

Hydrosense

Smart, Sustainable & Resilient Engineering Solutions

About

Services

Projects

Contact

Empowering Water & Infrastructure Innovation with BIM Support

We design, analyze, and deliver future-ready engineering solutions across hydrology, BIM, highways, and climate resilience.

About Us

Hydrosense is a multidisciplinary consultancy that merges environmental foresight with technical precision. We deliver advanced flood risk analysis, hydrology-based infrastructure design, BIM engineering, and feasibility reporting to empower resilient urban and rural development. We proudly serve engineering firms, municipalities, NGOs, and global investors seeking smart, scalable infrastructure outcomes.

Our Services

Flood & Climate Risk Assessments

We provide in-depth flood modeling, hazard zoning, and rainfall-runoff calculations to support adaptive urban planning and emergency preparedness for infrastructure resilience.

Hydrology & Stormwater Design

We specialize in water-sensitive layouts, culvert sizing, open/closed channel design, SUDS planning, and runoff analysis using GIS, HEC-RAS, Civil 3D, and Global Mapper.

Highway & Roadway Engineering

Hydrosense delivers horizontal and vertical alignment design, cross-section detailing, drainage layout, safety audits, and pavement layer planning compliant with AASHTO/HDM-4.

Building Information Modeling (BIM)

We offer 3D/4D/5D BIM support, MEP clash detection, Revit family creation, quantity takeoffs, construction scheduling, and Digital Twin development for civil and MEP works.

Feasibility Studies & Technical Reporting

Site selection studies, terrain analysis, drainage pre-feasibility, risk mapping, and project advisory documentation for highways, housing, telecom, and industrial schemes.

Architecture & Urban Design Integration

Master planning support, solar-responsive layouts, zoning plans, visualization renders, and conceptual BIM models for mixed-use and residential facilities.

Our Projects

Surjani Industrial Zone – Drainage Network

Masterplan-level internal road drainage, culvert placement, and flow modeling for 210-acre industrial plot.

Zarghoon Housing Hydrology Plan

Watershed analysis and culvert sizing for housing roads using Civil 3D, including flow control layout for flood-prone slopes.

Flood Simulation – Sabzal Road Corridor

Drainage re-alignment and climate-resilient water routing solutions in a semi-urban runoff corridor.

BIM for IBA Faculty Apartments

3D clash-free Revit model with MEP coordination, structural alignment, and quantity takeoff sheets for execution.

Mixed-Use High-Rise – BIM Visualization

3D and 5D BIM deliverables with photorealistic renders and coordinated drawing sets using Revit, Lumion, and Enscape.

HEC-RAS Culvert Modeling

Simulated seasonal discharges beneath road crossing and suggested bridge profile improvements with hydraulic documentation.

Climate Risk Profiling

Multi-city climate and terrain assessment for commercial masterplans including heat mapping, water availability and flood hazard overlays.

Telecom Tower Steel Framing

Produced structural Revit models for rooftop-mounted telecom facilities and validated clearances, loading, and fabrication compatibility.

Stormwater Infrastructure for Logistics Park

Designed catchment-based stormwater strategy including detention basin placement and hydrological routing for over 100-acre site.

3D Site Modeling for Urban Housing

Prepared accurate terrain surfaces, retaining wall design, and volume cut/fill estimates using BIM tools and aerial survey input.

Karachi BRT & Circular Railway GIS Integration

GIS mapping and transit accessibility study for urban mobility enhancement using QGIS and zoning analytics.

...and 25+ More Delivered Projects

Hydrosense has supported NGOs, contractors, consultants, and international firms on diverse engineering and BIM modeling assignments globally.

Why Choose Us

- Proven expertise in water-sensitive design and infrastructure planning
- Integration of advanced BIM technologies for precise and coordinated delivery
- Custom feasibility reports tailored for global project requirements
- Experience with both public and private sector clients
- Agile team with a multidisciplinary approach and quick turnaround

Contact Us

Email: infobimtech.co@gmail.com

Phone: +92 325 2880288

Location: Karachi, Pakistan (Serving Globally)

© 2025 Hydrosense | Building Resilient Infrastructure Worldwide

