

MUHAMMAD TOUQEER

Photogrammetry Surveyor | Drone Pilot | Survey Party Chief (UAV & Ground Survey Expert)

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🌐 Muhammad Touqeer | LinkedIn

📍 Riyadh, KSA

Experienced Land & Aerial Mapping Surveyor with nearly **12 Years** of hands-on field experience across the Middle East and South Asia, specializing in precision topographical surveys, UAV-based aerial mapping, and geospatial data processing. Seeking expertise in RTK/PPK GNSS surveying, LiDAR data acquisition, and infrastructure layout to a forward-thinking engineering or geospatial firm. Strong background in executing complex projects including roads, bridges, high-rise buildings, and large-scale land developments using modern survey instruments and drone technologies. Committed to delivering accurate, actionable survey data to support design, construction, and planning teams throughout the project lifecycle.

CORE COMPETENCIES

- Topographical Surveying
- UAV-Based Aerial Mapping
- Infrastructure Project Surveying
- Construction Layout & Supervision
- Geospatial Data Collection
- Cross-Functional Team Coordination
- Site Inspection & Risk Assessment
- Terrain Analysis & 3D Surface Modeling
- Client & Consultant Liaison
- Surveying for Urban Infrastructure

EXPERIENCE & PROJECTS

Senior Photogrammetry Surveyor / Drone Pilot - Acting Survey Party Chief

Dec 2023 - Present

Employer: Advance Aerial Mapping Services

Projects:

1. Neom (The Line Project) – Heritage and Landscape Surveys
2. Jazan Survey Project
3. HVDC U-Shape Lidar Survey – Neom Area
4. The Line Landscapes – Neom Project

Responsibilities

- Executed detailed topographical surveys across heritage and landscape zones within Neom's LOT L area using RTK, PPK, and static GNSS methodologies to support archaeological and environmental assessments.
- Coordinated drone operations and flight planning for manned and unmanned aerial systems, aligning survey tasks with project timelines and regulatory airspace requirements across complex terrains.
- Acquired high-resolution aerial imagery and geospatial data sets using fixed-wing and multi-rotor UAV platforms to facilitate large-scale photogrammetric mapping.
- Processed survey data using GNSS post-processing workflows and GIS tools, ensuring centimeter-level positional accuracy for integration into project-wide digital terrain models (DTMs) and orthomosaics.
- Directed daily field operations for aerial and ground-based data collection teams on the Jazan Infrastructure Survey Project, aligning output with engineering design parameters and planning deliverables.
- Utilized LiDAR-equipped drone systems to conduct corridor mapping and surface modeling along HVDC U-Shape alignment within the Neom development zone for Phase 2 RFP documentation.
- Created dense point clouds, contour maps, and digital elevation models (DEMs) from photogrammetric datasets, supporting geotechnical, hydrological, and environmental planning studies.
- Maintained logbooks, airspace permissions, and flight data records in compliance with Saudi General Authority of Civil Aviation (GACA) protocols, ensuring safe and lawful UAV operations.
- Collaborated with GIS analysts and engineers to deliver spatially referenced datasets that informed infrastructure routing, terrain grading, and visual impact assessments within The Line landscape corridor.

- Applied terrain-following flight automation techniques to enhance data consistency across varied elevation profiles, especially in mountainous and coastal regions.
- Conducted pre-flight risk assessments and site evaluations, identifying hazards and selecting optimal ground control point (GCP) locations to support survey accuracy.
- Integrated UAV outputs with CAD and BIM software environments, enabling interdisciplinary use of geospatial data for urban planning, architectural modeling, and utility network design.

Senior Land Surveyor – Roads & Infrastructure Projects | Abu Dhabi

Sep 2021 – Jul 2023

Employer: Agility Engineering & Contracting Company LLC

Projects:

1. Development of Roads, Infrastructures and Streetscapes at Khalifa City Southwest Sectors/Zone 1
2. Construction of Interchange to Link East/West Baniyas

Consultant: Parsons | **Client:** Abu Dhabi city Municipality / Mosanada

Responsibilities

- Performed layout, topographic, and as-built surveys for road, infrastructure, and bridge works.
- Operated GPS (RTK/PPK), Total Station, and AutoCAD for high-precision field measurements.
- Coordinated closely with consultants and construction teams to align fieldwork with project requirements.
- Verified drawings, controlled survey benchmarks, and ensured accurate implementation of designs.

