

CASE STUDY

MAJOR SUPPLY GRID UPGRADES, SOMERSET

SECTOR:	WATER AND UTILITIES
CLIENT:	WESSEX WATER
LOCATION:	BRIDGWATER, SOMERSET
SCHEME:	SUPPLY GRID UPGRADE
MGF DEPOT:	BRISTOL
PRODUCTS HIRED:	MULTIPLE 203UC BRACE, KKD 600 SHEETS, LIGHTWEIGHT DAVIT

SCOPE OF WORKS:

Excavation works began in 2017 at the Dancing Hill Reservoir site as part of a £6 million project to upgrade the water supply grid for Bridgwater and the surrounding areas. Major upgrades are required due to large-scale developments in the area.

ISSUES & SOLUTIONS:

The design was particularly challenging due to the complicated nature of the ground surrounding the reservoir tank. A sizeable berm was built on the ground profile around Cofferdam 4 to ensure a safe and stable excavation. This exaction also had to accept other loadings from Cofferdams 1, 2 and 3. Multiple 203UC tank brace frames were used due to the strict lift plan limit of 1 tonne. Larger or heavier brace systems could risk the collapse of existing foundations.

Vibration pile driving was not permitted due to the detrimental effect it could have on the high-pressure water mains that supplies customers. There was also a HV cable running through the site that had to be avoided. The exact location of other services created additional challenges and ongoing surveys had to be monitored throughout the duration of works.

As of 2017 there are four connected cofferdams in place allowing safe working space to combine new pipeworks to the main reservoir tank. Multiple back-to-back 203UC tank braces with special alignment of bracing has been key in the design, combined with KKD 600 sheets to secure the trench. Several Lightweight DavitSafe systems allow safe access into the 10-metre-deep cofferdams.

CAN MGF HELP SUPPORT YOUR PROJECT?

For more information on our shoring range please browse our website or contact the Technical Sales Team for a product demonstration on: 01942 702 400



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