JPMcCafferty 1981 (Feb)

J.P. McCAFFERTY

Year of birth : 1945

Education : St. Ninian's High School, Kirkintilloch 1950 -63
University of Strathchyde 1963 -67

Professional Qualifications : B.Sc. (Hons), C.Eng., M.I.C.E., M.I.H.E., M.H.K.I.E., A.C.I.Arb.

Technical Publications : -

Professional History :

(1976 to date) Various assignments with Scott Wilson Kirkpatrick & Partners, Hong Kong

(1977 to date) Senior Engineer involved in:-

Tuen Mun Road Stage I. Client: Hong Kong Government
Highways Office

Responsible for supervision in chief duties; Assessment of Contractor's claims; Liaison with all relevant parties. Tuen Mun Road Stage 1 involved the construction of the first carriageway of a 16 km long motorway (3 lanes + hard shoulder) in two Contracts along steep mountainous terrain between the New Towns of Tsuen Wan and Tuen Mun and included the construction of numerous bridges and viaducts, major earthworks, marine reclamation, major drainage works, marine bridges and seawalls, a flexible road pavement with an asphaltic concrete wearing course plus major ancillary and accommodation works.

Tuen Mun Road Stage II. Client: Hong Kong Government
Highways Office

Responsible for preparation of the Preliminary Report and discussions with the Client concerning the brief for our continuing involvement in the project; Ground Investigation contracts and interpretation of the resulting imformation; Geotechnical appraisal of existing and proposed works as well as the natural hillsides to ensure compliance with the latest requirements of the P.W.D. Geotechnical Control Office; Liaison with all relevant parties concerning the design, traffic matters, acquisition of land, public utilities etc.; The design; Preparation of Contract Documents; Assessment of Tenders; Supervision in Chief Duties.

Tuen Mun Road Stage II involves the construction, in four major contracts, of the second carriageway of this multi-lane motorway alongside the completed first carriageway. Again the project involved the construction of major bridges and viaducts (totalling about 2.2km) in extremely variable and mountainous terrain. These structures required columns up to 34 m high and the use of hand dug caissons.

The decks are mainly of precast pre-tensioned or precast post-tensioned prestressed concrete beams but also involved a major viaduct of prestressed post-tensioned concrete box girder construction.

Ancillary Contracts for the Tuen Mun Road Project included the construction of a 1500 m^2 covered market; construction of roads and drains for public housing projects to accommodate displaced villagers; two major contracts for the provision, planting and after care of trees & shrubs within the area of construction; construction of river training walls and reclamation of Tai Lam Bay.

Tsuen Wan New Town. Client: Hong Kong Government
Project Manager Tsuen Wan

Responsible for the design and preparation of contract documents for major bridges and other structures of various types for the SWK group involved in the provision of the infrastructure for this New Town.

Kampong Patai - Long Pa Sia Road. Client: Government of the State of Sabah East Malaysia

Provision of design services and scrutiny (relating to major and minor river crossings, retaining structures etc.,) to the SWK resident design team for a 60 mile long gravel road in a remote part of the mountainous and jungle covered interior of this part of Borneo. This work involved appraisal of the proposed alignment in-situ, discussions with the resident design team and relevant Government Officials and consideration of appropriate solutions to suit the location and the available local technology.

Hong Kong Cross Harbour Tunnel Increase in capacity Client: The Cross Harbour Tunnel Co. Ltd.

Involved as part of the design team studying and reporting on the options open the Tunnel Company for the provision of additional cross harbour capacity in this busy city. The work involved a transportation survey; investigation of the effect of increased cross harbour flow on the existing road network on both sides of the harbour and consideration of various alternative methods of providing the additional capacity at the tunnel itself. These included an additional immersed tube tunnel, various mazzanine deck solutions and combinations of additional immersed tubes and mezzanine decks. (The mezzanine decks would have required separate lanes for 'low' private cars etc and 'tall' commercial vehicles.)

Minor Projects

These included a study, for the Taikoo Shing Development, into the feasibility of constructing a multi-storey car park spanning an existing but disused dry dock and the strengthening of a vierendeel girder pipe bridge to carry additional naptha and steam pipes over the busy To Kwa Wan Road for the Hong Kong & China Gas Co. Ltd.

