



FSM WAREHOUSE AND ACCOMMODATION BLOCK DETAILED DESIGN, CONSTRUCTION DRAWINGS, SPECIFICATIONS AND BILL OF QUANTITIES

K. THILAFUSHI – LOT S4-16

Plot Area: 5,834.04 Sq. Ft. | Proposed: 10-Storey Building

Document Control	Details
Document Title	TOR – Detailed Design, Drawings, Specifications and BOQ
Project	FSM Warehouse and Accommodation Block
Employer	Fuel Supplies Maldives PVT LTD (FSM)
Location	K. Thilafushi, Lot S4-16, Maldives
Plot Area	5,834.04 Sq. Ft.
Proposed Development	10-Storey Warehouse and Accommodation Building
Revision	Rev. 0
Date	October 2026

1. INTRODUCTION

Fuel Supplies Maldives PVT LTD (FSM) intends to develop a 10-storey Warehouse and Accommodation Block at K. Thilafushi, Lot S4-16. The building will combine warehouse/storage, office, staff accommodation, senior staff accommodation, dining, kitchen, prayer, recreation, laundry, utility and rooftop event facilities.

The site has been reclaimed using garbage/fill material. Due to the reclaimed ground conditions and proposed 10-storey development, a comprehensive soil investigation shall be undertaken before finalizing the structural and foundation design.

2. OBJECTIVE OF THE ASSIGNMENT

The appointed contractor shall develop a complete, coordinated and construction-ready design package, including site investigation, architectural design, structural design, MEP, fire and life safety, detailed drawings, specifications, BOQ, cost estimate and authority approvals.

3. SITE INFORMATION

Item	Requirement
Location	K. Thilafushi
Lot	S4-16
Plot Area	5,834.04 Sq. Ft.
Development	10-storey Warehouse and Accommodation Block
Ground Condition	Reclaimed using garbage/fill material

The contractor shall verify all plot, survey, planning and development parameters against the latest HDC records before commencing detailed design.

4. SITE SURVEY AND SOIL INVESTIGATION

A detailed site survey and soil investigation shall be completed before the final structural design.

- Carry out a site survey establishing boundaries, levels, access, existing services, drainage and adjacent conditions.
- Investigate the reclaimed fill and underlying natural strata using appropriate boreholes/test points and laboratory testing.
- Establish soil profile, groundwater, bearing characteristics, settlement/consolidation, shear strength, differential settlement risk and other parameters required for design.
- Assess the suitability of pile, piled-raft, raft or other foundation systems and provide a signed/sealed Soil Investigation Report.
- Foundation design shall be based on actual investigation results and shall not rely on assumed ground conditions.
- Submit a soil investigation report with foundation recommendations (for example ground improvement, piling or raft options), risks and mitigation measures. The design shall not proceed to Phase 3 until FSM accepts this report.

5. DESIGN PRINCIPLES

- Optimize the limited plot while meeting all applicable planning and building requirements.
- Provide safe and efficient separation of warehouse/service traffic from staff accommodation and pedestrian circulation.
- Maximize natural daylight and natural cross-ventilation wherever practical.
- Use durable materials suitable for the Maldivian marine environment.
- Provide practical access for maintenance and replacement of MEP systems.
- Design for long-term operational efficiency and reasonable lifecycle cost.

6. FUNCTIONAL REQUIREMENTS

The following are minimum requirements. The contractor shall optimize the layout without reducing the stated minimum areas unless approved in writing by FSM.

6.1 Large Warehouse

Minimum 2,108.05 sq.ft. (approximately 195.8 m²). Design for appropriate warehouse heavy loads, storage/racking, goods handling, vehicle/loading access, lighting, ventilation and fire protection.

6.2 Air-Conditioned Storage

Minimum 52.86 m². Include insulated construction where required, AC, moisture control, ventilation and condensate drainage.

6.3 Warehouse Office

Office for 6 staff with workstations, storage, power/data, lighting, ventilation and AC.

6.4 Ground Floor Lobby, Security room and Ramp

Small main lobby area with a security room, accessible entrance and suitable ramp, with direct access to stairs/lift.

