



REQUEST FOR TENDERS

RFT: 2025-GEFIS-018
File: AP_6/5/9
Date: 11 December, 2025
To: Interested suppliers
From: GEF ISLANDS Pacific Project

Subject: Request for tenders (RFT): Renovation of the Tuvalu E-Waste and Recyclable Storage Facility

1. Background

- 1.1. The Secretariat of the Pacific Regional Environment Programme (SPREP) is an intergovernmental organisation charged with promoting cooperation among Pacific islands countries and territories to protect and improve their environment and ensure sustainable development.
- 1.2. SPREP approaches the environmental challenges faced by the Pacific guided by four simple Values. These values guide all aspects of our work:
 - We value the Environment
 - We value our People
 - We value high quality and targeted Service Delivery
 - We value Integrity
- 1.3. For more information, see: www.sprep.org.

2. Specifications: statement of requirement

- 2.1. SPREP wishes to call for tenders from qualified and experienced contractor to renovate Tuvalu's E-waste and Recyclable Storage Facility through the replacement of exterior walls and roofing.
- 2.2. The Terms of Reference of the consultancy are set out in Annex A.
- 2.3. The successful supplier must supply the services to the extent applicable, in compliance with SPREP's Values and Code of Conduct: <https://library.sprep.org/sites/default/files/sprep-organisational-values-code-of-conduct.pdf>. Including SPREP's policy on Child Protection, Environmental Social Safeguards, Fraud Prevention & Whistleblower Protection and Gender and Social Inclusion.
- 2.4. SPREP Standard Contract Terms and Conditions are non-negotiable

3. Conditions: information for applicants

- 3.1. To be considered for this tender, interested suppliers must meet the following conditions:
 - i. **Submit a detailed Curriculum Vitae:** The CV should detail the qualifications and previous relevant experience for each proposed personnel, particularly in the development of waste management strategies and capacity building for such work.
 - ii. **Provide three relevant referees:** Include contact information and details of the most recent similar work completed by the consultant, relevant to this tender.



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- iii. **Complete the tender application form provided** (Please note you are required to complete in full all areas requested in the Form, particularly the Statements to demonstrate you meet the selection criteria – DO NOT refer us to your CV. Failure to do this will mean your application will **not** be considered).
 - iv. **Provide examples of past related work outputs:** Submit examples of previous work related to hazardous waste management strategy development and capacity development.
 - v. **Submit Technical and Financial proposals:** These may be attached separately to the tender application. The technical proposal should outline the methodology, work plan, and risk mitigation strategies, while the financial proposal should provide a detailed cost breakdown.
- 3.2 Tenderers must declare any areas that may constitute conflict of interest related to this tender and sign the **conflict of interest form** provided.
- 3.3 **Tenderer is deemed ineligible due to association with exclusion criteria, including** bankruptcy, insolvency or winding up procedures, breach of obligations relating to the payment of taxes or social security contributions, fraudulent or negligent practice, violation of intellectual property rights, under a judgment by the court, grave professional misconduct including misrepresentation, corruption, participation in a criminal organisation, money laundering or terrorist financing, child labour and other trafficking in human beings, deficiency in capability in complying main obligations, creating a shell company, and being a shell company.
- 3.4 Tenderer must sign a declaration of **honour form** together with their application, certifying that they do not fall **into** any of the exclusion situations cited in 3.3 above and where applicable, that they have taken adequate measures to remedy the situation.

4. Submission guidelines

- 4.1. Tender documentation should demonstrate that the interested supplier satisfies the conditions stated above and in the Terms of Reference and is capable of meeting the specifications and timeframes. Documentation must also include supporting examples to address the evaluation criteria.
- 4.2. Tender documentation should be submitted in English and outline the interested supplier's complete proposal:
- a) **SPREP Tender Application form and conflict of interest form.** *(Please note you are required to complete in full all areas requested in the Form, particularly the Statements to demonstrate you meet the selection criteria – DO NOT refer us to your CV. Failure to do this will mean your application will **not** be considered). Provide examples of past related work outputs For the Technical and Financial proposals you may attach these separately.*
 - b) **Honour form**
 - c) **Curriculum Vitae** of the proposed personnel to demonstrate that they have the requisite skills and experience to carry out this contract successfully.
 - d) **Technical Proposal** which contains the details to achieve the tasks outlined in the Terms of Reference.
 - e) **Financial Proposal** – provide a detailed outline of the costs involved in successfully delivering this project submitted in United States Dollars (USD) and inclusive of all associated taxes.
 - f) Where relevant provide:
 - i. Business registration/license (For Entities/ Individual consultant's as per relevant national legislations)



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- ii. Tax Identification Number (TIN) Letter (If applicable for Individual consultant's as per relevant national legislations)

- 4.3. Provide three referees relevant to this tender submission, including the most recent work completed.
- 4.4. Tenderers/bidders shall bear all costs associated with preparing and submitting a proposal, including cost relating to contract award; SPREP will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 4.5. The tenderer/bidder might be requested to provide additional information relating to their submitted proposal, if the Tender Evaluation Committee requests further information for the purposes of tender evaluation. SPREP may shortlist one or more Tenderers and seek further information from them.
- 4.6. The submitted tender proposal must be for the entirety of the Terms of Reference and not divided into portions which a potential tenderer/bidder can provide services for.
- 4.7. The Proposal must remain valid for 90 days from date of submission.
- 4.8. Tenderers must insist on an acknowledgement of receipt of tender.

5. Tender Clarification

- 5.1. a. Any clarification questions from applicants must be submitted by email to procurement@sprep.org before 15 January 2026. A summary of all questions received complete with an associated response posted on the SPREP website www.sprep.org/tender by 20 January 2026.
- b. The only point of contact for all matters relating to the RFT and the RFT process is the SPREP Procurement Officer.
- c. SPREP will determine what, if any, response should be given to a Tenderer question. SPREP will circulate Tenderer questions and SPREP's response to those questions to all other Tenderers using the SPREP Tenders page (<https://www.sprep.org/tenders>) without disclosing the source of the questions or revealing any confidential information of a Tenderer.
- d. Tenderers should identify in their question what, if any, information in the question the Tenderer considers is confidential.
- e. If a Tenderer believes they have found a discrepancy, error, ambiguity, inconsistency or omission in this RFT or any other information given or made available by SPREP, the Tenderer should promptly notify the Procurement Officer setting out the error in sufficient detail so that SPREP may take the corrective action, if any, it considers appropriate.

6. Evaluation criteria

- 6.1. SPREP will select a preferred supplier on the basis of SPREP's evaluation of the extent to which the documentation demonstrates that the tenderer offers the best value for money, and that the tender satisfies the following criteria:
- 6.2. A proposal will be rejected if it fails to achieve 70% or more in the technical criteria and its accompanying financial proposal shall not be evaluated.

I. Technical Score – 80%

PO Box 240, Apia, Samoa T +685 21929 F +685 20231 sprep@sprep.org www.sprep.org

A resilient Pacific environment sustaining our livelihoods and natural heritage in harmony with our cultures.

Criteria	Detail	Weighting
Company Experience and Expertise	<p><i>Relevant Experience</i></p> <p>i. Demonstrated experience in similar construction/renovation projects, particularly in remote or coastal environments.</p> <p>Experience in the Pacific is an advantage. Awareness of Tuvalu's logistical, environmental and material challenges, ability to adapt design to local realities</p> <p>International companies must include a local counterpart or partner as part of their implementation team.</p>	35%
	<p><i>Team Qualifications and Competence</i></p> <p>ii. Qualifications and skills of engineers, technicians, and supervisors, ability to renovate and replace the existing rusted corrugated walls and deteriorated roofing of the storage facility to enhance its structural integrity and ensure it is weatherproof and secure.</p>	20%
Methodology	<p>iii. Detailed methodology to deliver the required project components and provide detail to the panel the value proposed by the tenderer. Bill of Quantity for the renovation must also be included.</p>	15%
Risk Management Plan	<p>iv. Identification of potential risks (e.g., logistical delays, weather) and proposed mitigation strategies.</p>	10%

II. Financial Score – 20%

The following formula shall be used to calculate the financial score for **ONLY** the proposals which score 70% or more in the technical criteria:

$$\text{Financial Score} = a \times \frac{b}{c}$$

Where:

a = maximum number of points allocated for the Financial Score

b = Lowest bid amount

c = Total bidding amount of the proposal

7. Variation or Termination of the Request for Tender

7.1 a. **SPREP may amend, suspend or terminate the RFT process at any time.**



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- b. In the event that SPREP amends the RFT or the conditions of tender, it will inform potential Tenderers using the SPREP Tenders page (<https://www.sprep.org/tenders>).
- c. Tenderers are responsible to regularly check the SPREP website Tenders page for any updates and downloading the relevant RFT documentation and addendum for the RFT if it is interested in providing a Tender Response.
- d. If SPREP determines that none of the Tenders submitted represents value for money, that it is otherwise in the public interest or SPREP's interest to do so, SPREP may terminate this RFT process at any time. In such cases SPREP will cancel the tender, issue a cancellation notice and inform unsuccessful bidders accordingly.

8. Deadline

- 8.1. **The due date for submission of the tender is: 28 January 2026, midnight (Apia, Samoa local time).**
- 8.2. Late submissions will be returned unopened to the sender.
- 8.3. Please send all tenders clearly marked **"2025-GEFIS-018: Renovation of the Tuvalu E-Waste and Recyclable Storage Facility"**

Mail: SPREP

Attention: Procurement Officer

PO Box 240

Apia, SAMOA

Email: tenders@sprep.org (MOST PREFERRED OPTION)

Fax: 685 20231

Person: Submit by hand in the tenders' box at SPREP reception,
Vailima, Samoa.

Note: Submissions made to the incorrect portal will not be considered by SPREP. If SPREP is made aware of the error in submission prior to the deadline, the applicant will be advised to resubmit their application to the correct portal. However, if SPREP is not made aware of the error in submission until after the deadline, then the application is considered late and will be returned unopened to the sender.

SPREP reserves the right to reject any or all tenders and the lowest or any tender will not necessarily be accepted.

SPREP reserves the right to enter into negotiation with respect to one or more proposals prior to the award of a contract, split an award/awards and to consider localised award/awards between any proposers in any combination, as it may deem appropriate without prior written acceptance of the proposers.

A binding contract is in effect, once signed by both SPREP and the successful tenderer. Any contractual discussion/work carried out/goods supplied prior to a contract being signed does not constitute a binding contract.

For any complaints regarding the Secretariat's tenders please refer to the Complaints section on the SPREP website <http://www.sprep.org/accountability/complaints>

Annex A: Terms of Reference

Renovation of the Tuvalu E-Waste and Recyclable Storage Facility

1. BACKGROUND

The Secretariat of the Pacific Regional Environment Programme (SPREP) has received Global Environment Facility (GEF) funds from the United Nations Environment Programme (UNEP) to execute the GEF ISLANDS Pacific Project. The project is part of GEF 7 cycle of funding aimed at supporting Pacific Island Countries (PICs) in meeting their obligations to various multilateral environmental agreements (MEAs) relating to chemicals and waste management. These MEAs include the Basel, Rotterdam, Stockholm, Minamata and Waigani Conventions.

