

# PROJECT HIERARCHY & ROLE DESCRIPTIONS

Generic Reference Document for Project Management

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## ORGANIZATIONAL HIERARCHY STRUCTURE

**EXECUTIVE LEVEL** Project Director → Shipyard Manager → Financial Controller

**MANAGEMENT LEVEL** Chief Naval Architect → Project Scheduler → Department Heads

**OPERATIONAL LEVEL** Team Leaders → Specialists → Technical Staff

**EXECUTION LEVEL** Skilled Workers → General Labor → Support Staff

**EXTERNAL STAKEHOLDERS** Clients → Regulators → Suppliers → Community

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## 1. PROJECT LEADERSHIP TEAM

### Project Director

**Position Level:** Executive

**Reports to:** Company Board/Senior Management

**Overview:** Ultimate authority and accountability for project success, strategic decision-making, and stakeholder management.

**Key Responsibilities:**

- Overall project governance and strategic direction
- Budget approval and financial oversight
- Client and senior stakeholder relationships
- Risk management and issue escalation
- Contract negotiations and amendments
- Resource allocation and priority setting

### Shipyard Manager

**Position Level:** Senior Management

**Reports to:** Project Director

**Overview:** Responsible for day-to-day operations, facility management, and coordination of all shipyard activities.

**Key Responsibilities:**

- Daily operational management of shipyard facilities
- Workforce planning and resource coordination
- Production scheduling and workflow optimization

- Health, safety, and environmental compliance
- Equipment maintenance and facility upgrades
- Interdepartmental communication and coordination

## **Chief Naval Architect**

**Position Level:** Senior Management

**Reports to:** Project Director

**Overview:** Technical leadership for all design and engineering aspects, ensuring vessel meets specifications and regulations.

### **Key Responsibilities:**

- Technical design oversight and approval
- Engineering team coordination and management
- Design validation and regulatory compliance
- Technical risk assessment and mitigation
- Client technical requirements interpretation
- Design change control and impact assessment

## **Project Scheduler**

**Position Level:** Management

**Reports to:** Project Director

**Overview:** Develops and maintains project schedules, coordinates timelines, and ensures milestone delivery.

### **Key Responsibilities:**

- Master project schedule development and maintenance
- Critical path analysis and optimization
- Resource leveling and capacity planning
- Progress tracking and milestone monitoring
- Schedule risk identification and contingency planning
- Cross-functional coordination and conflict resolution

## **Financial Controller**

**Position Level:** Management

**Reports to:** Project Director

**Overview:** Manages project finances, budgets, cost control, and financial reporting.

### **Key Responsibilities:**

- Budget development, monitoring, and control
  - Cost analysis and variance reporting
  - Cash flow management and forecasting
  - Financial risk assessment and mitigation
  - Vendor payment processing and contract management
  - Financial compliance and audit support
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## 2. DESIGN & ENGINEERING TEAM

### Naval Architect

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Designs vessel hull, stability systems, and overall ship architecture.

**Key Responsibilities:**

- Hull design and structural calculations
- Stability and buoyancy analysis
- Weight distribution and loading calculations
- Regulatory compliance verification
- Design documentation and technical drawings

### Marine Engineer

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Designs and specifies propulsion systems, machinery, and mechanical systems.

**Key Responsibilities:**

- Engine and propulsion system design
- Mechanical systems integration
- Performance calculations and optimization
- Equipment specification and selection
- System testing and commissioning support

### Electrical Engineer

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Designs electrical systems, power distribution, and electronic equipment integration.

**Key Responsibilities:**

- Electrical system design and load calculations
- Power distribution and control systems
- Navigation and communication equipment integration
- Electrical safety and regulatory compliance
- Wiring diagrams and electrical documentation

### Structural Engineer

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Analyzes structural integrity, stress distributions, and material specifications.

