire ST 998710

DATE OF CONSTRUCTION – 1999

LENGTH – 100m

COST – not available



The river and weirs before construction

DESCRIPTION

A straight, concrete-lined, section of river channel was diverted and restored in the form of a double meander. Refer to 1.5 for a plan and full description of the project.

The inner part of each meander is configured as a gravel shoal. People enjoy being close to the river

at such locations although the opportunity to do so in a town centre location is rare. This technique is concerned with the means by which people are afforded safe access to the shoals. In addition, the Environment Agency required occasional access for maintenance plant, particularly to the twin road culverts at the downstream end where flood washed debris may accumulate.



Gravel margins and seeded soil form the shallow banks opposite 'rocky' walls

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DESIGN

The meander configuration effectively divides the reach into two parts for access purposes. The lower part comprises the meander approaching the road culverts where access is from the south side. The upper part comprises the meander fronting new retail development where access is from the north side.

Access on the lower part

A gently sloping ramp was achieved by aligning this parallel to the course of the river channel thereby maximising the distance over which a drop of c1.5m could be incorporated. The ramp blends smoothly into the shoal and falls at 1 in 12.5 at its steepest. Figure 8.5.1 indicates the profile of the inner bend and shoal. The upper part of the ramp is reinforced against wear and tear with limestone block paving. Purbeck limestone was used extensively throughout the project (see 1.5). Grass is seeded between the paving blocks ensuring a good blend with the grassed areas around the shoal.

Access on the upper part

A gently sloping ramp was again built parallel to the river course at about 1 in 12.5. This ramp gives access to a 20m long section of waterside that is flat and is within 40cm of normal water level. Dense marginal aquatic vegetation will front this short reach. The reach leads into the shoal fronting the development.

The inner bend that fronts the retail development is shown as a cross-section in figure 8.5.2. Three wide steps surfaced in slabs of Purbeck limestone form the riverbank. These 'stepped platforms', as they have come to be called, are up to 1.5m wide and are expected to provide informal seating areas for people at the riverside. The steps give direct access to the shoal and are integrated into the parade that fronts the new retail area.

SUBSEQUENT PERFORMANCE 1998 – 2001

The public will not have full access to the river until the retail development work is completed during 2001



View of the accessible new river course, November 2001





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Seating and gentle grass and gravel slope to waters' edge

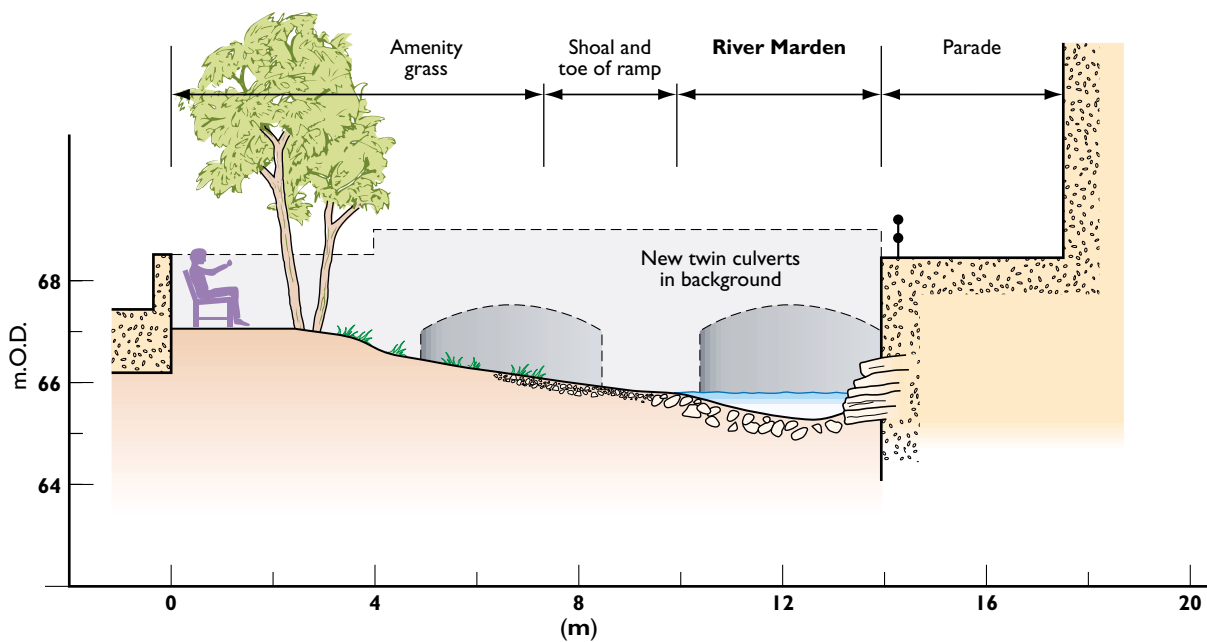
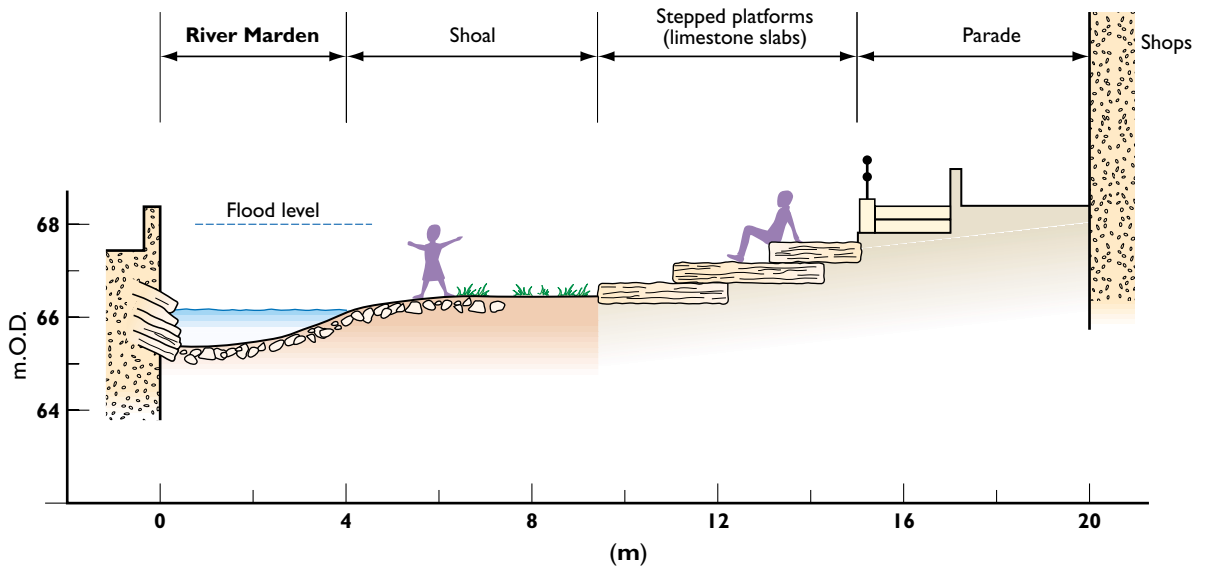


Figure 8.5.1
SECTION C (SEE 1.5 FOR LOCATION PLAN)

Figure 8.5.2
SECTION B (SEE 1.5 FOR LOCATION PLAN)



Stone steps leading down to grass and gravel shoal

but the overall appearance of the access provision is inviting and safe during normal river conditions.

During times of flood all of the features described will be submerged. Some cleaning of silt and debris is anticipated but should not be onerous.

The overall concept of maximising the opportunity for access to the waterside within the whole river channel and floodway is expected to work well.

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