Initial Environmental Examination

Document Stage: Final Version for approval and adoption
Project Number: 52031-001
April 2024

Vanuatu: Greater Port Vila Urban Resilience Project

Subprojects: Construction of Multipurpose Emergency Shelters – Seaside Showground, Freswota Field & Korman

Prepared by the Ministry of Internal Affairs

Contents

ABBREVIATIONS

ADB	-	Asian Development Bank
AP		Affected Person
CBD	-	central business district
CCP	-	Communications and consultation plan (for the Project)
CDCCC	-	community disaster and climate change committee
CEMP	-	Construction environmental management plan (of the contractor)
CSO	-	civil society organization
CSS	-	country safeguards system
DEPC	-	Department of Environmental Protection and Conservation
DLA	-	Department of Local Authorities (within MOIA)
DSC	-	Design and supervision consultants
EARF	-	environmental assessment and review framework
EHSG	-	Environmental Health and Safety Guidelines (of the World Bank Group)
EIA	-	environmental impact assessment
EIS	-	environmental impact statement
EMP	-	environmental management plan
EPC Act	-	Environment Protection and Conservation Act 2010
GPV	-	Greater Port Vila
GRM	-	grievance redress mechanism
HSP		Health and Safety Plan
IEE	-	initial environmental examination
MCC	-	Ministry of Climate Change Adaptation, Meteorology & Geohazards, Environment, Energy and Disaster Management
MFEM	-	Ministry of Finance and Economic Management
MOIA	-	Ministry of Internal Affairs
MIPU	-	Ministry of Infrastructure and Public Utilities
MLNR	-	Ministry of Lands and Natural Resources
O&M	-	operation and maintenance
PCU	-	Project Coordination Unit
PEA	-	preliminary environmental assessment (conducted by DEPC)
PVCC	-	Port Vila City (formerly Municipal) Council
PVUDP	-	Port Vila Urban Development Project
PWD	-	Public Works Department
RUDSAP	-	Resilient Urban Development Strategy and Action Plan
SPGC	-	Shefa Provincial Government Council
SEAH		Sexual exploitation, abuse and harassment
SPS	-	Safeguards Policy Statement 2009 (of ADB)
RP		Resettlement Plan
TOR	-	Terms of reference
UDS	-	urban development strategy
VPMU	-	Vanuatu Project Management Unit

NOTE

In this report, "$" refers to US dollars.

EXECUTIVE SUMMARY

1. **Background**. The Asian Development Bank (ADB) is supporting the Government of Vanuatu (the government) to prepare and implement the Greater Port Vila Urban Resilience Project (the project). The project will improve urban resilience in Greater Port Vila through capacity building and institutional strengthening, as well as construction of three multipurpose emergency shelters. This project will address issues of effectiveness and sustainability based on lessons emerging from previous projects in Vanuatu. The project also responds to the dual threat and crisis caused by the novel coronavirus (COVID-19) and Tropical Cyclone Harold in the recovery stage through (i) preventive measures, (ii) a focus on the vulnerable, women and 'new poor'; and (iii) partnerships and labor-intensive investments that would help generate jobs and stimulate the local economy.

2. **Institutional arrangements**. The executing agency is the Ministry of Finance and Economic Management (MFEM), and the implementing agency is the Ministry of Internal Affairs (MOIA), through a Project Coordinating Unit (PCU). A Project Implementation Assistance Consultants (PIAC) and design and supervision consultants (DSC) have been recruited to support the MOIA and PCU.

3. **Safeguards**. The project will be designed and implemented in compliance with the country safeguards system (CSS) of Vanuatu and Safeguard Policy Statement 2009 (SPS) of the ADB. This initial environmental examination (IEE) relates to the construction of three multipurpose emergency shelters in Port Vila, located in two of the five municipal wards: Central Ward and Freshwota-Tassiriki Ward. The facilities will provide for community activity and vital shelter for vulnerable people during and immediately after emergencies. All statutory clearances will be obtained prior to commencement of civil works. IEEs will be prepared for each package involving civil works and EMP to be attached in the bid and contract documents. IEEs will be submitted to ADB for review and approval prior to issuance of bid documents. Monitoring of EMP implementation by the executing agency is reported to ADB.

4. **The project**. Port Vila, Vanuatu's capital city and economic hub, located on the island of Efate is a growing city that faces not only expansion but high vulnerability to natural hazards such as cyclones, earthquakes and associated tsunamis, prolonged inundation and drought. A recent example is Tropical Cyclone Pam caused more than 32,600 households to seek post-disaster support. Port Vila has a population of just over 50,000 and is projected to double in size by 2028. The municipality has already outgrown its original urban boundaries due to the substantial population growth, along with urban migration, rapid development of squatter and informal settlements. At the same time, commercial installations are expanding. The efficiency of existing infrastructure reflects not only rapid growth but also deficiencies in urban planning over the city's history as well as ineffective implementation of urban development. The ongoing inefficiencies are attributed to a lack of clearly defined institutional responsibilities among the government agencies concerned. There is a need for both institutional reform and improved land use planning and development processes that take account of against risks from potential hazards to prevent or reduce the destruction of public and private infrastructure, economic assets and threats to lives and livelihoods.

5. **Impact, outcome and outputs**. The impact of the proposed project is that Greater Port Vila is a safe, inclusive, resilient, and vibrant economic hub based on sustainable development. Project outputs will result in the following outcome: Urban resilience in Greater Port Vila improved. The project will be aligned with Vanuatu 2030 with the following impact: Port Vila is a safe, inclusive, resilient and vibrant economic hub based on sustainable development. The outputs are as follows:

- Output 1: Resilience in urban planning and management strengthened.
- Output 2: Urban resilience enhanced through local partnerships
- Output 3: Resilient urban infrastructure constructed in Greater Port Vila.
- Output 4: Asset management and institutional capacity strengthened.

6. **Emergency shelter component**. The selection of the multipurpose emergency shelters followed the development of an investment framework for Port Vila, included in the Greater Port Vila Resilient Urban Development Strategy and Action Plan (RUDSAP). This involved development of a long list as part of an urban sector assessment undertaken at an early stage of project preparation. Based on discussions with key stakeholders' key initiatives are proposed by the RUDSAP to help prioritize improvement measures for Port Vila. The key initiatives and sub-projects including the evacuation centres are set out in the Outline Investment Framework (OIF) that is aligned with the timeframe of 'Vanuatu 2030'. The OIF covers all key sectors for transport, water supply and wastewater, roads and drains, solid waste management, education, health and energy as well as buildings, ICT, planning and Disaster Risk Reduction. The intention is to establish multipurpose evacuation centres with facilities such as sanitation blocks, a ward office and adjoining markets to create a communal focus for strengthening community interaction, socializing and recovery post disasters. Many social issues will be able to be addressed through these centres and the community activities around the centres.

7. The National Disaster Management Office has an Evacuation Centre checklist for the planning, assessment and classification of centres, and the new multipurpose evacuation centres have been developed to comply with these national requirements. With regard to access, entrances allow for wheelchair access, including to kitchen and toilet facilities with appropriately graded ramps and support rails. The buildings will conform to the National Building and will have the ability to withstand windspeeds associated with cyclone events. The shelters also provide for triage facilities, ward offices, uses as markets and for community events and occasions.

8. Three emergency shelter facilities have been identified and detailed designs and cost estimates have been prepared for them. These are located within the Port Vila municipality at: (i) Seaside Showground (Centre ward); (ii) Freshwota Market (Freshwota-Tassiriki ward) and (iii) Korman (Freshwota-Tassiriki ward) . Construction works at each site are expected to be carried out over a 6-9 month timeframe and will involve both civil and structural construction activities.

9. **Anticipated impacts and mitigation measures**. Potential impacts and mitigation measures were identified through review of the feasibility studies prepared for the construction of the multipurpose emergency shelter facilities, discussions with the team involved in design and stakeholder consultation.

10. The feasibility study presented the preliminary design, detailed engineering design has been completed by the PCU with the assistance of the design and supervision consultants, recruited in 2020/2021. The IEE is now updated on the basis of detailed design.

11. Most expected impacts will be created during the construction stage and are largely site specific and can be managed and mitigated readily. Potential impacts include biosecurity impacts from imported material and plant, dust, noise, waste generation, localized water quality impact, small-scale (building platform) earthworks, minor vegetation removal and clearance, water use, and use of hazardous substances. As the contractors will be either local or locally based, with a significant skilled, semiskilled workforce there will not be introduction of a large foreign workforce. The workforce may include islanders from other provinces in Vanuatu who will be temporarily resident. To minimize risks of social disruption and spread of disease, the contractor will be required to ensure that workers either come from within and around Port Vila as far as possible, or are from groups that are customarily resident in Port Vila for short periods for purposes such as work and study. Therefore, risks associated with labor influx and spread of communicable diseases will be low. The increased opportunities for local employment will be a positive, temporary impact.

12. **Environmental management plan**. An environmental management plan (EMP) has been prepared which sets out the needs for environmental management of subproject construction and operation in terms of institutional responsibilities to ensure mitigation and monitoring takes place during the pre-construction, construction and operation phases, meeting the requirements of the Government of Vanuatu and the SPS. The EMP has been updated on detailed design and, along with the environmental permits (and any conditions), will be included in the bid documents and will be further reviewed and updated during implementation. The outline EMP is included in this IEE.

13. As part of developing its construction environmental management plan (CEMP) based on the EMP in this assessment, the contractor will establish a health and safety plan to be adopted at each site following international best practices and the World Bank Environmental Health and Safety Guidelines (EHSG) on construction and decommissioning activities. The plan will cover communication and training; avoidance and mitigation of physical hazards and work-safe practices and measures to prevent the spread of communicable disease including COVID-19. Contractors' personnel are expected to be Ni Vanuatu, or international staff resident in Vanuatu. Should international staff be required, such personnel must obtain the clearances, permits and visas required by local regulations. On condition that the required measures are enacted by the contractor, the risk, or impact, is considered minor.

14. **Consultation and disclosure**. Consultations have taken place in the form semi-structured interviews, surveys and group discussions, to gather facts and gain an understanding of issues facing stakeholders, and the views and needs of the city's inhabitants. In connection with the core subprojects, ward secretaries and groups of ward members were consulted on priorities and a list of consultations is provided as Appendix 4. All ward representatives stated a need for multi-purpose halls able to provide accommodation in emergencies, clinics, sanitation, an office for the ward secretaries and key community representatives, and storage facilities.

15. Matters discussed included issues that have arisen with the use of schools and churches for shelter during times of emergency, which have led to resentment and shelter being denied, and the role of multi-purpose facilities to provide the longer duration shelter needed while affected homes are made habitable again. The importance of community centres to stimulate and encourage social activities among youths was also stressed.

16. During implementation (construction), communications about the project will be in accordance with government requirements and ADB's Access to Information Policy 2018. A communications and consultation plan (CCP) has been prepared for the Project. This will be implemented by MOIA, supported by the PIU, Project Implementation Assistance Consultants (PIAC) and Design and Supervision Consultant (DSC).

17. Guided by the CCP, consultations with government agencies and civil society and communities, including women's groups, stakeholders and businesses operators were conducted. Initial consultations with communities and stakeholders were undertaken during project preparation and conducted during 2019 and continued through the design phase. The community consultations helped to enable exchanges of information, foster partnerships with beneficiary and stakeholder communities, engage people in project activities, inform planning of ensuing phases of the project and provide information to the screening and assessment processes. Dates, participants, concerns discussed, and topics covered have been minuted/recorded and included with the due diligence and will continue to be held throughout the construction period.

18. **Grievance redress**. A grievance redress mechanism (GRM) has been established for the project early and will apply to construction works. The GRM is based on procedures used successfully in other ADB funded projects in Vanuatu and will be established by the PCU prior to design and construction of the shelters. The GRM provides for complaints to be made and resolved with the contractor at the community level in the first instance with support from the DSC, and then through project management levels to a technical advisory committee and finally legal procedures should resolution not be forthcoming.

19. **Conclusion**. The overall finding of the IEE is that the Project will not result in significant adverse environmental impacts and that potential adverse impacts are manageable through the effective implementation of the EMP. Improved conditions for emergency sheltering, market operation, ward administration and community events will bring positive environmental impacts. The classification of category B for environment, according to the SPS, is confirmed.

I. INTRODUCTION

1. **Background**. The Asian Development Bank (ADB) is supporting the Government of Vanuatu (the government) to prepare and implement the Greater Port Vila Urban Resilience Project. The project will improve urban resilience in Greater Port Vila through capacity building and institutional strengthening, as well as construction of three multipurpose emergency shelters. This project It brings together national priorities and local community needs by building the capacity of the Port Vila City Council (PVCC) to plan and manage urban assets and deliver quality and reliable services. It aligns investments to a common vision guided by the *Greater Port Vila Resilient Urban Resilient Development Strategy and Action Plan* (RUDSAP) by 2030, Greater Port Vila is safe, inclusive, resilient and a vibrant economic hub based on sustainable development. The project is the first step in addressing issues of effectiveness and sustainability based on lessons emerging from previous projects in Vanuatu. About 53% of the total project financing comes from disaster risk reduction (DRR) sources. About 15,500 people in the Port Vila municipality will benefit from the Project, of which about half are women.[1]

2. The project also responds to the dual threat and crisis caused by the novel coronavirus (COVID-19) and Tropical Cyclones Harold (2020), Judy and Kevin (2023) in the recovery stages through (i) preventive measures, (ii) a focus on the vulnerable, women, and 'new poor'; and (iii) partnerships and labor-intensive investments that would help generate jobs and stimulate the local economy. The project is aligned with the government's *Vanuatu Recovery Strategy 2020–2023: TC Harold & COVID-19* listed in the ADB's country operations business plan, 2020–2022 for 11 small Pacific island countries (PICs).[2]

3. **Institutional arrangements**. The executing agency is the Ministry of Finance and Economic Management (MFEM), and the implementing agency is the Ministry of Internal Affairs (MoIA), through a Project Coordinating Unit (PCU). Implementation support will be provided by the PVCC. The project will help to improve access to integrated resilient urban services in Port Vila's central business district (CBD) through a combination of institutional and sector reforms, a Greater Port Vila Resilient Urban Development Strategy and Action Plan (RUDSAP), and Investment Framework, urban infrastructure improvements, and local partnerships. The project has three phases of development which align with government processes: (Phase 1) 2019-2021; (Phase 2) 2022-2024; and Phase (3) 2025- 2030.

4. **Impact and outcome**. The impact of the proposed project is that Greater Port Vila is a safe, inclusive, resilient, and vibrant economic hub based on sustainable development. Project outputs will result in the following outcome: Urban resilience in Greater Port Vila improved. The project will be aligned with Vanuatu 2030 with the following impact: Port Vila is a safe, inclusive, resilient and vibrant economic hub based on sustainable development.

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[1] ADB provided transaction technical assistance: ADB. 2017. *Regional: Pacific Urban Development Investment Planning and Capacity Development Facility.* Manila.

[2] Government of Vanuatu. 2020. *Yumi Evriwan Tugeta. Vanuatu Recovery Strategy 2020-2023: TC Harold & COVID-19.* Port Vila; and ADB. 2019. Country Operations Business Plan: 11 Small Pacific Island Countries, 2020–2022. Manila.

5. A set of root problems have been identified and presented in a problem tree. The root problems will be addressed through the following solutions (or outputs), which are aligned with specific goals and policy objectives listed in the Vanuatu 2030:

- **Output 1**: Resilience in urban planning and management strengthened. The output will have a focus on key organization reforms and reforms of sector regulations and will comprise risk-informed urban planning and management.
- **Output 2**: Urban resilience enhanced through local partnerships. This output will focus on multi-dimensional partnerships, including awareness raising.
- **Output 3**: Resilient urban infrastructure constructed in Greater Port Vila. Priority investments in infrastructure improvement will be made in accordance with the Greater Port Vila Resilient Urban Development Strategy and Action Plan (RUDSAP), with a focus on development of climate-proof urban infrastructure, involving green/grey/blue solutions.
- **Output 4**: Asset management and institutional capacity strengthened. This output will complement outputs 1, 2 and 3. The output will improve the capacity of MOIA in project development, implementation and monitoring; and will improve the capacity of PVCC to operate and maintain shelters constructed under the project. Sustainable O&M will be ensured through the implementation of the Asset Management Strategy that was developed during project preparation. This will benefit future investment activities by both agencies.

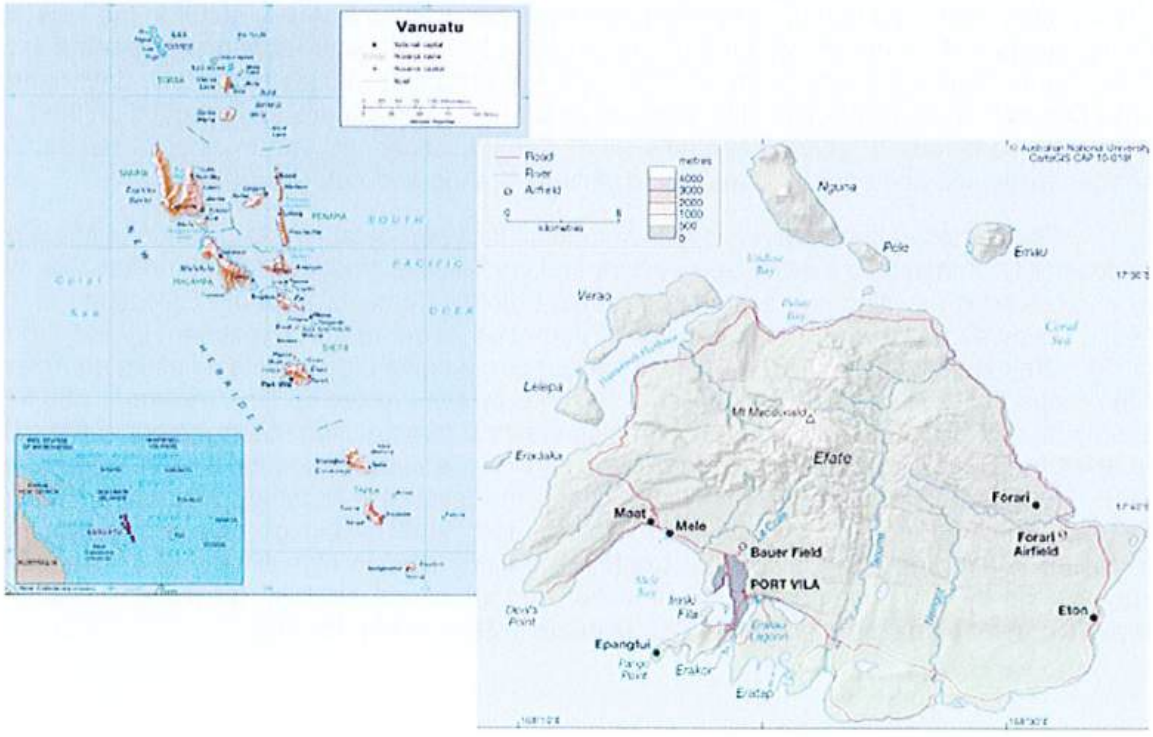
6. This initial environmental examination (IEE) relates to the construction of three multipurpose emergency shelters in Port Vila, one located in Centre Ward and two in Freshwota-Tassiriki Ward. The facilities will provide for community activity and vital shelter for vulnerable people during and immediately after emergencies.

II. DESCRIPTION OF THE SUBPROJECTS

A. Greater Port Vila Urban Resilience Project

7. **The overall project**. Port Vila, Vanuatu's capital city and economic hub, located on the island of Efate (Figure 2.1) is a growing city that faces not only expansion but high vulnerability to natural hazards such as cyclones, earthquakes and associated tsunamis, prolonged inundation and drought. Largely attributable to Vanuatu's location on the earthquake prone Pacific rim and the Pacific cyclone belt, this vulnerability is borne out most recently by Tropical Cyclone Harold, which struck the island of Santo in April 2020, causing the loss of a reported two lives and extensive damage to homes and assets, affecting a total of 159,474 people.[1] Port Vila itself experienced severe damage five years earlier in 2015, when Tropical Cyclone Pam struck Efate Island with the loss of around fifteen lives and damage equating to around 64% of Vanuatu's gross domestic product. Tropical Cyclone Pam caused more than 32,600 households to seek post-disaster support. In Tafea and Shefa provinces, there were 11 fatalities, 65,000 people were displaced, and 17,000 buildings were damaged or destroyed.

Figure 2.1: Vanuatu, Efate and Port Vila



[1] World Meteorological Organization post of 14 April 2020 on website public.wmo.int.

8. Port Vila had an estimated urban population of 41,326 in 2019. Port Vila municipality has already outgrown its original urban boundaries due to the substantial population growth, along with urban migration, rapid development of squatter and informal settlements. At the same time, commercial installations are expanding. This growth places increasing burdens on the infrastructure of the city and surrounding parts of Shefa Province.

9. The efficiency of existing infrastructure reflects not only rapid growth but also deficiencies in urban planning over the city's history as well as ineffective implementation of urban development. The ongoing inefficiencies are attributed to a lack of clearly defined institutional responsibilities among the government agencies concerned. There is a need for both institutional reform and improved land use planning and development processes that take account of against risks from potential hazards to prevent or reduce the destruction of public and private infrastructure, economic assets and threats to lives and livelihoods.

10. The selection of the multipurpose emergency shelters followed the development of an investment framework for Port Vila, included in the RUDSAP. This involved development of a long list as part of an urban sector assessment undertaken at an early stage of project preparation, followed by refinement of the long list and then shortlisting of priority subprojects.

11. The long list of subprojects has been identified from sources including subprojects carried forward from the Port Vila Urban Development Project (PVUDP), other sub projects proposed by the MOIA, and subprojects identified in the strategies, corporate plans and business plans of other ministries and under development partner programs. A key factor in the selection of subprojects is the extent to which they contribute to three pillars of resilience as set out in the government's National Sustainable Development Plan (Vanuatu 2030) or society, environment and economy.[1] The environment pillar seeks to ensure a pristine natural environment on land and at sea that continues to serve Vanuatu's food, cultural, economic and ecological needs, and enhance resilience and adaptive capacity to climate change and natural disasters.

12. The consideration of alternative investments included detailed examination of the scope and feasibility of installing a sewerage system and wastewater treatment plant in Port Vila, with key choices such as siting and design of treatment facilities and sizing of the collection network in such a way as to allow for the expansion of improved sewerage and treatment in and around the city. The examination of the feasibility of such improvements brought into relief the complexity of the steps that are needed to establish a suitable system, including cost recovery, obtaining easements and consents for pipes and pumping stations, construction management in the CBD, the need for avoidance of prolific underground services, a suitable site for a wastewater plant, issues associated with available receiving waters, the level of technology required to achieve adequate nutrient removal, and operational risks associated with high technology treatment processes. Sewerage and wastewater treatment options remain high priority and a feasibility study for the system together with a sanitation roadmap and strategy for the city (updating previous master plans) has been prepared to guide investment in this area.

[1] Department of Strategic Policy, Planning and Aid Coordination (2016), Vanuatu 2030 the People's Plan: National Sustainable Development Plan 2016 to 2030. Port Vila

B. Multipurpose Emergency Shelter Subprojects

13. In line with Vanuatu 2030, the RUDSAP identifies five "pillars" of resilience to prioritize sub-projects for investment: social, physical, environmental, economic and institutional. These five pillars of resilience are the main criteria that have been used to prioritize sub-projects in the period 2019-30. Based on discussions with key stakeholders' key initiatives are proposed by RUDSAP to help prioritize improvement measures for Port Vila. These are the urgent areas for improvement that need financial support and are most often raised in discussions with the concerned ministries, departments and development partners. The key initiatives include among others:

- Evacuation shelters, community toilets and hand washing facilities
- Port Vila as a national economic hub

14. The key initiatives and sub-projects including the evacuation centres are set out in the Outline Investment Framework (OIF) that is aligned with the timeframe of 'Vanuatu 2030'. The OIF covers all key sectors for transport, water supply and wastewater, roads and drains, solid waste management, education, health and energy as well as buildings, ICT, planning and Disaster Risk Reduction.

15. The project will help to improve access to integrated resilient urban services in Greater Port Vila through a combination of institutional and sector reforms, strategy developments, infrastructure prioritization, urban infrastructure improvements, and local partnerships. The activities completed during project preparation and implementation will strengthen the foundation for future investments in the urban landscape in Port Vila and developing the resilience of the communities through the provision of strategy located evacuation centres among other initiatives.

16. The intention is to establish multipurpose evacuation centres with facilities such as sanitation blocks, a ward office within, or close by the centre and adjacent markets to create a communal focus for strengthening community interaction, socializing and recovery post disasters. Many social issues will be able to be addressed through these centres and the community activities around the centres.

17. Feasibility studies were prepared and approved for multipurpose emergency shelters at selected sites: (i) Seaside Showground, (ii) Freshwota Field and (iii) Korman. This IEE covers the design, construction and operation of these three facilities, all of which are identical in design to allow for a standard design to be applied under any future initiatives. The location of the three sites is shown in Figure below.

Figure 2.2: Locations of the three multi-purpose emergency shelters

18. **Evacuation center checklist**. The National Disaster Management Office has an Evacuation Centre checklist for the planning, assessment, and classification of centres. This provides for consideration of the following main requirements and is attached as Appendix 1. The requirements are:

- Location and accessibility.
- Structural and architectural minimum requirements.
- Occupancy capacity.
- Cooking facilities (long-term).
- Water, sanitation and hygiene.
- Electrical installations and emergency power supplies.
- Safety and protection.

19. To the degree practical, the designs for the new multipurpose emergency shelters have been developed to comply with these national requirements as well as AS/NZS 1170.2 as described below.

20. **Location and accessibility**. The buildings are located above likely impact from high tide storm surge and above identified flood levels. The main entrance doors will allow for ambulant access and a secondary emergency access is provided.

21. **Ability to withstand cyclones**. As new buildings, the emergency shelters have the structural resilience required for extreme storm conditions and earthquake loads. The buildings will conform to the National Building Code and PVCC requirements pertaining to a multipurpose

community centre and have the ability to withstand windspeeds associated with cyclone events. To ensure compliance and wind-firmness in cyclone events, detailed designs will be guided by a suitably qualified structural engineer and will require certification that the final design can withstand earthquake and extreme wind loads.

22. For Cyclone Pam wind strengths of 160 miles per hour (257 km/hr) or 71.4 m/sec were recorded. Elsewhere in the Pacific (Cook Islands wind speeds of up to 280 kph (78 m/sec) were reported to have occurred for cyclones in 2005. The current standard applied to structural design for wind actions in Australia and New Zealand is AS/NZS1170.2. Wind Loads requirements are applied through zoning by risk category over the region. The code defines the ultimate gust wind speed in terms of a return period of 2000 years as 77 m/sec in region C, the tropical cyclone region of Queensland, the Northern Territory and Western Australia, and 99 m/sec in region D, the severe tropical cyclone region of Western Australia. Data from Cyclone Pam in Vanuatu suggests that the risk scenario is at least comparable to region C, meriting use of the standards in AS/NZS 1170.2.

23. In reality, total peak loads on a building are influenced by site characteristics and the aerodynamic shape factors for different buildings and structures. Successive refinements of AS/NZS 1170.2 reflect growing understanding of the wind loading mechanisms based on these factors, allowing for greater preservation of the building envelope and structure, so that heavy losses can be minimized. This has strong significance as even a modest breach of the building envelope will increase internal pressure, increasing the risk of break-up and allowing subsequent water infiltration, greatly increasing the extent of damage.

24. The degree of exposure of a site will vary according to factors such as topography, height and the surrounding terrain, and thus buildings situated close to the foreshore, or in elevated locations further inland, or on atolls, will be subject to different wind loads during extreme events. The current version of AS/NZS1170.2 provides for the incorporation of these factors in the design of buildings. The standard also considers categories of buildings and structures in terms of their overall shape and the effect of wind pressure and suction. These include enclosed rectangular buildings, storage tanks, and exposed structural members and frames.

25. Besides the ability of buildings themselves to resist wind damage, much of the damage in strong wind events occurs as a result of windborne debris. A major potential source of damaging debris includes attachments to buildings, such as pieces of roof sheeting, windows, doors and wall coverings, or supplementary features of buildings outside the main building envelope such as porch roofs and car ports which can experience higher than expected wind forces. This issue is also addressed in AS/NZS1170.2.

26. Issues associated with applying standards such as AS/NZS1170.2 to Vanuatu involve an effective and appropriate means of translating technical specifications into actual building methods and practice using guideline manuals which present options that are deemed to comply with the code. Such manuals can cover, for example, guidelines for roof designs that offer greater resistance to wind damage, methods of attaching and fixing building components and roof sheathing, and viable options for retro-fitting of existing buildings that do not currently comply with standards.

27. **Technical standards**. Building better is a key concept and aim for preparation in the disaster risk management cycle and building resilience. In 2013, the Government of Vanuatu passed the Building Act. This provided for the development of a national building code This has been progressed by revision of the 1990 code to ensure its currency and relevance. The two

primary areas of revision have been to bring the code into line with: (i) international Standards have been reviewed to ensure only current standards are referenced; and (ii) incorporating recommendations arising from the Sanitation Master Plan for Port Vila.

28. NDMO does not have a standard building code for evacuation centres, although the Shelter Cluster is working with the Ministry of Infrastructure and Public Utilities (MIPU) for a standard building code. NDMO has produced a National Guideline for the Selection and Assessment of Evacuation Centres (2016), and an Evacuation Centre check list for planning, assessment and classification which highlights recommended requirements for evacuation centres in terms of siting, space and occupancy, cooking facilities, water and sanitation, and safety. The Guideline has gender sensitive recommendations to protect the privacy and safety of women and children as well as people with disabilities. The Guidelines and checklist are used in the assessment of potential evacuation centres (led by NDMO and coordinated with PWD and other line agencies. The Guidelines recognize that there is no 'one size fits all; for evacuation centres and the assessment classifies an evacuation centre from a fully conforming to a simpler evacuation centre.

29. Over the last eight years since Cyclone Pam there has been an increase in cyclone resistant buildings and more familiarity with the requirements, with several buildings built to compliant standard designs e.g. new classrooms, Vanuatu Christian Council cyclone shelter. Similar buildings have been constructed in other Area Councils for disaster risk including under the World Bank Increasing Resilience to Climate Change and Natural Hazards project, which were approved by the National Advisory Board and authorised by the Public Works Department (PWD). There is potential to adopt the parameters from these designs in developing relevant standards for the detailed design of the centres

30. **Universal access**. Wheel chair access is provided to the ground floor levels and kitchen and toilet facilities with appropriately graded ramps, with doors and openings of sufficient width to allow easy movement within the buildings and providing for the requirements of disabled persons, including a toilet with wheel chair access and hand and support rails/bars.

31. **Kitchen facilities**. The kitchens are designed and equipped for hygienic food preparation. With water tap(s), sinks and benches. Cooking facilities will be provided, and kitchens will have adequate ventilation to exhaust fumes. Where bottled gas is to be used the gas cylinders will be positioned outside in secured weather protected cages away from the building.

32. **Water, sanitation and amenities**. Water storage will provide adequate supply for drinking water, cooking, hygiene and toilet flushing for the number of occupants accommodated in the shelter. Gender segregated toilets, again sufficient for the occupants is provided for in the design of the shelters or covered by existing community toilet blocks. Sanitation treatment standards will be in line with and meet the requirements of the Vanuatu Building Code.

33. **Emergency lighting**. A suitable alternate emergency back-up system (generator) is incorporated into the designs.

34. **Health clinic and triage**. The emergency shelters are located close to existing health facilities with triage facilities incorporated into the building design.

35. **Ward office**. The emergency shelters all have provision for a suitable area for the ward secretary to operate out of the building under normal conditions.

36. **Multipurpose use**. The designs allow for the multipurpose use as community centres, market buildings, meeting places and under emergencies as shelters providing refuge for the community. The centres could also provide quarantine facilities during community endemics.

37. **Shuttering and protection**. Buildings will be fitted with or have mountable storm shutters to prevent damage to windows and/or protect occupants from the element and shattered glass. Safety glass will be used for windows.

C. Subproject Sites

1. Common design for the three shelters

38. The three shelters will consist of a new building and built mainly on open space. The building will be 35m long and 20.4m wide with a mezzanine floor and will accommodate 232 people short-term during an emergency. The building will have a reinforced concrete slab floor, reinforced concrete walls and block walls, a galvanized steel structure and a roof cladding of long-run steel sheets.

39. The roof structure will comprise steel fabricated roof trusses, formed steel purlins and long-run iron roof cladding. The roof structure will be sound proofed to deaden the noise of rain and wind under the situation of intense storms.

40. The main access will be equipped with a Porte Cochere[1] and there will be another disabled access with a suitable access ramp and a disabled drop-off area.

41. A Triage room with a private washroom will be located at the main entrance to triage people with injuries and provide first aid treatment..

42. Segregated toilet, shower and hand washing facilities are provided in the design for women and men (with separate amenities for women and men) with disabled washroom. A multipurpose washroom will also be available on the triage area for gender neutral persons.

43. One laundry area with 6 wash tubs will be built outside the building but easily accessible.

44. There is also adequate space inside the building to accommodate four kitchens for food preparation and cooking and there is a food storage area. The kitchens will be supplied with double sinks and gas stove with an outside gas storage.

45. A large non-food storage area will be available at ground floor as well as the electrical room and the cleaner's room.

46. A performance stage with disabled access will be available at ground floor.

47. Provision of demountable and moveable partitioning will support multi-use of the building. This equipment will also allow to ensure privacy for families or individuals if needed, but also allow to create separate spaces in cases where there may be communicable diseases.

[1] Also called "carriage entrance": this is the large roof at the main entrance projecting over the access drive to shelter travellers entering or leaving vehicles.

48. Provision is made in the design for a ward office and other offices (3 offices 18 m2 each) on the mezzanine floor with a coffee room.

49. Polyethylene water tanks will be installed in the building – on the mezzanine level, on separated areas. The feed to the tanks will be:

- From the public water supply through a valve at the ground level and at the top level of the tanks. The tanks will be sized to have sufficient water stored on site for three to four days to cover close down of the main supply during extreme circumstances.
- From the shelter gutters (rain water from half of the building on each side) including a collector with screen and a first flush function (to keep the most contaminated rainwater out of the tank).

50. Wastewater will be disposed of through a septic tank and effluent field designed in accordance with the national building code and to cope with standard and peak loadings. The septic tank will be accessible for easy desludging.

51. A generator will provide electrical backup to the whole building. The generator is installed outside, inside a concrete shed with locked door. There is a direct access to the generator from the building.