1967 - 1976 Various assignments with Scott Wilson Kirkpatrick & Partners Scotland

(1975 to 76) Resident Engineer(Bridges). Renfrew Mortorway Stage 1

Transferred from being Project Engineer in the office and having responsibility for the supervision of construction of the structures which formed the major part of this project. Renfrew Motorway was constructed in the urban area to the south of the Glasgow City Centre; required the construction of major interchanges between the Ayr and Renfrew Motorways as well as with surface streets and involved interfaces with British Rail at several points, surface streets and the Glasgow corporation Underground Railway.

(1974 - 75) Senior Assistant Engineer. Leading a team handling all structural work in the Scottish Company

Projects included:-

Renfrew Motorway Stage I. Client: The Corporation of the City of Glasgow

Supervision in Chief duties for all structures. Involved the construction of a major continuous prestressed concrete box girder viaduct (total length 1.1 km); several major bridges in reinforced and prestressed concrete (post tensioned and pretensioned) including prestressed concrete box girder bridges varying in width and curvature. Several reinforced and prestressed concrete footbridges, and almost 2 km of retaining wall.

Clyderail - St Johns link. Client: British Rail

Investigations into the feasibility of rehabilitation & reopening of a disued railway route in Glasgow.

Glasgow Inner Ring Road - East & West Flanks Client: The Corporation of the City of Glasgow

Investigations & feasibility studies for various routes including a major crossing of the River Clyde.
General Commissions - including structural surveys & organisation of remedial work for old & damaged buildings.

(1973 - 74)

Senior Assistant Engineer. Leading the design team for the structures for Glasgow Inner Ring Road - Townhead Interchange Stage II.

Client: Corporation of the City of Glasgow

Involved liaison with clients, ground investigation, geotechnical appraisal, the design & preparation of Contract Documents for several bridges of various types (reinforced & prestressed concrete, box girder, slab, beam & slab; a multi-span steel plate girder bridge to be constructed without disruption to the rail traffic as a replacement for an existing shorter bridge). Several hundred metres of retaining wall - much of it contiguous bored pile wall anchored back to rock due to the close proximity of many buildings and services which precluded the use of more conventional walls.

Assistant Engineer. Leading design team for Cathkin Relief Road Rutherglen.

Client: The Royal Burgh of Rutherglen

Involved liaison with clients and design of several kilometres of road in difficult ground, a footbridge, several pedestrain underpasses, retaining walls, geotechnical appraisal & preparation of Contract Documents.

(1972 - 73)

Assistant Engineer. Leading design team for Scotland St. Viaduct Renfrew Motorway Stage I - a multi-span continuous prestressed concrete box girder bridge of total length 1.1 km crossing existing city streets, a major rail route and Glasgow's underground railway. The substructure comprised R.C. piers and abutments, the foundations being supported on H Section steel piles up to 30 m long. There were also extensive retaining walls supported on steel piles due to the poor ground conditions. Also involved in the design of several other major prestressed concrete box girder bridges.

(1971 - 72)

Assistant Engineer (Chartered). Engaged on final roads design, ground investigation, geotechnical appraisals & preparation of Contract Documents for Renfrew Motorway Stage I.

Design of multi-span road bridge over major rail route in Motherwell City Centre for Motherwell Relief Road

(1969 - 71)

Assistant Resident Engineer on Glasgow Inner Ring Road - Woodside II Section. Engaged on site supervision of several reinforced and prestressed concrete bridges, two major prestressed concrete viaducts, several foot-bridges and underpasses, associated foundations and several hundred metres of retaining wall.

(1967 - 69)

Assistant under Agreement. Engaged on design and preparation of Contract Documents for reinforced & prestressed concrete bridges & multi-span viaducts, bridge abutments & substructure & various types of piled & spread foundations for Glasgow Inner Ring Road Woodside Section.

Preliminary road design, planning & feasibility studies for:- Glasgow Inner Ring Road Woodside II Section, Renfrew Motorway & a major By-Pass to Motherwell City Centre.