



PAKISTAN AIRPORTS AUTHORITY

CONSULTANCY SERVICES FOR

**EXPANSION OF JINNAH TERMINAL COMPLEX [JTC] AND ALLIED
AIRSIDE & LANDSIDE FACILITIES AT JINNAH INTERNATIONAL
AIRPORT (JIAP), KARACHI**

Expression of Interest

SEPTEMBER 2026



INSTRUCTIONS TO APPLICANTS

1. Scope of Services

1.1. The Pakistan Airports Authority (PAA) (hereinafter referred to as "the Employer") intends to engage qualified consultancy services for the assignment namely "Consulting Services for Expansion of Jinnah Terminal Complex [JTC] and Allied Airside & Landside Facilities at Jinnah International Airport (JIAP), Karachi."

1.2. The existing Jinnah Terminal Complex (JTC) and allied airside/landside infrastructure at Jinnah International Airport Karachi (JIAP) are over 30 years old. The Pakistan Airports Authority (PAA) does not possess comprehensive, up-to-date assessment reports, digital as-built models, or detailed condition surveys for many structural elements, utilities, MEP systems, baggage handling, ICT/security, or other installed systems. The successful Consultant shall be fully responsible for conducting all necessary physical inspections, non-destructive testing (NDT), and intrusive investigations (where required) of existing structures, systems, and utilities to a level sufficient for feasibility study, preliminary design, and detailed design. All such testing and assessment activities may be carried out (if required under detailed TOR in subsequent stage) in close coordination with PAA's Operational Teams, who will facilitate access to restricted areas, provide available historical information, and assist in scheduling inspections to minimize disruption to live airport operations. However, the Consultant shall bear full professional responsibility for the adequacy, safety, and methodology of all surveys and testing. Similarly, for utilities, MEP systems, and building services exceeding their economic life, the baseline design assumption shall be complete replacement, unless rigorous testing and analysis justify partial retention or refurbishment. Retention of any existing system shall be explicitly justified by the Consultant with risk assessment and lifecycle cost analysis, subject to PAA approval. The Consultant shall note that several infrastructure upgrade initiatives are currently underway under separate contracts at JIAP with addition of the Engineering Consultancy for internal aesthetics refurbishment of the existing terminal building and for a new Overhead Water Tank to facilitate water supply requirements to the JTC Complex. The successful Consultant shall coordinate with the respective consultants for these ongoing projects to ensure seamless integration, interface management, and avoidance of conflicts with the proposed expansion of the terminal and allied facilities. Relevant drawings, data, and schedules from these ongoing projects shall be shared by PAA as available. All design, phasing, and construction sequencing shall assume a live operational airport environment, with no complete shutdown of terminal or airside operations. The Consultant shall propose construction methodologies, work windows, and logistics plans that maintain safety, security, and passenger level of service throughout the project duration

1.1. The Consultant shall provide comprehensive consultancy services for

feasibility, airport planning, preliminary and detailed architectural and engineering design, procurement support, and field design support services for the expansion of Jinnah Terminal Complex (JTC) and allied airside and landside facilities at JIAP, Karachi, including but not limited to the following:

- 1.1.1. Project Inception, Existing Conditions & Feasibility: Review existing terminal, airport infrastructure, utilities, airside/landside facilities and ongoing/planned developments; undertake feasibility, constraints and options assessment for expansion to an overall capacity of 20 MPPA.
- 1.1.2. Demand Analysis & Forecasting: Analyze historical passenger traffic, aircraft movements, peak-hour profiles, origin-destination patterns, airline and aircraft fleet mix and baggage flows; prepare low, base and high demand forecasts, including peak-hour passengers and aircraft movements, up to 2050 with justified assumptions.
- 1.1.3. Site Studies & Investigations: Undertake topographic and geotechnical investigations, site and utility assessments, Obstacle Limitation Surfaces (OLS) study and identification of physical, operational, environmental and infrastructure constraints for brownfield
- 1.1.4. Undertake a high-level greenfield assessment limited to preliminary site selection criteria only. Detailed design, surveys, or investigations for a greenfield airport are not included in the scope of services.
- 1.1.1. Airport Planning & Capacity Assessment: Undertake demand-capacity assessment for terminal processing facilities, gates, lounges, baggage handling, commercial and support facilities, landside access, curbside, parking, airside facilities, aircraft stands, taxiways, GSE areas and related infrastructure; develop a concept/master plan and phased development strategy.
- 1.1.2. Expansion Options & Technical Assessment: Develop and assess technically viable options, including expansion/modernization of the existing terminal, new terminal, satellite concourses and hybrid solutions, considering constructability, operational efficiency, future expansion, resilience, technology adaptability, AVSEC compliance and integration with existing systems.
- 1.1.3. Financial, Economic, Environmental & Risk Assessment: Prepare preliminary CAPEX and OPEX estimates, revenue assessment, financial and economic analyses, funding requirements, environmental and social impact screening, risk assessment and management plan, and recommend the preferred option with implementation strategy.
- 1.1.4. Preliminary Architectural & Engineering Design: Develop coordinated preliminary designs for architectural, structural, electrical, telecommunications, mechanical/HVAC, firefighting, BHS, ICT, security, special airport systems, utilities, access roads, parking, airside/landside infrastructure, landscape and related facilities, including preliminary engineering cost estimates.
- 1.1.5. Detailed Design & BIM: Following a positive feasibility outcome and authorization, develop complete tender-ready architectural and engineering designs, specifications, BOQs, cost estimates and construction documentation. Implement coordinated BIM processes including 4D construction phasing/passenger-flow simulation and 5D cost-loaded sequencing, with clash detection, asset information and facility-management readiness.
- 1.1.6. Operational Continuity, Sustainability & Security: Incorporate green terminal and energy/water efficiency measures, renewable energy

opportunities, accessibility and universal design, passenger experience, retail/commercial functions, digital technologies, ECAC Level 3/5 security requirements, BHS/security integration, E-gates, API/PNR and border-control automation, while maintaining safe and uninterrupted airport operations during phased construction.

- 1.1.7. PC-I, Procurement & Tender Support: Prepare/update PC-I, tender-ready documents, Conditions of Contract and instructions to tenderers as applicable, and support pre-bid activities, responses to bidder queries, addenda, technical and financial bid evaluation and contract award in accordance with applicable PPRA requirements.
- 1.1.8. Field Design Support Services: Provide design assurance and technical support during construction for Civil, Electrical, Architectural, Communication/ICT and Mechanical disciplines, including responses to RFIs, design clarifications, revisions, shop/working drawing review, site visits, testing/commissioning support and resolution of site-condition/design coordination issues. FDSS shall be provided during the 36-month construction period and shall not constitute construction supervision.
- 1.1.9. Project Coordination, Reporting & Knowledge Transfer: Maintain coordination with PAA/PMU, supervision consultant, contractors and relevant regulatory authorities; provide regular progress reporting, milestone and procurement schedules, phasing/sequence strategy, ORAT-related support, formal records of design revisions/RFIs, and capacity building/knowledge transfer to designated PAA personnel.

1.2. Assignment Phasing & Duration:

- Phase 1 Part A & Part D – Comprehensive Feasibility Study and Strategic Long-Term Site Capacity / Greenfield Airport Analysis: **6 months**;
- Phase 1 Part B – Preliminary Architectural & Engineering Design: **04 months**;
- Phase 1 Part C – Detailed Architectural & Engineering Design, Tender Documents, Procurement Support and PC-I: **10 months**;
- Phase 2 – Field Design Support Services during the **36-month** construction period.