52. The building will also be equipped with emergency lights.

53. Windows and doors will be cyclone rated and will be equipped with shutters if needed.

54. The outside rainwater will be managed this way:

- A drainage structure (infiltration pit with plantations) will be installed in front of the building in order to collect the rainwater from the access road and from the inside concrete driveway.
- The road base pavement around the building will have concrete V drain toward two drainage pits.

55. In order to allow the access to the shelter even after a big rainfall event, a drainage system is included in the design:

- In front of the shelter (main access side): the concrete access slab is equipped with a V drain 1,00m wide draining the run-off water toward a big infiltration pit.
- The side of the shelter:
  - is equipped with a V drain 0.60m wide draining the run-off water toward drainage pits.
  - when the surrounding land is not occupied and has a sufficient slope, the road base pavement as a perpendicular slope to drain the rain water outside the construction area.

56. Open drain will be built around the construction site, if needed, to collect and drain the rainwater coming from the sides. Particular attention is paid to the surrounding area to not be flooded because of this new construction.

57. All the structure will be built above the flooding level. The shelters will be accessible in any circumstances.

58. In order to protect the shelter from flooding the following is included in the design:

- The shelter's inside concrete slab is located 0.05m above the outside concrete access platforms for the three accesses: Porte Cochere[1] (main access), Disabled access, and Laundry access. This small step prevents run-off water from entering the building.
- The three access platforms are located above the concrete access ramp/slab and the new Road base pavement around the building: about +0.60m / +0.80m.
- The new access road in front of the building and on the sides is located above the existing Natural Ground Level: about +0.20m / +0.40m
- As a conclusion, the shelter's inside concrete slab are located minimum 0.50m above maximum flood level.

59. A solid waste storage will be available outside, in a corner of the site.

60. The common design concept is illustrated in Figures hereafter.

[1] Also called "carriage entrance": this is the large roof at the main entrance projecting over the access drive to shelter travellers entering or leaving vehicles.

Figure 2.3: Shelter typical ground floor plan

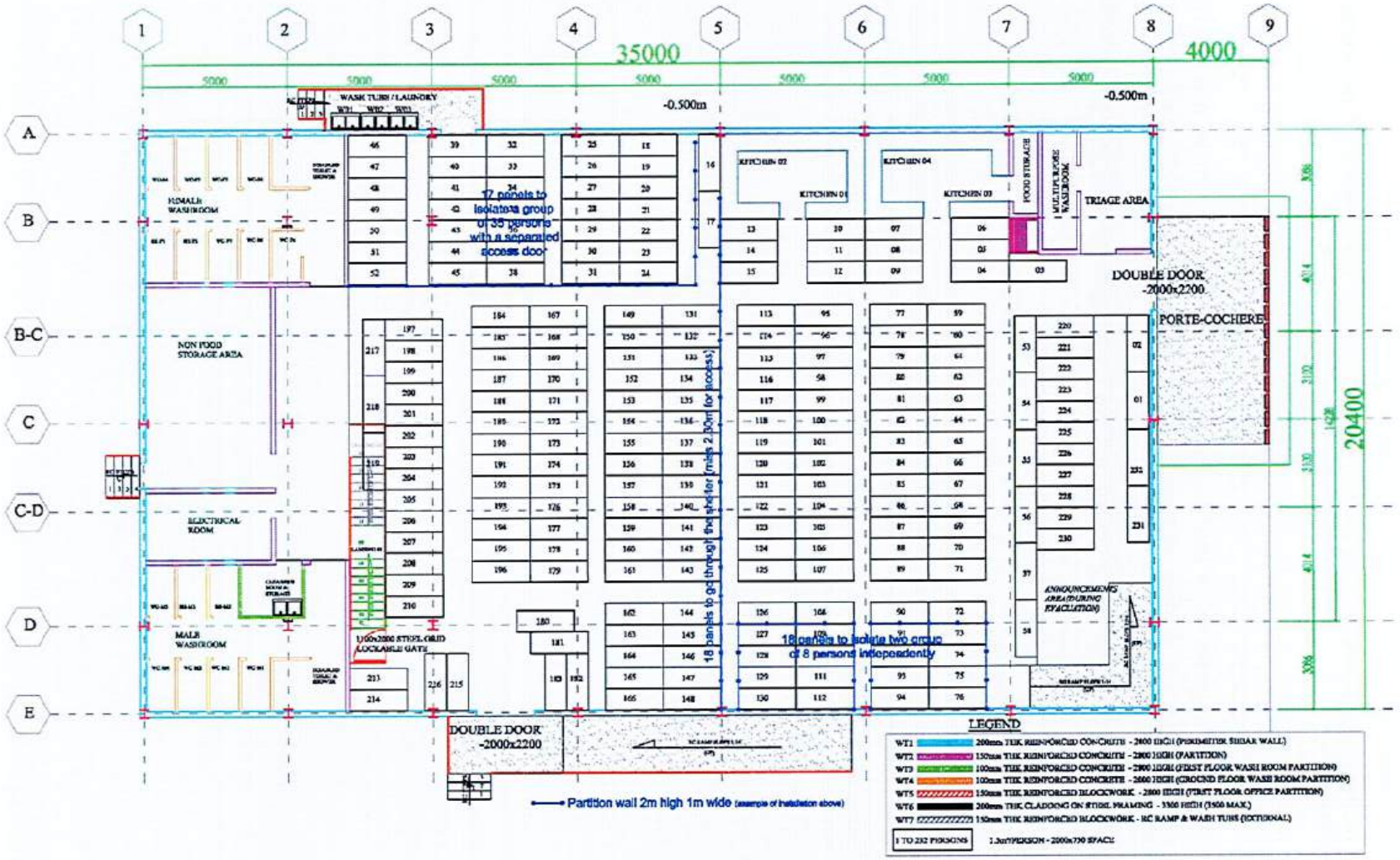


Figure 2.4: Shelter typical mezzanine floor plan

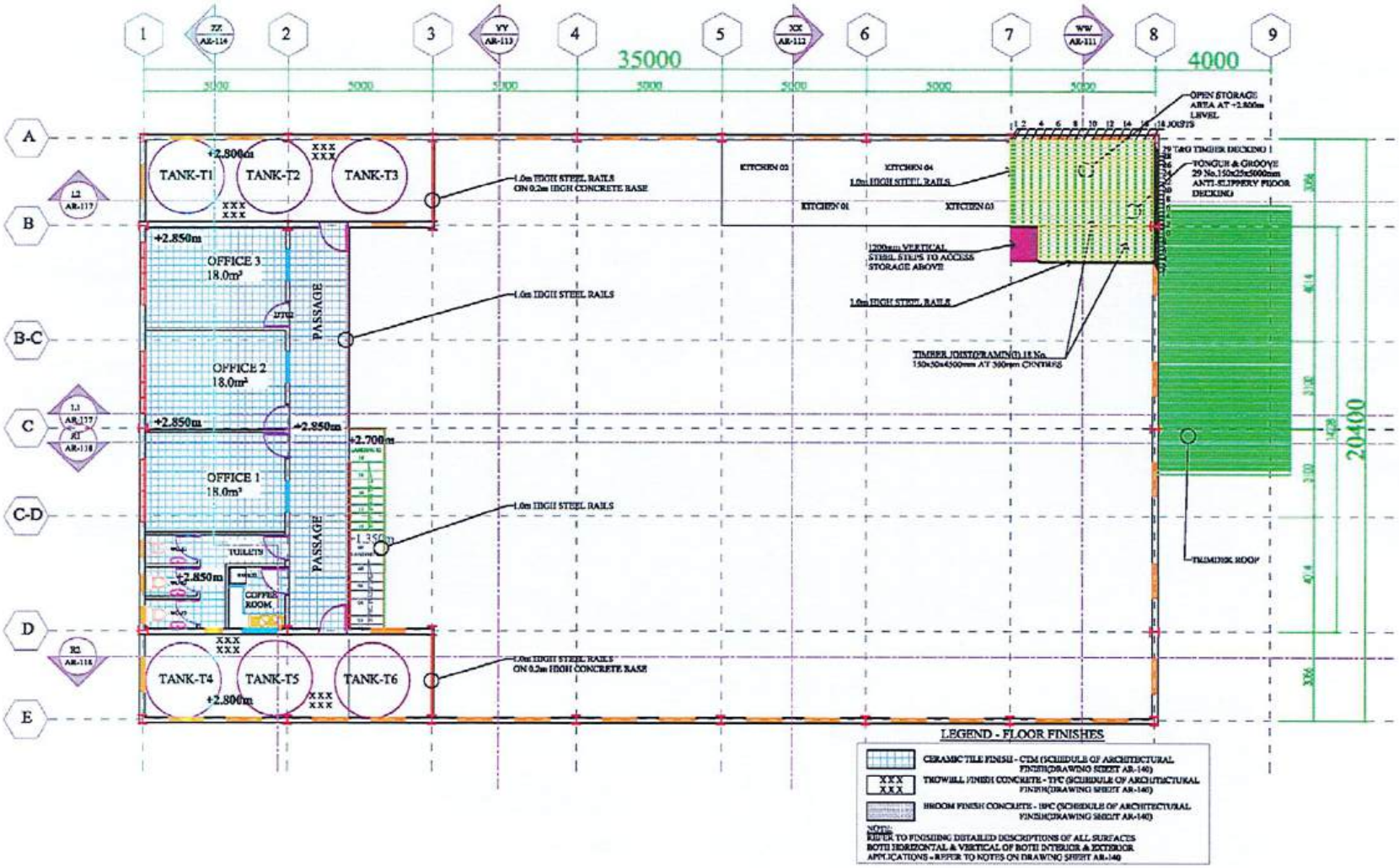
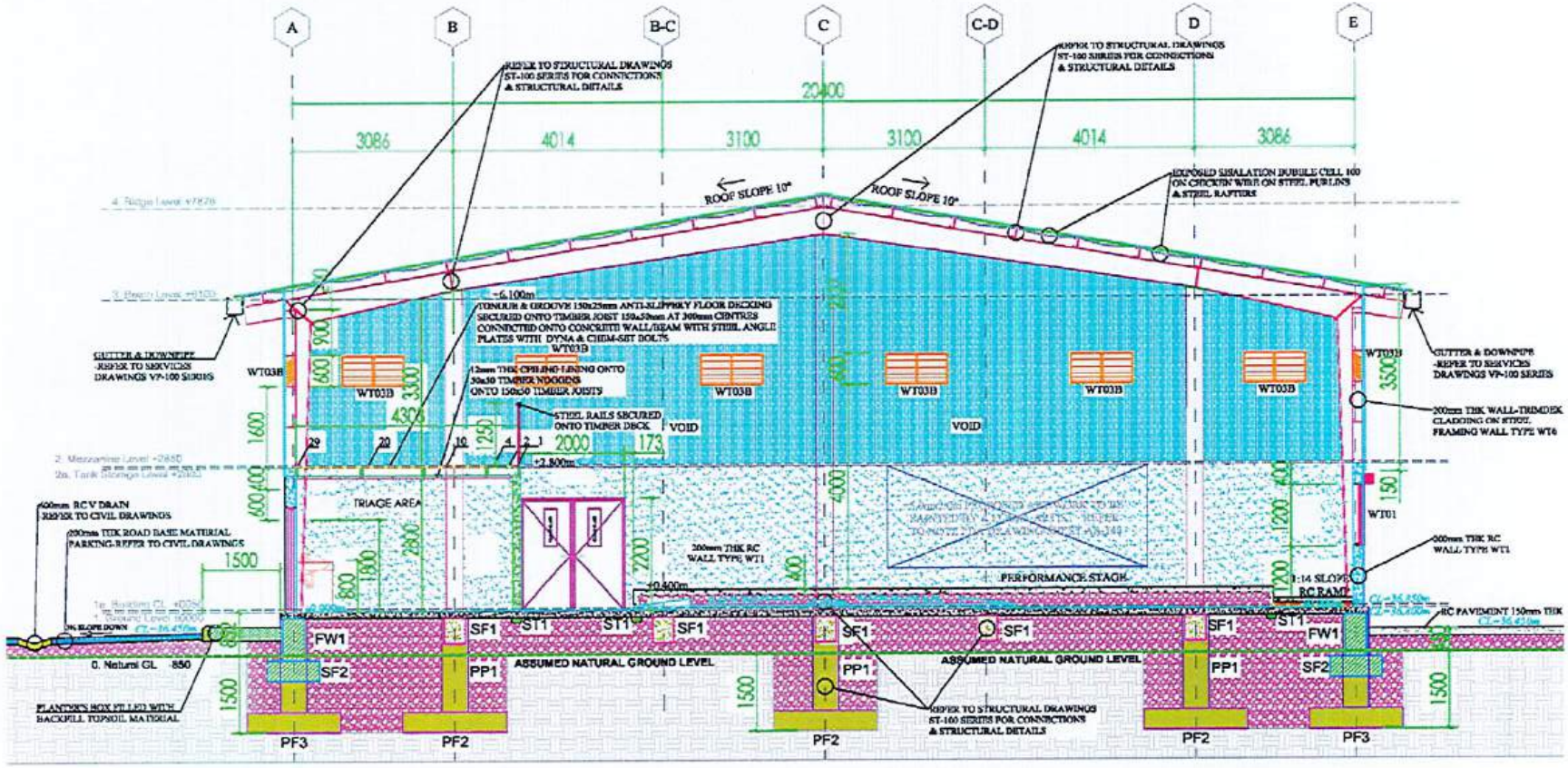


Figure 2.5: Shelter typical cross-section (view of the main entrance door and Triage area room)



NOTES

1a. BUILDING CL	= RC SLAB AT THE CENTER OF THE BUILDING
1. GROUND LEVEL	= RC SLAB AT THE EDGE OF THE BUILDING
0. NATURAL GL	= ASSUMED NATURAL GROUND LEVEL

LEGEND OF FOUNDATION

PF1-2700x2700x400 PAD FOOTING 1-REFER TO ST-101,ST-105	SF1-400x400 STRIP FOOTING 1-REFER TO ST-104,ST106
PF2-2000x2000x400 PAD FOOTING 2-REFER TO ST-101,ST-105	SF2-1000x400 STRIP FOOTING 2-REFER TO ST-104,ST106
PF3-1800x1800x400 PAD FOOTING 3-REFER TO ST-101,ST-105	SF3-400x400 STRIP FOOTING 3-REFER TO ST-104,ST106
PF4-1000x1000x300 PAD FOOTING 4-REFER TO ST-101,ST-105	FW1-400xVARIABLEx1500 FOUNDATION WALL 1-REFER TO ST-103,ST-106
PP1-700x600x1500 PEDESTAL PAD 1-REFER TO ST-102,ST-105	ST1-200x100 SLAB THICKENER 1-REFER TO ST-104,ST-106

Figure 2.6: Shelter typical cross-section (view of the washroom at ground floor level and the offices and tanks at mezzanine level)

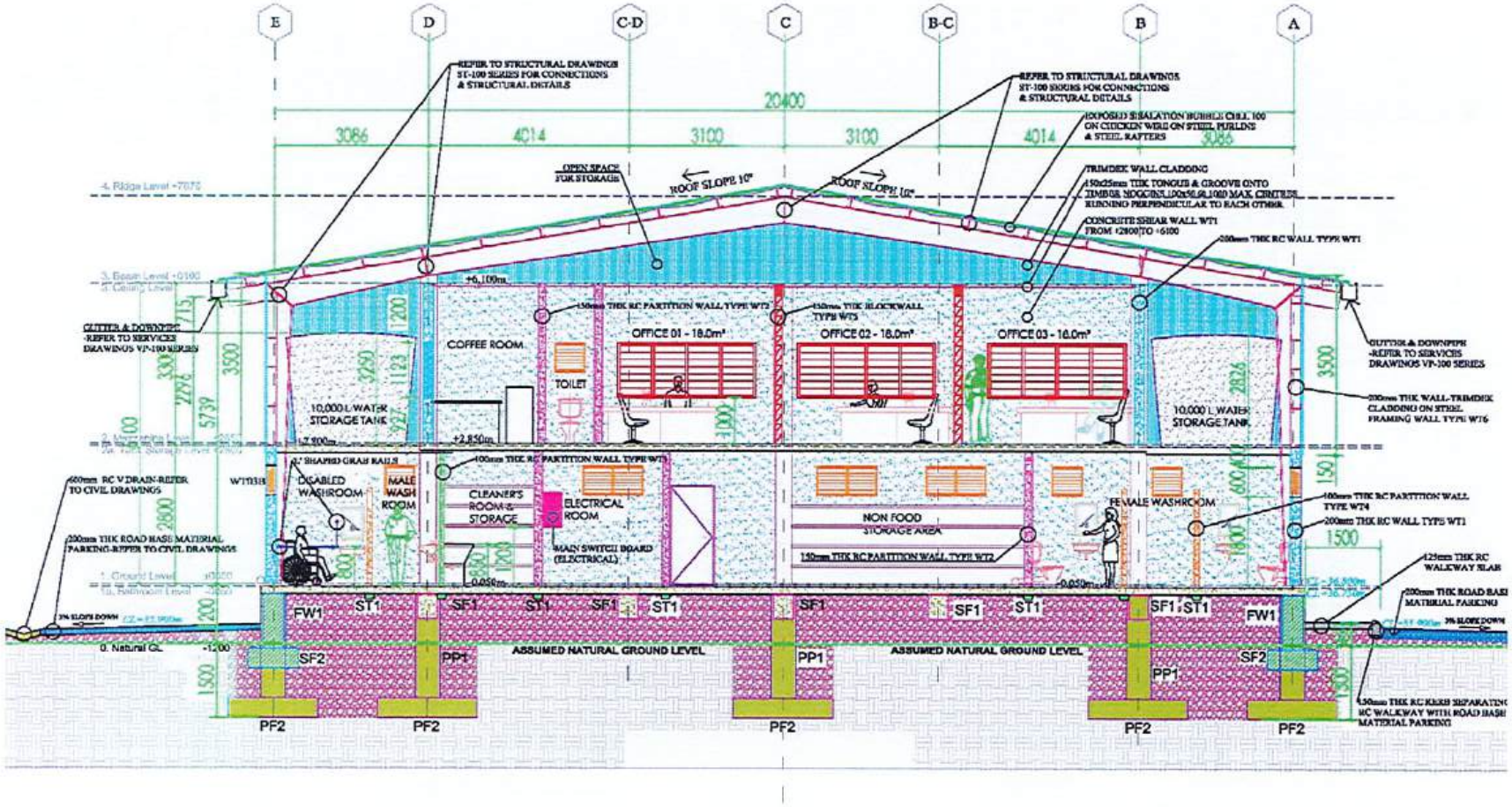


Figure 2.7: Shelter typical longitudinal section

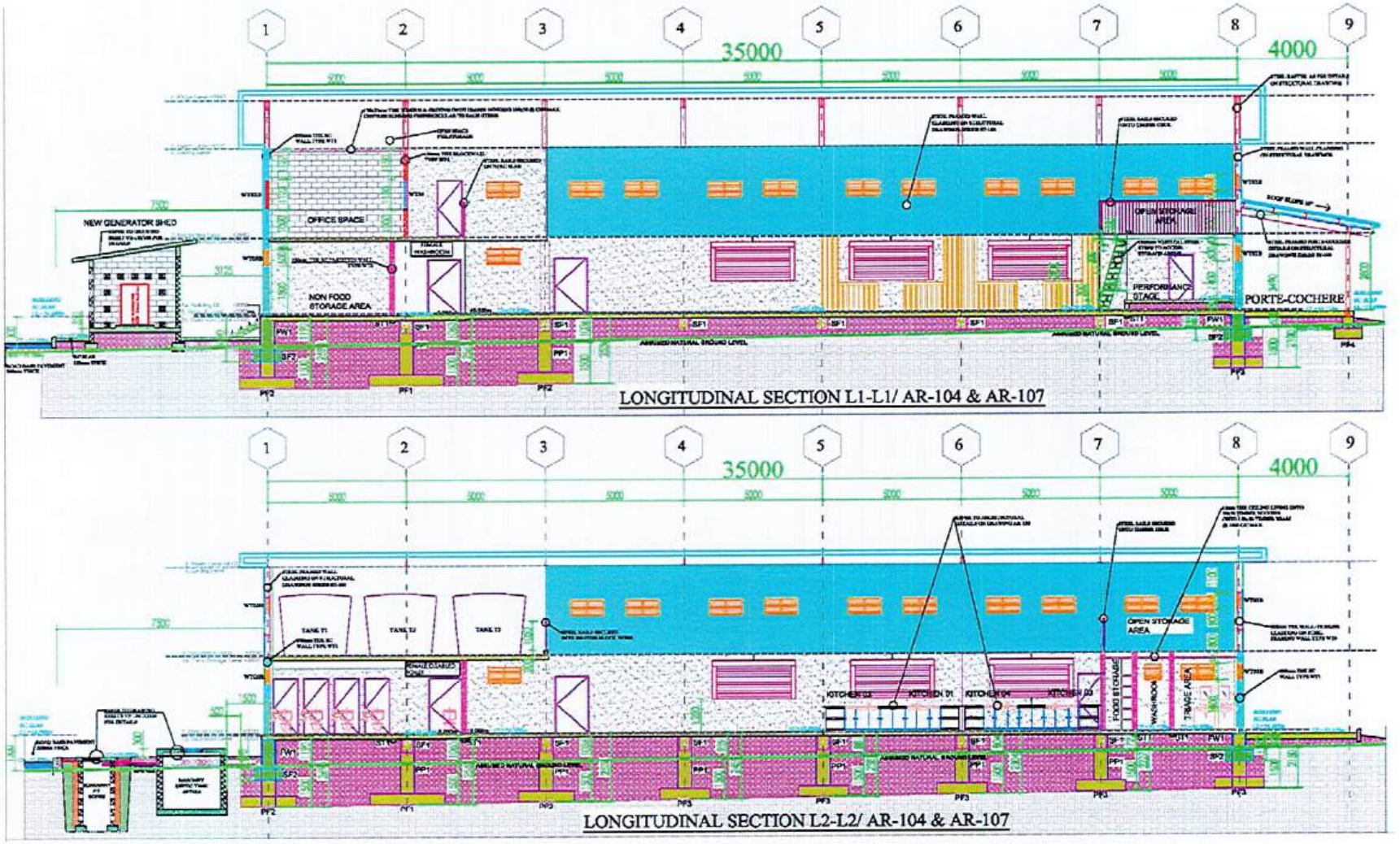


Figure 2.8: Shelter typical water tanks supply sections

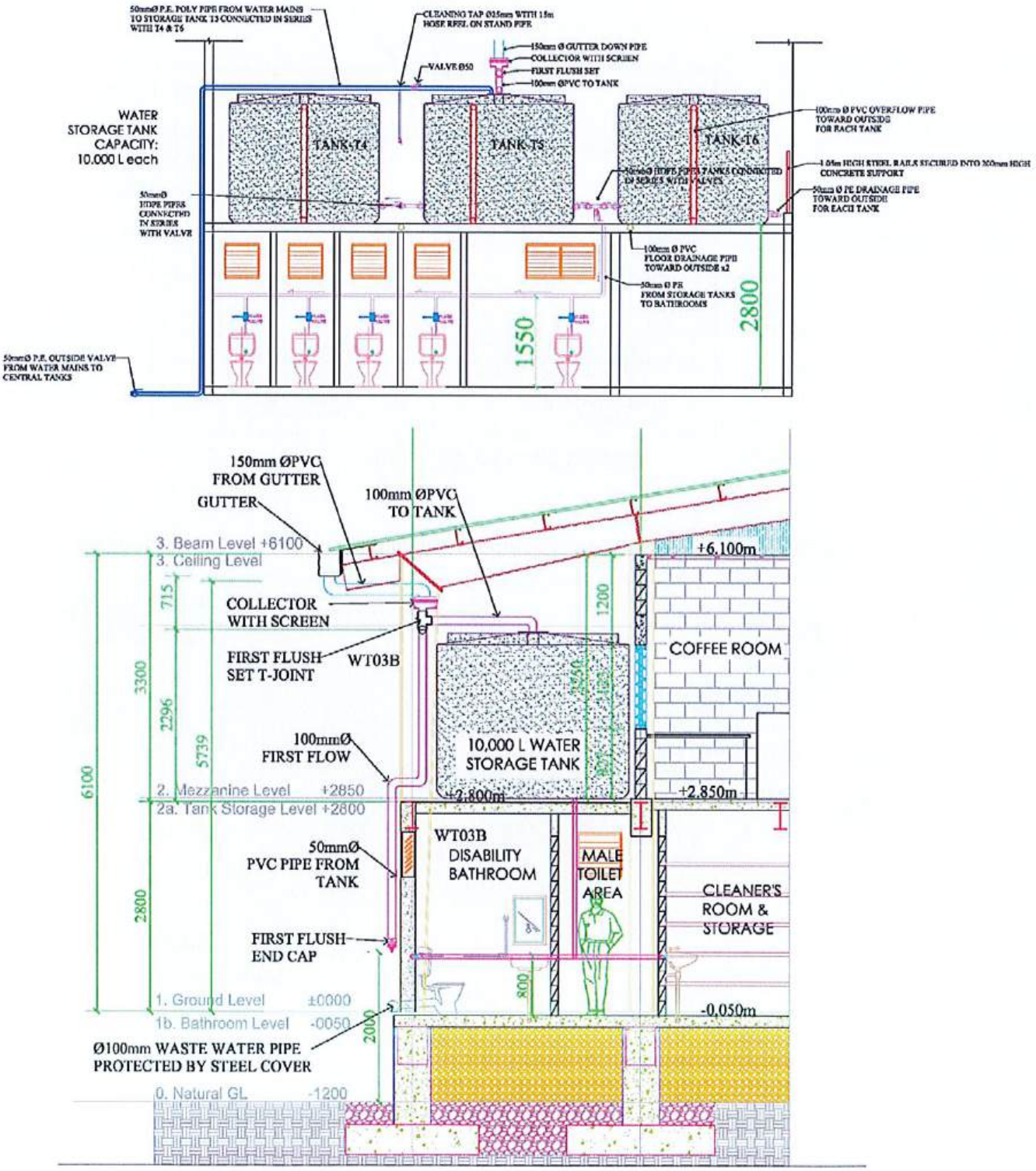


Figure 2.9: Shelter typical kitchen layout and section

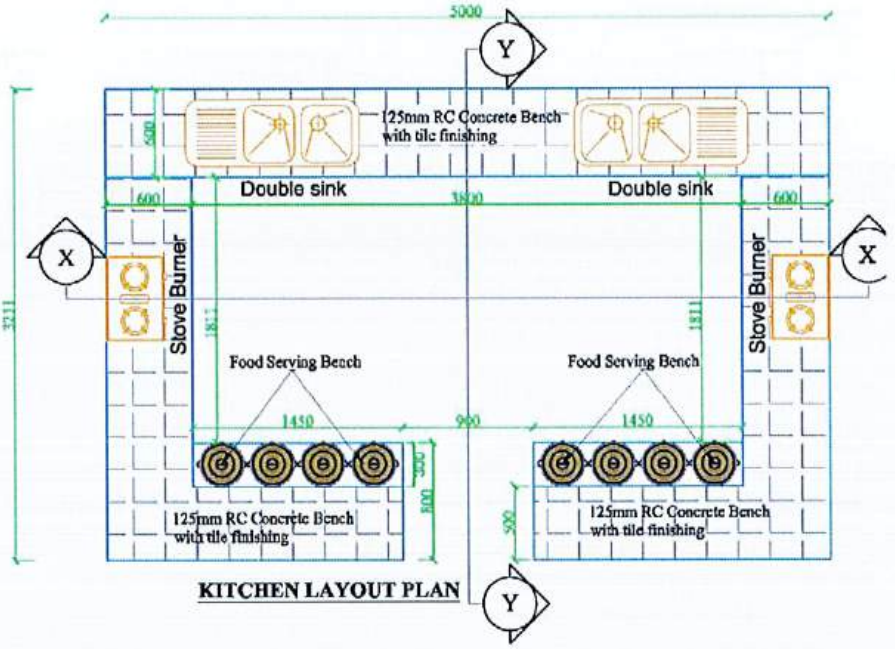
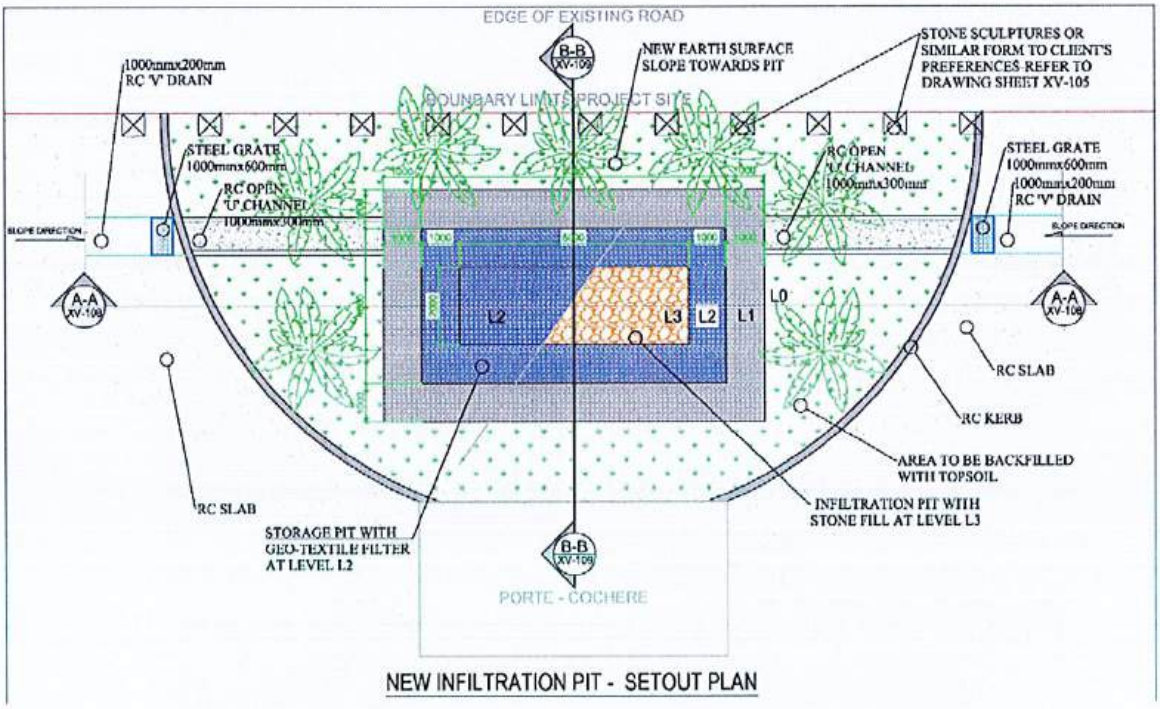


Figure 2.10: Typical Drainage structure plan (infiltration pit) in front of the building



2. Seaside Showground

61. The Seaside Showground emergency evacuation centre is situated in Central Ward.

62. There is adequate open and undeveloped area to accommodate the proposed multipurpose evacuation centre. There is an adjacent communal toilet constructed under PVUDP that will provide toilet cubicles and washing facilities additional to those being provided within the new building.

63. A new small market stall (food stall) will be constructed to allow for the demolition of an existing small market stall (food stall) that is within the construction area. This work will be completed before beginning the construction of the shelter. The current operators will be supported to move to the newly constructed stall prior to the demolition of the current stall. If economic impacts are ascertained, financial compensation will be paid either using records of sales or minimal wage payments and ongoing costs as agreed with the stall holders.

64. A new basketball court will be built to replace the existing court which will be impact by the new emergency shelter building.

