

MUHAMAD RIZWAN

M.E. (Transportation Engineering)
B.E. (Civil Engineering)

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SUMMARY:

Civil Engineer (Transportation/Highways) with 10 years of experience in planning and design of infrastructure that includes Expressway, Arterials, Urban Streets/Local roads, Public transport/BRT, Housing/Industrial developments and highways in hilly area. Design of interchanges and intersections in different regions as per AASHTO, RTA Dubai, ADM/DOT (Abudhabi), Qatar or MOT (KSA) standards.

Managing design team of engineers/CAD operators and coordination with other disciplines like structures, utilities/drainage, Quantity Surveyors and supervision/site staff. Valuable understanding of Storm drainage, Quantity/Cost estimation, Traffic engineering, Transportation planning, Public transport (Metro, BRT & Buses), Feasibility studies and Economic analysis.

I seek to understand the key/core transportation problems by analyzing it from Bottom (users) to Top (client) perspective. I am always up for the development of sustainable transportation system and cost-effective solutions while respecting the safety and quality as core values.

Engineering Softwares:

InRoads, Micro Station, Civil 3D, Land Desktop, Eagle point (Road calc), AutoCAD, Auto Turn, ARC GIS 9.3, EMME/2, JICA STRADA

PROFESSIONAL EXPERIENCE / PROJECTS:

1. From (Apr, 2015 to present) with Parsons International Limited, UAE as Senior Highway Engineer

- Leading road design team for Preliminary Study and Concept design of R-1060 Sheikh Rashid Bin Saeed Corridor (including 6th Creek crossing). Upgradation of existing Road network around new developments in Dubai creek area mainly focusing on Dubai Creek harbor development, Meydan Horizon and Lagoons Development. Also include detail design for 6km section of Ras Al Khor road from Bukidra Interchange to E311 with six interchanges
- Leading road design team for detail design of R1060/1A DCH Western Access Link RTA, Dubai project. Scope includes detail design approval from RTA roads and traffic safety department. Also Supporting NOC team for getting final design NOC from agencies.
- Detail design of 35 kilometers of 10-lane Al Khor expressway, Doha including 10 interchanges assigned to design team as design build project from Tefken Contractor.
- Detail design of Al-Wasl Basement access (Truck tunnel) in Expo 2020, Basement access is to provide access via circular tunnel to 6 basements of Buildings around central circular plaza of Expo2020
- Concept and detail design of AlZahia City Centre, provide connection to new urban development with surrounding roads including 2 interchanges across Sheikh Mohammed bin Zayed Road (E311)
- R-978 Design of Cycle, Jogging and pedestrian track in including bridges and tunnels for cycle from Jumera beach upto Al-Khail road & Mushrif Park area, Dubai

- Design of Road Infrastructure and Parking facilities for City Walk (Meraas project) and design support for Master planning in Business bay area for Dubai Properties Group
- R-921 One way system: Preliminary design as one-way system on two parallel roads, Jumera road and Al-Wasl road. Layout plan, Analyzing and provide Pedestrian movement facility considering road traffic signal phasing and tram movement
- Detail Design of Interchange at E10 Highway near Yasmina school Khalifa City for Interim stage (ADM) and Ultimate stage (DOT). Activities include Topographic Surface, Layout Plan (with School Parking, Cycle and Pedestrian Movement), Profiles, Typical Cross-sections, Junctions Grading Plan, Pavement Marking and Traffic Sign Drawings
- Detail Design of 6 Lane South Axial Road (120kph) in Makkah with CD Road (80kph), along with BRT Line in Central Median and 4 Interchanges, (Ministry of Transport, KSA)
- Design of 80 km Road Network and 30 km Pedestrian Roads including Interchanges for Shuttle Bus Service in Arafat, Makkah, (Ministry of Hajj, KSA)

