

1. **Proposed Position:** **CONTRACTS & PROCUREMENT EXPERT**
2. **Name Of Firm:**
3. **Name Of Expert:** **Christopher John TOLLEY**
4. **Current Residential Address** 53 Cliff Street, Raglan 3225, New Zealand
Telephone No. +64 21 854 887
E-mail Address: tolleyc@gmail.com
5. **Date of Birth:** 15 February 1959 **Citizenship:** New Zealand & UK
6. **Education:** B Sc. (Civil Engineering), Southampton University, 1980
MBA, University of Bath, 1996
7. **Membership of Professional Associations:** Fellow, Engineering New Zealand, 2016
Chartered Professional Engineer (UK & NZ)
International Professional Engineer (NZ)
Member, Institution of Civil Engineers (UK), 1985
Member, Chartered Institution of Highways & Transportation (UK), 1991
8. **Other Training:** Best Practice in Pavement Engineering and Design (IPENZ), July 2017
Managing AECOM Projects (MAP) – Contracts, February 2013
NZ Partnerships for International Development Fund, Appraisal Training, November 2012
FIDIC Asia-Pacific Contract Users' Conference, 2011
Personal Security and Communications, NZ Defence Force and RedR NZ, NZL, 2005
PSMJ Project Management Training Course, 2005
The Contract in Successful Project Management, Centre for Advanced Engineering,
Christchurch, New Zealand, February 2002
HDM-4 Training Course, Fiji, January / February 2001
9. **Countries of Work Experience:** Afghanistan, Armenia, Azerbaijan, Bangladesh, Botswana, Cambodia, Cook Islands, Fiji,
Georgia, India, Indonesia, Kiribati, Lao PDR, Lesotho, Mongolia, Nauru, Nepal, New
Zealand, Papua New Guinea, Philippines, Russia, Samoa, Solomon Islands, South Africa,
Sri Lanka, Swaziland, Timor Leste, Tonga, Tuvalu, Uganda, Uzbekistan, Vanuatu,
Vietnam, Zimbabwe.
10. **Languages:**

	<u>Reading</u>	<u>Speaking</u>	<u>Writing</u>
English	Excellent	Excellent	Excellent
11. **Employment Record**

From: 2017	To: Present
Employer:	Independent Consultant
Position held:	Procurement & Contracts Specialist
From: 2000	To: 2017
Employer:	AECOM New Zealand Ltd
Position held:	Technical Director - Transportation
From: 1991	To: 2000
Employer:	Scott Wilson Kirkpatrick, United Kingdom
Position held:	Team Leader & Project Manager for road projects in Africa and Asia
From: 1988	To: 1991
Employer:	Binnie & Partners
Position held:	Senior Chartered Engineer working on projects in the UK and Lesotho
From: 1986	To: 1988
Employer:	Sir Alexander Gibb & Partners, Botswana
Position held:	Project Manager for variety of infrastructure projects in Botswana
From: 1982	To: 1986
Employer:	Brian Colquhoun Hugh O'Donnell & Partners (LHW Partnership)
Position held:	Engineer on road and infrastructure projects in Southern Africa

12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

Name of assignment or project: TA-9242 REG: Pacific Renewable Energy Investment Facility (formerly Pacific Renewable Energy Investment Program) - NAU-01 Project Preparation Consultancy (49450-001)

Year: June 2018 - ongoing

Location: Nauru

Client: GHD New Zealand Ltd. for the Asian Development Bank

Main project features: The Asian Development Bank commissioned GHD to support the Nauru Utilities Corporation (NUC) to prepare the Nauru Solar Power Development Project, a part of the ADB's Pacific Renewable Energy Investment Facility. The primary objective of the PPTA is to develop a plan to increase renewable energy generation within Nauru to achieve 50% renewable energy penetration by 2020 from the current 5%. The scope of works for this project is to determine the power demand in 2020, determine what level of solar will provide 50% renewable penetration and provide a plan to achieve this. The plan must consider the need for battery storage for both stability of the network but also for storage when excess solar power is produced.

