

SANDHYA THAPA

LICENSED CIVIL ENGINEER • NEPAL ENGINEERING COUNCIL (NEC) REGD.

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PROFESSIONAL SUMMARY

Nepal Engineering Council (NEC) licensed Civil Engineer holding a Bachelor of Engineering (B.E.) in Civil and Rural Engineering from Pokhara University. Experienced in structural analysis, earthquake-resistant design, municipal building permit documentation (*Naksapas* per NBC 105:2020 and Pokhara Metropolitan City Bylaws), commercial property valuation, and on-site construction QA/QC. Currently serving as Civil Engineer at **SEID Engineering** in Pokhara, delivering architectural and structural modeling, DCC rate analysis, cost estimation, and site supervision. Dedicated to ensuring statutory building code compliance, seismic safety, and practical buildability across residential and commercial projects.

TECHNICAL SKILLS & CORE COMPETENCIES

Structural & Municipal Design	Earthquake-Resistant RCC Design (NBC 105:2020, IS 1893, IS 456), Ductile Detailing (IS 13920), Municipal Permit Drawings (<i>Naksapas</i> per Pokhara Metropolitan Bylaws), FAR & Setback Compliance, Foundation Engineering.
Engineering Software	ETABS (Structural 3D Modeling & Seismic Analysis), AutoCAD 2D/3D (Architectural & Structural Detailing), SAP2000, GIS Mapping, MS Excel (Structural Design Sheets & Cost Estimation).
Estimation & Valuation	Detailed Bill of Quantities (BOQ), Material Take-offs, Government District Coordination Committee (DCC) Rate Analysis, Commercial Bank Property & Land Valuation, Bar Bending Schedules (BBS).
Site Supervision & QA/QC	On-site Structural Supervision, Reinforcement Diameter & Clear Cover Verification, Formwork Inspection, Concrete Slump Testing, Cube Sampling & Compressive Testing, Daily Progress Logs.
Surveying & Field Operations	Topographic Surveying, Total Station, Auto-level Traversing, Land Boundary Demarcation, Profile Leveling, Valid Two-Wheeler License (Full On-Site Mobility).

CURRENT PROFESSIONAL EXPERIENCE

Civil Engineer — SEID Engineering

Chaitra 01, 2081 – Present

Chipledhunga (Ward No. 4), Pokhara, Kaski, Nepal

- Municipal Building Permit Documentation (Naksapas):** Prepare complete architectural permit sets, structural framing drawings, Floor Area Ratio (FAR), ground coverage, and setback calculations for Pokhara Metropolitan City municipal permit approvals in strict compliance with NBC 105:2020 and NBC 205.
- Structural Analysis & 3D Modeling:** Conduct dynamic 3D structural analysis and earthquake-resistant modeling of residential and commercial RCC frame structures using ETABS and AutoCAD, ensuring ductile detailing per IS 13920.
- Quantity Estimation & Rate Analysis:** Formulate comprehensive Bill of Quantities (BOQ), material take-offs, and cost estimations conforming to Government District Coordination Committee (DCC) rate schedules.
- Property & Land Valuation:** Execute technical valuations, land area measurements, structural integrity evaluations, and market appraisals for commercial banks, financial institutions, and private clients.
- Construction Supervision & QA/QC:** Supervise active construction sites to verify rebar placement, bar diameters, stirrup spacing, and clear cover; inspect formwork and oversee concrete placement including slump testing and cube sampling.
- Field Surveying:** Conduct site layout, leveling, and boundary mapping using Total Station and Auto-level for property demarcation and road alignments.
- Client & Municipal Coordination:** Liaise between property owners, structural consultants, contractors, and municipal engineering authorities to resolve technical queries and expedite permit clearances.

PRIOR PROFESSIONAL EXPERIENCE

Engineering Intern – Project Manager & Site Lead – EcoZone Architect and Construction Pvt. Ltd.

Oct 2024 – Feb 2025
Pokhara-10 Amarsingh Chowk, Kaski, Nepal

- **Site Supervision:** Monitored day-to-day residential RCC construction activities against milestone schedules, verifying structural compliance, rebar arrangements, and workmanship quality.
- **Technical Training Logistics:** Coordinated logistical management and documentation for specialized technical training workshops conducted for on-site construction teams.
- **Field Documentation:** Performed regular site inspections and maintained meticulous technical documentation including photographic progress logs and measurement books.
- **Stakeholder Coordination:** Liaised with senior structural consultants, material suppliers, and trade contractors to maintain smooth site workflow and resolve discrepancies.
- **Estimation & Rebar Scheduling:** Assisted in Bar Bending Schedule (BBS) calculations and material requisition estimates for residential building projects.

EDUCATION & ACADEMIC CREDENTIALS

Bachelor of Engineering (B.E.) in Civil Engineering and Rural Development

2021 – 2025 (Graduated)
Pokhara University • School of Engineering, Khudi 30 Talchowk, Kaski, Nepal

Professional Status: Nepal Engineering Council (NEC) Licensed Civil Engineer
Core Coursework: Structural Analysis I & II, Reinforced Concrete Design, Earthquake Engineering, Foundation Engineering, Hydrology & Water Resources, Environmental Engineering, Transportation Engineering, Construction Management, Surveying I & II.

ENGINEERING PROJECTS & RESEARCH

Structural Design & Analysis of 10-Story Hospital Building • Capstone Project

Jan 2024 – Jun 2024
Pokhara University • Advisor: Dr. Hemchandra Chaulagain & Er. Dipesh Jaisi Poudel

- Modeled and analyzed a 10-story earthquake-resistant RCC commercial hospital in ETABS, ensuring safety and performance compliance with Nepal Building Code (NBC) seismic standards and IS 1893:2016.
- Prepared complete structural blueprints in AutoCAD including beam/column ductile detailing per IS 13920, shear walls, and mat foundation design; compiled comprehensive calculation report and successfully defended before faculty panel.

Technical Case Study: Phewa Hydropower Project • Field Research

Spring 2023
Pokhara University • Advisor: Er. Anand Dev Bhatt

- Conducted on-site inspection of operational hydropower civil infrastructure; assessed penstock alignment, headworks, and sedimentation chambers; evaluated turbine maintenance regimes with plant engineers.

Urban Solid Waste Management Assessment in Pokhara • Field Survey

Fall 2022
Pokhara University • Advisor: Dr. Rajib Pokhrel

- Administered comprehensive field surveys covering 40+ municipal stakeholders, conducted waste characterization analysis, and developed actionable engineering recommendations for recycling infrastructure.

PROFESSIONAL REFERENCES

Dr. Hemchandra Chaulagain
Associate Professor • Structural Engineering, Pokhara University
Email: hemchandra.chaulagain@pu.edu.np

Er. Anand Dev Bhatt
Faculty Supervisor • Hydropower Engineering, Pokhara University
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Er. Dipesh Jaisi Poudel
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