For the Information of the Press

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THE QUEEN'S BRIDGE, PERTH

Introduction

The Queen's Bridge is a new bridge which has been built over the River Tay at Perth in place of the Victoria Bridge. It carries (as did the Victoria Bridge) the main Perth-Dundee road, A.85. The scheme, the formal completion of which will be marked by the ceremony on October 10, has also included improvements of the road junctions at both ends of the bridge.

Need for new bridge

The Victoria Bridge was built in 1900 and had four steel girder spans supported by stone piers. Although it served a useful purpose for many years it was not of a high enough standard of design to carry the volume and weight of traffic which now uses A.85. Damage to the bridge structure was first noticed after the 1939-45 war during which it had heavy wear and while the damage was at first thought to be limited to the superstructure, examination by a diver in 1955 showed that the foundations had been weakened by the vibration set up by heavy traffic and by the scouring of the river bed round the piers. In 1956 Messrs F.A. Macdonald & Partners, Glasgow, who were called in by the Town Council to investigate and report, advised that although the old bridge could be repaired and strengthened it would be more economical in the long run to replace it by a new one.

Progress of scheme

In May, 1957 a proposal for a new bridge was approved in principle and in the following July the Town Council appointed Messrs F.A. Macdonald & Partners as consulting engineers to design the bridge and supervise its construction. Detailed preparations were completed in February, 1959 and the scheme put out to tender. Constructional work began in April, 1959, with Messrs Whatling Limited as contractors. The bridge was opened to traffic on August 1, 1960, and a further month has been taken in completing various services and ancillary works.

Constructional details

(a) Bridge itself

The new bridge has been built on the line of the old. It is 375 ft. long and has three prestressed concrete spans - a central arch span of 187 ft. 5 ins. and two cantilevered end spans of 109 ft. and 78 ft.5 ins. - supported by two piers founded on precast concrete piles. It is 45 ft. wide between parapets,

and has a 30 ft. carriageway with two footpaths each 7 ft. 6 ins. wide. To meet the problem of the River Tay at Perth being tidal and so subject to rapid changes in level, an ingenious method of construction has been used which allowed the new bridge to be built without scaffolding in the river. The road deck of the old bridge was stripped off leaving only the main girders and cross beams. This skeleton framework was jacked up on the old piers so that the cross beams just cleared the road line of the new bridge and it was then used as a support from which the framework used in building the superstructure of the new bridge was hung.

(b) Approaches

At the western end of the bridge, the kerb line of the light - controlled junction with Tay Street has been eased and at the eastern end the junction with Gowrie Street and Dundee Road has been widened and an island built to divide the streams of traffic.

Cost

The scheme has been carried out as a classified road scheme for which the highway authority are the Perth Town Council. Including the approaches, it is expected to cost about £160,000, 75 per cent of which will be met by Government grant, leaving 25 per cent to be borne by the Town Council.

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