Position held: Procurement Specialist

Activities performed: As Procurement Specialist responsible for the following:

- Conducting a project procurement risk assessment (PPRA);
- Preparing bid documents for geotechnical and topographical survey investigations;
- Developing cost estimates for input to financial analysis and Levelised Cost of Energy (LCOE);
- Preparing Project Procurement Plan;
- Provided inputs to Report and Recommendation to the President (RRP) and Project Administration Manual (PAM)
- Preparing Bidding Documents for the procurement of the proposed Solar PV system;
- Providing formal and on-the-job training to NUC on ADB procurement principles, guidelines and practices; and
- Providing advice and support to NUC during bid process for works including responding to questions from bidders, facilitating pre-bid meetings and site visits, evaluation of bids and proposals, and drafting of contracts.

Name of assignment or project: TA-9154 AZE: Railway Sector Development Program

Year: April 2018 – November 2019

Location: Azerbaijan

Client: Asian Development Bank

Main project features: The Government of Azerbaijan is endeavouring to transform the AZE Railways (ADY) into a profit-making corporate group and improve railway service delivery in Azerbaijan. It has requested the Asian Development Bank (ADB) to finance the proposed Azerbaijan Railway Sector Development Program (RSDP). The RSDP, consisting of a project loan and a policy-based loan, will support investment in the Baku to Yalama (Russian Border) rail line and reforms with key policy actions to enhance sector competitiveness and ADY's financial sustainability.

Position held: Procurement Specialist

Activities performed: As Procurement Specialist responsible for the efficient and effective procurement of all goods, works and services in accordance with the agreed procurement plan. Working closely with ADY PIU staff, and following ADB Procurement Guidelines:

- Prepared Bidding Documents for the procurement of Design, Supply and Installation Works for Rail Track Rehabilitation (Including Structures) of Yalama- Sumgait Line.
- Prepared Terms of Reference and Request for Proposal for Consulting Services for engineering and construction supervision for rehabilitation of track along Yalama- Sumgait corridor.
- Assisted ADY to prepare Bid Evaluation Reports for Technical and Price Proposals

Name of assignment or project: Construction Supervision of Padma Multipurpose Bridge Project

Year: July 2017 - ongoing

Location: Bangladesh

Client: Korea Expressway Corporation (KEC)

Main project features: Construction supervision and contract administration of the US\$ 2.7b Padma Multipurpose Bridge Project comprising a new bridge approximately 6.15km long, approach viaducts and major river training works.

Position held: Senior Contract Specialist

Activities performed: As Senior Contract Specialist was responsible for evaluation of claims submitted by the Main Bridge (MB-01) and River Training Works (RTW-01) Contractors; preparation of draft Variation Orders for both contracts; and assisting KEC, Engineer and Employer with contractual advice in relation to engineering decisions.

Name of assignment or project: Pacific Aviation Investment Program (PAIP)

Year: April 2017 – December 2019

Location: Tonga, Tuvalu, Kiribati, Samoa, Vanuatu, Solomon Islands

Client: PAIP TFSU administered through Tonga Airports Limited

Main project features: PAIP, a World Bank funded program, is currently implementing key aviation investments in five (5) Pacific Island countries: Kiribati, Samoa, Tonga, Tuvalu and Vanuatu; and other countries may join in future phases. The program's Implementing Entity is Tonga Airports Ltd (TAL), who leads the program via the Technical and Fiduciary Services Unit (TFSU). The PAIP TFSU also provides project implementation support to the related Pacific Aviation Safety Office (PASO) Reform Project supported by The World Bank.