65. The facility layout and setout are illustrated in Figures hereafter (see also pictures on § C):

Figure 2.11: Seaside Showground - Layout plan

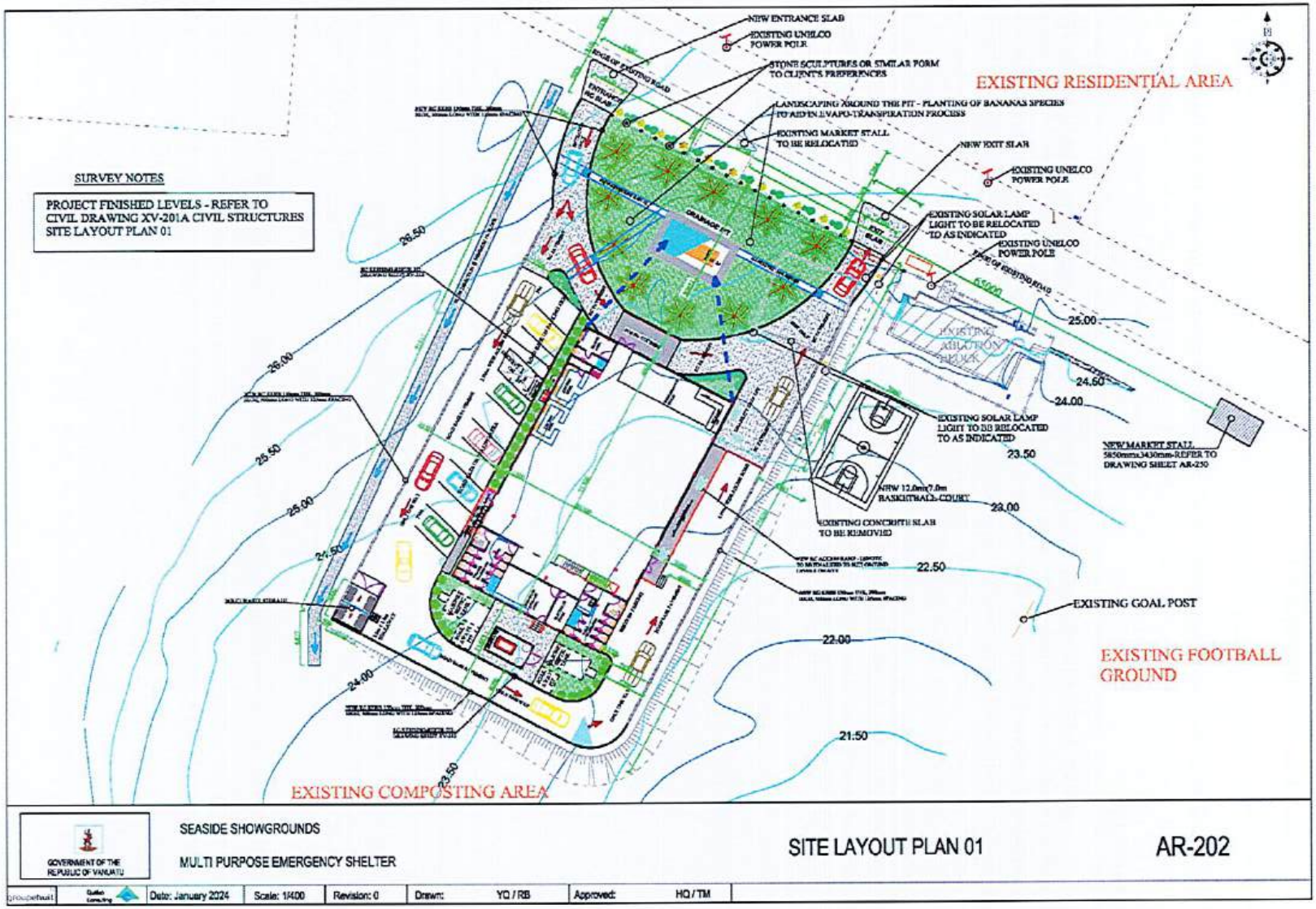


Figure 2.12: Seaside Showground - Site preparation plan showing the existing trees to removed (see also pictures on § C) and the additional temporary working space for the Contractor

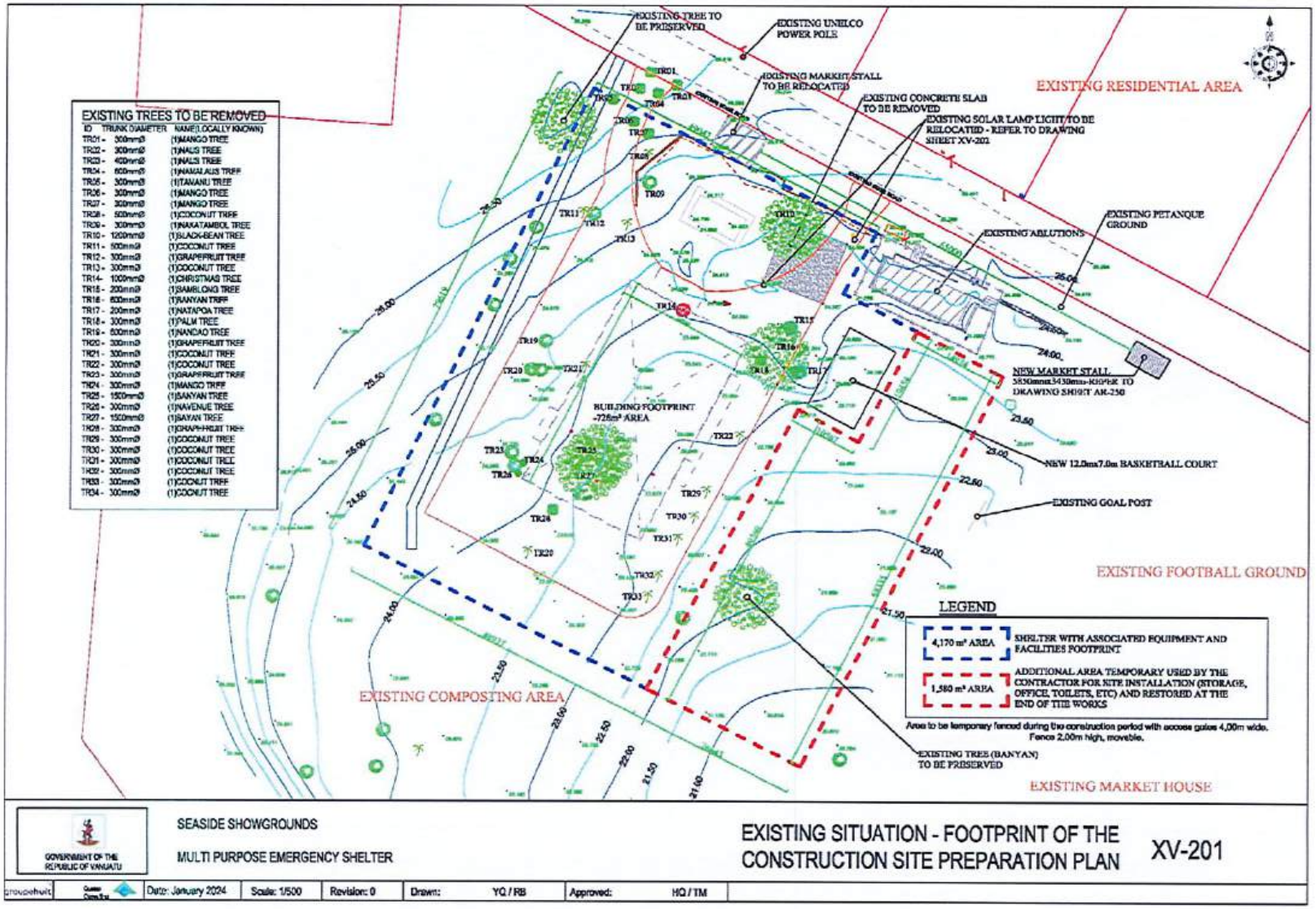
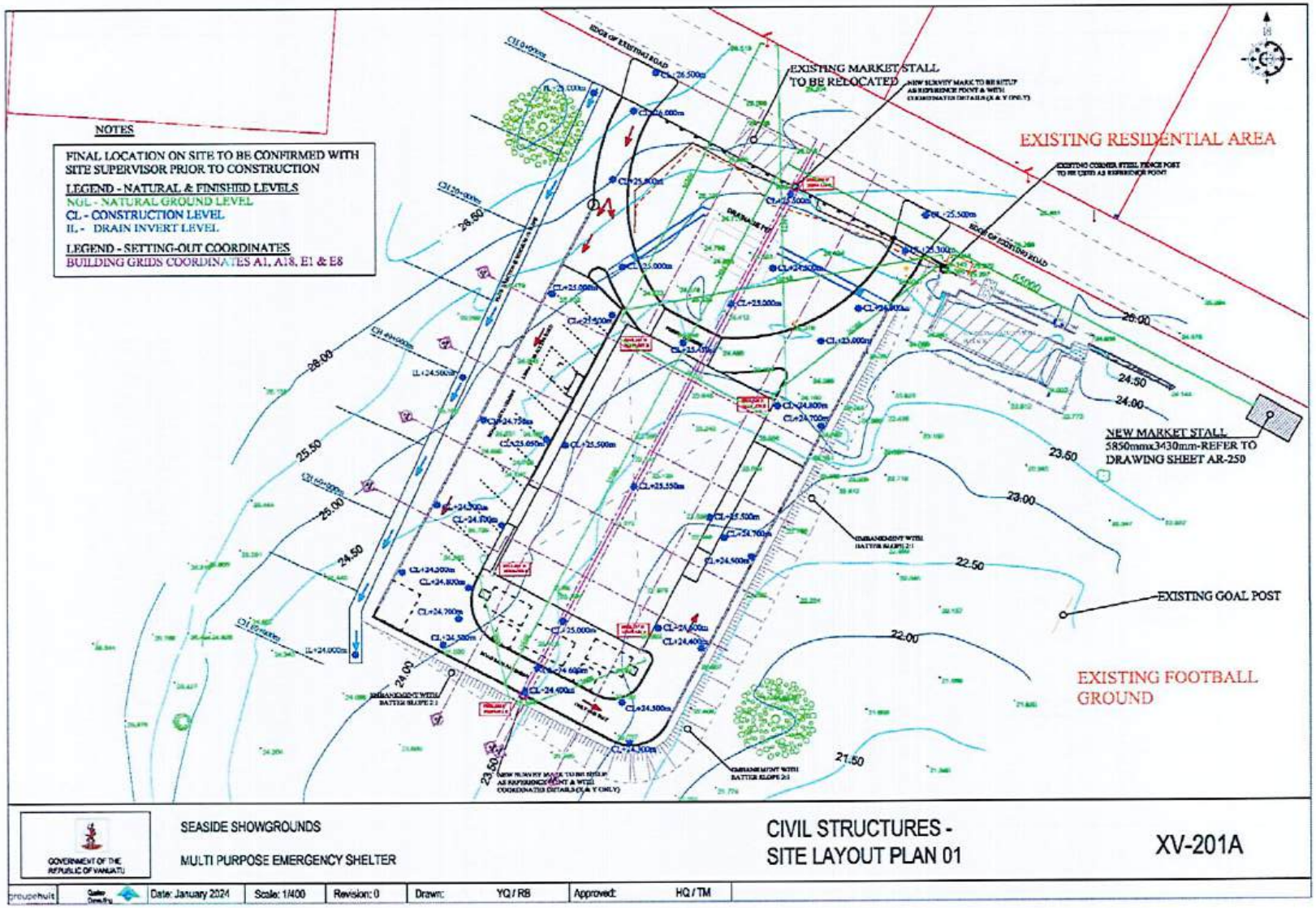


Figure 2.13: Seaside Showground - Civil structure site setout plan showing the main elevation of the construction



3. Freswota Field

66. The Freswota Field emergency evacuation centre is situated in Freswota-Tassiriki Ward and will be a new building near the football stadium and will be built mainly on open space.

67. There is adequate open space adjacent to the existing Freswota stadium to accommodate the proposed multipurpose evacuation centre.

68. The existing emergency access to & from the Freswota stadium is ot be retained.

69. A new small market stall (food stall) will be constructed to allow for the demolition of an existing small market stall (food stall) that is within the construction area. This work will be completed before beginning the construction of the shelter. The current operators will be supported to move to the newly constructed stall prior to the demolition of the current stall. If economic impacts are ascertained, financial compensation will be paid either using records of sales or minimal wage payments and ongoing costs as agreed with the stall holders

70. A newly oriented volleyball court will be built.

71. The facility layout and setout are illustrated in Figures hereafter (see also pictures on § C):

Figure 2.14: Freswota Field - Layout plan

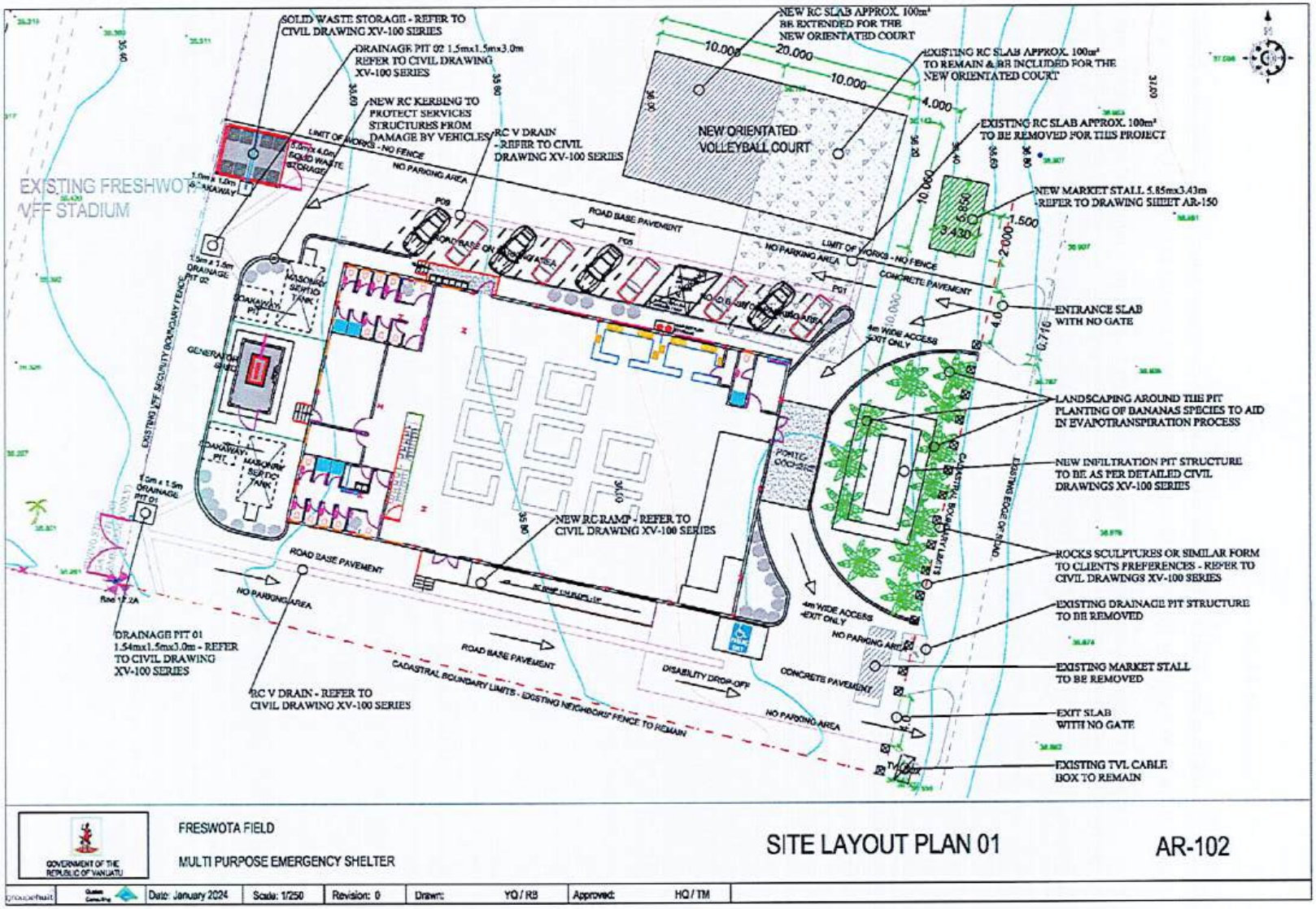


Figure 2.15: Freswota Field - Site preparation plan showing the existing trees to removed (see also pictures on § C) and the additional temporary working space for the Contractor

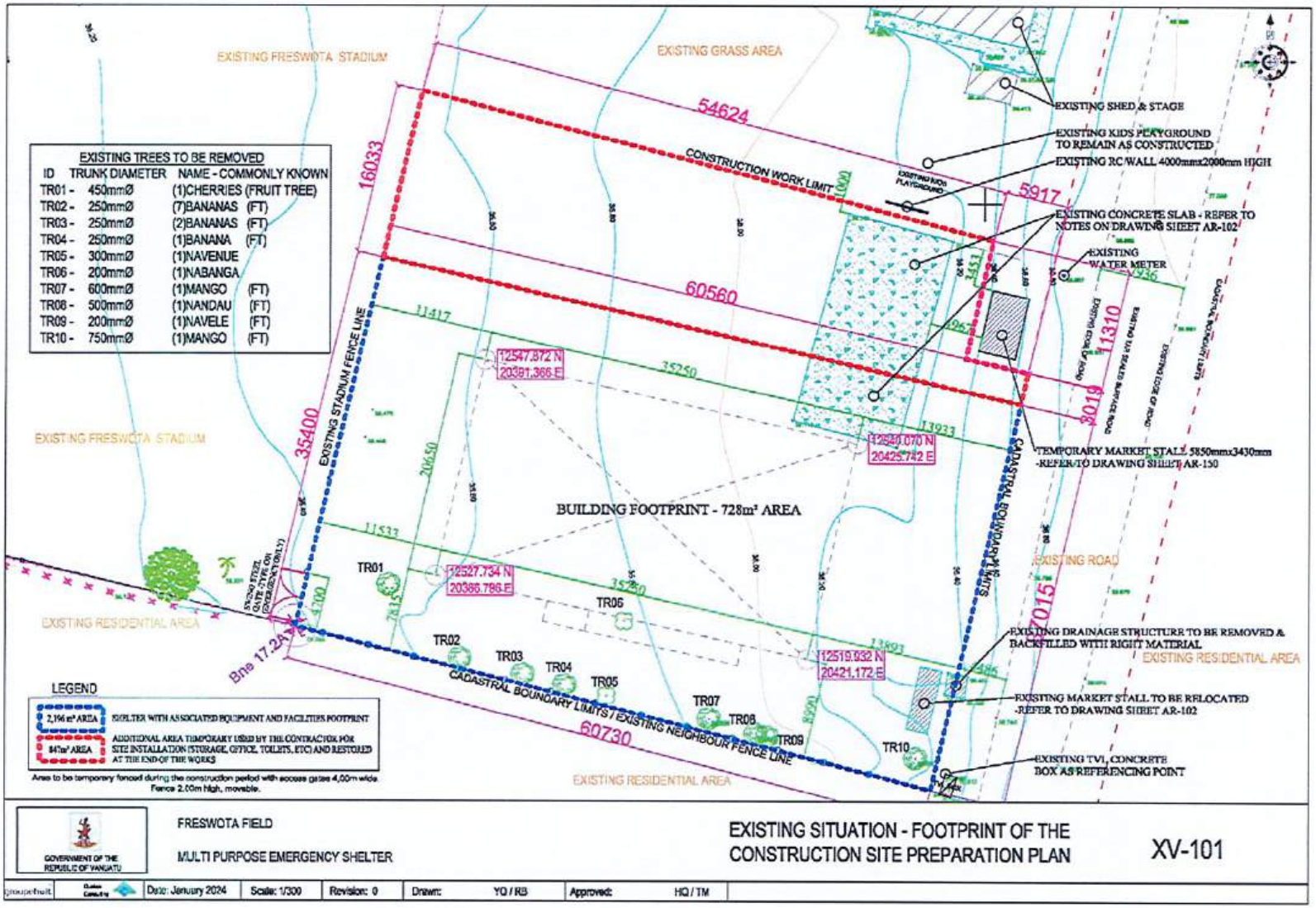
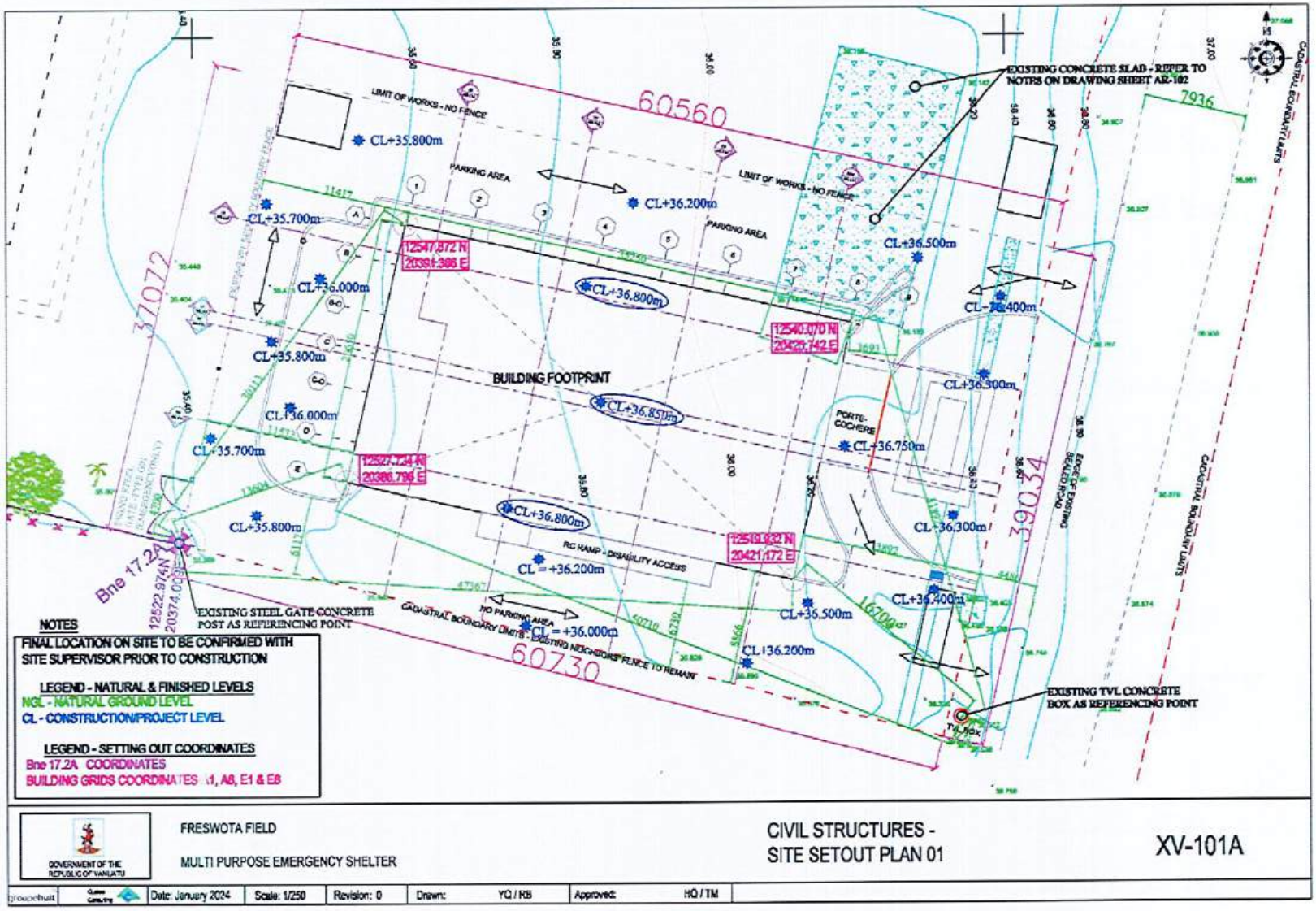


Figure 2.16: Freswota Field - Civil structure site setout plan showing the main elevation of the construction



4. Korman

72. The Korman emergency evacuation centre is situated in Freswota-Tassiriki Ward and will be a new building on currently vacant site and will be built mainly on open space.

73. There is adequate open space on the site to accommodate the proposed multipurpose evacuation centre.

74. The facility layout and setout are illustrated in Figures hereafter (see also pictures on § C):

Figure 2.17: Korman - Layout plan

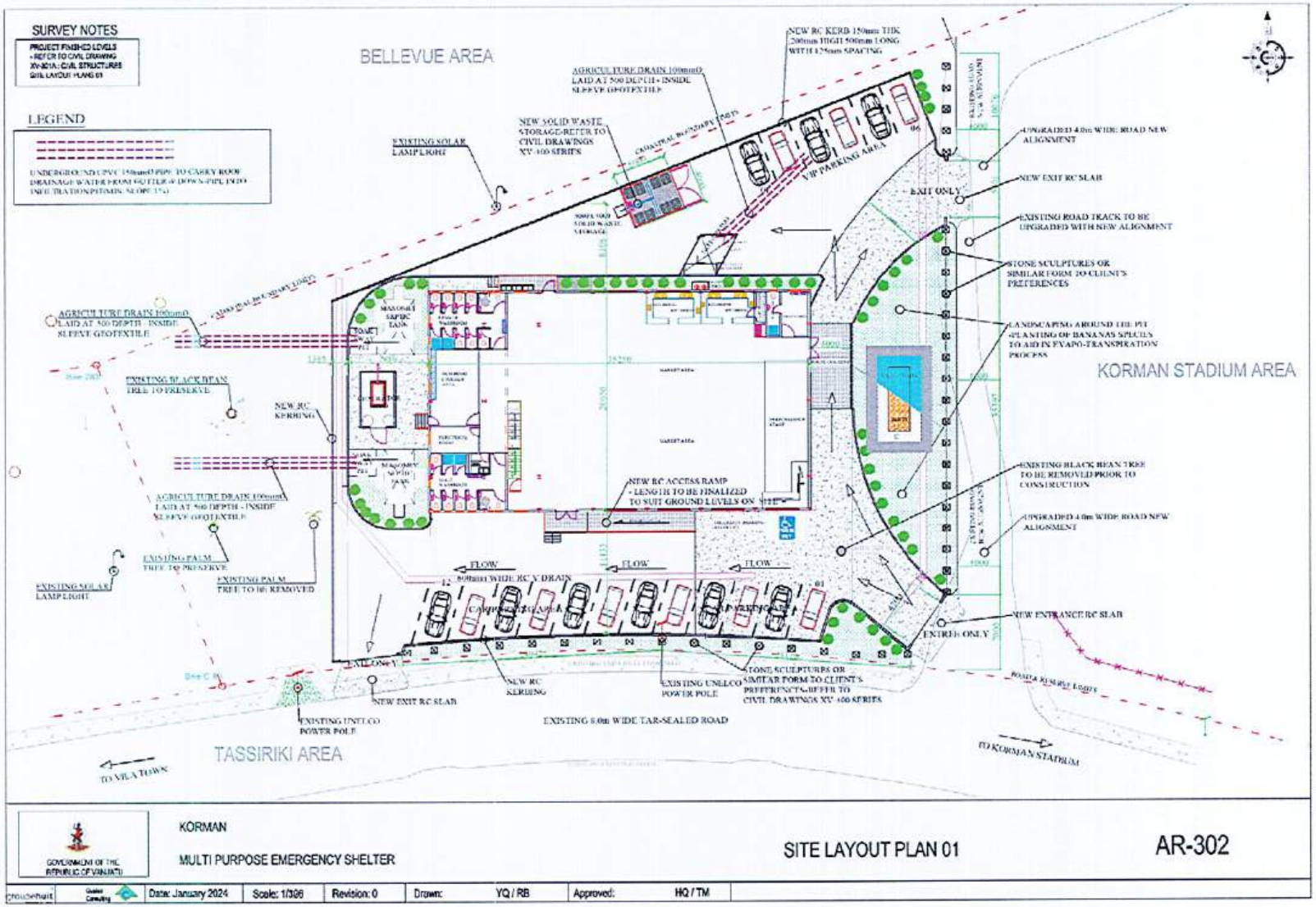


Figure 2.18: Korman - Site preparation plan showing the existing trees to removed (see also pictures on § C) and the additional temporary working space for the Contractor

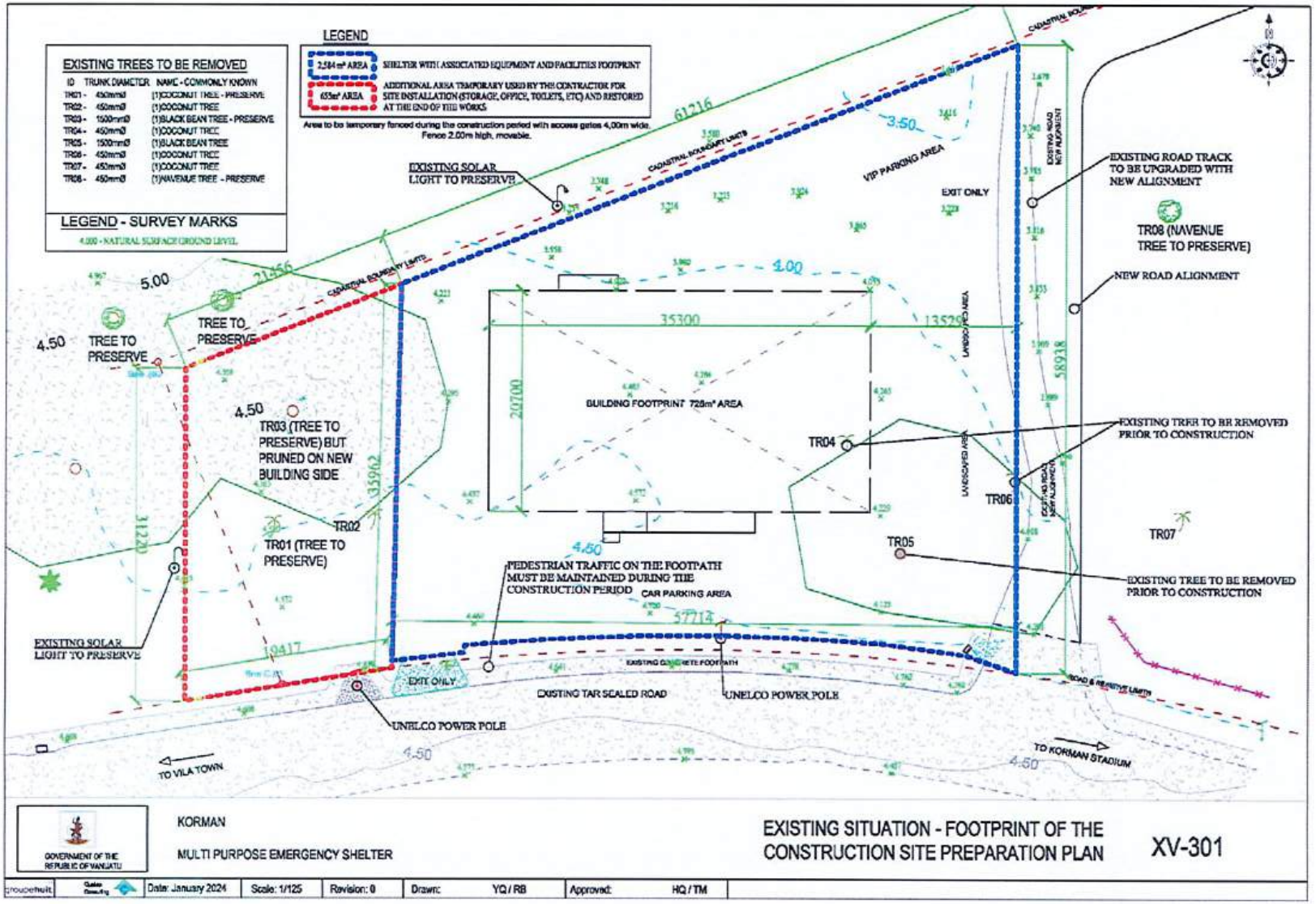
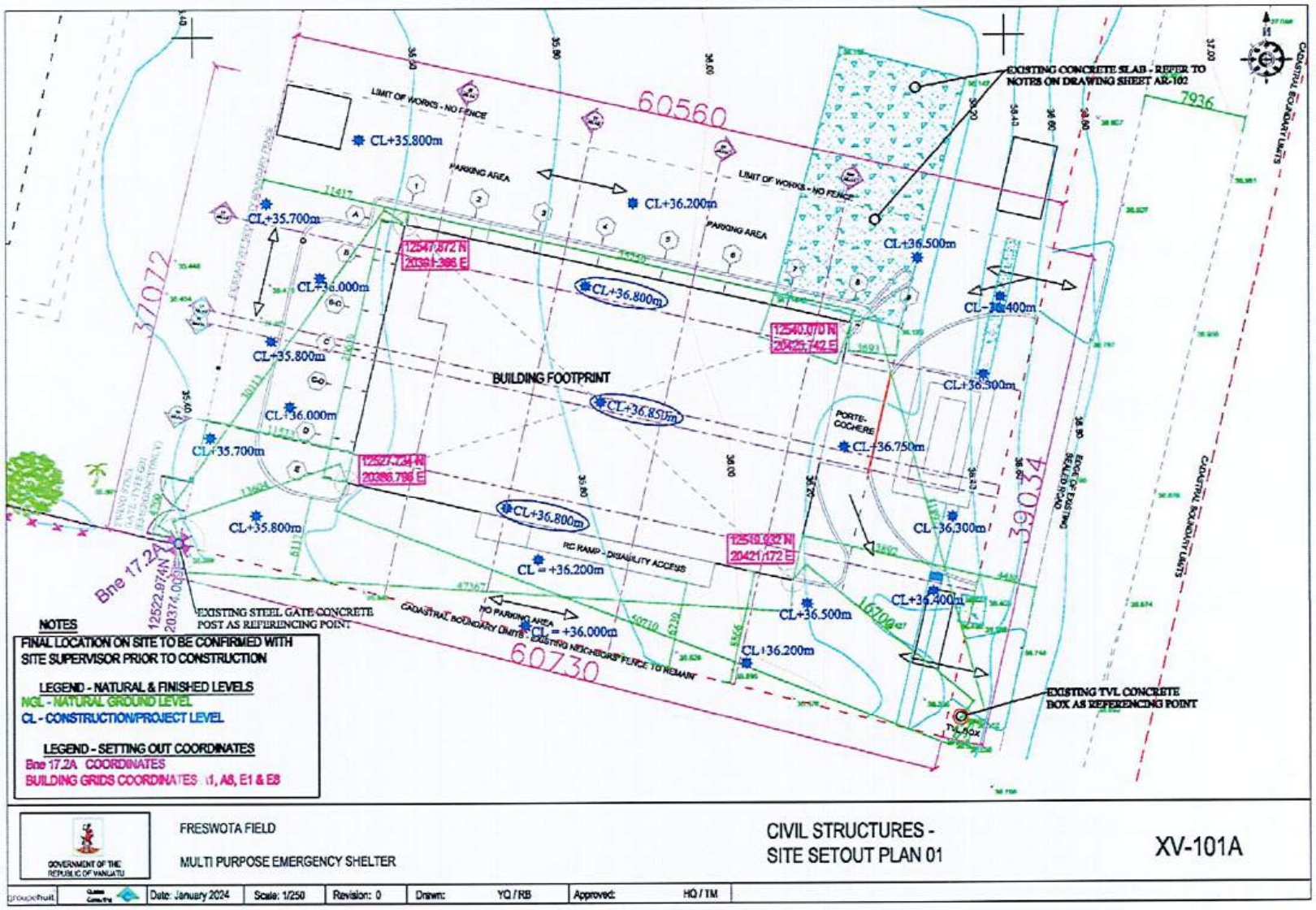


Figure 2.19: Korman - Civil structure site setout plan showing the main elevation of the construction



D. Construction Activities, Workforce and Equipment

75. Work at each site is expected to be carried out over a 12 to 15 month timeframe and will involve both civil and structural construction activities. It is envisaged that there will be three key stages of construction.

76. **Stage 1**. Civil works that will involve site preparation activities that is expected to include:

- form site access & establishment (office, stores, signboards, etc);
- general clearance & removal of vegetation;
- removal, stockpiling & reuse of any topsoil;
- demolition & removal of existing structures (if required);
- excavation & backfill of trenches for foundations & utility service connections;
- installation of utility services & connections; and
- minor cut/fill earthworks activities to create a level platform.

77. Resources at each site will include construction equipment (small to medium size), labour (some part time only) & materials and the following requirements can be expected: (i) equipment; excavator/loader, dump trucks, rollers/compactors, utility vehicles and hand tools; (ii) labour; supervisor/foreman (x1), operator/driver (~5), tradespeople (plumber/electrician) & general labour (<10); and (iii) materials; pipes/cables/fittings (service utilities), fill (for areas within any building footprint).

