



PRINCIPAL ENGINEER | MEP CONSULTANT |
MULTIDISCIPLINARY PROJECT COORDINATOR



Ramsbury Site, Charlestown, Nevis, KNo8og
Federation of St. Kitts and Nevis



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PROFESSIONAL CREDENTIALS:

Current Business and Occupation Licence — Engineer
Issued by the Nevis Island Administration, Ministry of Finance, Inland Revenue Department
Valid through: 31 December 2026
EEC Company Registration No.: 1712801937

Bachelor of Science in Hydraulic Engineering
Certificate in Environmental Engineering

CORE COMPETENCIES:

MEP AND BUILDING SYSTEMS:

- Multidisciplinary MEP coordination
- HVAC design and coordination.
- Plumbing and sanitary-system design
- Domestic water distribution
- Sanitary and stormwater drainage
- Fire-protection systems
- Pumping and water-treatment systems
- Swimming-pool and spa systems
- MEP equipment and utility coordination

RAUDEL MORENO ALVAREZ

HYDRAULIC ENGINEER

Engineer and multidisciplinary engineering consultant with nearly 20 years of professional experience in MEP systems, hydraulic engineering, civil infrastructure, commercial buildings, hospitality developments, institutional facilities and industrial projects. Experienced in coordinating structural, mechanical, electrical, plumbing, fire-protection and civil engineering disciplines from conceptual design through construction documentation, site inspection, testing and commissioning. Currently serves as Director and Principal Engineer of Ebenezer Engineering Consulting, based on the island of Nevis. Brings extensive experience acquired through engineering-consultancy and project-coordination assignments in St. Kitts and Nevis and internationally. Offers strong local mobilisation capacity, familiarity with statutory and construction requirements, and substantial experience coordinating clients, architects, engineers, contractors, suppliers and public authorities.

PROFESSIONAL EXPERIENCE - ST. KITTS AND NEVIS

 EBENEZER ENGINEERING CONSULTING

Role: Director and Principal Engineer | 2024–Present

Directs a locally registered multidisciplinary engineering consultancy providing professional services for commercial, institutional, residential and infrastructure projects.

Principal Responsibilities:

- Serve as Principal Engineer and primary client contact for commercial, institutional, residential and infrastructure projects.
- Lead MEP design development and coordination involving HVAC, plumbing, drainage, fire protection, electrical interfaces and site utilities.
- Coordinate structural, electrical, architectural, BIM and specialist engineering personnel.
- Review engineering drawings, calculations, specifications, equipment schedules and contractor submissions.
- Conduct site inspections, identify deficiencies and coordinate corrective actions.
- Prepare technical reports, design packages, project programmes, BOQs and engineering proposals.
- Support regulatory submissions and coordinate responses to review comments.
- Manage engineering deliverables using Revit, AutoCAD, Civil 3D and other analytical software.

CORE COMPETENCIES :

MEP AND BUILDING SYSTEMS, CONTINUE:

- Testing and commissioning support
- Building-services inspections
- Deficiency identification and corrective-action coordination

HYDRAULIC AND CIVIL INFRASTRUCTURE:

- Water-supply infrastructure
- Sewerage and wastewater systems
- Stormwater-management systems
- Pumping stations
- Site utilities
- Irrigation and drainage networks
- Hydraulic calculations and system analysis
- Surge-protection systems
- Maritime and port infrastructure
- Civil-infrastructure coordination

PROJECT AND TECHNICAL MANAGEMENT:

- Multidisciplinary engineering coordination
- Design-team leadership
- Project planning and scheduling
- Quality assurance and technical review
- Construction administration
- Site inspection and reporting
- Contractor-submission review
- Constructability and coordination reviews
- Technical meetings and stakeholder coordination
- Quantity take-offs and bills of quantities
- Preliminary cost estimating
- Regulatory and statutory coordination
- Existing-facility engineering review
- Technical report preparation

PROFESSIONAL EXPERIENCE - ST. KITTS AND NEVIS

Selected Projects - EBENEZER ENGINEERING CONSULTING

- Hamilton Reserve Bank Main Office Building.
- Luxury residences in Frigate Bay.
- Methodist Church heritage-building restoration.
- Monkey Hill Health Centre BOQ, tendering report and construction schedule.
- Other EEC building and infrastructure assignments.