2. From (Apr, 2012 to Apr, 2015) with Al-Ayuni Investment & Contracting Company in , Saudi Arabia as Design Engineer

- Detail Design of various MOT Highways & Interchange Projects as per AASHTO or MOT standards in Riyadh, Makkah (Under Municipality), Al Baha, Aseer, Tabuk, Al-Kharj & Jizan Region.
 - Design for new and under execution different facilities like Expressways, Highways (Flat/Hilly), Interchanges, Intersections, Road Network, (Preparation of Drawings like Plan/Profile, Typical Cross-Sections, Super Elevation and Re-Alignments in construction stage)
 - Co-ordination with Project Managers/Site Staff for Survey, Obstructions and Design Revision issues. Co-ordination with Structure Dept. for Bridges, Culverts & Retaining walls, Co-ordination with Quantity Dept. for Project Budget Estimation, Detailed Cost, Scope Preparation, etc
- Detail Geometric Design of Second Ring Road and National Guard Road with 6 Underpasses and 2 Bridges in Riyadh city (National Guard Area)
- Detail design of 2-sections of (8-Lane, 140 KPH) Jeddah Jizan Expressway in Assir Region
- Detail Design of 2 interchanges on Kharj Eastern Link along with 6 Lane Dual carriageway with Service Roads.
- Design of Road Network for Al-Kharj Housing Project with Saudi Parsons Consultant.
- Detail Design of 8 Lane 4th Ring Road in Makkah with Service Roads including 4 interchanges.
- Different Road Links of 5-20 km in hilly areas of Assir (Al-Farsha , Himayat), Al-Baha (Mada, Bouhira, Hitay), Jizan (Gr# 15; Al-Haqoqo-AlRaith, Lahja Suda, Gr# 19 Saeed Athwan)
- Design of Storm Water Drainage of Different sizes along Ring Road, Riyadh to connect Existing Drain leading to Cross Culverts to Existing Amana (Municipality) Storm Network.

3. From (Nov, 2010 to April, 2012) worked as Project Engineer/Planner on Karachi Transport Improvement Project under JICA & Karachi Mass Transit Cell, City District Government Karachi along with Nippon-Koe, Oriental Consultant and Yachio Engineering co.

- Feasibility study of 2 BRT (Green & Red Line) to be funded by JICA, Route Alignment Decision, Planning BRT System (At-Grade/Elevated, Vehicle Type, Door side, Pedestrian Access Facility, etc), Station Facility Planning & Design, Depot. Location, etc

- Concept Design of BRT (Yellow Line) from Korangi Industrial area to Numaish chowrangi (22 km) including the preliminary station design and location.
- CNG BUS project, Development of PC-I, Planning of Bus routes and prioritization of routes, Verification of Financial model for CNG Bus project submitted from consultant.
- Planning in 3 phases the Traffic Management scheme for Nazimabad No.7 intersection considering Karachi Circular Railway, BRT Line and Road traffic.
- Development of Urban Transport Master Plan for Karachi City. Prioritization of Mass Transit corridors.
- Traffic Demand Forecast Modeling Exercise; Development of Road **Network** and Transit Network on ARCGIS and Conversion to JICA STRADA. **Traffic Assignment** and Calibration of Assignment Results (Highway and Transit). Prioritization of Major Mass Transit Corridors. Estimation of Rolling stock, Train travel time Estimation & Preliminary Cost Estimation.

4. From (Apr 2009 to Oct 2010) with M/s. EA Consulting (Pvt.) Ltd formerly Engineering Associates, Karachi as a Highway Engineer

- Detail Design/Tender Drawings of **Road Network** of Blue Bay at Marsa Al-Nejoom, **Sharja** sublet from **WSP** on MX road.
- Detail Design of 1.2 km, 4 Lane Flyover with 2 side approach/exit ramps, 1 loop and at grade roads including a roundabout at Aziz Hotel Intersection and Double Phatak Intersection, Multan.
- Detail Design of 2-Level Interchange at Phase-3 Entry Jamrud road, Hayatabad, Peshawar. LOS analysis for the project before and after improvement.
- Detail Design / Tender Drawings / Construction Drawings and correspondence with site staff during construction for different roads in **hilly** area of District Shangla, Swat and District Kohistan.
- Preliminary Design of 6-Lane Dual Urban Road connecting Gawader Airport to Gawader Sea Port.
- Design revisions for 4 Lane Underpass and Signalized Intersection, Design of Signal timings and Signal Phasing Scheme for POF Road Wahgate (Taxila) intersection at N-5.
- Traffic study for different Interchange and Junctions project in Karachi, Multan, Peshawar, Hyderabad and Rawalpindi.

5. From (Dec 2009 to Mar 2009) with Exponent Engineer as Trainee Engineer

ACADEMIC QUALIFICATIONS:

M.E. (Transportation Engineering)

NED University of Engineering and Technology, Karachi
(July, 2009 - Dec, 2011)

B.E. (Civil Engineering)

NED University of Engineering and Technology, Karachi
(Jan, 2005 - Dec, 2008)

PERSONAL DATA:

Father's Name : Abdul Razzaq
Date & Place Of Birth : July 12, 1986, Karachi
Nationality : Pakistani

REFERENCES:

Ernest Crawford

(Technical Director, Parsons, Dubai)

Email: Ernest.Crawford@parsons.com