78. **Stage 2**. Structural works will involve building work activities that is expected to include:

- concreting foundations
- constructing concrete/block walls (including beams and lintels)
- preparation and placing floor slabs (concrete and reinforcement)
- erection of steel structure including columns, beams, purlins, girts and bracing
- erection of trimdek cladding, flashing and ridge cap (for walls and roofs)
- fixing of roof sheeting
- installation of utility services (pipes, cables, fixtures and fittings)
- installation of doors and windows
- installation of inside ceilings, guardrails, stairs
- finishing of works (plastering, tiling, painting etc)
- outside civil works, driveway, drainage, preparation for landscaping
- testing, training and commissioning

79. Resources at each site will include construction equipment (small to medium size), labour (some part time only) & materials and the following requirements can be expected:

- Equipment; excavator, trucks/hi-ab, utility vehicles and hand tools
- Labour; supervisor/foreman (x1), operator/driver (~5), tradesmen (plumber/electrician/bricklayers x2/carpenters x2) and general labour (<10)
- Materials; concrete (inc aggregate, sand etc), timber (doors, windows, roof framing), pipes/cables/fittings (service utilities), fixtures & fittings (toilets, showers, kitchen cabinets etc)

80. **Stage 3**. Civil works are expected to include removal of site establishment and site restoration, and landscaping and tidy up of the site. Resources at each site will include construction equipment (small to medium size), labour (some part time only) and materials and the following requirements can be expected: (i) equipment; excavator/loader, dump trucks, utility vehicles and hand tools; and (ii) labour; supervisor/fore-person (x1), operator/driver (~5) and general labour (<10).

E. Analysis of Alternatives

81. Key alternatives considered are alternative sites for the facilities, and the "no project" alternative.

82. **The no project alternative**. The subprojects address, in addition to the need for safe shelter during and immediately after emergency events, the need for community centres that foster community cohesion and co-operative activity and ward administration facilities. In the absence of improvements, there will be full reliance on buildings not designed for the purpose of emergency shelter, and on the use of community buildings that are not firmly constructed. Hazards associated with practices such as poorly fitted roofing iron have proven to be a common cause of damage, injury and even fatality during high wind speed events.

83. **Alternative sites**. To identify the three sites, a long list of potential sites was compiled for further investigation. The technical team members involved in these investigations then held initial consultations with ward members, MOIA, PVCC and the Police Commissioner and identified 25 sites within the Port Vila Municipal boundary. These were sites that were recommended by stakeholders and/or known to be in use, or to have been in use as shelters in the past. Screening was then undertaken to narrow down and rank the long list. Discussion on criteria took place in parallel with preparation of the long list. Criteria were applied via an iterative process as discussions took place to arrive at selection. The criteria finally adopted were:

- Schools and churches - were excluded due to: (i) reports of past experience with schools and churches, where costs of clean-up and restoration of facilities after use as evacuation shelters were high; and (ii) the need for schools in particular to revert to their normal purpose once the emergency phase as passed.
- Sites in hazardous areas - the vulnerability of sites coastal inundation, seismic, or wind hazard was assessed by ADB's hazard mapping team, who plotted each site identified on base maps showing vulnerable site for each of these hazard types. Sites in high-risk zones for the hazard categories were excluded.
- Location - sites must be within the Port Vila Municipal Boundary.
- Accessibility to poor communities - sites that readily serve poorer communities were given priority, such as the Seaside Showground site in the Central Ward.
- Spatial distribution - to the extent possible, sites should be distributed around the city, with the aim of at least one in each ward.
- Potential to combine with other functions - sites which have the potential to further functions, such as housing a ward office, market, clinic, Information Centre or provision for wide community use and a public toilet block were favoured.

84. To confirm site availability, the team made initial and follow up visits to the Department of Lands, and the sites themselves to ascertain the current state of ownership, use and existence of any future plans for development of the sites. Consultations also took place with PVCC to confirm responsibilities for operation and maintenance of the facilities. A letter confirming this is attached as Appendix 3.

85. Initially two suitable sites were identified through the investigative process with one at Seaside Showground and the other at Freshwater Market. Following due diligence and community preferences identified through consultation, the Seaside shelter changed location on the same site and at Freshwater a move from the original market site to nearby Freshwater Fields. The new site is a more central location in Freshwater, adjacent to the football stadium, community clinic and stage. The Korman site was identified as suitable by PVCC as it met the spatial distribution criteria and is on a current lease title with no immediate neighbours. The site at Korman, located close to the eastern municipal boundary is intended for use by evacuees from both within and outside the municipal area. Additional supporting criteria for the Korman site is that it will be located on an existing municipal lease, held by the PVCC and located on the main round island road, a suitable and easily accessed location for evacuees from outside the municipal area.

III. POLICY AND LEGAL ADMINISTRATIVE FRAMEWORK

A. Country Safeguards System

86. The constitution of the Republic of Vanuatu (1980), which is the supreme law, vests the natural resources of Vanuatu in the people and government, and affords protection to national wealth, resources and environment in the interest of present and of future generations. Specific legislation on environmental protection and management, as the basis of the country safeguard system – environment (CSS), is largely provided for in the Environmental Protection and Conservation Act (CAP 283, 2010), which is an amendment of the Environmental Management and Conservation Act N°12 of 2002 and established the Department of Environment and Conservation. The Environmental Protection and Conservation Act (EPC Act) provides for conservation, sustainable development and management of the environment and requires (in Part 3) environmental assessment of projects.

87. The environmental impact assessment (EIA) process is detailed in the Environmental Impact Assessment Regulations, which sets out the decision-making process for assessment of environmental impacts of projects. Specifically, the Environment Impact Assessment Regulations (Amendment) Order N° 105 of 2013 applies.

88. Further items of environment related legislation that potentially impinge on urban development projects are the

- Waste Management Act (2014) and Waste Management Regulations 2018
- Foreshore Development Act and Amendment 2013
- Custom Land Management Act 2013
- Wildlife Protection and Management (Amendment) Act 2017
- Plant Protection Act 1998 and Regulation 2014 (biosecurity matters)

- Pollution Control Act (2013)
- Control of Nocturnal Noise Act (1965)
- Water Resources Management Act (2002)
- Public Health Act (1994)
- Health and Safety at Work Act 1987
- Quarry Act (2013)
- Forest Act (2001)
- Preservation of Sites and Artefacts Act 1965
- Wild Bird Protection Act (1989)
- National Disaster Act (2000)
- Pesticides Control Act (1998).
- Animal Importation and Quarantine Act [CAP 201]

89. The country safeguard system (CSS) for environment comprises laws and regulations covering environmental protection, health and safety.

90. **Environmental Protection and Conservation Act 2010**. The EPC Act has four main parts, covering (i) administration, (ii) EIA, (iii) biodiversity and protected areas and (iv) enforcement. It provides the founding legislation for: (i) the Department of Environmental Protection and Conservation (DEPC); and (ii) the Biodiversity Advisory Council.

91. The Act requires the publication of a National State of Environment Report, at least once every ten years and the maintenance of a publicly accessible environmental registry. It provides for bio-prospecting and community conservation areas.

92. For projects that impact or are likely to impact the environment, the EPC Act provides an approval process, which is set out under the EIA regulations.

93. An institutional capacity assessment carried out under an ADB funded TA project in 2014 identified some gaps in the legislation, citing as an example that when a full EIA is not required, the approval issued by the DEPC does not have a legal basis. The TA proposed gap filling measures.[7]

94. **Environmental standards**. National environmental standards are under preparation in Vanuatu including, for example, proposed drinking water quality standards (UN Water Global Analysis of Sanitation and Drinking Water, 2015). It is assumed that World Health Organization standards apply and are met by the water concession provider in Port Vila.

95. Other relevant acts are:

- **Land**. Legislation governing land allocations are, variously the Land Reform Act (1980), the Land Leases Act (1983) and the Custom Land Management Act (2013).

[7] ADB (2015) TA 7566-REG: Strengthening and Use of Country Safeguard Systems, Subproject: Strengthening Implementation Capacity for EIA (Vanuatu). Institutional Capacity Assessment. https://countrysafeguardsystems.net/sites/default/files/Institutional%20Capacity%20Assessment.pdf

- **Pollution Control**. The Pollution Control Act (2013) This obliges owners and/or users of premises to apply pollution control measures and provides for the issuance of permits. It also requires any person or agency to apply the precautionary principle, and for any decision making in relation to the Act is to be guided by consideration of climate change adaptation and mitigation. The Pollution Control Act is administered by the DEPC.

- **Waste management**. The Waste Management Act (2014) and Waste Management Regulations 2018. The Waste Management Act (No. 24 of 2014) sets out requirements for waste services and operations and includes specific responsibilities relating to waste identification, collection, disposal and for planning and reporting on waste management including hazardous waste management. The Waste Management Regulations ban single use plastic bags, plastic straws and polystyrene takeaway boxes, and provide for licensing of private waste operators.

- **Foreshore Development**. Development and use of the foreshore is covered under the Foreshore Development Act 1975 and Amendment Act 2013. The Act requires written consent of the Minister of Planning for any development by any person on the foreshore of any island in the nation.

- **Acts related to civil construction.** The Quarry Act (2013), the Health and Safety at Work Act (1987) and the Labor Act (2009) are relevant to planning and implementing construction work.

- **Biosecurity.** The Plant Protection Act (1998) and the Regulation 2014, as well as the Animal Importation and Quarantine Act (1997) and the Animal Importation and Quarantine Regulation (2007) are the primary items of legislation covering biosecurity, implemented by Biosecurity Vanuatu, a department under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB).

96. Vanuatu is also signature to a number of international laws and treaties related to environmental management:

- United Nations Convention on Biodiversity
- United Nations Convention to Combat Desertification
- United Nations Framework Convention on Climate Change
- Montreal Protocol on Substances that Deplete the Ozone Layer (and subsequent amendments)
- Kyoto protocol
- Stockholm Convention on Persistent Organic Pollutants
- United Nations Convention on Law of the Sea (UNCLOS)
- Vienna Convention for Protection of the Ozone Layer
- Convention on International Trade in Endangered Species of Wild Fauna and Flora
- International Convention on the Establishment of an International Fund for the Compensation for Oil Pollution Damage
- International Convention on Civil Liability for Oil Pollution Damage

- International Convention for the Prevention of Pollution of the Sea by Oil
- Treaty on the Non-Proliferation of Nuclear Weapons
- Plant Protection Agreement for South East Asia and the Pacific
- Agreement on the International Dolphin Conservation Programme
- Millennium Development Goals
- Stockholm Convention of Persistent Organic Pollutants
- Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships
- Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal
- Nagoya Protocol on Access to Genetic Resources and Benefit Sharing.

97. **Environmental assessment**. The Environmental Impact Assessment Regulations require the developer of a project to prepare and submit a Environment Permit application to the DEPC on a prescribed form and providing such additional information that may assist in the review and assessment of the application. Based on the information provided, the DEPC undertakes a preliminary environment assessment (PEA). The PEA assessment and decision may include: no further assessment and issue of environment permit, usually with conditions or the requirement to prepare an EIA. No development of the shelters under GPVURP can be embarked upon without DEPC approval through issue of the necessary environment permits.

98. Should an EIA be required, the DEPC prepares the Terms of Reference for EIA preparation, covering technical, economic, social and environmental aspects. Public consultation is required, and an assessment panel is established.

B. ADB Safeguard Policy

99. ADB requires the consideration of environmental issues in all aspects of ADB's operations, and the requirements for environmental assessment are described in ADB SPS, 2009. This states that ADB requires environmental assessment of all ADB investments.

100. **Screening and categorization**. The nature of the environmental assessment required for a project depends on the significance of its environmental impacts, which are related to the type and location of the project; the sensitivity, scale, nature, and magnitude of its potential impacts; and the availability of cost-effective mitigation measures. Projects are screened for their expected environmental impacts, and are assigned to one of the following four categories:

(i) **Category A.** Projects could have significant adverse environmental impacts. An EIA is required to address significant impacts.

(ii) **Category B.** Projects could have some adverse environmental impacts, but of lesser degree or significance than those in category A. An IEE is required to determine whether significant environmental impacts warranting an EIA are likely. If an EIA is not needed, the IEE is regarded as the final environmental assessment report.

(iii) **Category C.** Projects are unlikely to have adverse environmental impacts. No EIA or IEE is required, although environmental implications are reviewed.

(iv) **Category FI.** Projects involve a credit line through a financial intermediary or an equity investment in a financial intermediary. The financial intermediary must apply an environmental management system, unless all projects will result in insignificant impacts.

101. For category A and B projects, environmental assessment is required, an environmental impact assessment for category A, and an initial environmental examination for category B. Requirements are summarized in Appendix 2.

102. Screening of project impacts takes place to determine the potential level of negative impacts and the required level of assessment. The three emergency shelter subprojects fit category B for environment, as they may incur some adverse environmental impacts but these are expected to be largely site-specific, mitigation measures can be readily designed, and impacts are less significant than those of category A.

103. The DEPC will review the Environment Permit and conduct the PEA and determine if further assessment is required.

104. ADB's SPS applies pollution prevention and control technologies and practices consistent with good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines (EHSG). The EHSG provide the context of international best practice and contribute to establishing targets for environmental performance. Standards incorporated into the EHSG will be used in parallel with Vanuatu environmental standards (where they exist) throughout this document with the principals of due diligence and a precautionary approach adopted. Application of occupational and community health and safety measures, as laid out in the EHSG is required under the SPS.

105. ADB's safeguard due diligence emphasizes screening and scoping, planning, environmental and social impact assessments and safeguard documentation. Through such due diligence and review, ADB will confirm (i) that all key potential social and environmental impacts and risks of a project are identified; (ii) that effective measures to avoid, minimize, mitigate, or compensate for the adverse impacts are incorporated into the safeguard plans and project design; (iii) that the borrower/client understands ADB's safeguard policy principles and requirements and has the necessary commitment and capacity to manage the risks adequately; (iv) that, as required, the role of third parties is appropriately defined in the safeguard plans; and (v) that consultations with affected people are conducted in accordance with ADB's requirements. These procedures also align with the requirements of the CSS.

106. ADB will also assess the borrower's/client's capacity to manage environmental and social impacts and risks and to implement national laws and ADB's requirements. If gaps exist between ADB's requirements and the countries' laws, or where gaps in borrowers' capacity are apparent, the safeguard frameworks should include the details of the specific gap-filling requirements to ensure that policy principles and safeguard requirements are achieved.

107. **Environmental management plan**. The SPS further requires the development of an EMP specifying the required mitigation and monitoring and who is responsible for implementation.

108. **Public disclosure**. ADB will post the safeguard documents on its website as well as disclose relevant information in accessible manner in local communities:

(i) for environmental category A projects, draft EIA report at least 120 days before Board consideration;

(ii) final or updated EIA and/or IEE upon receipt; and
(iii) environmental monitoring reports submitted by the PCU during project implementation upon receipt.

109. **Requirements for the Project**. The EMP and environmental permit (with or without conditions) will be followed in the design, due diligence, approval and implementation of each of the three subprojects. All statutory clearances and approvals will be obtained prior to commencement of civil works. The IEE has been updated as required and will be attached to the bid and contract documents. The updated IEE will be submitted to ADB for review and approval prior to issuance of bid documents. Monitoring of EMP implementation by the executing agency is reported to ADB.

IV. DESCRIPTION OF THE ENVIRONMENT

A. Physical Resources

110. **Geology**. Port Vila is situated on the limestone periphery of the island of Efate, an island of volcanic origin with a mainly basalt core with deposits of eruptive rock and ash, and a limestone periphery formed by coral growth over time originating from the late Pleistocene epoch (11,000 to 2.5 million years ago) and is heavily fractured as a result of faults, and tilting caused by earthquakes. Solubility of the underlying rock in the Port Vila area was extensively tested in 2015 to ascertain the feasibility of structures such as soakaways for drainage purposes. Testing found the material to be highly insoluble, thus not susceptible to subsidence or the formation of sinkholes.[8] The volcanic substratum is generally at some depth beneath the limestone though there are some outcrops of volcanic rock in the Port Vila area.[9] The two of the sites (Freswota Market and Seaside Showground) are located on an area of uplifted terraces to the east of the CBD. The Korman site is on lower-level ground below the Bellevue limestone terrace to the east of the city.

111. **Soils**. In and around the Port Vila CBD, the ground is underlain by dense, in situ, coralline material which comprises rock fragments interspersed with sand and some silty clay deposits and is very permeable. In most areas, the in situ coralline material is relatively easy to excavate but in some places it can be very hard, making excavation difficult, requiring mechanical plant.

112. **Topography**. Situated on the periphery of Efate island, much Port Vila comprises a low lying coastal strip where the CBD is located, which at its lowest point is 1.6m above mean sea level (MSL). The higher land to the east of the CBD is formed by terraces, with elevations of up to 29m MSL. Beyond the ridge formed by terrace area, the land falls toward the Ekasuvat lagoon.

113. **Climate**. The climate at Efate is an equatorial, humid climate according to the Köppen-Geiger climate classification.[10] Monthly average temperatures generally vary

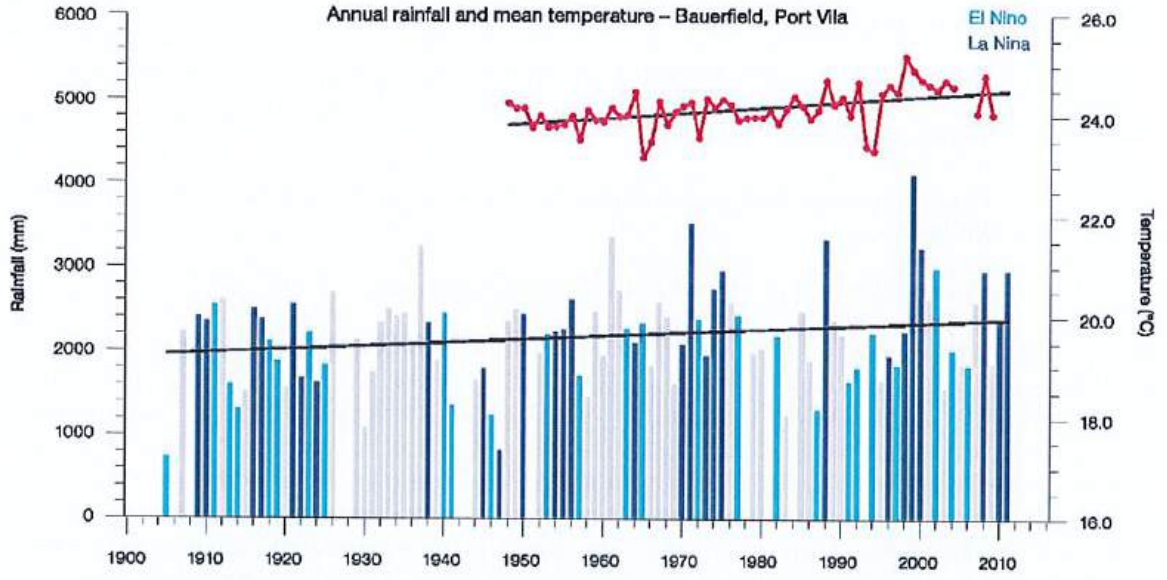
[8] Buss, S. (2015) Port Vila Urban Development Project: groundwater appraisal report.
[9] Shorten, G., Shapira, A., Regnier, M., Teakle, G., Biukoto, L., Swamy, M. and Vuetibau, L (2001). Site-specific earthquake hazard determinations in the capital cities of the South Pacific. SOPAC technical report 300.
[10] Peel, M. C., Finlayson, B. L., and McMahon, T. A, (2007), Updated world map of the Köppen-Geiger climate classification. Hydrology and Earth System Sciences, University of Melbourne

between 23°C and 28°C. Rainfall is typically around 2,100 mm annually,[11] two-thirds of which falls during the wet season (November to April). The average number of rain days is approximately 161, with monthly occurrences ranging from 6 in August to 21 in March. The weather pattern is influenced by the southward migration of the Southern Pacific Convergence Zone where prevailing easterly and southeasterly trade winds converge, influencing levels of precipitation.

114. Efate and neighbouring islands are subject to relatively frequent cyclones, sometimes to devastating effect. Cyclones occur almost exclusively during the wet season. The occurrence of cyclones varies considerably from year to year and average some 24 cyclones per decade.[12]

115. The ENSO also affects rainfall intensity and distribution and air temperature. Data collected over 62 years or more shows correlations with ENSO and related climate patterns, showing a later onset of the wet season, lower rainfall year round and cooler dry seasons associated with El Niño events, and the reverse for La Niña events.[13] Figure 4.2 below illustrates fluctuations and changes in rainfall, over a period in excess of 60 years.

Figure 4.2: Annual average air temperature and total rainfall at Bauerfield Airport, Port Vila.



Note: air temperature (red dots and line) and total rainfall (bars). Light blue, dark blue and grey bars indicate El Niño, La Niña and neutral years respectively. No bars indicate that data is not available. The solid black lines show the trends.

Source: PACCSAP (2015)

116. During cyclones, life and property are threatened by strong winds (speeds of up to 250kph were recorded during cyclone Pam in 2015), extreme rainfall, and sea surges. Strong winds can cause buildings to collapse, but much damage results from windborne objects such

[11] Vanuatu Meteorology and Geo-Hazard Department (2019) Vanuatu Climate Change Update issues 55, May 2019 (https://www.vmgd.gov.vu)

[12] Pacific-Australia Climate Change Science and Adaptation Planning (PACCSAP) Program (2015), Current and Future Climate of Vanuatu. www.pacificclimatechangescience.org

[13] PACCSAP (2011) Climate Change in the Pacific: Scientific Assessment and New Research | Volume 2: Country Reports

as loose sections of roofing material, picked up by the wind or forced off their fixings. Sea surges directly threaten buildings, infrastructure and property close to the coastline.

117. Flooding occurs regularly in the peak wet season, during and after storm events, and is exacerbated by the presence of roads and buildings and inadequate drainage measures. The problem is exacerbated by infrequent clearance and poor upkeep of drains. Given the varied topography, effective drainage throughout the city is a challenge, and there are numerous hotspots identified by the PVUDP[14].

118. **Climate change**. Observations made on the basis of measurements taken over the past seventy years or so have shown temperature, precipitation and sea level changes. These are summarized in the 2015 publication by the Pacific-Australia Climate Change (PACC) Science and Adaptation Planning Program and include annual and seasonal temperature increases and increases in sea level. Rainfall levels, overall, have not shown a significant upward or downward trend but have shown substantial annual variation. With regard to the future climate, the PACC[15] predicts:

- Continuing El Niño and La Niña events, though there is no strong evidential basis to predict any change in intensity of these
- Continuing rises in mean and peak temperatures
- Possible increase in drought frequency (under high emissions scenarios)
- Increased rainfall variability
- Continued sea level rise and related wave height increases, particularly in the wet season
- Less frequent, but more intense tropical cyclones

119. The projected increase in the intensity of tropical cyclones is of particular concern, particularly in the light of recent experience with cyclones Pam (2015, largely striking Efate) and Harold (2020, which caused more damage on Santo including the town of Luganville). In early 2023 cyclones Judy and Kevin, both Category 4 cyclones passed close to Port Vila within a single week causing significant damage around the city. The increased intensity is highly significant for coastal homes, subject to extreme high winds and wave heights. While improvements to building standards, including support to revisions to the national building code, its application and enforcement has encouraged more resilient housing, improvements are occurring gradually and access to shelter in improved structures will mitigate risks to lives.

120. **Freshwater resources**. There are no rivers flowing through the CBD or into the adjoining Ekasuvat / Emten lagoon system. Surrounding catchments feed rivers to the north and south of the city. Drainage is reliant on road drains and their maintenance, although subsurface flows are significant due to the underlying coralline geomorphology.

121. Port Vila's underlying soil and rock is largely porous, the coralline and associated soil deposits have high primary porosity, enhanced by secondary porosity in the form of sinkholes and voids in some locations. The porous coralline material creates the principal

[14] DEPC/ADB (2011) Initial Environmental Examination for the Port Vila Urban Development Project.
[15] PACCSAP (2015)

aquifer for the island of Efate[16] and an aquifer to the north of the municipal boundary is currently the primary source for the city's water supply.[17]

122. **Marine water quality**. There is a shortage of consistently collected, modern data, constraining the management of Vanuatu's marine resources, including coastal protection.[18] However, a series of water quality tests conducted by the Department of Water Resources (DWR) since the 1980's has revealed a substantial increase in pollution levels in the harbour and more widely in Mele Bay. In 2016, a water quality monitoring assessment of Port Vila Harbor was undertaken by the Commonwealth Marine Economies Program (CME). The project found that "the areas directly affected by water quality are typically the sites closest to the storm water outlets and would be receiving water contaminated by sewage and urban runoff."[19]. This contributes to poor water quality in the Port Vila Harbour, where fecal coliform levels have been found to be well in excess of levels acceptable for recreational use. In 2018, newspaper articles alerted the public to harbor contamination and unsafe conditions. Since then improvements to market sewage treatment system along with enforcement of standards for discharges from some CBD business houses has led to significant improvements and contact recreation in the inner harbor is now possible.

6783 Water quality in Port Vila harbour and Mele Bay decreases at near-shore sites close to stormwater outlets, indicating high nutrient and micro-organism contents of stormwater, consistent with contamination of the stormwater by raw sewage and urban runoff (Cefas, 2016).

B. Ecological Resources

124. **Marine ecosystems**. Coastal and lagoon waters surrounding Port Vila have coral and mangrove habitats, both of which have suffered from clearance and are threatened by ongoing pollution. Two of the emergency shelters are situated close to the ridge which runs north-south, to the west of the CBD, and all are set back between 200 m to 1,200 m from coastal or lagoon waters. Water draining from the Freshwater Field site drains to Fatumaru Bay to the north of the CBD while water draining from the other two sites runs to the Ekasuvat (First) lagoon. The Ekasuvat and adjoining Erakor lagoons have some remaining mangroves and also contain seagrass beds.[20] Fatumaru Bay also has some small areas of mangroves along parts of the shoreline. The Malapoa reef, which separates Fatumaru Bay from adjoining Port Vila Bay, supports some coral communities.[21] These communities are distant from the two sites. Each site has sanitation facilities constructed in accordance with the building code. The shelters are all located within watersheds in excess of 1 km^2 in size. There are no marine ecological critical or natural habitats within any of the subproject areas.

125. **Terrestrial flora and fauna**. Port Vila has many mature trees, within and around the CBD, several parks, gardens around government buildings and private homes in the residential areas, and some areas where thick ground story vegetation has developed beneath tree cover. These provide habitats for fauna and flora such as epiphytes and shrubs. Fauna, is limited in the urban area with most confined to the slopes and coastal areas

[16] Buss, S (2015) Port Vila Urban Development Project: groundwater appraisal report.

[17] Nath, D. Mudaliar, M. and Loan, C., 2006. Water Safety Plan Vanuatu. Water Safety Plans Programme, 2006.

[18] Commonwealth Marine Economies (CME) Programme (2018) Vanuatu: Country Review

[19] Centre for Environment, Fisheries and Aquaculture Science (Cefas), (2016) Preliminary Outcomes of an Integrated Water Quality Assessment for Port Vila, Efate (Vanuatu).

[20] Ceccarelli DM, Molisa V, Wendt H, Davey K, Kaitu'u J, Fernandes L (2018) Biophysically special, unique marine areas of Vanuatu. MACBIO (GIZ, IUCN, SPREP), Suva..

[21] Government of Vanuatu (2010), Star Terminal Development: Supplementary Environmental Impact Assessment. Port Vila.

surrounding Port Vila which offer some undisturbed natural habitat, including intact mature trees.

126. The Seaside Showground site, a former agricultural showground, is an extensive grassed area bounded by mature trees. The new structure will be built on the western side of the area with some trees requiring to be removed.

127. The Freswota Field site is on bare ground, adjacent to the new Freshwater football stadium.

128. The Korman site is on bare ground at the start of a linear park along the main island ring road. It is adjacent to a steep slope leading to the Bellevue terrace. The slope is vegetated and forms some suitable habitat for native fauna although it is heavily overgrown with invasive vines. The shelter will not encroach upon the vegetated slopes. The photograph in Plate1 is taken from within the proposed construction area, looking towards the steep slopes to the north east of the site.

Plate 1: Wooded slopes adjacent to the proposed site at Korman

129. There are no areas of terrestrial critical or natural habitat within the subproject areas. There are no protected areas or areas of high biodiversity value or significance (including key biodiversity areas or important bird areas) within proximity of the three subproject areas.

C. Socio-Economic Resources

130. **Land ownership**. The land at the Seaside and Freshwater sites is government owned and the site at Korman is on a PVCC owned municipal lease. Ownership and access rights are described in the Due Diligence Report for Resettlement.

131. **Population**. Port Vila's population is 39,000, approximately 19% of the nation's population of 272,000, accounting for 75% of the total urban population. Population data from 2016 (the most recent available) showed the growth in the urban population at 2.2%. The emergency shelters are located in the Central Ward (Seaside Showground), and Freswota –

Tassiriki ward (Freswota and Korman). Table 1 below shows the population of the five wards that make up the Port Vila City Council area.

Table 1: Port Vila population data 2016 and 2020

Ward	Male	Female	Total population (2016)	Number of households (2016)	Total population (2020)
Malapoa-Tagabe	7,003	6,764	13,767	2,918	15,019
Anabrou-Melcoffee	3,138	3,121	6,259	1,429	6,828
Fresh Wota-Tassiriki	4,701	4,566	9,267	1,976	10,110
Centre	2,873	2,662	5,535	1,090	6,038
South	2,034	1,852	3,886	905	4,239
Total PV municipality	**19,749**	**18,965**	**38,714**	**8,318**	**42,235**

Source: National Statistics Office based on enumeration areas within Port Vila urban wards (2016)

Notes: An annual growth rates of 2.2% for urban wards (as advised by VNSO) has been applied to obtain 2020 population estimates.

132. The population of Vanuatu is predominantly Melanesian Ni-Vanuatu (99.2%). According to the 2016 mini census, the figure in Port Vila is 97.5% Ni-Vanuatu, the balance being of overseas origin such as Chinese, Vietnamese and European.

133. **Livelihoods and poverty**. Average weekly household income for Port Vila in 2010 was Vt 24,023 (US$214.49) or Vt 4,000 (US$35.71) per capita, with most income from wages and salaries. Roughly half of the Port Vila's municipal population was actively involved in the workforce. Of those, one fifth are engaged in services and sales, followed by 15% engaged in craftwork and trades.

134. In 2010, 14.7% of Port Vila households were below the basic needs poverty line (BNPL) of Vt 2,866 and 2.2% of households were below the food poverty line. Poverty is higher in Port Vila than rural areas. Although poverty in Port Vila decreased between 2006 and 2010 from 20% basic needs poverty to 18%, and 5.4% food poverty to 2.8% in real terms, the average weekly expenditure on food and non-food items per household increased by 42.7%.

135. The percentage of households with no primary income source is lower across Port Vila than the national average of 5.5%.[22] However in Port Vila's settlements, many members of the community are unemployed and struggle to live. Those in settlements with employment often hold lower paid low skilled jobs such as for men: security guards, construction laborers, and for women: Chinese storekeepers, domestic workers, hotel housekeeping workers, and office cleaners.

136. **Gender issues**. Gender-based inequality is deeper in Port Vila and other urban areas, compared to rural areas. This is partly a reflection of wage inequality, where women's share of the benefits from economic growth has been less than men's. This is probably attributable to higher growth in male-dominated jobs such as construction, particularly in Port Vila and surrounding areas. In urban areas there is a strong three-way relationship between gender, low or no education and poverty. Vulnerability and the incidence of basic needs poverty is higher among females than males with limited or no schooling.

137. **Access to water supply and sanitation**. The majority of the city's population has access to clean water but less than half have access to improved sanitation. Data from 2013 shows that in urban areas (including both Port Vila and Luganville), 97.2% of households used an improved water source (predominantly piped water, followed by rainwater), compared to 87.5% in rural areas (refer Table 2). Nearly two thirds of the urban population

[22] Vanuatu National Statistics Office, 2012. *Vanuatu Household Income and Expenditure Survey (HIES) 2010*

accessed piped water, and in Port Vila the piped network is known to have a wide area of service. For sanitation, only 45.8% of urban households used improved sanitation (pour flush to septic tanks and pit latrines with slabs). According to the census handwashing facilities were present in 80% of urban households, of which 80% had soap and water available.[23]

Table 2: Access to Water and Sanitation (% of households)

Indicator	Vanuatu	Rural	Urban
Source of drinking water			
Improved source	*90.4*	*87.5*	*97.2*
Piped water into dwelling, yard or plot	40.2	30.2	63.6
Rainwater	33.9	37.3	25.8
Public tap/standpipe	6.4	7.2	4.4
Tubewell or borehole	1.4	1.9	0.2
Protected dug well	5.9	7.3	2.8
Protected spring	2.6	3.5	0.5
Unimproved source	*6.8*	*9.4*	*0.6*
Water on Premises	85.0	79.8	97.4
Type of toilet/latrine facility			
Improved, not shared facility	*50.7*	*51.7*	*45.8*
Flush/pour flush to piped sewer system	3.0	1.4	6.6
Flush/pour flush to septic tank	10.9	2.8	29.8
Flush/pour flush to pit latrine	2.6	2.9	2.0
Ventilated improved pit (VIP) latrine	10.5	13.8	2.9
Pit latrine with slab	23.7	31.8	4.5
Unimproved facility	*48.8*	*46.8*	*53.5*
Any shared toilet	27.4	18.7	48.0
Pit latrine without slab/open pit	18.9	25.2	4.0
No facility/bush/field	3.1	2.5	1.2

Source: Vanuatu National Statistics Office and Secretariat of the Pacific Community (SPC). 2014. *Vanuatu Demographic and Health Survey, 2013*

Note: Urban area includes Port Vila and Luganville.

138. **Public Health**. Up to date information on the incidence of disease and other health parameters is sparse in Vanuatu as a whole, an issue acknowledged by the Ministry of Health.[24] Illnesses common to urban areas in much of the Pacific where sanitation infrastructure is limited, such as diarrhea and skin diseases, are prevalent. Of particular concern is 2007 data that shows that infant mortality rose from 17 per 1,000 live births in 1997 to 27 per 1,000 live births in 2007. Heart disorders, high blood pressure, and diabetes, on the other hand, are "lifestyle" illnesses, more commonly associated with households in more affluent and developed situations.[25] Respiratory infections, diarrheal disease and neonatal conditions account for most childhood illnesses and under-five deaths. The prevalence of stunting in under five-year olds is 28.5%. The Maternal Mortality Ratio per 100,000 live births has fallen from 96 in 1998 to 86 in 2007.

[23] Vanuatu National Statistics Office and SPC. 2014. Vanuatu Demographic and Health Survey 2013.
[24] Ministry of Health, nd, *Heath Sector Strategy 2017-2020*
[25] Partnership for Newborn, Child and Maternal Health/UNICEF, 2013. *Tracking Progress in Maternal and Child Survival, Case Study Report for Vanuatu*, UNICEF.

