

MUHAMMAD SHAHBAZ

SENIOR INFRASTRUCTURE ENGINEER – ROADS/ HIGHWAYS

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Riyadh, Saudi Arabia

EDUCATION

B.Sc. Transportation
Engineering (2013)

University of Engineering
and Technology, Lahore-
Pakistan

PROFESSIONAL AFFILIATIONS

- Registered Engineer with Saudi Engineering Council
- Registered Civil Engineer with MMUP-Qatar
- Registered Engineer with Pakistan Engineering Council
- Member Institute of Highway Engineers (UK)

REGISTRATION

- Saudi Engineering Council, 895144
- Engineer with MMUP, QATAR 17570
- PEC, Transport/164
- MIHE (UK), 63559249

ADDITIONAL COURSEWORK AND

TRAININGS

- Project Management Professional (PMP) Examination Training Course
- A Short course on Total Quality Management (TQM)
- A short course on Non-Destructive Techniques of Concrete Structures for their Economic Repair and Rehabilitation

COMPUTER/ SOFTWARE SKILLS

- Autodesk Civil 3D
- Auto CAD
- Dynamo
- Navisworks
- Auto Turn
- Vehicle Tracking
- Microstation

EXPERIENCE PROFILE

I am an experienced Senior Infrastructure Engineer with over a decade of professional expertise in BIM modeling and detailed design for roads and highways. Throughout my career I have played a pivotal role in the development of numerous expressways, grade-separated interchanges, highways and local road projects. My proficiency extends to the adept utilization of cutting-edge road design software, enabling me to deliver exceptional results even in diverse and challenging environments.

In addition to my extensive work history, I am committed to continuous learning and skill enhancement. I have actively participated in various conferences, completed online training courses, pursued CPD programs and engaged in self-study initiatives. This proactive approach ensures that I remain well-informed about the evolving construction techniques and technologies, enhancing my ability to contribute effectively to any project.

PROJECT EXPERIENCE

SYSTRA (SAUDI ARABIA)

About Company:

SYSTRA is a multinational, a world-leading engineering and consulting group in the mobility sector, whose fields of activity include Metros, High Speed Rail, Railways, Roads, Buildings, Urban Planning and Water & Environment for public and private organizations. It connects people with sustainable, smart and safe mobility solutions partnering nations in their growth story.



POSITION: SENIOR INFRASTRUCTURE ENGINEER – ROADS/HIGHWAYS (SEP 2022- TO DATE)

Project: Design Consultancy Services for NEOM Industrial City Site Wide Infrastructure (OXAGON)

Client: NEOM

Project Responsibilities:

- Ensuring all design packages are delivered as per client's requirements/deadlines
- Responsible for the delivery of all the roads/earthworks priority design packages for Highway 55 Upgrade (24 KM urban highway) for 3A, 3B, 3C, 3D and IFC stages
- Ensuring that the requirements of all the relevant authorities are incorporated into designs as appropriate
- Ensuring all the designs are following applicable design standards e.g. MOT KSA, MOMRA, NEOM design guidelines, AASHTO
- Responsible for the horizontal and vertical geometry design of highway 55 upgrade including O6 interchanges
- Managing, mentoring and supervising highway design staff including engineers, designers, BIM modelers and CAD draftsmen
- Responsible for the preparation of design reports for all the design stages 3A to 3D
- Design supervision of multiple design packages in OXAGON including Tabuk Cement Factory Road, Highway 55 temporary diversion, zone A and zone E utility tunnels
- Responsible for the delivery of all stage specific deliverables along with BIM models
- QA/QC of the produced drawings by using company standard procedure on BIM360
- Responsible for providing support to the design manger and engineering manager
- Design Coordination, collaboration and meetings with PMC, subcontractors and various relevant disciplines including utilities, structures, landscape inside and outside of KSA

MUHAMMAD SHAHBAZ

- MS Office
- Google Earth Pro

PERSONALITY TRAITS

- Team worker
- Ability to work under pressure
- Multitasker
- Quick Learner
- Problem Solving Skills

LANGUAGE

- English
- Urdu
- Arabic (Basic)

DATE OF BIRTH

April 1991

SOCIAL STATUS

Married

- Responsible for responding to the CRS/RSA/RFIs and contractor's pre-bid queries
- Site visit to Oxagon as per requirements from PMC/client

PARSONS INTERNATIONAL LIMITED (QATAR)

About Company:

Parsons is a technology-driven engineering services firm with more than 70 years of experience in the engineering, construction, technical, and professional services industries. The corporation is a leader in many diversified markets with a focus on infrastructure, defense, security, and construction. Parsons delivers design/design-build, program/ construction management, systems design/ engineering, cyber/converged security, and other professional services packaged in innovative - alternative delivery methods to federal, regional, and local government agencies, as well as to private industrial customers worldwide.



