

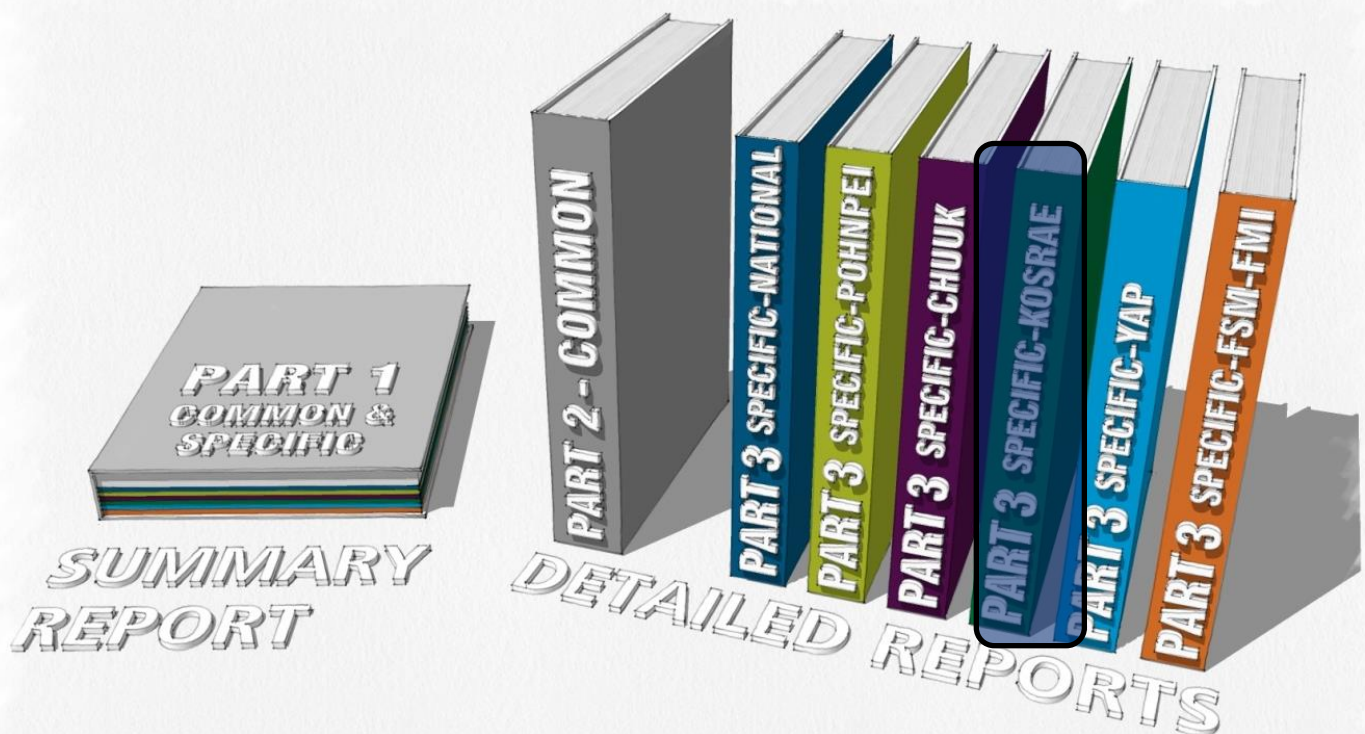
Report

College of Micronesia - FSM Space Utilization and Facilities Master Plan Study, Part 3 - Detailed Report for the Kosrae Campus

Prepared for the College of Micronesia - FSM

Prepared by Beca International Consultants Ltd (Beca)

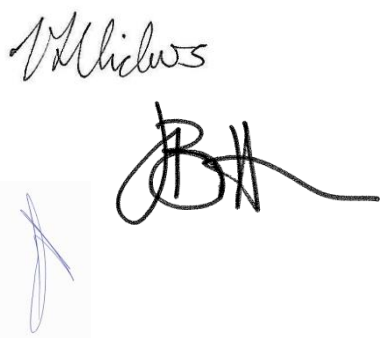

28 February 2014



Revision History

Revision N ^o	Prepared By	Description	Date
1	Annette Jones	Draft for review by PCG	31/10/2013
2	Annette Jones	Final issue for Board of Regents meeting 2 nd December 2013	28/11/2013
3	Annette Jones	Final report	28/02/2014

Document Acceptance

Action	Name	Signed	Date
Prepared by	Annette Jones, Mark Wilson, Warren Perkins, Mark James, Paul Leman, Claire Green. Wilson Hess /James Mulik from Sandy Pond Associates (Contributors of the Classroom Utilization Study)		28/02/2014
Reviewed by	Fraser Vickers Joe Briffa – Energy Audit Mark Wilson – Condition Assessment		28/02/2014
Approved by	Fraser Vickers		28/02/2014
on behalf of	Beca International Consultants Ltd		

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Contents

1	Kosrae Campus Development.....	1
1.1	Kosrae Campus 2013	1
1.2	Long Term Vision.....	2
1.3	5 year period - to 2018.....	6
1.4	10 year period - to 2023.....	7
1.5	Long Term Vision - beyond 2023	8
1.6	Development Staging and Program – Implementation.....	9
2	Educational Component	10
2.1	Key Considerations.....	10
2.2	Space Utilisation	10
3	Spatial Review.....	13
3.1	Design Concept Plans	13
3.2	Focus Group Summary.....	14
3.3	Spatial Analysis	17
3.4	Accommodation Review	29
4	Condition Assessment.....	35
4.1	Kosrae Campus Building Condition Review.....	35
5	Energy Audit	45
5.1	Energy Efficiency Recommendations	45

Appendices

Appendix A

Topographical Survey and Title Information

Appendix B

Building Condition Assessments

Appendix C

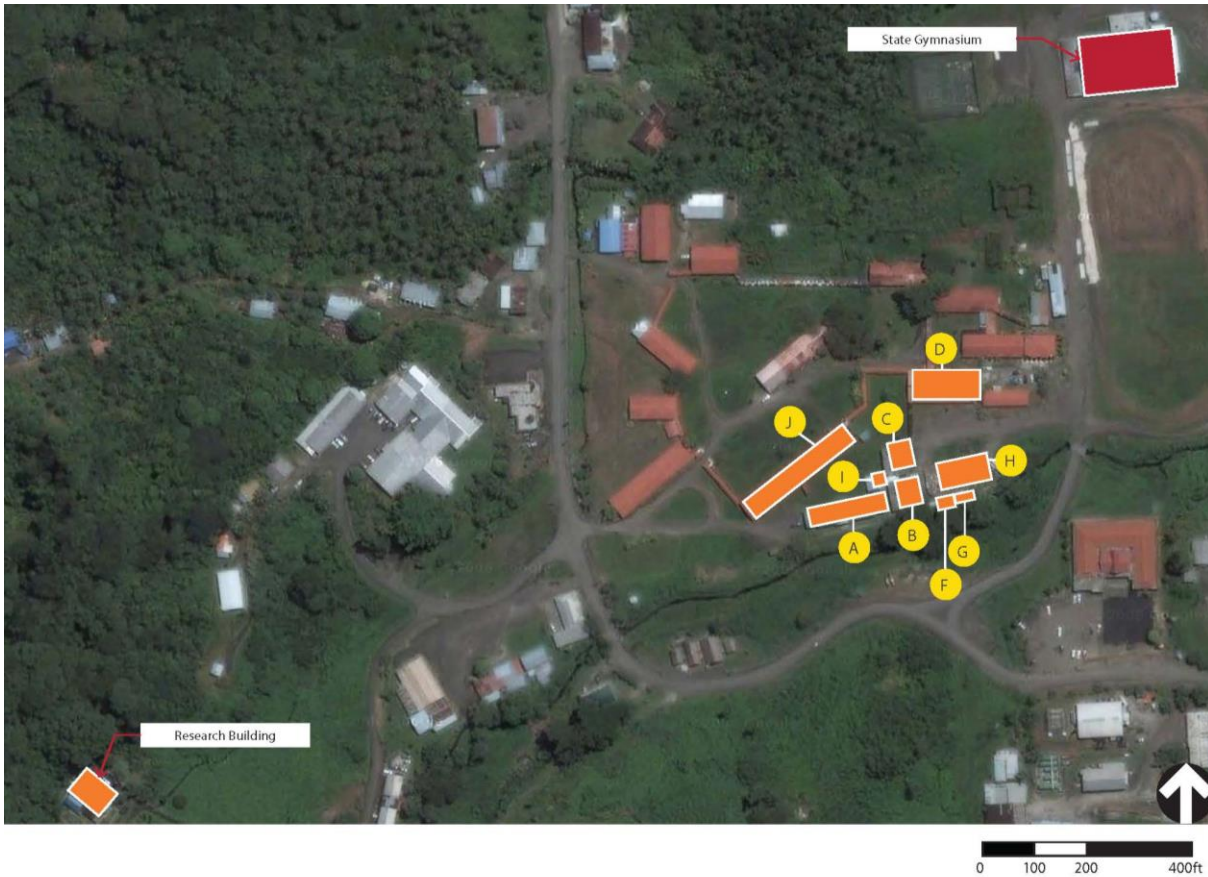
Indicative Asset Renewal and Maintenance Cost Plans

Appendix D

Energy Use Analysis

1 Kosrae Campus Development

1.1 Kosrae Campus 2013



The Kosrae campus is located on 20,346m² of land (5 acres) adjacent to the Kosrae High School grounds. A research facility is located off site one quarter of a mile west of the campus.

The Fall 2013 Kosrae campus enrolment (headcount) is 243. The maximum number enrolled occurred in Fall 2004 at 322 with this figure not reached since then.

A headcount of 212 has been provided by the space utilization study as the projected headcount in 2018. This 5 year projection figure has been used as the basis for the design figure for assessing future facilities requirements.

No.	Building Description	Remarks
A	Administration Building/Classrooms	
B	Land Grant Building	
C	Faculty Building	
D	Rose Mackwelung Library	COM-FSM occupies half of this building

No.	Building Description	Remarks
F	Maintenance Shop	
G	Maintenance Office	
H	KSBDC Building	Two level building - classrooms on level 2
I	Bookstore	
J	Learning Resources and Career Development	One of the eight rooms used as a classroom by the Kosrae High School for Dressmaking

1.2 Long Term Vision

The Kosrae campus will have facilities to support the following:

- A recognisable campus edge through the implementation of a structured campus landscape plan
- A strengthened community interface at the eastern edge of the site
- Additional computer labs and greater Wi-Fi capability
- Renewable energy and incorporate sustainability measures
- Buildings that have a reduced maintenance and operational cost through design and selection of materials

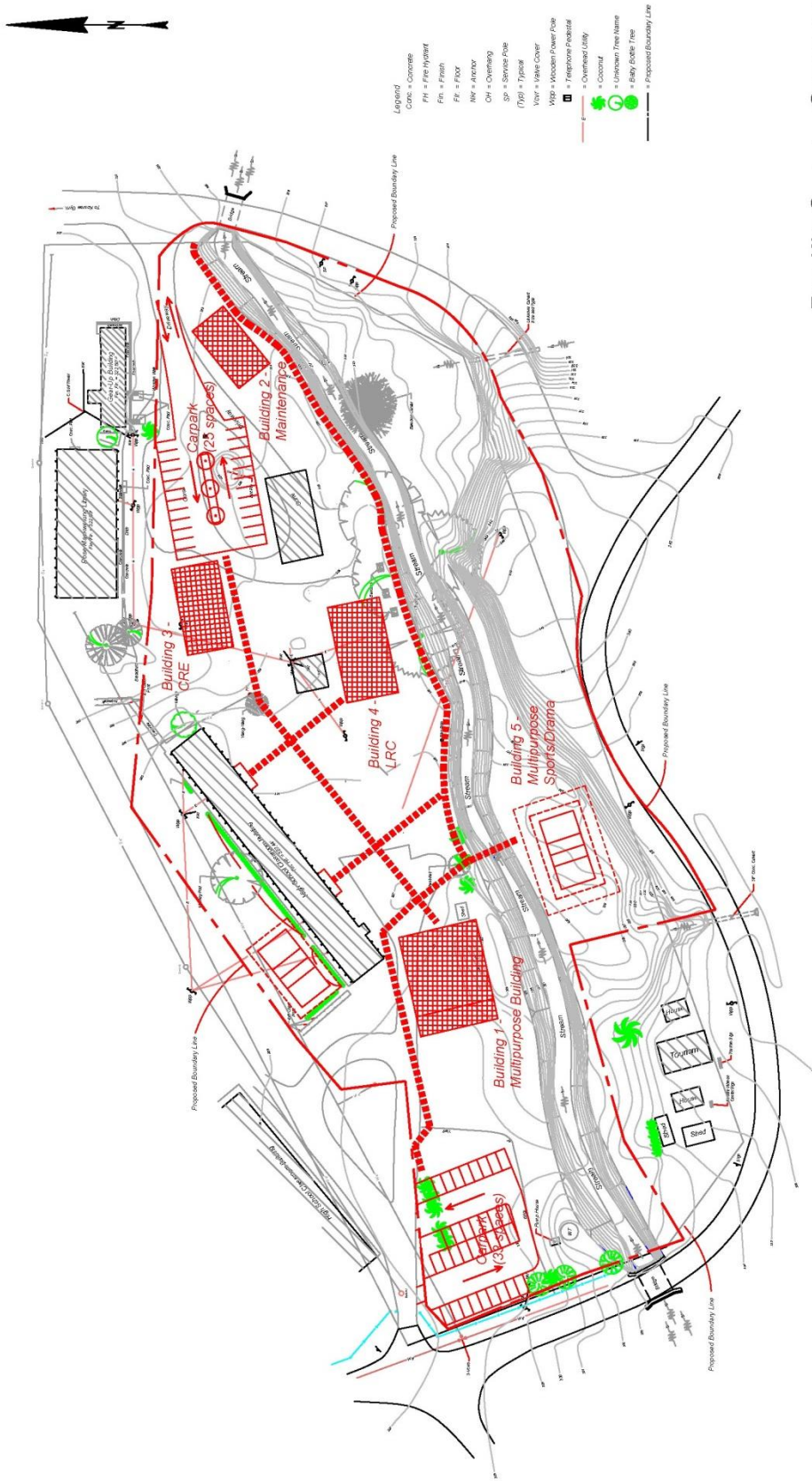
Key Moves

1. Consolidate all functions onto the campus site relocating Student Services into a purpose designed building. Design a facility to accommodate other functions that are in poor condition buildings (Faculty and Bookstore) Relocate uses currently located adjacent to each other that are not compatible (Move Learning Resource Center away from Carpentry shops).
2. Provide clear parking lot area, vehicle circulation and signage at both campus entries
3. Clear the stream bank and open up views to the Visitor Center buildings
4. Provide recreational area - basketball/ volleyball
5. Provide an auditorium/ multipurpose space
6. New maintenance building
7. New CRE building and Learning Resource Center

The following plan depicts the proposed layout with the new buildings identified in red. The accommodation schedules listing the functions and areas for the spaces within these buildings are contained in Chapter 3.4.2.

