TERMS OF REFERENCE
CONSULTING SERVICES – FIRM SELECTION
Position: Survey and Design Firm

This document details the requirements related to the advertised contract. Please refer to the content below in preparing your submission.

Project Overview

Project Name: Community Access & Urban Services Enhancement Project II (CAUSE II)
Activity Reference Number (STEP): SB-MID-441743-CS-QCBS
Agency Name: Ministry of Infrastructure Development
Country: Solomon Islands (Honiara, with travel to Auki, Munda, and Gizo as needed)
Position Title/Activity Description: Survey and Design Firm
National/International: International

Project Information

Project Aim: The Community Access & Urban Services Enhancement (CAUSE) Project's second phase (CAUSE-II) aims to uplift infrastructure in targeted urban and peri-urban areas in the Solomon Islands. Funded by the World Bank and implemented in collaboration with the Solomon Islands Government, CAUSE-II builds upon the successes of the initial phase. This TOR outlines the roles for a Survey and Design Firm tasked with executing pivotal survey and design work for robust infrastructure solutions.

Scope: The scope covers a range of infrastructure components, including Double Bituminous Surface Treatment (DBST) roads, box culvert, drainage structures, concrete and Bailey bridges, development of public parks and open spaces, and small coastal protection measures. These sub-projects aim to enhance accessibility, promote economic development, and increase resilience to environmental impacts. The pre-identified sub-projects to be prepared for implementation under the project are presented in Table 1

Table 1: pre-identified subprojects and main dimensions

Location	Type	Dimensions	Planned Interventions
Honiara/Guadalcanal Province	***Road Rehabilitation (DBST/Concrete)***		
	Tasahe – Ngossi Valley Road	2,200 m	Jan 2026
	Ngossi Valley-White River Road	3,213 m	Jan 2026
	Kolo'ale Ridge Road (West Kola)	1,190 m	Jan 2026
	Tsilm Street	159 m	Jan 2026
	Hibiscus Avenue	1,010 m	Jan 2026
	Skyline Drive	1,520 m	Jan 2026
	Lengakiki Road	585 m	Jan 2026
	Rewa Road	446 m	Jan 2026
	Sunvalley-R969 Road	1,250 m	Jan 2026
	Bridge Rehabilitation		
	Mbokona Road Bridge	1 lot (<10m)	August 2025
	Kobito Road Bridge	1 lot(<10m)	August 2025
	Drainage Rehabilitation		
	Tasahe Road Drainage	1 lot(2cell BC)	August 2025
	Mbokona Road Drainage	1 lot	August 2025
	Market Place Drainage	1 lot	August 2025
	Vura Road Drainage	1 lot	August 2025
	Ngaliraugha Road Drainage 1	1 lot	August 2025
	Ngaliraugha Road Drainage 2	1 lot	August 2025
	Open Space, Public Space Improvement		
	Open Space/Park	1 lot	August 2025
Auki, Malaita Province	Lilisiana Village Road	886 m	Jan 2026
	Lilisiana Village Road Drainage	1 lot	August 2025
	Shoreline Protection Upgrade	1 lot	Jan 2026
Gizo, Western Province	Meddean Road	340 m	Jan 2026
	Meddean Bridge	1 lot(<10m)	August 2025
	Meddean Drainage 1	1 lot	August 2025
	Meddean Drainage 2	1 lot	August 2025
Total Sub-projects		25	

Contract Details

Objective: Provide survey and design services essential for the strategic implementation of CAUSE-II across the Solomon Islands. This includes delivery of detailed, sustainable, climate resilient and economically viable designs for specific infrastructural sub-projects, ensuring adherence to international standards and environmental stewardship.

Type of Contract: Lump Sum

Duration: Starting November 2024, with the firm's engagement up to a maximum of 12 months. The contract is expected to start in November 2024, and to be completed by November 2025.

Reporting: The firm will report to the CAUSE Project Management Unit (PMU) and collaborate closely with local stakeholders.

Contract Scope

Contract Goals and Outcomes:

1. Conduct comprehensive topographical and geotechnical surveys.
2. Develop detailed engineering designs.
3. Prepare environmental impact assessments (EIAs).
4. Formulate stakeholder engagement plans.
5. Provide cost estimation and budget planning.
6. Prepare tender documents.
7. Develop risk management plans.
8. Establish project scheduling and phasing.