Globally Small Island Developing States (SIDS) are progressing on import-dependent development pathways. The quantities and variety of products that are being imported (ranging from mercury-containing thermometers to plastic packaging, from second-hand electronic products to motor vehicles, from agricultural chemicals to industrial chemicals) is rapidly increasing. This is leading to the generation of a large variety of different types of hazardous and toxic wastes which SIDS do not have the installed capacity or required treatment facilities to address. There is an urgent need for SIDS to move to integrated waste management. Extensive studies conclude the costs of inaction in SIDS are significant in terms of the economic costs of impacts on health, environment, tourism, and fisheries.

The Global Environment Facility (GEF) has recognised these challenges faced by SIDS and is supporting the Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) Programme in the 14 SPREP members, namely: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.

2. INTRODUCTION TO THE PROJECT

The national e-waste and recyclable storage facility for Tuvalu was constructed in 2016, to assist the Department of Waste Management in the processing and storage of materials and support the national recycling aspirations. However, due to the country's harsh weather conditions, the corrugated metal walls have rusted and now require significant repair. The facility is presently being used for mixed waste storage and poses safety and environmental concerns in its existing condition.

With proper renovation, the site could be transformed into a secure and functional e-waste management facility, accommodating safe storage of e-waste materials, housing essential equipment such as the e-waste baler and transport vehicles, and providing organised space for preparing and containerising shredded e-waste for export.

The GEF ISLANDS project is assisting the Department of Waste Management of Tuvalu to renovate Tuvalu's E-waste Storage Facility through the replacement of exterior walls and roofing. This renovation work is looking to strengthening their recycling capacities through targeted infrastructure support. The project aims to replace the existing rusted corrugated walls and deteriorated roofing of the storage facility to enhance its structural integrity and ensure it is weatherproof and secure. These upgrades are essential to protect stored materials and equipment from environmental damage, enhance workplace safety, and extend the facility's lifespan. The replacement works will use durable, weather-resistant materials suitable for Tuvalu's harsh coastal conditions, ensuring the facility remains functional and resilient in the long term. Facility specifications and drawings are outlined in **Annex B and C**.



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Interested companies are invited to submit tender proposals to replace the walls and roofing of Tuvalu's E-waste Storage facility. Companies must **clearly highlight and justify** chosen materials in their tender submissions, including technical datasheets and any supporting documentation, to allow for proper evaluation by the Secretariat of the Pacific Regional Environment Programme.

Companies, outside of Tuvalu, are responsible for the procuring, and freighting of building materials that are not available on island. A recommended maintenance schedule must also be included with the tender submission

3. EXPECTED OUTCOME

The renovation of Tuvalu's E-Waste Storage Facility represents a critical step toward strengthening the country's capacity to safely manage hazardous electronic waste. With increasing volumes of e-waste generated from households, businesses, and government agencies—as well as from outer islands—there is a growing need for a secure, well-designed facility that protects public health, supports environmental sustainability, and aligns with regional waste management standards. The upgraded facility is expected to deliver a range of environmental, health, operational, and institutional benefits that together contribute to a more resilient national waste management system.

Targeted Outcome for this project include:

- (i) Tuvalu's E- Waste storage facility is rehabilitated to withstand environmental exposure, especially corrosion caused by sea breeze.
- (ii) Safer working conditions for staff handling e-waste.
- (iii) Alignment with Basel Convention guidelines on hazardous waste storage.
- (iv) Improved capability to consolidate, pack, and prepare e-waste for export.

4. SCOPE OF WORK

The expected outcome of this tender is the successful renovation of Tuvalu’s Waste Management storage facility into a safe, durable, and fully functional e-waste storage and processing hub. Upon completion, the upgraded facility will provide a secure and weather-resistant structure capable of safely housing e-waste, machinery, and transport equipment. It will also enable the organised preparation and temporary storage of materials for export, thereby strengthening Tuvalu’s national capacity for e-waste management and contributing to improved environmental protection and resource recovery in line with the objectives of the GEF ISLANDS Programme.

A detailed description of the deliverable of this work is provided in the table below, which should be referred to for full specifications and deliverables for this request.

Table 1: Scope of Work

Phase	Description	Documentation SPREP will provide	Supplier Output
Inception	<p>Lead an inception meeting with SPREP and national focal points from the countries to discuss the delivery of the project, addressing all issues likely to cause delays (risk management), and ensure a common understanding of the action, and required outputs.</p> <p>The Contractor shall create and submit to SPREP a Work Plan that shall upon execution ensure effective delivery of services under this contract.</p> <p>The Draft Work Plan shall contain at a minimum:</p> <ul style="list-style-type: none"> • Proposed time schedule and sequence of events that the Contractor shall use to meet the contract deliverables • General description of the methods which the Contractor proposes to adopt for executing the contract, including meeting construction quality standards • Comprehensive risk plan to ensure effective delivery of services. <p>Any further details and information as SPREP may reasonably require.</p>	Nil	<p>Inception meeting Minutes of the inception meeting with confirmation of activities, and scope of work to be developed and agreed by meeting participants. The Draft Work Plan will be presented and discussed at this meeting.</p> <p>Draft Work Plan Draft Work Plan highlighting how services will be delivered under this contract submitted to SPREP for consideration and comment.</p> <p>Final Work Plan Final Work Plan adequately addressing all comments on the Draft Work Plan</p>
Removal of Existing of Wall and Roofing	<p>The renovation works will include the careful removal of the existing corrugated walls and roofing, which have deteriorated due to prolonged exposure to harsh weather conditions. All dismantling activities will be carried out with strict adherence to occupational health and safety standards to protect workers from injury and exposure to hazardous materials.</p>		<p>Report on Removal of Walls and Roofing The contractor shall submit a completion report detailing the removal and safe disposal of all existing wall and roofing materials. This report must be reviewed and</p>

Phase	Description	Documentation SPREP will provide	Supplier Output
<p>Installation of replacement walls and roofings</p>	<p>Contractors must ensure that the following are met:</p> <ul style="list-style-type: none"> (i) Provision of appropriate personal protective equipment (PPE) on site, (ii) Safe work procedures on demolition and handling are established and followed (iii) Removed materials are sorted and disposed of responsibly, ensuring that recyclable components are recovered where possible and that all waste is managed in compliance with Tuvalu's environmental and waste management regulations. <p>The installation works will involve fitting new wall panels and roofing sheets to replace the deteriorated structures, ensuring the facility is fully enclosed, weatherproof, and secure. All materials used must be of high quality and corrosion-resistant, suitable for Tuvalu's coastal and high-humidity conditions.</p> <p>The contractor will ensure:</p> <ul style="list-style-type: none"> (i) proper alignment, sealing, and fastening of panels to maintain structural integrity and prevent water ingress. (ii) All installation activities must comply with relevant building codes and safety standards, with regular inspections carried out to verify workmanship and adherence to specifications. <p>Upon completion, the renovated facility should provide a durable and resilient structure capable of supporting long-term e-waste management operations.</p>		<p>signed off by the Tuvalu Department of Waste Management to confirm that the works have been carried out in accordance with approved safety and environmental standards.</p> <p>Details on final disposal of removed materials must be included in the report.</p> <p>Completion Report</p> <p>The contractor shall submit a Completion Report confirming the full installation of the replacement walls and roofing. The report must include photographic evidence, material specifications, and a statement verifying compliance with project requirements and safety standards. It must be reviewed and signed off by the Tuvalu Department of Waste Management to formally confirm that the installation works are complete and acceptable.</p>
<p>Training Workshop for Department of Waste on Maintenance of Facility</p>	<p>As part of the contract, the contractor will facilitate a training workshop with the Tuvalu Department of Waste Management to provide guidance on the proper maintenance and inspection of the newly installed walls and roofing. The session will cover recommended cleaning procedures, routine inspections, identification of early signs of corrosion or damage, and a schedule for preventative maintenance and eventual replacement if required. The contractor will provide relevant manuals, maintenance checklists, and practical demonstrations to ensure that the Department of Waste Management staff are fully equipped to manage the facility sustainably and prolong the lifespan of the upgraded structure.</p>		<p>Training Report</p> <p>The contractor shall submit a Training Report documenting the facilitation of the maintenance and replacement workshop for the Tuvalu Department of Waste Management.</p> <p>The report must include participant attendance, training materials provided, and a summary of key topics covered.</p>

Phase	Description	Documentation SPREP will provide	Supplier Output
Warranty	Provide a 2-year warranty of equipment. If walls and roofing experiences significant corrosion or damage during the warranty period, full replacement is expected.		It must be reviewed and acknowledged by the Department of Waste Management to confirm that the training was delivered satisfactorily. 2-Years Warranty Provide a 2-years full replacement warranty of Wall and roofings. Issue a Certificate of Warranty

Service Provider Responsibilities

The service provider will be responsible for scheduling meetings with relevant stakeholders, taking minutes of meetings and ensuring meeting minutes are distributed for comment prior to finalisation.

5. SITE VISIT

A site visit is strongly recommended for all interested bidders. To arrange a site visit, please contact Epu Falenga, efalega@gov.tv no later than 19 January 2025. Transportation and travel costs will be the responsibility of the bidders.

Bidders who choose not to undertake site visits do so at their own risk and SPREP will not provide any financial assistance, additional information, or compensation for misunderstandings or omissions arising from bidder’s failure to inspect the site. All bidders are responsible for ensuring they have fully understood the site conditions prior to submitting their bid.

6. SCHEDULE OF WORK

All activities outlined under this contract are required to be completed within five (5) months from the date of signing. The contractor is expected to ensure timely delivery, installation, and commissioning of the equipment, adhering to the agreed schedule and milestones. Discussions on the final timeline will be had with successful supplier.

Expected project activity is detailed below, it is expected that tenderers will detail how and when each of these steps will be delivered.

Activity/Deliverable	Timeline
Inception meeting Final Work Plan	No later than 2 weeks after contract execution
Removal of existing walls and roofings	No later than 5 weeks after contract execution

Installation of new walls and roofings	No later than 16 weeks after contract execution
Delivery of training workshop	No later than 20 weeks after contract execution

7. PAYMENT SCHEDULE

Payments will be made upon the successful completion and acceptance of deliverables by SPREP and the Tuvalu Department of Waste Management, according to the following schedule:

- 20% upon contract signing and submission of the approved Final Work Plan.
- 30% upon completion of demolition, removal, and submission of the approved Removal Report.
- 40% upon completion of installation and submission of the approved Completion Report.
- 10% upon delivery of training workshop on building maintenance and submission of the approved Training Report and all final documentation.

8. BUDGET

Submissions are required to itemise all financial elements of their proposal in USD, including, but not limited to the following:

Equipment purchase (*not limited to*)

- Chosen equipment (e.g., construction tools, equipment)
- Required specialist tools
- Spare parts
- PPE required

All delivery costs (*not limited to*)

- shipping costs
- insurance
- custom clearance requirements

All applicable taxes

Travel costs

- airfare and per diem

Submissions must include an annotated budget listing for each task.

SPREP reserves the right to withdraw this tender at any time, reserves the right to accept or reject any or all bids and to waive any formal defects or irregularities in the bids, when deemed to be in the interest of SPREP.