Position held: Periodic Procurement Specialist for TFSU

Activities performed: As Periodic Procurement Specialist provided operational procurement services, advice, and support to the TFSU and PAIP/PASO stakeholders, and to undertake procurement of all facets of PAIP/PASO investments, following World Bank Procurement Guidelines for Goods, Works, Services and Non-Consulting Services. This includes:

- Undertaking procurement activities
- Procurement Capacity Building and Training
- Support to the Development/Updating of Procurement Support tools and Reporting

Name of assignment or project: TA-8852 MON: Regional Road Development and Maintenance Project

Year: October 2016 – May 2018

Location: Mongolia

Client: Asian Development Bank

Main project features: The purpose of the Project Preparatory Technical Assistance (PPTA) is to assist the government of Mongolia and specifically the Ministry of Road and Transport Development (MRTD) prepare the Project which will support the country's road sector development strategy, roadmap and investment program. The original scope of the project included the construction of a 272km road section between Baruun-Urt and Bichigt, the final section of the Eastern Regional Road Corridor (ERRC) but this was dropped as the low traffic levels meant it was not economically justified. In addition, the loan commitment of \$200m was not considered sustainable. Focus instead shifted to the development of a sustainable road asset management system and the implementation of priority road maintenance and rehabilitation works funded by a smaller loan of \$60m. The revised scope comprised three components:

- Periodic maintenance of, and safety improvements to, the road between Nalaikh (25 km south of Ulaanbaatar) and Choir (201 km) over a nominal 2-year construction period with an extended 3-year Defects Notification Period. Concurrently the contractor will also be responsible for the routine maintenance of the road over the full 5-year period through a performance-based contract model.
- Periodic maintenance of, and safety improvements to, the road between Darkhan and Altanbulag (118 km) over a nominal 2-year period with a standard 1-year Defects Notification period. Concurrently the contractor will also be responsible for the routine maintenance of the road over the full 3-year period through a performance-based contract model.
- In addition, and as part of the proposed improvements to road asset management capacity and implementation, a number of maintenance packages will be procured through national competitive.

Position held: Procurement Specialist

Activities performed: As Procurement Specialist was responsible for (i) reviewing and assessing MRTD and the Government Procurement Agency's (GPA) procurement and internal control capacity and developing a strengthening plan including training material for the PIU, MRTD and GPA on the ADB's procurement requirements according to the recommendations of the ADB Project Procurement Related Review (PPRR); (iii) assessing the capacity of the local road industry to undertake civil works under the project; (iv) completing the draft procurement plan and implementation schedule as required for the Project Administration Manual (PAM); (v) making recommendations on contract packaging; (vi) preparing bidding documents for civil works and construction supervision consulting services acceptable to ADB; and (vii) working with the RAM and PBMC specialists to introduce performance based road maintenance contracting principles and practices to the Mongolian road sector.

Name of assignment or project: Munda Airport Emergency Alternate Status (EAS) Project (Design & Procurement)

Year: November 2014 to August 2015

Location: Solomon Islands

Client: New Zealand Ministry of Foreign Affairs and Trade, Aid Programme

Main project features: To allow Munda Airport, West Georgia, to be certified for Emergency Alternative Status (EAS) for Honiara Airfield, the following additional works were required:

- Construction of a new perimeter security fence that meets ICAO and NZCAA Advisory Circular requirements;
- Design specified components, manufacture / supply, install and commission complete new airfield ground lighting

- (AGL) and navigational aids (NavAids); and
- Construction of a complete new Airport Rescue Fire Fighting building (the fire trucks are being procured separately).

AECOM developed the detailed designs of these components, developed procurement options and tender documentation; and provided procurement services including tender management and evaluation.

Position held: Principal Adviser (Procurement) & AECOM Project Director

Activities performed: As Principal Adviser (Procurement), was responsible for finalising the Tender Management Plan (TMP); opening and evaluation of tenders including preparation of Tender Opening Reports, Technical Commentary Reports and Price Equalisation Reports; taking part as a non-voting member of the Tender Assessment Panel (TAP); and preparation of the TAP meeting summary and Tender Evaluation Reports for all three tenders in consultation with MFAT and in accordance with MFAT procurement guidelines.

Name of assignment or project: Padma Multipurpose Bridge Project

Year: Phase 1 from June 2009 to November 2011

Phase 2 from June 2013 to December 2014

Location: Bangladesh

Client: Bangladesh Bridge Authority

Main project features: The Padma Multipurpose Bridge Design Project comprises a new fixed crossing of the Padma River in Bangladesh, which will consist of a new bridge approximately 6.15km long, approach viaducts, major river training works, approximately 12km of approach roads and bridge end facilities, including toll plazas, service areas and offices. The main bridge is to carry a highway, future rail and other facilities including gas and communication lines. The project poses some of the most significant challenges in bridge engineering involving river scour, earthquake, ship impact, marine construction, cost-effectiveness, and durability, together with the need for developing a combined rail-road crossing to minimize land acquisition.

