

**MAJOR WORK DURING LAST TEN YEARS WHICH BEST
ILLUSTRATES QUALIFICATIONS**

Project Data Sheet No.199

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Assignment Name: Consultancy Services for Design Review & Construction Supervision for Dualization & Rehabilitation of Kararo-Wadh Section (83 Km) and Kuchlak – Chaman Section (104 Km) of National Highway (N-25); Total Length = 187 Km. Section-VI: Kuchlak–Chaman Section (Km.330+500 – Km.395+000). (Contract # 7-25-17)		Country: Pakistan
Location within Country: Balochistan Province		Number of person-months of the entire project: 714
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): Rs. 25,307.912 Mil (US\$ 90.38 Million)
No. of Staff: 43		No. of Persons-Months: 268 – Lead Firm
Start Date (Month/Year): 20 th Nov, 2025	Completion Date (Month/Year): 19 th September, 2027	Approx. Value of Services (in US\$): US \$ 362,164/- (Rs.101,767,992)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. M/s Engineering General Consultants (Pvt) Ltd. M/s BK Consultants (SMC Private) Limited M/s Scenario Global Consulting Engineers (Pvt) Ltd., (Sub Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 208 Nos (29.1% share) 168 Nos. (23.6% share) 72 Nos. (10.0% share)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included for Design Review , Ahmad Luqman Sarwar, Team Leader/Highway Engineer, Iram Noreen Sr. Structural Engineer, Dr. Ashfaq Ahmad Shaikh, Drainage Engineer/Hydrologist and for Construction Supervision : Tansim Farooq Hashmi, Resident Engineer, Javed Ahmad Solangi ARE (Hwy) Engr-I, Muhammad Tariq Niazi, ARE (Hwy) Engr-II, Imran Ahmad ARE (Str./Bridge) Engr., Masud Javaid, Material Engr., Arshad Mahmood Contract Specialist, Dr. Ahtesham Raza Environment Specialist, Dr. Babar Khan, Slope Stabilization Expert, Shafqat Ali Khan Sharwani, Quantity Surveyor and others.		
Brief Narrative Description of Project: National highway (N-25) is major highway in Pakistan traversing between Karachi and Chaman. N-25 is also said to be as Regional Cooperation for development (RCD) highway as it connects Balochistan province of Pakistan with a number of cities in Afghanistan, Iran and Turkey. It is 790 km long passing through Karachi, Bela, Khuzdar, Kalat, Quetta and Chaman and continuing into Afghanistan. Near Lakhpass, it joins N-40 (Quetta Taftan International Border Circuit) which leads it via Naukundi to Road 84 in Iran and through various Iranian Highways to Turkey and onwards Europe. RCD highway is a major road for Balochistan connecting the province with the rest of Pakistan. The project road is planned to be constructed as 2-Lane carriageway (ACW) adjacent to the existing 2-Lane facility of N-25, thus making the whole facility as 4-lane highway. Rehabilitation of existing road is also to be carried out. It includes new cross drainage structures i.e. bridges and culverts on additional carriageway and rehabilitation of the existing structures. Section starts from end point of Kuchlack bypass and passes through various towns i.e. Yaru, Saranan, Batez.ai, Jungle Piralizai, Killi Shadar Khan, Sheilabagh, and finally terminates at Shelabagh on N-25 some 17 kms before Afghanistan border in district Chaman. Total length under this Package is 65 kms. From end point of project to Pakistan Afghanistan border, existing length of N-25 will be rehabilitated with reduced x-section.		

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Description of Actual Services Provided:

- Design Review
- Construction Supervision of project as per FIDIC type of construction contract as approved by NHA/PEC.
- Detailed Laboratory and Field testing for soils, aggregates and asphaltic materials
- Construction of over 25 Major Bridges
- Environmental Studies and Monitoring of EMP in the field including the roadway, Contractors camps and mechanical machinery yards
- Land acquisition and Resettlement Surveys
- Quality Control / Quality Assurance
- Traffic Diversion Plans
- Highway Safety of human life including Client, Contractor and its own staff during execution of work including traffic.
- Assist NHA in Audit of project. The consultants will be equally responsible for any ambiguity. The assistance of consultant will remain intact upto settlement of audit para.
- Preparation of revised PC-I upto approval and coordination with original Design Consultant
- Preparation of PC-IV
- Along with the hard copies the Consultants must provide duly certified soft/scanned copies of all the documents prepared/used/referred etc. during the contract period. The soft/scanned copies shall be stored in the appropriate storage media like external hard disk in a secure and structured manner. The scanned copies must have proper file names/titles etc. in appropriate folders for quick retrieval. The soft/ scanned provided by the consultant must have third party certification and traceability. The consultant will be responsible for maintaining confidentiality of the record of the project.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Design Review & Construction Supervision for Dualization & Rehabilitation of Karachi Quetta – Chaman Road (N-25) from Karachi-Kararo (232 Km) and Wadh-Khuzdar (41 Km) Total Length 273 Km Section-1, Karachi-Uthal Section (100 Km) (Contract # 7-25-16)		Country: Pakistan
Location within Country: Sindh & Balochistan Provinces		Number of person-months of the entire project: 1134
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): Rs. 47,761 Mil (US\$ 178.6 Million)
No. of Staff: 51		No. of Persons-Months: 428 - Lead Firm
Start Date (Month/Year): 20 th Nov, 2025	Completion Date (Month/Year): 19 th March, 2028	Approx. Value of Services (in US\$): US \$ 513,227/- (Rs.144,216,579/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. M/s Engineering General Consultants (Pvt) Ltd. M/s BK Consultants (SMC Private) Limited M/s Karakoram Engineers, (Sub Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 329 Nos 269 Nos. 108 Nos.
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included for Design Review, Ahmad Luqman Sarwar, Team Leader/Highway Engineer, Iram Noreen Sr. Structural Engineer, Dr. Ashfaq Ahmad Shaikh, Drainage Engineer/Hydrologist. Construction Supervision: Tansim Farooq Hashmi, Resident Engineer, Khadam Hussain Baloch ARE (Hwy) Engr-I, Muhammad Tariq Niazi, ARE (Hwy) Engr-II, Talat Mahmood ARE (Str./Bridge) Engr., Iqbal Majeed, Material Engr., Tehmina Shahid Contract Specialist, Dr. Ahtesham Raza Environment Specialist, Dr. Babar Khan, Slope Stabilization Expert, Ch. Mumtaz Ahmad, Quantity Surveyor and others.		
Brief Narrative Description of Project: National Highway Authority (NHA) has planned to dualize and rehabilitate the National Highway N- 25. National Highway N-25 Karachi-Quetta-Chaman connects Karachi (sea port) with Quetta the capital of Baluchistan and provides access to Afghanistan via Chaman. N-25 also links Karachi with Taftan on the Iranian border via N- 40 branching off near Lakpass and therefore, serves as a vital link for trade with Iran and beyond on the one hand and Afghanistan and Central Asian States on the other. The scope of work includes dualization of the road which includes rehabilitation of existing road and construction of Additional Carriageway Construction of new bridges along with rehabilitation of existing bridges is also included in the Scope of Work. Karachi to Uthal Section is 100 Kms long. The subject section is located in district Lasbela of Province Baluchistan. Start point of the project road Karachi - Uthal (100kms) is located at the termination point of Hub Bypass at Km 30+000 (N-25) from Karachi. Hub bypass covering about 15 kms in length is also part of this project. Hub is one of the largest industrial centers of Baluchistan, and because of its proximity to Karachi. The end point of the project is 7.0 kilometers away from the termination point of proposed Uthal Bypass at Km 92+950. Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS) is also situated near the end point of this section. Generally, the project site is flat with an approximate elevation varying from of Left to 300ft from sea level.		