Tasks:

- The designs shall be generally based on existing standard documents and construction standards already used by MID, but shall include appropriate improvements to strengthen the resilience of the infrastructure to the effects of climate change.
- The Consultant shall prepare a full set of survey and design drawings, Bills of Quantities and Engineer's Estimates for the civil works, schedules of works and related rapid environmental and social assessment for each of the proposed subprojects.
- E&S risk Management: prepare ESMP and all required compliance documents, including the Contractor Environmental and Social Management Plan (CESMP) templates

Topographical and Geotechnical Surveys:

- Full Topographic survey of 30m wide corridor road alignment, including sections of realignment and widening and drainage; Road Alignments should generally follow the existing alignment but may be adjusted in view of an economic and technically optimized solutions, or to avoid E&S risk rating. The topographic survey needs to be measured into the national grid.
- Topographic Surveys will include surveys of main streams and rivers for hydraulic design of major structures (other than small cross and relief culverts). At least 100 upstream and 100 m downstream of the stream centerline, over the full width of the channel shall be included in the topographic survey.
    - Outputs: survey plan drawings of road corridors and, centerline and stream centerline drawings. and profile drawings, invert levels of existing culverts and record of hydraulic opening of all cross-drainage structures.
- Soil investigations, e.g., bearing load capacity (in situ CBR) for the road corridor with trial pits, cores and DCP at regular intervals (1 per 100 m), and at smaller interval to demarcate weak sections, as needed.
- Laboratory soil testing for roads: Atterberg limits test AASHTO T89-96, Natural water content test AASHTO T265, Specific gravity of soil test AASHTO T100, Compaction Tests AASHTO T180 CBR AASHTO T193, Particle size analysis test AASHTO T88, Unit weight test AASHTO T19/T19 M-00

- Geotechnical rock and fine aggregates tests: gravity of soil test AASHTO T84/85, Los Angles AASHTO T96, Soundness AASHTO T104, Elongation and Flakiness BS812, Unit weight test AASHTO Ti9/Ti9 vi-00, Compressive Strength test AASHTO T 22
- Confirm the availability of suitable construction materials for the works - including borrow pits and quarry products and deploy appropriate laboratory tests
- Assess and carry out where necessary hydrological assessment of catchment and hydraulics of channel and structures; The climate change adaptation proposals should be reviewed and critical design aspects developed, and propose an uplift percentage for the hydraulic and structural designs
- Site investigations at structures: assess all engineering structures to establish structural soundness and assess the hydraulic capacity to decide on replacement, or improvement.
- Conduct 3 days 14 hrs. traffic counts (6AM-8PM) at strategic location (one per road section), recording volume of traffic by vehicle type, count of both directions and aggregate. Include non-motorized traffic and pedestrians
- Proposition of erosion protection measures, including bio-engineering measures, river training and culvert energy dispensators and protection.

Engineering Designs:
- Design the pavement (sub-base, base and wearing course), and consider alternative surfacing. Refer to Traffic classes, ESA, PCU and CBR of subgrade / existing base course.
- Develop detailed engineering designs for paved roads, box culverts, drainage systems, conventional and Bailey bridges, open spaces, parks, and seawalls or coastal protections:
- Design of engineering structures, including hydraulic, structural and foundation design
- Investigate all larger bridge sites, including sub-surface foundation strength.
- Develop standard designs for drainage structures, bridges etc. Base this on existing MID standard designs and the National Building Code 2022 (draft)
- Give special attention to road safety measures and incorporate pedestrian safety and provisions, including signs, speed control measures, railing, barriers, footpaths, lighting etc. Geometrical standards shall be in line with light truck and low speed design.
- Produce detailed design plan and profile drawings, cross sections, Structures, construction details, costed BoQs and Special Technical Specifications.
- Develop technical specifications for the construction works including specifications for materials and method of works e.g., specifications for road pavement, materials for structures, concrete and concrete mix materials.
- As a minimum follow MID's technical specifications and make modifications where appropriate, based on careful assessment of locally available materials proposed for the works a determine the technically acceptable and the most cost-effective special specification and construction methods.

