INTELLIX SOLUTIONS

CIVIL, ARCHITECTURAL, MEP & INFRASTRUCTURE ENGINEERING

OFFICIAL INFRASTRUCTURE & CONSTRUCTION BROCHURE

- Structural & Geotechnical Engineering
- Bridge, Highway, Tunnel & Mass Rapid Transit Consultation
- Mechanical, Electrical & Plumbing (MEP) Building Systems
- Environmental Impact Assessment (EIA) & River Flood Management
- Architectural Design, 3D Visualization & Interior Execution
- High-Level Technical Advisory & Megaproject Supervision

CHIEF TECHNICAL ADVISORY & EXPERTISE

Led by renowned academicians and industry veterans with leadership roles in Bangladesh's **flagship megaprojects: Padma Multipurpose Bridge, Bangabandhu Sheikh Mujibur Rahman Tunnel, Dhaka-Ashulia Elevated Expressway, and Dhaka Mass Rapid Transit (MRT).**

INTELLIX SOLUTIONS LTD.

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MANAGEMENT SPEECH

A personal message from the leadership team of Intellix Solutions Ltd.

Greeting from Intellix!

With a client-centric approach, we listen to your needs, understand your aspirations, and deliver tailored solutions that exceed expectations. Sustainability is at the core of our values, and we take pride in promoting eco-friendly practices in all our projects.

As the Management, we are committed to leading our team on a path of continuous growth and progress. We embrace challenges, adapt to new technologies, and strive to be a trusted partner in your journey towards creating exceptional spaces. Together, let's build a brighter, sustainable future.

Sincerely,
Management Team
Intellix Solutions Ltd.

COMPANY HANDOUT

Intellix Solutions Ltd. is a cutting-edge construction, design & consultancy company that offers a comprehensive range of services in the architecture, engineering, and construction industry.

Our story began with a group of visionary Engineers and Architects who sought to redefine the very essence of architecture, design, and construction. Drawing inspiration from the ever-evolving greenery of design, we set out to create spaces that are not just structures but narratives. We are storytellers, and our medium is brick, glass, wood, steel, and versatile modern materials.

Our primary goal is to deliver innovative and sustainable solutions that exceed our clients' expectations while maintaining the highest standards of quality, safety, and efficiency.

VISION, MISSION & CORE VALUES

The guiding pillars behind every infrastructure and civil achievement.

OUR VISION

Intellix aims to be the pioneering force in Bangladesh, committed to consistently delivering **exceptional quality and setting unprecedented standards in infrastructure design and development.**

OUR MISSION

At Intellix, our mission is to revolutionize the construction industry through forward-thinking designs, advanced technologies, and a client-centric approach. Through our expertise and passion for excellence, we aim to set new industry standards and foster long-term relationships with clients, partners, and stakeholders. We are passionate about creating lasting value, fostering innovation, and leaving a legacy of sustainable infrastructure that enriches the lives of people and communities.

CORE VALUES

Excellence:	Upholding highest standards of quality in all aspects, from conceptualization to execution.
Innovation:	Embracing creativity, exploring new engineering technologies & computational methods.
Sustainability:	Promoting eco-friendly materials, reducing footprint & embedding green principles.
Client-Centric:	Placing clients' aspirations at the core, creating tailored solutions that scale.
Integrity:	Conducting business with uncompromising honesty, ethical conduct & transparency.
Safety:	Prioritizing employee and public safety through rigorous international protocols.
Cost Efficiency:	Optimizing budgets without compromising structural safety or architectural quality.

CIVIL WORK SERVICES

Comprehensive engineering, design, and consultancy solutions.

STRUCTURAL ENGINEERING

- Structural Analysis & Modeling
- Seismic Retrofitting Services
- Deep & Shallow Foundation Design
- BOQ Preparation & Estimation
- Dynamic & Non-Linear Analysis
- Safety & BNBC/ACI Code Compliance
- Bridge & Culvert Design
- Detailed Engineering Assessment (DEA)
- Environmental Considerations
- Drainage & Hydraulic Coordination

GEOTECHNICAL ENGINEERING

- Comprehensive Site Investigation
- Soil Improvement & Stabilization
- Deep Foundation & Pile Capacity
- Slope Stability & Retaining Walls
- Hydraulic Considerations & Seepage
- Subgrade Assessment & Testing
- Flexible & Rigid Pavement Design
- Earthquake & Liquefaction Analysis
- Monitoring & Instrumentation
- Geotechnical Risk Assessment