The stages to reach this long term vision are described in the staging plans and the program at the end of this chapter.

**Topo and Location Survey of
C. O. M., Kosrae Campus
Tofol, Kosrae**



Metric 1:1000@A3

Pacific Survey Company

P. O. Box 2442, Pohnpei, FM 96941
Tel. 691-320-6264, Fax: 691-320-5159

Tim McVey - RLS#20

Briner T. Sam - Party Chief

Date: 20 April 2005

I Certify that this Survey was performed by me or under my Supervision in Accordance with Existing Laws and Regulations.



1.3 5 year period - to 2018

5 year period to 2018

- 01 IT server in a secure environment in the existing administration building
- 02 Upgraded Wifi
- 03 Open side shelters for charging electronics and outdoor study (4 off)
- 04 Consolidate student services functions in a multifunctional building - stage 1 of a two storey building. Containing student services, LRC and computer lab plus associated functions
- 05 Site works associated with multifunctional entry building - carpark, streamside works along the length of the new building, landscaping, signage, pedestrian connections, perimeter and structured planting

- 06 Recreational area - outdoor basketball/ volleyball space and associated landscape works
- 07 If possible refurbish old LRC and computer lab.
- 08 Demolition of the toilet block at the eastern end of Classroom Building J
- 09 Demolition of Faculty Building C and upgrade surrounding vehicle access and carpark
- 10 Demolition of Bookstore Building I and provide for a landscaped area (either active or passive recreation) and/ or remove portion of walls to make second open air solar charge station

- a Retain carpentry until new space is available away from new multipurpose building
- b Administration remains in current location
- c Faculty moves into eastern end of administration

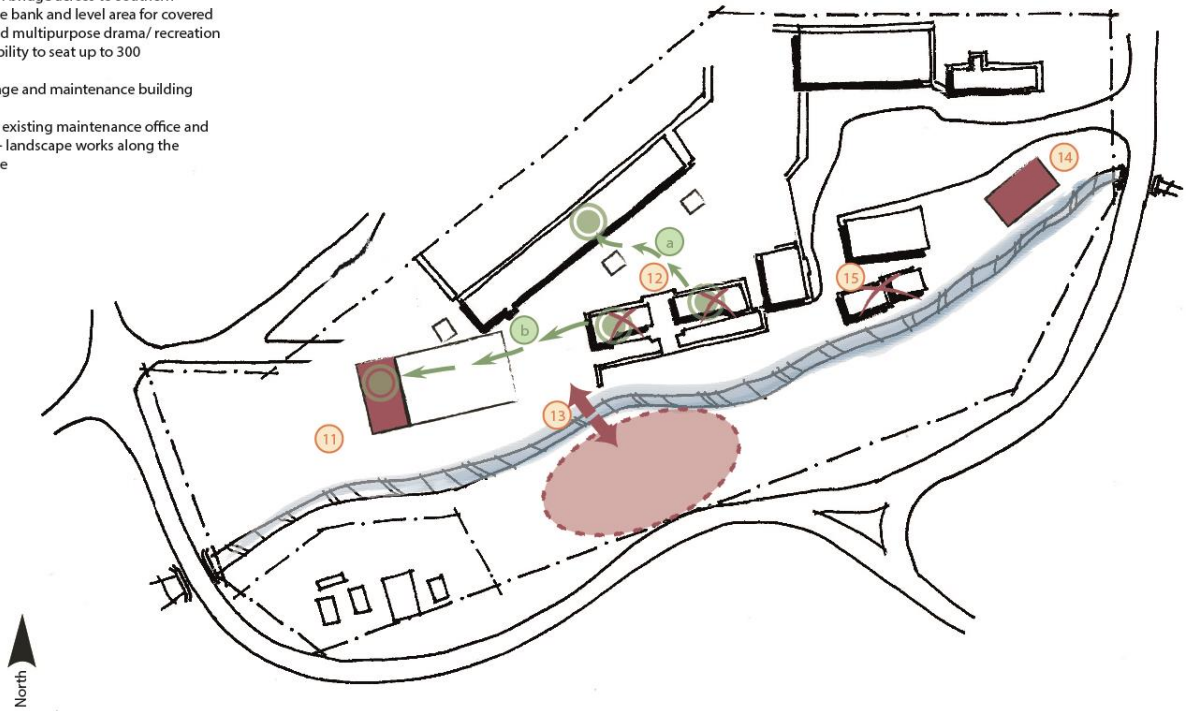


1.4 10 year period - to 2023

10 year period to 2023

- 11 Stage 2 of the entry multipurpose building with faculty and administration functions added to building
- 12 Relocation and fitout of specialized science classroom and general classroom into Block J. Demolish old specialized science classroom block and landscape area left behind with trees and study huts.
- 13 Pedestrian bridge across to southern streamside bank and level area for covered open sided multipurpose drama/ recreation space - ability to seat up to 300
- 14 New storage and maintenance building
- 15 Demolish existing maintenance office and building - landscape works along the streamside

- a Relocate science lab to room vacated by the LRC
- b Relocate dean, business and coordinator functions to extension of multipurpose building



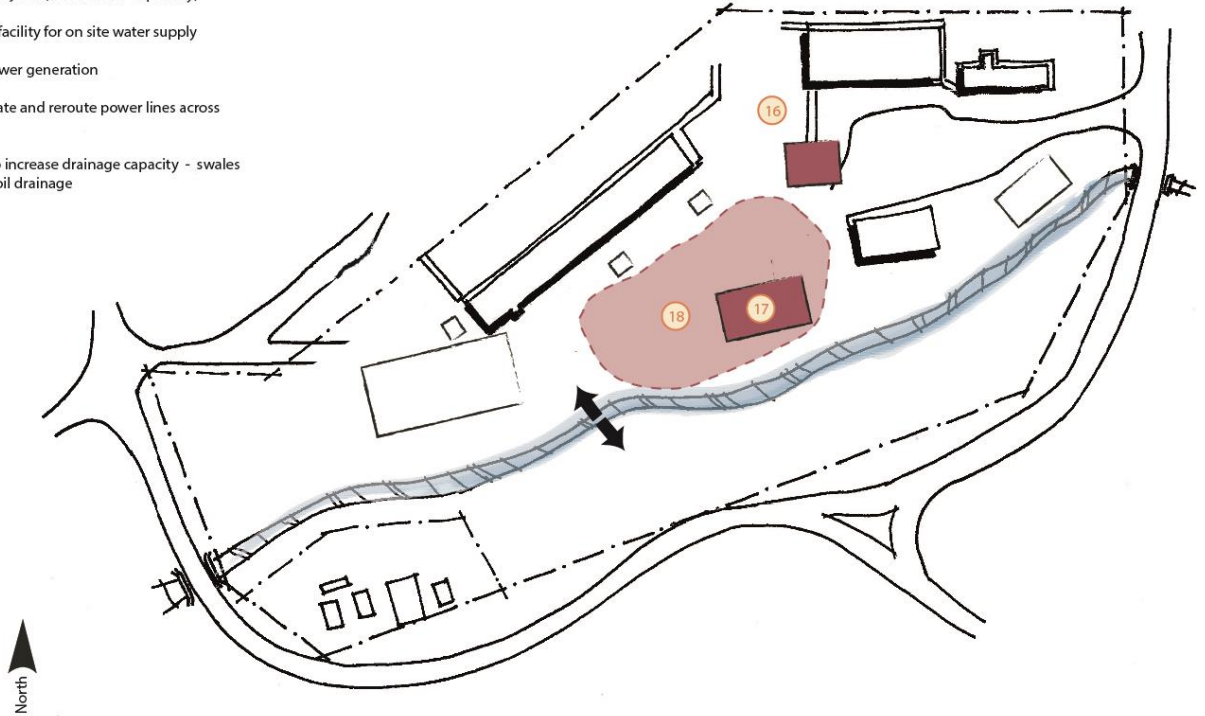
1.5 Long Term Vision - beyond 2023

Beyond 2023

- 16 New CRE - extension building either at research building site or in the community interface activity zone
- 17 New Learning Resource Center
- 18 Associated landscape works, pedestrian connections

Further projects (not in order of priority)

- Provide facility for on site water supply
- Solar power generation
- Investigate and reroute power lines across the site
- Works to increase drainage capacity - swales and subsoil drainage



1.6 Development Staging and Program – Implementation

Project / Task Name		Kosrae Campus Project program																		
No.	Task Name	Estimate	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rev 6/28th Feb 2014																				
5 year period to 2018																				
1	IT server in a secure environment in the existing administration building	\$0																		
2	Upgraded Wifi	\$40,000																		
3	Open sided shelters for charging electronics and outdoor study (4 off)	\$0																		
4	Consolidate student services functions in a multifunctional building - stage 1 two storey building-BUILDING 1	\$40,000																		
5	Consolidate student services functions in a multifunctional building - stage 1 two storey building-BUILDING 1	\$3,260,000																		
6	Site works associated with multifunctional entry building - carpark, streamside works along the length of the new building, landscaping, signage, pedestrian connections, perimeter and structured planting, clear view shafts to visitor centre	\$500,000																		
7	Recreational area - outdoor basketball/volleyball space and associated landscape works	\$150,000																		
8	Refurbishment of old LRC and computer lab into classrooms	\$30,000																		
9	Demolition of the toilet block at the eastern end of Classroom Building J	\$5,000																		
10	Demolition of Faculty Building C and upgrade surrounding vehicle access and carpark	\$290,000																		
11	Demolition of Bookstore Building I and provide for a landscaped area (either active or passive recreation). Alternative is to remove portions of the walls to create an open air study area and solar charging station	\$110,000																		
10 year vision to 2023																				
12	Stage 2 of the entry multipurpose building with faculty and administration functions added to building-BUILDING 1	\$0																		
13	Relocation and fitout of specialized science classroom and faculty into Block J. Demolish administrator/science building	\$1,050,000																		
14	Pedestrian bridge across to southern streamside bank and level area for covered open sided multipurpose drama/recreation space - ability to seat up to 300	\$220,000																		
15	New storage and maintenance office and building - landscape works along the streamside	\$400,000																		
16	Demolish existing maintenance office and building - landscape works along the streamside	\$150,000																		
Long term vision - beyond 2023																				
17	New CRE - extension building either at research building site or in the community interface activity zone-BUILDING 3	\$0																		
18	New Learning Resource Center- BUILDING 4	\$1,310,000																		
19	Associated landscaping with the LRC - paths, shrubs, seating	\$2,525,000																		
20	Multipurpose / sports - BUILDING 5 (long term project to be funded by others)	\$500,000																		
Further projects (not in order of priority)																				
21	Provide facility for on site water supply	\$0																		
22	Solar power generation	\$530,000																		
23	Investigate and route power lines across the site	\$600,000																		
24	Works to increase drainage capacity - swales and subsoil drainage	\$50,000																		

2 Educational Component

2.1 Key Considerations

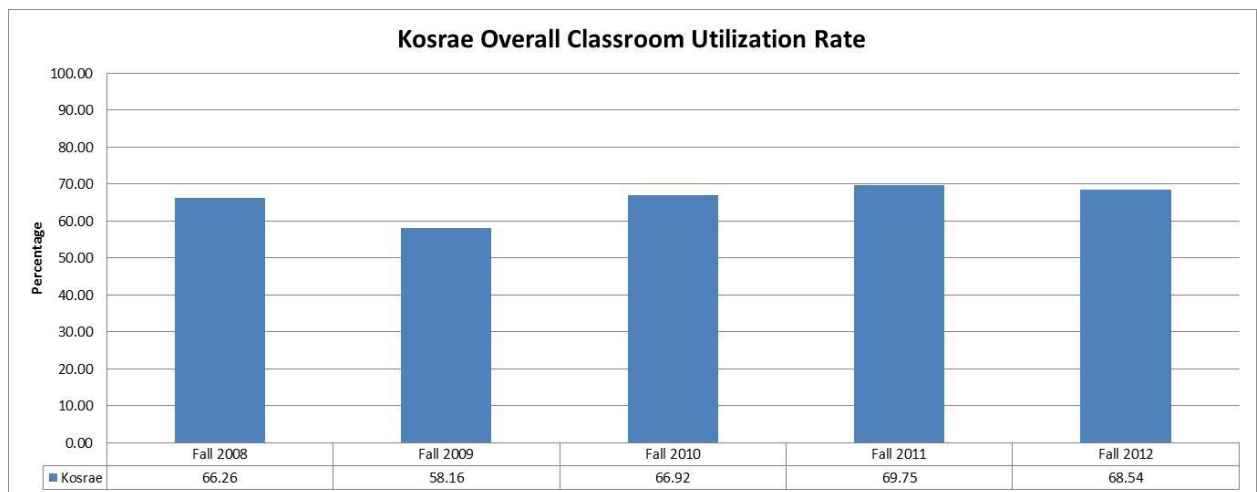
- Classroom utilization levels and utilization rates are in the moderate-to-low range indicating adequate overall capacity (see Tables 2.2.1 and 2.2.2).
- Enrolment projections suggest a relatively level enrolment trend, stabilizing around the 200 FTE & headcount ranges (see Chart 2.2.3). Classroom utilization should stay in the moderate-to-low range through 2023.
- Kosrae’s enrolment projections are the most stable of all COM-FSM campuses. The narrowing of all data points suggests this projection will have high reliability through 2023.

