**Engineering and Construction Projects Portfolio**

With proven expertise across marine, aviation, and infrastructure sectors, our company delivers world-class engineering and construction solutions that blend innovation with technical precision. We have successfully designed and executed large-scale oil terminals equipped with advanced marine loading systems and international safety compliance, carried out integrated survey and hydrodynamic modelling services to support resilient marine infrastructure, and delivered airport apron and taxiway expansions in line with stringent global aviation standards. Every project we undertake reflects our commitment to excellence, safety, and sustainability, transforming complex challenges into enduring landmarks that strengthen connectivity and drive progress.

# Project Name: Design and Construction of Oil Terminal

* **Client**: Sea Port Corporation

**Project Overview**

A new oil jetty is under development to expand terminal capacity and support efficient marine cargo operations. The project includes construction of a 150,000 DWT jetty, an 80-meter tug berth, approach embankment, and associated topside facilities. The design complies with international safety and operational standards to ensure reliable and secure handling of oil cargo.  
  
The jetty will accommodate vessels ranging from 20,000 DWT to 150,000 DWT and features a trestle structure supporting cargo pipelines, utilities, and electrical and instrumentation systems. Key components include an unloading platform, marine loading arms, mooring and breasting dolphins, Catwalks, Product and utility pipelines, Gangway tower, Fire tower along with integrated fire protection and hazard monitoring systems—facilitating smooth and safe transfer of oil to terminal storage tanks.

# Project Name: Integrated Survey and Modelling Services

* **Client: Sea Port Corporation**

**Project Overview**

This project delivered comprehensive survey and modelling services to support marine infrastructure development. The scope included detailed hydrographic, topographic, and geotechnical surveys across land and marine areas, along with bathymetric mapping using multibeam and single beam systems, borehole investigations, tidal monitoring, and oceanographic measurements with ADCPs. Environmental surveys such as water quality and seabed sediment analysis were also carried out to provide a complete understanding of site conditions.

The collected data was used to establish advanced hydrodynamic models, integrating high-resolution bathymetry and validated with field data. These models simulated water levels, waves, and currents, providing design parameters for short- and long-term return periods.

Through integrated surveys, modelling, and reporting, the project delivered precise and reliable datasets essential for informed decision-making, optimized design, and ensuring the safety, efficiency, and resilience of marine infrastructure

* **Key Components of the Project**

1. Survey Services
2. Environmental Assessments
3. Hydrodynamic Modelling
4. Reporting and Data Management
5. Project Outcomes

# Project Name: Airport Apron and Taxiway Expansion

* **Client: Ports Engineering Company Limited (PEC)**

**Project Overview**

This project involved the design and construction of two apron and taxiway expansions in compliance with FAA AC 150/5320-10G standards, delivering new apron facilities of 115 m × 102 m × 0.30 m and 300 m × 130 m × 0.40 m.

Durable concrete mix designs were developed, trialled, and approved with performance-enhancing additives, reinforced with 8 mm steel mesh, and supported by dowel and tie bars for joint stability. Joints were completed with approved filler boards and sealants, while the 40 cm thick concrete slabs were placed and levelled using an automatic screed paver finisher machine with auger arrangement and integrated vibratory needles, ensuring precision levelling and a smooth, durable surface finish.

These expansions have increased overnight aircraft parking capacity, improved aircraft manoeuvrability, and strengthened the airport’s readiness for future growth in air traffic.

* **Key Components of the Project**

1. Apron and taxiway expansions
2. FAA AC 150/5320-10G compliance
3. Concrete mix design
4. Steel mesh reinforcement
5. Dowel and tie bars
6. Joint filler and sealant
7. 40 cm thick concrete slabs
8. Screed paver finisher machine