

Ovingham Bridge Blog

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“New Bearings and Bearing Shelf”

The existing bearings on the bridge, needed to be demolished and replaced with brand new bearings which would allow the bridge to move for years to come. Over the course of the bridges life it will expand and contract by $\pm 40\text{mm}$ (total range 80mm) as the bridge gets warmer and cooler. To switch the bearings the bridge needed to be jacked up, to allow the construction of a new bearing shelf, which will accommodate the new bearings and deck system. (Blog 9/4/15 explains in further detail).



1. General view prior to excavation



3. Excavation backfilled upto underside of bearing shelf



2. Ovingham abutment after excavation, note bridge is supported by temporary tower

The existing masonry abutments needed to be strengthened; this was achieved by pouring a mass concrete block dowelled into the masonry. This allowed the casting of a reinforced concrete slab which would carry the ends of the bridge.



4. As photo 3



5. Bearing shelf reinforcement being installed



6. The new bridge bearings, one is guided allowing only longitudinal movement (along the span) and the other is free allowing movement in any direction. Photograph shows underside of bearings.



7. The new bearings are cast into pockets which are then grouted up, allowing the bridge to be jacked down.

8. The new bearing after the bridge has been lowered and the grout has been cast.