Cost Estimation and Budget Planning:
- Review market prices and develop unit rate costings for all BoQ items of the subprojects
- Develop detailed bills of quantities and engineers estimates. The unit rate pricing shall be derived from current similar projects in Solomon Islands. Provisions shall be made for reasonable physical and price contingencies

ESF activities:
- Undertake E&S Risk Screening and identify possible mitigation measures to lower E&S impact. Where necessary conduct Initial Environmental Examinations, and possibly Environmental Impact Assessments (EIAs).
- Develop Environment and Social Management Plan(s) (ESMPs), including the Stakeholder Engagement Plan and the Labor Engagement Plan. Work closely together with the E&S team of the PMU and the World Bank
- Formulate and execute engagement strategies to gather input from community members, local authorities, and other stakeholders

- Prepare templates for Contractor Environmental and Social Management Plans (CESMPs) in accordance with the project's environmental and social requirements, taking account of contract packages and locations of works.

Preparation for Tender:
- For the procurement of construction services, prepare complete contract bid packages ready for tendering
- Outline construction schedule, propose approach to the market and tender process, following SIG and WB procurement guidelines
- As per above tender schedule, package drainage works ready for tender in month 8 and the roads, coastal protection and open space improvement ready for tender at the end of the assignment.

Risk Management Plans:
- Develop risk assessments and management plans to identify potential challenges and devise strategies to mitigate them.

Project Implementation Scheduling and Phasing:
- Establish comprehensive project timelines, including key milestones and deliverables. Consider construction traffic closures, supply routes.

Specific Deliverables with proposed timeline

Key Deliverables	Timing	KPI
Topographical and Geotechnical Survey Reports	By Month 4	Report accuracy and detail
Environmental Impact Assessment (EIA) Reports, and ESMF	By Month 4	Approval by environmental authorities
Engineering Design Documents, including ESMP	By Month 6 (Bridge and Drainage structures) and month 9 (roads, coastal protection and Open Space)	Design approval and compliance with standards
Cost Estimation and Budget Documentation	By Month 6 and month 8	Budget approval and alignment with financial frameworks
Risk Management Plans	By Month 6 and month 8	Risk identification and mitigation effectiveness
Civil works subproject Scheduling and Phasing Plans	By Month 6 and month 8	Timeline adherence and milestone completion
Bid Documents for packaged works	By Month 8 and month 9	Clarity and compliance with procurement regulations
Final Project Report	End of project	Comprehensive report on objectives, activities, inputs (resources) and outputs (deliverables)

Reporting and deliverables
All reports shall be prepared in DIN A4 format. Plans and drawings shall be prepared in DIN A3 format. The electronic copies shall be submitted by either email or in USB stick in standard file formats such as MS Word, MS Excel and AutoCAD format and additionally converted into PDF-format. Time for comments and approval shall be up to three weeks after submission. Final reports shall be submitted no later than two weeks after receiving comments on the draft.
All E&S Safeguard documentation as well as tender documentation (RfB and designs) must be submitted for WB No Objection as shown in the table above

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Selection Process and application procedures for the shortlist

Firms will be assessed based on their proposal and supporting documentation. Firms who do not meet the mandatory criteria will not be evaluated further. Firms meeting the mandatory criteria will be assigned points based on the desirable criteria. The Project Management Unit and stakeholders will evaluate the details and the submission templates are provided in the REOI. A maximum of 5 Candidate applicants will be invited to submit a full Technical and Financial proposal.

Payment Schedule

Payment	Report/Deliverables	Deadline	Payment percentage (Cumulative)
Advance / mobilization payment	Contract signed, Bank guarantee		30% (30%)
Inception Payment	Topographical Survey Drawings and Reports and Geotechnical investigations report	End month 4	20% (50%)
Progress Payment	Engineering Designs and E&S documentation	End month 7	20% (70%)
Final Payment	Final Designs and Project Documentation and final report	End month 9	30% (100%)

Confidentiality and Conflict of Interest

Confidentiality: The firm must adhere to strict confidentiality protocols for all data, information, and documentation obtained or created during the project. This includes sensitive environmental data, proprietary design specifications, and stakeholder engagement information.