139. Malaria is a further public health issue of importance in the country, with an incidence rate of 14.7/1,000 people. Other communicable disease concerns include tuberculosis, sexually transmitted infections, acute respiratory tract infections including pneumonia, diarrheal diseases, viral hepatitis, typhoid fever and measles. Major non communicable diseases include diabetes, heart disease and stroke.

140. Gender based violence is a recurrent problem, with 60% of women reporting experience of sexual and physical violence. This has consequent and serious short and long term physical, mental, sexual and reproductive health problems.

141. Vanuatu has recorded numerous cases of COVID-19 and cases are now commonly encountered across the country. Previous awareness raising actions by the Ministry of Health on hand washing, sanitation and physical distancing remain partly in place and likely contribute to better hygiene and lower transmission of both COVID-19 and other easily communicable diseases although data on this is absent.

142. **Education**. Primary education in Vanuatu is fee-free and compulsory. Vanuatu's dual English and French education system has a unified curriculum at the primary level. The education system consists of early childhood care and education (ECCE), 6 years of primary school education (Years 1-6), 4 years of junior secondary education (years 7-10) and three years of senior secondary school (Years 11-13). Official entry starts at age 6.

143. In 2016 children in the 0-5 age range were the largest age cohort (equal with 20-24 years), representing 12.0% of the Port Vila population. This means that the number of age appropriate children entering or in primary school in the near future will be larger than current enrolments. In addition, statistics show there is considerable over-age enrolment in all primary schools. While primary school net enrolment (on-time students of official school age) was 97% for boys and 96% for girls nationally, gross enrolment (all students including over-age) was 122% for boys and 123% for girls.

144. As of 2017, there were 576 Early Child Care Education centres, 433 primary schools, 96 secondary schools and 35 technical and vocational education and training institutions in Vanuatu.[26] The government is the main education provider, with access to education further expanded by churches, private schools, and communities also present. Port Vila municipality is an education hub with 11 elementary, 13 primary (French and English), eight secondary schools, and several tertiary facilities including the University of South Pacific.

145. A study in 2018 on urban schools found that a significant number of students (68%) in Port Vila are travelling from outside of their catchment area (ward) to attend school. Most schools were operating at either full capacity or over capacity for student numbers.

146. **Air quality and noise**. There are at present no air quality standards, or regular air quality monitoring in Vanuatu. However, sources of air pollution are relatively limited, as there is little heavy industry. Vehicle traffic, diesel power generation and to a lesser and more variable extent, construction are sources of noise and aerial pollutants in addition to smoke from domestic woodfires.

147. **Traffic**. Vehicle traffic within Port Vila is intense in the CBD. Traffic flow within the CBD benefits from a one-way system, though blockages can occur at peak traffic times. Outside the CBD, traffic is seldom blocked apart from the main arterial routes during peak times and is generally light around residential areas, where the shelters are to be located. Pollution from vehicles is higher in the low lying CBD where traffic levels are high, while traffic in the vicinity of the shelters is lower. Port Vila is reliant on petroleum imports for power

[26] Ministry of Education and Training, 2017. *Interim Vanuatu Education and Training Sector Strategy (IVETSS) 2017-2019.*

generation, although approximately 17% of the power on Efate island is generated from clean (wind and solar) sources, a proportion that is set to increase significantly with the implementation of the energy road map for Efate[27].

148. Generators at the main power station, located to the southeast of the CBD are being replaced with larger, more modern units which are hooded and sound-proofed and the electricity utility, UNELCO, states that these will enable power production capacity to be increased whilst significantly reducing noise pollution and gas emissions[28]. Construction activity takes place constantly around the city, including improvements and extensions to homes, businesses and government offices.

149. **Economy**. Vanuatu is ranked No. 138 in the world on the Human Development Index, significantly higher than the immediate Melanesian neighbors (the Solomon Islands and Papua New Guinea are ranked 152 and 153 respectively, though lower than Fiji (92) and other large Pacific nations such as Samoa (104 and Tonga (98).[29] Per capita GDP is estimated at US$2,846 (318,752 Vt).[30]

[27] https://www.unelco.engie.com/images/doc/roadmap2030.pdf

[28] https://www.unelco.engie.com/en/unelco/location

[29] http://hdr.undp.org/en/countries No HDI ranking available for New Caledonia or Tuvalu.

[30] https://tradingeconomics.com/vanuatu/gdp-per-capita-ppp

V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

150. The potential impacts and mitigation measures have been identified through review of the feasibility studies prepared for the construction of the multipurpose emergency shelter facilities, discussions with the team involved in design and stakeholder consultations. The feasibility study presents the preliminary design. Detailed engineering design has been completed by the PCU with the assistance of the PIAC and DSC. The IEE has been updated on the basis of detailed design, further assessment and consultation.

A. Design and Pre-construction

151. **Site investigations**. Sites are level, and on bare ground. For detailed design, further site investigation was undertaken to confirm geotechnical conditions, for the purpose of design of foundations and for the septic tank systems, which will follow the Vanuatu national building code. The geotechnical investigations undertaken in 2023 involved digging small pits or using a hand auger to ascertain underlying soil characteristics and thickness of the soil layer. As described in section IV, rock conditions are largely uniform over the city, comprising heavily fractured limestone, formed from coral deposits.

152. There will be no residual impact.

153. **Climate change adaptation**. The emerging shelters are needed as refuges from storm events, the intensity of which is expected to increase with climate change. Seismic activity also represents significant hazard. Design therefore calls for measures to ensure wind firmness as well as earthquake resistance. This will be ensured by inclusion on the design team engaged by the PCU of a suitably qualified structural engineer. Above and beyond the Vanuatu National Building Code, the engineer will ensure compliance with appropriate Australia and New Zealand code AS/NZS1170.2 which defines the ultimate gust wind speed in terms of a return period of 2000 years, for different regions. The most severe is region D, used for the severe tropical cyclone region of Western Australia, where the design windspeeds is 99 m/sec. This speed is consistent with anecdotal evidence of those that can be attained in tropical cyclone events in Vanuatu. The standard considers key design parameters and also provision over the use of roofing materials, windows, doors and wall coverings, or supplementary features of buildings outside the main building envelope which can become dislodged and result in secondary hazards when blown at speed by storm winds.

154. The residual impact is expected to be positive, in reducing hazards associated with larger buildings when tropical cyclones occur.

155. **Environmentally responsible procurement**. The DSC will include an international (intermittent) and a part time national environmental specialist to support the PCU to undertake tasks associated with environment permit applications and inputs to the tender documentation and bid evaluation. Terms of Reference for the environmental specialists are included in the project administration manual.

156. The IEE and EMP or extracts thereof have been formatted as required under the CSS, checked for compliance with requirements of the EPC Act, and submitted to the DEPC in support of the environment permit applications. The conditions of the environment permits will be incorporated into technical specifications and bid documents.

157. Following contract award, the contractor, with support as required from the PCU and PIAC/DSC, will prepare the Contractor's (CEMP) responding to the EMP and provide the site-

specific drawings, work method statements, sub-plans, details and construction methodologies, including specifics around construction methods, impact mitigations and spoil disposal.

158. The residual risk is expected to be low.

159. **Mobilization of the contractor**. The mobilization of the contractor and initial establishment of work sites will require the presence of mainly local construction workers and subsequent interactions with the communities. Prior to contractor mobilization to the site, based on the project's communication and consultation plan (CCP), the PCU and contractor will establish the communications protocol for the project. The relevant elements of the CCP and grievance redress mechanism (GRM) will be reflected in the contractor's CEMP. The contractor will establish a code of conduct or protocols to govern the behavior of workers and will be agreed with community leaders.

160. Measures to minimize disturbance by construction workers and presence of the works site/area include:

- Code of conduct/protocols agreed with community leaders and disseminated to workers as part of awareness and mobilization training. The code is to ensure that workers' actions at the work site and in the community are controlled and observed and will specifically include provisions to prevent to avoid incidents of sexual exploitation, abuse and harassment (SEAH);
- The contractor will identify a member of their staff to be the liaison between the communities and contractor (Community Liaison Officer), as well as between the contractor and PCU. The contractor will facilitate establishment of any community advisory committees or similar and regular meetings to provide information to communities;
- Adequate signage and security provided at the work sites and prevention of unauthorized people (including children) entering the work sites;
- Provision of adequate protection to the public close to the work site, including notice of commencement of works, installing safety barriers if required by communities, and signage or marking of the work areas;
- Provision of safe access across the works site to people and businesses whose access are temporarily affected during road rehabilitation activities; and
- Recruitment of an approved service provider and delivery of the communicable diseases including COVID-19[31] and STIs/HIV/AIDS awareness and prevention program for contractor's workers and adjacent communities.

161. Given the workforce will be predominantly, if not exclusively, local, the residual impact is expected to be low.

162. **Biosecurity and invasive species**. The mobilization of construction machinery/equipment and materials from a source country may result in the accidental introduction of soil-borne weeds, pests and pathogens becoming established on the island and adjacent river/stream and coastal environments. All construction machinery and equipment must be steam cleaned and all organic material must be removed in the source

[31] https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19

country prior to deployment with an appropriate approved phyto-sanitary certificate issued supported by any other documentation required under Vanuatu legislation.

163. To avoid further introduction of invasive flora and fauna, all materials, food or equipment brought into Vanuatu for the project must be cleaned and provide with requisite certificates in compliance with the requirements of the CSS including Plant Protection Act (2006) and the Animal Importation and Quarantine Act [CAP 201]. Timber must be sourced either locally, from suppliers with valid timber licenses, or imported in which case the timber must be sawn, free of pests or infections and compliant with the Plant Protection Act of 2006.

164. By way of mitigation, as part of the development of their CEMP, the contractor will be required to conduct a risk assessment and prepare a plan demonstrating how they will follow the procedures and requirements identified in Vanuatu's National Invasive Species and Action Plan 2014-2020, IUCN Guidelines for Invasive Species Management on Islands 2018 and SPREP's Guidelines for Invasive Species Management in the Pacific.

165. The residual impact is considered to be low.

166. **Materials sourcing**. Materials required for the buildings will include aggregate, bricks, panel products, steel structure, timber and roofing materials. Materials will be both sourced locally and imported. Contractors will be required to source all sand, aggregate and other stone-based material from quarries or suppliers with valid permits issued by the Department of Geology, Mines and Water Resources under the Quarry Act, 2013. Timber must be sourced either locally, from suppliers with valid timber licenses, or imported in which case the timber must be sawn, free of pests or infections and compliant with the Plant Protection Act of 2006.

167. To mitigate the impacts of aggregate extraction, the contractor will be required to identify materials sources and for any new sources apply for a quarry permit including preparation of an aggregate extraction plan (AEP) which will cover:

- Process for negotiation and consultation with custom resource and/or land owners (including the affected community and customary titleholders etc.);
- Environmental assessment covering the effects of extraction (e.g. sedimentation, ecological disturbances, slope stability) from the site;
- Site safety and community protection;
- Remediation of extraction sites; and
- Based on the above, preparation of extraction and rehabilitation plans.

168. The extraction plan(s) will be prepared by the contractor during the mobilization phase (when quantities and type of materials have been specified) and will identify sources of gravel and aggregate that adheres to best practice for aggregate extraction and/or gravel abstraction. The AEP is to be submitted to PCU for review prior to submission as part of the quarry permit application. The PCU and PIAC/DSC will monitor implementation of the extraction plan(s). The residual risk is expected to be low.

169. **Importation of hazardous materials**. Import and improper use of hazardous materials and substances beyond what is necessary for construction, and inadequate disposal of residues and packaging of such materials can lead to pollution and danger to workers to the public. Approval will be obtained by the PCU for any import of hazardous materials (including specialized lubricants and paints). The contractor will supply a list of materials rated as hazardous under the Globally Harmonized System of Classification and Labelling of Chemicals, including quantities and arrangements for storage and disposal.

170. The residual impacts is expected to be low.

171. **Building demolition**. No buildings are to be demolished for the project. Any inert materials and concrete rubble should be used as fill on site to the extent feasible, otherwise disposed to landfill. The volume of materials to be disposed is minor and is not expected to contain any hazardous materials.

172. The residual impact will be negligible.

173. **Land and property**. No private property or assets will be affected and no land acquisition will be required as each of the sites is under government or PVCC ownership or lease. Neighboring land is not expected to be required temporarily for purposes such as materials storage during construction. There will be no residual impact.

174. **Summary**. Table 3 provides a summary of design and pre-construction impacts and significance, if any of residual impacts.

Table 3: Summary of impacts related to design and pre-construction

Project activity/potential impact	Residual impact and significance
Site investigation	Negligible
Climate change adaptation	Positive - reducing hazards associated with larger buildings when tropical cyclones occur
Bid documents and contracts	Negligible
Mobilization of contractor	Low
Materials sourcing	Low
Biosecurity	Low
Building demolition	Negligible
Land and property	Negligible

B. Construction Impacts on the Physical Environment

175. **Air quality**. Vehicles and plant used for construction will release exhaust and cause dust. Site preparation, earthworks, and excavation for foundations, service installation and construction of drainage may cause dust generation during dry and windy weather.

176. Mitigation measures include:

- Ensuring that construction vehicles are maintained in good operable condition, with functional exhaust systems
- Wetting of bare sites during site preparation, earthworks and excavation operations in dry and windy conditions.

177. Provided the mitigation measures are implemented, negligible residual impact is expected.

178. **Soils and erosion**. Excavations to form building platforms, foundations for structures will involve clearing the sites, making temporary stockpiles of material that will either be removed or re-used.

179. Mitigation measures to prevent the release of silt into drains, contractors will be required to ensure that:

- excavated areas are rapidly refilled on completion of works;

- they place silt fences around temporary piles of excavated material; and
- avoid excavation in wet weather to the extent practicable.

180. Provided the mitigation measures are implemented, negligible residual impact is expected.

181. **Water quality**. The use of vehicles and plant can cause risks of water pollution, in the event of leaks and spills of fuel, lubricants, hydraulic fluid or other fluids used for vehicle operation.

182. The sites are served by roadside drains, which, when functioning, drain to the city's stormwater drains. Discharges to the stormwater drains, particularly in the city centre are known sources of contamination in the harbor and lagoon waters surrounding the city.

183. Mitigation measures to be implemented by the contractor include:

- Ensuring that vehicles and plant are well maintained, free of leaks of oil and fuel, and regularly checked
- Contractors will prepare and submit a plan to the PCU for spill management, including provision of spill kits,
- Training/briefing of workers on procedures for handling spills
- Allocation of responsibility within the contractor's team for ensuring that spill kits are available and that workers know how to use them.
- Provision of arrangements for toilet facilities accessible during working hours that ensure that no raw sewage from workers' toilets is discharged on site or in the vicinity.

184. Provided the mitigation measures are implemented, negligible residual impact on water quality is expected.

185. **Waste**. Construction waste will include packaging of equipment, fuels, lubricants, materials, equipment and food and some rubble where any existing structures need to be demolished. Some specialist lubricants and paint for marking may be hazardous.

186. Mitigation measures to be implemented by the contractor include:

- Disposal of hazardous substances in accordance with the Waste Management Act (2014) and Waste Management Regulations 2018
- Site, or facility used for final disposal of hazardous waste must be approved by the PCU
- Re-use of rubble, or supply of rubble for re-use at another construction site.

187. Provided that the mitigation measures are implemented, negligible residual impact from waste is expected.

188. **Storage, use and disposal of hazardous substances**. Hazardous materials used in construction may include fuels, lubricants and paints. The contractor will include a section in their CEMP describing the measures to be implemented for correct storage, use and disposal according to the manufacturer specifications,

189. Mitigation measures to be implemented by the contractor include:

- Prior to importation, provision of list of any materials rated as hazardous under the Globally Harmonized System of Classification and labelling of Chemicals to submit for approval by PCU

- All hazardous materials, including fuels, lubricants and paints will be kept in secure, locked stores with access restricted to contractors' authorized personnel
- Allocation of responsibility to authorize personnel for the use of hazardous materials and ensuring no spillage or excess use.

190. Provided that the mitigation measures are implemented, the residual impact will be low-medium.

C. Construction Impacts on the Biological Environment

191. **Clearance of vegetation and removal of trees**. The sites are located on land that is largely open, bounded by neighboring properties and urban roads. Mature trees around the perimeter of the sites are frequent and there are some mature trees on the Seaside and Korman sites. Construction will mostly take place on areas currently covered in grass or weed vegetation however some mature trees at Seaside and Korman will require to be removed as part of the construction works and in order to meet evacuation shelter safety standards.

The trees to be removed and kept are mentioned on the detailed design drawing (extract in Section C) and on the pictures hereafter:

Seaside site:

Plate 2: Existing big tree and small market stall (food stall) in front of the construction area to be removed. A new small market stall (food stall) will be built a little further up the street on the same side

Plate 3: Existing big trees and small market stall (food stall) in front of the construction area to be removed. A new small market stall (food stall) will be built a little further up the street on the same side

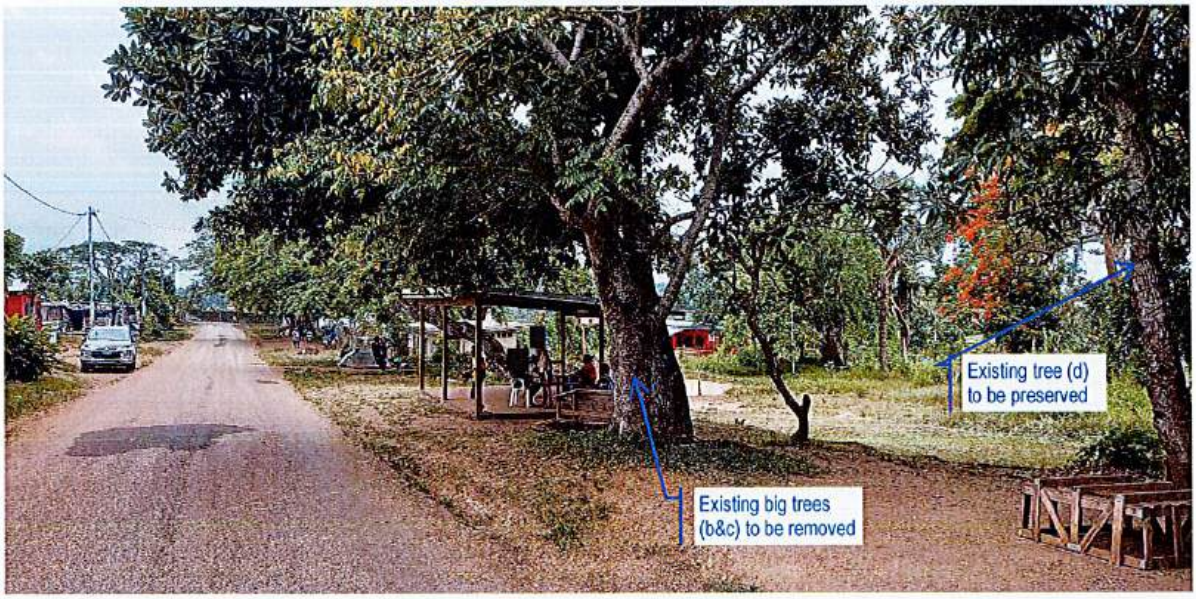


Plate 4: Existing trees and basketball court within the construction area to be removed. A new basketball court will be built nearby

Plate 5: Existing trees within the construction area to be removed.

Plate 6: Existing trees within the construction area to be removed.

Plate 7: Existing trees within the construction area to be removed.

Plate 8: Existing trees within the construction area to be removed.

Plate 9: Open area temporary used by the Contractor during the construction period for Site installation (storage, offices) – behind the existing washroom building

Plate 10: Open area temporary used by the Contractor during the construction period for Site installation (storage, offices) – behind the existing washroom building. Opposite view.

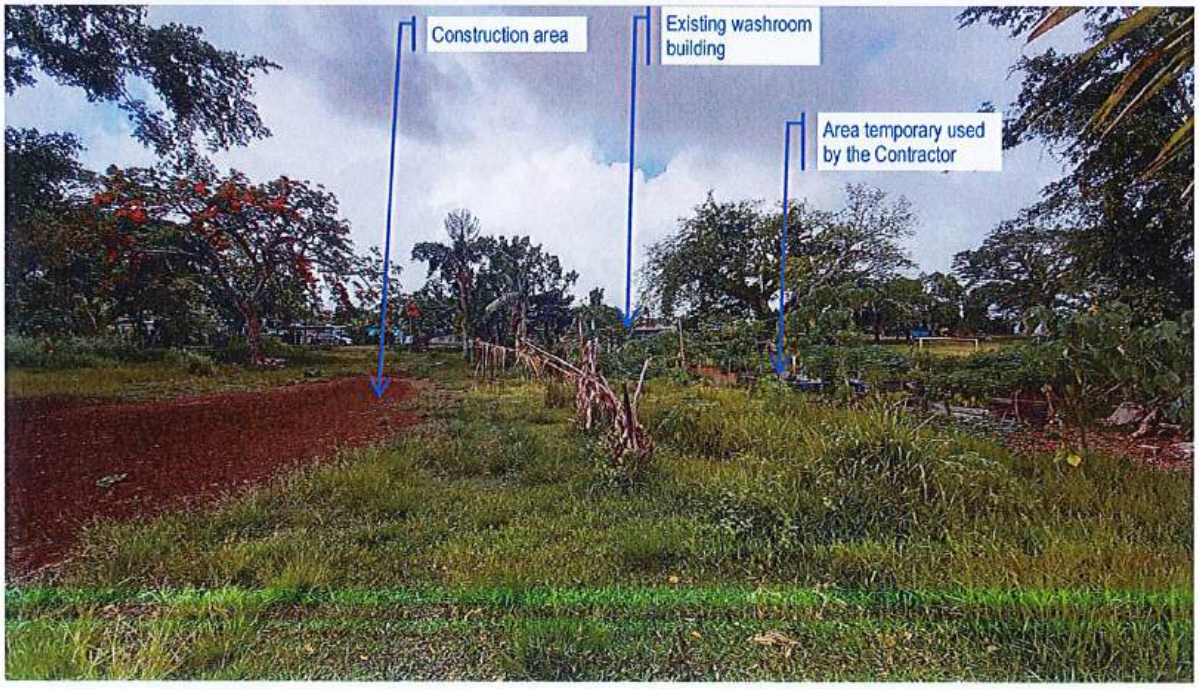
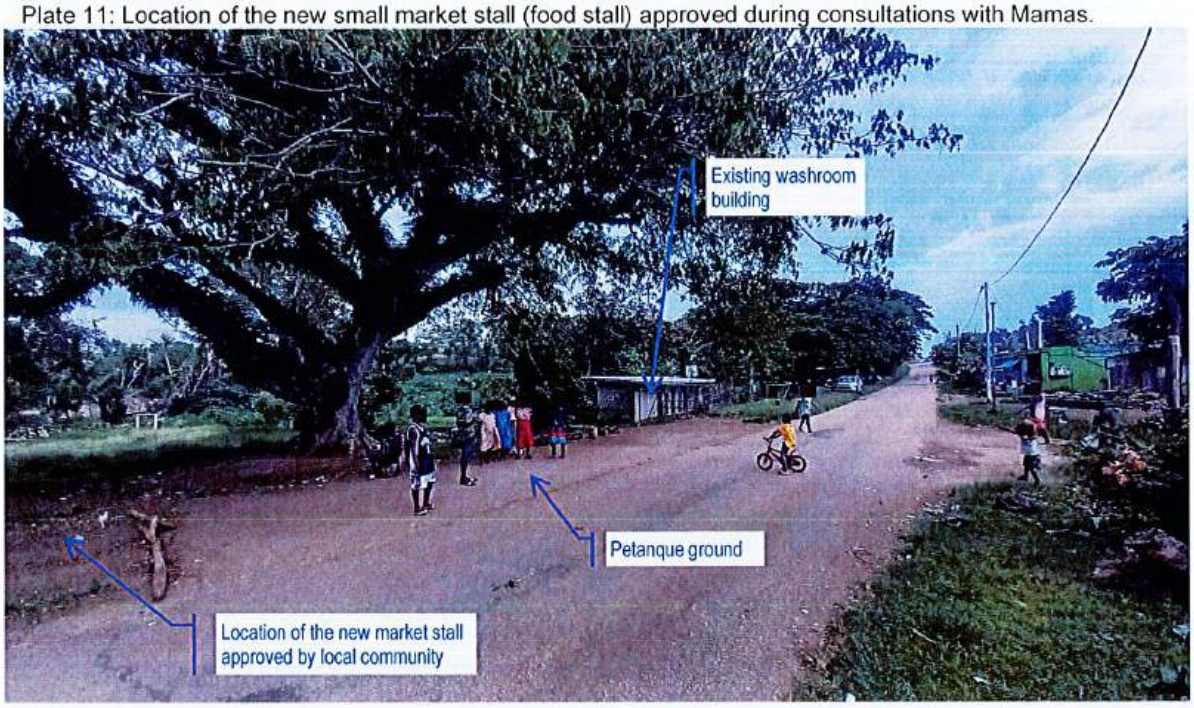


Plate 11: Location of the new small market stall (food stall) approved during consultations with Mamas.



Freswota site:

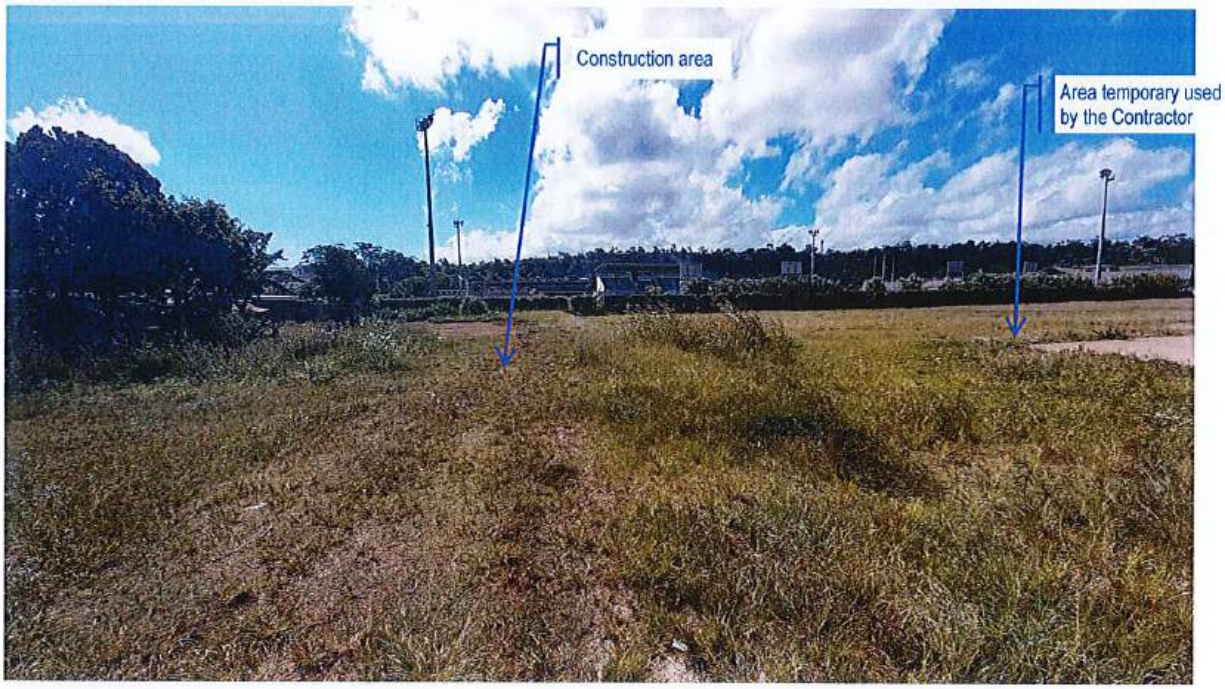
Plate 12: Existing big tree and small market stall (food stall) in front of the construction area to be removed. A new small market stall (food stall) will be built a little further up the street on the same side

Plate 13: Existing small tree along the boundary to be removed.

Plate 14: Existing small tree to be removed. The emergency access to the stadium will be maintain.

Plate 15: Existing volley ball court to be rotated (partially reconstructed) in order to be fully outside the construction area and location of the new small market stall (food stall)

Plate 16: Open area temporary used by the Contractor during the construction period for Site installation (storage, offices) – behind the existing volleyball court



Korman site:

Plate 17 Existing big tree in front of the construction area to be removed.

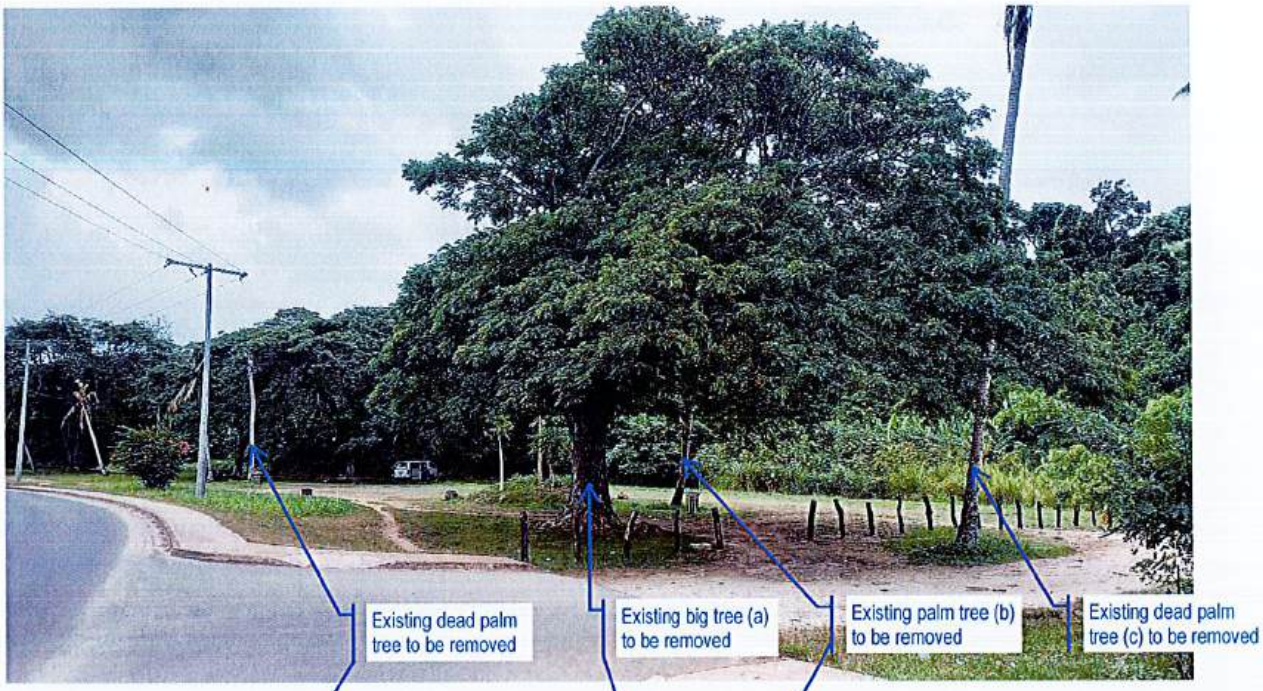


Plate 18: Existing big tree in front of the construction area to be removed (opposite view)

Plate 19: Existing trees outside the construction area to be kept.

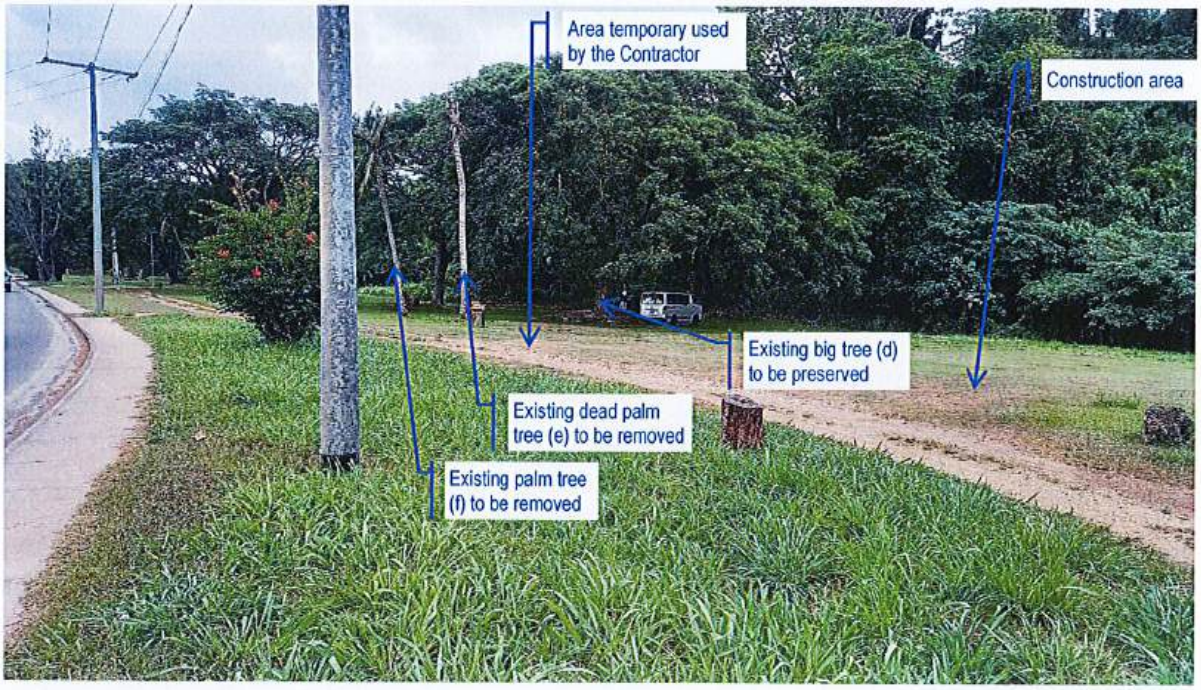
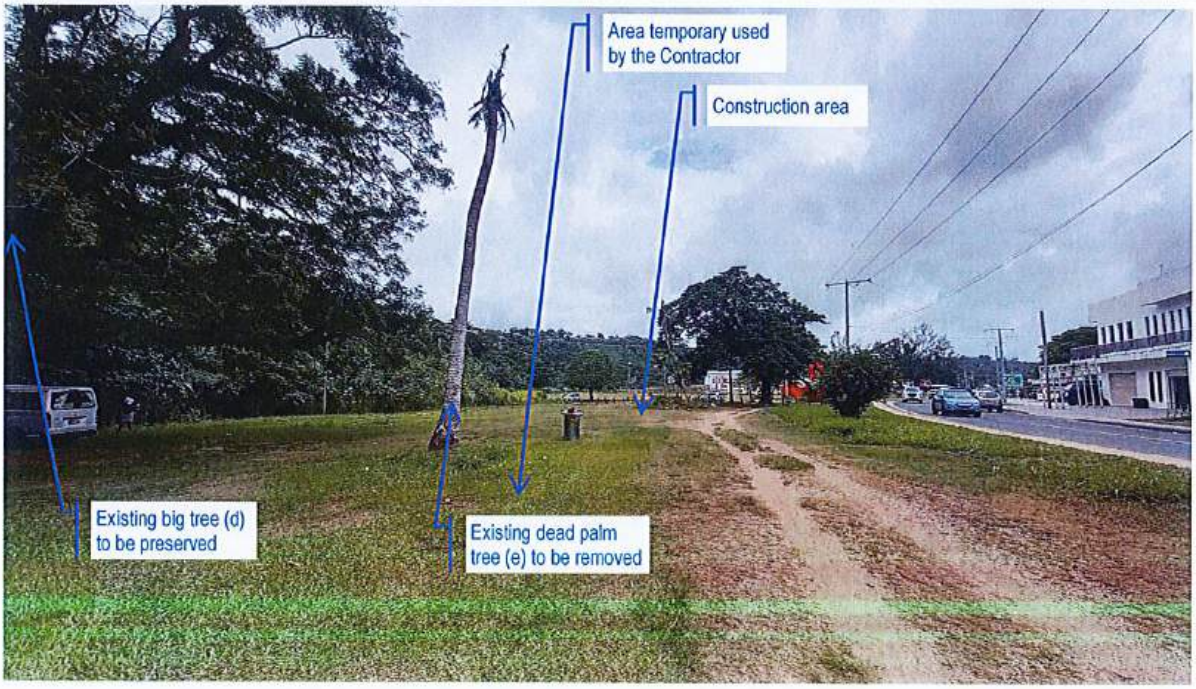


Plate 20: Open area temporary used by the Contractor during the construction period for Site installation (storage, offices) – Opposite view



192. Mitigation measures to be implemented by the contractor include:

- Preparation of a site plan clearly showing trees or branches to be removed if additional to the design drawings and plans. Each tree to be marked with hi-vis paint. Only trees and/or branches indicated will be removed.
- Removal of branches following consultation with owners in neighbouring properties, and in a manner that does not damage the trees unnecessarily.

