

NAC CADIP Tranche 3

9x Provincial Airport Upgrades Construction Supervision

KA PROJCT REFERENCE: 18273
INDUSTRY: Civil Infrastructure - Aviation
DISCIPLINES: Project Management & Construction Supervision, Engineering

PROJECT SUMMARY

CLIENT

ADB/CADIP/ Korea Engineering Consultants Corporation (KECC)

LOCATIONS

Wapenamanda, Madang, Mendi, Kavieng, Vanimo, Wewak, Momote, Hagen, and Tari (Papua New Guinea)

PROJECT TYPE

Construction Supervision

YEAR COMPLETED

2019 - 2022



PROJECT DESCRIPTION

The National Airports Corporation (NAC) is the executing Agency (EA) of the Civil Aviation Development Investment Program (CADIP) in Papua New Guinea. ADB (Asian Development Bank) facilitated a loan to Government of PNG through the CADIP program for upgrading the following 9 Provincial Airports in PNG, under Tranche 3:

- Wapenamanda
- Madang
- Mendi
- Kavieng
- Vanimo
- Wewak
- Momote
- Mt Hagen
- Tari

This projects generally involve widening and strengthening of the existing runways, and aprons, construction of new bitumen sealed taxiways and aprons, improvement of aeronautical ground lights, new passenger terminals & admin buildings, and the construction of utilities for a fully functioning domestic airport.

PROJECT ROLE

Kramer Ausenco as a subconsultant under Korea Engineering Consultants Corp in Joint Venture with Keunjeong Architects & Engineering Co., Ltd. (KECC), was the Construction Supervision Consultant. Kramer Ausenco provided local and in country experts experienced in construction supervision of civil and building works projects.

- Conduct day to day supervision of the Civil and building construction works;
- Review material test results, technical data and approve where the results and technical;
- Checking and approval of designs, plans, technical calculations and drawings submitted;
- Participation in Meetings with Contractors and relevant stakeholders;
- Vet Contractors' Monthly Claims and prepare Interim Payment Certificates;
- Implementation of the environmental management plan (EMP);
- Review and Approval of work methods and procedures for commissioning tests; and
- Provide on-the job training to NAC CADIP Engineer during all phases of the construction.

NAC CADIP Airports Upgrade

PROJECT DATASHEET

Project Reference: 18273

Industry: Civil Infrastructure- Aviation

ASSIGNMENT NAME: Construction Supervision Consultancy Services (CADIP) – Tranche 3	APPROX. VALUE OF THE CONTRACT: CAPEX ~PGK 360M (9x PGK40M per site)
LOCATION & COUNTRY: Wapenamanda, Madang, Mendi, Kavieng, Vanimo, Wewak, Momote, Hagen, Tari	DURATION OF ASSIGNMENT (MONTHS): 24 months
NAME OF FUNDING AGENCY: Asian Development Bank (ADB) / NAC CADIP Program (Client: Korea Engineering Consultants Corporation (KECC))	TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT: 115.5 Months
ADDRESS OF AGENCY: Mandaluyong, Philippines/ Green Haus Building 149, Jackson Parade, 7 Mile, Port Moresby, Papua New Guinea/ 39-6 Sangil-ro, Sangil-dong, Gangdong-gu, Seoul, South Korea	APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT: PGK 3.2M
START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR): June 2020 – January 2022	NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS: Approximately 77 person months
NAME OF ASSOCIATED CONSULTANTS, IF ANY: Korea Engineering Consultants Corporation (KECC)	NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED: Adam Kramer – Project Executive Bruce Nicholson – Project Director Rovaly Sike – Project Manager Benny Kimisive – Project Manager Saubhagya Raizada – Project Engineer Construction Supervisors (Engineers/Architects): <ul style="list-style-type: none"> • Leona Eka • Napoleon Wak • Nicholas Posanai • Ben Mehuwa • Cassian Aron • Charles Goya • Joseph Tuaki • Kennedy Kobale • Kila Veapi • Lohia Henao • Melison Kaian • Joshua Tengdui • Patrick Saial • Ray Sigayong • Dara Okuk • Fred Oala

NARRATIVE DESCRIPTION OF PROJECT:

The National Airports Corporation (NAC) is the executing Agency (EA) of the Civil Aviation Development Investment Program (CADIP) in Papua New Guinea. ADB (Asian Development Bank) facilitated a loan to Government of PNG through the CADIP program for upgrading the following 9 Provincial Airports in PNG, under Tranche 3: Wapenamanda, Madang, Mendi, Kavieng, Vanimo, Wewak, Momote, Mt Hagen, and Tari.

This projects generally involve widening and strengthening of the existing runways, and aprons, construction of new bitumen sealed taxiways and aprons, improvement of aeronautical ground lights, new passenger terminals & admin buildings, and the construction of utilities for a fully functioning domestic airport.