**Key Responsibilities:**

- Structural analysis and finite element modeling

- Material specification and testing requirements
- Stress and fatigue analysis
- Structural modification design
- Quality control and inspection criteria

## **CAD Designer**

**Position Level:** Technical Support

**Reports to:** Chief Naval Architect

**Overview:** Creates technical drawings, 3D models, and design documentation.

### **Key Responsibilities:**

- Technical drawing creation and maintenance
- 3D modeling and visualization
- Drawing revision control and distribution
- Design coordination between disciplines
- Documentation standards compliance

## **HVAC Systems Engineer**

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Designs heating, ventilation, and air conditioning systems for vessel comfort and safety.

### **Key Responsibilities:**

- HVAC system design and calculations
- Air quality and ventilation requirements
- Equipment selection and specification
- Energy efficiency optimization
- System integration and testing

## **Hydrodynamics Specialist**

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Analyzes vessel performance in water, including resistance, propulsion, and seakeeping.

### **Key Responsibilities:**

- Hull form optimization and analysis
- Resistance and propulsion calculations
- Seakeeping and stability analysis
- Model testing coordination
- Performance prediction and validation

## **Interior Design Specialist**

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Designs interior spaces, layouts, and accommodation arrangements.

**Key Responsibilities:**

- Interior space planning and layout design
  - Furniture and fixture specification
  - Ergonomic and accessibility considerations
  - Material selection and finishing
  - Regulatory compliance for accommodation spaces
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### 3. CONSTRUCTION & FABRICATION TEAM

**Hull Fabricator**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Constructs vessel hull sections, plates, and primary structural components.

**Key Responsibilities:**

- Steel cutting, shaping, and forming
- Hull section assembly and alignment
- Quality control of fabricated components
- Blueprint reading and dimensional verification
- Safety protocol compliance

**Welding Supervisor**

**Position Level:** Supervisory/Skilled Trades

**Reports to:** Construction Manager

**Overview:** Oversees all welding operations, quality standards, and welder certification.

**Key Responsibilities:**

- Welding procedure specification and approval
- Welder qualification and certification management
- Weld quality inspection and testing
- Welding equipment maintenance and calibration
- Safety training and hazard prevention

**Pipefitter**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Installs piping systems for fuel, water, hydraulics, and other fluid systems.

**Key Responsibilities:**

- Pipe cutting, threading, and installation
- System pressure testing and leak detection
- Valve and fitting installation
- Insulation and protective coating application

- System commissioning and handover

## **Electrician**

**Position Level:** Skilled Trades

**Reports to:** Electrical Supervisor

**Overview:** Installs electrical wiring, equipment, and systems throughout the vessel.

### **Key Responsibilities:**

- Electrical cable installation and termination
- Equipment mounting and connection
- Electrical testing and troubleshooting
- Safety system installation and testing
- Documentation and as-built drawing updates

## **Carpenter**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Constructs wooden structures, furniture, and interior fittings.

### **Key Responsibilities:**

- Interior joinery and cabinet construction
- Deck and structural woodwork
- Template making and pattern work
- Wood preservation and finishing
- Quality control and dimensional accuracy

## **Painter & Coater**

**Position Level:** Skilled Trades

**Reports to:** Finishing Supervisor

**Overview:** Applies protective coatings, paints, and finishes to vessel surfaces.

### **Key Responsibilities:**

- Surface preparation and cleaning
- Primer, paint, and coating application
- Quality control and coverage verification
- Equipment maintenance and cleaning
- Safety protocol compliance for hazardous materials

## **Rigging Specialist**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Plans and executes heavy lifting operations and material handling.

### **Key Responsibilities:**

- Lift planning and risk assessment

- Rigging equipment selection and inspection
- Heavy component positioning and installation
- Crane operation coordination
- Safety supervision during lifting operations

## **Sheet Metal Worker**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Fabricates and installs sheet metal components, ductwork, and ventilation systems.