193. Provided that the mitigation measures are implemented, the residual impact will be low.

194. **Effects on flooding**. Drainage system and infiltration pits will be built in order to collect properly the rainwater and evacuate it without causing flooding for neighborhood. The drainage system is highlighted in extract drawings mentioned in Section C.

195. The residual impact is expected to be negligible.

196. **Effects on fauna**. The building sites offer sparse habitat to birds and animals, and no impact is expected. The removal of trees that will be a hazard to the shelters, will not significantly reduce the habitat provided by tree canopies to wildlife at Korman. Negligible residual impact is expected.

197. **Impacts on natural and critical habitat.** As noted in the baseline section, none of the subproject sites contain natural or critical terrestrial, marine or freshwater habitats. There are no protected areas close to the subproject sites. There will be no residual impacts on surrounding habitats.

D. Construction Impacts on the Socio-Economic Environment

198. **Noise and vibration**. Construction operations such as excavation and earthworks will involve the use of machinery such as diggers and trucks which generate noise and vibration. Erection of the superstructure will also involve the use of power tools, saws and drills over the construction period.

199. Mitigation measures to be implemented by the contractor include:

- Requirement to maintain plant in good operational condition, with noise abatement measures as appropriate (such as properly fitted exhaust systems).
- Construction activity will be confined to normal weekday business hours with temporary restrictions if required to avoid nuisance and disturbance to sensitive locations (eg during school examinations, sports events).

200. The occurrence of construction noise is a minor, temporary impact. Provided the contractor effectively implements the mitigation measures, the residual impact is expected to be low

201. **Physical cultural resources**. Remnants of ancient occupation or other artefacts are not commonly found in Port Vila, and the occurrence of such items of cultural or historical significance is not expected, however chance finds of items of cultural or historical importance are possible.

202. Mitigation measures to be implemented by the contractor include:

- In the event items of cultural or historical significance be discovered during excavations, work will be stopped, and the Vanuatu Cultural Council of Archaeologists will be formed.
- Ensuing work will follow instructions given by the archaeologists.

203. The residual impact is expected to be negligible.

204. **Traffic and access**. Medium to large vehicles will access the sites for the delivery of materials. The centres are located outside the CBD where traffic is generally light and no significant impedance of regular traffic is expected. Negligible residual impact is expected.

205. **Use of water**. Water will be used for mixing small quantities of concrete and mortar, on site catering, washing and toilet facilities. Water for these requirements can be supplied via the town piped system, supplemented by deliveries via tanker vehicles as necessary. Negligible residual impact is expected from the use of water.

206. **Presence of workers and influx of labor**. It is expected that the contractors will be either local or locally based, with a significant skilled, semi-skilled workforce. The workforce will comprise members who live in and on the periphery of Port Vila and may also include islanders from other provinces in Vanuatu who will be temporarily resident in Port Vila for the construction period. Employment in construction work can provide incomes, which can have a highly significant positive impact for poorer people and particularly, younger people seeking to acquire work experience and people taking steps to invest earnings in microenterprise opportunities. Where practicable, Contractors should ensure that opportunities are open to poorer people who stand to derive long term benefits from the income generation opportunities.

207. Potentially, groups of in coming workers may cause social disruption and spread of disease. Particular care is to be taken to avoid incidents SEAH. Mitigation measures to be implemented by the contractor to minimize such risks include:

- Ensuring that workers either come from within and around Port Vila as far as possible or are from groups that are customarily resident in Port Vila for short periods for purposes such as work and study.
- Recruitment of an approved service provider to deliver a communicable diseases awareness and prevention program.
- Ensuring all workers are aware of and trained in SEAH issues and behaviours, including requirement for signing a Code of Conduct that includes anti SEAH protection measures.
- The establishment of community representatives at all sites including nominated women's representatives.
- Awareness raising and providing information regarding the project GRM.

208. The increased opportunities for employment will be a positive, temporary impact. Negligible adverse impact from the presence of workers brought to the site is expected.

- **Risk of spread of communicable diseases**. Communicable diseases potentially spread through worker migration include sexually transmitted infections (STI) including HIV/AIDS and COVID-19. It is expected that the proposed facilities can be constructed by local contractors using materials that are either locally sourced or sourced internationally but available on the local market. Contractors' personnel are expected to be largely Ni Vanuatu, or international staff resident in Vanuatu. The contractor will engage an approved service provider to prepare a communicable diseases prevention plan and deliver a communicable diseases awareness and prevention campaign. The program will be delivered to the communities within the subproject area prior to

the mobilization of workers to the site. The 66pprox.m will also be delivered to workers as new recruits join the workforce

- The approved service provider will, based on consultations, identify the most appropriate (socially and culturally acceptable) tools and methods for delivering the training;
- The communicable diseases prevention plan will identify measures that are aligned with the planning guidance based on traditional infection prevention and industrial hygiene practices and which focuses on the need for employers to implement engineering, administrative, and work practice controls and PPE. And
- Construction camp(s),are not expected to be used for the construction works however if required, will have a clean source of water, sanitation arrangements that ensure no raw sewage is discharged from the site, adequate cooking and laundry facilities, segregated rooms, toilets and washing areas (if housing both male and female workers), and be established in areas with adequate drainage in order to prevent formation of breeding sites for mosquitoes.

209. Provided that the above measures are effectively implemented, the residual risk, or impact, is considered low.

210. **Worker health and safety**. Construction activities include various hazards and risks including working with heavy equipment and machinery, working above water, and working with particulates and hazardous substances. There are also risks associated with influx of labor such as spread of communicable diseases (including COVID-19, STIs and HIV/AIDS) as discussed above.

211. Each contractor shall establish its health and safety plan (HSP) to be implemented at each site. The HSP will follow international best practices and the World Bank EHSG on construction and decommissioning activities. Mitigation measures to be implemented by the contractor include:

- As part of their CEMP, the contractor will prepare an implement a HSP. The HSP will follow international best practices and the World Bank EHSG;[32]
- The contractor will appoint a full-time environment, health and safety officer (EHSO) responsible for implementation and monitoring of the CEMP and in conjunction with the community liaison officer (CLO) to communicate with the PCU and residences/villages/businesses in the subproject areas;
- The contractor will provide: i) health facilities, first aid kits, appropriate safety equipment and procedures for medical evacuation; ii) adequate training and information to workers in relation to all health and safety issues, equipment and training; iii) an approved service provider to conduct communicable diseases awareness and prevention for workers and local community; and iv) access to safe drinking water (at least 2 L/day per worker), mosquito management, sun/shade management, portable, septic latrines and garbage receptacles at all work sites and office compound;
- The contractor will provide construction workers training on health and safety matters, specific hazards of their work, basic sanitation, hygiene and health care issues and awareness and prevention of communicable diseases;

[32] http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES

- The contractor will recruit an approved services provider to deliver the communicable diseases awareness and prevention program;
- The HSP will cover:
  - Communication and training including: (i) training of all workers on occupational health and safety prior to construction works; (ii) conduct of orientation to visitors on health and safety procedures at work sites; (iii) signages strategically installed to identify all areas at work sites, including hazard or danger areas; (iv) proper labeling of equipment and containers at construction and storage sites; and (v) suitable arrangements to cater for emergencies, including: first aid equipment; personnel trained to administer first aid; communication with, and transport to, the nearest hospital with an accident / emergency department; monitoring equipment; rescue equipment; firefighting equipment; and communication with nearest fire brigade station.
  - Physical hazards including: (i) use of personal protective equipment (PPE) by all workers such as earplugs, safety shoes, hard hats, masks, goggles, etc. as applicable, and ensure these are used properly; (ii) avoidance of slips and falls through good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths, cleaning up excessive waste debris and liquid spills regularly, locating electrical cords and ropes in common areas and marked corridors, and use of slip retardant footwear; (iii) use of bracing or trench shoring on deep excavation works; (iv) adequate lighting in dark working areas and areas with night works; (v) rotating and moving equipment inspected and tested prior to use during construction works. These shall be parked at designated areas and operated by qualified and trained operators only; (vi) specific site traffic rules and routes in place and known to all personnel, workers, drivers, and equipment operators; and (vii) use of air pollution source equipment and vehicles that are well maintained and with valid permits.
  - General facility design and operation including: (i) regular checking of integrity of workplace structures to avoid collapse or failure;(ii) ensuring workplace can withstand severe weather conditions; (iii) provision of enough work spaces available for workers, including exit routes during emergencies; (iv) fire precautions and firefighting equipment installed; (v) first aid stations and kits are available. Trained personnel should be available at all times who can provide first aid measures to victims of accidents; (vi) secured storage areas for chemicals and other hazardous and flammable substances are installed and ensure access is limited to authorized personnel only; (vii) good working environment temperature maintained; (viii) worker camps and work sites provided with housekeeping facilities, such as separate toilets for male and female workers, drinking water supply, wash and bathing water, rest areas, and other lavatory and worker welfare facilities; and (ix) maintain records and make reports concerning health, safety and welfare of persons, and damage to property. Take remedial action to prevent a recurrence of any accidents that may occur.

212. Provided the above measures are implemented, the residual impact will be low.

213. **Community health and safety**. The use of plant and machinery, use of cables to supply machinery and excavations are potentially hazardous. Contractors must limit access

to the work sites, particularly by children and provide notices to the public identifying hazards and erect safety barriers/covers for all work areas.

214. Contractors will be required to identify in the HSP the risk and impacts on the community and how these will be avoided and/or mitigated. The contractor will implement the HSP and will:

- Implement risk management strategies to protect the community from physical, chemical, or other hazards associated with sites and activities during construction and demobilization;
- Restrict access to the site, through a combination of institutional and administrative controls, with a focus on high-risk structures, excavations or areas depending on site-specific situations, including allowing access to only authorized people, guard posted at entry, fencing, signage, and communication of risks to the local community;
- Remove hazardous conditions on construction sites that cannot be controlled affectively with site access restrictions, such as covering openings to small confined spaces, ensuring means of escape for larger openings such as trenches or excavations, or locked storage of hazardous materials; and
- Implement measure to prevent proliferation of vectors of diseases at work sites.

215. On condition that the required measures are implemented fully by the contractor, the residual risk, or impact, is considered low.

216. **Site decommissioning and rehabilitation**. Beyond digging of foundations and site preparation within the building footprint, minimal disturbance will take place during construction. Contractors will be required to remove all construction wastes. The concept designs include minor landscaping, including construction of planting boxes and planting with trees and shrubs. Landscaping is to be included in detailed design, informed by community consultation on preferred tree and shrub species to use. The building and landscaping improvements will result in an overall low positive impact.

217. **Summary.** The potential construction impacts and significance of residual impacts is summarized in Table 4.

Table 4: Summary of impacts related to Construction

Potential Impact	Residual impact/significance
Negligible	Negligible
Negligible	Negligible
Water quality	Negligible
Solid and liquid waste	Negligible
Biodiversity	Low
Use of hazardous materials	Low-medium
Noise and vibration	Negligible
PCR and heritage	Negligible
Traffic impacts	Low
Site decommissioning / landscaping	Positive – low
Use of water	Low
Workforce and influx of labor	Low
Risk of spread of communicable diseases	Low
Workers' health and safety	Low
Community health and safety	Low

E. Environmental Impacts Related to Operation

218. The PVCC has confirmed that it will take responsibility for operation and maintenance of each facility, including revenue collection and ensuring management of upkeep, in respect of the Seaside Showground, Freswota Field and Korman sites. A copy of the letter confirming this is included as Appendix 3.

219. **Noise**. Operation of the emergency shelters, including their multi-purpose function, will create some noise. This will be within accepted and usual limits for these urban locations.

220. **Wastewater**. The improvements include a sanitation block, integral to the building in each case, enabling greater cleanliness and reducing risks of inadequate collection and treatment of wastewater. Regular desludging and transfer of the sludge to the city's septage facility is necessary. The improvements to the sanitation facilities represent a significant positive impact.

221. **Solid waste**. General waste, as well as waste from use of the facilities will be collected by the PVCC trucks and brought to the city's landfill at Bouffa. This arrangement will continue and the residual impact is expected to be low.

222. **Pests and hygiene**. The handling and storage of any foods for sale in the facilities, including waste from unsold foods, husks, etc can encourage pests such as cockroaches and rodents. Site hygiene and regular cleaning of floors and surfaces will be required, minimizing time that putrescible wastes are stored. The improved facilities will be easier to maintain in a clean and hygienic state, and the impact is therefore positive.

223. **Occupational health and safety**. Day to day operation of the facilities may involve meetings, events, market stalls operation, administrative or other activities. During normal operation, these activities will benefit from ready access to improved sanitation and food preparation facilities. During emergency events operation involves intensive occupation by people who are temporarily unable to occupy their own homes. The provision of improved sanitation, as well as management to promote clean practices and collaborative behavior will greatly improve the situation for families that will use the facilities after natural disasters. Improved site cleanliness and management will reduce health risks most significantly when the facilities are used for shelter purposes. The impact is significant and positive.

224. The summary of operational impacts and their significance is shown in Table 5.3.

Table 5: Summary of operational impacts and significance

Potential Impact	Significance
Noise	Negligible
Wastewater	Positive
Solid waste	Low
Pests and hygiene	Positive
Occupational health and safety	Positive

F. Global, Transboundary and Cumulative Impacts

225. The proposed improvements will occur within Port Vila, benefiting resident communities through use of the facilities as administrative centres and meeting places on a day to day basis, and refuge during emergency events. The design of the facilities draws on guidelines from the NDMO that have been prepared following prior experience with the

provision of emergency shelters within Vanuatu and internationally. Use of the facilities may help contribute to the international body of knowledge on best practices for design, construction and management of such facilities.

226. Capacity building of PVCC will assist in the build-up of capabilities required to further improve and manage waste management facilities elsewhere in Vanuatu.

VI. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. Consultations and information disclosure during design

227. In the preparation of the project, consultations have taken place in the form of including semi-structured interviews, surveys and group discussions, to gather facts and gain an understanding of issues facing stakeholders, and the views and needs of the city's inhabitants. Over 100 consultations have occurred including workshops, meetings and interviews with key informants from government, NGOs/CBOs, private sector, consultants including: ward secretaries, PVCC Town Planner, PVCC Finance and Administration manager, Ministries of Internal Affairs, Lands and Natural Resources, the Ministry of Climate Change, Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management, the Department of Environmental Protection and Conservation, Infrastructure and Public Utilities, Department of Women's Affairs, VPMU, Vanuatu Society for People with a Disability, NGOs, UN habitat, World Bank, local and international consultants including those with experience in and knowledge of small scale infrastructure works and contractor capacity. Seventeen community meetings were held in settlements in Port Vila municipality, to collect information needed to test the feasibility of the Community Action Plan project and to identify issues that should be included in the design. These community meetings were attended by 273 men, women, boys and girls, of which 74 (27%) were women and 23 (8%) girls. A survey of 38 businesses in the CBD was also conducted in connection with investigations undertaken to examine the feasibility of a sewerage scheme and wastewater treatment plant and to feed into the development of a sanitation roadmap and strategy for Port Vila. An updated summary of the project consultations is provided in Table 6 below, note that this includes extensive consultations with representatives of communities where feasibility studies were undertaken for potential emergency shelter subprojects, that were eventually not included in the project.

Table 6: Summary of consultations on social and environmental safeguards

Date	Name of person (or group) consulted	No. Participants (Male/Female)		
		M	F	Total
25/9/2018	[redacted] Social safeguards officer, VPMU	0	1	1
3/10/2018	[redacted] Port Vila Land Transport Association Executive Members, MIA	5	1	6
4/10/2018	[redacted] former Safeguards Officer, VPMU	0	1	1
7/10/2018	[redacted] Social safeguards officer, VPMU	0	1	1
16/10/2018	[redacted], Acting Director, Department of Land, Survey and Registry	1	0	1
16/10/2018	[redacted] Gender Officer, Department of Women's Affairs	0	1	1
14/11/18	[redacted]	1	0	1
5/12/2018	[redacted]	0	1	1
19/02/19	[redacted] Director General,	1	0	1
26/2/2019	[redacted] Social Safeguards	0	1	1
15/03/2019	[redacted] Pollution Control Manager	1	0	1
11/04/2019	[redacted] Tor, EIA officer	0	1	1
11/4/2019	[redacted] Social Safeguards	0	1	1
13/05/20	National Disaster Management Office, Port Vila City Council, Department of Local Authorities, Department of Health	7	1	8
15/05/20	Visited Tokyo Paama & Buninga, Nagire church, AOG church, Seaside Paama, Show ground, Tongoa seaside, Futuna seaside, Epauto School	12	4	16

Date	Name of person (or group) consulted	No. Participants (Male/Female)		
		M	F	Total
	Freswota 1 market, Ex-FOL,Anambrou market, Selime church hall, ManPles market, & Anglican church			
18/05/20	Visited the Korman Market site & consulted care takers of churches and schools. Beverly Hills, Malasi tapu, Freswota school, Pakaroa church and Vila North school.	5	1	6
19/05/20	Department of Local Authorities (DLA), Ministry of Internal Affairs (MoIA): Director [redacted] secretary	2	1	3
20/05/20	PVMC secretary; [redacted] [redacted].	2	2	4
22/05/20	School principals.	2	1	3
25/05/20	Ward Secretaries & Town Clerk.	3	3	6
26/05/20	[redacted] and colleagues	3	3	6
29/05/20	Chiefs of Laken community near Septic Treatment facility.	4	4	8
1/06/20	Chairman of Futuna Land Trust on Land matters-Also consulted lands dept. officers for land Title	4	1	5
1/06/20	Paama Chief [redacted] and his people	5	3	8
2/06/20	Labour Dept, Vanuatu Tourism Office and Vanuatu Chamber of Commerce and Industry on statistics of Laid off workers due to Covid 19.	3	5	8
4/06/20	Ward representatives at Seaside area.	4	1	5
9/06/20	Futuna Chief on ground works to be done by engineers at Futuna seaside.	3	1	4
18/06/20	Southern Ward Secretary; Acting Commissioner of Police on Ward sub projects and evacuation centres.	2	1	1
29/06/20	Tokyo Paama community	12	1	10
30/06/20	Tokyo Buninga Rep.	1		1
1/07/20	Tokyo Paama leaders.	5	1	6
3/07/20	Director of Lands Dept Mr. [redacted]	3	1	4
10/07/20	Seaside Futuna Community representative [redacted]	0	1	1
14/07/20	Director of Lands Dept Mr. [redacted]	2	2	4
27/07/20	chairman of Futuna Land Trust Board Mr. [redacted]	5	0	5
27/07/20 – 03/08/20	Chief Alex Mahit, assistant chief [redacted] and site attendants, [redacted] [redacted]	2	3	5
10/08/20	Met with [redacted] to discuss arrangements and costs for temporary market arrangements during construction of the Freswota Market facility	2	1	3
11/08/20	Visit made to Tokyo Paama and Tokyo Buninga communities to			>10
11/08/20	Meeting with PVMC to discuss issues relating to use of the new emergency shelter	1	1	2
11/08/20	PVMC representatives and members of Tokyo Paama and Tokyo Buninga communities met to resolve issue over joint use of the future emergency shelter			>10
13/08/20	Met with chiefs of Tokyo Paama and Tokyo Buninga communities to sign a memorandum of agreement	3	1	4
17/08/20	Members of Tokyo Paama and Tokyo Buninga Communities	10	6	16
19/08/20	Met with Lands to confirm ownership arrangements for Tokyo Paama / Buninga sites	1	1	2
19/08/22	Seaside community to confirm preferred & final location for shelter	13	13	26
19/09/22	Freshwater community leaders – consultation on site suitability	16	4	20
23/06/23	DEPC [redacted] Principal EIA Officer		1	1

Date	Name of person (or group) consulted	No. Participants (Male/Female)		
		M	F	Total
27/06/23	Seaside Paama Community members & Leaders	9	14	23
29/06/23	Freshwater Community leaders, members, councilors	19	9	28

228. Consultations specific to environmental and social safeguards are included as Appendix 4.

229. In connection with the core subprojects, ward secretaries and groups of ward members were consulted on priorities. A summary of these consultations is included in Appendix 4. All ward representatives stated a need for multi-purpose halls able to provide accommodation in emergencies, clinics, sanitation, an office for the ward secretaries and key community representatives, and storage facilities. Situating such facilities close to low-income areas is desirable, with the areas Tokyo Paama, Tokyo Buninga, Erasa, Natavoa, Makira, Binihi, Anambrou and Ohlen cited. The locations for the first three facilities were determined for Seaside, Freshwater and at Korman.

230. Issues arise with the use of schools and churches for shelter during times of emergency. The use of such facilities in the past has helped people meet immediate needs for shelter, but actions to keep the facilities safe and clean during occupation and to restore them to their original condition have not always been taken by the temporary occupants, with church groups and schools often facing the costs and workloads of cleanup and repairs. This has led to resentment and even people being turned away when refuge is needed.

231. Additional benefits from multi-purpose halls are the longer-term shelter than be afforded, over schools and churches which need to return to their normal purposes as early as possible. People with heavily damaged homes then struggle to find temporary shelter while essential repairs can be undertaken. The importance of community centres to stimulate and encourage social activities among youths was also stressed, nothing that problems among youth, including crime and suicide, are increasing and there is an increasing need to provide constructive activity for them.

232. In connection with the issue of sanitation in the CBD, a survey or 38 CBD businesses was conducted in February-March 2019. Businesses make up the majority of building occupancy in the CBD, while residential properties are found in the immediate periphery and beyond. The survey covered supermarkets, shops/stores, offices, hotel/motels, restaurants, cafes and bars, and police station and obtained information on existing sanitation facilities and practices and assessed business attitudes to and preferences for CBD sewerage options. The main findings of the survey were as follows:

- 35 businesses (92%) use septic tanks with absorption fields while 3 businesses (8%) use onsite waste water treatment plants. Several businesses had multiple septic tanks, up to 6 in some cases.
- 26 businesses (74%) had septic tanks located outside the building and 9 businesses had septic tanks (26%) located inside. The average size of septic tanks is 21m3, with a range of 2m3-64m3;
- The average time for septic tank emptying is 2 years; 20% of tanks are never emptied;
- Average cost of tank emptying is 44,200 Vatu with a range 14,000-80,000 Vatu;

- 30 businesses (86%) are willing to connect to piped sewerage, 5 (14%) are not. The main reason for willingness to connect was related to making the harbor and environment cleaner, although some businesses thought there might be a cost advantage.
- 28 businesses (82%) are willing to contribute to the cost of connections, 6 (18%) are not;
- 25 businesses (71%) are willing to pay wastewater fees of 53,000 Vatu/year on average;
- 88% of businesses are unwilling to pay wastewater fees that are greater than the cost of septic tank emptying (average septic tank emptying cost is 82,000 Vatu/year);
- Preferred methods for paying wastewater fees are: water bill volume basis (29%); fixed fee in business registration (15%); fixed fee in land tax (15%); fixed fee on water bill (9%); other or don't know (32%).

B. Disclosure and Public Consultation During Construction

233. **Communications and consultation**. Communications about the project will be in accordance with government requirements and ADB's Access to Information Policy 2018. A communications and consultation plan (CCP) has been prepared for the Project. This will be used by the PIAC and DSC, certain elements will also be implemented by the contractors. The contractor's CEMP will set out how they will implement the relevant elements of the GRM.

234. Guided by the CCP, consultations with government agencies and civil society and communities, including women's groups, stakeholders and businesses operators were conducted. Initial consultations with communities and stakeholders were undertaken during project preparation and conducted during 2019. The purpose of community consultations at this stage are to:

- Foster partnerships with beneficiary and stakeholder communities;
- Share information on the proposed Project and its components and activities;
- Communicate with stakeholders that their co-operation (and possible participation) in Project activities including surveys, site investigations, planning, feasibility and potentially future design, construction, monitoring, and maintenance is key to achieving a high quality strategy that most benefits their concerns;
- Develop and inform the options analyses, to help develop the recommendation of an overall Project scope;
- Provide information to the screening and assessment processes.

235. The communications and consultations with local communities and stakeholders have expressed support for the Project as they clearly seen the benefits associated with improved urban services, wastewater, drainage services and community sanitation facilities. Additional consultations were held with project stakeholders and communities in 2023 to finalize the project designs that incorporate community feedback. Continued community awareness on the project's timing of activities were presented to community meetings and community representatives, including community leaders and representatives (including women). The grievance redress mechanism (GRM) as described in the next section was also

disclosed at these meetings held in both Freshwater-Tassiriki ward (Freshwater and Korman shelters) and at Seaside.

236. Public consultation has included discussions with members of project beneficiary groups, affected persons and ward officials, as a part of this IEE preparation, and concerns have been addressed, including the relocation of the Seaside and Freshwater shelters. Consultation commenced during subproject feasibility study and will continue throughout the project cycle, including construction and monitoring. The consultation procedures shall be conducted as set out in the SPS and guided by the project's CCP and will include:

- Information about the project overall, including the strategic vision of a safe, inclusive, resilient and vibrant economic hub based on sustainable development, management arrangements, and rationale for the selection of each subproject;
- Information about the proposed communications and grievance redress approach;
- A summary of the proposed works under the subproject;
- A summary of subproject objectives and likely positive and negative environmental impacts, covering the impacts in design, construction and operation phases for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;
- Invitation for feedback in respect of any areas of concern that the public may have, and suggested means of implementation; A summary will be prepared of comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women and the poor;
- Acceptability of the proposed works to the public; and
- Facilitating participation of affected people during project implementation.

237. Dates, participants, concerns discussed, and topics covered have been minuted/recorded and included with the due diligence reports.

238. **Disclosure**. Following the requirements of the Access to Information Policy, project documents will be disclosed locally and on the ADB website.

239. This IEE shall be made available to the public for a period of at least 30 days. For this purpose, the IEE, or at least the executive summary, should be translated into Bislama and made available for public review. All IEEs will be submitted to ADB for disclosure on the ADB website. This EARF and the draft IEE (which incorporates the GRM), will be disclosed.

C. Grievance Redress Mechanism

240. Grievance and complaints procedures are set up to: (i) provide support to people on problems arising from the project and any associated impacts; and (ii) provide a means by which the various conflicting stakeholders may be consulted, and a negotiated agreement reached.

241. A grievance redress mechanism (GRM) has been set up for the project by the PIAC and has been approved by ADB. The GRM is based on procedures used successfully in other ADB funded projects in Vanuatu, incudes specific measures for SEAH complaints and

grievances and will be established by the PCU prior to design and construction of the shelters. The GRM is attached to this IEE under Appendix 5.

VII. ENVIRONMENTAL MANAGEMENT PLAN

A. Objectives

242. This EMP sets out the needs for environmental management of subproject construction and operation in Greater Port Vila for the project in terms of institutional responsibilities to ensure mitigation and monitoring takes place during the pre-construction, construction and operation phases, meeting the requirements of the government and the ADB's SPS. This EMP will be updated based on detailed design and included in the bid documents. As part of the contract, the EMP will be binding on all contractors and sub-contractors. Non-compliance with, or any deviation from, the conditions set out in the EMP constitutes a failure in compliance.

243. **Institutional arrangements**. The MFEM will be the executing agency. The MOIA will be the primary implementing agency with a PCU set up within the Department of Urban Affairs and Planning. The MFEM and MOIA will have sole responsibility for administering ADB financing, including procurement and disbursement responsibilities. The PVCC will also be an implementing agency with a project implementation unit to support implementation of day-to-day project activities.

244. The PCU will be supported by the PIAC for project management, implementation, reporting and capacity development functions and the DSC for detailed design and construction supervision, including the monitoring of compliance with environmental and social safeguards. Project progress, updates and issues will be shared with members of the Vanuatu Project Management Unit – Steering Committee, which comprises representatives of multiple agencies, while a Technical Advisory Roundtable will provide strategic direction to the project.[33]

245. An organization chart is shown in Figure 2. Implementation arrangements are outlined in Table 7 and roles and responsibilities are outlined in Table 7. The project is expected to be delivered over a 5-year period, commencing in December 2020 and completing in December 2026.

[33] The Vanuatu Project Management Unit, established in 2012 under the Prime Minister's Office, coordinates ADB, World Bank, and bilateral-funded projects and administers major infrastructure of contract values of more $10 million.

Figure 2: Project organizational structure

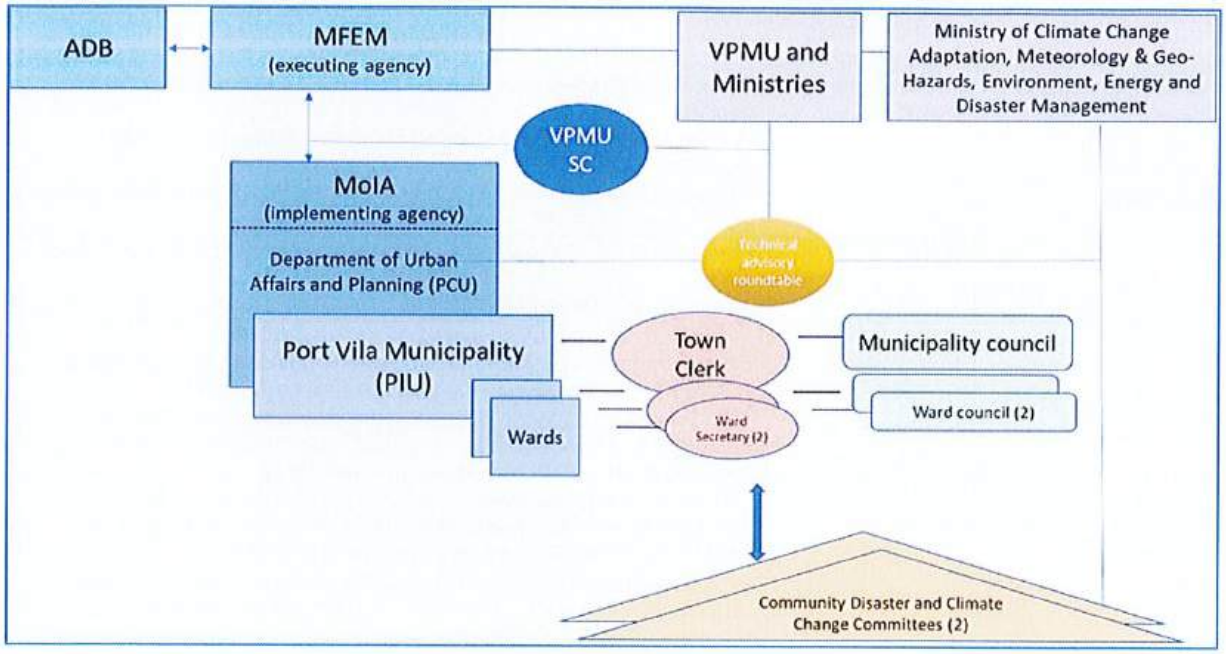


Table 7: Project implementation arrangements

Body/party	Role
Oversight body	VPMU Steering Committee Director General of the Office of the Prime Minister (chair); Director General, MFEM; Director General, MIPU; Director, PWD, MIPU; Director General, MOFA; Director, Finance Department; Director, Department of Strategic Policy and Planning; and Secretary General of Public Service Commission. Director General, MOIA will attend VPMU Steering Committee meetings to share project information and updates.
Technical Advisory Roundtable	Director, Department of Urban Affairs and Planning, MOIA (chair); Director, Finance Department, MFEM; Town Clerk, Port Vila City Council; Director, PWD, MIPU; Director, DCC; and others based on topic of discussion.
Executing agency	MFEM
Key implementing agencies	MOIA; and PVCC
Project coordination unit	MOIA,
Project implementation unit	PVCC
Ward secretaries	Will facilitate ward level planning in output 3. Ward secretaries will coordinate with CDCCCs.

Notes: CDCCC = community disaster and climate change committees, DCC = Department of Climate Change, MOFA = Ministry of Foreign Affairs, MOIA = Ministry of Internal Affairs, MFEM = Ministry of Finance and Economic Management, MIPU = Ministry of Infrastructure and Public Utilities, PWD = Public Works Department, PVCC = Port Vila City Council, VPMU = Vanuatu Project Management Unit

Source: Asian Development Bank.