Conflict of Interest: The firm must disclose any potential conflicts of interest that could influence their judgment or compromise the impartiality of their work. This includes financial or personal interests in project outcomes or relationships with entities involved in the project. The attention of Applicants is drawn to Section III, paragraphs, 3.14, 3.16, 3.17, 3.18, 3.20, and 3.21 of the World Bank's "Procurement in Investment Project Financing, Goods, Works, Non-Consulting and Consulting Services, Fifth Edition, September 2023.

Key staff profile

The Consultant's personnel shall be managed by a Team Leader who shall be the main responsible contact for communication with the Client Key Staff are expected to be of high technical excellence with appropriate project experience and they should have handled similar projects at the same position as the expert is being proposed for. They shall be fluent in the English language.

To adequately cover the requirements for the design stage, the Survey and Design Team as a minimum will include the Key Experts as mentioned in the table below; Combination of positions is allowed.

Technical Scoring (draft)
The table below is indicative and may still be changed in the final Request for Proposals.

The technical offer is weighted with 60%, the financial offer with 40%.

	Criteria		Max score	Total
	Total Score Technical			**100**
1	**Concept and methodology**			**40**
1.1	Clarity and completeness of the bid		**5**	
1.2	Critical analysis of the project objectives and the TOR, Approach and Methodology		**20**	
1.3	Identification of risks and outline of mitigation measures		**10**	
1.4	Resourced Work plan		**5**	
2	**Key Staff** (expected input in p.m.)	**Task / criteria**		**60**
2.1	**Team Leader** (9)	Overall project management, primary liaison with the client, ensures timely delivery of outputs. Manages and coordinates the project team. This role may be combined with the Road Design Engineer, Procurement Specialist or any other	**18**	
2.2	**Road Design Engineer** (6)	Prepares environmental and technical optimized road designs, considering climate change adaptation, surfacing techniques, contracting technical skills level, material availability, quality control, supply, maintainability, road safety, occupational safety and health, responsible for final engineers estimate, implementation schedule and construction approach.	**12**	
2.3	**Pavement Engineer** (1)	Assesses existing pavement conditions, develops technical / method specifications for	**6**	
2.4	**Materials Engineer** (1)	Identifies material sources and adapts designs to enhance climate change resilience, together with the Structural and Geotechnical engineer, develops erosion control measures, embankment and slope surface protection. Assesses quality of sources of materials (quarries/borrow pits), assesses the subgrade and existing	**3**	
2.5	**Hydrologist/Hydraulic engineer** (1.5)	Catchment analyses, Climate change data and design scenarios, damage cause analysis, drainage infrastructure design criteria, sustainable concept for protecting roads in flood periods (number/ size of culverts, water crossing, bridges, vented causeways), rationale for and proposed climate change uplift in hydraulic capacity, calculation of hydraulic capacity and hydraulic design	**6**	
2.6	**Geotechnical Engineer** (1)	Geotechnical assessments for road and structure construction, embankment and slope protection, erosion protection, and surfacing, foundation and road subgrade assessment, contribute to the ToR for civil works contractors in further subsoil investigations, materials handling and testing.	**3**	
2.7	**Structural Engineer** (1)	Assessment of existing structural soundness, Structural calculations of sub/superstructures and foundations; development or adaptation of standard designs; taking account of existing experience and availability of materials and construction methods. Produce structural designs.	**3**	
2.8	**Environmental E&S and OSH specialist** (3)	E&S Screening, IEE and mitigation. Preparation of ESMF/P, SEP, RAP/LRP). prepares OHS guidelines and CESMPs for construction compliance monitoring.	**3**	
2.9	**Social Health and Safety (ESHS) Specialists** (3)		**3**	
2.10	**Procurement Specialist** (2)	Prepares standard bid documents, special conditions of contract, contract packages, procurement plan, Tender process, evaluation criteria.	**3**	
	Non-Key staff	Provide support in field surveys, survey data processing, drafting, and other technical inputs required for design completion; minimum criteria, no CVs, signed statements of experience and qualification.	**0**	
	Quantity Surveyor			
	Survey team			
	CAD operators			
	Calculators			
	Office support staff			