DESCRIPTION OF ACTUAL SERVICES PROVIDED BY YOUR STAFF WITHIN THE ASSIGNMENT:

Scope of Services

The primary place of assignment is Port Moresby, Papua New Guinea. The CSC firm will work within the Project Implementation Unit based in Port Moresby and be responsible for the supervision of the construction works in order to ensure that the works are implemented in accordance with the designs, specifications and terms and conditions of the relevant civil works contracts. The CSC would assist PIU where required, the procurement of civil works contracts in accordance with ADB's procedures and guidelines. The CSC firm shall be responsible for the following 10 projects for construction supervision;

1. Mt. Hagen Airport Pavement Strengthening, New ATC Tower and Associated Works
2. Mandi Airport Pavement Strengthening, New Terminal Building and Associated Works
3. Madang Airport Pavement Strengthening, New Terminal Building and Associated Works
4. Wewak Airport Runway Extension, New Terminal Building and Associated Works
5. Kavieng Airport Pavement Upgrading, New Terminal Building and Associated Works
6. Wapenamanda Airport New Terminal Building and Associated Works
7. Vanimo Runway Extension, New Terminal Building & Associated Works
8. *Gurney Runway Extension, New Terminal Building & Associated Works (cancelled)*
9. Momote Runway Extension, New Terminal Building & Associated Works
10. Tari Airport Upgrade

The team leader shall be responsible for administration and operational matters of the CSC team. The team leader shall be reporting to the Program Director. The services to be provided by the CSC include but are not limited to, the following:

TASK 1 [Primarily KECC with KA support]

The CSC firm will provide Construction Supervision for selected CADIP-1 -Tranche 2 and 3 Civil Works Contracts. The Construction Supervisor personnel under the CSC will be delegated the responsibility of Engineer's Representative (ER) for the construction contracts. The ER's responsibility shall include but not limited to the following:

- day to day supervision of the construction works;
- Monitor contractors progress on site against the contractor's construction schedule;
- Attend to queries raised by contractors on site;
- Sign off on inspection test plans (ITP's);
- Attend to witness and hold points as stipulated in the technical specifications;
- Approve compliant works;
- Reject non-compliant works;
- Issue Instructions to the Contractor;
- Issue Non-conformance reports to the Contractor;
- Review material test results, technical data and approve where the results and technical data meet the specification;
- Checking and approval of designs, plans, technical calculations and drawings submitted by contractors;
- Participation in initial Kick-off Meetings with Contractors and relevant stakeholders;
- Verification of Contractors' Monthly Claims and prepare Interim Payment Certificates for submission to the Engineer for approval
- Review and Approval of work methods and procedures for commissioning tests to be submitted by Contractors;
- Assist the PMO in the implementation of the environmental management and monitoring plan (EMP);
- Review and evaluate reasonableness of contractual claims, contract variations, contract time extensions, additional works and issue the corresponding payment certificates, related supporting documents and valid justifications as appropriate;
- Preparation and follow-up of deficiency lists for Contractors;
- Ensure Contractor compile technical documentation and operation and maintenance manuals
- Review of Contractor's Daily, Weekly and Monthly Progress Reports and submit to the Engineer;
- Provide Daily, Weekly and Monthly reports on progress of works on site to the Engineer;
- Preparation of Final Project Completion Report; and
- Provide on-the job training to PIU Engineer during all phases of the construction. (A PIU Engineer will be assigned to each project site. The ER is required to provide on the job training to the PIU Engineer in all aspects of construction supervision and contract management. A Training report must be submitted to the Engineer on monthly basis of what the ER has taught and how well the PIU Engineer has effectively grasped the ideas/techniques.)

TASK2

- Supervision, inspection and monitoring of the civil, pavement, mechanical and electrical works of the project to ensure that the works are carried out in accordance with the agreed schedules, design and specifications, and that the quality meets at the minimum, the required technical standards, specifications, systems and procedures;
- Supervision and monitoring of quality control systems and procedures;
- Any other works not sufficiently described in the scope of services, but can be reasonably inferred as required and necessary to be undertaken to complete the project are presumed included in the scope of works of the consultant.

TASK3

The CSC will provide a Senior CAD Designer to provide additional capacity to the PIU CAD Design team. The Senior CAD Designer responsibility shall include but not limited to the following:

- Set up a drawing management system for the PIU;
- Suggest and implement disaster recovery system for all electronically stored drawings and data;
- Take lead in producing technical drawings for the PIU with the assistance of PIU CAD designs
- Collate all 'As Built' Drawings submitted by the Contractor, and
- Provide on-the Job training to PIU CAD Designers during all phases of the construction. The Senior CAD Designer is required to provide on the job training to the PIU CAD Designers in all aspects of CAD Drafting, drawing management and drawing disaster recovery. A Training report must be submitted to the Engineer on monthly basis of what the Senior CAD Designer has taught and how well the PIU CAD Designers have effectively grasped the ideas/techniques.

Capacity Building

The PIU shall assign and Engineer to each site to assist the ER supervise the construction works. Whilst at site, the CSC personnel shall provide capacity building training for PIU Engineers in the following areas:

- a) Construction supervision techniques;
- b) Contract management techniques;
- c) Work measurement;
- d) Interim Payment Application verification;
- e) Construction schedule monitoring;
- f) Evaluation of Extension of time claims;
- g) Responding to contractor's queries;
- h) Interpretation of FIDIC Clauses and when to apply them;
- i) Interpretation of specifications and how to ensure works are implemented in accordance with the specifications; and
- j) Any other topics the CSC wishes to provide as training to the PIU Staff.
- k) Allow for 6x PIU engineers to attend Airport Engineering course at Singapore Aviation Academy

The Consultant Downstream Work

There is the possibility of future downstream work, especially management of the Defects Liability phase or for works as extended or agreed by the NAC and ADB.