Senior Land Surveyor - Roads, Bridges & Infrastructure Projects

Feb 2017 – Nov 2021

Employer: Apex Experts Contracting Company L.L.C

Projects:

1. Jubail Island- Interchange Works (Package 1B) Abu Dhabi - **Consultant:** Parsons | **Client:** Lead
2. Construction of Zayed Road network in Mina Zayed Area Stage-1 Abu Dhabi - **Consultant:** Parsons | **Client:** Mosanada
3. Package CP0044: OBR 1 & 2 Dubai Hills Estate by Emaar, Dubai - **Consultant:** JACOBS | **Client:** EMAAR **Work:** OBR1 & OBR2 Bridge
4. Meydan One Development Roads & Infrastructure – Phase 1A - **Consultant:** AECOM | **Client:** Meydan
5. Development of R1029 Latifa Bin Hamdan Street Contract 1, Al Qous Dubai - **Consultant:** CDM Smith | **Client:** RTA
6. R881-3C2Improvement of Parallel Roads Phase3C2, AL-YalaisyStreet, Jebel Ali Dubai - **Consultant:** Parsons | **Client:** RTA

Responsibilities

- Performed all surveying tasks including setting out, leveling, quantity measurement, and as-built documentation.
- Managed surveying for complex highway interchanges, urban roads, and bridge structures.
- Ensured accurate layout based on IFC drawings and coordinated directly with engineers and foremen.
- Managed a team of junior surveyors and delegated tasks as per project priorities.
- Reported to project managers and consultants, ensuring smooth execution and timely delivery.

Land Surveyor – High-Rise Buildings & Infrastructure | Dubai, UAE

Jan 2013 – Jul 2014

Employer: Ghantoot Group of Companies

Projects:

1. Akoya Oxygen villas, Al. Yufra 1, - **Consultant:** KEO | **Client:** Dubai Municipality
2. Akoya by Damac, Dubai Studio City - **Consultant:** NAGA | **Client:** Dubai Municipality
3. IP Factory Package Twenty-Three, Dubai Investment Park - **Consultant:** KEO | **Client:** Dubai Municipality

Responsibilities

- Conducted setting out and survey operations for high-rise buildings and internal road networks.
- Verified construction drawings and ensured alignment with site conditions.
- Collaborated with site engineers and quality teams to meet client specifications.
- Maintained and managed equipment like total stations and levels for daily operations.

EDUCATION

Sarhad Institute of Technical Education, Ghazi Haripur

Apr 2011

Diploma in Civil Survey |

Govt. Boys High School, Hazro Attock

July 2002

High School Diploma in General Science |

LICENSES

- Certified Drone Pilot License
 - Valid Driving License – Kingdom of Saudi Arabia
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SKILLS

Technical Skills

- GNSS: RTK, PPK, Static Survey Methods
- UAV Platforms: Multi-Rotor & Fixed-Wing Drones
- Photogrammetry Software: Pix4D, DJI Terra
- LiDAR Data Acquisition & Processing
- CAD & BIM Integration: AutoCAD, Civil 3D, Revit
- GIS Tools: Global Mapper, ArcGIS
- Data Processing: GNSS Post-Processing, DTM/DEM Creation
- Flight Planning & Airspace Compliance (GACA)
- Total Station & Digital Level Usage
- Point Cloud Generation & Analysis

Personal Skills

- Communication & Time-management
 - Adaptability & Problem Solving
 - Leadership & Teamwork
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LANGUAGES

- Arabic
 - English
 - Pushto
 - Punjabi
 - Urdu
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REFERENCES

Mr. Kashif Rauf | Photogrammetrist | AAMS- Advance Aerial Mapping Services | +966553520668

Mr. Hamza Faheem | Finance Manager | AAMS- Advance Aerial Mapping Services | + 966591976632