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Description of Actual Services Provided:

- Design Review
- Construction Supervision of project as per FIDIC type of construction contract as approved by NHA/PEC.
- Detailed Laboratory and Field testing for soils, aggregates and asphaltic materials
- Construction of over 25 Major Bridges
- Environmental Studies and Monitoring of EMP in the field including the roadway, Contractors camps and mechanical machinery yards
- Land acquisition and Resettlement Surveys
- Quality Control / Quality Assurance
- Traffic Diversion Plans
- Highway Safety of human life including Client, Contractor and its own staff during execution of work including traffic.
- Assist NHA in Audit of project. The consultants will be equally responsible for any ambiguity. The assistance of consultant will remain intact upto settlement of audit para.
- Preparation of revised PC-I upto approval and coordination with original Design Consultant
- Preparation of PC-IV
- Along with the hard copies the Consultants must provide duly certified soft/scanned copies of all the documents prepared/used/referred etc. during the contract period. The soft/scanned copies shall be stored in the appropriate storage media like external hard disk in a secure and structured manner. The scanned copies must have proper file names/titles etc. in appropriate folders for quick retrieval. The soft/ scanned provided by the consultant must have third party certification and traceability. The consultant will be responsible for maintaining confidentiality of the record of the project.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Periodic Maintenance / Rehabilitation Works under AMP 2021-22, 2022-23 & 2023-24 in South-Zone		Country: Pakistan
Location within Country: Sindh Province		Number of person-months of the entire project: 864
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 39		No. of Persons-Months: 221
Start Date (Month/Year): 17 March, 2025	Completion Date (Month/Year): 16 September, 2026	Approx. Value of Services (in US\$): ACC Share \$ 119,997 (Rs.34,058,693/-) Total US \$ 667,085 _/- (Rs.189,338,587/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. (Lead) M/s. Prime Engineering & Testing Consultants (Pvt.) Ltd. M/s. BK Consultants (Pvt.) Limited M/s. Scenario Global Consulting Engineers (Pvt.) Ltd. (Sub-Consultant)		No. of Months of Professional Staff Provided by Associated Firm(s): 329 Nos (38.08% share) 199 Nos. (23% share) 115 Nos. (14% share)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Amar Nasim, CRE, Talat Mahmood, RE-1, Ejaz Ali Bukhari, RE-II, Muhammad Usman ME-I, Zafar Ali Shah ME-II, Shafiq ur Rehman, QS-I, Faqir Hussain QS-II, Abdul Wahab, ARE-I, Abdul Samad Memon, ARE-II, Qasim Mumtaz Awan, ARE-III, Arfan ul Haq, ARE-IV and other staff.		
Brief Narrative Description of Project: NHA has to look after nearly all of Pakistan's major inter-provincial road links9 main transport corridors linking ports to major population centers and to neighboring countries. The asphalt pavement deterioration is attributed to combined effect of overloading9 fatigue chemical aging and inadequate drainage. For maintenance and preservation of deteriorating road sections, NHA prepares and implement Annual Maintenance Plan (AMP) to optimally allocate funds for prioritized road sections. NHA is spending very significant amount of maintenance budget on periodic maintenance and rehabilitation schemes with the objective of improving the road condition gradually. The periodic maintenance and rehabilitation strategies are selected based on condition survey data however; it has been observed that execution of works is delayed considerably due to lengthy procurement process. The proposed strategy may become inappropriate and require revision in consonance with prevailing degree and extent of damages. To achieve the intended design life of overlay and rehabilitation works; detailed project level initial assessment, design revision according to actual site requirement and proficient construction supervision is of prime importance. Besides the role of third party in devising the optimal strategy and achieving the intended construction quality, the close monitoring of NHA field staff is very critical. The overall maintenance monitoring system needs to be enhanced in addition to capacity building of individuals. In addition to these Periodic Maintenance works of preventive maintenance nature, the Annual Maintenance Plan also includes works of collective maintenance on requirement basis for which the allocations are reserved under the head of Routine Maintenance. Highway Safety, Bridge / Culvert Structural Maintenance, Geometric Improvements		
Description of Actual Services Provided: The Consultants will desk review the design strategies/BOQs prior to the commencement of each Works to identify anomalies or omissions (if any) that may constitute inconsistency in the design and completeness of work(s). This design review should be completed within fifteen (15) days' time of commencement and submit a report if any anomaly found which should indicate accordingly and give recommendations; The Consultants shall be responsible for supervision and quality control of all periodic maintenance and rehabilitation schemes to be carried out under Annual Maintenance Plan for 2021-22, 2022-23 & 2023-24;		



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Civil works will be carried out based on the FIDIC Conditions of Contract for Construction. The Consultants will administer the civil work's contract(s), make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely responses to the contractors in all matters relating to the civil works, and ensure that all clauses of the contract agreement between the civil works contractors and Employer are adhered to and respected;

The Consultants will advise the Employer on all matters relating to the efficient and successful execution of the civil works contracts, and will act at all times to protect the interests of the project and will take all reasonable steps to keep the construction costs to a minimum, consistent with sound economic and engineering practices; and will prepare

- a. "Construction Supervision Manual" outlining routines and standard operating procedures to be applied in contract administration and construction supervision> based on sound internationally recognized practice; and;
- b. Consultants ensure the proposed work zone safety requirements are in accordance with best international practices and as per conditions of contract.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Feasibility Study & Detailed Design for Construction of CPEC Interchange for Chhab on already constructed Overhead / Flyover at Maira Sharif along with its link road from Interchange to Chhab, Nilhad & Maria Sharif. (Contract # 7-24-03)		Country: Pakistan
Location within Country: Punjab Province		Number of person-months of the entire project: 28
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 12		No. of Persons-Months: 21
Start Date (Month/Year): 27 th June, 2024	Completion Date (Month/Year): 26 th September, 2024	Approx. Value of Services (in US\$): US \$ 43,746/- (Rs.12,222,551)
Name of Associated Firm(s), If Any: M/s BK Consultants (SMC Private) Limited M/s Tareek Consulting Engineers (SMC-Pvt.) Ltd. (Sub Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 06 Nos (20% share) 01 No. (05%)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Mr. Ahmad Luqman Sarwar, Team Leader/Sr. Highway Engineer, Iram Noreen Sr. Structural Engineer, Akhtar Mahmood Mir, Pavement & Drainage Engineer, Saeed Uz Zafar, Transport Economist, Tehmina Shahid Quantity Surveyor.		
Brief Narrative Description of Project: Hakla D.I Khan Motorway is 285 km long, the alignment starts from Hakla on M-1 passes near main towns like Fatehjang, Pindigheb, Tarap, Sikandarabad, Daud Khel, Mianwali crossing river Indus Isa Khel, Kundal, Abdul Khel, Paniyala and ends at N-55 near Yarik. The proposed interchange, is located near Maira Sharif on Hakla – D.I Khan Motorway at intersection point of Chhab Road and Maira Sharif Road. The proposed interchange is located at a distance of (16.6 km approx.) from Tarap Interchange and (25 km approx..) from Jand/Pindigheb Interchange. Currently there are two existing interchanges in the vicinity of Chhab and surrounding towns namely Tarap and Jand / Pindigheb Interchange.		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodel Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		