2.2 Space Utilisation

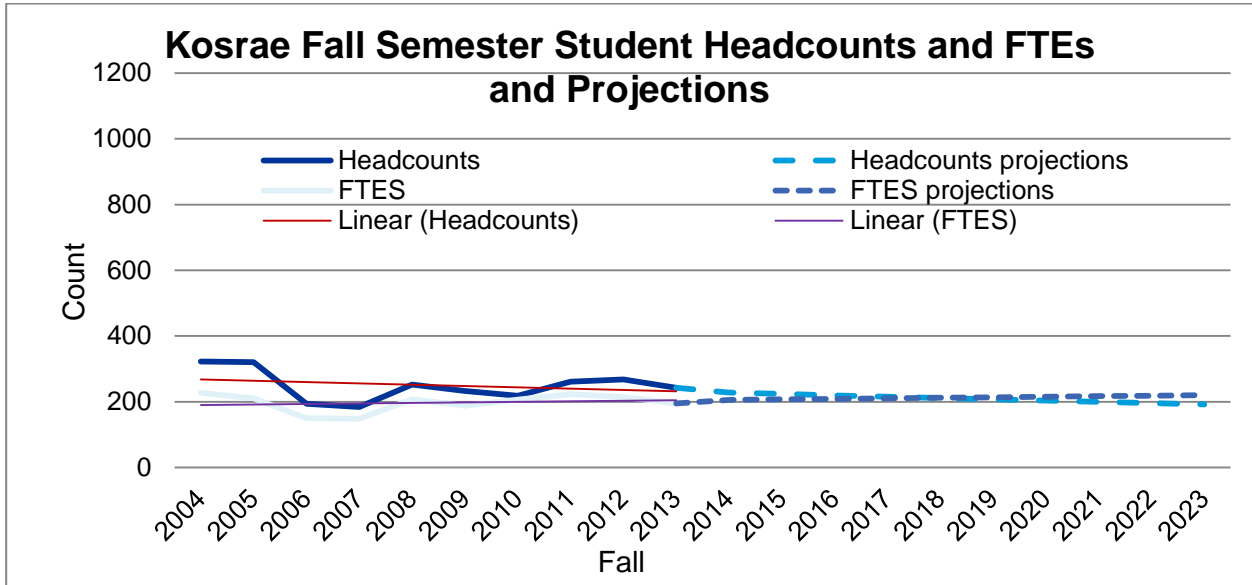
2.2.1 Kosrae Campus Utilization Levels (2008-2012)

High (>75%)	11%
Moderate (>66%)	33%
Low (>50%)	44%
Underutilized (<=50%)	11%
Total	100%

2.2.2 Kosrae Overall Classroom Utilization Rate



2.2.3 Kosrae Campus Historic and Projected Enrolment Trends

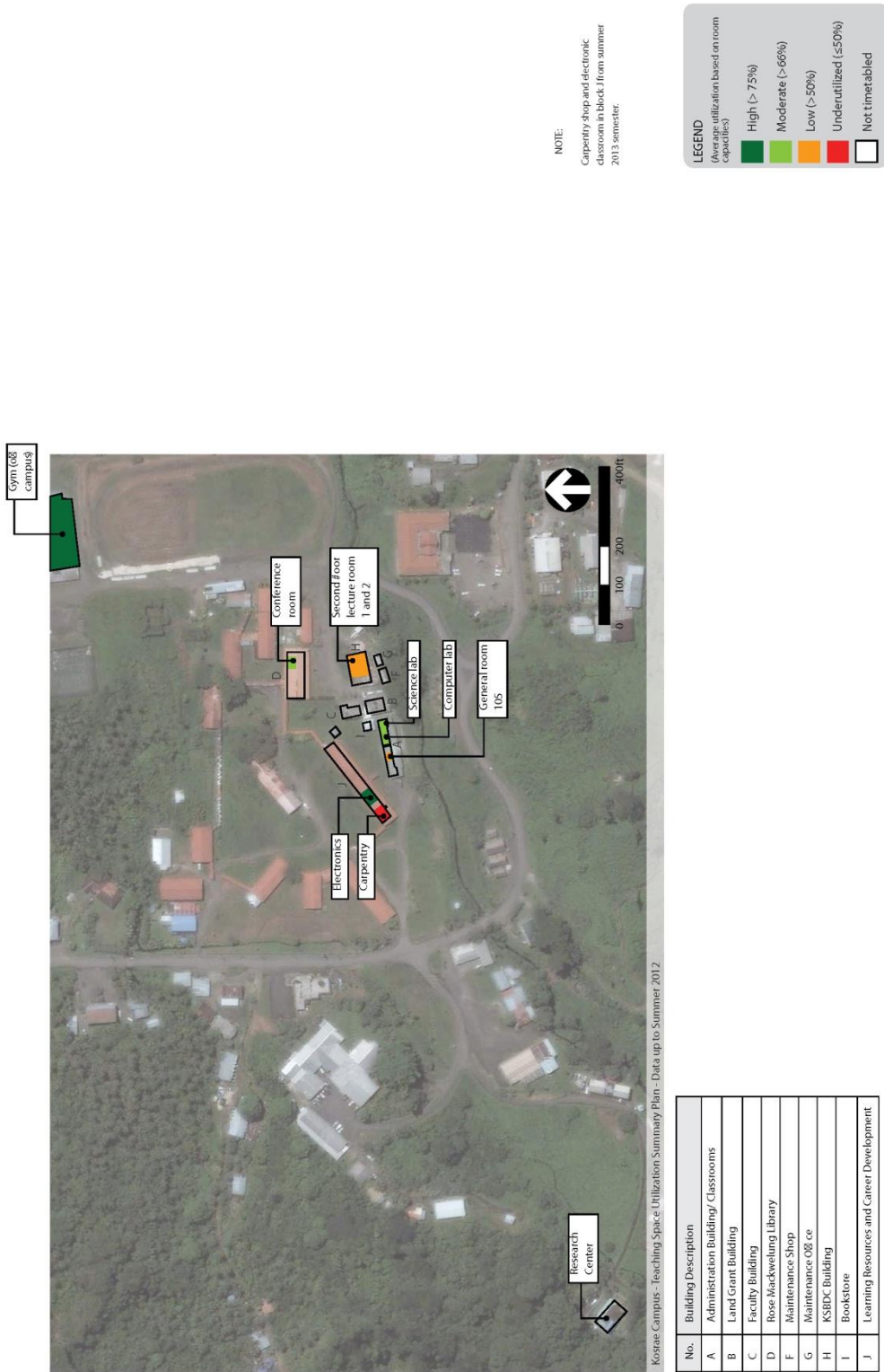


Historic Enrolment										
Semester	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Headcount	322	320	194	184	252	233	218	261	268	243
FTE	227	210	150	148	207	188	207	223	215	195

Projected Enrolment										
Semester	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Headcount	228	224	220	216	212	208	204	200	196	192
FTE	206	207	209	210	212	214	215	217	218	220

2.2.4 Space Utilization Summary Plan

Kosrae Campus



Kosrae Campus - Teaching Space Utilization Summary Plan - Data up to Summer 2012

No.	Building Description
A	Administration Building/ Classrooms
B	Land Grant Building
C	Faculty Building
D	Rose Mackwelung Library
F	Maintenance Shop
G	Maintenance Office
H	KSBD Building
I	Bookstore
J	Learning Resources and Career Development

3 Spatial Review

Key Points for the Long Term Plan:

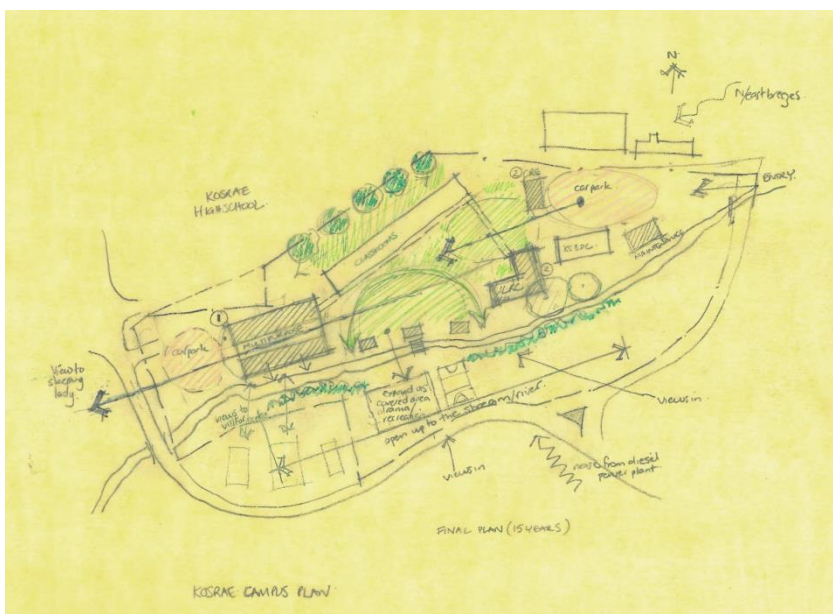
1. Make the best of the natural setting in the future placement of buildings and planting
2. Provide spaces that enable study beyond the classroom particularly sheltered outdoor areas
3. Consolidate the student services areas
4. Provide for active recreation areas

3.1 Design Concept Plans

The design concept plans prepared during the site visit in August/September illustrate the option developed. They have been derived from a combination of the input received from students, faculty and staff, the site visit observation and key messages from the utilization study. These broad concepts show the design moves prior to project costing and evaluation against projects identified for all other campuses. Refer to Part 2 – Common Report for the full schedule of projects across all campuses.

The concept drawing considers the following inputs from the spatial review:

- Activity zones
- Range of people spaces on campus
- Circulation - pedestrian and vehicular
- Building and landscape character
- Infrastructure including energy efficiency



3.2 Focus Group Summary

3.2.1 Faculty focus group

A staff focus group meeting was held between 12pm to 1pm on Monday the 2nd of September, 2013.

This session provided an opportunity for faculty staff to discuss positive features of the campus and any issues with regard to facilities on site. Six faculty staff attended the meeting

The issues raised from this group were:

- Main office space is congested with three functions in a small area – no space to counsel students
- Need an area for all campus meetings (up to 300 seated) and ideally a space that can function as a drama space, recreation area. Potential revenue generating space
- Programs looking to provide in the future are auto repair, small engine repair and building technology
- Upgrade the stream area
- Provide a parking lot with structured car park spaces
- Water is an issue – face rationing after a week without rain
- Want to look at alternative energy solutions – solar, hydro from the stream?
- Store replacement approved air conditioning units on campus so they are available when needed
- Disaster preparation - need to have assembly point and drills
- Need a space for high school tutoring program – 50 students in the program, 10 tutors. One on one tutoring
- Agriculture students need access to a shower
- Need to open up aspect to the visitor centre - currently hidden from view
- Limitation to distance learning - video conferencing capability linked to internet speed
- Use the other side of the site across the stream

3.2.2 Student focus group

A student focus group was held between 1.15pm and 2pm on Monday 2nd of September. This session provided an opportunity for students to discuss positive features of the campus and any issues with regard to facilities on site. Twenty student representatives attended the meeting.

A one page question outline was provided as a prompt for discussion. This sheet provided an opportunity for students to leave any further comments. Eighteen questionnaires were received.

Positive attributes commented on was the refurbished classroom block J.

Issues raised in order of priority for the current site were:

1. Cover over the walkway
2. Parking lot gets very muddy
3. Transportation is an issue sometimes limiting attendance – sea and land

4. Need more huts – outdoor places to study



5. Place needed for a drama class, multifunctional potential - combine with another use (recreation)
6. More food available on site
7. Need for a location for the SPA offices, play pool
8. Walkways next to classrooms are a distraction for teaching
9. None of the buildings are designed and built for the function they contain
10. Flooding on campus

Information gleaned from focus group questionnaires completed by students also included:

- Transportation to and from the campus – bus/coach has been suggested as many students taxi. A boat also for trips back to students villages over weekends.
- A cafeteria is needed
- Sports facilities/gymnasium – particularly space for basketball and volleyball.
- Dorms
- Break-out space for study and students free time.
- Shelter over pathways for when it is very hot and very wet.
- Electricity back-up through solar or diesel generator
- Library too small and poorly equipped
- Huts for outdoor study area and areas to sit outdoors
- Student centre
- Auditorium
- Parking near building or cover footpaths
- Computer lab is very small and too few computers
- Pave the road into the campus

- Pick-up/drop off areas should be covered – rain
- More toilets
- Internet speed is very slow.
- Plant more trees for shade
- Drama facilities
- Shower rooms

3.2.3 Staff focus group

A staff focus group meeting was held between 2pm and 4pm on Monday 2nd of September. A similar format was followed to the faculty focus group. 23 staff attended and eleven completed questionnaires were received.

Issues raised for the Facilities Study were:

- IT needs a dedicated and secure server room, place to repair and store computers as well as office space for two people
- Bookshop requires more storage space
- Administration area gets congested with students and staff accessing the printer
- Carpentry near Learning Resource Centre is not an ideal adjacency
- Car park space is an issue (note: there is no demarcation of car park spaces)
- Need an additional classroom for decanting – when there is a need to repair and fix classrooms
- Need more maintenance storage – furniture
- CRE requires more storage and a secure place to put fertiliser

A summary of key points received in the questionnaire are:

- Office space in administration is limited
- Landscaping and central element such as an amphitheatre
- More car parking for all users
- Need for an on campus recreation facility
- Separate staff car parking from student parking
- Fire safety measures such as fire sprinklers and emergency exits very limited
- More space needed for all buildings including classrooms and offices
- No air conditioning at the security guards building
- Improve the atmosphere
- Separate classrooms, administration block and maintenance shop
- Both entrances need to be relocated for better access
- Offices need more storage and shelving and more space for one on one meetings with students
- Generally more space is needed in class rooms and offices.
- More toilets
- Separate noisy activities from other activities
- Better signage for navigating the campus
- Better access to offices from car park