9. Other Information

The successful consultant will be provided with any relevant project documentation.

The successful consultant must supply the services to the extent applicable, in compliance with SPREP's Values and Code of Conduct

https://www.sprep.org/attachments/Publications/Corporate_Documents/sprep-organisational-values-code-of-conduct.pdf.

Including SPREP's policy on Child Protection, Environmental Social Safeguards, Fraud prevention & Whistleblower Protection and Gender and Social Inclusion.

Bidders must include a signed declaration in their proposal confirming they have read, understood, and will comply with all SPREP policies listed above.

Annex B: Facility Drawing prior to Construction

PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE SOLID WASTE AGENCY OF TUVALU (SWAT) MINISTRY OF HOME AFFAIRS GOVERNMENT OF TUVALU FUNAFUTI

CLIENT - SWAT DEPARTMENT

ARCHITECTURE DRAWING

A 01 - FLOOR LAYOUT
A 02 - BOLT SEPTET PLAN & BASE CLEAT LAYOUT.
A 03 - ELEVATION A & B
A 03,1 - ELEVATION C & D
A 04 - CROSS SECTION X
A 05 - ROOF PLAN
A 06 - ROOF FRAMING LAYOUT
A 07 - CONSTRUCTION DETAILS
A 08 - DOOR SCHEDULES
A 09 - FIXING DETAILS
A 10 - STRUCTURAL NOTES
A 11 - FOUNDATION LAYOUT
A 12 - PAD FOOTING DETAILS



ROOFING & PROFILES (P) LTD
PH: 6751 8973784, FAX: 1 6751 8973874
EMAIL: info@roofingandprofiles.com.tl



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ALL DIMENSIONS ARE IN mm UNLESS STATED

CONSTRUCTION SET DRAWINGS

GENERAL

- D1. These drawings shall be read in conjunction with all Architectural and other consultants' drawings, Specifications and with all other written instructions as may be issued during the course of the Contract. Any discrepancy shall be referred to the Superintendent for decision before proceeding with the work.
- D2. All dimensions are in millimetres. Dimensions shall NOT be obtained by scaling the Structural Drawings. Levels shown on the Structural Drawings are to the top of structural concrete or structural steelwork unless noted otherwise.
- D3. Setting out dimensions shown on the drawings shall be verified by the Builder.
- D4. During construction the structure shall be maintained in a stable condition and no part shall be over-stressed. Temporary bracing shall be provided by the Builder as required.
- D5. All workmanship and materials shall be in accordance with the requirements of the SAA and NZS Codes and the By-Laws and ordinances of the relevant building authorities.
- D6. Refer to Architectural Drawings for block wall thicknesses where not mentioned on these Drawings and for falls in slabs, extra padding, waterproofing membranes, construction joint filling materials and all other architectural features such as drip grooves, pour breaks in off-trench concrete, flats and the like.

REINFORCEMENT

- R1. Reinforcement is represented diagrammatically. It is not necessarily shown in true proportion.
- R2. Splices in the reinforcement shall be made only in the positions shown. The written approval of the Engineer shall be obtained for any other splices. Lap length for deformed bars shall be as tabulated below.

MINIMUM LAP LENGTHS AND ANCHORAGE LENGTHS				
275 GRADE STEEL				
BAR DIA.(mm)	BEAMS/COLUMNS TYPICAL STEEL	BEAMS TOP STEEL	WALLS (VERT. STEEL) AND SLABS	WALLS HORIZONTAL STEEL
10	300	300	300	300
12	300	300	300	300
16	300	380	500	500
20	400	570	750	750
24	600	420	750	750
28	800	1120	970	970
32	1120	1460	1210	1210

STEEL WORK

- S1. All workmanship and materials shall be in accordance with AS 4100 and AS 1554 except where varied by the Contract Documents.
- S2. Unless otherwise noted, all steel shall be in accordance with:-
 AS 1204 Grade 250 for Rolled Sections
 AS 1163 Grade 220 for R.H.S. Sections
 AS 1163 Grade 200 for C.H.S. Sections
 AS 1204 Grade 350 for all high strength steel.

STRUCTURAL NOTES

STEEL WORK cont

- S3. The builder shall prepare work-up drawings and shall submit three copies of each drawing for approval. Fabrication shall NOT commence until approval has been received. Approval does not include dimensions.
 - S4. Unless noted otherwise, all bolts to be 16 diameter commercial grade structural bolts of grade 4.6 snug tight (M16-4.6/5.7) conforming to AS 1111. Bolts - designated by the Number, Diameter, Grade and Tightening procedure, e.g. 6M16-4.6/5.7 means 6M16 high strength structural bolts fully tensioned in a nutting slot. 6M24-8.8(9) means 6M24 high strength structural bolts fully tensioned in a bearing joint. (Some slip allowed)
- bolt diameter U.N.C. All bolts shall have at least one thread projecting through both sides of the nut.
 Bolt spacing edge distances, splice bars, beam caps etc, to conform to A.I.S.C. standardised connectors U.N.C.
 Removal of sharp edges and burrs.
 All holes shall be drilled and shall be 3mm larger than the bolt diameter U.N.C. Holes in baseplates may be 3mm larger than the bolt diameter U.N.C.
 Unless otherwise noted, all welds to be 6 mm continuous flat from EATX electrodes.
 All welds shall be ground purpose wide unless noted otherwise.
 Structural purpose welds shall be denoted thus "S".
 Butt welds where indicated in the drawings are to be complete penetration butt welds as defined in AS 1554. Welding symbols to AS 1551 Part 3.
- S5. Concrete encased steelwork shall be wrapped with 605 mesh and have a minimum of 50 cover unless noted otherwise.
 - S7. High strength friction grip bolts, nuts and washers shall comply with the relevant requirements of AS 1252, shall be installed in accordance with AS 1511 and shall be tightened to the correct torque using approved load indicating washers. Contact surfaces of all high strength friction grip bolted connections shall be left uncoated.
 - S8. The minimum interval dia. of all bends shall be as follows

STEEL GRADE	MINIMUM DIAMETER OF BEND			
	MAIN REINFORCEMENT		STIRRUPS & TIES	
	BAR DIA.	MINIMUM DIA. OF BEND	BAR DIA.	MINIMUM DIA. OF BEND
4	30	6	24	
10	50	10	40	
12	60	12	48	
14	80	16	64	
20	100	20	80	
24	120	-	-	
28	140	-	-	
32	160	-	-	
40	240	-	-	



CONCRETE

- C1. All workmanship and materials shall be in accordance with NZS 3109 PART 1 current edition with amendments, except where varied by the Contract Documents.
- C2. Concrete Quality:-

ELEMENT	SLUMP	CONCRETE TYPE	MAX. AGG. SIZE	MINIMUM CONCRETE STRENGTH Fc MPa
Footings	80	A	20	20 MPa
Slabs on ground	80	A	20	20 MPa
Columns	80	A	20	20 MPa
Beams	80	A	20	20 MPa

ELEMENT	CONCRETE COVER		
	Cast against & exposed to earth	Exposed to weather	Not exposed to weather or earth
a) Pad footings	75	-	-
b) Strip footings	75	-	-
c) Slabs, walls, & ties 20mm laps of wire and smaller	75	35	20
d) Beams	80	50	40
e) Columns	85	40	25
f) Longitudinal reinforcement and slings	80	50	40
g) Ties and slings	85	40	25

- C3. Sizes of concrete elements do not include thickness of applied finishes.
- C4. Construction joints where shown on the Structural Drawings shall be well screeded and painted with epoxy prior to pouring of fresh concrete.
- C5. Construction joints where not shown shall be located to the approval of the Engineer.
- C6. Beam depths are written first and include slab thickness, if any.
- C7. Provide 20 chamfers to all columns & beams unless varied by architect's drawing.
- C8. Provide 20 drip grooves to soffits of all external slabs & beams.
- C9. No penetrations, recesses, sleeves, etc other than those shown on the Structural Drawings shall be made in concrete members without the prior approval of the Engineer.
- C10. Pipes or conduits shall not be placed within the concrete cover to reinforcement without the approval of the Engineer. The concrete cover to embedded pipes or conduits shall be a minimum of 20 mm.
- C11. All Saw Cuts on slab on grade to be of 30mm minimum depth.



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PROJECT TITLE:
 RECONSTRUCTION OF GREAT TRANSDRUM BARRIAGE SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
 FUNAFUTI

Drawn:	S Lal	Scale:	N.T.S	Sheet No.:	A 10
Date:	05/10/2016	Revision No.:		Revision Title:	
Checked By:		Approved By:		Job Number:	11050

STRUCTURAL NOTES

GENERAL

- G1. These drawings shall be read in conjunction with all Architectural and other Consultants' drawings, Specifications and with such other written instructions as may be issued during the course of the Contract. Any discrepancy shall be referred to the Superintendent for decision before proceeding with the work.
- G2. All dimensions are in millimetres. Dimensions shall NOT be obtained by adding the Structural Drawings. Levels shown on the Structural Drawings are to the top of structural concrete or structural steelwork unless noted otherwise.
- G3. Setting out dimensions shown on the drawings shall be verified by the Builder.
- G4. During construction the structure shall be maintained in a stable condition and no part shall be overstrengthened. Temporary loading shall be provided by the Builder as required.
- G5. All workmanship and materials shall be in accordance with the requirements of the SAA and NZS Codes and the By-Laws and ordinances of the relevant building authorities.
- G6. Refer to Architectural Drawings for block wall thicknesses where not mentioned on these Drawings and for falls in slabs, extra padding, waterproofing membranes, construction joint filling materials and all other architectural features such as drip grooves, pour breaks in off-turn concrete, tieta and the like.

REINFORCEMENT

- R1. Reinforcement is represented diagrammatically. It is not necessarily shown in true projection.
- R2. Splices in the reinforcement shall be made only in the positions shown. The written approval of the Engineer shall be obtained for any other splices. Lap length for detuned bars shall be as tabulated below.

MINIMUM LAP LENGTHS AND ANCHORAGE LENGTHS				
275 GRADE STEEL				
BAR DIA(mm)	BEAMS/COLUMNS TYPICAL STEEL	BEAMS TOP STEEL	WALLS (VERT. STEEL) AND SLABS	WALLS HORIZONTAL STEEL
10	300	300	300	300
12	300	300	300	300
16	300	380	500	500
20	400	570	750	750
24	600	420	750	750
28	800	1120	970	970
32	1120	1480	1210	1210

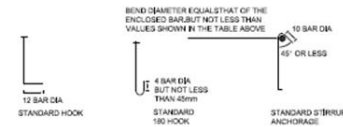
STEEL WORK

- S1. All workmanship and materials shall be in accordance with AS 4100 and AS 1554 except where varied by the Contract Documents.
- S2. Unless otherwise noted, all steel shall be in accordance with:-
 AS 1204 Grade 250 for Rolled Sections
 AS 1163 Grade 250 for R.H.S. Sections
 AS 1163 Grade 200 for C.H.S. Sections
 AS 1204 Grade 350 for all high strength steel.

