

# Rabie Abdelfattah Ali

## BIM Structure Engineer

### Personal Data: -

- Phone Number: +966590577086
  - E-Mail: [Rabieabdefattah5@gmail.com](mailto:Rabieabdefattah5@gmail.com)
  - LinkedIn URL: [www.linkedin.com/in/rabie-abdelfattah-a38b241b8](https://www.linkedin.com/in/rabie-abdelfattah-a38b241b8)
  - Address: Riyadh, Saudi Arabia.
  - Nationality: Egyptian.
  - Membership in the Saudi Council of Engineers.
  - Driving license: Valid Saudi driving license - IQAMA: Available (transfer available).
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### Summary:-

**BIM Structure Engineer with + 6 years of experience** in structural design coordination and BIM implementation for large-scale projects. Proficient in Revit Structure, Navisworks, ACC, and BIM coordination workflows in accordance with Saudi building codes and international standards. Experienced in managing LOD 300–500 models, clash detection, shop drawing production, and multidisciplinary coordination. Proven ability to deliver projects within schedule while ensuring quality and compliance with client and consultant requirements in the KSA market.

### Education:-

- Bachelor's (B.Sc) Degree in Civil Engineering. - Grade: Very Good.
  - Faculty of Engineering, Fayoum University. - Year: 2019.
  - Graduation project: Management of Construction Projects. - Grade: Excellent.
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### Work Experience: -

#### Duncan & Ross Consulting.

Location: Riyadh, KSA.

Job title: BIM Structure Engineer.

09/2025 - Present.

Project:- The Janadriyah Hotels.

Client: Qiddiya Investment Company. - Total Cost: (1200 M SAR)

#### Job Responsibilities: -

- Spearheaded the structural BIM modeling and coordination process using Revit and Autodesk Construction Cloud (ACC) for the Janadriyah Hotel project, ensuring seamless integration across Architectural and MEP disciplines.
  - Produced high-precision structural shop drawings and detailed construction documentation directly from the BIM model, guaranteeing 100% compliance with relevant local and international building. Actively contributed to the development and maintenance of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP) to standardize delivery across the project lifecycle.
  - Managed the BIM quality control process by retrieving and validating consultant/contractor models and performing quantity take-offs to ensure maximum data reliability for scheduling and cost estimates.
  - Develop and manage structural BIM models using Revit Structure in accordance with project BIM standards.
  - Prepare and maintain models at required LOD levels (300–500).
  - Coordinate structural models with architectural and MEP disciplines.
  - Perform clash detection using Navisworks and resolve coordination issues.
  - Generate and review shop drawings, GA drawings, and structural details from BIM models.
  - Ensure compliance with the Saudi Building Code (SBC), ACI, and project specifications.
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#### AL-Shorouk Construction.

Location: Egypt.

Job title: BIM Structure Engineer.

01/2024 - 09/2025.

• Project:- Housing & Development Bank

• Client: Housing Development Bank. - Total Cost: Total Cost (1500 Million EGP )

#### Job Responsibilities: -

- Develop and manage accurate structural BIM models using software such as Revit.

- Coordinate the structural model with other disciplines (Arch, MEP) to resolve clashes and ensure integration.
- Prepare structural shop drawings and construction documentation directly from the model.
- Contribute to the development and maintenance of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP).
- 5.. Generate accurate quantities, schedules, and data extractions from the model.
- Review and validate models and drawings received from consultants or contractors.
- Maintain data quality within the model, ensuring correct Level of Detail (LOD) and information requirements.
- Update the structural model regularly according to project phases and design changes.

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## **MAK Construction.**

**Location: Egypt.**

### **Job title: Structural BIM Modeler.**

**09/2021 - 01/2021.**

- **Project:** Gawherat AL-Asama, New Administrative Capital, Egypt.
- **Client:** Administrative Capital for Urban Development
- Create detailed and accurate structural BIM models using Revit.
- Model structural elements (beams, columns, slabs, foundations, etc.) according to project specifications.
- Collaborate with engineers and other disciplines to ensure coordination and clash-free models.
- Produce shop drawings and construction documentation from the BIM model.
- Follow the BIM Execution Plan (BEP) and modeling guidelines provided by the project.
- Update models based on design revisions and coordination feedback.
- Ensure the correct use of families, templates, and naming conventions.
- Assist in quantity take-offs and schedule extractions from the model.
- Participate in coordination meetings and provide visual support using the model.
- Maintain organized model files and ensure proper work set usage in a collaborative Environment.

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## **Makkah General Contracting.**

**Location: Egypt.**

### **Job title: Structural Site Engineer.**

**12/2020 - 09/2021.**

**Project:** Abou Owikal Water Treatment Plant.

- Responsible for the implementation and monitoring of all civil-related works at the site.
- Estimates, prepares, and assigns the resources such as manpower, material, and equipment required.
- Site management, material arrangement, manpower allocation, and monitoring of site productivity of different activities to achieve the targets within the time frame and the project budget.
- Maintain records and report regularly to the construction manager/ project manager.

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## **Computer ( Software) Skills:-**

- Microsoft Office (Word, Excel, and PowerPoint).
- AutoCAD.
- AutoCAD Structural Detailing (ASD).
- Revit Structure
- Auto Rebar
- Navisworks
- Dynamo
- ACC

## **Soft Skills:**

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|------------------------|-----------------------|----------------------|
| • Communication Skills | • Time Management     | • Organized          |
| • Planning             | • Problem-Solving     | • Teamwork           |
| • Leadership           | • Attention to detail | • Project Management |

## **Language Skills:**

- Arabic ( Native).
- English (Very Good). (Writing, Reading, Speaking, and Listening).

## **Technical Skills & Key Competencies:**

- Building Information Modeling (BIM) Implementation
- Structural BIM Authoring & Management
- BIM Level 2 Compliance
- ISO 19650 Information Management
- BIM Execution Plan (BEP) Development
- BIM Coordination & Model Federation
- Common Data Environment (CDE) Management
- 4D Construction Simulation
- 5D Cost Estimation Integration
- Model-Based Quantity Take-Off (QTO)
- Digital Construction Workflows
- BIM Standards Development
- Employer's Information Requirements (EIR)
- BIM Collaboration Format (BCF)
- Navisworks Manage
- Clash Detection & Coordination
- Structural Modeling (Concrete & Steel)
- Shop Drawings Production & As-Built Modeling
- General Arrangement (GA) Drawings
- LOD 300 / LOD 400 / LOD 500
- BIM Execution Plan (BEP)
- Quantity Take-Off (QTO) & Dynamo (Revit Automation)
- ISO 19650 Standards
- Saudi Building Code (SBC) & ACI Code
- Multidisciplinary Coordination (Arch / MEP / Structure)
- BIM Coordination Meetings
- Technical Issue Resolution
- Construction Documentation
- Client BIM Standards Compliance
- Project Scheduling Support
- RFI Management & Design Review