Position held: Contracts Engineer and Project Manager (Phase 2)

Activities performed:

Phase 1 - Developed procurement strategy for project, including contract packaging, in consultation with Government of Bangladesh (GoB), Development Partners (World Bank, ADB, JICA and IDB) and design team. Worked with GoB and Development Partners (DPs) to develop harmonised procurement documents based on DPs Standard Prequalification and Bidding Documents (SPQD & SBD). Developed project specific Prequalification Documents for all civil works contracts including development of contract specific prequalification criteria. Prepared Bid Documents for all civil works contracts including developing bespoke Two-Stage Bidding Documents for procurement of two largest contracts, Main Bridge and River Training Works. Carried out evaluation and assessment of applications for prequalification for five civil works contracts and prepared Prequalification Evaluation Report for all five civil works contracts. Carried out evaluation of bids for Janjira Approach Road and Bridge End Facilities (AR-01). Prepared, updated and maintained project implementation and procurement schedules.

Phase 2 - Following the Government of Bangladesh's decision in February 2013 to finance the construction of the Padma Bridge using their own resources, AECOM were contracted to provide technical assistance to the Bangladesh Bridge Authority with the procurement of the five civil works contracts – Main Bridge (MB-01), River Training Works (RTW-01), Janjira Approach Road and Associated Bridge End Facilities (AR-01), Mawa Approach Road and Associated Bridge End Facilities (AR-02) and Service Area 2 (SA-02). Tasks included updating prequalification submissions, updating Bid Documents including commissioning and supervising additional studies (hydrographic and morphological), assisting with bid process including responding to requests for clarification and managing pre-bid meetings, carried out independent evaluation of bids, including First Stage Technical Proposals and Second Stage Bids for two largest contracts, preparation of Bid Evaluation Reports for contracts worth in excess of US\$2.7 billion and preparation of Contract Documents.

Name of assignment or project: Asian Development Bank Staff Consultant Consultancy

Year: May and June 2013

Location: Philippines, Armenia, Georgia and Uzbekistan

Client: Asian Development Bank, Central and West Asia, Transport and Communications Division (CWTC)

Main project features: The objective of the 2 month staff consultancy assignment was to work with ADB staff in improving the performance of on-going projects in central and west Asia (Armenia, Georgia and Uzbekistan) by accelerating the implementation of physical and non-physical components; preparing new project concepts consistent with ADB policies, strategies and the Sustainable Transport Initiative (STI); and carrying out transport sector assessments, strategies and road maps for enhancing the understanding of the sector operations and inclusion in the Country Partnership Strategy (CPS) and Country Operational Business Plans (COBPs) of the three countries.

Position held: Portfolio Management Support Specialist

Activities performed: As Portfolio Management Support Specialist assisted ADB staff responsible for the transport sector in Armenia, Georgia and Uzbekistan in administering on-going projects and preparing new projects by providing written and verbal inputs to various documents, discussions, and correspondence including taking part in field visits.

Name of assignment or project: Pacific Aviation Investment Program (PAIP) – Tonga, Kiribati and Tuvalu

Year: September 2012 to February 2017

Location: Tonga, Kiribati and Tuvalu

Client: Tonga Airports Limited (TAL), Kiribati Ministry of Communications, Transport and Tourism Development and Tuvalu Ministry of Transportation and Communications

Main project features: Phase 1 of the Pacific Aviation Investment Program comprises the assessment, detailed design, bid documentation, procurement and construction supervision to upgrade existing airport facilities in Kiribati, Tonga and Tuvalu to support the continued and sustainable growth of international air transport services. It includes five airports, two in Kiribati (TRW, CXI), two in Tonga (VAV, TBU) and one in Tuvalu (FUN), and covers resurfacing or rehabilitating and upgrading of runways, taxiways and aprons; upgrading the navigational aids (such as runway lighting) and other safety and security facilities to meet ICAO requirements; terminal improvements to ensure safe and efficient movement of passengers, baggage, and freight; providing environmentally sustainable alternatives for running the airport facilities, such as rainwater harvesting, power generation from renewable energy sources, and use of energy efficient equipment and lighting; assuring that all improvements are compliant with ICAO Standards and Recommended Practices (SARP); and preparing a detailed training needs assessment for each country.