3.3 Spatial Analysis

Key issues raised in the Focus Groups to inform the development Strategy

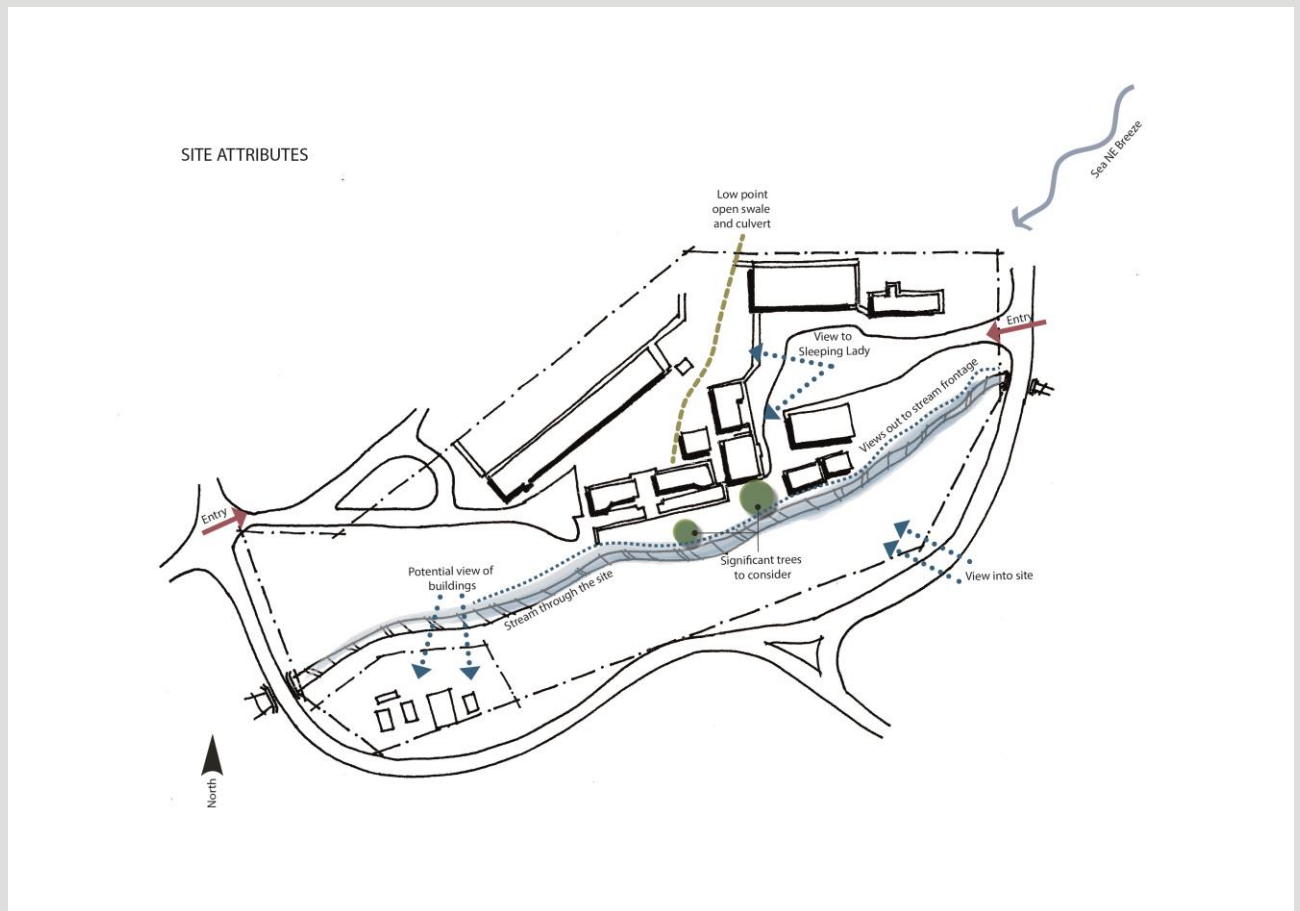
1. Spatial issue - common to more than one group was the lack of space for small groups to study, quiet study space, one on one counselling and a place where larger groups could come together and the size of the administration area.
2. Infrastructure issue - A secure space for servers and Wi-Fi speed was raised by more than one group
3. Site layout issue - Making the most of the current setting of the campus with clear entry points and clearing up the stream and trees in the right locations was another important point. There is a perception that the extent of the campus is not clear particularly with the scale of the adjacent high school buildings. Organisation of the parking lot and marking of car parks would benefit the campus.
4. Recreation issue – no area on site for active recreation was raised by more than one group – this is important as it is part of a whole campus life experience

A review of the existing components that contribute to the physical environment and the look and feel of the campus are outlined in the following tables. Divided into different aspects these include the contextual response to the site, activity zones, building function and form, open space and circulation. This analysis forms one of the inputs into the concept development and project identification.

Context and response – Identifying the existing site features

Key attributes

- Two road frontages and entries
- View to hills in background
- Stream runs through the site
- Area across the stream that could be developed



View to the sleeping lady - ridge line of hills in the background - opportunity to capture and frame views with future development



Visitor centre across the stream could be made more visible from the campus



Views to the stream and access could be improved by clearing out vegetation and extending rip rap to bank edges

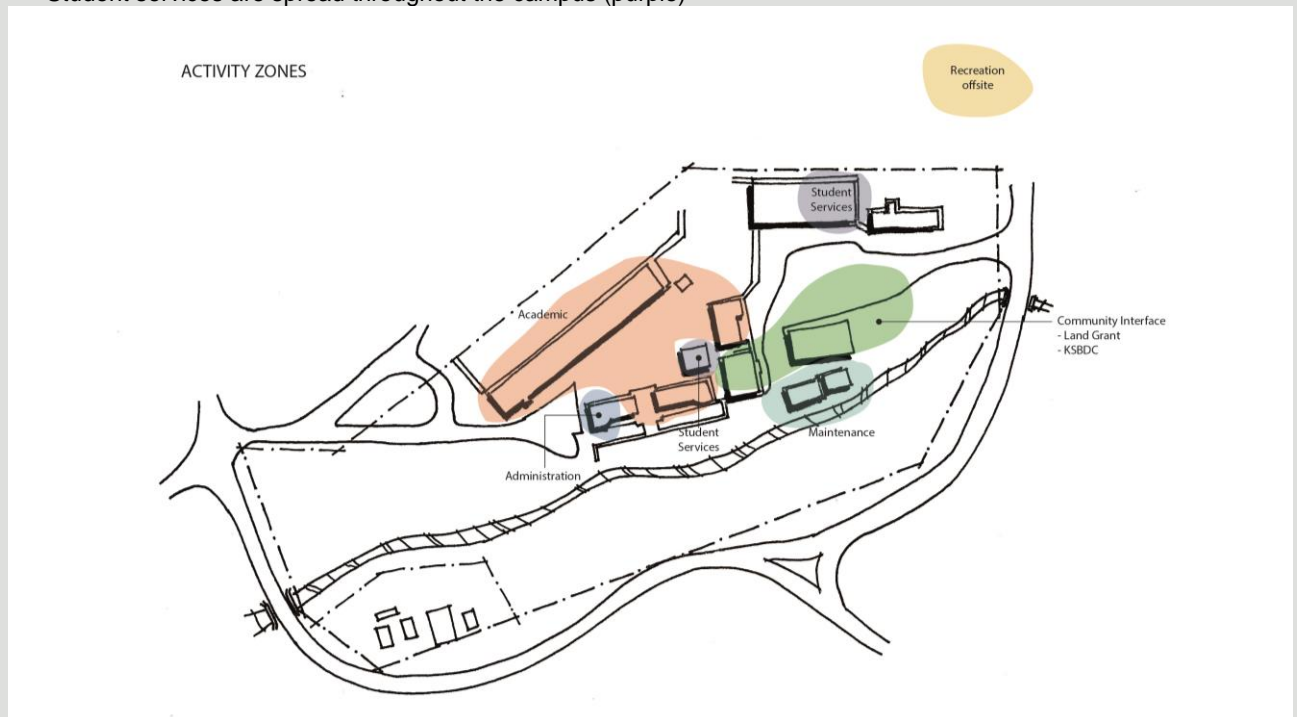


The open area could be more readily used with improvement to drainage across the site

Activity zones – grouping areas with common functions together

Existing (refer to diagram)

- Academic area is in the centre of the campus (coloured red)
- Community accessed buildings are located together at the eastern end of the site (coloured green)
- Student services are spread throughout the campus (purple)

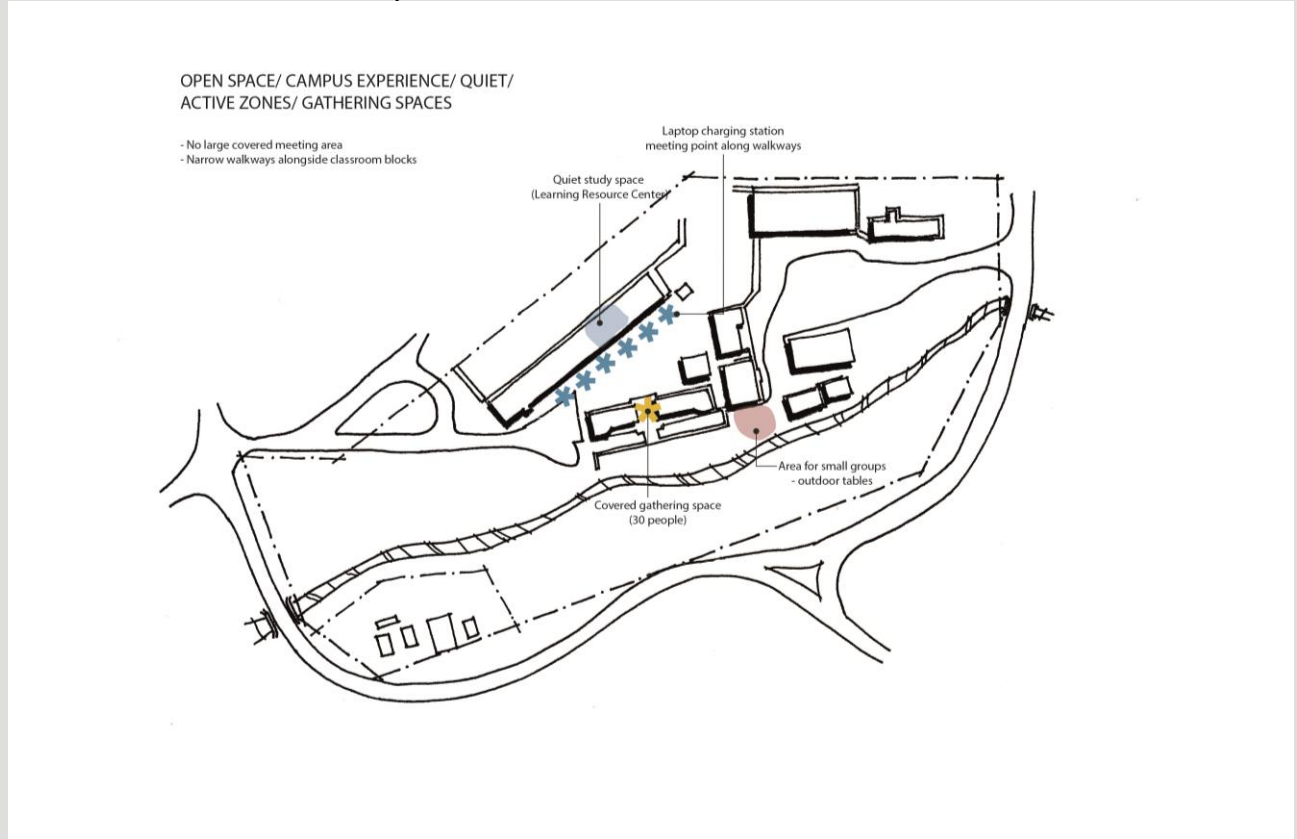


Points to consider for future planning

- Increase the public face and interface with the community by consideration in the design and location of any new buildings visible from the road frontage
- Consolidate the student services facilities

Types of people spaces – individual, small groups or communal gathering spaces

- Covered central area in Administration Building B is a successful meeting space - need more spaces like this
- Outdoor meeting space under trees along the stream frontage
- No outdoor recreation - i.e. volleyball area



Points to consider for future planning

- Provide areas from small groups (up to 5) outside for quiet study / places to meet away from the classroom walkway
- Provide space for a volleyball area - either along northern side of Building J or across the stream – allowance for 80ft x 50ft in area



Seating areas along the streamside under the large existing trees



Raised and covered area in the centre of the administration block



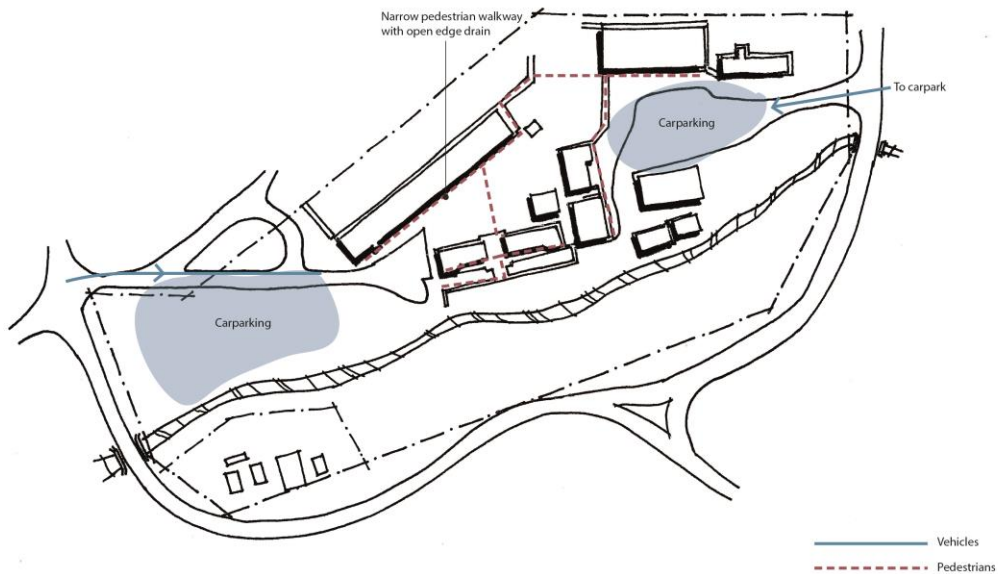
Laptop charging station (blue box area) need to provide a larger covered area



Potential for volleyball areas with surrounding trees for spectators

Circulation – the way vehicles access the site and how pedestrians move around the site

CIRCULATION



- Two distinct car park areas
- Disabled access is provided across the campus with formed walkways -width and level changes on the path edges are areas for improvement
- Walkways along the classroom block are narrow with a level change on the edge



Narrow pedestrian walkway – suggest localised areas for seating to break up the length of the path and provide places for seating



Entry car park from the main road entry

Points to consider for future planning

- Maintain the concept of two entries with a car park area servicing each entry area
- Provide a dedicated and more efficient car park layout that is clearly legible for users
- Provide clear and consistent access across the campus for people with disabilities

Building and landscape character – look and feel of the campus

- The campus does not have any defined edges and looks as if it is part of the high school campus
- At three storeys high the scale of the high school campus buildings overpower the COM-FSM campus
- Mix of building styles and no clear building hierarchy



High school block to the north of the campus – COM-FSM campus to the right of the photo



Mix of building styles

Points to consider for future planning

- Provide a clear landscape and open space structure plan to define the campus edges and tie the spaces and buildings together as a whole
- Consider two storey building forms to consolidate and raise the presence of the campus

Infrastructure - the services that enable the campus to operate

Points to consider for future planning

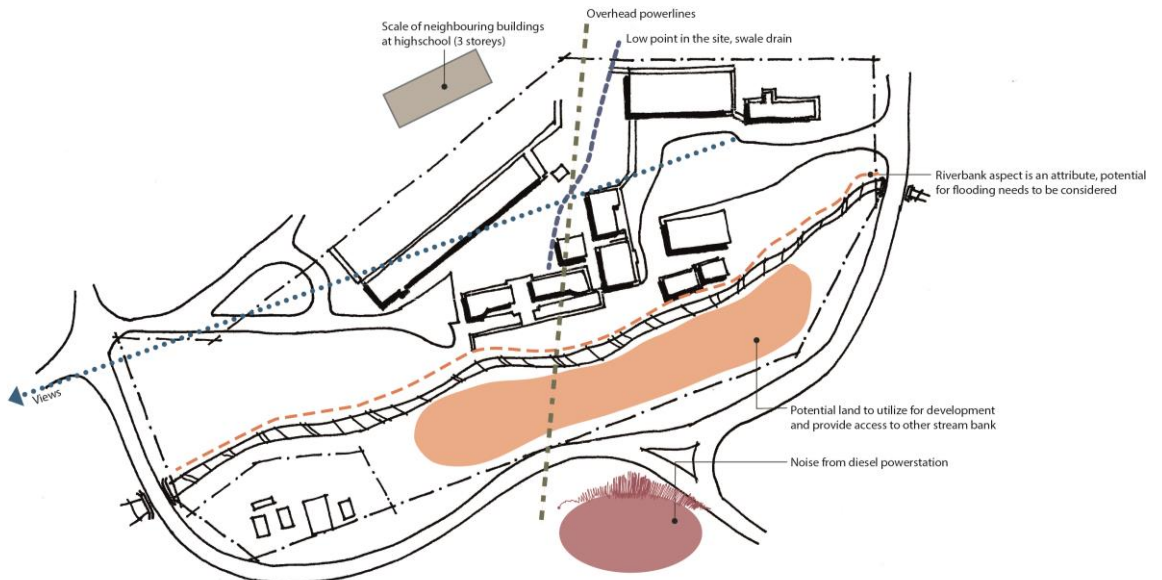
- Town water supply availability -investigate alternative supply options
- High voltage power lines crossing the site - move the centre of the campus to the west
- Preparedness for Tsunami – incorporate with other state actions
- Flooding potential from the stream - raise buildings above flood level
- Ponding in the central areas - look at ways to increase drainage to create areas that can be accessed and used by students