SUPERVISION CONSULTANCY

- Rigorous Quality Assurance (QA/QC)
- Site Safety & EHS Compliance
- Construction Scheduling (CPM/Primavera)
- Budget Control & Variance Analysis
- Technical Specification Verification
- Material Laboratory Testing
- Change Order & Risk Management
- Traffic Management & Control
- Progress Monitoring & Milestone Signoff

ARCHITECTURAL DESIGN

- Visionary Client Consultation & Brief
- Detailed Site & Urban Analysis
- Concept Development & Masterplanning
- Functional Layout & Space Optimization
- Sustainable Bioclimatic Architecture
- Photorealistic 3D Modeling & Rendering
- Authority Approval Drawings (RAJUK/CDA)
- Luxury Interior Architecture
- Construction Documentation & Detailing

SOFTWARE WE USE:

AutoCAD • MS Project • Primavera P6 • Midas Civil • Civil 3D • Geo5 • Plaxis 2D/3D • ETABS
STAAD Pro • SAP2000 • Tekla Structures • Revit • 3ds Max • SketchUp • MATLAB

MECHANICAL, ELECTRICAL & PLUMBING (MEP)

Integrated building systems for high-performance structures.

MECHANICAL

- System Selection Analysis
- Central HVAC Design
- Ductwork & Piping Design
- Air Distribution Modeling
- Thermal Comfort Simulation
- Noise & Vibration Control
- Green Building Integration
- Renewable Energy Links
- Ventilation & IAQ
- Fire Suppression Systems
- Smoke Evacuation Schemes
- Energy Efficiency Audits

ELECTRICAL

- Electrical Load Calculation
- Substation & Service Entrance
- Distribution Circuit Design
- Emergency Generator Power
- Architectural Lighting Design
- Voltage Stability & PF
- Harmonic Distortion Control
- Addressable Fire Alarms
- Emergency Lighting Systems
- Telecom & Data Networking
- Lightning Protection Systems
- Grounding Grid Engineering

PLUMBING

- Water Source & Demand
- Hydraulic Pipe Sizing
- Pressure Regulation Stations
- Central Hot Water Systems
- Fixtures & Water Efficient Spec
- Backflow Prevention Systems
- Gravity Drainage Engineering
- Plumbing Vent Systems
- Commercial Grease Traps
- Stormwater Runoff Drainage
- Central Gas Distribution
- Rainwater Harvesting Design

STANDARDS & COMPLIANCE WE UPHOLD:

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)

NFPA (National Fire Protection Association) • BNBC (Bangladesh National Building Code) • IEEE

ENVIRONMENTAL & FLOOD MANAGEMENT

Sustainable water, ecological balance, and climate resilience.

EIA SERVICES

- Environmental Baseline Surveys
- Flora & Fauna Ecosystem Assessment
- Impact Identification & Matrices
- Cumulative Impact Significance
- Water Resource Management
- Sensitive Habitat Protection
- Climate Resilience Planning
- Comprehensive EIA Reporting
- Environmental Management Plan (EMP)
- DoE Clearance Support

RIVER FLOOD MGMT

- River Flood Risk Assessment
- 1D & 2D Hydraulic Analysis
- Floodplain Inundation Mapping
- Land Use Regulations Support
- Levees & Floodwalls Design
- Retention & Detention Basins
- Floodgates & Spillway Barriers
- River Bank Stabilization Systems
- Real-time Forecasting Models
- Emergency Flood Action Plans

WATER QUALITY & CONTROL

- Sedimentation Basins Design
- Silt Fencing & Turbidity Barriers
- Retention Pond Hydrology
- Bioretention & Rain Gardens
- Spill Prevention & Countermeasure
- Chemical Storage & Handling
- Low-Impact Development (LID)
- Engineered Wetland Systems
- Water Quality Sampling Plans
- Effluent Treatment Plant (ETP) Review

ENVIRONMENTAL & HYDRODYNAMIC SOFTWARE:

TUFlow • HEC-RAS • HEC-HMS • SRH2D • DELFT3D • AERMOD (Air Quality Dispersion)
Noise-Planet (Noise Modelling) • Arc-GIS & QGIS Geochemical Spatial Tools

KEY PERSONNEL & LEADERSHIP (PART I)

Nationally and internationally recognized engineering experts.