Position held: Procurement Specialist & AECOM Project Director

Activities performed: As Procurement Specialist, was responsible for the development of a Procurement Strategy, including contract packaging, covering three countries, five airports and the procurement of works (civil and building) and goods contracts; the preparation of bidding documents in accordance with the respective government procedures and World Bank guidelines; providing assistance with bid phase management and bid evaluation.

Name of assignment or project: Samar Secondary National Road Development Project

Year: June 2012 to January 2015 (2 ½ months over 5 trips)

Location: Philippines

Client: Millennium Challenge Account-Philippines

Main project features: The Samar Secondary National Road Development Project is a component of the Millennium Challenge Corporation funded Millennium Challenge Account assistance to help facilitate poverty reduction through economic growth in the Philippines. The project objectives are to save time, lower vehicle operating costs for those Filipinos living near the roads, improve profitability and marketability of goods carried on the roads, improve access to social services among communities serviced by the roads, and improve road safety.

Position held: Procurement Specialist

Activities performed: Member of Bid Review Panel to review the bids for the Contract Package 1, 2, 3 and 4 of the Samar Secondary National Road Development Project in accordance with the qualification, evaluation and award criteria set out in the bidding documents in accordance with MCC's Program Procurement Guidelines and the Review Guidelines.

Name of assignment or project: Munda Runway, Noro-Munda Road and Nusatupe (Gizo) Runway Rehabilitation and Upgrade Project

Year: January 2011 to August 2013

Location: Solomon Islands

Client: Ministry of Foreign Affairs and Trade, New Zealand

Main project features: The Munda Runway, Noro-Munda Road and Nusatupe (Gizo) Runway Rehabilitation and Upgrade Project comprises the upgrading of Munda runway to cater for larger aircraft and to improve aviation safety standards by reconstructing and extending the existing runway from 1400m to 1800m length, constructing a new taxiway and reconstructing and enlarging the aircraft parking apron; upgrading Nusatupe runway to improve aviation safety standards by providing a reshaped all-weather sealed runway, taxiway and parking facility; and improving and sealing the existing road between the township of Noro and the Airport at Munda, including reconstructing water crossing structures and establishing a program for road maintenance. Tasks carried out by AECOM included surveys and investigations, development and review of options, detailed design, preparation of tender documentation, assistance with procurement, evaluation of tenders, and assisting with contract award. AECOM will also be providing construction supervision services.

Position held: Contract and Procurement Specialist

Activities performed: Advised on preparation of tender documentation in accordance with MFAT and Solomon Islands Government requirements and evaluation of tenders.

Name of assignment or project: Infrastructure Services Delivery Improvement

Year: January 2010 to March 2013

Location: Cook Islands

Client: Asian Development Bank (ADB)

Main project features: The Government of the Cook Islands (GOCI) is in the process of strengthening infrastructure sector governance, building capacity and improving the financial and operational management of its assets. This TA assisted the Government with the drafting of national policies for infrastructure services; development of asset

management plans; institutional strengthening and capacity building; and legislative reform and legal drafting.

Position held: Project Manager and Team Leader (Phase 2)

Activities performed: As Project Manager and Team Leader (Phase 2) was responsible for all aspects of project delivery, both to our client ADB and the GOCl, including review of deliverables, project programme and progress, quality, and cost.

Name of assignment or project: Project: Melamchi Diversion Scheme – Project Management Consultant

Year: 2007 – October 2009

Location: Nepal

Client: Melamchi Water Supply Development Board (MWSDB)

Main project features: The US\$ 328 million Melamchi Diversion Scheme will divert, by way of a 26 km tunnel, water from the Melamchi Valley to the Kathmandu Valley to alleviate chronic water shortages there.