Table 8: Responsibilities for environmental management

Project stage	Responsible agency	Responsibilities
Feasibility studies, detailed design review and subproject approval	MFEM, MOIA, PVCC	Review designs, feasibility study prepared and complete detailed design. Update feasibility study including safeguards due diligence as required. Update IEE and submit environmental permit/development consent applications to DEPC.
	ADB	Review and clear all feasibility study documentation (incl. subproject IEEs). Assist government to recruit DSC.
Pre-construction	MOIA, PIU, PCU, DSC	Include environmental specialist as part of DSC team. Ensure updated IEE and EMP and any conditions of development consent are included in the bid and contract documents. Prior to works commencing ensure the baseline conditions are benchmarked and recorded—including marine ecology, noise—as required by the EMP for subsequent monitoring. Provide inputs to the bid evaluation in respect of contractor's response to the EMP requirements including the suitability of the EHSO proposed as part of the contractor's team. Provide induction training to the contractor prior to the preparation and submission of the contractor's CEMP and as required work with the contractor's EHSO to identify appropriate construction methodologies and detailed site-specific mitigations. Review and approve the contractor's CEMP (including sharing CEMP with ADB for review and comment) and advise DSC Engineer of approval to trigger "no objection" to commencement of activities/works.
	ADB	Review and clear updated safeguards documents. Provide comments on the CEMP and proposed monitoring checklists.
	Contractor	Recruit suitably qualified EHSO. Prior to any works commencing, prepare CEMP including the site-specific plans, worker code of conduct, work method statements and construction methodologies, CCP and GRM. Submit CEMP to PIU/PCU and DSC for review and approval (revising as necessary if required). Identify materials and equipment sources and apply for materials permits for new sources and clearance consents and compliance certificates for imported materials and equipment. Provide pre-mobilization induction on CEMP (incl. OHS) to employees. Recruit approved service provider to provide communicable diseases (incl. STI/HIV/AIDS awareness and prevention training for workers and community.
Construction	Contractor	Inclusion of EHSO as part of core team. Provide ongoing training, awareness and "tool box" sessions for workers. Implementation and monitoring of CEMP. Implementation of CCP and GRM as pertains to construction. Reporting of CEMP, CCP and GRM implementation in monthly reports. Implementation of corrective actions as requested by Engineer.
	MOIA, PCU, PIU, DSC	Supervise, monitor and report on contractor's implementation of CEMP and all other contractual obligations. Enforce contractual requirements. Audit construction phase through environmental inspections and review monitoring reports and data. Submission of quarterly progress reports and semi-annual monitoring reports. Work with contractor EHSO for provision of awareness/training to workers and information transfer to contractor as required.
	ADB	Undertake regular review missions.

Project stage	Responsible agency	Responsibilities
		Review monitoring reports. Disclose project information as required.
	DEPC	Ensure compliance with government requirements. Review complicated issues, if any, arising from the project. Participate in monitoring.
Operation	MFEM, MOIA, PVCC/SPGC	Provide budget to undertake maintenance activities and operation stage environmental monitoring as required by EMP.
	Maintenance contractors	Undertake environmental monitoring and prepare bi-annual reports. Prepare maintenance reports to adaptively manage environmental risks related to operations (per EMP).

B. Institutional Capacity Development

246. The regulatory body responsible for approving environmental impact assessments and issuing of permits is the responsibility of the Department of Environmental Protection and Conservation (DEPC), within the Ministry of Climate Change Adaptation, Meteorology & Geohazards, Environment, Energy and Disaster Management.

247. The DEPC has a dedicated unit tasked with environmental assessment review, and also relies on inputs from registered principal or review consultants, consultants, of which there are limited numbers. The DEPC is also responsible for the administration of the Pollution Control Act and has limited staff for this purpose.

248. The PIAC will provide assistance and capacity building support during the project for the implementation of safeguards in compliance with ADB SPS 2009 requirements and with the requirements of the DEPC. This provision responds to lessons learned for project design to include support to national structures in project implementation. The PIAC will provide assistance to the PCU for overseeing EMP implementation.

249. For civil works, the contractor, depending on their experience may need support from the PCU through PIAC/DSC to (i) establish an operational system for managing environmental impacts (ii) carry out all of the monitoring and mitigation measures set forth in the EMP; and (iii) implement any corrective or preventative actions set out in safeguards monitoring reports that the employer will prepare from time to time to monitor implementation of this IEE and EMP. The contractor shall allocate a budget for compliance with these EMP measures, requirements and actions.

C. Impacts and Mitigation

250. Table 9 summarizes the potential impacts and mitigation measures in relation to location, construction and operation identified in the IEE. The costs of mitigation measures are largely included in the contract (IIC) or the project implementation budget, where they are not the cost has been identified.

D. Environmental Monitoring and Reporting

251. **Monitoring**. Monitoring will provide two key pieces of information: (i) confirm compliance with the approved EMP and implementation of required measures; and (ii) determine effectiveness of the measures and whether changes are required. The design of the environmental monitoring system is based on an analysis of the key environmental performance issues associated with each stage of the project, as set out in Table 9, The Environmental Management and Monitoring Plan.

252. Two areas of environmental monitoring are identified: compliance monitoring and community feedback, which are in addition to monitoring measures in the Design and Monitoring Framework for the project.

253. Compliance monitoring is required during detailed design and construction of the improved facilities, to ensure that mitigation specified in the EMP is carried out to an adequate standard. Compliance monitoring is a function of the PCU and its cost of this monitoring is part of the running cost of the PCU.

Community feedback provides for the monitoring of environmental indicators gauged by public perception. Appropriate indicators are: (i) improved interaction with ward administrations; and (ii) effectiveness of management of the multipurpose emergency shelters.

254. Costs of environmental assessment and monitoring during construction are project costs. Environmental monitoring during operation is to be borne by PVCC, and costs will be met from O&M budgets prepared and managed by PVCC.

255. **Reporting**. EMP compliance monitoring will be undertaken by the PCU, with support of the DSC. The contractor will be required to provide monthly reports to the PCU, detailing progress, compliance with the EMP, community feedback and laboratory testing, issues arising how these were addressed, and matters requiring attention from the PCU. Consistent with reporting requirements set out in the Project Administration Manual (PAM), the PCU will prepare reports to be sent to ADB on a semi-annual basis during and immediately after construction, containing the results of safeguards monitoring. Semi-annual reports during operation are to be prepared by PVCC. To facilitate monitoring and enable responses to emerging issues, monthly reports will be prepared by the PCU.

Table 9: Environmental Management and Monitoring Plan

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
DESIGN AND PRE-CONSTRUCTION PHASE								
Adaptation for climate change	Risk of structural damage and danger to human life if buildings are not windfirm	Application of stringent international requirements inbuilding design to ensure wind firmness of the structures	Included in consul-tancy contracts	DSC	Design addresses climate change projections and impacts	Once, during approval/ finalization of design	DSC firm's QA; Application of code AS/NZS 1170.2	DSC
Award of civil works contract	Delays with approvals of if CSS and IEE/EMP are not compliant	IEE and EMP will be formatted as required under the CSS, permit applications in line with requirements of the EPC Act, and submitted to the DEPC for assessment and issue of the environmental permits (x3)	Included in consul-tancy contracts	PCU delivers DSC prepares all applications and supporting information	IEE/EMP and permit applications format and quality	Prior to tender going to market (permits may be separate if delayed by DEPC)	Environmental permits incl. in bid documents and contract	PCU

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Mobilization of the contractor	Disturbance by construction workers to local communities	Development of a code of conduct approved by PCU and agreed with community leaders and disseminated to workers. Designation by contractor of a staff member (CLO) with responsibility for liaison with the communities and PCU; establishment of community advisory committees. Signage and security at the work sites and prevention of unauthorized people (including children) entering the work sites; Protection to the public close to the work site, including notices, barriers and marking of the work areas; Provision of safe access across the works sites Recruitment of an approved service provider and delivery of the communicable diseases awareness programme, to include COVID-19 and STIs/HIV/AIDS awareness	IIC	Contractor PCU (Code of Conduct approval)	Inclusion of competent liaison officer in contractor's staff; dissemination of awareness plan; signage and protection to the public in place. Code of conduct signed by all workers	At mobilization and throughout construction	Review of Contractor's staff deployment; training records inspection of training materials and of site arrangements for protection of the public	DSC
Import of material and/or plant and equipment	Risk of spread or introduction of invasive an alien species	Contractor to conduct risk assessment and prepare a plan to meet requirements of and be fully compliant with all Vanuatu biodiversity requirements for all imported equipment	IIC	Contractor	Risk assessment and plan for meeting biosecurity requirements	Once	Review by DSC	DSC
Materials sourcing	Introduction of pests and diseases	Contractors required to source aggregate materials locally, from suppliers with permits under the Quarry Act, 2013.	IIC	Contractor	Source of materials and volume being extracted	Once	Quarry permit; AEP: Submission of certification to Engineer	DSC

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Importation of hazardous materials	Leakage of hazardous materials / injury or health hazard	Contractors to supply a list of materials rated as hazardous under the Globally Harmonized System of Classification and Labelling of Chemicals for approval by PCU. Approval to be conditional on stating adequate arrangements for use and disposal.	IIC	Contractor	Need for proposed hazardous materials, adequacy of labelling, storage and control of access and use and arrangements for disposal	Once	Inspection by DSC	DSC
Building demolition	Inadequate disposal of dismantled building materials	Any timber poles and roofing sheets to be distributed to community members or other recipients. Rubble from concrete to be used as fill on site to the extent feasible, or disposed to landfill.	IIC	Contractor	Sites free of materials that may pose a hazard prior to construction	Once	Inspection by DSC	DSC
CONSTRUCTION PHASE								
Air Quality	Release of exhaust, dust generation causing public nuisance / health hazard	Vehicles and plant to be kept in sound operational condition and fitted with suitable exhaust control. Excavation and other potentially dust generating operations not to take place during dry and windy weather. Bare sites to be wetted during dry weather.	IIC	Contractor	General air quality / complaints from neighbouring communities or households	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC
Soil Erosion	Release of silt into waterways / on to properties	Prompt refilling of excavated sites on completion of works/ use of silt fences around excavations and materials stockpiles , avoid excavation operations in wet weather	IIC	Contractor	Use of silt fences; no evidence of silt in runoff water	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Water pollution	Impaired water quality in drains and waterways from use of vehicles and plant and from on-site toilets	Vehicles and plant are to be maintained in sound operable condition, free of leaks. Contractor to prepare and submit a plan for spill management, including provision of spill kits. Training of workers on procedures for handling spills. Allocation of responsibility within the Contractor's team. Arrangements to be made for workers' access to toilets such that no raw sewage is released from the sites.	IIC	Contractor	Condition of work sites	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC
Waste generation from construction activities	Build up of waste on sites; pest hazard; release of waste from the sites	All solid waste must be disposed of at a landfill or approved disposal site. Hazardous waste disposal in accordance with Waste Management Act and Waste Management Regulations, 2018. Re-use of materials (eg concrete rubble) to the extent practicable	IIC	Contractor	Condition of work sites	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC
Use of hazardous materials	Contamination of soil, water and air / health hazard	Hazardous substances including fuel, lubricants and paint to be kept in locked storage, accessed by authorized personnel only, use to be undertaken or supervised by authorized personnel	IIC	Contractor	Condition of stores and work sites	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC
Clearance of vegetation	Removal of trees and shrubs of conservation value	Trees, tree branches or shrubs not to be removed unless on the site drawings or cleared with PCU. Removal of branches in a manner that does not damage trees unnecessarily.	IIC	Contractor	As per performance standard	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Use of vehicles and plant	Noise and vibration	Liaison with nearby residents and institutions, particularly the school in the case of Seaside Paama. Construction activity to be confined to normal weekday business hours. Ensuring vehicles and plant are fitted with exhaust baffles and maintained in sound operable condition	IIC	Contractor	Vehicles and plant in sound operable condition with exhaust controls; no complaints from neighboring households	At least Weekly during construction	Site inspections	DSC
Chance finds of items of cultural or heritage significance	Loss of items of cultural or heritage significance to future generations	Should artefacts be found during excavations, work to stop, PCU to be contacted and guidance sought from Vanuatu Cultural Council of Archaeologists before resuming work	IIC	Contractor / PCU	Procedure adhered to	Routine and regular during construction	Regular inspection by DSC works inspectors	DSC
Site decommissioning and rehabilitation	Waste or unsafe conditions on site at completion of works	Removal of construction waste. Inclusion of landscaping in detailed design	IIC	Contractor	Completed waste removal and landscaping	Once	Site inspection	DSC
Employment of workforce	Possible social disruption and spread of disease	Engagement of workers who live in or around Port Vila where possible. Awareness raising to workers on infectious disease prevention including STIs and HIG/AIDS and on code of conduct to be observed on and off work sites. Ensuring workers respect landowner boundaries and observe health and safety procedures.	IIC	Contractor	Preparation and delivery of awareness raising measures	To be determined	Inspection of training material and of training sessions	DSC

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Engagement of workers	Occupational health and safety hazards	Contractors to appoint health and safety officers for each site and to ensure regular briefing of construction workforce on health and safety issues. Adequate personal protective equipment to be provided to the workforce. Contractors to adopt the WB EHS Guidelines on OHS, particularly those that relate to construction works.	IIC	Contractor	Contractors appointed H&S staff available at all times; workers briefed, WB EHS guidelines being followed.	Regular – spot checking by works in-spectors	Inspection of training material and of training sessions	DSC
	Contracting and/or carrying COVID 19 infection or other communicable disease	Where staff do come to Vanuatu: strict adherence to Vanuatu's requirements for visitors; development and dissemination of a communicable disease prevention plan, training of workers in disease prevention, use of PPE	IIC	Contractor	Guidelines for communicable disease prevention being followed	Regular – spot checking by works inspectors	Inspection of training material and of training sessions, correct visa or work permit documentation	DSC
Community health and safety hazards	Hazards to the communities	Restriction of access to the construction sites through fencing of all active work sites and controlled access. Provide notices to the public identifying hazards and erect safety barriers / covers for areas of open excavation. Contractors to adopt the WB EHS Guidelines on Community Health and Safety, particularly those that relate to construction works.	Construct ion Cost	Contractor	Guidelines being followed	Regular spot-checking by works inspectors	Inspecting application of guidelines	DSC

Project activity	Potential impact	Mitigation			Monitoring			
		Mitigation Measures	Cost	Responsibility	Parameter	Frequency/ timeframe	Means of validation	Responsibility
Occupational health and safety hazards	Hazards to workers	Contractors to appoint health and safety officers for each site and to ensure regular briefing of construction workforce on health and safety issues. Adequate personal protective equipment to be provided to the workforce. Contractors to adopt the WB EHS Guidelines on OHS, particularly those that relate to construction works.	Construction Cost	Contractor	Guidelines being followed	Regular spot checks by works inspectors	Inspecting application of guidelines	DSC
OPERATION								
Wastewater management	Wastewater treatment and removal	To ensure efficient wastewater treatment and removal, the facilities will have septic tanks, which need to be desludged regularly and the sludge taken to the septage facility at Bouffa.	VUV 30,000 ($262) for desludging (87pprox. 87 to be required annually)	PVCC	Toilets and septic tanks clean and in good operable condition	To be determined	On site meetings between PVCC and MOIA	MOIA
Solid waste management	Removal of solid waste	Waste to be collected and moved by PVCC trucks to city landfill at Bouffa	VUV 20,000 per month 87pprox..	PVCC	Waste regularly removed, no pests observed	To be determined	On site meetings between PVCC and MOIA	MOIA
Occupational health and safety	Hazards to users of the facilities	Establishment of safety plan including provision of first aid and safety equipment, assigning safety and first roles to personnel at the facilities. Training of staff and users	Included in administrative costs	PVCC	No safety incidents	To be determined	On site meetings between PVCC and MOIA	MOIA

VIII. CONCLUSION

256. The establishment of the three multipurpose evacuation centres with sanitation blocks, ward offices and market facilities will be on primarily bare ground that is owned by the Government and under the purview of the Port Vila City Council. Works are expected to be carried out primarily by local or locally based contractors, and will use mainly locally sourced materials, although some components will be imported. Design of the centres will entail use of stringent international codes to ensure wind-firmness under maximum windspeeds expected in the event of a major tropical cyclone. Expected impacts are mainly those associated with construction, which can be substantially mitigated by the application of good practice. The IEE includes an EMP which will be included with bidding documents, obliging contractors to enact the required level of mitigation in construction and commissioning. The centres will provide a refuge to communities and households in Port Vila whose homes are damaged when severe events such as tropical cyclones or tsunamis occur and, as a resource in the aftermath of such events when communities are recovering. When not used for this purpose, they will serve communities by providing a facility for community activities, market operation, strengthening community interaction, socializing and cohesion.

257. The overall finding of the IEE is that the Project will not result in significant adverse environmental impacts and that potential adverse impacts are manageable through the effective implementation of the EMP. Improved conditions for emergency sheltering, market operation, ward administration and community events will bring positive environmental impacts.

258. The classification of Category B is confirmed. No further environmental assessment is therefore required. This IEE has been finalized based on the final detailed design and this classification shall be reassessed or reconfirmed accordingly.

APPENDIX 1: Evacuation Centre Checklist

Government of the Republic of Vanuatu
National Disaster Management Office
Phone: +678 22699 / +678 23035 Email: ndmo@vanuatu.gov.vu
Post: NDMO, Private Mail Bag 9107, Port Vila, Vanuatu

Evacuation Centre Checklist for planning, assessment & classification

LOCATION AND ACCESSIBILITY

- ☐ Be elevated above likely impact from high tide storm surge level 10m
- ☐ Minimum 500mm above identified flood level
- ☐ Equally accessible for the disabled (ramp for wheel chairs)
- ☐ Provision of emergency door/exit
- ☐ Centrally located in the community
- ☐ No nearby large trees, structures use/store hazardous materials or high voltage power lines
- ☐ Building to be less than 9 meter height and designed in accordance with earthquake load standards
- ☐ Be close to a health facility (where possible)
- ☐ Perimeter fencing adequate main entrance/exit gate
- ☐ Be located on geotechnical stable land, not subject to potential landslides nor exposed to potential land slide of adjacent land

STRUCTURAL & ARCHITECTURAL MINIMUM REQUIREMENTS

- ☐ Engineer's cyclone certificate
- ☐ Structure engineer's certification that the design can withstand earthquake loads (Vanuatu buildings code or equivalent international e.g. New Zealand or Australia) New, but recommended for old also wherever possible
- ☐ Building is not more than 9 meter high
- ☐ Building is square or rectangular shape
- ☐ Fitted with cyclone shutters for windows and doors
- ☐ Fitted with provision for people with disabilities, including ramps where necessary and adequate design for unimpeded wheel chair access
- ☐ Provision of all services and facilities to cover the gender and protection aspects

OCCUPANCY CAPACITY

- ☐ Minimum 1.5 Sq.m/person for the shelter 1 to 3 days (Short term)
- ☐ Minimum 3.5 Sq.m/person for the shelter 4 days & above (Long term)

COOKING FACILITIES (LONG TERM)

- ☐ Kitchen should be equipped for the hygienic food preparation
- ☐ Provision of utensils
- ☐ Provision of water tap inside kitchen
- ☐ Sinks for washing utensils
- ☐ If using gas cylinders, must be installed outside
- ☐ Gas cylinders regulators must be positioned outside in secure cages away from building (Recommended in safety point of view)
- ☐ If wood will be used for fire, an adequate arrangement of wood storage must be made available (Preferred, this storage is for preparedness)
- ☐ Kitchen must be provided with adequate ventilation to exhaust the fume/ventilation

WATER SANITATION AND HYGIENE

- [ ] Minimum 3-5 liter per person per day drinking water
- [ ] Minimum 2liter per person per day for basic hygiene
- [ ] Minimum 3 liters per day per person for cooking
- [ ] 10-20 liter water per person per day if the conventional flushing toilet is provided
- [ ] 1.5-3.0 liter per person per day if pour flushing is used
- [ ] Minimum one toilet per 30 female
- [ ] Minimum one toilet plus one urinal per 50 male or one toilet per 40 male
- [ ] Gender segregated toilets
- [ ] Conventional handwashing facilities one hand washbasin per 10 toilets
- [ ] Minimum one toilet for people with disabilities
- [ ] Gender segregated shower facility one shower/ 30 person
- [ ] Toilet should be at least 20m away from kitchen but no more than 30 meter away from main building and ideally be all weather accessible.
- [ ] Laundry block be provided where possible
- [ ] Protection and gender aspects should not be overlooked during the design and site planning facilities (for instance male & female toilets should not be face to face, water point should not be in dark areas etc. general guidance protection & gender principles)
- [ ] Toilets are internally lockable
- [ ] External lock key should remain with Evacuation Center manager.

ELECTRICAL INSTALATIONS AND EMERGENCY POWER SUPPLIES

- [ ] Adequate electrical installation
- [ ] An alternate/emergency backup system (Alternate not necessarily generator or UPS, it can also be a Kerosene lamp)
- [ ] If alternate/emergency backup is a generator a manual changeover switch at the switch board to connect the generator should be provided
- [ ] If alternate/emergency backup is a solar panel, batteries/UPS are to be provided with an adequate inlet for the battery/UPS to connect with the switch board.
- [ ] Generator and fuel tank ideally be located outside and should be protected from rain, wind born debris. Access to fuel and generator should be all weather
- [ ] Inspection of electrical installation should be done upon completion by an electrical engineer to issue a certificate (despite new or old, an old installation could be vulnerable and inspection can help to know and mitigate the risk)
- [ ] All corridors, toilet areas, shower points, drinking water points and hand washbasin areas should be lit during the night
- [ ] Provide exhaust fan/ventilation in the evacuation center to avoid suffocation due to large number of people inside

SAFETY AND PROTECTION

- [ ] Ensure building properly secured with night latches for doors
- [ ] Ensure burglar proof bars for windows
- [ ] Ideally an Evacuation Center should be small for an easy operations and management from activation to closure.
- [ ] Ensure all dark areas, toilets washrooms, showers ,water points are provided with appropriate lighting
- [ ] Where possible provide moveable partitions to give privacy for women and girls in the evacuation center.
- [ ] Ensure an adequate emergency exit

APPENDIX 2: ADB Safeguards Policy Requirements for Category A and B Projects

(i) **Environmental assessment**: to include the identification of impacts (direct, indirect, cumulative, induced, transboundary), rationale for project choices, assessment of impacts, consideration of alternatives, an accurate project description and collection of appropriate environmental and social baseline data.

(ii) **Environmental planning and management**. Preparation of an environmental management plan (EMP) that addresses potential impacts and risks, effective mitigation measures, institutional/ organizational Arrangements, a monitoring plan, capacity development and training, an implementation schedule, cost estimates and performance indicators, with targets.

(iii) **Information disclosure**. Provision of adequate, timely, accessible and understandable information for disclosure of social and environmental safeguard issues, allowing for meaningful dialogue with stakeholders.

(iv) **Consultation**. Meaningful consultation in a non-coercive situation, including with affected persons and NGOs.

(v) **Grievance redress mechanism**. A Mechanism to receive and facilitate resolution of complaints etc scaled to the risks and adverse impacts of the project

(vi) **Arrangements for monitoring and reporting**, so that EMP implementation can be monitored and effects measured, commensurate with the project's risks and impacts. Roles and responsibilities for monitoring and reporting need to be defined.

(vii) **Provision for addressing unanticipated environmental impacts**.

(viii) **Biodiversity conservation and sustainable natural resource management**. No net loss, or a net gain in biodiversity/ for affected natural habitats, confirmation that no alternatives are available and that benefits outweigh costs; appropriate mitigation of converted or degraded habitats.

(ix) **Pollution prevention and abatement**. Pollution prevention to comply with internationally recognized standards.

(x) **Health and safety**. Assessment of risks and appropriate provisions to be included in the EMP for both community health and safety, and for occupational health and safety. The SPS requires compliance with the World Bank Group's Environmental Health and Safety Guidelines.[34]

[34] World Bank Group (2007). *Environmental Health and Safety General Guidelines* and Waste Management Guidelines Washington, D.C.

APPENDIX 3: Letter of Confirmation from the Port Vila City Council

CITY OF PORT VILA
Emile Mercet Street
P.O.BOX 99

VILLE DE PORT VILA
Rue Emile Mercet
B.P 99

Port Vila, Vanuatu
Phone : (678) 22 113 – Email : [redacted] c.gov.vu

TO WHOM THIS MAY CONCERN

This note serves to inform you that the project of Evacuation Centres Under the Greater Port Vila Urban Resilience Project (GPVURP) is designed and supervised by SAS Groupe Huit of Nante, France and its sub-consultant Quality Consulting Limited of Port Vila, Vanuatu of the Department of Urban Affairs and Planning (DUAP) and to be managed by the Port Vila City Council (PVCC)

These sites have been confirmed by the PVCC to be the official sites of where these Evacuation Centers will be constructed;

1. Freshwater (next to the stage behind the VFF Stadium)
2. Seaside Show ground
3. Korman, Tassiriki Park

On the completion of the above Evacuation Centers, PVCC will resume full responsibility and management of these Centers.

This note is made on this 3rd Day of July 2023.

Johnny Botleng

Acting Town Clerk

Port Vila City Council

Our Vision: "A cultural, traditional, safe, vibrant, and resilient city that enhances access and equal opportunities for all"

APPENDIX 4: Record of Consultations Relating to Environmental and Social Safeguards

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
2018							
25/9/2018	Port Vila	MIA office	[redacted] Social safeguards officer, VPMU	0	1	1	Initial contact, to be followed up by TA Team's social safeguards specialist
3/10/2018	Port Vila	DLA Meeting Room, MIA	[redacted] [redacted] Port Vila Land Transport Association Executive Members, MIA	5	1	6	Identification of location of flooding hotspots, priority projects and issues
4/10/2018	Port Vila	Nambawan café	[redacted] former Safeguards Officer, VPMU	0	1	1	Resettlement challenges, role of VPMU
7/10/2018	Port Vila	Nambacafé Cafe	[redacted], Social safeguards officer, VPMU	0	1	1	Land acquisition and resettlement experience
16/10/2018	Port Vila	MLNR	[redacted], Acting Director, Department of Land, Survey and Registry	1	0	1	Resettlement and compensation processes, customary land, framework, differences with ADB policy
16/10/2018	Port Vila	DWA	[redacted] Gender Officer, Department of Women's Affairs	0	1	1	Role of DWA, ways to mainstream gender in project eg. Training, monitoring.
14/11/18	Port Vila	MOLWNR	[redacted]	1	0	1	Water resources oversees the WASH cluster group with UNICEF. Sanitation is under Public Health Department (contact Director [redacted] Major concern is with the contamination of a) the groundwater source at Tagabe, b) the groundwater and bay along the coast (Vila Bay). There is need to regulate the illegal connections (wastewater to stormwater drains) and poor maintenance of septic tanks. Their "ridge to reef" water resources management approach has been supported by GEF and SPC (Pacific Community). Important sub-projects that need funding support are: a) boreholes along the coast to monitor ground water quality, b) regulation of septic tanks and illegal connections (under Public Health Department)
5/12/2018	Port Vila	DEPC	[redacted]	0	1	1	Overview of community based coastal restoration. Discussion of approaches for mangrove restoration –

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
							encouraging natural regeneration has had some success. Patterns of ownership of coastal areas.
2019							
19/02/19	Port Vila	MLNR	[redacted] Director General,	1	0	1	Project and subprojects outlined to DG. Process for and timing of declaration of state land for WWTP, foreshore consent. Potential land site opp Independence Park. Need to work out how much time is available for land process under project. Can land be procured now? If public land it requires the minister of lands to make a declarations that the land will be for the purpose stated. This is officially gazetted, then 30 days for public feedback. Allow 2 month window for this.
26/2/2019	Port Vila	VPMU	[redacted] Social Safeguards	0	1	1	Committed to supporting consultation with Paramount Chief of Ifira. Advised on water quality monitoring program.
15/03/2019	Port Vila	DEPC	[redacted] Pollution Control Manager	1	0	1	Update on progress of water quality standards for Vanuatu – still not prepared and request that assistance be provided from the project in this area. Discussion on permit processes – currently being assessed. Existing practice is for DEPC to issue permits under both EPC and Pollution Control Acts. DEPC aims to streamline the process. Update on water quality resources management taskforce.
11/04/2019	Port Vila	DEPC	[redacted] EIA officer	0	1	1	Update on current legislation and status for revisions
11/4/2019	Port Vilacafél's Cafe	[redacted]	Social Safeguards	0	1	1	Update on sewerage scheme and likely resettlement impacts. Advised on liaison with Lands, need to obtain land records for WWTP site, check declared purpose, demarcate site. Offered support to MIA.
2020							
13/05/20	Port Vila	QCL office	National Disaster Management Office, Port Vila Municipal Council, Department of Local Authorities, Department of Health	7	1	8	Briefing on proposed screening of candidate sites for emergency shelters leading to feasibility study
15/05/20	Port Vila	Numerous	Visited Tokyo Paama & Buninga, Nagire church, AOG church, Seaside Paama, Show	12	4	16	Visits to existing halls and churches; consultations with caretakers on potential use as emergency

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
			ground, Tongoa seaside, Futuna seaside, Epauto School Freswota 1 market, Ex-FOL,Anambrou market, Selime church hall, ManPles market, & Anglican church				shelter and where people in the area normally go when there is disaster.
18/05/20	Port Vila	Numerous	Visited the Korman Market site & consulted care takers of churches and schools. Beverly Hills, Malasi tapu, Freswota school, Pakaroa church and Vila North school.	5	1	6	Visits to existing halls and churches; consultations with caretakers on potential use as emergency shelter and where people in the area normally go when there is disaster.
19/05/20	Port Vila	MoIA	Department of Local Authorities (DLA), Ministry of Internal Affairs (M [redacted] [redacted] secretary	2	1	3	Briefing on ward sub projects, evacuation centres and letter of Access.
20/05/20	Port Vila	PVMC Office	PVMC secretary; Town Clerk [redacted] [redacted]	2	2	4	Consultations on purpose of Ward Sub projects, evacuation centres& letter of Access.
22/05/20	Port Vila	Seaside School, Central School, Vila North School	School principals.	2	1	3	Consulted them on how their schools had been affected by evacuees & whether the government covered the cost of damages incurred by evacuees and disasters.
25/05/20	Port Vila	PVMC office	Ward Secretaries & Town Clerk.	3	3	6	Consulted Ward Secretaries at 1:30pm on ward sub project, evacuation centres' 'Asked them to submit urgent priority needs in their wards
26/05/20	Port Vila	National Statistics Office	[redacted] and colleagues	3	3	6	Consulted the staff on 2016 population Census in each ward.
29/05/20	Port Vila	Laken Community	Chiefs of Laken community near Septic Treatment facility.	4	4	8	Consultations on the status of land and the settlement.
1/06/20	Port Vila	Seaside Futuna	Chairman of Futuna Land Trust on Land matters. Also consulted lands dept. officers for land Title	4	1	5	Discussed matters concerning use of Futuna land, determined that the Futuna Land Trust is agreeable to the development of an emergency shelter facility.
1/06/20	Port Vila	Tokyo Paama community	Paama Chief [redacted] and his people	5	3	8	Consultations on land and evacuation centre. Chief [redacted] said he and his people will not interfere with the government concerning State land.

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
2/06/20	Port Vila	Numerous	Labour Dept, Vanuatu Tourism Office and Vanuatu Chamber of Commerce and Industry on statistics of Laid off workers due to Covid 19.	3	5	8	Consultations on any statistics they could provide on Laid off workers or closed businesses.
4/06/20	Port Vila	Seaside community	Ward representatives at Seaside area.	4	1	5	Consultations on ward statistics for Pentecost & Paama communities.
9/06/20	Port Vila	Seaside Futuna	Futuna Chief on ground works to be done by engineers at Futuna seaside.	3	1	4	Understanding on scope of feasibility study and concept for the facility at Futuna Seaside.
18/06/20	Port Vila	Southern Ward	Southern Ward Secretary; Acting Commissioner of Police on Ward sub projects and evacuation centres.	2	1	1	Consultation on ward subprojects. Agreement on concept and to proceed with feasibility studies
29/06/20	Port Vila	Tokyo Paama	Tokyo Paama community	12	1	10	Consultations on scope and key features of the emergency shelter / community facility
30/06/20	Port Vila	Tokyo Paama	Tokyo Buninga Rep.	1		1	Confirmation on hall improvement project.
1/07/20	Port Vila	Tokyo Paama	Tokyo Paama leaders.	5	1	6	No objection from community, confirmation of land availability to be confirmed by Lands Department.
3/07/20	Port Vila	Department of Lands office	Director of Lands Dept Mr. [redacted]	3	1	4	The Director confirmed that land at Tokyo Paama, Seaside Showground and Freswota Market is state land and that Ministry of Lands will sort out the land issue.
10/07/20	Port Vila	Seaside Futuna	Seaside Futuna Community representative [redacted].	0	1	1	[redacted] organised signing of a letter from the community on behalf of Futuna Land Trust Assoc.
14/07/20	Port Vila	Department of Lands office	Director of Lands Dept Mr. [redacted]	2	2	4	Confirmation on Access to Tokyo site.
27/07/20	Port Vila	Seaside Futuna	chairman of Futuna Land Trust Board Mr. [redacted]	5	0	5	Clarification and confirmation of ownership of Seaside Futuna Site. Site was purchased by the islanders of Futuna island over a period, following an initiative by Mr. [redacted] who made the initial deposit. The land title was transferred from

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
							Mr. [redacted] 's name to the Futuna Land Trust Board in 1997.
27/07/20 – 03/08/20	Port Vila	Seaside Showground	Chief [redacted] assistant chief [redacted] and site attendants, [redacted] [redacted]	2	3	5	PVUDP built sanitation facility currently in difficulty as communities are unable to make regular contributions due to unemployment in hotel sector, resulting from COVID 19 state of emergency / tourist travel restrictions. Difficulty meeting septage removal charge of VUV 3–,000
2021 - no recorded consultations							
2022							
19/08/22	Port Vila	Seaside	Seaside community leaders and members	14	13	27	Confirming preferred & final location for shelter at the site
19/09/22	Port Vila	Freshwater	Freshwater community leaders and representatives	No record			Consultation on site suitability, issues with current market site, other items of interest.
2023							
23/06/23	Port Vila	DEPC	[redacted], Principal EIA Officer	1	1	2	DEPC Environment Permit requirements (x3 required)
27/06/23	Port Vila	Seaside	Community members & Leaders	9	14	23	Information confirming design and location (ref 19/08/22 meeting), safeguards controls, tender process, construction, GRM etc.
29/06/23	Port Vila	Freshwater	Community leaders, members, councilors	19	9	28	With PIAC and PVCC, advising COM decision on new site and outline of project incl. safeguards controls, GRM etc.
4/08/23	Port Vila	Freshwater house	Mrs [redacted]	0	1	1	Adjacent neighbour to food stall and shelter.
8/08/23	Port Vila	Freshwater School	[redacted], Deputy Principal	1	0	1	Request for temporary stall as used by students for lunches
8/08/23	Port Vila	Freshwater School	[redacted], Deputy Principal	1	0	1	Request for temporary stall as used by students for lunches

Date	Location	Venue	Name of person (or group) consulted	No. Participants (Male/Female)[i]			Key Outcomes of consultation
				M	F	Total	
9/08/23	Port Vila	Phone	Councilor [redacted]	1	0	1	Ward councilor requests temporary stall, confirm Korman shelter comes under Freshwater-Tassiriki governance arrangements.
18/08/23	Port Vila	Freshwater site & Phone	Councilor [redacted] (phone), [redacted] Chairman of Freshwater Council of chiefs, and Mrs. [redacted] President of the Freshwater Shelter committee.	2	1	3	Agreement on the location of the temporary replacement food stall.
15/12/23	Port Vila	Seaside	Community members & Leaders & Mamas using the existing small market stall (food stall)	1	3	4	Confirming preferred location for the new market stall (the existing one must be removed)
13/01/24	Port Vila	Seaside	Mamas using the existing small market stall (food stall)	0	15	15	Confirming preferred location for the new market stall (the existing one must be removed)
16/01/24	Port Vila	Seaside	Mamas using the existing small market stall (food stall)	0	7	7	Confirming preferred & final location for the new market stall.