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Assignment Name: Quality Assurance Inspector Services for Construction of the Interchange (Flyover and Underpass) for Capital Smart City at RD 332-333 on Lahore - Islamabad Motorway M-2		Country: Pakistan
Location within Country: Punjab Province		Number of person-months of the entire project: 171
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad Motorway Operations And Rehabilitation Engineering (Private) Limited, # 509 R.A. Bazar Rawalpindi		Total value of full project (in million US\$): To be Estimated
No. of Staff: 20		No. of Persons-Months: 171
Start Date (Month/Year): 16 th Sep, 2024	Completion Date (Month/Year): 15 th September, 2026	Approx. Value of Services (in US\$): US \$ 99,440/- (Rs.27,644,409)
Name of Associated Firm(s), If Any: None		No. of Months of Professional Staff Provided by Associated Firm(s): Nil
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Design Review: The staff included Akhtar Mir, Sr. Highway Engineer, Ahmad Luqman Sarwar, Pavement Engineer, Iram Noreen Structural Engineer, Muhammad Zeeshan, Design Engineer-I, Muhammad Arshad Janjua QS and others. Construction Supervision: Imran Ahmd, Quality Assurance Manager / RE, Niaz Muhammad, Material Engineer, Ayyaz Mahmood Quantity Surveyor and others.		
Brief Narrative Description of Project: ???		
Description of Actual Services Provided: Design Review Stage: Construction Supervision Stage:		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Consultancy Services for Feasibility Study & Detailed Design for Construction of Tunnel and Approach Roads on Mashkhel Panjgoor Road (12.7 Km Approx.) Contract No.7-24-05		Country: Pakistan
Location within Country: Balochistan Province		Number of person-months of the entire project: 127
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 53		No. of Persons-Months: 38
Start Date (Month/Year): 01 Oct 2024	Completion Date (Month/Year): 28 Feb, 2025	Approx. Value of Services (in US\$): US \$100,650/- (Rs.27,981,025/-)
Name of Associated Firm(s), If Any: M/s BK Consultants (SMC Private) Limited (Lead) M/s Karakoram Engineers (Sub-Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 83 (65%) 06 05%)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Dr. Babar Khan, Team Leader/Tunnel Engineer, Dr. Beenish Jehan, Senior Geotechnical Engineer / Land Sliding Expert, Fazli Amin, Sr. Geologist, Iram Noreen Sr. Structural Engineer, Ahmad Luqman Sarwar, Sr. Highway Engineer, Dr. Muhammad Usman, Electrical & Mechanical (E&M) Expert for Tunnel, Dil Nawaz Khan, IT Specialist (SCADA Design) and other staff.		
Brief Narrative Description of Project: The project road links the Iranian Border at Taftan with Gawadar port and its part of CEPC. In order to ease the gradients of current road, a tunnel has been proposed to ease the traffic. Total length of road is 12.7 km including a 600 m long tunnel. Work involves all the detailed engineering design.		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Additional Financing to Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP PRIP) – Shamozi-Kabal-Kanju-Bagh Deri Road Loan No.3756-PAK.		Country: Pakistan
Location within Country: Province of Khyber Pakhtunkhwa		Number of person-months of the entire project: 2122
Name of Client: Communication & Works Department, Project Implementation Unit, KPK Provincial Roads Improvement Project, Govt. of Khyber Pakhtunkhwa, H. # 24, C/3, Circular Road, University Town, Peshawar Ph:+92 91 9216459		Total value of full project (in million US\$):
No. of Staff: 75		No. of Persons-Months: 637
Start Date (Month/Year): Dec 2022	Completion Date (Month/Year): On-going	Approx. Value of Services (in million US\$): US \$ 1.715 million (Rs.265,780,039)
Name of Associated Firm(s), If Any: M/s Creative Engineering Consultants M/s The Consulting Provenance (Pvt) Ltd.		No. of Months of Professional Staff Provided by Associated Firm(s): M/s Creative Engineering – 1273 M/s Consulting Provenance – 212
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included for Mr. Ejaz Ali Bokhari Chief Resident Engineer / Team Leader, Mr. Muhammad Shoaib Senior Resident Engineer, Mr. Sultan Alam Contract Specialist, Dr. Ahtesham Raza Environmental Specialist, Mr. Wazir Ali Resettlement Specialist, Mr. Marwat Khan Architect/Landscape Architect, Mr. Waqar Tanoli Traffic/Road Safety Specialist, Abdul Wahab ARE, Mr. Nasir Imtiaz ARE, Mr. Sanaullah Khattak ARE, Mr. Junaid Khattak ARE, Mr. Inayat ullah Khan ARE, Mr. Rehan Ali Material Engineer, Mr. Ahmad Luqman Sarwar Highway Design Engineer, Mr. Kashif Khurshid Structural Design Engineer, Dr. Ashfaq Ahmad Sheikh Hydrologist / Drainage Engineer, Dr. Khalid Mahmood Geotechnical Engineer, Mr. Sohail Khan Chief Quantity Surveyor and others.		
Brief Narrative Description of Project: The Provincial Government of Khyber Pakhtunkhwa is also paying due attention in the development of Tourism Industry in the Province. For the improvement of number of roads, the government concluded a Loan Agreement (Loan # 36021 -3602-Pak – KP Provincial Roads Improvement Project) with Asian Development Bank (ADB) during 2018. As the loan was a committed loan, therefore, any saving caused in the Loan Amount would lapse in case not utilize by the government. Since there was a considerable saving in the agreed Loan due to receipt of competitive bids from the Civil Works contracts as well as due to appreciation of the US \$, therefore, the government with the consent of the Donor (ADB) planned to include additional roads in the original scope of work. The initial 10 Km road of Chakdara-Kanju-Matta-Bagh Dheri Road is comparatively in good condition and therefore the remaining 57 Km of road from Shamozi to Baghdheri has now been proposed for rehabilitation. As the proposed road of District Swat, was fulfilling the ADB's criteria, therefore, with the consent of ADB, Feasibility Study and Design of the cited road as an additional scope of work was undertaken by the Supervisory Consultants (JV of M/s Minconsult-CEC). The Consultants accordingly carried out the detailed engineering design and submitted all the required reports/documents including the Revised Project PC-I. The Revised PC-1 of the scheme is already approved and tendering process has been concluded and in the process contract has been awarded to the lowest bidder namely M/s ZKB Construction Company. Joint Survey of the cited road for the execution has been undertaken from 1st of December, 2022. The importance of this Provincial Highway S-3 B District Swat road will not only facilitate tourists to the area being hub of numerous scenic points, but it will also bring a considerable Socio Economic development in the area coupled with the creation of a number of different jobs to the local inhabitants.		

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Description of Actual Services Provided:

The Consultant have to require to appoint full-time Resident Engineer for on-site works supervision, resident in the project area at specified locations. In addition, the Consultants have to support and strengthen the PIU in the conduct of its functions and responsibilities such as monitoring physical progress, financial management, social management, social and environmental safeguards and gender mainstreaming in the project. The Consultants have to work under the overall guidance, condition and direction of the Project Director (PD). The main responsibilities are as under:

- Review the design of road which have already been designed by the ADB Consultant. Consultant suggested changes in the design where found necessary viz a viz site conditions. Such changes will be approved by the Employer.
- Hydrological / Hydraulic study & surface Drainage / Runoff calculation.
- Environment Monitoring
- Consultant's Team Leader to act as the "Engineer" on the Project and the Resident Engineer are the "Representative of the Engineer".
- Carry out social analysis including assessment of gender and indigenous people and prepare appropriate action plan, as required, in accordance with ADB's relevant policies and guidelines.
- Investigate land acquisition and resettlement impacts, carry out resettlement planning and prepare Resettlement Plan with ADB's Policy on Involuntary Resettlement, Hand book on Resettlement. A Guide to Good Practice.
- Quality Assurance Manual and Plan
- Construction Supervision and Project Management
- Project Management as per FIDIC
- Environmental monitoring and evaluation
- Construction Supervision of bridges
- Supervision of Piling Operations
- Soil investigations and approval of borrow areas including particle size analysis, CBR, atterberg limits, salt contents, water table determination and other standard tests, approval of quarries and related analyses of materials.
- Assist the client in land acquisition proceedings.
- Construction Management
- Testing of materials brought on site like steel, cement, asphalt, aggregates etc.
- Insitu testing of densities and compaction using AASHTO standards
- Preparation of Concrete Mix Designs and testing of Concrete.
- Preparation of Job Mix Formulae for Asphalt.
- Review and adjustments to geometric design and design of structures as per site requirements.
- Assisting the contractor in improving his logistics and methodology. Construction Management Support.
- Liaison with the Client and keeping him abreast of day to day problems and progress of works. Informing him ahead of time regarding contractual problems, delays and anticipated bottlenecks.
- Checking and verifying IPCs and overall contract administration
- Project Monitoring and Evaluation

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodel Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Design Review / Vetting of Leswa Bypass Road Length 13 Km (Damaged Portion) Incl. Bridges / Allied Structures, District Neelum.		Country: Pakistan
Location within Country: Azad Jammu and Kashmir		Number of person-months of the entire project: 34
Name of Client: Central Design Office, District Complex (old Secretariat), Muzaffarabad Azad Jammu & Kashmir Phone: 05822-920116		Total value of full project (in million US\$): To be Estimated
No. of Staff: 16		No. of Persons-Months: 14
Start Date (Month/ Year): 16 April 2024	Completion Date (Month/Year): 15 July 2024	Approx. Value of Services (in US\$): US \$ 59,384/- (Rs.16,508,598/-)
Name of Associated Firm(s), If Any: M/s BK Consultants (Pvt.) Ltd. (Lead)		No. of Months of Professional Staff Provided by Associated Firm(s): 20 (60%)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Dr. Babar Khan, Project Manager/ Team Leader, Ahmad Luqman Sarwar, Highway Engineer, Akhtar Mahmood Mir, Pavement Engineer/ Specialist, Iram Noreen, Structural/ Bridge Engineer, Dr. Beenish Jehan Khan, Geotechnical Engineer/ Landslide Specialist, Fazli Amin, Geologist, Dr. Ashfaq Ahmed Sheikh, Drainage/ Hydrologist Specialist, Mohammad Arshad Janjua, Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: Road network is only mode of communication spread all over the AJK, which mostly traverses over mountainous slopes along rivers/nallahs in the north region. Neelum Valley road is the only route that connects District Neelum with Muzaffarabad, the capital of AJ&K. This road is lifeline for people of Neelum and vital one for strategic and tourism perspectives. The road is mostly aligned along the LoC and remains under direct firing across LoC. As a result, population of Neelum Valley and tourists coming to the area are frequently left stranded due to closure of road and strategic movement becomes a major challenge. As an alternative to main Neelum Valley road, two routes (Leswa by pass & Karen by pass) were explored for safe, smooth and uninterrupted flow of traffic in the valley. Leswa Bypass road is 52 Km in length which takes off from Main Neelum Valley road near Panjgran and after traversing over mountainous terrain terminates back in Main Neelum Valley near Jura Bandi. The road was rehabilitated and was in completion phase but during flash flood in Leswa Nallah, in July 2019 almost last 13 Km were badly damaged, out of which 5 Km road portion was completely washed away.		
Description of Actual Services Provided: • Detail Design for road and structures • Coordination with concerned departments regarding their development plans • Collection of required data, Inception Report, Alignment Study, Feasibility Study • Detailed Topographic Survey, Traffic and Axle Load Survey • Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study • Highway Safety Audit, Geometric Design, Pavement Design • Condition Survey of existing pavement & structures. • Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders • Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. • Stake out of Alignment • Fixing of ROW markers in coordination with NHA field formations.		

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Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Design, Review and Construction Supervision of Construction of Kheshgi Interchange on M-1 Motorway.		Country: Pakistan
Location within Country: Khyber Pakhtunkhwa		Number of person-months of the entire project: 260
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad.		Total value of full project (in million US\$): To be Estimated
No. of Staff: 31		No. of Persons-Months: 260
Start Date (Month/Year): 17 th Nov 2023	Completion Date (Month/Year): 16 th March 2025	Approx. Value of Services (in US\$): US \$ 134,766/- (Rs.38,543,022/-)
Name of Associated Firm(s), If Any: M/s Prime Engineering & Testing Consultants (Pvt) Ltd. M/s Tareek Consulting Engineer (SMC-Pvt) Ltd., (Sub Consultant)		No. of Months of Professional Staff Provided by Associated Firm(s): 52 (20%) 13 (05%)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Design Review Mr. Ahmad Luqman Sarwar, TL/Highway Engr., Iram Noreen Str. Engr., Akhtar M. Mir, Pavement Engr, Sehar Javed Malik, Transport Economist, M. Arshad Janjua Quantity Surveyor, Abdul Samad Memon, RE, Zeeshan Saleem ARE, Muhammad Usman ME, Iftikhar Ahmed Virk, QS and other supporting staff.		
Brief Narrative Description of Project: Islamabad-Peshawar (M-1) Motorway is 155 Km long, with 67 km in Punjab and the remaining 88 km in Khyber Pakhtunkhwa. It has become a vital link to Afghanistan and Central Asia. M-1 begins Northeast of Peshawar as it moves in an Eastern direction crossing over the Kabul River. From here it passes through Charsada, Risalpur, Swabi and Rashakai before crossing the Indus River. Kheshgi is a town located in district Nowshera in Khyber Pakhtunkhwa province, which is connected with M-1 through provincial road passing M-1 at Nowshera minor irrigation canal having road on embankments namely as Hazrat Umar Banda Takkar Road. The proposed interchange is located at a distance of 10 km from Rashakai Interchange and 13 km from Charsadda Interchange.		
Description of Actual Services Provided: Design Review Stage: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations. Construction Supervision Stage: The responsibility of top supervision was rested with the Engineer who issued instructions in writing to the Supervisory Consultants for the supervision of works as per the Contract. Supervisory Consultants carried out a revision in the plans and specifications as required by the Engineer and prepared all change orders instantly thereto and further assisted the Engineer in negotiations necessary for execution of the changes Such revisions were encouraged which resulted in improved project performance, in accordance with the plans and conforming to the specifications. The Supervisory Consultants carried out the Construction Supervision but not limited to the following tasks:		



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- Ensured execution of works as per design, standards, specification and technical construction drawings.
- Intimated NHA in each matter and must obtain formal approval from NHA to proceed in the matter.
- Assured quality of the works during execution by using suitable and tested construction material.
- Ensured the good quality construction survey work, levels and grade achieved during and after construction.
- Ensured the continuous supervision/inspection of the soils, materials construction operations and the works with regard to workmanship and compliance with the specifications.
- Certified the payment bills of Contractor according to the approved procedure and also maintained the payment record maintaining consolidated project accounts and assist NHA for settlement of Audit Para's.
- Ensured the existing traffic management and safety plan all times in a safe and secure manner.
- Monitored and appraised progress of the works for timely completion of work. Reviewed and accepted or rejected Contractor's proposed work schedules.
- The supervisory Consultants was prepared the revised PC-I of the project and was responsible to incorporate all changes up to final approval from the relevant forum.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