Power lines crossing through the middle of the campus





Drainage and culvert through the centre of the site






3.3.1 Existing building profile and considerations for future planning

Building	Outline
<p>A – Administration Building/ Classrooms</p>  <p>Points to consider for future planning – Administration could be relocated closer to main entry</p>	<p>Building A has administration, classrooms, toilets and a covered area for students (pictured)</p> <p>Location for its function – in the centre of the Academic zone</p> <p>Quality and suitability of spaces for its function – Administration has limited space, provision of student services facility would high student demand in this area</p> <p>Disabled access - Ramp access and accessible toilet</p> <p>Teaching spaces – general classroom, computer lab and specialized science classroom</p> <p>Amenities, toilets - men (1 urinal/ 1 toilet), women (2 toilets), accessible toilet</p> <p>Building condition points - Repair corrosion to steel framed floor and decayed timber flooring immediately as this is a health and safety issue.</p> <p>Building age – 1998, 14 years (refurbished 2010 and 2012)</p>
<p>B – Land Grant Building</p>  <p>Points to consider for future planning – Good location currently - options are to relocate to the research centre off site or closer to the eastern entry to make space for development of the academic zone when required</p>	<p>Building B is a single storey building occupied by the research extension facility</p> <p>Location for its function – Good location in the community interface activity zone, adjacency other facilities in this zone including KSBDC and library</p> <p>Quality and suitability of spaces for its function – Adequate – need for additional storage for extension activities</p> <p>Disabled access - nil</p> <p>Teaching spaces - nil</p> <p>Amenities, toilets - 1 unisex staff toilet</p> <p>Building condition points - Need for membrane replacement to roof and address water ponding</p> <p>Building age – 1999, 13 years old , repainted 2010 and 2012</p>
<p>C – Faculty Building</p>	<p>Building C is the faculty building with two spaces - one of the rooms remains empty with relocation of the teaching space into the refurbished Building J</p> <p>Location for its function – in the academic zone and in the centre of the campus</p> <p>Quality and suitability of spaces for its function –</p>

Building	Outline
 <p>Points to consider for future planning – Building blocks access through the centre of the site. Currently only half of the building is being used</p>	<p>spaces for faculty to assist students would be useful</p> <p>Disabled access - access ramp</p> <p>Teaching spaces - nil</p> <p>Amenities, toilets - nil</p> <p>Building condition points - The building has leaking issues that have not only had an effect on the structure but also the finishes. The interior environment is musty and damp.</p> <p>Building age – 2000, 12 years old, repainted 2010 and 2012</p>
<p>D – Rose Mackwelung Library</p>  <p>Points to consider for future planning – Relocate functions out of this building as it as the building is not part of COM-FSM campus</p>	<p>Half of Building D is used for a state library function and the other half has COM-FSM student services and a conference room</p> <p>Location for its function – Located at the outermost edge of the campus - functions would ideally be located in the closer to the academic activity zone</p> <p>Quality and suitability of spaces for its function – spaces are small and separated from the bookstore and other student services</p> <p>Disabled access - level access</p> <p>Teaching spaces – one conference room</p> <p>Amenities, toilets -1 men’s and 1 women’s toilet</p> <p>Building condition points - Building fabric has deteriorated</p> <p>Building age – 1980, 32 years repainted in 2010</p> 

Building	Outline
<p>F – Maintenance Shop</p>  <p>Points to consider for future planning – Consider a similar location in the long term, potentially further towards the entry and combined with security</p>	<p>Building F is an open area maintenance shop</p> <p>Location for its function – Located on the boundary behind the KSDBC, good location away from the academic zone</p> <p>Quality and suitability of spaces for its function - Building condition points - Asset is run-down but is functioning as intended. We are uncertain about the condition of the substructure and this needs monitoring. Consider strengthening/propping to roof trusses. Maintain as necessary for building to function. Review in 2018</p> <p>Building age -2004 , 8 years, partially repainted in 2007</p>
<p>G – Maintenance Office</p>  <p>Points to consider for future planning – Consider a similar location in the long term, potentially further towards the entry and combined with security</p>	<p>Building G is the maintenance office</p> <p>Location for its function - Located on the boundary behind the KSDBC, good location away from the academic zone</p> <p>Quality and suitability of spaces for its function – Adequate spatially but could have more permanent structure</p> <p>Building condition points - Targeted regular maintenance and cleaning. Repair exposed reinforcing and concrete spalling immediately</p> <p>Building age – 2004 , 8 years old, partially repainted 2007</p>

Building	Outline
<p>H – KSBDC Building</p>  <p>Points to consider for future planning – Consider space around the building - formalise car parking paths to entries</p>	<p>Building H is the Kosrae Small Business Development Centre. COM-FSM occupies the second floor with two classrooms, a meeting room seating up to 10 people and the instructional coordinator. Toilets are provided on the ground floor.</p> <p>Location for its function – Community facilities on one edge of the campus co located with CRE - Extension</p> <p>Quality and suitability of spaces for its function - Adequate</p> <p>Disabled access - No lift provided</p> <p>Teaching spaces – Two teaching spaces</p> <p>Amenities, toilets - Toilets on the ground floor, 2 male, 2 female</p> <p>Building condition points - Targeted regular maintenance and cleaning. Review waterproofing (some leaks observed) and repair immediately. Replace roof by 2023.</p> <p>Building age – 2007, 5 years, not yet repainted</p>
<p>I - Bookstore</p>  <p>Points to consider for future planning – Remove building in the medium term (within 10 years) or consider a retrofit into an open sided computer recharge station and study area</p>	<p>Building I is the Bookstore</p> <p>Location for its function – Located in the academic zone</p> <p>Quality and suitability of spaces for its function – More storage is a requirement as well as space for both fiscal office and bookstore functions</p> <p>Disabled access - nil</p> <p>Teaching spaces - nil</p> <p>Amenities, toilets - nil</p> <p>Building condition points - Generally cladding and linings require repair</p> <p>Building age -2007, 5 years old, repainted 2010 and 2012</p>

Building	Outline
<p>J - Learning Resources and Career Development</p>  <p>Points to consider for future planning – Building can be retrofitted for a range of functions including offices</p>	<p>Building J is has the following rooms – carpentry shop, maths/ electronic classroom, electronic repair shop, electronics classroom, computer lab, library study area. Three further rooms at the eastern end of the block are a Dept. of Ed Dressmaking classroom, agricultural and food tech classroom and an AHEC office</p> <p>Location for its function – In the centre of the academic zone</p> <p>Quality and suitability of spaces for its function – Teaching spaces are a good size/ shape. The Learning Resource Centre layout is a good configuration with access to the library off the computer lab area</p> <p>Disabled access - Level access, narrow walkway with uncovered drain and edge drop off is not ideal for accessible access</p> <p>Teaching spaces – 2 classrooms, 2 seminar sized spaces</p> <p>Amenities, toilets - adjacent toilet building</p> <p>Building condition points - No significant issues</p> <p>Building age - Built 1980 - 32 years old, renovated 2010 and 2012</p>

3.4 Accommodation Review

A review of the COM-FSM standard spatial target has been completed. Where this COM-FSM target figure differs from the American Institute of Architects standard this is noted.

The spatial assessment summary in the shaded box at the end of the table outlines the additional space required. This area is incorporated into the new building accommodation schedules at the end of the chapter.

3.4.1 Facilities ratios

Item	Number
Number of students	243
Number of faculty and staff (from general catalogue 2013 - 2014)	35
2018 design figure (informed by the projected headcount in the space utilization review – Chapter 2 of this report)	212

Item	COM-FSM standard target	Provided on Kosrae campus
Parking stalls	1 stall for each faculty, 1 stall for each staff member and 10% of students	<p>Aim is up to 35 faculty and staff parks and 21 student parks.</p> <p>58 stalls are shown on the Master Plan</p> <p>Adequate car parking available</p>
Toilets	<p>Two indicators</p> <ol style="list-style-type: none"> 1. Aim is for toilet block at each teaching building 2. From 2006 – 2012 strategic plan – 1 female toilet for every 30 students, 1 male toilet for every 40 students. Reference taken from American Institute of Architects 10th edition. 	<p>Assumption: no dedicated staff facilities so toilets are considered for staff and student use</p> <p>Target is based on 247 staff and students. Require 4 women's toilets and 3 men's toilets</p> <p>Number currently provided: 5 men, 5 women, 1 unisex accessible.</p> <p>Adequate toilet provision within the current buildings.</p> <p>Accessible toilet facilities - one toilet in the administration building</p> <ol style="list-style-type: none"> 1. KSBDC building – 2 men, 2 women 2. Rose Mackwelung building - men (1

Item	COM-FSM standard target	Provided on Kosrae campus
		toilet), women (1 toilet) 3. Administration building – men (1 urinal/ 1 toilet), women (2 toilets)
Drinking water	Accessible drinking water	Provided as bottled water as seen outside the Bookshop
Teaching space per person	25ft ² per student (AIA is 30ft ²) Refer to findings of the space utilization study	2 large classrooms 1100ft ² (100msq) 5 medium sized classrooms area 700ft ² (65msq) 1 small seminar space 320ft ² (30msq)
Computer Laboratory	25ft ² per student (AIA is 40ft ²) (2.4msq)	Computer lab is approximately 1000ft ² (room for 40 students) adequate space for 1:5 ratio Adequate space provided
Small group study / study carrels	25ft ² per student (AIA is 50ft ² for reading rooms)	LRC is approximately 1000ft ² . Assume 50% area for stacks = 500ft ² (room for 20 students), require space for at least 30 students to study (1:7 ratio) Adequate space provided
Shops/ vocational rooms	50ft ² per student (4.7msq)	Carpentry and electrical room are 700sqft – space for 14 students Adequate space provided
Private office	100ft ² per person (9.3msq)	Minimal number of offices provided on the campus – future administration offices should be designed for more than one occupant for efficient use of space unless the function requires an alternative solution (i.e. counsellors)
Private office with meeting area	150ft ² per person (14msq)	Deans office is currently around 100sqft , Any move should consider increase to 150sqft for this function
Work station	60ft ² per person (5.6msq) Common filing area 60ft ² per person (5.6msq)	Open workstation area for administration in Building A is currently around 200ft ² . Allowing for common filing and circulation the area for three staff

Item	COM-FSM standard target	Provided on Kosrae campus
		requires additional 160ft².
Faculty work station with side chair	80ft ² per person (7.43msq)	Faculty area is approx. 600ft ² . Room for 7 faculty, currently 12 faculty. Require space up to double this size.
IT space, server room and area to fix machines	Require 500sqft for a state campus - separate secure server room, IT office and area to fix computer equipment. Ideally an additional storage area adjacent if space allows	Area is 150sqft without a separate server area. Additional 350sqft required.
Spatial assessment summary		IT/office server room requires an additional 350sqft Faculty area requires an additional 600sqft Consider additional 50sqft for Deans office

3.4.2 Accommodation schedules – new buildings

Building 1 – New multipurpose building (Stage 1) – informed by the recently completed Yap campus Student Center sizes		
No	Room name	Area (sqft)
1.01	Bookstore	200
1.02	Fiscal office	200
1.03	Snack bar/ canteen	100
1.04	Student Body Association meeting room and separate office	200
1.05	First Aid room	200
1.06	Counsel	150
1.07	Counsel	150
1.08	Waiting/ group counsel	150
1.09	Female Toilets (2 WC one being disabled access, 2 basins)	170
1.10	Male Toilets (2 WC one being disabled access, 3 urinals, 2 basins)	170
1.11	Open multipurpose area (similar to Yap student centre)	1600
1.12	Electrical cpd	150
1.13	Server room	100
1.14	IT office	200
1.15	IT work shop/store	200
1.16	Admission and records (including storage/archive area)	500
1.17	Financial aid office and records	300
1.18	Cleaner	40
1.19	Store	60
1.20	Learning Resource Centre - library including circulation counter	1200
1.21	Librarian office	200

Building 1 – New multipurpose building (Stage 1) – informed by the recently completed Yap campus Student Center sizes		
No	Room name	Area (sqft)
1.22	Computer lab including AV viewing	1200
	Subtotal - rounded	7440
	Circulation and wall thickness @20% - circulation on ground floor included in multipurpose area	1500
	TOTAL (rounded)	8900

Building 1 – New multipurpose building (Stage 2)		
No	Room name	Area
1.30	Dean's Office	150
1.31	Administration	250
1.32	Conference room	300
1.33	Business office	300
1.34	Student services coordinator	150
1.35	Instructional coordinator	150
1.36	Multipurpose area	500
	Subtotal	1800
	Circulation and wall thickness @20%	350
	TOTAL (rounded)	2150

Building 2 – New Maintenance facility		
No	Room name	Area
2.1	Maintenance office (area for 2 people)	200
2.2	Maintenance shop	600
2.3	Storage for equipment - mowers	300
2.4	Male toilet	50
2.5	Female toilet	50
2.6	IT storage and storage for others	600
	Subtotal	1800
	Circulation and wall thickness @15%(less than 25% as this is a small building)	250
	TOTAL	2050

Building 3 – New CRE building (excludes Research Laboratory)		
No	Room name	Area
3.1	General office (2 offices) 3.1a and 3.1b @150 each	300
3.2	Demonstration room/food prep 2 @ 300 each	600
3.3	Preparation room and loading dock	150
3.4	Toilets (2 separate toilets and shared washbasin in)	300
3.5	Disabled toilet	40
3.6	Utility electrical room	40
3.7	Shared lab storage	100

Building 3 – New CRE building (excludes Research Laboratory)		
No	Room name	Area
3.8	Cleaner	60
3.9	Training classroom	650
	Subtotal	2240
	Circulation and wall thickness @25%approx	560
	TOTAL	2800

Building 4 – New LRC building (two levels)		
No	Room name	Area
4.1	Learning Resource Centre - library including circulation counter	2000
4.2	Librarian office	200
4.3	Computer lab including AV viewing	2000
4.4	Male and Female Toilets 2 @ 150 each	300
4.5	Disabled Toilet	40
4.6	Electrical cpd	40
4.7	Storage	100
4.8	Cleaners cpd	60
4.9	Study space	1000
	Subtotal	5740
	Circulation and wall thickness @25%	1400
	TOTAL (rounded)	7000

Building 5 – Multipurpose sports/ drama building		
No	Room name	Area
5.1	Open area to seat 300 or volleyball court size	4000
5.2	Entry lobby	300
5.3	Male and Female Toilets 2 @ 150 each	300
5.4	Disabled Toilet	40
5.5	Utility electrical room	40
5.6	Storage	100
5.7	Cleaner	60
	Subtotal	4840
	Circulation and wall thickness @20%	960
	TOTAL	5800

3.4.3 Building area changes over five year periods

Existing square feet (Fall 2013)	Remove buildings to 2018 (sqft)	Add buildings to 2018 (sqft)	Area in 2018
23,400	Faculty (1500) Bookstore (400) Rose Mackwelung – move out of this space (1800)	Stage 1 multipurpose (8900)	28,600

Existing square feet (Fall 2018)	Remove buildings 2018 – 2023 (sqft)	Add buildings 2018 – 2023 (sqft)	Area in 2023
28,600	Admin building (3100). Maintenance (1500)	Stage 2 multipurpose (2150) Maintenance(2050)	28,200

Existing square feet (Fall 2023)	Remove buildings post 2023 (sqft)	Add buildings post 2023 (sqft)	Area beyond 2023
28,200	CRE (1600)	CRE (2800) LRC (7000) Multipurpose sports/ drama (5800)	35,200

4 Condition Assessment

Key Points

The Operational budget for Years 1-10 for the Kosrae campus is recommended to be in the order of \$US2.91M (\$US291, 000 average per annum). The operational cost equates to 4.05% of the estimated 2013 replacement value which is at the higher end of expectations (3-4% expected), but reflects the condition of the assets and highlights the need for investment in maintenance and asset renewal.