Prof. Dr. Hossain Md. Shahin — Chief Advisor, Intellix

BSc in Civil (BUET), MSc & PhD (Nagoya Institute of Technology, Japan), Former Assoc. Professor (NIT, Japan), Head & Professor, Dept. of CEE - IUT

Member, Panel of Expert (PoE): Padma Multipurpose Bridge Project, Bangabandhu Sheikh Mujibur Rahman Tunnel, Dhaka Subway, Dhaka-Asl

With over 25 years of expertise in Geotechnical engineering, Prof. Dr. Hossain Md. Shahin is renowned for his exceptional contributions to the design, su

Dr. Md. Omar Faruk Murad — Lead Research Engineer, Intellix

BSc in Civil (AUST), MSc (University Kebangsaan Malaysia, UKM), PhD (The University of Sydney, Australia)

Currently in USA for advanced research on new technology of Soil, Water & Environmental Dynamics

His research brings deep understanding of soil behavior and groundwater dynamics. Expertise allows analyzing and designing structures with strong emp

Md. Jasim Uddin — Senior Structural Engineer, Intellix

BSc in Civil (AUST), MEng (Structure), SEng | ICC USA Certified Structural Engineer

10+ Years Experience in Seismic Design & Structural Analysis

Excels in creating robust and innovative structural solutions. Proficiency in structural analysis, materials selection, and seismic design has contributed to t

Aharap Shahriar Anik, PMP — Consultant - Project Management & Implementation

BSc in Civil (BUET), CSSMBB, Six Sigma Expert, MSc (BUET, Ongoing), Trainer RHD

PMP Certified Project Manager & Strategic Allocator

An accomplished engineer with a strong background in executing and strategizing complex projects. Strong expertise in project management, resource a

KEY PERSONNEL & LEADERSHIP (PART II)

Specialized leaders in Architecture, MEP, and Project Execution.

Md. Rezaul Islam, PMP — Specialist - Water, Environment, Climate Change & Disaster Risk Management

BSc in Civil (AUST), MSc (BUET) | 12+ Years Experience

World Bank-funded CETP project, EIA, Disaster Risk Modeling

Civil engineer with 12+ years of experience in project management, water, and environmental aspects of donor-funded projects.

Abdullah Al Amin — Principal Architect, Intellix

BArch, MIAB, CDA (125/08), RAJUK Authority (A-136) | 19+ Years Experience

Visionary Architectural Sensibilities & Sustainable Design

With 19+ years in the industry, Mr. Amin showcases visionary design sensibilities, creative problem-solving skills, and a commitment to sustainable spaces.

Md. Abdul Aziz Mia — MEP Specialist, Intellix

BSc in Mechanical (DUET), FIEB, Member of ASHRAE & NFPA | 15+ Years Experience

HVAC, Energy Efficiency & Complex Infrastructure MEP Systems

Specializing in MEP systems with a deep foundation in HVAC design, energy efficiency, and sustainable building engineering solutions.

Nripendra Nath Roy — Mechanical Engineer & QA/QC Head, Intellix

BSc in Mechanical (BUET), AWS CWI, NDT Level-II (RT, MT, PT, UT), SSPC Level-II | 20+ Years Experience

QA/QC Specialist on Padma Multipurpose Bridge Project; Singapore, Saudi Arabia & Malaysia works

Held key positions including QA/QC Specialist on the prestigious Padma Multipurpose Bridge, NDT inspection, and international projects.

Towhid Tuhin — Consultant - Electrical Engineering & Business Strategy

BSc in EEE (AUST), MBA (IBA-DU) | 8+ Years Experience

Electrical Infrastructure & Strategic Growth Planning

Accomplished electrical engineer and astute business strategist specializing in power distribution and high ROI engineering execution.

MEET THE TEAM - DIVISIONAL DIRECTORY

Multidisciplinary experts across Civil, Architecture, MEP & Commercial Administration.

CIVIL & ENVIRONMENTAL DIVISION

Prof. Dr. Hossain Md Shahin	Chief Advisor	**25 Years**
Dr. Mohammad Omar Faruk Murad	Lead Research Engineer	**11 Years**
Md Jasim Uddin	Senior Structural Engineer	**10 Years**
Md. Nazmul Huda	DEA Specialist	**13 Years**
Aharap Shahriar Anik, PMP	Consultant - PM & Implementation	**6 Years**
Md. Rezaul Islam, PMP	Water & Disaster Specialist	**12 Years**
Md. Shahnewaj	Senior Design Engineer	**7 Years**
Rifat Ahmed	Highway Engineer	**7 Years**
Tawfiq Ahmed	Senior Consultant	**7 Years**
Rifat Bin Saif	Design Engineer	**7 Years**
Arafat Ullah	Design Consultant	**7 Years**
Nadim Yousuf Khan	Design Consultant	**7 Years**
Tulip Sarkar	Environmental Engineer	**6 Years**
Zinat Hossain	Civil Engineer	**5 Years**
Md. Kamruzzaman	Site Engineer	**8 Years**
Mir Faruk Hossain	Site Engineer	**15 Years**
Md. Moazzem Hossain	Surveyor	**18 Years**
Md. Neyamul Hasan	Surveyor	**16 Years**