STEEL WORK cont

- S3. The builder shall prepare workshop drawings and shall submit three copies of each drawing for approval. Fabrication shall NOT commence until approval has been received. Approval does not include dimensions.
- S4. Unless noted otherwise, all bolts to be 16 diameter commercial grade structural bolts of grade 4.6 snug tight (M16-4.6/5) conforming to AS 1111.
 Bolts - designated by the Number, Diameter, Grade and Tightening procedure.
 e.g. 4M16-4.6/5 means 4 16 dia. commercial grade bolts snug tight.
 M20-8.8T means M20 high strength structural bolts fully tensioned in a friction joint.
 M24-8.8B means M24 high strength structural bolts fully tensioned in a bearing joint. (Some slip allowed)
 Bolt diameter U.N.O. All bolts shall have at least one thread projecting through both sides of the nut.
 Bolt spacing, edge distances, gauge lines, beam copes etc, to conform to A.I.S.C. standardised connectors U.N.O.
 Remove all sharp edges and burrs.
 All holes shall be drilled and shall be 2mm larger than the bolt diameter U.N.O. Holes in baseplates may be 5mm larger than the bolt diameter U.N.O.
 Unless otherwise noted, all welds to be 6 mm continuous flat from E43XX electrodes.
 All welds shall be general purpose welds unless noted otherwise.
 Structural purpose welds shall be denoted thus "SP".
 Butt welds where indicated in the drawings are to be complete penetration butt welds as defined in AS 1554. Welding symbols to AS 1101 Part 3.
- S5. Concrete encased steelwork shall be wrapped with 665 mesh and have a minimum of 50 cover unless noted otherwise.
- S7. High strength friction grip bolts, nuts and washers shall comply with the relevant requirements of AS 1552, shall be installed in accordance with AS 1511 and shall be tightened to the correct tension using approved load indicating washers. Contact surfaces on all high strength friction grip bolted connections shall be left unpeened.
- S8. The minimum internal dia of all bends shall be as follows

STEEL GRADE	MINIMUM DIAMETER OF BEND			
	MAIN REINFORCEMENT		STIRRUPS & TIES	
	BAR DIA.	MINIMUM DIA. OF BEND	BAR DIA.	MINIMUM DIA. OF BEND
275	4	30	6	24
	10	50	10	40
275	12	60	12	48
	14	80	16	64
275	20	100	20	80
	24	120	-	-
275	28	140	-	-
	32	192	-	-
275	40	240	-	-



CONCRETE

- C1. All workmanship and materials shall be in accordance with NZS 3109 PART 1 current edition with amendments, except where varied by the Contract Documents.
- C2. Concrete Quality:-

ELEMENT	SUMP	CONCRETE TYPE	MAX. AGG. SIZE	MINIMUM CONCRETE STRENGTH F _c MPa
Footings	80	A	20	20 MPa
	80	A	20	20 MPa
Slabs on ground	80	A	20	20 MPa
	80	A	20	20 MPa
Columns	80	A	20	20 MPa
Beams	80	A	20	20 MPa

ELEMENT	CONCRETE COVER		
	Cast against & exposed to earth	Exposed to earth or weather	Not exposed to weather or earth
a) Pad footings	75	-	-
b) Strip footings	75	-	-
c) Slabs, walls & ties 20mm bars or wire and stirrups	75	25	20
d) Beams	80	30	25
Longitudinal reinforcement and stirrups	80	30	25
e) Columns	80	30	25
Longitudinal reinforcement and stirrups	80	30	25

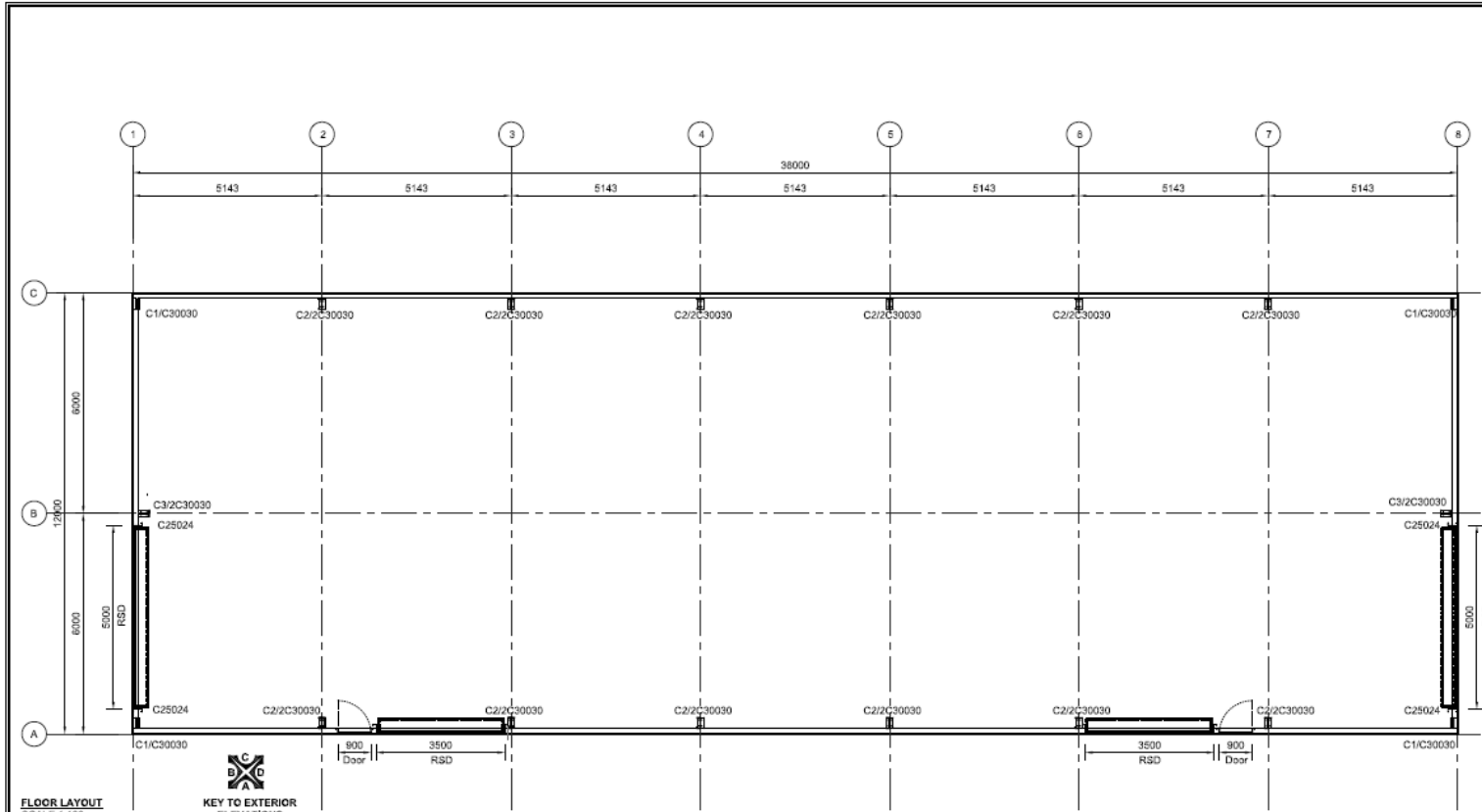
- C3. Sizes of concrete elements do not include thickness of applied finishes.
- C4. Construction joints where shown on the Structural Drawings shall be well conditioned and painted with epoxy prior to pouring of fresh concrete.
- C5. Construction joints where not shown shall be located to the approval of the Engineer.
- C6. Beam depths are written first and include slab thickness, if any.
- C7. Provide 20 chamfers to all columns & beams unless varied by architect's drawing.
- C8. Provide 20 dip grooves to soffits of all external slabs & beams.
- C9. No penetrations, recesses, sleeves, etc other than those shown on the Structural Drawings shall be made in concrete members without the prior approval of the Engineer.
- C10. Pipes or conduits shall not be placed within the concrete cover to reinforcement without the approval of the Engineer. The concrete cover to embedded pipes or conduits shall be a minimum of 20 mm.
- C11. All Saw Cuts on slab on grade to be of 30mm minimum depth.



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PROJECT TITLE:	Next	Revised:
PROPOSED CONSTRUCTION OF DWAT TRANSFER WAREHOUSE	1.	
SOLID WASTE AGENCY OF TUVALU (SWAT)	2.	
MINISTRY OF HOME AFFAIRS	3.	
GOVERNMENT OF TUVALU	4.	
FUNAFUTI	5.	

DRAWN:	S Lal	SCALE:	N.T.S	SHEET No :	A 10
DATE :	09/10/2016	REVISION No:		REVISION TITLE:	
CHECKED BY:		APPROVED BY:		JOB NUMBER:	11060



CONSTRUCTION SET DRAWING



ROOFING & PROFILES PLUS LTD
 PH: (679) 987396, FAX: (679) 987396,
 EMAIL: info@roofingandprofiles.com.fj



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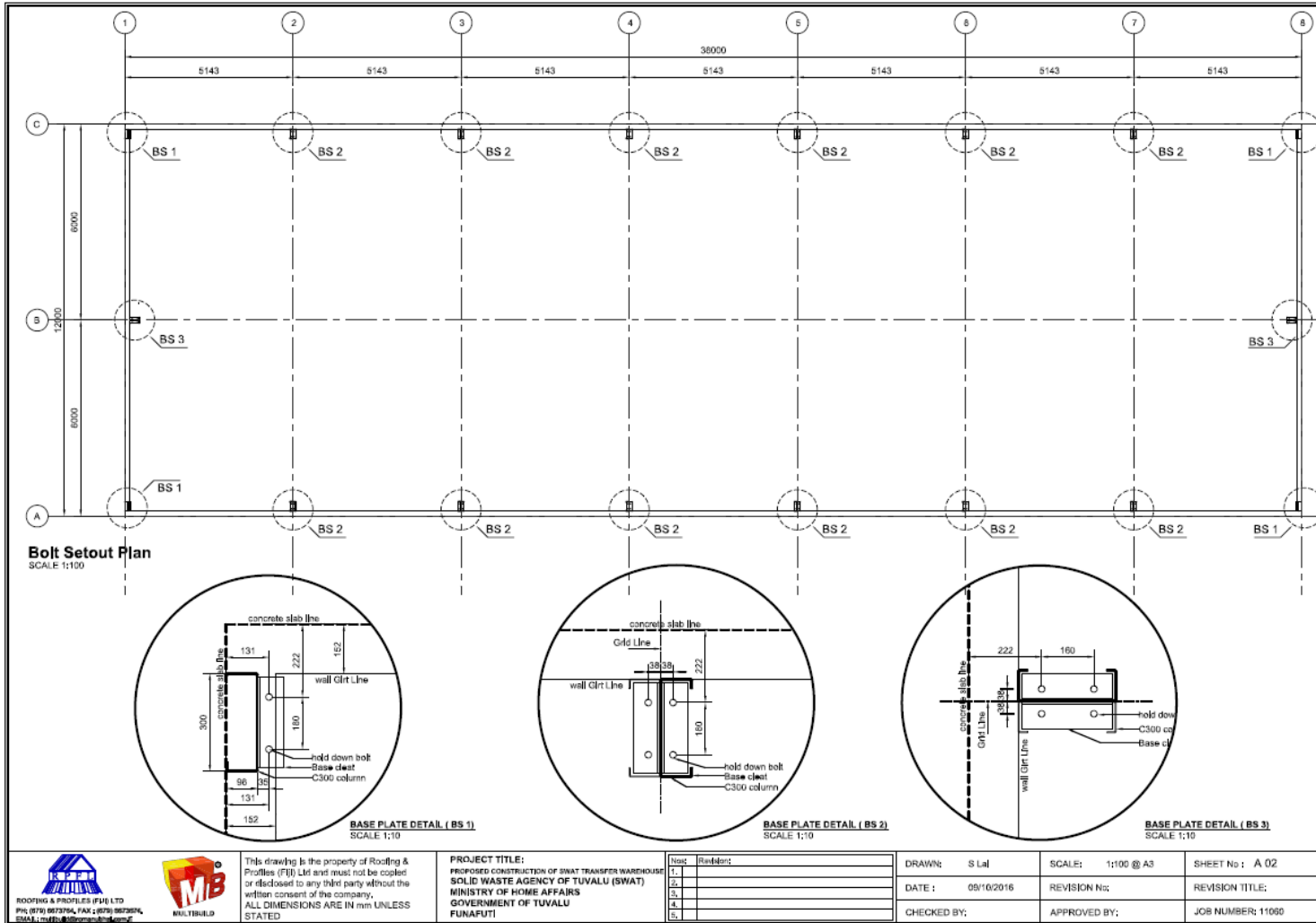
PROJECT TITLE:
 PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
 SOLID WASTE AGENCY OF TUVALU (SWAT)
 MINISTRY OF HOME AFFAIRS
 GOVERNMENT OF TUVALU
 FUNAFUTI