4.1 Kosrae Campus Building Condition Review

4.1.1 Introduction

Beca International Consultants Limited (Beca) carried out an Asset Condition Assessment of the existing buildings and site infrastructure located on the Kosrae campus for COM in June 2013.

The purpose of this Asset Condition Assessment Report is to record the existing condition of the COM-FSM assets (buildings and site infrastructure) so that:

1. The indicative cost of operating the COM-FSM assets through a 10, 20 and 30 year life cycle is identified and,
2. Decisions to either renew/upgrade or to demolish/replace the existing assets can be made.

This Asset Condition Assessment chapter gives each asset an indicative condition grade, identifies the asset replacement cost, and the cost of operating (renewing and maintaining) them. This chapter read as part of the overall Facilities Study is intended for use as the base reference for campus planning decisions. It should be noted that the costs presented in this Asset Condition Assessment chapter assume that the existing assets will be renewed, refurbished and maintained (with the exception of some buildings which are demolished). Any buildings which are replaced by the current campus planning process (and subsequent changes in annual operating costs) are not included in this Asset Condition Assessment Report

The findings of this report are based on the on-site Condition Assessment conducted by Beca in June 2013. It should be noted that a visual assessment only has been carried out and that no in-depth investigations have been possible. No detailed structural or seismic strength investigations have been undertaken.

4.1.2 Scope of Condition Assessment and Key Outputs

The scope of the Condition Assessment covers 9 No. existing buildings (excluding minor support structures and buildings) and site infrastructure located within the Kosrae COM-FSM campus plus 2No. off-site buildings (Research Laboratory and attached toilet block). The key tasks undertaken to complete this report include:

- The Kosrae campus was visited in June 2013 to photograph and record visual defects in the buildings and site infrastructure.

- Data gathering and making observations.
- Grading the condition of each building asset (against a pre-determined set of criteria) and collating this to establish an overall condition grade for each asset.
- Assess the physical condition of the built assets (i.e. buildings and site infrastructure). Establish baseline condition to enable Life Cycle cost analysis.

The key outputs of this report include:

- A general overview of the current condition of the assets.
- A condition appraisal of each building (with the exception of minor structures) and the site wide infrastructure – Refer Appendix ‘B’ – Asset Condition Assessment Dashboard.
- Site observations and records of the existing site infrastructure
- Estimate of the potential replacement cost of each asset.
- Estimate the Operational Cost (Asset Renewals plus maintenance) of the assets as they currently exist. NOTE: the Operational Cost contained in this Condition Assessment assumes that all current assets are retained and maintained. Alternative Operational Costs for the proposed campus re-development are noted separately in this overall report
- Provision of an indicative Maintenance and Asset Renewal Plan. This gives indicative regular maintenance activities, timeframes for asset renewals and estimated costs (Note: costs indicated for maintenance and asset renewals exclude escalation and should not be used for budgeting purposes). Refer to Appendix ‘C’ for details on the Indicative Maintenance and Asset Renewal plans.

4.1.3 Reference to Part 2 Detailed Report – Common to all campuses

Additional (and more general) information pertaining to the Kosrae Campus Asset Condition is contained in the “College of Micronesia – FSM Space Utilization and Facilities Master Plan Study, Part 2 Detailed Report – Common to all Campuses”. This report contains (but is not limited) to the following information;

- Scope of condition assessment and key outputs,
- Definitions,
- Methodology of condition assessment and information collection,
- Condition grading system and building elements assessed,
- Forecast operational costs,
- Escalation and economic assessment
- Results/findings and conclusions/recommendations.

4.1.4 Forecast of Operational Costs

The forecast Operational Costs have been prepared as follows;

1. Develop the Maintenance Cost Plan. This is the cost of annual routine maintenance and includes building washing, painting, repairs and maintaining building services (mechanical, electrical fire etc.). This cost has been established by multiplying quantities (e.g. wall area) by an appropriate \$/ft² rate for washing or painting. To this an allowance for general overheads (e.g. supervision, vehicle running expenses etc.) has been added.
2. Develop the cost of periodic element Renewals. From the condition grade assessment and amount of remaining life in the building element the date and cost of renewal is determined (e.g. a roof with 10 years life remaining has been budgeted for replacement in 2023). For the COM-FSM campuses the cost of renewals has been viewed over 10, 20 and 30 year periods.

3. The forecast Operational Cost is established (by adding annual maintenance and periodic element renewal costs). This is annualised or averaged over a 30 year period (i.e. the total operational cost over 30 years divided by 30. It should be recognized that for cash-flow purposes actual operational costs will vary from year to year (depending on the amount of actual renewals required in that specific year). Detailed monitoring and management of the operational cost cash flow on an annual basis will be required by COM-FSM.

4.1.5 Escalation

Escalation over a 30 year period of asset renewals and maintenance is a significant cost. Because of the significant impact of escalation two sets of cost, one which excludes escalation (i.e. present day 2013 costs) and the other which includes escalation have been presented at the main summary level. Escalation has been assumed to be 3.4% per annum for the next 30 years. This is based on an assessment of historical data provided by Mundi (refer web-site address below);

http://www.indexmundi.com/federated_states_of_micronesia/#Economy

It is critical for long term funding purposes that the allowances for escalation are included in all budgets and funding applications.

4.1.6 Results/Findings, Conclusions and Recommendations

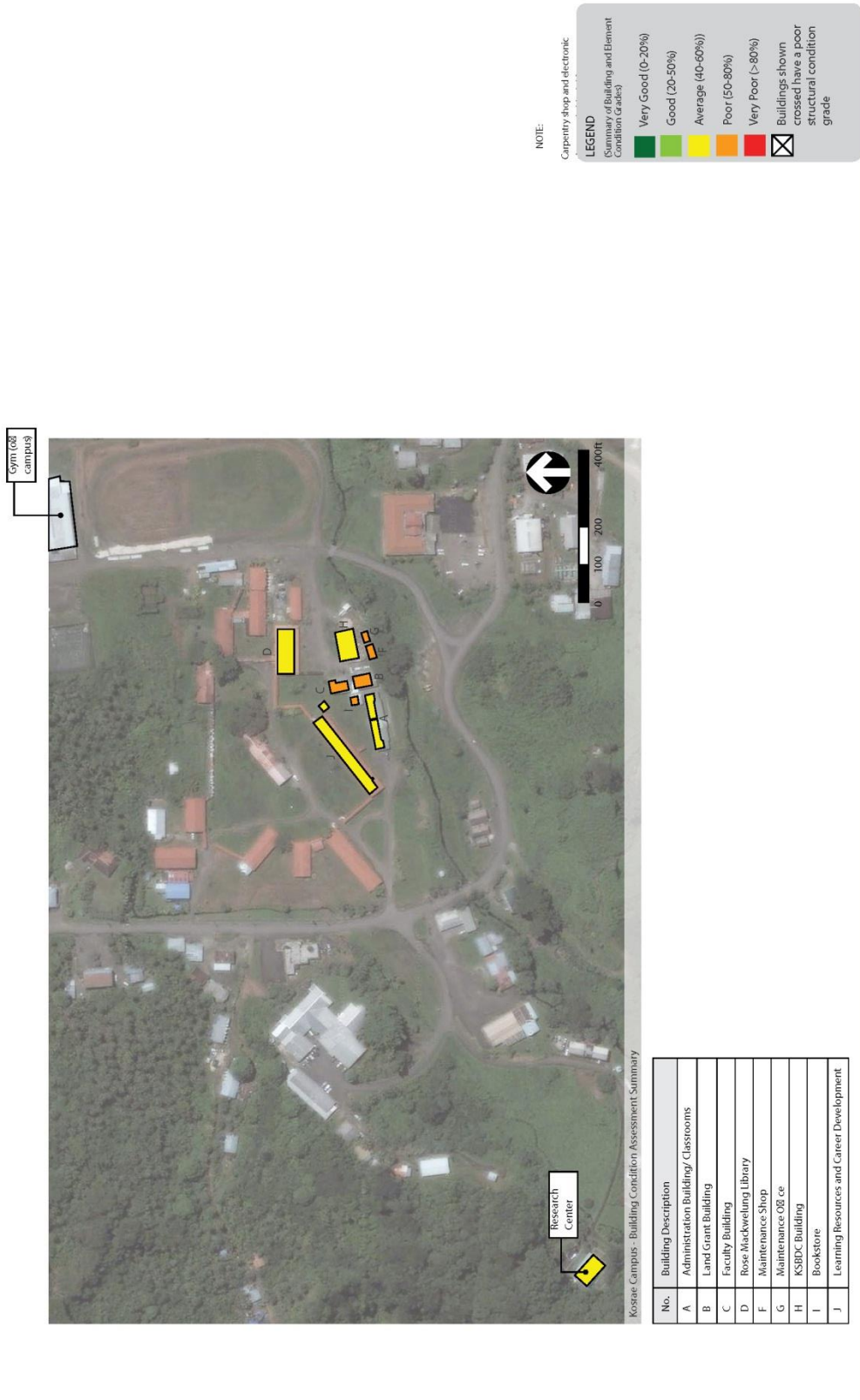
4.1.7 Condition Grade Assessment Results

The following is a summary of the condition grade of the building assets across the Chuuk campus.

Asset	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
A – Administration / Classrooms			✓		
J – Learning Resources & Career Development			✓		
B – Land Grant Building				✓	
I - Bookstore				✓	
H – KSBDC Building (Small Business Development)			✓		
C – Faculty Building				✓	
F –Maintenance Shop				✓	
G – Maintenance Office				✓	
D – Rose Mackwelung Building			✓		
Research Lab (off campus)			✓		
Attached Toilet Block (off-campus)			✓		
Site Infrastructure	N/A	N/A	N/A	N/A	N/A
Total	0	0	6	5	1

4.1.8 Campus condition grading summary plans

Kosrae Campus



From our condition assessment of the Kosrae campus we observe the following:

1. Site infrastructure accounts for an estimated 25% of the estimated operational cost. Site infrastructure includes covered walkways and the condition/repair of these is contributing to this high operational cost.
2. Refer to Appendix B – Asset Condition Assessment Dashboards for a summary of the asset renewal costs and the top five items, on each building or site infrastructure element, needing urgent maintenance, renewal or replacement
3. Six (of the eleven) buildings are rated as condition grade 3 which means that these assets are reaching the end of their serviceable life, but they are still functioning as intended. Five (of the eleven) buildings are rated as condition grade 4 is a 'poor' rating where the buildings are showing significant structural or elemental failure and as such these buildings need on-going monitoring to ascertain whether or not they are economic to operate in the long-term. Targeted regular maintenance on all of the assets is required to extend their life. A clear, well organised asset renewal and routine maintenance plan needs to be developed and this needs to be implemented. An indicative maintenance and asset plan has been included in Appendix C.
4. Maintenance is being carried out but the current Operational budget (\$150,000 per annum for all of the six COM-FSM campuses) is insufficient to meet both maintenance and the periodic renewal of building element requirements. There is a significant amount of deferred asset renewals and maintenance which is increasing the amount of deterioration in the assets.
5. Unless the current Operational budget is increased the condition of the assets will continue to deteriorate and the number of buildings requiring replacement (and consequently additional capital replacement funding) will increase.
6. The Operational budget for Years 1-10 for the Kosrae campus is recommended to be in the order of \$US2.91M (\$US291, 000 average per annum). The operational cost equates to 4.05% of the estimated 2013 replacement value which is at the higher end of expectations (3-4% expected), but reflects the condition of the assets and highlights the need for investment in maintenance and asset renewal..
7. Regular monitoring and review of the asset renewal and routine maintenance plan needs to be carried out

4.1.8.1 Forecast Operational Costs Results

Outlined below are forecast operational costs split into 10 year sections over a 30 year period. Note that costs including and excluding escalation are identified. Funding of the operational costs should be based on the costs that include escalation.