Position held: Contracts Specialist / Team Leader

Activities performed: Worked with AECOM's Tunnel Specialist to update bid documents for the tunnel civil works contract, including bringing them into line with ADB Standard Bid Documents-MDB Harmonised Edition. Assisted MWSDB with procurement of tunnel contract including site visit and pre-bid meeting, and evaluation of bids as a member of Bid Evaluation Committee including preparation of Bid Evaluation Report. Also provided contractual advice to MWSDB on a range of contractual issues affecting all contracts under the project. As Team Leader provided ongoing advice to MWSDB on technical and institutional issues and managed the PMC team of both international and national specialists.

Name of assignment or project: Timor-Leste Infrastructure Sectors Capacity Development Project

Year: 2006 to 2008

Location: Timor-Leste

Client: Asian Development Bank

Main project features: This ADB TA Project comprised two components:

Component 1 - Integrated multi-sector institutional development in the infrastructure sectors (communications, power, water supply and sanitation, and transport)

Component 2 - Technical capacity building for the road sector

Component 1 was to analyse and prepare a road map for improving institutional arrangements for government functions such as strategic planning, legislating, regulating and delivering rural services for infrastructure sectors including power and water supply and sanitation, telecommunications, airports and ports, roads, and other public works.

Position held: Project Manager and Transportation Specialist

Activities performed: Specific tasks assigned to the Transportation Specialist included carrying out a detailed institutional appraisal of the Ministry of Public Works, visioning workshops with MPW and other infrastructure ministries, and the preparation of a Roadmap for the development of the road sector.

Name of assignment or project: Vietnam Road Safety Project – Phase 1

Year: 2006 - 2007

Location: Vietnam

Client: Vietnam Traffic Safety Projects Management Unit (TSPMU)

Main project features: The project, a component of the World Bank funded Vietnam Road Safety Project – Phase 1 – Institutional and Capacity Building, was to provide project implementation support to the Traffic Safety Project Management Unit (TSPMU).

Position held: Team Leader / Procurement Specialist

Activities performed: Specific tasks included working with the TSPMU to finalise the Project Implementation Plan (PIP) and providing training to strengthen the TSPMU's skills in the development of contracts and procurement of Consultants, Works and Goods in accordance with World Bank Guidelines.

Name of assignment or project: Timor-Leste Infrastructure Project Management Technical Assistance - Fact Finding and Feasibility & Design Mission

Year: 2006

Location: Timor-Leste

Client: Asian Development Bank

Main project features: ADB TA mission to assess the feasibility of a TA program that would result in the Ministry of Public Works (MoPW), Ministry of Transport and Communications (MoTC), and Ministry of Natural Resources, Minerals, and Energy Policy (MoNRMEP) fully achieving their respective sector capital investment program targets in the short and medium terms.

Position held: Engineer / Project Management Specialist

Activities performed: As Engineer / Project Management Specialist was responsible for assembling mission inputs from AusAID-funded financial management and project design/institutional specialists and ADB funded power and energy and WSS specialists and preparing full TA documentation including appendixes on logframe/design and monitoring framework,

cost estimates and financing plan; plus technical notes. Involved working closely with MoPW, MoNRMEP, and MoTC the Ministry of Planning and Finance (MoPF), as well as the key donors in the infrastructure sector; ADB, World Bank, and AusAID.

Name of assignment or project: Fourth Road Upgrading Project (FRUP IV)

Year: 2005 – 2008

Location: Fiji

Client: Department of National Roads

Main project features: This project, funded by the ADB, comprised (i) feasibility studies on a total of 480km of primary and secondary roads in Fiji and identify a total of approximately 200km for upgrading and rehabilitation; and (ii) preparation of detailed designs and bidding documents based on ADB Guidelines for upgrading and rehabilitation contracts. Project also included extensive training component covering calibration and operation of HDM-4 economic evaluation model and development of computer aided detailed designs.