▲ MEC ENGINEERING SOLUTIONS - ST.KITTS

Role: Project Coordinator and MEP Consultant / 2016–2024

Coordinated multidisciplinary building and infrastructure assignments throughout the Federation, including hospitality, institutional, commercial, residential and civil-infrastructure projects.

Principal Responsibilities:

- Coordinated civil, structural, mechanical, electrical, plumbing and fire-protection disciplines.
- Managed technical interfaces among clients, architects, engineers, contractors, suppliers and site personnel.
- Coordinated the development of multidisciplinary engineering drawings and construction information.
- Reviewed MEP layouts for compatibility with architectural, structural and civil requirements.
- Coordinated plumbing, drainage, domestic-water, pumping, swimming-pool, spa and fire-protection systems.
- Participated in engineering inspections, system testing, commissioning and technical closeout activities.
- Monitored outstanding design information, discipline interfaces and corrective actions.
- Supported technical meetings, field observations and contractor coordination.
- Reviewed existing field conditions and communicated technical matters to the appropriate engineering specialists.
- Supported projects through design development, construction documentation, execution and commissioning.

Selected Projects - MEC ENGINEERING SOLUTIONS

- Park Hyatt spa and swimming-pool commissioning.
- Church of God auditorium.
- Wellington Road Condominium Complex/Petro Caribe Housing Programme.
- Eastern Caribbean Central Bank Executive Dining Room and Kitchen Renovation — St. Kitts.
- Port Zante Food Court.
- Sustainable Development Building.
- Ferry and bus terminals.
- Four Seasons luxury villas.

SOFTWARE & ENGINEERING APPLICATIONS :

BIM, COORDINATION AND TECHNICAL DRAFTING:

- Autodesk Revit — multidisciplinary BIM modeling and MEP coordination
- AutoCAD — engineering drafting and construction documentation
- AutoCAD Civil 3D — civil-infrastructure modelling and documentation
- BIM-based clash detection, constructability review and interdisciplinary coordination
- Model-supported identification and resolution of MEP, structural and architectural conflicts

ENGINEERING ANALYSIS AND SYSTEM DESIGN:

- Hydraulic analysis and water-distribution design applications
- HVAC cooling-load and ventilation-analysis tools.
- Plumbing, sanitary and stormwater calculation tools.
- Autodesk Robot Structural Analysis — structural-model coordination and interdisciplinary review.
- Manufacturer equipment-selection and engineering-calculation applications.
- Pump selection, pipe-sizing and hydraulic-system evaluation tools

PROFESSIONAL EXPERIENCE - ST. KITTS AND NEVIS

Selected Projects — MEC Engineering Solutions, continued

- St. Kitts Castle Condominium.
- Hamilton Apartments, Nevis.
- Clay Villa Condominium.
- Unicorn Residence renovation.

▲ BEAUMONT PARK COMPANY / TECHNOLOGY DEVELOPMENT AND INNOVATION

Role: MEP Design Team Leader and Hydraulic Designer | 2014–2015

Led hydraulic, MEP and civil-infrastructure design coordination for the planning and construction-document stage of a major resort-residential development comprising approximately 350 acres and 311 development lots.

Principal Responsibilities:

- Led hydraulic, MEP and civil-infrastructure design coordination for the 350-acre development.
- Established design criteria for water supply, wastewater, stormwater and site utilities.
- Prepared and reviewed hydraulic calculations, network layouts and pumping requirements.
- Coordinated infrastructure interfaces with roads, grading, buildings and development parcels.
- Supervised preparation and coordination of engineering construction documents.
- Reviewed technical deliverables for completeness, interdisciplinary coordination and constructability.