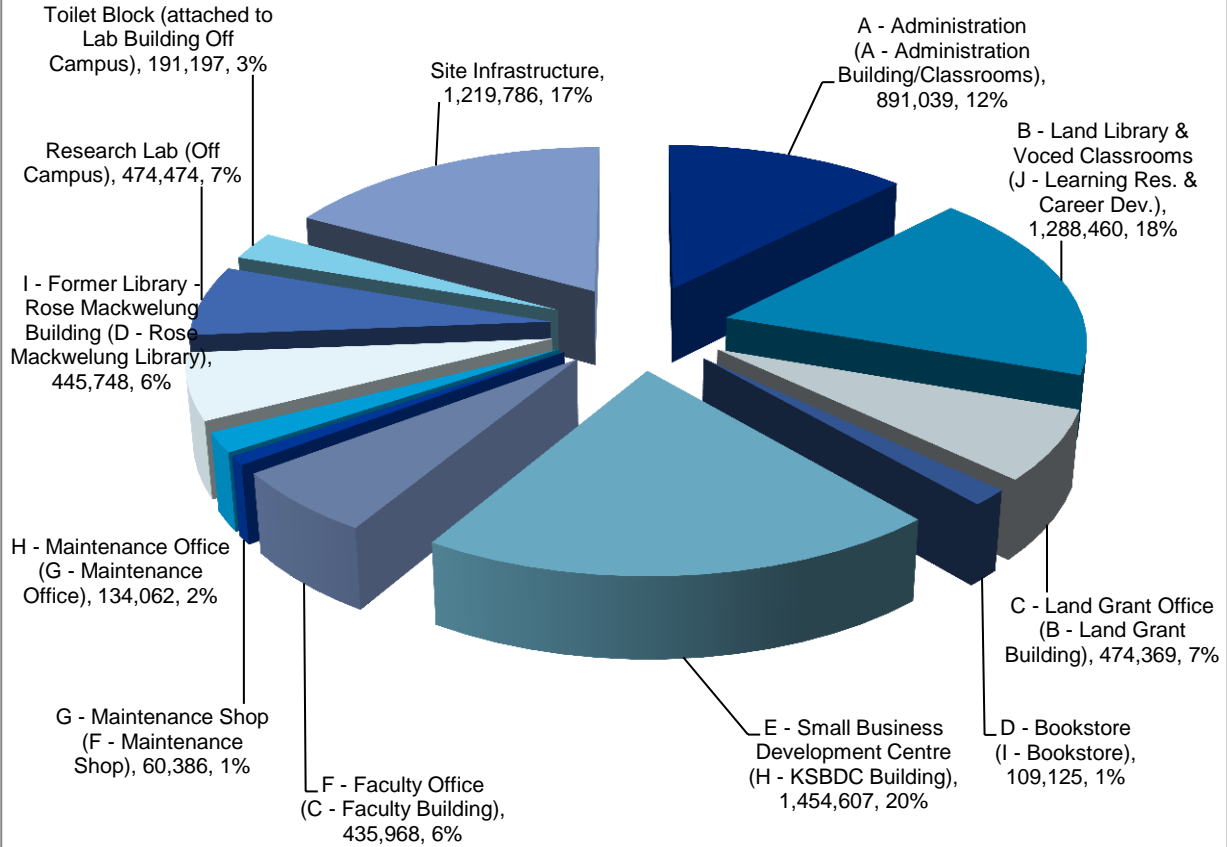
Forecast Operational Costs

Ref	Asset Description	Replacement Cost	Year 1 - 10 Asset	Year 11 - 20 Asset	Year 21 - 30 Asset	Total 30 Year Asset	Annualised Total	Total Year 1-10	Total Year 11-20	Total Year 21-30
		Cost (\$ USD)	Renewal Cost (\$ USD)	Renewal Cost (\$ USD)	Renewal Cost (\$ USD)	Renewal Cost (\$ USD)				
1.00	A - Administration	891,039	154,098	274,868	407,875	836,840	34,741	222,565	343,335	476,343
2.00	B - Land Library & Voced Classrooms	1,288,460	112,880	332,747	248,230	693,856	33,516	216,758	436,625	352,108
3.00	C - Land Grant Office	474,369	169,480	62,097	156,002	387,579	15,980	200,085	92,702	186,607
4.00	D - Bookstore	109,125	30,039	27,733	25,108	82,881	3,314	35,549	33,242	30,617
5.00	E - Small Business Development Centre (Part)	1,454,607	159,736	314,162	466,084	939,982	35,873	205,140	359,566	511,488
6.00	F - Faculty Office	435,968	76,146	65,029	100,478	241,654	10,608	101,674	90,557	126,006
7.00	G - Maintenance Shop	60,386	633	33,843	2,436	36,911	1,595	4,280	37,490	6,083
8.00	H - Maintenance Office	134,062	36,688	25,153	76,547	138,387	5,431	44,866	33,331	84,726
9.00	I - Former Library - Rose Mackwelung Building (Part)	445,748	64,951	137,993	217,748	420,692	17,258	97,302	170,344	250,099
10.00	Research Lab (Off Campus)	474,474	32,961	148,538	133,215	314,714	13,587	63,923	179,500	164,176
11.00	Toilet Block (attached to Lab Building Off Campus)	191,197	21,980	25,409	70,458	117,847	5,647	39,170	42,599	87,648
12.00	Site Infrastructure	1,219,786	200,457	327,264	351,323	879,045	49,246	399,899	526,706	550,765
	TOTALS EXCLUDING ESCALATION	7,179,222	1,060,048	1,774,836	2,255,503	5,090,387	226,796	1,631,210	2,345,998	2,826,665
	Escalation Allowance		279,999	1,211,315	3,097,176	4,588,489	252,918	1,279,684	2,211,000	4,096,861
	TOTALS INCLUDING ESCALATION (3.4% per annum assumed)		1,340,047	2,986,151	5,352,679	9,678,877	479,714	2,910,894	4,556,998	6,923,526

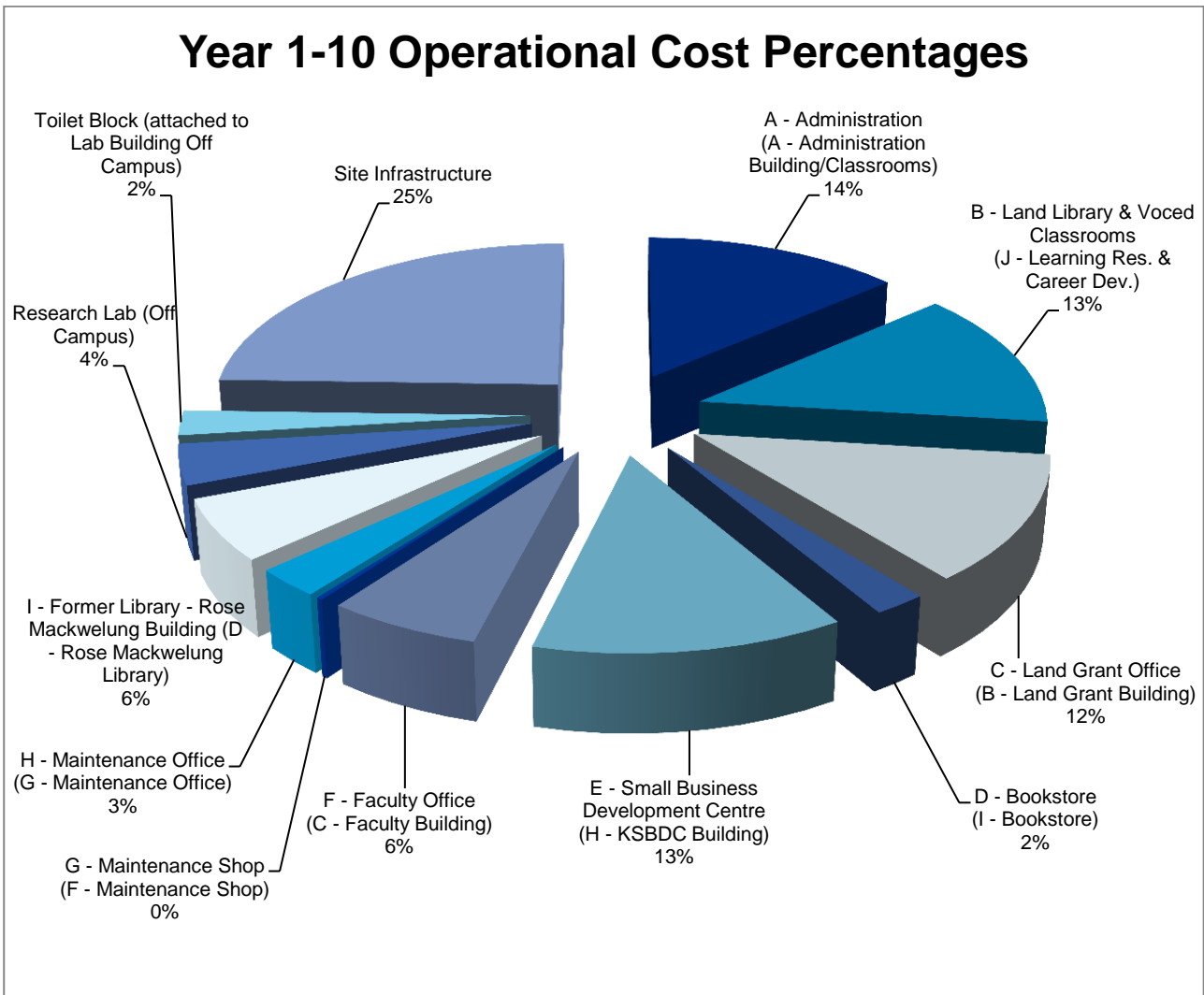
The forecast Operational Costs (including escalation) as outlined in the above table are suggested for funding and budgeting purposes. Annualised costs are the total operational costs spent over a 30 year period (divided by 30).

The estimated replacement cost (2013 costs) of the COM-FSM assets on the Kosrae campus is approximately \$US7.18M (excluding land, loose furniture and equipment). Outlined below is the breakdown of the estimated asset replacement cost for the campus.

Estimated Asset Replacement Value (2013 Cost)



The Operational Cost and Percentages table (below) highlights where COM-FSM needs to invest in asset renewal and routine maintenance to maximise the life of the existing capital assets, to prevent deterioration and to avoid additional capital replacement expenditure.



The Operational Cost percentages diagram above shows that the Site Infrastructure takes a total of 25% of the Kosrae Operational cost budget, but is only 17% of the estimated replacement value of the Kosrae assets. The operational cost to estimated replacement value ratio highlights that site infrastructure (covered walkways in particular) needs to be targeted for asset renewal as soon as possible to reduce high on-going operational costs.

The forecast operational costs (\$US2, 910,894 for Years 1-10) equates to approximately \$US291, 000 per year average) identified above are significantly higher than what is currently being budgeted for maintenance by COM-FSM (\$150, 000 per annum total for all 6 campuses). We consider that the forecast operational costs as outlined above are necessary to operate and maintain the capital investment already made by the COM-FSM on the Kosrae campus.

4.1.9 Limitations of the Condition Assessment

The life cycle and renewal/replacement projections used in our report are indicative only as they are predictions of future circumstances, which cannot be assured. Actual results may vary from the projections and these variations may be significantly more or less favorable than assumed herein. The findings in this report are current as at the date of inspection (June 2013) and not as the date of this report.

All estimated asset/capital replacement costs are high-level and indicative with an accuracy range of +/- 30%. Please note that these costs exclude all Government Goods and Services Taxes, Import/Customs Duties, Design/Procurement Costs, etc.

All estimated operational costs reflect capital replacement and maintenance works only of the buildings and site infrastructure.

All costs are detailed in the data sheets and spreadsheets (refer appendices) are current as at June 2013. Escalation of the Operational Costs have been added to the overall cost summaries. Escalation is assumed to be 3.4% per annum.

This assessment is not a health and safety audit. Beca does not accept liability for any client health and safety issues whether reported or not. Any issues arising from the possible presence of contaminated or potentially toxic materials onsite, (i.e. asbestos) are excluded from this report. This report does not constitute an environmental audit and no allowance has been made for the presence of any such materials should they exist at the subject property.

Our building condition audit is based on a visual assessment of the buildings and site infrastructure only. Furthermore the visual assessment was not a detailed engineering survey of the assets. cursory observations have been made of the following specialist elements however our report will not include for detailed investigation reports such as:

- Building Code of Compliance issues
- Building structures (e.g. Structural integrity, building subsidence, structural decay, etc.)
- Health and safety issues (e.g. asbestos, contaminated fill, leaky buildings, etc.)
- Mechanical services such as heating and ventilation
- Electrical services such as power, lighting and building management systems
- Information & technology and communication systems
- Sanitary plumbing and drainage
- Water reticulation
- Fire services
- Vertical transportation such as lifts and escalators
- Security

Whilst each building's structure was inspected for defects such as settlement, spalling, cracking and bowing, etc. it should be noted that this was an exterior visual assessment of the exposed parts of the building structures for the purpose of assigning condition grades and was not a structural engineering assessment of the buildings.

The building condition audit does not include for the inspection of sub-floor voids, roof/ceiling voids, plenum spaces or other areas that are difficult to access or could trigger health and safety issues. Our report will include a condition assessment of the roof surfaces, however these will be observed from ground level. No underground services have been able to be assessed, No detailed inspections (e.g. removal of wall linings etc.) have been carried out.

The building condition audit will not include for destructive testing of building elements which is normally associated with identifying extensive damage as a result of weather tightness issues. Problems potentially relating to leaky buildings and weather tightness will be flagged for further investigation.

The preparation of this report does not imply in any way that Beca has audited the financial statements, management accounts, engineering or other records of the COM-FSM Where another party has supplied information for use in this report, it is assumed to be reliable.

This report should not be reproduced or used for any other purpose without Beca's prior written permission in each instance.

Beca reserves the right, but not the obligation, to review all calculations included or referred to in this report and, if considered necessary, to revise its opinion in the light of any information existing at the site visit which becomes known after

4.1.10 Assumptions Made in the Condition Assessment

It has been assumed that:

- The rate of escalation over the next 30 years will be an average of 3.4% per annum.
- The existing buildings will be retained (this ignores the possible re-development of buildings as proposed by the current f)

4.1.11 Exclusions from the Condition Assessment and Forecast Operational Costs

The following has been excluded from the Condition Assessment and forecast Operational Costs:

- Replacement of loose furniture, fittings and equipment has been excluded.
- The cost of renewal or maintenance of buildings that are leased is excluded (it is assumed that the building owners will carry out renewals and maintenance)
- This assessment excludes all other College operating costs such as energy bills, teaching & administration staff salaries and expenses, disposables, vehicles, tools, machinery, rental equipment, property/building leasing costs, travel costs, insurances etc.
- Taxes, duties and government charges.

5 Energy Audit

Campus Summary

The Kosrae campus is using slightly more energy than the average across the sites.

9 months of energy data was available for 2012, and the data available show an unusual profile of energy use differing considerably and unpredictably from month to month. This may be due to sporadic use of the buildings. The breakdown gives a high proportion of energy usage to the main building which includes a computer lab, science lab as well as faculty and director offices.

