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Groundforce Bridge Director  
Terry Mead said:

THIS WAS ONE OF THE MOST CHALLENGING PROJECTS WE HAVE UNDERTAKEN SINCE THE BRIDGE DIVISION WAS FORMED IN 2012. IT HAS BEEN A FANTASTIC PROJECT TO WORK ON IN SCOTLAND AND HAS BEEN A GREAT TEAM EFFORT ALL ROUND. ONCE THE PLAN HAD BEEN PUT IN PLACE, STEEL ORDERED AND BRIDGES FABRICATED, ALL THREE BRIDGES WERE DELIVERED AND INSTALLED IN THE TIME SCALE SET BY OUR CLIENT.

# CASE STUDY LESMAHAGOW SCOTLAND

## INTRODUCTION

The longest bridge ever built by Groundforce Bridge has been supplied to APL Construction to span a watercourse in Scotland.

## THE PROJECT

Civil engineers APL Construction required temporary bridging solutions for two access crossings to span a challenging 11m watercourse and flood area in the Lanarkshire village of Lesmahagow, in Scotland.



**Groundforce Bridge**

Bridging the Gap



## CHALLENGES

APL had contacted Groundforce Bridge to look at what options were available to give a maximum clear span of 15.6m over the watercourse. Project coordinator Chris Stevenson carried out an extensive pre-installation site visit to devise the best plan for the project,

He found the vegetation area surrounding the watercourse obstructed any lifting access and the site was extremely difficult terrain for delivery and installation.

APL were then supplied with a full site report including requirements for abutments, installation, access and groundworks.

## THE SOLUTION

The Groundforce Bridge solution was for two 17.6m x 3.5m bridges installed end to end with 14 deck plates to span 35.2m, with concrete gabion basket abutments, designed and installed by APL at the centre joint point of the two bridges.

This was complemented by a single 17.6m x 3.5m bridge to provide APL with an additional crossing over the watercourse for vehicles up to 60 tonnes including metal-tracked excavators.



Once the steel, which totalled 57 tonnes in weight, was received, Groundforce Bridge fabricators manufactured all three bridges in just over a month. The bridges are needed by APL Construction for at least six months but only took a two-person Groundforce Bridge

team a day to install each bridge.

The first half of the 35.2m bridge was able to be installed using a HIAB but the second half required a 250-tonne mobile crane with further reach. Groundforce Bridge were also able to install the third 17.6m x 3.5m bridge with seven deck plates using the HIAB to gain access to its location by driving over the 35.2m bridge to the lifting area.

The bridges were delivered to site using two wagons, an articulated steerable extended trailer and the HIAB. As well as the abutments, APL groundworks included de-vegetation and preparing the stoned access road, crane pads and stone ramps.

**2x**  
**17.6m x 3.5m**  
**BRIDGES**  
 INSTALLED END TO END WITH  
 14 DECK PLATES TO SPAN  
**35.2m**  
**+ 1x**  
**17.6m x 3.5m**  
**BRIDGE**  
 FOR VEHICLES UP TO 60 TONNES  
 INCLUDING METAL-TRACKED EXCAVATORS