POSITION: HIGHWAY ENGINEER (MAY 2017- SEP 2022)

Project: EDS1708 – A Ring to C Ring Pedestrian Connectivity Routes

Client: Public Works Authority (Ashghal)

Project Responsibilities:

- Worked on secondment to PWA
- Responsible for the geometric design of local roads under this project
- Design of vertical and horizontal alignments and Corridor models
- Providing recommendations to client on RFIs and ensuring design safety and interconnectivity for pedestrian routes for FIFA 2022
- Ensuring the provision of correct driveway types and standard cross slopes
- Site visits, Concerned stakeholders and client meetings and coordination with multiple disciplines

Project: Construction of Link Roads Adjacent to Al-Khor Expressway

Client: Public Works Authority (Ashghal)

Project list:

- P060A-Package 2
- P060A-Package 5

Project Responsibilities:

- Involved in geometric design of package 2
- Responsible for complete corridor model for both packages with standard slopes and graded all three (03) Roundabouts
- Generated detail earthwork cross sections and cut/fill for the both packages

Project: Central Doha & Corniche Beautification Project

Client: Public Works Authority (Ashghal)

Project Responsibilities:

- Prepared 3d corridor model for the complete CP-3 package
- Prepared grading plans and other necessary base files for the submission

Project: Local Roads and Drainage Project (GEC) Area 4 Doha-South

Client: Public Works Authority (Ashghal)

Project list:

- DS007 Package 6,7,8 - Roads and Infrastructure in West of Al Mashaf
- DS16-Package 2 - Roads and Infrastructure in Wakra West
- DS140 Package 1,2 - Roads and Infrastructure in Semaisma (Interim & Detailed Design)
- DS142 Package 1 - Roads and Infrastructure in Al Sheehaniya

- DS143 Package 1 - Roads and Infrastructure West of Umm Slal
- DS056 Package 2 - Roads and Infrastructure in Bu Hamour
- DS132 - Roads and Infrastructure in Ain Khalid
- DS133 - Roads and Infrastructure in Wakrah North
- DS141 - Roads and Infrastructure in AL Kheesa.
- DN120 - Roads and Infrastructure North of Semaisma
- DN121 - Roads and Infrastructure in Al Attoriya
- DN122 - Roads and Infrastructure North of Rawdat Al Hmama
- DN123 - Roads and Infrastructure in West of Umm Slal Mohamed
- DN124 - Roads and Infrastructure in South of Wadi Lusail

Project Responsibilities:

- Involved in Concept, Preliminary, Detail Design and Tender Stages for the above-mentioned projects
- Responsible for geometric design of roads and modification of associated at-grade or grade separated junctions and intersections using geometric design tools including AutoCAD and Micro-station ensuring prompt delivery of related calculations, drawings, design reports and evaluations
- Undertook technical design work and design checking for projects, in line with company standards, and as appropriate to the organization of each particular project, so as to meet or exceed project specific time and quality targets
- Maintenance of solid knowledge of industry standards and design codes (AASHTO, QHDM, DMRB etc.)
- Carried out swept path analysis and visibility triangles for the road layout using Auto-Turn to ensure safe turning movements of design vehicle
- Preparation of horizontal and vertical alignments of roads
- Worked on the creation of 3D surfaces from topographic survey data and design of rough/site grading for the project area and parking lots to encounter the rolling terrain and water table issues for several projects
- Responsible for Preparation of complete 3D models for corridors and junctions grading as per standard slopes and typical cross sections developed by MME for the complete LRDP Program
- Preparation of base files for plan and profile views, typical cross sections, detailed earthwork cross sections, setting out plans, grading layout plans etc.
- Volumetric analysis of surfaces and calculation of quantity take-off
- Coordination with CAD production team for the production of drawings as per company standard practice and client requirements
- QA/QC and inter-discipline design review (IDR) of the produced drawings by following the company standard procedure
- Completing highway design related tasks given by seniors
- Coordination with associated disciplines including Traffic, Drainage, Structure, Landscape and Electrical to ensure that interfaces have been considered and accounted for
- Involved in Client management by addressing and closing comments given by PMC and Client
- Worked as a team member on different projects to deliver projects and meet deadlines
- Provided assistance in striving for continuous technical improvement of design team by utilizing effective and standardized calculation system and other design tools.
- Mentored junior and associate engineers
- Site visits and meeting as required

ASIF ALI ASSOCIATES PVT. LIMITED (PAKISTAN)

About Company:

Asif Ali & Associates (Pvt.) Ltd. is a consultancy firm providing professional services in the fields of civil engineering. It is geared up to provide complete engineering solutions for motorways, highways, bridges, airports, commercial, residential & industrial buildings, irrigation & water supply systems and urban infrastructure development. With the untiring zeal of its talented team, AAA has achieved major milestones in the field of engineering in a very short time.