6.5 Utility Area

Dedicated building-services area for electrical, water, pumps, fire systems, mechanical services and maintenance access.

6.6 Sales Godown

Minimum 50.92 m² with storage, access, lighting, ventilation, security and fire protection.

6.7 Prayer Hall

Small prayer hall with suitable ventilation, daylight, access and associated washing/wudu facilities where appropriate.

6.8 Mess Hall

Dining/mess hall for 79 staff with efficient seating, circulation, ventilation, daylight, wash-hand facilities and connection to the kitchen.

6.9 Kitchen

Staff kitchen is designed for food preparation, cooking, washing, storage, refrigeration, exhaust, drainage, waste handling and fire safety.

6.10 Garbage Area

Dedicated hygienic, washable, drained, ventilated and pest-resistant garbage/waste area separated from food and accommodation areas.

6.11 Laundry

Laundry with washing/drying equipment provisions, sinks, water, drainage, power, ventilation and maintenance access.

6.12 Dry Balcony

Suitable drying area with drainage, ventilation and safe access.

6.13 Laundry Store

Dedicated storage for laundry supplies, linen, cleaning materials and equipment.

6.14 Filing Storage

Minimum 50.07 m². Design for filing cabinets/racking, appropriate floor loading, ventilation, moisture control and fire protection.

6.15 Staff Accommodation

Standard rooms for 6 staff per room using bunk beds. Provide personal lockers/storage, power, lighting, natural ventilation/daylight, AC and suitable circulation.

6.16 Common Toilets/Showers

Adequate numbers of toilets, showers and wash basins for standard staff accommodation, in accordance with applicable occupancy and regulatory requirements.

6.17 Senior Staff Accommodation

Minimum 3 rooms, each for 2 staff with twin beds, storage, work/study provision, natural light/ventilation, AC and attached toilet/shower.

6.18 Recreation Area

Dedicated recreation area for staff with suitable seating/entertainment/indoor activity space.

6.19 Terrace Floor

Open terrace suitable for BBQs, events and gatherings, plus a small indoor area with lobby and toilet. Include waterproofing, drainage, safe parapets/guardrails, lighting, power and water provisions.

7. PARKING AND VEHICULAR ACCESS

- Adequate motorcycle parking shall be provided.
- Adequate parking/access shall be provided for warehouse vehicles and service vehicles.
- Provide loading/unloading space and safe goods movement.
- Maintain emergency/fire access and minimize conflicts between warehouse vehicles and pedestrians.
- Parking and circulation shall comply with applicable HDC requirements.

8. ARCHITECTURAL DESIGN

The architectural package shall include site plan, all floor plans, terrace/roof plan, elevations, sections, room layouts, warehouse layouts, toilet/kitchen/laundry details, door/window schedules, finishes, reflected ceiling plans, accessibility, parking, external works and construction details.

9. STRUCTURAL DESIGN

The structural system shall be developed from soil investigation and shall include foundations, piles/pile caps or other selected systems, columns, beams, slabs, shear walls, lift core, stairs, roof/terrace, equipment foundations and warehouse floor.

- Provide complete structural calculations and signed/sealed structural drawings.

10. MEP SERVICES

- Mechanical: air-conditioning, AC storage, ventilation, toilet/kitchen/laundry exhaust, warehouse ventilation and condensate drainage.
- Plumbing: potable water, hot water where required, sanitary fixtures, drainage, sewerage, pumps and grease traps where required.
- Electrical: main supply, MDB/DBs, lighting, emergency lighting, power, AC/kitchen/laundry loads, earthing, lightning protection, surge protection and backup power provisions where required.
- ELV/ICT: CCTV, data/network, Wi-Fi, access control, intercom, public address where required and structured cabling.

11. FIRE AND LIFE SAFETY

Provide a complete fire/life-safety strategy appropriate for a multi-storey building containing warehouse, kitchen, accommodation and assembly/event areas.