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DRAWN: S Lal
 DATE: 09/10/2016
 CHECKED BY:

SCALE: 1:100 @ A3
 REVISION No:
 APPROVED BY:

SHEET No: A 01
 REVISION TITLE:
 JOB NUMBER: 11060



ROOFING & PROFILES (PFI) LTD
PH: (875) 9873764, FAX: (875) 9873974,
EMAIL: info@roofingandprofiles.com



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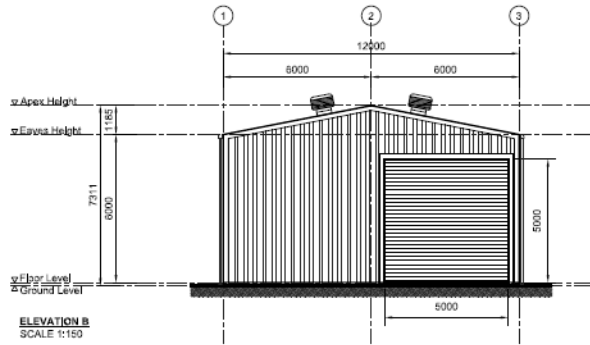
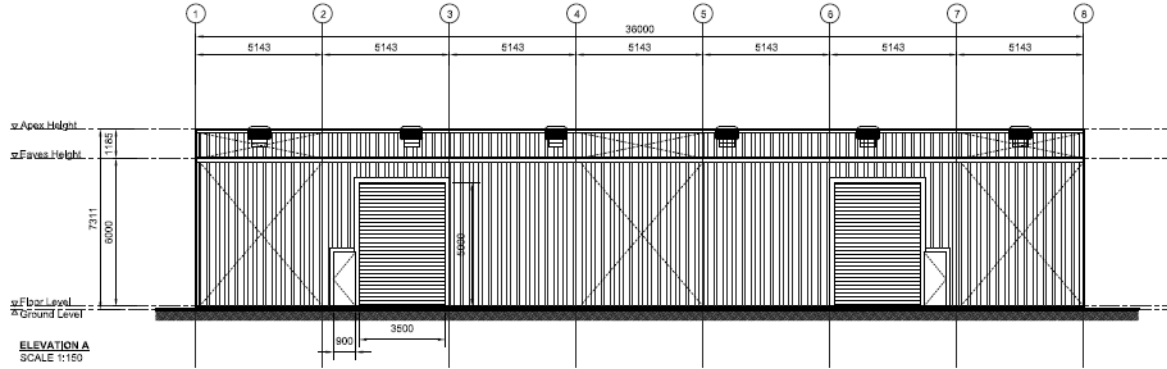
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PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

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DRAWN: S Lal
DATE: 09/10/2016
CHECKED BY:

SCALE: 1:100 @ A3
REVISION No:
APPROVED BY:

SHEET No: A 02
REVISION TITLE:
JOB NUMBER: 11050



ROOFING & PROFILES (FIJI) LTD
 P.O. BOX 987374, SUVA, FIJI
 PHONE: (679) 9873744, FAX: (679) 9873745
 EMAIL: info@roofingandprofiles.com.fj



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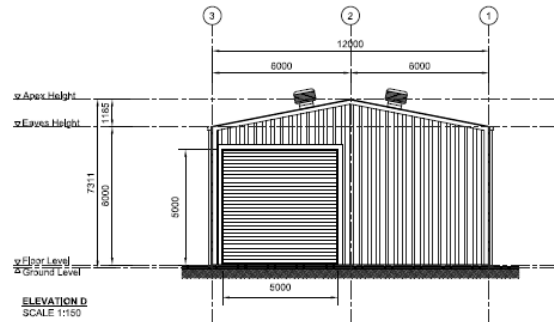
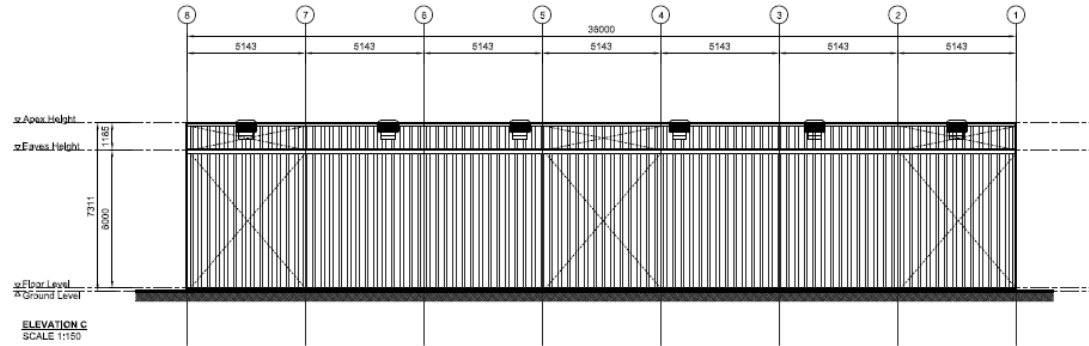
PROJECT TITLE:
 PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
 SOLID WASTE AGENCY OF TUVALU (SWAT)
 MINISTRY OF HOME AFFAIRS
 GOVERNMENT OF TUVALU
 FUNAFUTI

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DRAWN: S Lal
 DATE: 09/10/2016

SCALE: 1:150 @ A3
 REVISION No:
 APPROVED BY:

SHEET No: A 03
 REVISION TITLE:
 JOB NUMBER: 11060



ROOFING & PROFILES (FIJI) LTD
 P.O. BOX 987288, SUVA, FIJI
 TEL: +679 3222222, FAX: +679 3222222
 EMAIL: info@roofingandprofiles.com.fj



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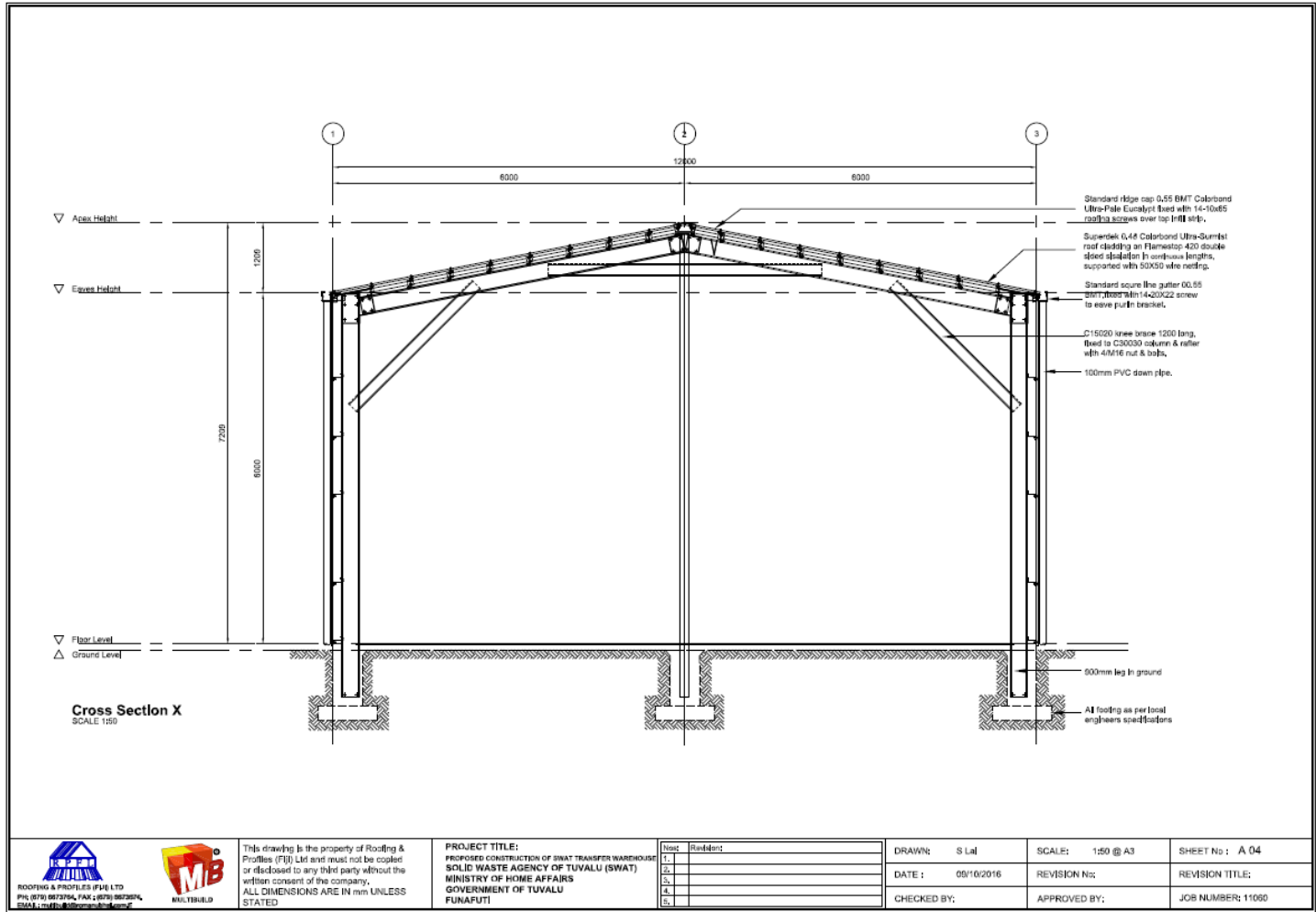
PROJECT TITLE:
 PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
 SOLID WASTE AGENCY OF TUVALU (SWAT)
 MINISTRY OF HOME AFFAIRS
 GOVERNMENT OF TUVALU
 FUNAFUTI