### **Key Responsibilities:**

- Sheet metal cutting, forming, and shaping
- Ductwork fabrication and installation
- Ventilation system assembly
- Template making and pattern development
- Quality control and dimensional verification

## **Crane Operator**

**Position Level:** Skilled Trades

**Reports to:** Construction Supervisor

**Overview:** Operates cranes and heavy lifting equipment for material handling and construction.

### **Key Responsibilities:**

- Crane operation and load handling
- Pre-operational equipment inspection
- Load calculation and rigging coordination
- Safety protocol compliance
- Equipment maintenance and reporting

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## **4. QUALITY & SAFETY TEAM**

### **Quality Assurance Inspector**

**Position Level:** Professional/Technical

**Reports to:** Quality Manager

**Overview:** Ensures all work meets quality standards, specifications, and regulatory requirements.

### **Key Responsibilities:**

- Quality inspection planning and execution
- Non-conformance identification and reporting
- Quality documentation and record keeping
- Testing and measurement coordination
- Corrective action verification

## **Safety Officer**

**Position Level:** Professional/Technical

**Reports to:** Shipyard Manager

**Overview:** Develops and enforces safety protocols, conducts training, and manages incident response.

### **Key Responsibilities:**

- Safety program development and implementation
- Risk assessment and hazard identification
- Safety training and certification programs
- Incident investigation and reporting
- Emergency response planning and coordination

## **Marine Surveyor**

**Position Level:** Professional/Technical

**Reports to:** Quality Manager

**Overview:** Conducts independent inspections and certifications for regulatory compliance.

### **Key Responsibilities:**

- Independent quality assessments
- Regulatory compliance verification
- Survey reporting and certification
- Class society liaison and coordination
- Technical standard interpretation

## **Compliance Auditor**

**Position Level:** Professional/Technical

**Reports to:** Quality Manager

**Overview:** Ensures adherence to regulatory requirements, industry standards, and contractual obligations.

### **Key Responsibilities:**

- Compliance program development and monitoring
  - Internal audit planning and execution
  - Regulatory liaison and correspondence
  - Documentation review and verification
  - Corrective action tracking and closure
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## 5. SUPPORT & LOGISTICS TEAM

### Procurement Officer

**Position Level:** Professional

**Reports to:** Financial Controller

**Overview:** Manages supplier relationships, purchasing activities, and material sourcing.

**Key Responsibilities:**

- Supplier evaluation and selection
- Purchase order processing and tracking
- Contract negotiation and management
- Cost optimization and value engineering
- Delivery scheduling and expediting

### Inventory Manager

**Position Level:** Management

**Reports to:** Shipyard Manager

**Overview:** Manages material storage, inventory control, and warehouse operations.

**Key Responsibilities:**

- Inventory planning and control systems
- Warehouse operations and material handling
- Stock level optimization and replenishment
- Material tracking and traceability
- Loss prevention and cycle counting

### Transport Coordinator

**Position Level:** Professional

**Reports to:** Inventory Manager

**Overview:** Coordinates material deliveries, logistics, and transportation activities.

**Key Responsibilities:**

- Delivery scheduling and coordination
- Transportation method selection and optimization
- Logistics planning and route optimization
- Carrier evaluation and management
- Documentation and customs clearance support

### Administrative Staff

**Position Level:** Support

**Reports to:** Various Department Heads

**Overview:** Provides administrative support, documentation, and clerical services.

**Key Responsibilities:**

- Document preparation and filing

- Meeting coordination and minute taking
- Communication and correspondence management
- Data entry and record maintenance
- General administrative support

## **Customs & Shipping Specialist**

**Position Level:** Professional

**Reports to:** Transport Coordinator

**Overview:** Manages international shipping documentation, customs clearance, and regulatory compliance.

**Key Responsibilities:**

- Import/export documentation preparation
  - Customs clearance and compliance
  - International shipping coordination
  - Duty and tax calculation and payment
  - Regulatory liaison for international trade
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## **6. TESTING & DELIVERY TEAM**

### **Sea Trial Engineer**

**Position Level:** Professional/Technical

**Reports to:** Chief Naval Architect

**Overview:** Plans and conducts vessel performance testing and sea trials.

**Key Responsibilities:**

- Sea trial planning and preparation
- Performance testing and measurement
- Data collection and analysis
- System verification and validation
- Trial reporting and documentation