- Fire detection and alarm;
- Fire extinguishers, hose reels and hydrants;
- Sprinkler systems where required;
- Fire water tank and pumps;
- Fire-rated doors, compartments and fire stopping;
- Emergency lighting and exit signs;
- Protected escape stairs and safe evacuation routes;
- Smoke control/ventilation where required;
- Kitchen fire protection;
- Fire department access; and
- All other requirements of the relevant fire authority.

12. NATURAL LIGHTING AND VENTILATION

All practical occupied areas shall be designed to maximize natural daylight and cross-ventilation. Attention shall be given to accommodation, senior rooms, offices, mess hall, recreation area, prayer hall, corridors and service areas. Natural ventilation shall not compromise fire safety, security or weather protection.

13. VERTICAL TRANSPORTATION

The consultant shall assess the need for passenger and/or service/goods lifts based on the 10-storey height, occupancy, warehouse operations, accessibility and goods movement, and shall incorporate an appropriate system into the design.

14. ACCESSIBILITY

Provide accessible entrance/ramp, accessible circulation, lift access, accessible toilet where required, suitable door widths, handrails and signage in accordance with applicable requirements.

15. MARINE AND ENVIRONMENTAL DURABILITY

Specify materials and protective systems suitable for high humidity, salt-laden atmosphere, corrosion, UV exposure, heavy rainfall and the marine environment of Thilafushi.

16. HDC, BUILDING, FIRE AND LABOUR REQUIREMENTS

The contractor shall design in accordance with all current applicable HDC planning/development requirements, Maldives Building Code and applicable regulations, fire/life-safety requirements, labour/employee accommodation requirements, accessibility requirements, environmental requirements, utility requirements and other applicable Maldivian laws and standards.

The contractor shall verify the latest requirements, including Thilafushi-specific height, GFA, setbacks, site coverage and parking controls, before finalizing the concept design.

17. APPROVALS AND PERMITS

The contractor shall prepare, submit and coordinate all documents necessary to obtain approvals and permits from HDC and other relevant authorities, including architectural, structural, fire, environmental, utility, water/sewerage, electrical and other approvals applicable to the project. The consultant shall respond to authority comments until approval is obtained.

18. DETAILED CONSTRUCTION DRAWINGS

Architectural Drawings

- Location/site plan
- Setting-out plan
- All floor plans
- Terrace/roof plan
- Elevations and sections
- Enlarged room/toilet/kitchen/laundry/warehouse details
- Door/window schedules
- Floor/wall/ceiling finishes
- Staircase and accessibility details
- Parking/loading/external works

Structural Drawings

- Foundation/pile layouts
- Pile and pile-cap schedules
- Column/beam/slab layouts and schedules
- Reinforcement details
- Shear walls/lift core
- Staircase reinforcement
- Roof/terrace structures
- equipment foundations
- Warehouse floor details

MEP Drawings

- Electrical power and lighting
- Single-line diagrams and DB schedules
- Earthing/lightning protection
- CCTV/data/access control
- Fire alarm and fire protection
- Water supply and drainage
- AC and ventilation
- Kitchen/laundry services
- Pump/tank layouts and schedules

19. BILL OF QUANTITIES (BOQ)

A complete, measurable BOQ shall be prepared from the final coordinated drawings. It shall be suitable for competitive tendering and shall minimize lump-sum items where quantities can reasonably be measured.

Preferred BOQ columns:

Item No.	Description	Unit	Quantity	Material Rate	Labour Rate	Total Rate	Amount	Remarks
1.01	Example item	m ³	0.00	0.00	0.00	0.00	0.00	

20. COST ESTIMATE

Provide a detailed preliminary and final cost estimate by major trade, including site works, foundations, structure, architecture, MEP, fire protection, lifts, external works and contingency. Provide estimated cost per square meter/square foot for benchmarking.

21. MATERIAL AND TECHNICAL SPECIFICATIONS

Provide complete specifications for concrete, reinforcement, structural steel, waterproofing, blocks, plaster, paint, flooring, doors/windows, sanitary fixtures, electrical equipment, lighting, AC, pumps, fire systems, lift, plumbing, kitchen/laundry systems and other major components. Materials shall be suitable for the Maldives and marine environment.