**MAJOR WORK DURING LAST TEN YEARS WHICH BEST
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Assignment Name: Consultancy Services Design Review and Construction Supervision of Mirpur Mathelo Interchange on Sukkur-Multan Motorway (M-5) at Km 462+540 & its Link with National Highways (N-5) / G.T. Roads (5.5 KM) Contract No.07-23-21.		Country: Pakistan
Location within Country: Sindh		Number of person-months of the entire project: 349
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad.		Total value of full project (in million US\$): To be Estimated
No. of Staff: 39		No. of Persons-Months: 265
Start Date (Month/Year): 07 June 2023	Completion Date (Month/Year): 21 Sept 2024	Approx. Value of Services (in US\$): US \$ 191,036/- (Rs.54,445,334/-)
Name of Associated Firm(s), If Any: M/s BK Consultants (SMC Private) Limited M/s Effective Engineering Expertise (Pvt) Ltd.		No. of Months of Professional Staff Provided by Associated Firm(s): 20% (67) 05% (17)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Design Review Mr. Ahmad Luqman Sarwar, TL/Highway Engr., Iram Noreen Str. Engr., Akhtar M. Mir, Pavement Engr, Dr. Babar Khan, Geo-Tech Engr, Ahtsham Raza, Env. Specialist, Arshad Janjua, CQS, for supervision Gul Riaz Nabi Memon, CRE, Abdul Samad, RE, Iqbal Majeed ME, Tehmina Shahid Contract Specialist, Khadim H Baloch & Abdul Sattar, AREs and Iftikhar A Virk, SQS and other supporting staff.		
Brief Narrative Description of Project: Project comprises the construction of Mirpur Mathelo interchange on Sukkur – Multan Motorway (M – 5). Sukkur - Multan Motorway (M-5) is 392 km long motorway. Starting from Multan, the six-lane motorway passes through Jalalpur Pirwala, Ahmedpur East, Rahimyar Khan, Sadiqabad, Ubauro, and Pano Aqil before it terminates at Sukkur. The Motorway has eleven interchanges. The M-5 Motorway is traversing through the provinces of Sindh and Punjab.		
Description of Actual Services Provided: Design Review Stage: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		

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Construction Supervision Stage:

The responsibility of top supervision was rested with the Engineer who issued instructions in writing to the Supervisory Consultants for the supervision of works as per the Contract. Supervisory Consultants carried out a revision in the plans and specifications as required by the Engineer and prepared all change orders instantly thereto and further assisted the Engineer in negotiations necessary for execution of the changes. Such revisions were encouraged which resulted in improved project performance, in accordance with the plans and conforming to the specifications. The Supervisory Consultants carried out the Construction Supervision but not limited to the following tasks:

- Ensured execution of works as per design, standards, specification and technical construction drawings.
- Intimated NHA in each matter and must obtain formal approval from NHA to proceed in the matter.
- Assured quality of the works during execution by using suitable and tested construction material.
- Ensured the good quality construction survey work, levels and grade achieved during and after construction.
- Ensured the continuous supervision/inspection of the soils, materials construction operations and the works with regard to workmanship and compliance with the specifications.
- Certified the payment bills of Contractor according to the approved procedure and also maintained the payment record maintaining consolidated project accounts and assist NHA for settlement of Audit Para's.
- Ensured the existing traffic management and safety plan all times in a safe and secure manner.
- Monitored and appraised progress of the works for timely completion of work. Reviewed and accepted or rejected Contractor's proposed work schedules.
- The supervisory Consultants was prepared the revised PC-I of the project and was responsible to incorporate all changes up to final approval from the relevant forum.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Design Review and Construction Supervision of Bhong Interchange on Sukkur – Multan Motorway (M-5) at ITS Intersection with Bhong-Sadiqabad Road (Km 520+130) Contract No.7-23-17		Country: Pakistan
Location within Country: Sindh		Number of person-months of the entire project: 413
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 43		No. of Persons-Months: 269
Start Date (Month/Year): 13 April 2023	Completion Date (Month/Year): 12 August 2024	Approx. Value of Services (in US\$): US \$ 170,800/- (Rs.49,531,789/-)
Name of Associated Firm(s), If Any: M/s BK Consultants (SMC Private) Limited M/s Technical Associates		No. of Months of Professional Staff Provided by Associated Firm(s): 30% (124) 05% (20)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Design Review Mr. Ahmad Luqman Sarwar, Team Leader/Highway Engineer, Iram Noreen Structural Engineer, Akhtar Mahmood Mir, Pavement Engineer, Dr. Babar Khan, Geo-Tech Engineer, Ahtsham Raza, Environmental Specialist, M. Arshad Janjua, Chief QS, for supervision Ejaz Ali Bokhari, CRE, Aziz Ullah Arbani, RE, Asif Zaman ME, Sultan Alam Contract Specialist, M. Tariq Niazi & Sher Muhammad Naich, AREs other supporting staff.		
Brief Narrative Description of Project: Part of CPEC eastern alignment, Sukkur - Multan Motorway (M-5) is a pivotal north-south link. Six lane motorway provides a fast and reliable transit route connecting important economic hubs along the central economic national corridor. Moreover, the hinter land along the M-5 area of influence also share the benefits of economic uplift. However, limited number of interchanges are provided on important provincial roads crossing the Motorway. There is ever increasing demand of adding more interchanges on M-5 by villagers living adjacent to the alignment but with no access facility. Therefore, addition of interchanges was proposed. To quote an example, Islamabad - Lahore Motorway (M-2) was constructed about 25 years back and interchanges are still being constructed as per local demands. As per NHA policy, minimum distance that qualifies construction of an interchange is 10 km or more adjacent to existing interchange. In current scenario, the available interchange facilities are at Rahim Yar Khan and Guddu, 40 km and 17 km respectively. The gap is quite long and warrants construction of new interchange.		
Description of Actual Services Provided: Design Review Stage: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		

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Construction Supervision Stage:

The responsibility of top supervision was rested with the Engineer who issued instructions in writing to the Supervisory Consultants for the supervision of works as per the Contract. Supervisory Consultants carried out a revision in the plans and specifications as required by the Engineer and prepared all change orders instantly thereto and further assisted the Engineer in negotiations necessary for execution of the changes. Such revisions were encouraged which resulted in improved project performance, in accordance with the plans and conforming to the specifications. The Supervisory Consultants carried out the Construction Supervision but not limited to the following tasks:

- Ensured execution of works as per design, standards, specification and technical construction drawings.
- Intimated NHA in each matter and must obtain formal approval from NHA to proceed in the matter.
- Assured quality of the works during execution by using suitable and tested construction material.
- Ensured the good quality construction survey work, levels and grade achieved during and after construction.
- Ensured the continuous supervision/inspection of the soils, materials construction operations and the works with regard to workmanship and compliance with the specifications.
- Certified the payment bills of Contractor according to the approved procedure and also maintained the payment record maintaining consolidated project accounts and assist NHA for settlement of Audit Para's.
- Ensured the existing traffic management and safety plan all times in a safe and secure manner.
- Monitored and appraised progress of the works for timely completion of work. Reviewed and accepted or rejected Contractor's proposed work schedules.
- The supervisory Consultants was prepared the revised PC-I of the project and was responsible to incorporate all changes up to final approval from the relevant forum.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Feasibility Study & Detailed Design for Dualization of Road from Chishtian to Chak No.46/3R via Dahnawala (44.5 Km Approx.). Contract No.7-23-5		Country: Pakistan
Location within Country: Punjab		Number of person-months of the entire project: 46
Name of Client: National Highway Authority, Ministry of Communications, Government of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 19		No. of Persons-Months: 25
Start Date (Month/Year): 13 Feb 2023	Completion Date (Month/Year): 12 May 2023	Approx. Value of Services (in US\$): US \$ 51,376/- (Rs.13,871,538/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd.(ACE) M/s ZK Enterprises, (Sub Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 41.90% (ACE) - 18 3.50% (ZK) - 02
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Ahmad Luqman Sarwar, Team Leader/Senior Highway Engineer, Iram Noreen Structural Engineer / Bridge Engineer, Khalid Rasul, Pavement & Drainage Engineer, Tabassum Zahoor, Hydrologist / Hydraulic Engineer, Muhammad Zeeshan, Jr. Highway Engineer, Ahsan Sattar, Jr. Structural / Bridge Engineer, Abdul Rashid Mirza, Traffic/Transport Economist, Muhammad Arshad Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: National Highway Authority was taken Feasibility Study and Detailed Design of for Dualization of Road from Chishtian to Chak No.46/3R via Dahnawala on deposit work basis as that project was a Provincial Road. The total length of the road was 44.5 Kms approx.		
Description of Actual Services Provided: • Detail Design for road and structures • Coordination with concerned departments regarding their development plans • Collection of required data, Inception Report, Alignment Study, Feasibility Study • Detailed Topographic Survey, Traffic and Axle Load Survey • Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study • Highway Safety Audit, Geometric Design, Pavement Design • Condition Survey of existing pavement & structures. • Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders • Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. • Stake out of Alignment • Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Consultancy Services for Feasibility Study and Detailed Design for Construction of Motorway from Ghulam Khan to Esakhel Interchange (184 Km Approx.). Contract No.07-23-01		Country: Pakistan
Location within Country: KPK, Punjab		Number of person-months of the entire project: 99
Name of Client: National Highway Authority, Ministry of Communications, Government of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 23		No. of Persons-Months: 47
Start Date (Month/Year): 03 Jan 2023	Completion Date (Month/Year): 02 Jul 2023	Approx. Value of Services (in US\$): US \$ 249,270/- (Rs.56,879,000/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. (ACE) M/s Creative Engineering Consultant (CEC) M/s Creative Structural Engineering Solutions (CSES) (Sub Consultant)		No. of Months of Professional Staff Provided by Associated Firm(s): 30.30% (30) 22.50% (22) 5.00 % (from lead firm)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Ahmad Luqman Sarwar, Team Leader/Senior Highway Engineer, Shahid Javed Sr. Structural / Bridge Engineer, Rameez Akram Jr. Structural / Bridge Engineer-I, Ahsan Sattar, Jr. Structural / Bridge Engineer-II, Muhammad Zeeshan, Jr. Highway Engineer-I, Muhammad Abbas Ejaz, Jr. Highway Engineer-II, Akhtar Mehmood Mir, Pavement & Drainage Engineer, Umair Aqil, Slope Stabilization Expert, Abdul Rasheed Mirza, Transport Economist, Muhammad Arshad Janjua Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: National Highway Authority was taken Feasibility Study and Detailed Design of Motorway from Ghulam Khan to Esa Khel Interchange on deposit work basis as this project was a Provincial Road. The total length of the road was 188 Kms approx. Total number of lanes 2 each sides, 3.65 each lane width, design speed was (80 in mountainous / 100 in rolling / 120 plain).		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Consultancy Services for Feasibility Study & Detailed Design for Widening and Improvement of Lahore–Gujranwala Section along with Interchange at Chand–Da–Qila and addition of Third Lane on Gujranwala Bypass (75 Km.) Contract No.07-22-24		Country: Pakistan
Location within Country: Punjab		Number of person-months of the entire project: 52
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 18		No. of Persons-Months: 19
Start Date (Month/Year): 30 Dec 2022	Completion Date (Month/Year): 30 April, 2023	Approx. Value of Services (in US\$): US \$ 92,152/- (Rs.21,010,429/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. (ACE) (Lead) M/s Global Engineering Systems		No. of Months of Professional Staff Provided by Associated Firm(s): 43.54% - 22 20.34% - 11
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Munawar Ali, Team Leader/Senior Highway Engineer, Shahid Javed Sr. Structural / Bridge Engineer, Ahmad Luqman Sarwar, Pavement Engineer, Abdul Rasheed Mirza, Transport Economist, 02 Jr. Highway Engineers, 02 Jr. Structure Engineers, 01 Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: National Highway Authority started from Karachi passing through major cities of Pakistan like Hyderabad, Sukkur, Bahawalpur, Multan, Lahore, Gujranwala, Rawalpindi, Peshawar and terminate at Torkham (Pakistan Afghanistan Border). N-5 is an important inter-provincial road carries heavy loaded traffic coming from Karachi Port and other industrial cities of Pakistan to up-country. Due to traffic congestion from Lahore to Gujranwala caused fatal road accidents. Feasibility Study & Detailed Design for Widening and Improvement of Lahore–Gujranwala Section (75 Kms) was carried out to improve this section. Improvement of 2 lanes each sides and 1 additional lane on each side of bypass, 3.65 each lane width, 2.50 and 0.5 rounding outer shoulders, design speed was (80 in mountainous / 100 in rolling / 120 plain).		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc., Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering / Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Consultancy Services for Feasibility Study and Detailed Design for Widening and Improvement of Nokundi - Taftan section of N-40 (125Km) Approx. Contract No.6543- 72225		Country: Pakistan
Location within Country: Balochistan		Number of person-months of the entire project: 51
Name of Client: National Highway Authority, Ministry of Communications, Govt. of Pakistan, 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be Estimated
No. of Staff: 17		No. of Persons-Months: 19
Start Date (Month/Year): 30 Dec 2022	Completion Date (Month/Year): 30 April, 2023	Approx. Value of Services (in US\$): US \$ 94,230 (Rs.21,484,244/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. (ACE) M/s Global Engineering Systems		No. of Months of Professional Staff Provided by Associated Firm(s): 43.54% (22) 20.34% (10)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Ahmad Luqman Sarwar, Team Leader/Senior Highway Engineer, Iram Noreen Sr. Structural Engineer, Munawar Ali, Pavement Engineer, Abdul Rasheed Mirza, Transport Economist, Shahid Javed Jr. Structural Engineer-I, Ahsan Sattar, Jr. Structural Engineer-II, Muhammad Zeeshan, Jr. Highway Engineer-I, Muhammad Abbas Ejaz, Jr. Highway Engineer-II, Muhammad Arshad Janjua Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: National Highway N-40 originating from Lakhpass traversing through Noshki, Dalbandin, Nokkundi and terminate at Taftan (Pak-Iran Border). Total length of this road is 610 km. The width of carriageway varies from 6.1 – 7.0 meter with 2m earthen shoulders on either side. National Highway N-40 is an important route for trading purpose between Pakistan and Iran, therefore flow was high which caused traffic congestion and accidents. Due to that the widening and improvement of N-40 was utmost important. Total number of lanes were 02, lane width was 3.65, 2.50 and 0.5 rounding outer shoulders, design speed was (80 in mountainous / 100 in rolling / 120 plain).		
Description of Actual Services Provided: • Detail Design for road and structures • Coordination with concerned departments regarding their development plans • Collection of required data, Inception Report, Alignment Study, Feasibility Study • Detailed Topographic Survey, Traffic and Axle Load Survey • Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study • Highway Safety Audit, Geometric Design, Pavement Design • Condition Survey of existing pavement & structures. • Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders • Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. • Stake out of Alignment • Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Consultancy Services for Feasibility Study and Detailed Design for Construction of Interchange on Lahore Karachi Motorway (M-3) at Bucheki Nankana Road in the Name of Rai Mansab Ali Khan Kharal. Contract No.07-22-20		Country: Pakistan
Location within Country: Province of Punjab		Number of person-months of the entire project: 42
Name of Client: National Highway Authority, M/o Communications, Govt. of Pakistan, 28 Mauve Area G-9/1 Islamabad		Total value of full project (in million US\$): US \$ million (Rs. million)
No. of Staff: 17		No. of Persons-Months: 30
Start Date (Month/Year): 07 Dec 2022	Completion Date (Month/Year): 06 March 2023	Approx. Value of Services (in US\$): US \$ 51,781/- (Rs.11,598,991/-)
Name of Associated Firm(s), If Any: M/s Finite Engineering (Pvt) Ltd. M/s Technical Associates (Sub Consultants)		No. of Months of Professional Staff Provided by Associated Firm(s): 10 (Finite) 02 (Technical Associates)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Mr. Shahid Nasir, Team Leader/Sr. Structure Engineer, Ms. Iram Noreen Structural/Bridge Engineer, Mr. Ahmad Luqman Sarwar, Geometric/Highway Engineer, Mr. Akhtar Mahmood Mir Pavement Engineer and others.		
Brief Narrative Description of Project: Lahore-Abdul Hakim (M-3) Motorway is 230 km long, starts from M-3 & M-4 junction on Abdul Hakim and traverses through Pirmahal, Rajana, Samundri, Jaranwala, Nankana Sahib, Saraqpur and terminates at Lahore M-2 & M-3 Junction. The proposed Interchange, is located near Nankana Sahib Interchange on M-3 at intersection point of Bucheki and Nankana road. The proposed interchange is located at a distance of (9 km Approx.) from Nankana sahib interchange and (26 Km Approx.) from Jaranwala Interchange. There were two existing Interchanges in the Vicinity of Proposed Interchange namely Nankana Sarhib Interchange and Jaranwala Interchange both are located (9 Km) and (26 (km) respectively from proposed Interchange. The consultant after conducting Feasibility study of area proposed the exact feasible location in the area for construction of proposed Interchange. NHA appointed Consultant to conduct Feasibility Study and Detail Design for Construction of Interchange on Lahore-Karachi Motorway M-3 at intersection point of Bucheki – Nankana Road in the name of Rai Mansab Ali Kham Kharal.		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data. - Inception Report - Alignment Study - Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations - Hydrology Study - Highway Safety Audit - Geometric Design, Pavement Design		