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 DATE: 05/10/2016
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 APPROVED BY:

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 REVISION TITLE:
 JOB NUMBER: 11060

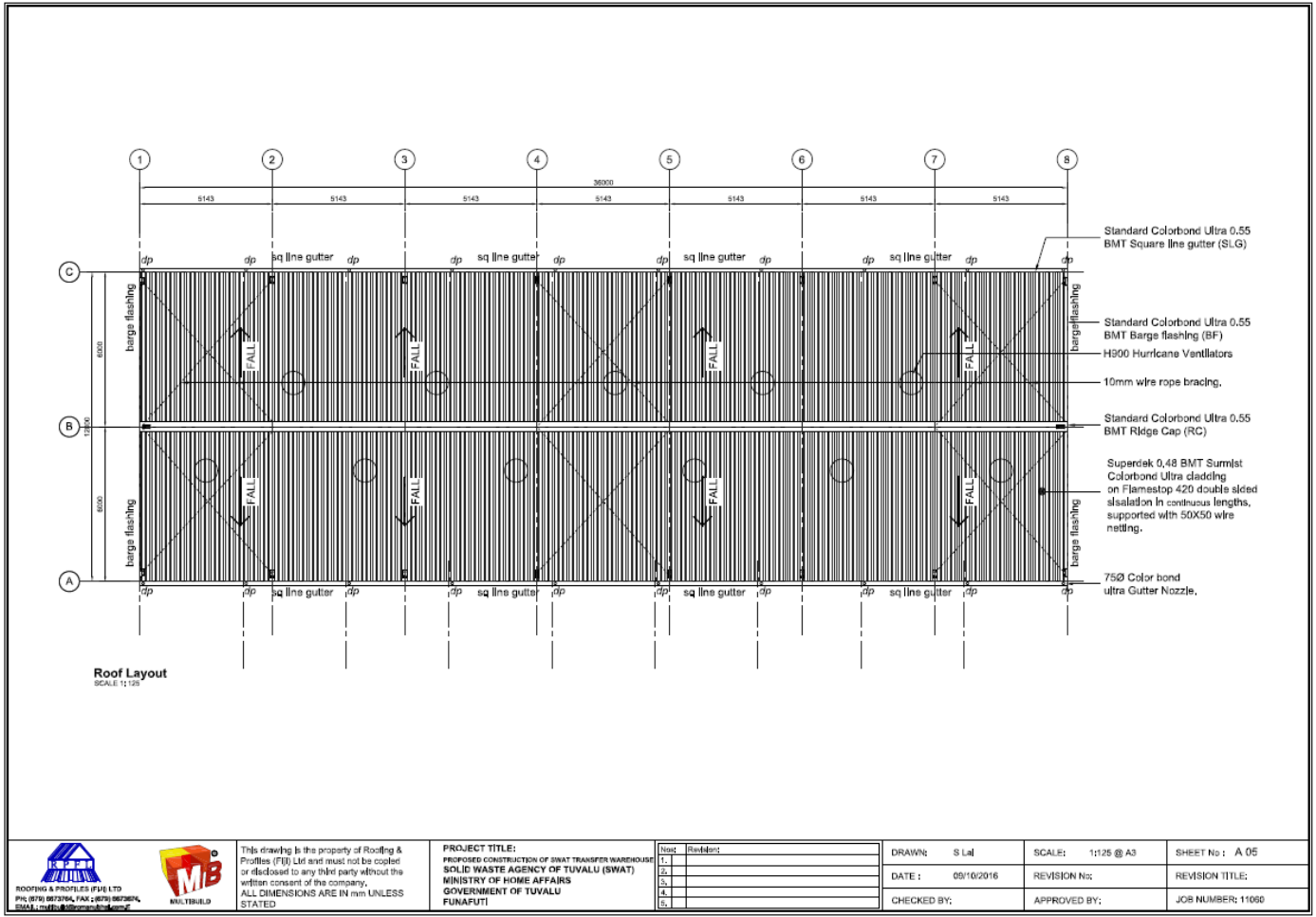


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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

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DATE: 09/10/2016	REVISION No:	REVISION TITLE:
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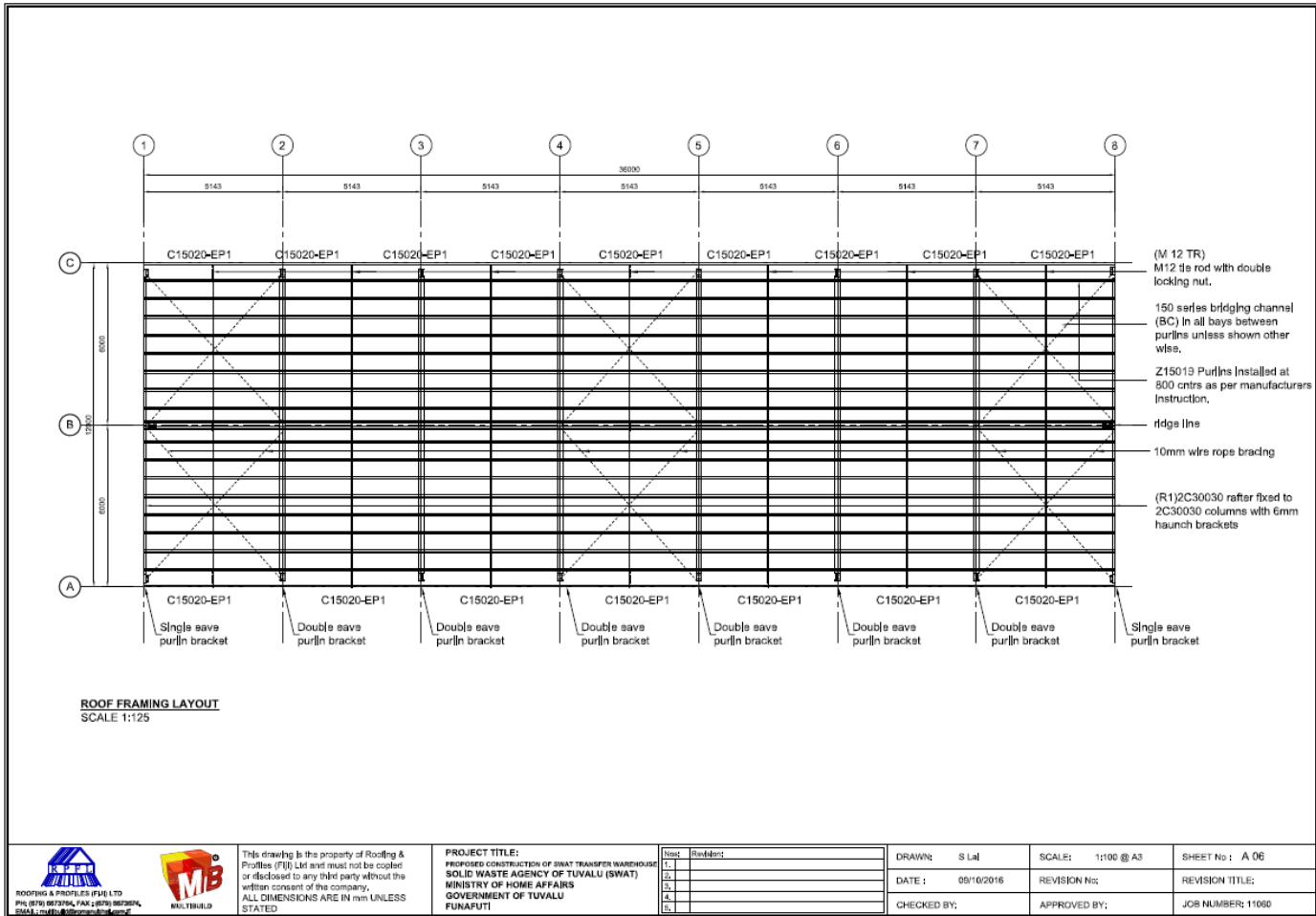


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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

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DATE :	09/10/2016	REVISION No:		REVISION TITLE:	
CHECKED BY:		APPROVED BY:		JOB NUMBER:	11050



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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

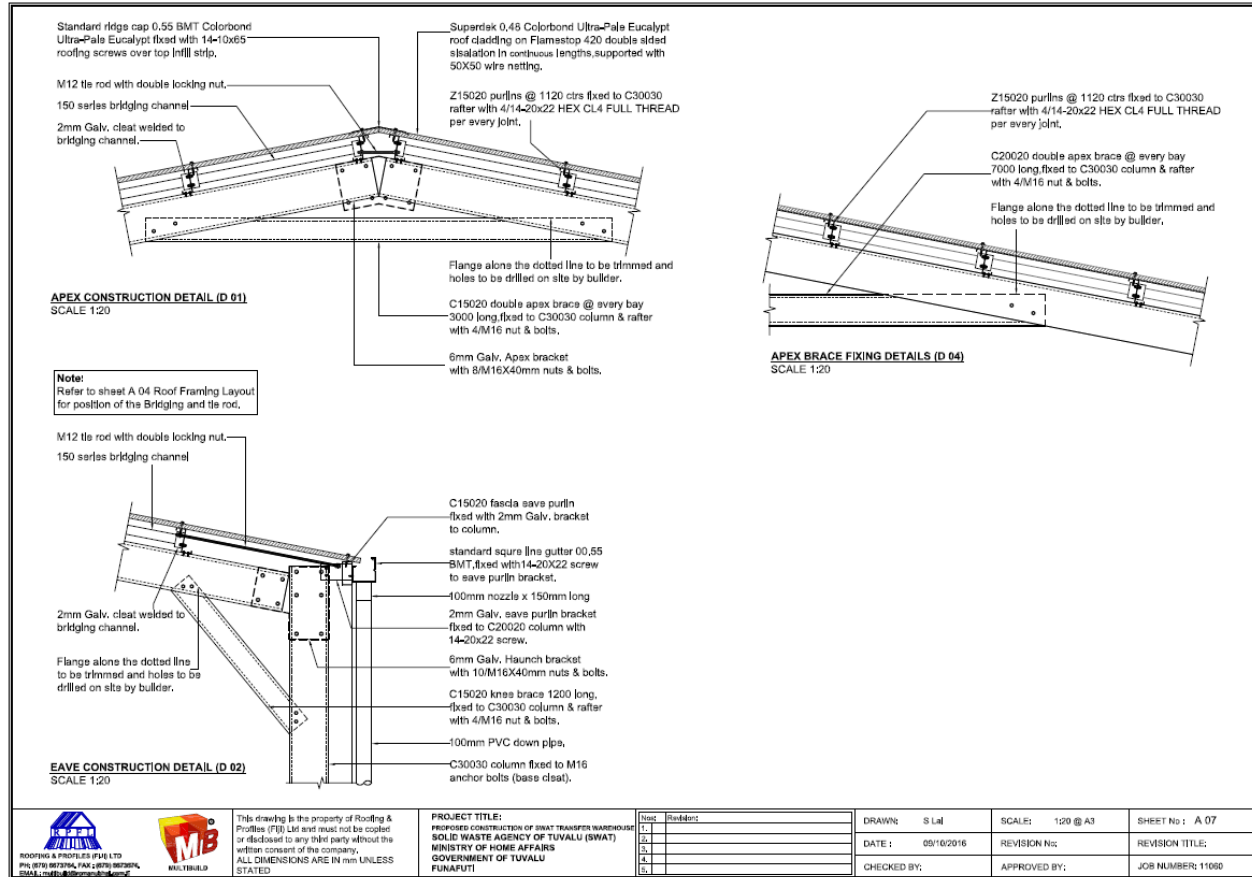
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DATE: 09/10/2016