INTERNATIONAL PROFESSIONAL EXPERIENCE

▲ BOLIVARIANA DE PUERTOS, S.A - BOLIPUERTOS LA GUAIRA, VENEZUELA

Role: MEP Consultant, Inspector and Supervisor | 2012–2014

Provided MEP and civil-infrastructure consultancy, inspection and construction-supervision support for major seaport modernization, container-terminal and marine-infrastructure assignments.

Principal Responsibilities:

- Reviewed MEP and civil-infrastructure designs for port-expansion and modernization projects.
- Coordinated water supply, drainage, fire protection, utility and building-services interfaces.
- Inspected construction activities for conformity with approved drawings and technical requirements.
- Reviewed contractor submissions, technical proposals, field changes and requests for information.
- Documented observed deficiencies and coordinated technical recommendations.

PROJECT CONTROLS AND

TECHNICAL DOCUMENTATION:

- ProjectLibre — project planning and scheduling
- Microsoft Excel — engineering calculations, schedules, BOQs and data analysis
- Microsoft Word — technical reports, specifications and professional documentation
- Microsoft PowerPoint — technical and stakeholder presentations

EDUCATION:

BACHELOR OF SCIENCE IN HYDRAULIC
ENGINEERING

JULIO ANTONIO MELLA POLYTECHNIC
INSTITUTE

UNIVERSIDAD DE ORIENTE
SANTIAGO DE CUBA, CUBA

2000–2006

CERTIFICATE IN ENVIRONMENTAL
ENGINEERING

JOSÉ ANTONIO ECHEVERRÍA
POLYTECHNIC INSTITUTE

HAVANA, CUBA

2011–2012

LANGUAGES:

SPANISH - NATIVE LEVEL

ENGLISH - PROFESSIONAL WORKING
PROFICIENCY LEVEL

INTERNATIONAL PROFESSIONAL EXPERIENCE

Principal Responsibilities - BOLIPUERTOS, Continue

- Coordinated engineering interfaces with Teixeira Duarte and China Harbour Engineering project teams.
- Supported assessment of existing port infrastructure and identification of rehabilitation requirements.
- Contributed to structural-pathology investigations of marine and port structures.
- Supported flood-hazard and site-viability studies near the Guaire River outlet.
- Participated in studies and implementation planning for slope-control measures near port facilities.
- Prepared inspection findings, technical reports and recommendations for responsible decision-makers.

Selected assignments:

- La Guaira Seaport Expansion and Modernization.
- Puerto Cabello International Seaport planning.
- Cruise-ship pier structural-pathology investigations.
- Flood-hazard and construction-viability studies.
- Slope-control studies near port facilities.

CUBAN SEAPORT INDUSTRY CORPORATION GROUP – MINISTRY OF TRANSPORT HAVANA, CUBA

Role: Project Manager | 2009–2012

Managed maritime, industrial, hydraulic and fire-protection projects from planning and design coordination through procurement, construction, testing and handover.

Principal Responsibilities:

- Defined project scope, technical requirements, work programmes and principal deliverables.
- Coordinated engineering, procurement, contractor and site-execution activities.
- Managed interfaces among civil, structural, mechanical, hydraulic and fire-protection systems.
- Monitored project schedules, progress, cost information, construction quality and contractor performance.
- Reviewed contractor drawings, material information, method statements and technical submissions.
- Coordinated site meetings, inspections and resolution of technical and construction matters.
- Managed testing, commissioning, defect correction and project closeout.
- Prepared progress reports, maintained project records and communicated project status to management and stakeholders.

