

UNIVERSITY OF SOUTH PACIFIC SOLOMON ISLANDS NEW CAMPUS

KA PROJ REFERENCE: 16096S

INDUSTRY: Education

DISCIPLINES: Project Management, Architecture, Structural Engineering, Civil Engineering, Building Services Design, Procurement, Quantity Survey, AV & Communications and Solar Design

PROJECT SUMMARY

CLIENT

The University of the South Pacific
(USP)

LOCATION

Honiara, Solomon Islands

PROJECT TYPE

University, Education, Institutional

YEAR COMPLETED

Design – 2018

Construction – Est. ~2023



PROJECT DESCRIPTION

A successful University campus is one that provides the desired facilities but also engages its users by providing an environment that is well serviced, easily navigated and inspirational in its handling of spatial arrangements. The campus design includes a lecture theatre, conference room, classroom facilities for approximately 930 students and offices for 146 staff this complex will need to have well defined and clear delineation of spaces serviced by generous access ways to cater for the large numbers passing through each day. The Campus has been broken-up into a complex of individual buildings linked by covered external walkways. These buildings are a combination of two (2) and three (3) storeys. To reflect the local vernacular in the architecture the Solomon Islands tradition of roof forms dominated by a prominent ridge line has been adopted. Extensive overhangs will protect window openings from rain and sun penetration as well as providing protection under cyclonic conditions.

To further improve this protection extensive metal screening will be employed and this will take the form of patterns unique to Melanesia. A porte-cochere will be provided at the main entrance to the Campus to serve as a strong visual element as well as a protected covered area for vehicular drop-offs. The underside of this roof will reflect indigenous construction framing methods. Adjacent to the main entry is the building which houses the library, lecture theatre, collaborative theatre and tutorial / learning spaces. At ground level there is also a covered outdoor space for seating and congregating before entry into the lecture theatre. This also serves to enliven the entrance to the campus. At ground level the atrium becomes both a foyer to the two most densely populated areas in the lecture theatre and cafeteria, and a space for display and student services.

By being a detached structure, it also allows access around and through the school without having to actually enter the building, which creates spaces for students to linger and engage outside the learning arena. These spaces will also be enhanced by roof cover, hard and soft landscaping and cross ventilation. The walkways that link all levels will be covered and will be accessed vertically by a small hydraulic lift. This will also ensure all points of the campus will be accessible for the disabled.

PROJECT ROLE

- Architectural Services
- Structural/Civil Engineering Services
- Building Services Design/ Construction Supervision Consultancy
- Project Management
- Procurement Services
- Quantity Survey
- AV & Communications Services
- Solar Design Services

UNIVERSITY OF SOUTH PACIFIC
SOLOMON ISLANDS NEW CAMPUS

Project Reference: 160965
Industry: Education

ASSIGNMENT NAME:	APPROX. VALUE OF THE CONTRACT:
USP - Solomon Islands New Campus	USD14,438,064.12 which includes KA - USD1,655,937 and CHEC - USD12,782,127.12
LOCATION & COUNTRY:	DURATION OF ASSIGNMENT (MONTHS):
Honiara, Solomon Islands	70 Months
NAME OF FUNDING AGENCY:	TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:
Asian Development Bank (ADB) by University of South Pacific Solomon Islands	94.41 Staff Months
ADDRESS OF AGENCY:	APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:
Laucala Bay Road, Suva, Central, Fiji	SBD 11,691,741 (approx. equivalent USD 1.5M)
START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):	NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:
Start date: September 2016 Completion date: Design Dec 2018 Construction 2023	N.A.
NAME OF ASSOCIATED CONSULTANTS, IF ANY:	NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:
<ul style="list-style-type: none">Shivneet Nair – SPTCL PTY LTD -176 hrs- USD\$16,015.40Ken McNamara – QS Estimator Knapman Clark & Co Pty Ltd- 12 Months- USD\$ 72,480.00Julia McDonald- Solar PV Specialist- IT Power (Australia) Pty Ltd (IT Renewables)- 36 Months- USD\$10,000.00Dr Richard Pauku- 176 hrs- SBD 60,060.00Dr Paul Roughan- 352 hrs- US\$29,920.00Gideon Zoloveke- 352 hrs- SBD 220,000.00Ernest Brian Gangloff- 6 months- USD\$30,000.00Zabel’s Structure Design- 1 week-AUD\$1,040.00	Michael Kramer – Executive Director / Sponsor Adam Kramer – Executive Director / Sponsor Daniel Tucker - Country Manager – Solomon Islands Jason Goddard – Country Manager – Australia Chris Barnes – Group Structural Manager Shane Harris – Group Building Services Manager Rovaly Sike – Project Manager Harrison Oldom – Deputy Project Manager Peter Moodie – Engineering Manager Dr Barry Kitson – Group Architectural Manager Saju Abraham – Lead Architect Douglas Habu – Senior Architect Maurice Nonipitu - Construction Supervision

NARRATIVE DESCRIPTION OF PROJECT:

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

PHASING OF SERVICES INCLUDED:

- Design Management | Construction Supervision | Defects Liability
 - Design management coordination meetings.
 - Assessment and review of all technical submittals and submissions.
 - Management of potential design risks and issues relating to project time, cost, scope, and quality.
 - Site verification and inspections, including site engineering and instructions
 - Development of multidisciplinary design criteria and specifications.
 - Verify and facilitate Contractor technical prerequisites to mobilise – e.g., management plans.
 - Technical assessment of all Contractor's monthly claims, and monitor contractor progress
 - Identify non-conformances and deficiencies and implement corrective actions/notices
 - Chair and Client and contractor technical meetings
 - Issue Fortnightly and Monthly Engineering Management reports to client
- Concept Development and Architectural Design
 - Schematic, Developed, and Detailed Design, and Construction Phase Inspections
- Civil and Structural Engineering:
 - Schematic, Developed, and Detailed Design, and Construction Phase Inspections
- Building Services Engineering (Mechanical | Electrical | Fire | Hydraulic)
 - Schematic, Developed, and Detailed Design, and Construction Phase Inspections