ARCHITECTURAL DIVISION

Abdullah Al Amin	Principal Architect	**19 Years**
Sakib Ahsan Choudhury	Senior Architect	**11 Years**
Rifat Arfin Nipa	Assistant Architect	**3 Years**
Faiyaz Alam	Junior Architect	**2 Years**

MEP & FINISHING WORK DIVISION

Nripendra Nath Roy	Mechanical Engineer	**21 Years**
Md. Amzad Hossain	Mechanical Engineer	**18 Years**
Md. Abdul Aziz Mia	MEP Specialist	**15 Years**
Towhid Tuhin	Electrical Engineer	**8 Years**

TECHNICAL ADMINISTRATIVE DIVISION

Md. Mehedi Hasan Khan	Commercial & Contract Specialist	**9 Years**
Mirajul Islam	Consultant, Marketing	**8 Years**
Towhid Tuhin	Consultant, Business Strategy	**8 Years**

WORKS DONE BY KEY PERSONNEL (PART I)

National Megaprojects & Strategic Infrastructure in Bangladesh.

Padma Multipurpose Bridge Project

Panel of Expert (PoE) & QA/QC Mechanical & Geotechnical testing on the 6.15 km dual-deck multipurpose bridge spanning the mighty Padma R

Bangabandhu Sheikh Mujibur Rahman Tunnel

Underwater expressway tunnel beneath the Karnaphuli River in Chittagong. Advisory and geotechnical engineering on South Asia's first subaqu

Road Widening & Drainage System, 300 Feet Purbachal Road

Major capital expressway corridor engineering, drainage masterplanning, and stormwater retention structures.

Dhaka-Ashulia Elevated Expressway Project

High-density elevated expressway corridor connecting Hazrat Shahjalal International Airport to Ashulia Industrial Hub. Geotechnical & structural

Dhaka Mass Rapid Transit, MRT Line-1 (Preliminary Phase)

First underground metro rail system in Bangladesh. Geotechnical investigation, underground stations, and alignment advisory.

Arch Bridge at Bangabandhu Hi-Tech City-2, Kaliakoir, Gazipur

Iconic aesthetic steel-concrete composite arch bridge engineered for modern durability and landscape enhancement.

WORKS DONE BY KEY PERSONNEL (PART II)

Interchanges, Overpasses, Industrial Factories & Commercial Developments.

Hatikumrul Interchange Project

North Bengal's landmark multi-level cloverleaf highway interchange engineered to resolve high-speed regional transport bottlenecks.

900m Long Bagura Rail Overpass

Major railway overpass bridge spanning 900 meters, ensuring uninterrupted rail and road connectivity.

Hotel Peninsula, Chittagong

High-rise luxury hospitality architecture, HVAC central cooling, fire safety compliance, and comprehensive MEP engineering.

10-Storied Factory Building, Gazipur

Heavy industrial facility designed for high dynamic machinery loads, seismic resistance, and complete BNBC/NFPA fire safety evacuation compl

6-Storied & 4-Storied Commercial Buildings, Gazipur

Modern multi-use commercial complexes featuring curtain walls, basement parking, intelligent energy distribution, and rooftop amenities.

Bandarban LGED Office, Bandarban

Hilly terrain structural design, slope stabilization, and contextual architectural headquarters for local government.

ARCHITECTURAL & INTERIOR DESIGN PORTFOLIO

High-end bespoke residences, commercial interiors, and architectural narratives.

Luxury Interior Work & Executive Lounges

Bespoke interior execution for corporate boardrooms, contemporary living lounges, modular acoustic ceiling designs, and luxury materia

Residential House (Georgia, USA)

International residential villa design combining classic vernacular styling with advanced energy-efficient timber and steel frame construct

Contemporary Multi-Storied Residential Buildings (Design Phase)

Site planning, functional multi-level unit distribution, cross-ventilation optimization, and biophilic terrace integrations.

High-End Corporate Reception & Showroom Spaces

Lighting integration, custom joinery, monolithic marble feature walls, and acoustic dampening for premium corporate environments.

SHAPING A BETTER, SAFER FUTURE

We pride ourselves on creating innovative infrastructure solutions that not only meet your needs but also ensure the utmost safety. Our commitment to client satisfaction drives us to design and consult with excellence, while our unwavering focus on safety means you can trust us to protect your investments and the well-being of all stakeholders.

With us, your infrastructure projects are not just about construction;
they're about shaping a better, safer, and more sustainable future.

INTELLIX SOLUTIONS LTD.

Civil, Construction & Infrastructure Wing

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