APPENDIX 5: Approved GRM for the Project

GREATER PORT VILA URBAN RESILIENCE PROJECT GRIEVANCE REDRESS MECHANISM

1. Introduction

The Grievance Redress Mechanism (GRM) for the Greater Port Vila Urban Resilience Project (GPVURP) aims to provide an effective and transparent process for community members, stakeholders, and project beneficiaries to raise and resolve concerns, complaints, and grievances related to the project's activities. This mechanism ensures that the project remains accountable, responsive, and inclusive while fostering a positive and constructive relationship between the project and the local communities. It describes the scope and procedural steps and specifies roles and responsibilities of the parties involved. The GRM is subject to revision based on experience and feedback from stakeholders. The GRM process is shown in Table 1.

2. Principles for Grievance Redress:

A GRM is proposed to address any complaints and grievances arising during implementation of the project. Members of the public may perceive risks to themselves or their property, or have concerns about the environmental performance of the project. Any concerns or grievances should be addressed quickly and transparently, and without retribution to the Affected Person (AP) or Complainant.

Primary principles are that all complaints and grievances are resolved as quickly as possible. It therefore follows that, where possible, the resolution of complaints and grievances should be at the lowest possible level for resolution.

All minor complaints that can be resolved, should be resolved immediately on the site. The focus of the GRM is to resolve issues in a customarily appropriate fashion at community level and record details of the complaint, the complainant and the resolution.

It should be noted that Sexual Exploitation, Abuse and Harassment (SEAH) or child protection related complaints require a specific procedure for resolution as outlined in Section 9 below.

The GRM for the GPVURP is built upon the following principles:

- Accessibility: The mechanism is accessible to all stakeholders, irrespective of their background, language, or physical abilities.
- Transparency: The process is transparent, with clear guidelines and steps outlined for submitting and addressing grievances.
- Fairness: Grievances are treated fairly and impartially, with no discrimination based on gender, age, ethnicity, or social status.
- Accountability: All parties involved, including project implementers, are accountable for addressing grievances promptly and effectively.

3. Objectives of Grievance Mechanism:

The GRM has the following objectives:

1. Establish a prompt, easy to understand, consistent and respectful mechanism to support the receiving, investigating and responding to complaints or grievances from community stakeholders;
2. Ensure proper documentation of complaints or grievances and any corrective actions taken; and
3. Contribute to continuous improvement in performance of the GPVURP through the analysis of trends and lessons learned.

4. GRM Definitions:

An **Affected Person** (AP) is a person that is adversely affected temporarily or permanently as a result of project works under the GPVURP.

A **Complaint** is a statement (verbal or written) or expression of displeasure that an impact or effect arising from a sub-project is unsatisfactory or unacceptable to the complainant. Such a complaint is a concern about a minor impact or effect that is short term, low in risk, often temporary, that typically does not require an investigation but does require a specific response to remove or remediate the unsatisfactory or unacceptable impact or effect. Unresolved complaints may become grievances if not dealt with appropriately and within a short (typically 2 days but a maximum of 14 days) timeframe. Complaints able to be dealt with or resolved immediately can be referred to as minor complaints.

A **Grievance** is a statement about an action, impact or effect arising from a sub-project that adversely affect the rights, health and/or well-being of an affected person or people to the extent that it forms legitimate grounds for grievance and if upheld, may result in compensation, legal action, or a change to the sub-project in order to resolve the grievance. Such a grievance will require specific response and potentially and formal intervention by supervisor or client for resolution and such resolution must be formally agreed and recorded. Grievances may be raised verbally or in writing but must be reported using the Grievance Report Form (Appendix 1) which must be completed in every instance.

5. Publicizing Grievance Mechanism:

The GRM will be widely publicized to ensure appropriate accessibility for locals and other stakeholders. This will involve:

- Information Campaigns: Launching an awareness campaign using local media, community meetings, and public spaces to inform residents about the mechanism's existence and how to access it.
- Multilingual Information: Providing information materials in local languages to ensure inclusivity and understanding.
- Community Liaisons: Appointing community liaisons who can help explain the mechanism and assist individuals in submitting grievances.

The PCU will inform the Port Vila City Council (PVCC), local councils of Chiefs, local Chiefs, communities, project teams, contractors and key agencies on the GRM. Communities and potentially affected persons will be advised of the GRM in the early stages of engagement on a proposed subproject, and be made aware of:

- The potential impacts of the project and how these impacts are to be minimized;
- How they can access the GRM (i.e. key people and complaint forms);
- Who to speak to and how to make a complaint;
- Who to speak to and how to lodge a grievance;
- The timeframes for each stage of the process;
- The GRM being confidential, responsive and transparent; and

- Alternative avenues of dispute resolution where conflicts of interest exist.

A project website will be developed to share information about the project, its implementation progress and results, procurement packages, etc. Information about the GRM mechanism and procedures will be posted on the website, with contact details of persons from MOIA responsible for receiving grievances.

6. Complaint Process:

Generally, complaints and grievances will be resolved at the community level as much as possible (except in the case of SEAH or child protection issues) under the management of the contractors and the Supervising Consultant (SC) representative. Assistance may be offered by the Ministry of Internal Affairs (MOIA) primarily the Department of Urban Affairs and Planning (DUAP).

Grievances may be firstly referred to customary conflict mediation arrangements where appropriate, with the assistance of the Area Chief or so long as they are not directly affiliated with leaders who are party to the grievance. If the issue cannot be resolved at this level, it will be raised to the next level and so on.

The GRM aims to address all complaints received, regardless of whether they arise from real or perceived issues. Any stakeholder (man or woman) who considers themselves affected by the project activities will have access to this procedure at no cost or threat of any negative repercussions.

The statutory rights of the Complainant to undertake legal proceedings remain unaffected by participation in this process. The structures of the GRM will include women's representatives to allow female stakeholders to more easily make complaints or lodge grievances. The use of representatives is also available to any affected party and may be used in situations where the affected party cannot represent themselves (for example when the affected party is a child or disabled). Representatives can include but are not limited to women, youth, Church or Non-Government Organisation (NGO) representatives as seen as appropriate by the affected party.

7. Arrangements for Complaints and Grievances

Complaints

In practice, complaints can be made to anyone involved in GPVURP or perceived to be in authority including Ministers, Members of Parliament, Provincial Authorities, MOIA or GPVURP Officers. Irrespective of the initial receiver of the complaint, the following will happen for Contractor related Complaints:

- All Complaints will be communicated to and registered by the Contractor's nominated representative usually the Contractor's Community Liaison Officer (CLO) in the site daybook immediately upon receipt, including details of the Complainant, attempts to resolve the complaint, the resolution of the complaint and outcome.
- The complaints record or daybook will be made available for inspection by any authorized representatives of MOIA, including the SC.
- The Contractor will inform the MOIA representative or SC within 2 days of all complaints received including those that have been resolved.
- The SC supported by the Community Partnership Officer (CPO) from DUAP or others may also assist the contractor in resolving a complaint.
- The Contractor will have a maximum of one week to resolve the complaint and convey a decision to the Complainant. The complaint and decisions on its resolution can be heard and agreed at the relevant local nakamal. Once resolved, the resolution should be entered accordingly into the site daybook and the SC informed of the outcome and details included in the next Contractor's report for review and analysis by PCU.
- Should the Contractor or the Complainant not be satisfied with the proposed resolution of an issue or any aspect of communication around the issue, the matter will then be passed to the

relevant DUAP representative and the PCU for resolution.

- If the complaint escalates, that is becomes more serious over time or it appears that the Complainant may have a grievance as defined above or the complaint cannot be resolved through initial intervention and efforts by PCU, it must be recorded as a grievance and the procedure for grievance redress be followed.
- Regular community representative meetings will be held for all GPVURP sub-project activities. These meetings will include consideration of all aspects of the GPVURP sub-project and include discussions on nuisance, analysis of complaints and confirmation of steps to prevent or reduce nuisance and confirmation that all complaints have been resolved. Inherent causes of complaints that cannot be resolved by changes to work practices or simple on-site solutions require to be referred to the PCU for resolution.
- Any other complaints not necessarily relating to the Contractor shall be dealt with in the first instance by the CPO and recorded and sent to PCU.
- Results of complaints records and meetings across GPVURP subprojects will be reviewed regularly by the PCU to identify opportunities to reduce impacts of project activities and reduce complaints.

Grievances

- All grievances must be referred by the SC or Contractor directly to the MOIA (DUAP) representative for resolution and details recorded using a Grievance Report Form.
- When a grievance is reported, it will be referred to the PCU who may delegate this responsibility to a suitable Officer until the grievance is resolved. The GRM process, responsibilities and timeframes is set out in the next section.

Important Notes

- **Concerns, complaints and grievances from affected women, children or other disadvantage groups in the community may be raised by a representative on an AP's behalf and in the same manner as a community complaint or grievance.**
- Should a dispute arise that cannot be resolved and it is serious enough to prevent the project works taking place, then work will stop and the Contractor will be instructed to stop work on that element of the contract until the matter is resolved. This resolution may include handling through legal processes.

Community Consultation

The Contractor, supported by either DUAP or SC will confirm with project stakeholders (including community representatives) details of the project works taking place. An agreement will be sought that sets out the controls and measures to be adopted by the Contractor to minimize socio-environmental impacts of the project including but not limited to:

- Hours of work
- Noise
- Air Quality
- Waste management
- Location of construction camps
- Traffic management
- Public Health and Safety

The agreement will also identify and nominate the community representatives who are authorized to speak on behalf of the community members.

Regular meetings will take place between the Contractor, DUAP or SC representative and community representatives. The purpose of these meetings is to review that all minor complaints have been resolved and identify and if possible, resolve any ongoing complaints or grievances.

All works under GPVURP are subject to an Environmental Management Plan (EMP) that has a set of conditions to be met by the Contractor. Any breaches of the EMP conditions will also be entered into the daybook at the relevant site(s) and the resolution of the breach will be recorded.

The GRM does not deal with grievances relating to internal communication or disputes between the project team, Implementing Agency, other agencies; nor intra/inter-community conflicts that are not project-related.

Disclosure

For it to function as intended, the potential complainants must be aware of how to access the GRM. Therefore, it is important that the GRM and how it functions are presented to potentially impacted parties. Key details requiring to be disclosed include:

- How to make complaint

This includes the different methods of making a complaint or grievance (face to face, phone, email, through intermediary or representative) as well as specific mechanisms for SEAH complaints.

- Contact details

Where to complain to which will include contact details of people responsible for the specific sub-project as well as PCU.

- Responsibilities

Who is responsible for recording and resolving a complaint, (includes the responsibility of the complainant to be accurate and specific about their complaint). Timeframes for responding to complainant.

A summary of the GRM, including the information above will be displayed at every GPVURP work site and will also be distributed to communities in Bislama as well as English or French.

8. Grievances Procedure

The grievance resolution process includes four key stages – (i) Receive; (ii) Investigate/Enquire; (iii) Respond and Resolve; and (iv) Follow up/Close Out.

The intention is to resolve a complaint as quickly and at as low a level as possible to avoid a minor issue becoming a significant grievance. Unresolved complaints may be treated as grievances only if, in the opinion of the PCU that they fall within the definition of grievance under GPVURP.

Irrespective of the stage of the process, a Complainant can pursue the grievance through the court as is his or her legal right.

i. Receive

Relevant personnel in each project site (SC and Contractor) will be required to accept formal grievances and ensure avenues for lodging grievances are accessible to the public and affected persons. Avenues will include: face to face with the contractor, government representative or community representative, by telephone or in writing to the above or via email.

The first point of contact for all potential grievances from community members is usually the Contractor or CPO. The grievance may be made directly by the aggrieved party or through the local chief or a community women's representative.

A grievance may also be made by directly to anyone involved in GPVURP or perceived to be in authority including Ministers, Member of Parliament, Provincial Authorities, MOIA or GPVURP Officers, however the grievance must be passed to the Contractor for it to be formally recorded and received into the GRM.

Irrespective of the source, the Contractor will record all grievances on the Grievance Report Form and inform the SC immediately passing a copy of the form to the SC. Depending on the circumstance, SC may also fill out the Grievance Report Form with the Contractor. The grievance will be acknowledged within two days to the Complainant confirming that the grievance has been received and is under investigation.

ii. Investigate / Enquire

The SC will investigate the details of and grounds for the grievance with assistance from the DUAP if required. Additional support or information may be gathered from any other sources in order to describe the cause and effects of grievance more clearly, its level of urgency or severity and its relationship to GPVURP.

The SC may require that a community representative (chief or women's representative) supports the grievance in order to assist investigations and confirm details of the grievance.

Investigations may include site visits and meetings to determine: the scale and impact of the grievance and what options there may be for appropriate responses or resolutions.

iii. Respond and Resolve

After investigation, all grievances will be responded to by a GPVURP representative directly to the Complainant within one week after the completion of the investigation to discuss and identify potential resolutions. If additional time is needed, the Complainant will be advised of this in advance. Any other representatives that may be required by either the SC, DUAP or the Complainant to be present in order to provide input to developing an appropriate response or resolution.

The severity of each grievance and subsequent course of action shall be determined by the relevant supervisor (contractor or engineer). If the issue is easily resolvable, the responsible parties should endeavor to address the issue directly on site. If the grievance is a more complex issue, it may require additional meetings and further investigation, and may need to be managed by the PCU rather than the SC.

If a grievance is dismissed as groundless or resolved at any stage, the Complainant will be informed of their rights in taking it to the next stage. A copy of the decision is to be given to the Complainant in writing and a further copy sent to next level of authority to inform them of the complaint.

The records shall be kept and filed into the Grievance database managed by the PCU. All responsible parties involved in the GRM process are to keep complete records of their activities. These records of the grievance redress mechanism will be monitored by the SC and PCU and included in regular project reports.

If an agreement is not reached between the Complainant and the PCU, the grievance will be escalated to the Technical Advisory Roundtable (TAR) for review and a final decision. If necessary, further action will be taken to resolve the issue. If the Complainant is still dissatisfied with the outcome, they may be referred to the legal process. However, courts should be the last avenue for addressing grievances.

iv. Follow up/Close Out

A grievance is closed out when no further action can or needs to be taken. All grievances should be closed out within the initial 30 days or as soon as possible thereafter and after all reasonable attempts to resolve the grievance have been attempted.

The response should communicate findings of the investigation and resolution, and seek approval from the Complainant. If the Complainant is satisfied with the outcome then the grievance is closed out and they provide their signature (or fingerprint) on the agreement as confirmation.

Should the Complainant either reject or appeal the outcome then the closure status will be recorded

Closure status will be entered into the Grievance database as follows:

- Resolved – resolution has been agreed and implemented and signed documentation is evidence of this.
- Unresolved – it has not been possible to reach an agreed resolution and the case has been authorized for close out by the TAR.
- Abandoned – cases where the attempts to contact the Complainant have not been successful for two months following receipt of formal grievance.

All grievances will be reviewed for opportunities to help identify and reduce future, similar occurrences across GPVURP subprojects.

Table 1 below outlines the timeframes for each stage of the Grievance process, a flowchart showing the process is attached as Appendix 2.

Table 1: Grievance Process

Timeframe	Stage
Within 1 day	• Grievance reported to Contractor through nominated person by Complainant or community representative (School Principal for issues on school property) or if received via PCU immediately upon receipt. • Contractor with support of SC prepares **Grievance Report Form** providing full details of the alleged grievance.
Within 2 days	• SC investigates and confirms details of the grievance and ensures that details are entered onto the **Grievance Report Form**. • SC confirms subject of the complaint is still relevant and contacts PCU. • SC sends **Grievance Report Form** to PCU. • PCU logs grievance into the GRM register.
Within 7 days	• PCU confirms who will have delegated authority to resolve grievance. • PCU representative meets with relevant parties, village leaders etc. • Depending on nature or severity of the grievance PCU representative attempts to identify acceptable resolutions. • Confirm resolution with Affected Party (or representative) and seek their approval or confirmation that the grievance is resolved.

Timeframe	Stage
	• Grievance closed out by PCU in writing.
30 days	• If unresolved then Grievance including an update of all actions to date is or referred to TAR for further action. • Database updated by PCU.
As soon as possible thereafter	• PCU undertakes further action. • If grievance remains unresolved the grievance can be closed out by TAR on behalf of the project. • Database updated by PCU. • Complainant may initiate legal process through courts.

9. Sexual Exploitation, Abuse and Harassment:

In consideration of matters concerning SEAH, reporting should be addressed in line with the flowchart attached as Appendix 3 which is developed from the ADB's good practice note (April 2023).

In order to address SEAH, a worker code of conduct will be adopted, and a code of conduct agreed with the community. Training and awareness raising sessions will be conducted with all project personnel, including contractor personnel, as well as with local communities. A standard operating procedure will be developed and adopted for SEAH complaint handling and response. The SOP will include the following elements: (i) definition of SEAH and application of national legislation including any mandatory reporting requirements; (ii) who can receive complaints (this may include for example the contractor and/or PMU CLO, the head of the PMU, HR etc); (iii) referral to support services such as GBV services, health and police (noting that this is subject to the wishes of the victim/survivor and cannot be done without their consent); (iv) confidentiality and privacy of information (no reporting details of SEAH complaints in the GRM register); (v) notification of complaints to ADB, and (vi) template for SEAH case reporting.

There is a significant role for the Contractor's CLO to identify a potential SEAH case upon notification and for women's representatives to allow female stakeholders to make complaints or lodge grievances more easily. A gender focal person will be assigned by the PCU to assist with the SEAH response, working closely with local service providers or international specialists to produce a survivor centered approach.

10. Responsibilities:

- Community Project Officer (CPO): these are DUAP officers. Their responsibilities include community liaison and identifying relevant community stakeholders potentially affected by project works. It is anticipated that many complaints not made directly to contractor may be made via the CPO. The CPO, along with the SC will be responsible for clarifying complaints and verifying that agreed solutions to complaints are agreed to and implemented.
- Project Coordinating Unit (PCU): Located within DUAP and responsible for initial assessment of grievance complaint and implementing corrective actions. The PCU will be responsible for managing the GRM including updating the grievance database to track the progress of formal grievances for the duration of projects. This involves coordinating between key agencies on a regular basis. It is responsible for oversight of community consultation and grievance management and will administer the grievance database. Nominated PCU staff will regularly update the grievance database in consultation with key agencies where Grievance Report Forms have been completed. All project-related grievances should be captured in the database regardless of the agency with whom they were raised.
- Technical Advisory Roundtable (TAR) for review of processes and action and providing a final decision from the government on grievance cases.

- Affected Person or Complainant. The affected person (AP) or Complainant has the responsibility to fairly represent their concern and to do so through a community representative (women, church, youth or other) as well as through customary (Chiefs) or formal channels.
- Community Liaisons: Act as intermediaries between the affected parties and the grievance redressal system, guiding locals through the process. They have the responsibility to represent the AP or Complainant's concerns accurately and fairly, as described to them. The community representatives for each community (either in a geographical location or of a particular interest such as women's or church representative) will be identified in advance as part of awareness raising and disclosure of the GRM and other GOVURP subproject elements to local communities.
- Independent Third Party: For complex grievances, an independent third party can be engaged to assess the situation and recommend appropriate actions.
- Contractors: they will be briefed on the GRM and are expected to follow its requirements as part of the oversight of their subprojects. The Contractor's representative (typically Site Engineer or CLO) will attend community sessions on GRM and safeguards awareness or training run by MOIA representatives.
- The Contractor is responsible for logging all complaints and other safeguards non-compliance incidents in the site daybook (or equivalent) for inspection by the SC or MOIA representative. The Contractor is also responsible for ensuring that all minor complaints are dealt with and resolved directly without any undue delays.

Implementing a comprehensive GRM promotes transparency, accountability, and community engagement in the GPURP, fostering a positive relationship between project stakeholders and local residents.

This GRM is intended to be used throughout the GPVURP. While every effort has been made to ensure that the provisions of this GRM will lead to the equitable resolution of grievances arising from project activities, it is recognized that amendments may be required to the GRM for it to work across multiple projects in both roading, schools and public buildings.

It is intended that the GRM be reviewed if or when necessary to ensure that it can deal with a complex range of sub-projects in a manner that is appropriate and suits the social, cultural and legal situation in Vanuatu.

GRM Appendix 1: Grievance Report Form

GRIEVANCE REPORT FORM

Received by:_____ **Date Received:** _____

Reported by:_____ **Database ID:** _____

Responsible Agency: _____ Staff Name: _____

Location: _____

	Village	First Name, Last Name/ Prefers to be anonymous	Contact Details
Complainant(s) or Representative			
Chief			

Acknowledged by: _____ Date Acknowledged: _____

Description of Concern:

.....

Category:

Compensation / Land Access / Inadequate Notification/ Disruption to Business or Property / Property Damage / Irrigation / Boundary Dispute / Environmental Damage / Construction Activities / Safety Risk /Traffic / Other

Proposed Resolution or Feedback:

.....

Complainant satisfied with process? Yes ☐ No ☐ Why not?.....

Complainant satisfied with outcome? Yes ☐ No ☐ Why not? .....

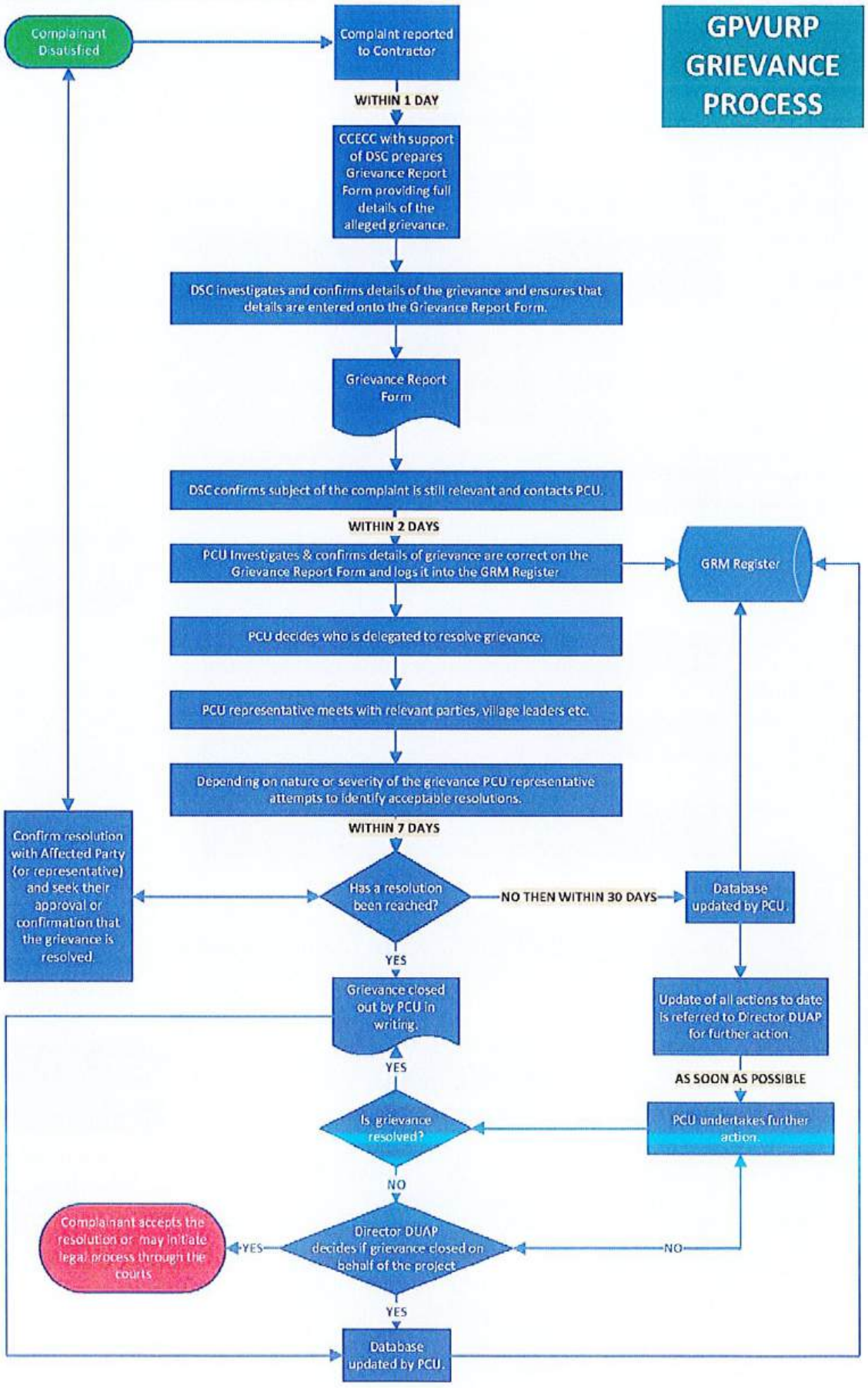
Print Name (Complainant): _____

Signed (Complainant): _____ Date:_____

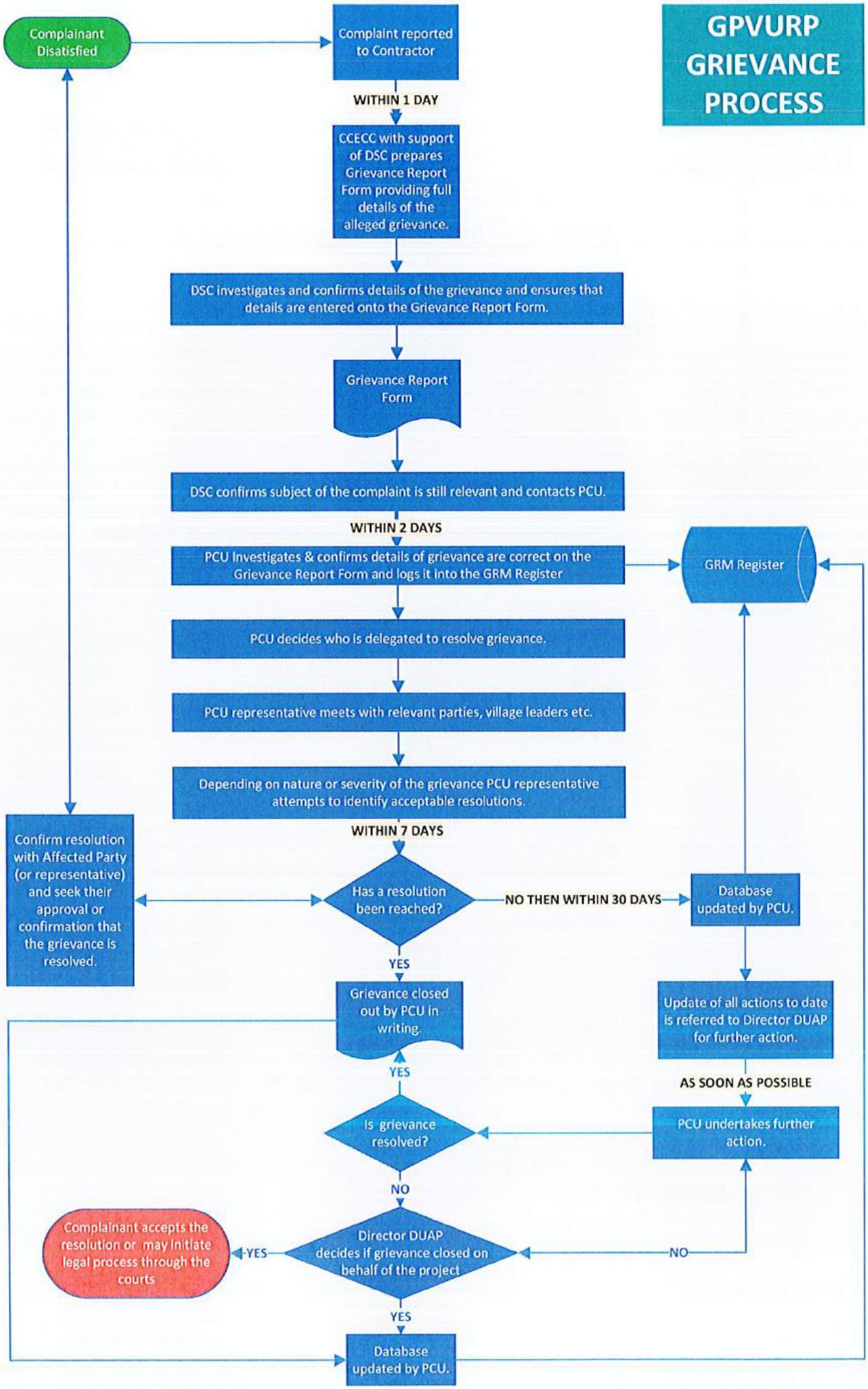
Signed (Recipient): _____ Date:_____

Copied to: _____

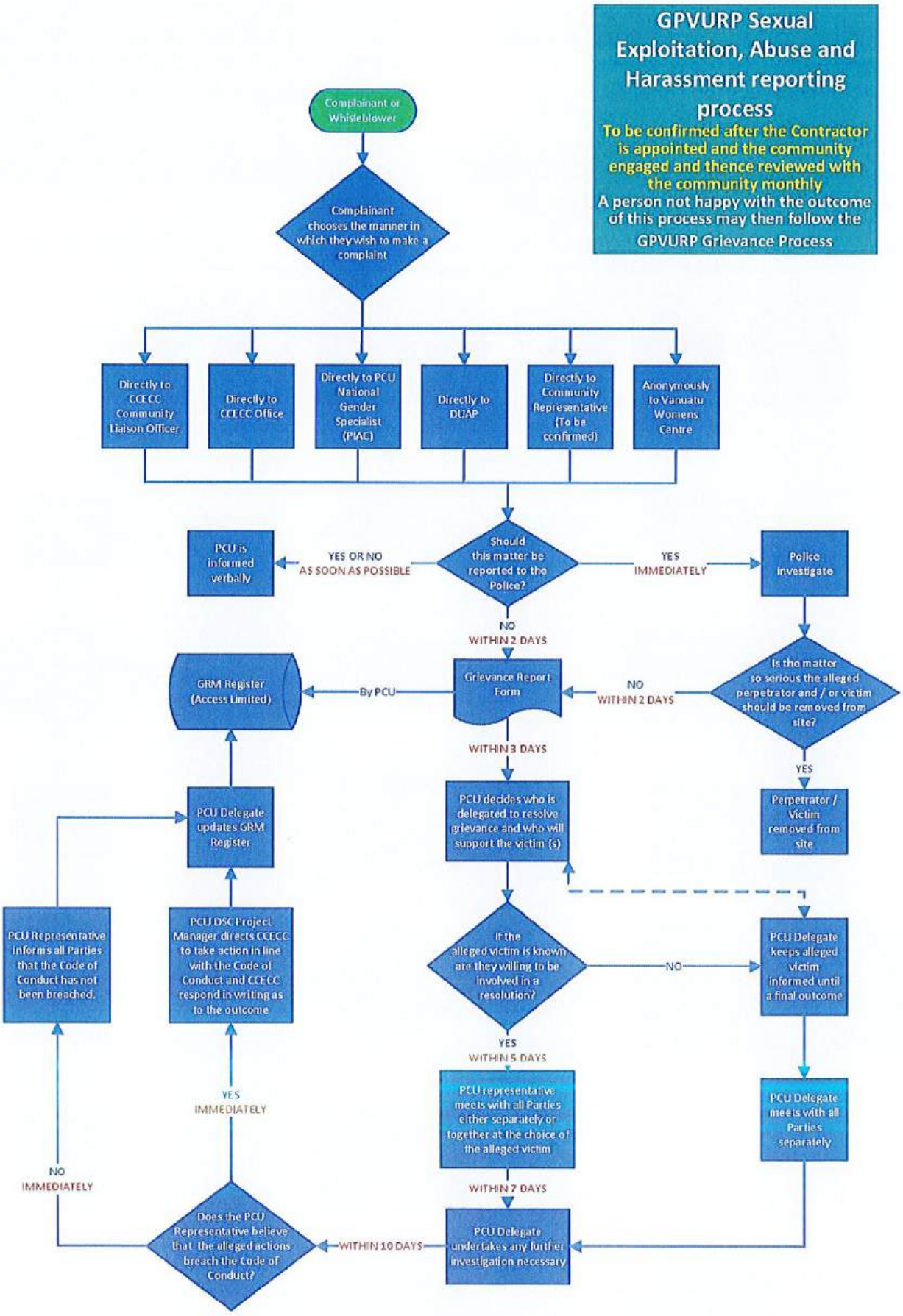
GRM Appendix 2: Grievance Mechanism flowchart



GPVURP GRIEVANCE PROCESS



GRM Appendix 3: Sexual Exploitation, Abuse and Harassment complaint process



GPVURP Sexual Exploitation, Abuse and Harassment reporting process

To be confirmed after the Contractor is appointed and the community engaged and thence reviewed with the community monthly

A person not happy with the outcome of this process may then follow the GPVURP Grievance Process