DESIGN SERVICES PROVIDED:

Electrical and Dry Fire Design Services

- a) Concept design, Developed design, Detailed design.
- b) Liaising with the authorities.
- c) Checking of spatial limitations.
- d) Standard lighting and power reticulation (as required).
- e) Switchboard schematics.
- f) Emergency lighting and exit signage.
- g) Back Up Generator.
- h) Fire detection and alarm system.
- i) Early Warning and Intercommunication System (EWIS).
- j) Technical specifications.
- k) Construction administration and inspections.
- l) Coordination with architectural, structural, civil, hydraulics, mechanical and fire services designs.
- m) Services Cost Plan

Mechanical Design Services

- a) Concept Design, Developed Design, Detailed Design and heat load calculations.
- b) Checking of spatial limitations.
- c) Air conditioning system.
- d) Mechanical ablation exhaust ventilation systems as required.
- e) Noise attenuation / acoustics on mechanical services.
- f) Input into passive and natural ventilation system designs by architect.
- g) Technical specifications.
- h) Coordination with architectural, structural, civil, electrical, hydraulics and fire services
- i) designs.
- j) Construction administration and inspections.
- k) Services Cost Plan

Hydraulics and Wet Fire Services

- a) Concept design, Develop Design, Detailed design.
- b) Checking of spatial limitations
- c) Cold and Hot water reticulation.
- d) Sewer and stormwater drainage layout.
- e) Fire extinguisher and blankets layout.
- f) Fire Hose Reel layout.
- g) Fire hydrant layout.
- h) Technical specifications.
- i) Coordination with architectural, structural, civil, electrical and mechanical designs.
- j) Construction administration and inspections.
- k) Services Cost Plan

DELIVERY OF SERVICES INCLUDED:

- Review and verify all available primary and secondary data in reports collected or made available by USP to be able to prepare detailed designs, BoQ, Bid Documents and Cost Estimates for the procurement and construction stages.
- Carry out feasibility studies including all the required engineering surveys and investigations such as topographical surveys, geo-technical investigation, construction material survey, rainfall data collection, identification of underground utilities, etc. as applicable to the project. All surveys and investigations shall be accurate and plotted for the review of the USP and ADB. The feasibility studies will include safeguards assessments following the environmental assessment prepared for the project.
- Prepare detailed work plan, progress reports and implementation schedule for the project to ensure effective monitoring and timely project outputs, and regularly update the same.
- Prepare the engineering designs of the project in sufficient detail to ensure clarity and understanding by the USP, contractors and other relevant stakeholders. All the design should be in conformity with international building standards and all other relevant ordinances, regulations, by-laws of Solomon Islands, etc. as may be applicable.
- The detailed designs will, as a minimum, include construction tender level drawings, detailed cost estimates, necessary calculations to determine and justify the engineering details for project, associated contract documentation to include condition of applications, detailed specifications, engineering drawings, BoQ, implementation schedule, and any other relevant detail necessary for effective project implementation. The technical specifications should be in accordance with the relevant USP specification or the best international practices and should be prepared to achieve the highest standards of quality. For adopting market rates for the detailed cost estimates, proper current market rate/prices analysis should be carried out. Construction drawings should be prepared with sufficient details to permit contractors to carry out construction work effectively, unambiguously and with the highest standards of quality.
- Prepare Quality Assurance and Quality Control (QA & QC) Plans and Safety Manuals to be followed on the respective construction sites to enforce adequate QA and QC, and safety of construction workers, engineers, and citizens.
- Review existing contract administration guidelines and assist, if necessary, in improving it for the use of the USP in its day-to-day contract administration requirements such as measurement of works, certification and payment of the contractor's bills, release of retention money, approval of variation, time extension and contractor's claim, issue of completion certificate, financial closure of contract, management during the DLP and any other contract administration requirement.
- Prepare the standard construction management system to be followed by contractors at construction sites comprising important components such as planning of activities (work plan), procurement of construction material and equipment, construction methodology, environmental management, quality management, health and safety including STI/HIV/AIDS awareness, deployment of construction machinery, deployment of workers, deployment of funds, etc.; and implement the same.
- Support the USP in preparation of bid documents using USP standard bidding documents with due consideration to the ADB International Competitive Bidding (ICB) requirement and FIDIC1 Conditions of Contract for Construction – Multilateral Development Bank Harmonized Edition June 2010. The bid documents will include the environmental management plan(s) from the approved environmental assessment(s) which have been updated based on detailed design.
- Assist the USP in issuing invitation for bids, addendum/corrigendum, and clarifications to the bidders' queries, pre-bid meeting/s, receiving of bids and evaluation, award of contract, signing of contract and compilation of the signed contract documents including construction drawings. Assist the USP in reviewing and approving the contractor's construction environment management plan (CEMP) prior to commencement of physical works.
- Assist USP in assessing compliance of contract specific bank guarantees, insurances and advise USP on the expiry, renewal and forfeiting of the same when and where necessary.
- Assess the contractor's interim payment certificates and forward to USP and ADB for payment along with required supporting documents.
- Assist the USP to set the indicators for the baseline on the project and to carry out the necessary tasks identified in the Project Administration Manual (PAM) for the Project.
- Carry out financial due diligence and an assessment of the capacity of the USP for maintaining the new campus facilities in good working order for its economic life; and
- Carry out any other project-related services as deemed necessary and required by USP and ADB.