### **Commissioning Team Leader**

**Position Level:** Management

**Reports to:** Project Director

**Overview:** Coordinates final systems integration, testing, and vessel handover activities.

**Key Responsibilities:**

- Commissioning schedule development
- System integration and testing coordination
- Punch list management and closure
- Client training and documentation handover
- Final acceptance and delivery coordination

## **Client Liaison**

**Position Level:** Professional

**Reports to:** Project Director

**Overview:** Manages client relationships, communications, and satisfaction throughout the project.

### **Key Responsibilities:**

- Client communication and relationship management
- Requirements clarification and change management
- Progress reporting and milestone updates
- Issue resolution and conflict management
- Client satisfaction monitoring and improvement

## **Training Officer**

**Position Level:** Professional

**Reports to:** Commissioning Team Leader

**Overview:** Develops and delivers training programs for vessel operation and maintenance.

### **Key Responsibilities:**

- Training program development and curriculum design
- Operator training delivery and assessment
- Training material creation and maintenance
- Competency evaluation and certification
- Ongoing training support and follow-up

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# **7. CLIENT AND OWNER REPRESENTATIVES**

## **Principal Owner**

**Position Level:** External Stakeholder

**Relationship:** Contractual Authority

**Overview:** Ultimate decision-making authority for the client organization, approves major changes and payments.

### **Key Responsibilities:**

- Final approval authority for project decisions
- Contract modification and change order approval
- Strategic direction and requirement validation
- Dispute resolution and escalation management
- Payment authorization and financial oversight

## **Client Representative**

**Position Level:** External Stakeholder

**Relationship:** Contractual

**Overview:** Represents client interests, approves changes, and ensures contract compliance.

**Key Responsibilities:**

- Contract interpretation and enforcement
- Change order review and approval
- Progress monitoring and milestone acceptance
- Technical requirement validation
- Payment authorization and dispute resolution

**Client Technical Advisor**

**Position Level:** External Technical

**Relationship:** Advisory

**Overview:** Provides technical expertise and guidance to support client decision-making.

**Key Responsibilities:**

- Technical review and validation
  - Design approval and recommendation
  - Technical risk assessment
  - Performance specification verification
  - Technical dispute resolution support
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## 8. REGULATORY AUTHORITIES

**Maritime Authority Inspector**

**Position Level:** External Regulatory

**Relationship:** Regulatory Compliance

**Overview:** Ensures vessel meets all maritime safety and regulatory requirements.

**Key Responsibilities:**

- Regulatory compliance inspection
- Safety certificate issuance
- Construction audit and verification
- Standards interpretation and guidance
- Non-compliance reporting and follow-up

**Port Authority Official**

**Position Level:** External Regulatory

**Relationship:** Port Operations Compliance

**Overview:** Ensures compliance with port regulations, environmental standards, and operational requirements.

**Key Responsibilities:**

- Port facility compliance verification
- Environmental impact assessment
- Operational permit issuance

- Safety and security protocol validation
- Port access and usage authorization

## **Classification Society Surveyor**

**Position Level:** External Technical

**Relationship:** Third-party Verification

**Overview:** Provides independent technical assessment and classification services.

**Key Responsibilities:**

- Technical plan review and approval
  - Construction survey and inspection
  - Class certificate issuance
  - Technical standard compliance verification
  - Ongoing class maintenance support
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## **9. SUPPLIERS & VENDORS**

### **Steel Supplier**

**Position Level:** External Supplier

**Relationship:** Material Supply Contract

**Overview:** Provides steel materials, plates, and structural components meeting project specifications.

**Key Responsibilities:**

- Material specification compliance
- Quality certification and testing
- Delivery scheduling and logistics
- Technical support and consultation
- Warranty and defect resolution

