BINAYAK KHANAL

CAD TECHNICIAN – AutoCAD, Civil 3D, Revit, Drafting, 3D Modeling

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SKILLS

- **CAD Software**: AutoCAD, Civil 3D, Revit, BIM Modeling, Parametric, Visualization, Drafting Automation
- **Project Management**: Allocation, Workflow Optimization, Risk Assessment, Budget Control
- **Technical Design & Surveying**: Drafting, Blueprint Reading, Site Surveying, Layout, Measurement
- **Communication**: Technical Documentation, Multilingual, Report Generation, Data visualization, Interface
- **Analytical & Collaboration**: Root Analysis, Data Analysis, Cross-functional Integration, Decision Analytics

WORK EXPERIENCE

Junior Technician **December 2021 – March 2023**
M.B. Consultant and Builders Pvt. Ltd.,Nepal *Nepal*

- Endorsed the design and execution of civil engineering projects using structural detailing, material specifications, load calculations, drainage planning, grading design, compliance, resulting in a 15% reduction in design revisions.
- Aided in site surveys and drafting engineering layouts using AutoCAD and Civil 3D incorporating topographic data, and coordinate geometry , contributing to the successful delivery of 15+ infrastructure projects.
- Resolved on-site technical issues related to structural discrepancies, material specifications, construction tolerances, RFI responses, and as-built conditions—streamlining workflow and reducing project delays by 25%.
- Maintained technical documentation including design specifications, CAD drawings, change orders, contributed to weekly progress reports, improving stakeholder communication and project tracking accuracy by 30%.
- Prepared quantity take-offs and cost estimates using project blueprints and specifications, and budget planning. Utilized MS Excel and Bluebeam Revu to streamline material tracking , reducing manual errors by 20%.
- Reviewed construction drawings and shop drawings for compliance with municipal standards and design intent. Identified flagged potential conflicts in utility alignments and structural elements, less rework during execution.
- Suggested stormwater management design by modeling runoff patterns and sizing retention systems in line with local environmental codes. Used SWMM and Civil 3D tools to analyze drainage flow, and regulatory compliance.
- Conducted field inspections to verify construction activities aligned with engineering drawings, QA/QC protocols, safety standards, and local codes. Identified and corrected discrepancies, reducing quality control issues by 18%.
- Coordinated subcontractor schedules , logistics using project management software like MS Project , Primavera P6, incorporating critical path, resource allocation, progress improving task rates & reducing downtime by 22%.

PROJECT EXPERIENCE

Survey Projects **Academic Project**
Seneca Polytechnic

- Led field surveys for academic civil engineering projects, utilizing total stations, GPS, leveling instruments, benchmarks, and field notes to collect and interpret site data—improving survey accuracy by 25%.
- Applied AutoCAD and Civil 3D to produce topographic maps, alignment layouts, pipe networks, surface models, contour lines, and corridor assemblies—enhancing drafting precision and reducing revision time by 20%.
- Collaborated in a multidisciplinary team to analyze survey results, prepare technical reports, deliver actionable design recommendations using GIS data, legal descriptions—accelerating report turnaround time by 30%.
- Processed raw survey data using data collectors imported into Civil 3D for point cloud generation, and coordinate adjustment using traverse closure, field coding, breaklines—boosting data processing efficiency by 35%.
- Reinforced in establishing horizontal and vertical control networks using traversing & leveling techniques, stationing ensuring consistent geospatial accuracy reducing survey rework by 20% across communal project sites.
- Conducted construction staking and layout verification using GPS RTK technology, offset calculations, horizontal and vertical control, site benchmarks, and coordinate geometry—improving on-site positional accuracy by 15%.
- Reviewed and updated As-Built drawings with CAD and Civil 3D, incorporating field measurements, change orders, and utility relocations—enhancing documentation accuracy and reducing client revisions by 25%.
- Faciliated in hydraulic modeling and drainage design using HEC-RAS and Civil 3D, analyzing flow rates, culvert sizing, and stormwater management—improving system efficiency and regulatory compliance by 20%.
- Encouraged quantity takeoffs and material estimation using Bluebeam , MS Excel, integrating CAD drawings, bill of materials, specification sheets, and work breakdown structure improving cost estimation accuracy by 18%.

EDUCATION

Diploma in Civil Engineering Technician December 2024
Seneca Polytechnic, North York
High School Diploma in Science and Technology April 2021
Amarsingh Secondary School, Nepal