CAREER HIGHLIGHTS

- Nearly 20 years of engineering experience
- More than 11 years of professional practice in St. Kitts and Nevis
- Eight years in multidisciplinary project coordination
- 23 deep-well pumping stations
- Municipal infrastructure serving approximately 12,000 inhabitants
- Surge-protection system serving approximately 11,000 inhabitants
- 2.64-million-US-gallon industrial storage tank
- 350-acre resort-residential development
- Infrastructure coordination for 311 development lots
- 1,300-person institutional auditorium
- Multistory office, residential and hospitality projects
- Port, maritime and industrial infrastructure experience

SELECTED TECHNICAL STANDARDS

- International Building Code — IBC
- International Mechanical Code — IMC
- International Plumbing Code — IPC
- ASHRAE 62.1 — Ventilation
- ASHRAE Fundamentals
- NFPA 14 — Standpipe Systems
- NFPA 30 — Flammable and Combustible Liquids
- NFPA 13 — Installation of Sprinkler Systems
- NFPA 13R — Sprinkler Systems in Low-Rise Residential Occupancies
- NFPA 13D — Sprinkler Systems in One- and Two-Family Dwellings
- NFPA 25 — Inspection, Testing and Maintenance of Water-Based Fire-Protection Systems
- AWWA Water-System Standards and Guidance
- Local planning and building requirements.

INTERNATIONAL PROFESSIONAL EXPERIENCE

Selected assignments:

- Storage-steel-tank construction and pumping station at Gramma Maritime Bulk-Cargo Terminal.
- Approximately 2.64-million-US-gallon alcohol-storage tank.
- Industrial fire-protection system for Class IB flammable liquids under NFPA 30.
- Pier restoration at Matanzas Sugar Bulk-Cargo Terminal.
- Pier restoration at Gramma Maritime Bulk-Cargo Terminal.

▲ NATIONAL INSTITUTE OF HYDRAULIC RESOURCES
INRH

LAS TUNAS, CUBA

Role: Hydraulic Engineer | 2006–2008

Designed and supported implementation of municipal water-supply, wastewater, stormwater, pumping and rural water-infrastructure projects

Principal Responsibilities:

- Prepared hydraulic designs for municipal water-supply, sewerage and stormwater systems.
- Performed water-demand, pipe-sizing, flow, pressure and pumping calculations.
- Developed pipeline alignments, network layouts, profiles and technical drawings.
- Designed and supported installation of groundwater-based deep-well pumping stations.
- Evaluated pump duties, operating conditions and associated water-supply infrastructure.
- Supported assessment and rehabilitation of surge-protection systems.
- Prepared technical reports, calculations, quantity take-offs and project documentation.
- Conducted field surveys and verified existing infrastructure and site conditions.
- Supported construction coordination, testing and implementation of hydraulic systems.
- Prepared plumbing designs for residential, commercial and condominium projects.
- Participated in rural water-supply initiatives involving science, technology and environmental agencies.
- Coordinated technical information with local authorities, communities and construction personnel.

PROFESSIONAL PRACTICE AREAS

- MEP engineering coordination
- Hydraulic engineering
- Civil-infrastructure coordination
- BIM-supported design review
- Constructability assessment
- Construction administration
- Inspection and commissioning
- Technical reporting
- Project planning and controls
- Contractor-submission review
- BOQs and preliminary cost estimating
- Regulatory coordination

INSPECTION AND ASSESSMENT
CAPABILITIES

- Existing-condition surveys
- Building-services condition reviews
- MEP system inspections
- Plumbing and drainage assessments
- Pumping-system evaluation
- Structural-pathology coordination
- Construction-quality observations
- Testing and commissioning support
- Deficiency identification
- Corrective-action monitoring
- Contractor-submission review
- Field verification
- As-built coordination
- Technical recommendations
- Rehabilitation planning

INTERNATIONAL PROFESSIONAL EXPERIENCE

Selected Projects - INRH

- Integrated water, stormwater and wastewater infrastructure serving approximately 12,000 inhabitants.
- Design and installation support for 23 deep-well pumping stations.
- Surge-protection system serving approximately 11,000 inhabitants in Amancio.
- Rural community water-supply solutions.
- Residential and commercial plumbing designs.