### **Engine Manufacturer**

**Position Level:** External Supplier

**Relationship:** Equipment Supply Contract

**Overview:** Supplies main propulsion engines and related mechanical equipment.

**Key Responsibilities:**

- Equipment design and manufacturing
- Performance guarantee compliance
- Installation support and commissioning
- Technical documentation and training
- Warranty service and maintenance support

## **Electronics Vendor**

**Position Level:** External Supplier

**Relationship:** Equipment Supply Contract

**Overview:** Provides navigation, communication, and electronic systems.

### **Key Responsibilities:**

- System design and integration support
- Equipment supply and installation guidance
- Software configuration and testing
- Training and technical documentation
- Ongoing support and maintenance services

## **Paint & Coating Supplier**

**Position Level:** External Supplier

**Relationship:** Material Supply Contract

**Overview:** Supplies protective coatings, paints, and finishing materials.

### **Key Responsibilities:**

- Product specification and application guidance
  - Quality assurance and testing support
  - Technical training and application support
  - Environmental compliance documentation
  - Product warranty and performance guarantee
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# **10. COMMUNITY REPRESENTATIVES**

## **Local Council Liaison**

**Position Level:** External Community

**Relationship:** Community Relations

**Overview:** Represents local government interests and ensures compliance with municipal requirements.

### **Key Responsibilities:**

- Municipal permit and approval coordination
- Community impact assessment and mitigation
- Local regulation compliance verification
- Public consultation and communication
- Dispute resolution and stakeholder management

## **Neighborhood Association Representative**

**Position Level:** External Community

**Relationship:** Community Relations

**Overview:** Represents local community interests and concerns regarding project impact.

**Key Responsibilities:**

- Community concern identification and communication
- Public meeting participation and coordination
- Environmental and social impact monitoring
- Community benefit negotiation and oversight
- Ongoing stakeholder relationship management

**Workforce Advocate**

**Position Level:** External Community

**Relationship:** Labor Relations

**Overview:** Represents worker interests, safety concerns, and employment practices.

**Key Responsibilities:**

- Worker rights and safety advocacy
  - Employment practice monitoring
  - Training and development program support
  - Dispute resolution and mediation
  - Community employment opportunity promotion
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## 11. ENVIRONMENTAL AGENCIES

**Environmental Impact Assessor**

**Position Level:** External Regulatory

**Relationship:** Environmental Compliance

**Overview:** Conducts environmental impact assessments and ensures compliance with environmental regulations.

**Key Responsibilities:**

- Environmental impact assessment and reporting
- Regulatory compliance verification
- Environmental monitoring program development
- Mitigation measure implementation oversight
- Environmental permit and approval coordination

**Marine Conservation Officer**

**Position Level:** External Regulatory

**Relationship:** Environmental Protection

**Overview:** Ensures protection of marine environments and compliance with conservation requirements.

**Key Responsibilities:**

- Marine ecosystem protection oversight
- Conservation regulation compliance verification

- Environmental impact mitigation monitoring
- Habitat protection and restoration coordination
- Marine wildlife protection implementation

## **Pollution Control Specialist**

**Position Level:** External Regulatory

**Relationship:** Environmental Compliance

**Overview:** Monitors and controls pollution prevention measures and waste management practices.

### **Key Responsibilities:**

- Pollution prevention program oversight
  - Waste management compliance verification
  - Air and water quality monitoring
  - Environmental incident response coordination
  - Pollution control technology implementation
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## **CONCLUSION**

This organizational structure provides a comprehensive framework for managing complex shipbuilding projects. The hierarchy ensures clear reporting relationships, accountability, and efficient communication channels throughout the project lifecycle. Each role is designed to contribute specific expertise while supporting overall project objectives of quality, safety, schedule adherence, and cost control.

The structure accommodates both internal project team members and external stakeholders, recognizing that successful shipbuilding requires coordination across multiple organizations and disciplines. Regular communication, clear role definitions, and established escalation procedures are essential for project success.

This framework can be adapted based on project size, vessel type, and organizational capabilities while maintaining the core principles of effective project management and stakeholder coordination.

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