POSITION: HIGHWAY DESIGN ENGINEER (OCT 2016- MAY 2017)

Project: Feasibility Study & Detailed Design of Dera Murad Jamali Bypass (11.2 km)

Client: National Highway Authority (NHA)

Project Responsibilities:

- Studied various alignment options for the bypass road and prepared alignment study report
- Prepared horizontal and vertical alignment of road using civil 3D
- Involved in geometric design of the bypass
- Carried out Pavement design of bypass using AASHTO pavement design method and prepared pavement design report
- Prepared detailed report on construction machinery required during construction phase
- Assisted in economic analysis of project (Preparation of PC – I and Feasibility report)
- Attended coordination meetings with client as required

Project: Vetting of Design of PKM Motorway (Sukkur-Multan Section, 392 km) (A part of China-Pak Economic Corridor, CPEC)

Client: China State Construction Engineering Corporation Ltd. (CSCEC)

Project Responsibilities:

- Assisted in design review of geometric design, pavement design and road safety design of Peshawar-Karachi Motorway (PKM) in Sukkur-Multan Section, a multi-billion dollar project
- Attended Coordination meetings with world's largest contractor firm, China State Construction Engineering Corporation Ltd. (CSCEC) to discuss design related issues and to facilitate communication between design consultant and vetting consultant

Project: Feasibility Study & Detailed Design, Improvement & Widening of Chitral-Booni-Mastuj- Shandur Road (147 km)

Client: National Highway Authority (NHA)

Project Responsibilities:

- Prepared 3D existing surface from topographical survey data
- Prepared alignment study report with alternate options
- Assisted in detailed geometric design of road
- Prepared detailed construction machinery report for machinery requirement during construction
- Assisted in environmental impact study and report
- Assisted in economic analysis (Preparation of PC – I and Feasibility Report)
- Assisted in preparation of tender documents, BOQ, Engineer's estimates, PC - I

Project: Updation of Pre-Feasibility Study and Riverine Survey for the Construction of Bridge on River Indus at Kallur Kot (15 km)

Client: National Highway Authority (NHA)

Project Responsibilities:

- Participated in data collection and coordination meetings with local irrigation departments
- Provided assistance in hydrology study and hydrological analysis
- Provided assistance in evaluation and updation of Pre-Feasibility Study

BAHRIA TOWN PVT. LIMITED (PAKISTAN)

About Company:

Bahria Town Limited is an Islamabad-based privately owned real-estate development company which owns, develops and manages properties across Pakistan. Its projects usually house upper middle and high income Pakistanis, these communities have private security, ability to restrict access to non-residents and are energy independent from the national grid. Bahria gated communities are home to private schools including those operate by the company, private hospitals, hotels and commercial avenues and it has been featured by many international news agencies.



POSITION: TRANSPORTATION ENGINEER (MARCH 2014- SEP 2016)

Project: Bahria Golf City, Islamabad

Project Responsibilities:

- To ensure all the works are carried out in accordance with the specifications, requirements, drawings and within project's time schedule
- Support the project team in planning, conducting and coordinating civil works
- Inspection of earthwork, allied activities and infrastructure works in the project
- Inspection of asphalt work from asphalt base course to AWC level including patchwork for exiting roads
- Inspection of RCC Retaining walls, piling works and slope stabilization works (Contiguous Pile Wall, Mechanically Stabilized Earth Gabions Wall)
- To prepare daily and monthly progress reports

ASIF ALI ASSOCIATES PVT. LIMITED (PAKISTAN)

POSITION: JUNIOR HIGHWAY ENGINEER (SEP 2013- FEB 2014)

Responsibilities:

- Assisted seniors in preparation of geometric design of various projects
- Assisted in the preparation of geometric design and pavement design reports
- Involved in the design of vertical and horizontal alignments
- Prepared detailed earthwork sections
- Assisted in the Preparation of detailed report on construction machinery required during construction phase
- Site visits