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SCALE: 1:100 @ A3
REVISION No:
JOB NUMBER: 11060

SHEET No: A 06
REVISION TITLE:
JOB NUMBER: 11060

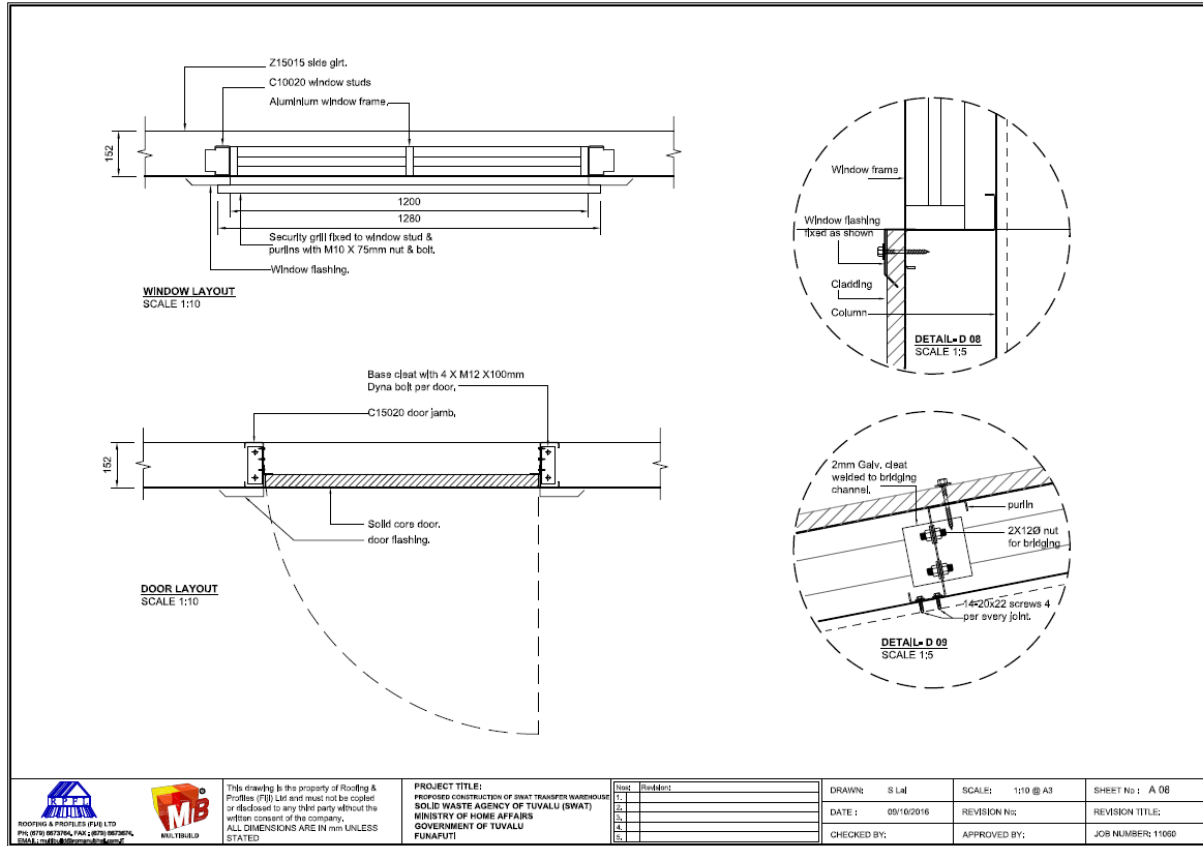


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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

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DATE:	09/10/2016	REVISION No.:		REVISION TITLE:	
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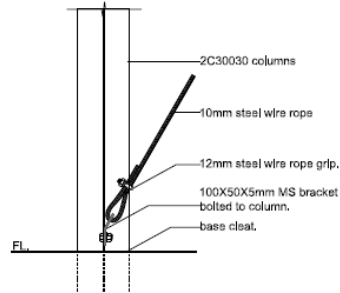
PROJECT TITLE:
 PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
 SOLID WASTE AGENCY OF TUVALU (SWAT)
 MINISTRY OF HOME AFFAIRS
 GOVERNMENT OF TUVALU
 FUNAFUTI

Rev	Revisions
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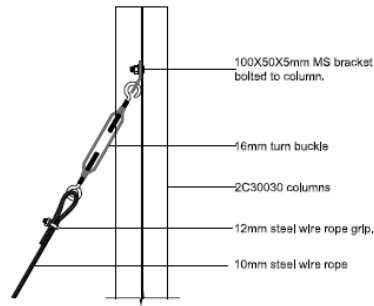
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 DATE: 05/10/2016
 CHECKED BY:

SCALE: 1:10 @ A3
 REVISION No:
 APPROVED BY:

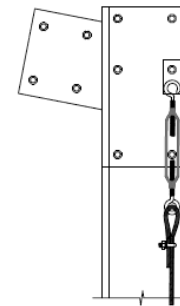
SHEET No: A 08
 REVISION TITLE:
 JOB NUMBER: 11000



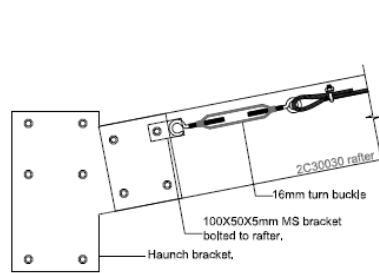
TYPICAL WALL BRACING DETAIL 1
SCALE 1:10



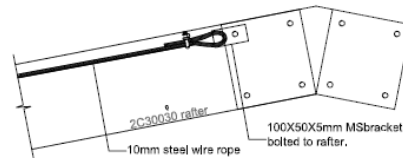
TYPICAL WALL BRACING DETAIL 2 - END ELEVATION
SCALE 1:10



TYPICAL WALL BRACING DETAIL 2 - FRONT ELEVATION
SCALE 1:10



TYPICAL ROOF BRACING DETAIL 1
SCALE 1:10



TYPICAL ROOF BRACING DETAIL 2
SCALE 1:10



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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

Rev#	Description
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DATE :	09/10/2016	REVISION No:		REVISION TITLE:	
CHECKED BY:		APPROVED BY:		JOB NUMBER:	11060

STRUCTURAL NOTES

GENERAL

- G1. These drawings shall be read in conjunction with all Architectural and other Consultants drawings, Specifications and with such other written instructions as may be issued during the course of the Contract. Any discrepancy shall be referred to the Superintendent for decision before proceeding with the work.
- G2. All dimensions are in millimetres. Dimensions shall NOT be obtained by scaling the Structural Drawings. Levels shown on the Structural Drawings are to the top of structural concrete or structural steelwork unless noted otherwise.
- G3. Setting out dimensions shown on the drawings shall be verified by the Builder.
- G4. During construction the structure shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the Builder as required.
- G5. All workmanship and materials shall be in accordance with the requirements of the SAA and NZS Codes and the By-Laws and ordinances of the relevant building authorities.
- G6. Refer to Architectural Drawings for block wall thicknesses where not mentioned on these Drawings and for falls in slabs, extra packings, waterproofing membranes, contraction joint filling materials and all other architectural features such as drip grooves, pour breaks in off-form concrete, flats and the like.

REINFORCEMENT

- R1. Reinforcement is represented diagrammatically. It is not necessarily shown in true projection.
- R2. Splices in the reinforcement shall be made only in the positions shown. The written approval of the Engineer shall be obtained for any other splice. Lap length for deformed bars shall be as tabulated below.

MINIMUM LAP LENGTHS AND ANCHORAGE LENGTHS				
275 GRADE STEEL				
BAR DIA(mm)	BEAMS/COLUMNS TYPICAL STEEL	BEAMS TOP STEEL AND SLABS	WALLS (VERT. STEEL) AND SLABS	WALLS HORIZONTAL STEEL
10	300	300	300	300
12	300	300	300	300
16	300	360	500	500
20	400	570	730	730
24	600	420	750	750
28	800	1120	970	970
32	1120	1460	1210	1210

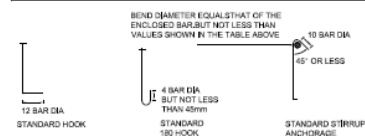
STEEL WORK

- S1. All workmanship and materials shall be in accordance with AS 4100 and AS 1554 except where varied by the Contract Documents.
- S2. Unless otherwise noted, all steel shall be in accordance with:-
 - AS 1204 Grade 250 for Rolled Sections
 - AS 1163 Grade 250 for R.H.S. Sections
 - AS 1163 Grade 200 for C.H.S. Sections
 - AS 1204 Grade 350 for all high strength steel.

STEEL WORK cont

- S3. The builder shall prepare workshop drawings and shall submit three copies of each drawing for approval. Fabrication shall NOT commence until approval has been received. Approval does not include dimensions.
- S4. Unless noted otherwise, all bolts to be 16 diameter commercial grade structural bolts of grade 4.6 snug tight (M16-4.6/3) conforming to AS 1111. Bolts - designated by the Number, Diameter, Grade and Tightening procedure. e.g. 4M16-4.6/3 means 4 dia. commercial grade bolts snug tight. 6M20-8.8/70 means 6M20 high strength structural bolts fully tensioned in a friction joint. 6M24-8.8/70 means 6M24 high strength structural bolts fully tensioned in a bearing joint. (Some slip allowed).
- bolt diameter U.N.C. All bolts shall have at least one thread projecting through both sides of the nut. Bolt spacing, edge distances, gage lines, beam copes etc, to conform to A.I.S.C. standardized connections U.N.C. Remove all sharp edges and burrs. All holes shall be drilled and shall be 2mm larger than the bolt diameter U.N.C. Holes in baseplates may be 3mm larger than the bolt diameter U.N.C.
- S5. Unless otherwise noted, all welds to be 6 mm continuous fillet from E41XX electrodes. All welds shall be general purpose welds unless noted otherwise. Structural purpose welds shall be denoted thus "SP". Butt welds where indicated in the drawings are to be complete penetration butt welds as defined in AS 1554. Welding symbols to AS 1101 Part 3.
- S6. Concrete encased steelwork shall be wrapped with 695 mesh and have a minimum of 50 cover unless noted otherwise.
- S7. High strength friction grip bolts, nuts and washers shall comply with the relevant requirements of AS 1532, shall be installed in accordance with AS 1511 and shall be tightened to the correct tension using approved load indicating washers. Contact surfaces of high strength friction grip bolted connections shall be left unpainted.
- S8. The minimum internal dia of all bends shall be as follows

STEEL GRADE	MINIMUM DIAMETER OF BEND			
	MAIN REINFORCEMENT		STIRRUPS & TIES	
	BAR DIA.	MINIMUM DIA. OF BEND	BAR DIA.	MINIMUM DIA. OF BEND
275	4	30	6	24
	10	50	10	40
	12	60	12	48
	14	80	16	64
	20	100	20	80
	24	120	-	-
	28	140	-	-
	32	162	-	-
	40	240	-	-



CONCRETE

- C1. All workmanship and materials shall be in accordance with NZS 3109 PART 1 current edition with amendments, except where varied by the Contract Documents.