22. DESIGN COORDINATION AND QUALITY CONTROL

- All architectural, structural, MEP and fire drawings shall be fully coordinated.
- Resolve clashes between beams/ducts, columns/rooms, plumbing/structure, fire systems/ceilings, electrical/architectural elements and other services.
- All drawings shall be checked and approved by FSM before submission.
- BOQ quantities shall be reconciled against the final drawings and schedules.
- Specifications shall be consistent with drawings and BOQ.

23. DESIGN REVIEW STAGES

Stage	Required Submission
1 – Investigation	Survey, soil report and site constraints
2 – Concept	Site plan, massing, floor distribution, area schedule, parking and preliminary 3D views
3 – Developed Design	Architecture, structural concept, MEP concept, fire/life safety and preliminary cost
4 – Detailed Design	Construction drawings, calculations, specifications, BOQ and cost estimate
5 – Approval	Authority submissions, responses and revised drawings
6 – Final Package	Approved/stamped drawings, BOQ, specifications, schedules and editable files including AutoCAD files

24. REQUIRED DELIVERABLES

- Site survey report.
- Soil investigation report with recommendations.
- Design basis report.
- Architectural, structural, civil, MEP, fire and ELV drawings.
- Structural and MEP calculations.
- Material and technical specifications.
- Door, window, room finish, sanitary, lighting, AC, fire, pump, tank and lift schedules.
- Complete Excel BOQ with quantities, material rates, labour rates and amounts.
- Detailed cost estimate.
- Authority submission and approval documents.
- Final PDF drawings and documents.
- Editable AutoCAD DWG files and Excel BOQ.
- Calculation/source files and BIM/Revit files if BIM is included in the appointment.

25. PROFESSIONAL TEAM

The contractor shall provide suitable qualified and appropriately registered professionals, as applicable:

- Architect
- Surveyor
- Civil Engineer
- Mechanical Engineer
- Electrical Engineer
- MEP Engineer
- Quantity Surveyor
- Other specialists required for the assignment

26. EXPERIENCE REQUIREMENTS

- Experience in multi-storey buildings.
- Experience in warehouse and staff accommodation projects.
- Experience with MEP and fire/life-safety design.
- Experience obtaining HDC and other Maldivian approvals.
- Experience preparing detailed construction BOQs is required.

27. HEALTH, SAFETY AND LABOUR REQUIREMENTS

The design shall comply with applicable labour, employee welfare, occupational health and safety, sanitation, ventilation, lighting, accommodation and emergency evacuation requirements. The accommodation design shall provide safe and healthy living conditions for staff.

28. PROPOSAL REQUIREMENTS

- Company profile and registration details.
- Relevant project experience and references.
- Proposed methodology.
- Proposed design team and CVs.
- Professional registrations/licenses.
- Deliverables schedule.
- Separate costs for survey, Soil investigation and approval-related services.

29. RESPONSIBILITY OF THE CONTRACTOR

The appointed contractor shall be responsible for the accuracy, completeness and coordination of the design documents. The contractor shall verify site conditions, planning parameters, applicable regulations and utility requirements, coordinate all disciplines, obtain necessary approvals and correct errors or omissions identified in the design package.

30. ACCEPTANCE CRITERIA

- Site and ground conditions have been properly investigated.
- Foundation system is justified by the Soil investigation.
- All required functional spaces are incorporated.
- 10-storey architectural design is complete and compliant.
- Structural, MEP and fire/life-safety designs are complete.
- All disciplines are coordinated.
- BOQ is complete, measurable and consistent with the drawings.
- Specifications and schedules are complete.
- Required authority approvals are obtained.
- Final PDF and editable files are handed over to FSM.

31. CONCLUSION

The FSM Warehouse and Accommodation Block shall be developed as a safe, durable, practical, cost-effective and regulation-compliant 10-storey facility. Attention shall be given to the reclaimed ground conditions, warehouse loading, staff accommodation, fire and life safety, natural ventilation, natural lighting, parking, accessibility, marine durability and long-term maintenance.

The final deliverable shall constitute a complete construction-ready package comprising approved detailed drawings, calculations, specifications, schedules, BOQ and cost estimate.