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- Condition Survey of existing pavement & structures.
- Environmental Impact Assessment (EIA)
- Land Acquisition & Utility Folders
- Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc.
- Stake out of Alignment
- Fixing of ROW markers in coordination with NHA field formations.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Feasibility Study and Detailed Design for Construction of Interchange on Hazara Motorway to Connect Abbottabad and Sherwan Road Right After First Tunnel (Shimla Hill Tunnel) Beside Sherwan Road (Contract No.07-22-16)		Country: Pakistan
Location within Country: Khyber Pakhtunkhwa		Number of person-months of the entire project: 25
Name of Client: National Highway Authority Ministry of Communications, Government of Pakistan, # 28 Mauve Area, G-9/1, Islamabad		Total value of full project (in million US\$): To be estimated
No. of Staff: 11		No. of Persons-Months: 19
Start Date (Month / Year): 16 Nov 2022	Completion Date (Month/Year): 15 Feb 2023	Approx. Value of Services (in US\$): Total US \$ 44,809/- (Rs.9,992,391/-)
Name of Associated Firm(s), If Any: M/s Finite Engineering Pvt. Ltd. (JV Partner) M/s ZK Enterprises Pvt. Ltd. (Sub Consultant)		No. of Months of Professional Staff Provided by Associated Firm(s): 06
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Ahmad Luqman Sarwar, Team Leader/Senior Highway Engineer, Dr. Shahid Nasir Structural Engineer, Akhtar Mehmood Mir, Pavement Engineer, Shahid Iqbal, Transport Economist, Muhammad Arshad Janjua Quantity Surveyor and other supporting staff.		
Brief Narrative Description of Project: Hazara Motorway is 175 km long, the alignment started from Burhan on MI passes near main towns like Haripur, Havelian, Abbottabad, Mansehra and ends at Thakot. The proposed Interchange; was located near Shimla Hill Tunnel on Hazara Motorway besides Sherwan - Abbottabad road. The proposed interchange was located at a distance of (9 km approx.) from Havelian Interchange and (13 km approx.) from Qalandarabad Interchange.		
Description of Actual Services Provided: - Detail Design for road and structures - Coordination with concerned departments regarding their development plans - Collection of required data, Inception Report, Alignment Study, Feasibility Study - Detailed Topographic Survey, Traffic and Axle Load Survey - Soil and Material Investigation, Geo-Technical Investigations, Hydrology Study - Highway Safety Audit, Geometric Design, Pavement Design - Condition Survey of existing pavement & structures. - Environmental Impact Assessment (EIA), Land Acquisition & Utility Folders - Tender Documents / Drawings, Engineer's Estimate, BoQ, PC-I etc. - Stake out of Alignment - Fixing of ROW markers in coordination with NHA field formations.		
Type of Services provided: Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.		
Fields of Specialization: Transportation Sector: National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.		

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Assignment Name: Quality Assurance Inspector for Construction of Interchange at Kot Pindi Das at Km 30 on Lahore – Islamabad Motorway M-2		Country: Pakistan
Location within Country: Punjab		Number of person-months of the entire project: 93
Name of Client: Motorway Operations And Rehabilitation Engineering (Private) Limited (MORE) # 509 R.A Bazar Kashmir Road Rawalpindi.		Total value of full project (in million US\$): US\$ million
No. of Staff: 20		No. of Persons-Months: 92.75
Start Date (Month / Year): September 2022	Completion Date (Month/Year): March 2025	Approx. Value of Services (in US\$): Total US \$ 60,268/- (Rs.13,560,300)
Name of Associated Firm(s), If Any: Nil		No. of Months of Professional Staff Provided by Associated Firm(s): None
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included during design review stage Akhtar Mahmood Mir Sr. Highway Engineer, Ahmad Luqman Sarwar Pavement Engineer, Iram Noreen Structure Engineer, Muhammad Zeeshan Design Engineer, Murhammad Arshad Janjua Quantity Surveyor and during construction stage staff one Quality Assurance Manager/RE, Quality Assurance Inspector, Quantity Surveyor, Chief Surveyor and Surveyor etc.		
Brief Narrative Description of Project: Quality Assurance Inspector for Construction of Interchange at Kot Pindi Das at Km 30 on Lahore – Islamabad Motorway M-2		
Description of Actual Services Provided: The QAI was responsible for review of Designs, issuance of construction drawings prepared by Design Consultant based upon Design Review comments., construction supervision, progress monitoring, and affirmation of all certifications done by the Concessionaire, the Construction Contractor or any other relevant Contractor. QAI has issued the letter of commencement to the Concessionaire. The QAI supervised all the requirements of the Construction Contract, Concession Agreement and its various Schedules, and in case of any discrepancy/deviations, informed the Concessionaire and NHA. The responsibility of the QAI during various phases of Design review and construction supervision was but not limited to the following: Design Review Phase: - Review and approval of the adequacy of topographical surveys, geo-technical and sub-soil investigations, and hydrological investigation for the road, bridge and other structures. - Review and approval of the Design and working drawings prepared and submitted by Concessionaire or its relevant Contractor to the QAI for the construction of various components of the Works, estimates, reports and other deliverables with regard to: - Identification of Project Design features or any major equipment component that does not appear to meet Design, performance requirements or fails to adhere to good engineering practice; - Provided an opinion on the quality of the Design with respect to their effect on the anticipated service life of the facility, the degree of maintenance needed to meet performance requirements and long term availability over the Concession Period.		