Position held: Co-Team Leader / Highway Engineer

Activities performed: Developed procurement strategy for project including options for maintenance contracts and civil works contracts. Prepared bid documents based on ADB's Standard Bidding Documents taking into account Government of Fiji Islands requirements.

Name of assignment or project: Melamchi Diversion Scheme – Adit Access Roads Subproject

Year: October 2005 to November 2007

Location: Nepal

Client: Melamchi Water Supply Development Board (MWSDB)

Main project features: The US\$ 328 million Melamchi Diversion Scheme will divert, by way of a 26km long tunnel, water from the Melamchi Valley to the Kathmandu Valley to alleviate chronic water shortages there. The Adit Access Roads Subproject was to construct access roads to the sites of two adits to be used to construct the diversion tunnel. The contract value of the two access roads, with a combined length of 20km and which were constructed through very difficult terrain, was US\$13.5 million.

Position held: Engineer to the Contract

Activities performed: As Engineer to the Adit Access Roads FIDIC Contract carried out assessment of claims and provided contractual advice to MWSDB and the site team.

Name of assignment or project: Jaipur Bypass Construction (NHAI/ WB loan)

Year: May 2002 to Sep 2006

Location: India

Client: National Highways Authority of India

Main project features: Construction of an access controlled 4 / 6 lane divided carriageway (with 5m wide median) with 6 lane structures, connecting Km 220 of NH-8 (Delhi-Jaipur Road) at Chandwaji at Km 246 of NH-11 (Jaipur-Sikar Road) at Harmara.

Position held: Project Director and Engineer to the Contract

Activities performed: As Project Director, responsibilities included project oversight and QA, contract negotiation, client liaison, consultant management, project visits, attendance at key client meetings, project assessments and reviews. As Engineer to the Contract, reviewed and assessed claims submitted by Contractor and advised client on dealing with contractual disputes.

Name of assignment or project: World Bank Third Roads Project

Year: 1997 to 1999

Location: Sri Lanka

Client: Roads & Highways Department

Main project features: Construction supervision and contract administration for rehabilitation and widening of 230 km of road in five contracts.

Position held: Team Leader & Chief Resident Engineer

Activities performed: Led a team of three Resident Engineers and administered contracts as Engineer under the FIDIC Conditions of Contract. Supervised and managed construction of works through resident supervision teams. Worked with site supervision teams to review and revise designs as required; approved and monitored contractors' programmes; evaluated contractors' claims; dealt with disputes; and issued instructions and certificates, including completion and defect liability certificates. Advised client on contractual matters and liaised with client and World Bank as donor agency. Advised client on progress, monitored all works and prepared all project level reports including monthly, quarterly, special and completion. Provided both formal and hands-on training to local personnel from both Employer's and Engineer's teams in contracts, construction management and supervision.

Name of assignment or project: World Bank Highway Infrastructure Project

Year: 1993 to 1995

Location: Nepal

Client: Department of Roads (DoR)

Main project features: Project involved the investigation, detailed design, procurement of works contracts and construction supervision of repairs to a section of the Prithvi Highway between Naubise and Malekhu; the main link between Kathmandu and India, which had been severely damaged by monsoon rain and floods in 1993. Tasks included materials, pavement and topographic surveys and investigations; design of repair works including reconstruction and replacement of massive retaining walls, cut and fill slopes, highway pavement, culverts, bridges, and embankments. Prepared Bid Documents based on World Bank's Standard Bidding Documents and assisted DoR with procurement of contractors and award of contract. This was followed by construction supervision of repair works in role of Engineer's Representative under the FIDIC Conditions of Contract.

Position held: Deputy Project Manager / Resident Engineer & Engineer's Representative

Activities performed: Responsible for all aspects of the emergency repairs including investigations, detailed design, preparation of bid documents, procurement of contracts and construction supervision of the civil works. As Resident Engineer for management of construction supervision teams operating under FIDIC Conditions for Contract, administered contract works, developed quality assurance and quality control procedures and requirements, assessed contract claims and assisted contractors in planning works. Responsible for preparation of physical and financial progress reports to client and donor agency. Also, carried out extensive on-the-job training of counterpart staff and local associates.