

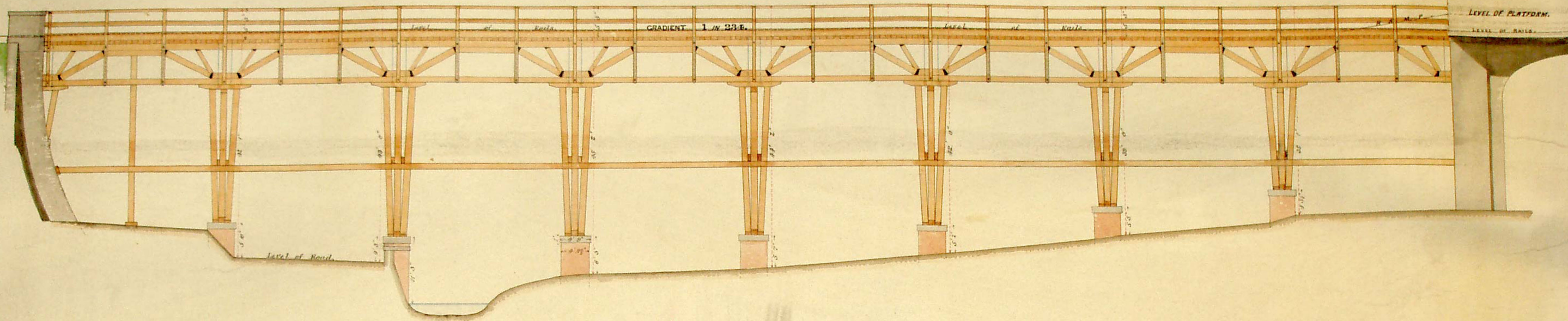
GREAT WESTERN RAILWAY.

WATTS' VIADUCT AT 102^M 19^C

NORTH END OF STROUD STATION.

SCALE. 8. FEET TO AN INCH.

TO BE RETURNED TO CHIEF
ENGINEER'S PLAN OFFICE
G. W. R. PADDINGTON.



ELEVATION

UP MAIN LINE. →

DOWN MAIN LINE. ←

PLAN.

n Gloucester.

To London.

ROAD.

Seymour's
March 24th 1899.

Witness
W. J. Driscoll
21st September 1897
A. Jackson

Plan tendered from
August 1897
W. J.

Watts Viaduct (caption)

Surviving engineering drawings for the construction of the viaducts and their subsequent rebuilding in masonry provide us with a detailed description of the structures. As might be expected from a pioneering venture like this there are differences in the details of each of the designs. However, Watts viaduct leading off the north end of Stroud station behind the then Stroud Brewery (now the site of the Stroud & Swindon Building Society headquarters) illustrates the basic principles. The above drawing is dated 1889 and is one of a set prepared for a contract to replace the timber viaduct with a brick one.

Watts viaduct consisted of eight arches of 30 ft span (plus four masonry arches connecting it to the station platforms). The timber legs were supported on masonry piers which measured 36ft by 6ft at the base, and were typically 6ft high. Fifteen legs sprang from each pier arranged in five groups of three. The outermost three legs on each pier can be seen to rise near vertically about 35ft to thick timber pads. From here a series of inclined timber struts spring from cast iron 'shoes' on each of the pads to support the massive horizontal beams which carried the permanent way.