C2. Concrete Quality:-

ELEMENT	SLUMP	CONCRETE TYPE	MAX. AGG. SIZE	MINIMUM CONCRETE STRENGTH F _c MPa
Footings	80	A	20	20 MPa
Slabs in ground	80	A	20	20 MPa
Columns	80	A	20	20 MPa
Beams	80	A	20	20 MPa

ELEMENT	CONCRETE COVER		
	Cast against & exposed to earth	Exposed to earth or weather	Not exposed to weather or earth
a) Pad footings	75	-	-
b) Strip footings	75	-	-
c) Slabs, walls & ribs 20mm bars or size and smaller	75	35	20
d) Beams	Longitudinal reinf. ties and stirrups	80	50
		65	40
e) Columns	Longitudinal reinf. ties and stirrups	80	50
		65	40

- C3. Sizes of concrete elements do not include thickness of applied finishes.
- C4. Construction joints where shown on the Structural Drawings shall be well scabbled and painted with epoxy prior to pouring of fresh concrete.
- C5. Construction joints where not shown shall be located to the approval of the Engineer.
- C6. Beam depths are written first and include slab thickness, if any.
- C7. Provide 20 chamfers to all columns & beams unless varied by architects drawing.
- C8. Provide 20 drip grooves to soffits of all external slabs & beams.
- C9. No penetrations, recesses, sleeves, etc other than those shown on the Structural Drawings shall be made in concrete members without the prior approval of the Engineer.
- C10. Pipes or conduits shall not be placed within the concrete cover to reinforcement without the approval of the Engineer. The concrete cover to embedded pipes or conduits shall be a minimum of 20 mm.
- C11. All Saw Cuts on slab on grade to be of 30mm minimum depth.

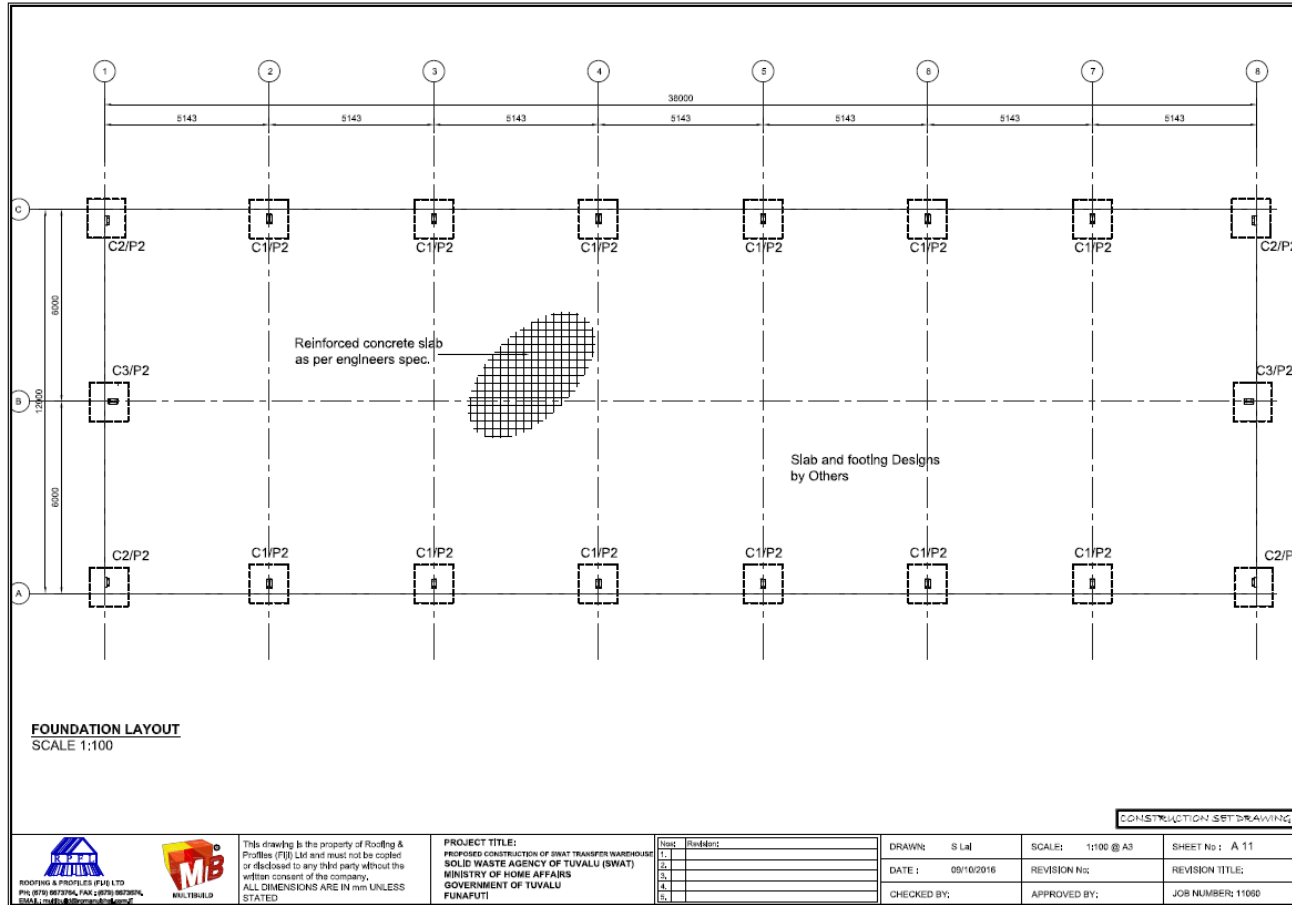


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PROJECT TITLE:
 PROPOSED CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
 SOLID WASTE AGENCY OF TUVALU (SWAT)
 MINISTRY OF HOME AFFAIRS
 GOVERNMENT OF TUVALU
 FUNAFUTI

Name	Signature
1.	
2.	
3.	
4.	
5.	

DRAWN:	S Lal	SCALE:	N.T.S	SHEET No :	A 10
DATE :	09/10/2016	REVISION No:		REVISION TITLE:	
CHECKED BY:		APPROVED BY:		JOB NUMBER:	11060



FOUNDATION LAYOUT
SCALE 1:100

CONSTRUCTION SET DRAWING

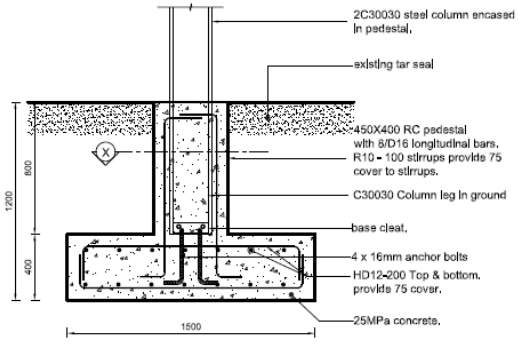


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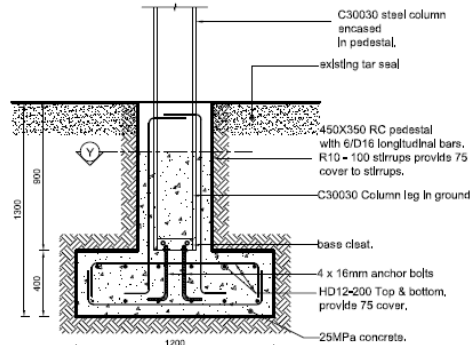
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REPAIRS CONSTRUCTION OF SWAT TRANSFER WAREHOUSE
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

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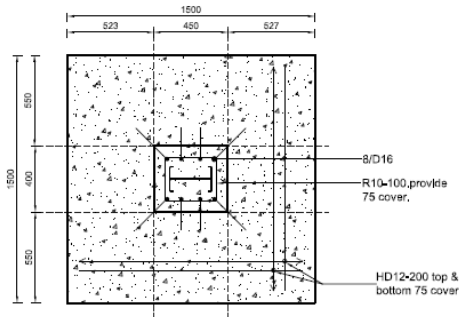
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DATE: 05/10/2016	REVISION No:	REVISION TITLE:
CHECKED BY:	APPROVED BY:	JOB NUMBER: 11060



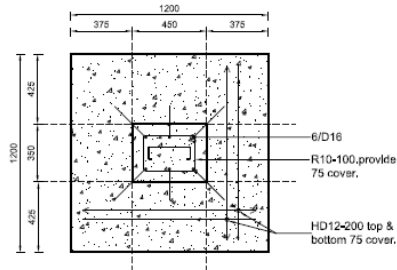
TYPICAL PAD FOOTING - DETAIL P1
SCALE 1:20



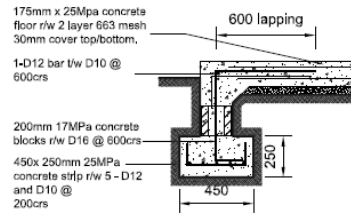
TYPICAL PAD FOOTING - DETAIL P2
SCALE 1:20



SECTION X-X
SCALE 1:20



SECTION Y-Y
SCALE 1:20



**PERIMETER FOOTING
ALONG SLAB AREA ONLY**
SCALE 1:20

Important Note
FINAL CONFIRMATION ON FOOTING DESIGN WILL BE APPROVED BY LOCAL ENGINEER IN TUVALU.

CONSTRUCTION SET DRAWING

NOTE:
All Footing drawing will be as per local engineers specifications



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PROJECT TITLE:
PROPOSED CONSTRUCTION OF SWAT TRANSFER BARRIERS
SOLID WASTE AGENCY OF TUVALU (SWAT)
MINISTRY OF HOME AFFAIRS
GOVERNMENT OF TUVALU
FUNAFUTI

No.	Revision:
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DRAWN: S Lal	SCALE: 1:100 @ A3	SHEET No : A 12
DATE : 08/10/2016	REVISION No:	REVISION TITLE:
CHECKED BY:	APPROVED BY:	JOB NUMBER: 11060

Annex C: Material Specifications

All materials proposed must meet or exceed the following minimum specifications. Bidders must provide technical datasheets for all major materials to demonstrate compliance.

- Roofing and Wall Cladding:
 - Material: Minimum 0.40mm Base Metal Thickness (BMT)
 - Coating: AZ150 Galvalume (or equivalent aluminium-zinc alloy coating) as a minimum.
 - Paint System: High-quality paint system suitable for severe marine environments (e.g., PVDF or a superior modified polyester).
- Fasteners:
 - Type: Stainless steel (Grade 304 or 316) or high-quality, corrosion-resistant self-drilling screws.
 - Sealing: All roof fasteners must be fitted with EPDM or equivalent sealing washers.
- Flashing and Trim: Must be of the same material and quality as the primary cladding.
- Structural Components (if any replacement is needed): Any replacement purlins, girts, or structural members must be hot-dip galvanized steel.