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- Review and approval of reports prepared and submitted by the Concessionaire or its relevant Contractor, with respect to the traffic, traffic management, progress, and any other report regarding the Project etc.
- Review and approval of the implementation schedule of engineering, design, procurement and construction of the Project submitted by the Concessionaire or its relevant Contractor and determination that adequate provisions were made for the following:
 - Design;
 - Raw material sourcing;
 - Public Utilities;
 - Other equipment procurement;
 - Construction;
 - Testing.
- Review and approval of the planning and design of emergency relief arrangements, traffic operation and safety arrangements.
- Review and comment on the Public Utilities arrangements for the Project, including, but not limited to, the water supply and electricity supply.
- Review and approval of the adequacy and reasonableness of the Project co-ordination and monitoring systems.
- Review quality assurance and quality control provisions during the design phase:
- QAI was required to prove due diligence and utmost expertise in ensuring that quality control provisions are maintained at all times;
- QAI was responsible to report to the Concessionaire and NHA in case the quality standards and quality control
- Revisions were not maintained on the Concession Area.

Role of QAI during Construction Phase

- The duties of the QAI were to supervise the Works as the "Engineer" under the FIDIC conditions of Contract and to approve the materials and workmanship of the Works. The QAI was no authority to relieve the Concessionaire, the Construction Contractor or any other relevant Contractor of any of their duties or to impose additional obligations.
- The QAI was reviewed and approved the Project Implementation Programme prepared and submitted by the Concessionaire, the Construction Contractor or any other relevant Contractor, as the case may be.
- The QAI was reviewed and get approved the Mix Design and carry out the required material Testing as per specifications and mix designs and to order special Tests of materials and/or completed Works, and/or order removal and substitution of substandard material and/or Works as required.
- The QAI was reviewed quality assurance and quality control during the Construction Phase.
- The QAI was ensured that the Works are accomplished in accordance with the NHA specifications and standards stated in the Construction Agreement and Construction Contract.
- The QAI was identified construction delays, if any, and recommend to the Concessionaire and NHA the remedial measures to expedite the progress.
- The QAI was reviewed "as built" drawings for each component of the Works prepared and submitted to the QAI by the Concessionaire, the Construction Contractor or any other relevant Contractor.
- The QAI reviewed and got approval of highway safety plans, prepared and submitted by the Concessionaire of the Contract and ensure the safety measures provided for the traffic and Project workers.
- The QAI was determined any extension of the construction schedule, to which the Concessionaire is entitled and notified the NHA, accordingly.
- The QAI issued the Certificate of Completion after checking the results of prescribed Tests with due consent of NHA.
- The QAI issued the Certificate of Substantial Completion duly appended with a list of outstanding items and defective items (Incomplete Works List) established after joint inspection with the Concessionaire, Construction Contractor or its relevant Contractor, and NHA in accordance with the terms of the Concession Agreement and the Construction Contract.

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- Any action by the QAI affecting the costs under the following clauses of Conditions of Contract of the Construction Works Contract.
 - Adverse Physical Conditions and Artificial Obstructions
 - Suspension of Works
 - Bonus and Liquidated Damages
 - Certificate of Completion of Works
 - Defects Liability Certificate
 - Forfeiture
 - Special Risks
 - Frustration
 - Any other as per the Conditions of Contract of the Construction Works Contract.
 - Final Measurement Statement.
 - Release of Retention Money.
 - Any change in the ratios of various currencies of payment.
 - Any other as required under the Contract signed between the NHA and the MORE.
 - Assistance to NHA for conducting Audit and settlement of Audit Paras.
 - QAI was ensured implementation / execution of the works in accordance with Punjab Environmental Protection Agency (PEPA) guidelines.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design – Engineering / Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional / Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.

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Assignment Name: Consultancy Services for Feasibility Study and Detailed Design for "Addition of Third Lane and Improvement of Existing Carriageway from Rawalpindi to Hassanabdal (N-5) (38 Kms). Contract No.07-21-24			Country: Pakistan
Location within Country: Province of Punjab			Number of person-months of the entire project: 57
Name of Client: National Highway Authority, M/o Communications, Govt. of Pakistan, 28 Mauve Area G-9/1 Islamabad			Total value of full project (in million US\$): US \$ 38 million (Rs.8550 million)
No. of Staff: 17			No. of Persons-Months: 30
Start Date (Month/Year): 11 Sept 2021	Completion Date (Month/Year): 10 Jan 2022		Approx. Value of Services (in US\$): US \$ 79,328/- (Rs.14,278,983/-)
Name of Associated Firm(s), If Any: M/s Associated Consulting Engineers Ltd. M/s Latitude Engineering Consultants			No. of Months of Professional Staff Provided by Associated Firm(s): 20 (ACE) 07 (Latitude)
Name of Key Experts of the firm (Project Director/Coordinator, Team Leader) Involved and Functions Performed: The staff included Mr. Munawar Ali, Team Leader/Sr. Highway Engineer, Ms. Iram Noreen Sr. Structure/ Bridge Engineer, Mr. Shahid Javed Jr. Structure/Bridge Engineer, Mr. Muhammad Abbas Ejaz Jr. Highway Engineer, Mr. Akhtar Mahmood Mir Pavement & Drainage Engineer, Mr. Abdur Rashid Mirza Transport Economist, Mr. Muhammad Arshad Janjua Quantity Surveyor and others.			
Brief Narrative Description of Project: The National Highway N-5 started from Karachi passing through major cities of Pakistan like Hyderabad, Sukkur, Bahawalpur, Multan, Lahore, Gujranwala, Rawalpindi, Peshawar and terminates at Torkham (Pakistan-Afghanistan Border). N-5 was very important inter-provincial road carried heavy traffic coming from Karachi Port and other industrial cities of Pakistan to up-country. Due to traffic Congestion from Rawalpindi to Hassanabdal fatal road accidents are being caused. The project was a major initiative required to improvement this section of N-5. The project was considered under PSDP 2020-21 and was carried out under feasibility and detail design head. The project length is 38 Kms from Rawalpindi to Hassanabdal comprised of 02 existing lanes. It is proposed to have two additional lanes with Rigid Pavement for trucks on either side with inner shoulders 0.6 meter, outer shoulders are 2.5m + 0.5m rounding, design speed in plan was 100 kph, rolling 80 kph and mountainous 60 kph, for a design life of 10 years.			
Description of Actual Services Provided: • Detail Design for road and structures • Coordination with concerned departments regarding their development plans • Collection of required data. • Inception Report • Alignment Study • Feasibility Study • Detailed Topographic Survey • Traffic and Axle Load Survey • Soil and Material Investigation • Geo-Technical Investigations • Hydrology Study • Highway Safety Audit • Geometric Design • Pavement Design			

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- Condition Survey of existing pavement & structures.
- Environmental Impact Assessment (EIA)
- Land Acquisition & Utility Folders
- Tender Documents / Drawings, Engineer's Estimate, BOQ, PC-I etc.
- Stake out of Alignment
- Fixing of ROW markers in coordination with NHA field formations.

Type of Services provided:

Planning Studies, Feasibility Studies, Technical Studies, Operations Studies, Project Financing Advice, Design –Engineering/ Industrial etc., Structural Engineering, Procurement Services, Materials Testing, Operation Maintenance, Maintenance Planning, Management Studies, Manpower Requirements Studies, Environment, Resettlement, Land Acquisition and Social Sector Studies.

Fields of Specialization:

Transportation Sector:

National/Regional/Multimodal Transportation Planning – Road Transportation Facilities, Highway Planning & Programming, Highways, New Highways/Improvements & Reconstruction, Toll Roads, New Structures/Reconstruction.