5.1 Energy Efficiency Recommendations

1. Adjust the set point control of the AC units to 24 or 25°C
2. Turn units off when spaces are un-occupied
3. Ensure units are free from obstructions, filters are clean, and pipework runs are straight to reduce loads on units

Air Conditioning operates most efficiently when buildings are well sealed to prevent additional warm air entering from outside. To help achieve this:

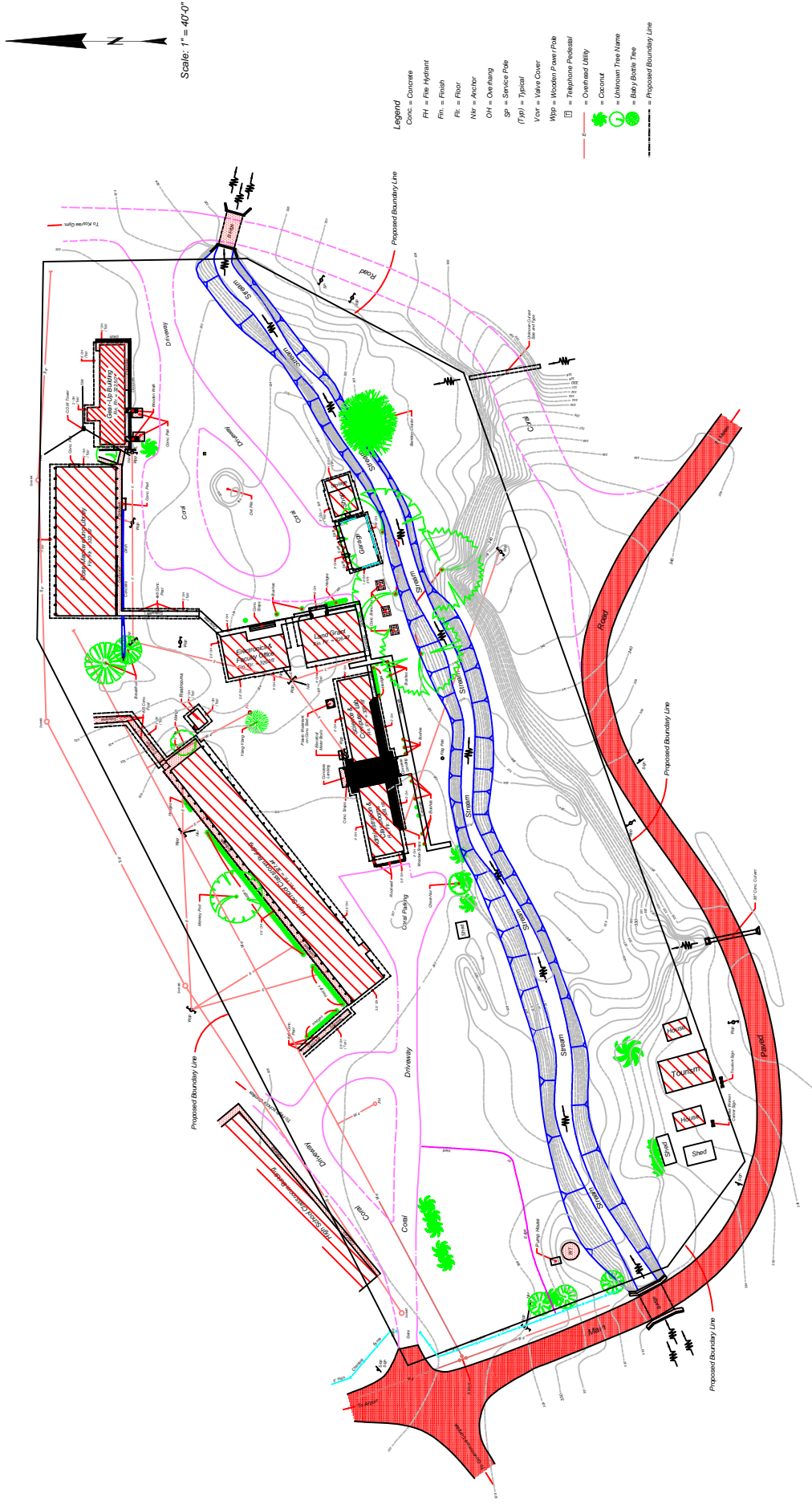
4. Close windows when systems are operating
5. Seal holes and penetrations into the building in areas that are air conditioned
6. Keep doors leading to AC spaces closed - employ automatic door closers where possible
7. Turn off lights when leaving a room - consider installing occupancy sensor controls
8. Replace ceiling insulation where missing

Appendix A

Topographical Survey and Title Information



**Topo and Location Survey of
C. O. M., Kosrae Campus
Tofol, Kosrae**

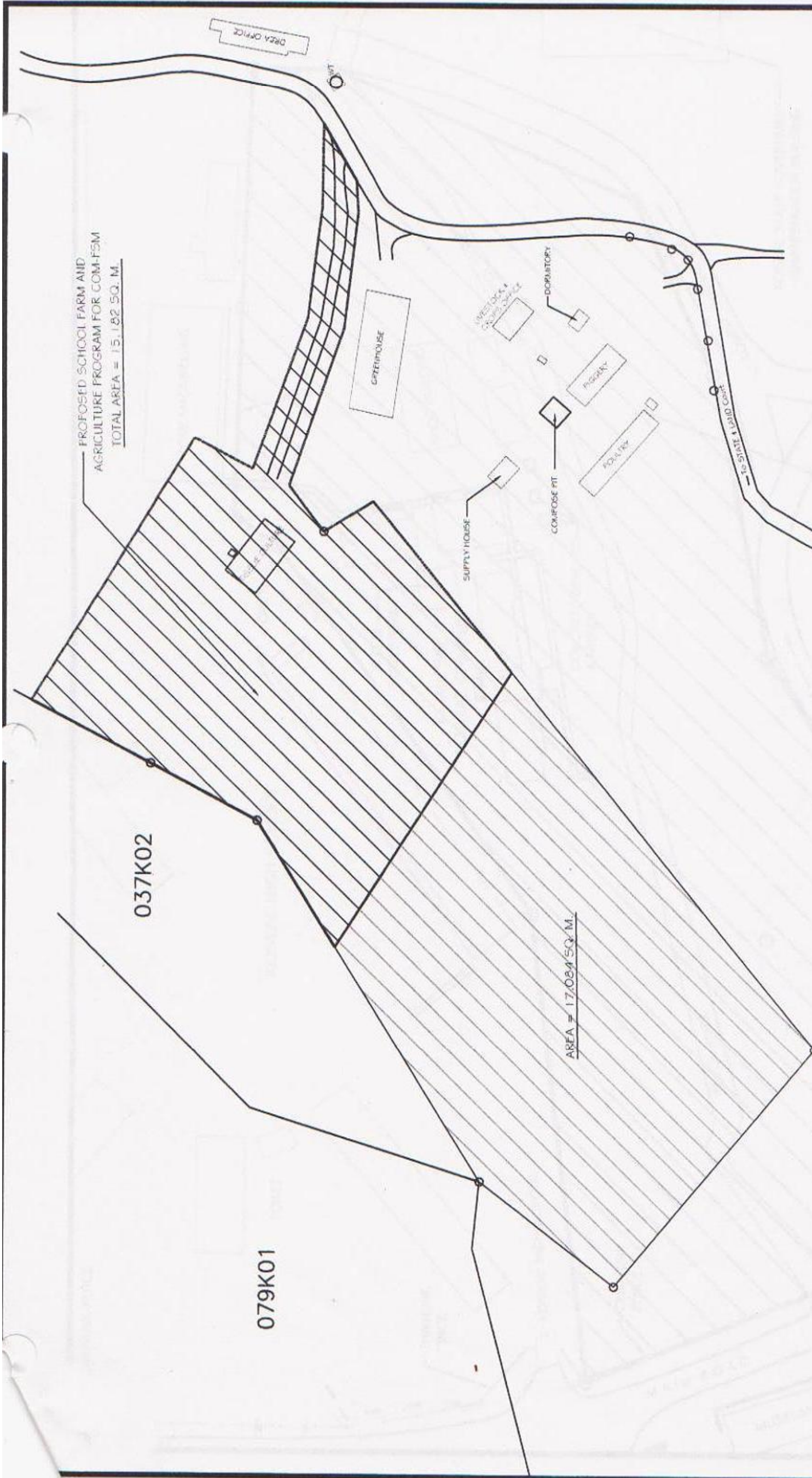


Pacific Survey Company

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Tim McVey - RLS#20
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Date: 20 April 2005
 Prepared in accordance with the rules and regulations of the State of Pohnpei, Federated States of Micronesia.
 Supervision in accordance with Existing Laws and Regulations.



KOSRAE STATE GOVERNMENT DEPARTMENT OF RESOURCES AND ECONOMIC AFFAIRS DIVISION OF AGRICULTURE AND LAND SURVEYING AND MAPPING	
SECTION (S) OF	TOFOL
MUNICIPALITY OF	LELU
KOSRAE STATE, FEDERATED STATES OF MICRONESIA	
SURVEY DATA	DATE
SCALE:	NOT TO SCALE
FIELD:	SKETCH NO.
FIELD BOOK NO.:	REVISION NO.: 3
COMPUTED BY: L.O. OLANO	10/16/2008
DRAFTED BY: L.O. OLANO	10/16/2008
CHECKED BY: L.O. OLANO	10/16/2008
056K00-COM08-3	

Appendix B

Building Condition Assessments



KOSRAE CAMPUS, TOFOL, KOSRAE STATE

A – ADMINISTRATION BUILDING/CLASSROOMS



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace		Observed Deterioration/Recommendations
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace	
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %							
1.00	Total Sub-Structure	4	70%						33,990	0	56,038	90,028	119,517	75.3%	
2.00	Total Frame	3	50%						0	0	0	0	107,409	0.0%	
3.00	Total Structural Walls	2	30%						0	0	0	0	22,630	0.0%	
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%	
5.00	Total Roof	3	50%						0	95,442	0	95,442	95,442	100.0%	
6.00	Total External Walls & Finishes	2	30%						0	0	35,369	35,369	35,369	100.0%	
7.00	Total Windows & Doors	3	50%						2,820	2,820	17,078	22,717	69,596	32.6%	
A	TOTAL STRUCTURE	3	50%						36,810	98,262	108,484	243,556	449,963	54.1%	
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%	
9.00	Total Internal Walls/Partitions	2	30%						0	0	0	0	13,823	0.0%	
10.00	Total Internal Doors	2	30%						0	0	0	0	9,108	0.0%	
11.00	Total Floor Finishes	3	50%						26,924	5,771	26,924	59,620	32,695	182.3%	
12.00	Total Wall Finishes	3	50%						0	52,692	9,097	61,789	61,789	100.0%	
13.00	Total Ceiling Finishes	4	70%						26,474	8,056	22,117	56,646	56,646	100.0%	
14.00	Total Fixed Joinery Units	3	50%						0	4,269	58,392	62,661	62,459	100.3%	
B	TOTAL INTERNAL FIT-OUT	3	50%						53,398	70,787	116,530	240,716	236,520	101.8%	
15.00	Total Sanitary Plumbing	3	50%						0	2,277	43,010	45,287	45,287	100.0%	
16.00	Total Mechanical Services	3	50%						44,718	82,541	44,718	171,977	47,564	361.6%	
17.00	Total Fire Services	4	70%						4,428	9,957	2,214	16,598	7,743	214.4%	
18.00	Total Electrical Services	2	30%						0	0	78,174	78,174	78,174	100.0%	
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%	
20.00	Total Special Services	3	50%						14,745	11,043	14,745	40,533	25,788	157.2%	
C	TOTAL BUILDING SERVICES	3	50%						63,890	105,818	182,860	352,568	204,556	172.4%	
	TOTAL BUILDING	3	50%						154,098	274,868	407,875	836,840	891,039	93.9%	

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Steel Framed Floor on Steel Pile Foundations	Severe corrosion present and virtually disconnected at base as rusted through
Timber Floor Boards	Severe decay of timber flooring present in areas particularly at edge of deck (approx. 30% of total floor area)
Fire Extinguisher	Replacement fire extinguishers required (we understand these have been ordered)
Window Glazing Treatments	Torn mesh screen noticed in several locations
Fibre Cement Soffit Lining with Painted Finishes	Evidence of cracks, leaks and water damage at base of sheets
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Repair corrosion to steel framed floor and decayed timber flooring immediately as this is a health and safety issue. Refurbish windows, doors, floor and ceiling finishes by 2023. Regularly maintain and replace mechanical, fire and special services by 2023.

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

J – LEARNING RESOURCES AND CAREER DEVELOPMENT



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace	% Full Replace
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total		
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %						
1.00	Total Sub-Structure	2	30%						0	0	0	0	254,389	0.0%
2.00	Total Frame	2	30%						0	0	0	0	11,696	0.0%
3.00	Total Structural Walls	2	30%						0	0	0	0	175,454	0.0%
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%
5.00	Total Roof	3	50%						0	139,497	13,105	152,602	152,602	100.0%
6.00	Total External Walls & Finishes	2	30%						0	0	0	0	48,552	0.0%
7.00	Total Windows & Doors	3	50%						1,735	1,735	35,645	39,114	156,213	25.0%
A	TOTAL STRUCTURE	3	50%						1,735	141,231	48,750	191,716	798,907	24.0%
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%
9.00	Total Internal Walls/Partitions	2	30%						0	0	0	0	3,223	0.0%
10.00	Total Internal Doors	2	30%						0	0	0	0	3,036	0.0%
11.00	Total Floor Finishes	3	50%						45,901	0	45,901	91,802	64,609	142.1%
12.00	Total Wall Finishes	2	30%						0	0	57,068	57,068	66,739	85.5%
13.00	Total Ceiling Finishes	3	50%						24,132	84,600	5,393	114,125	114,125	100.0%
14.00	Total Fixed Joinery Units	2	30%						0	152	37,988	38,140	37,988	100.4%
B	TOTAL INTERNAL FIT-OUT	2	30%						70,033	84,751	146,350	301,134	289,720	103.9%
15.00	Total Sanitary Plumbing	2	30%						0	0	949	949	949	100.0%
16.00	Total Mechanical Services	4	70%						35,420	57,558	35,420	128,398	30,993	414.3%
17.00	Total Fire Services	5	90%						5,693	5,693	2,846	14,231	2,846	500.0%
18.00	Total Electrical Services	2	30%						0	6,958	13,915	20,873	128,489	16.2%
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%
20.00	Total Special Services	2	30%						0	36,556	0	36,556	36,556	100.0%
C	TOTAL BUILDING SERVICES	3	50%						41,113	106,764	53,130	201,006	199,833	100.6%
	TOTAL BUILDING	3	50%						112,880	332,747	248,230	693,856	1,288,460	53.9%

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Air-Conditioning - DX/Split System	External AC unit of split system broken
Fire Extinguisher	Replacement fire extinguishers required (we understand these have been ordered)
Window Glazing Treatments	Ripped and torn mesh screen to some PVC windows
Painted ply soffit lining	Evidence of leaks, flaking paint and damaged/rotten ply sections
Vinyl Floor Finishes	Although installed as part of the recent refurbishment already in areas such as the Library the vinyl is heavily worn from chair movement under and near workstations.
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Review wear to vinyl flooring from chair movement and rectify to extend life of flooring. Repair leaks and decay in soffits immediately. Refurbish windows, doors, floor and ceiling finishes by 2023. Regularly maintain and replace mechanical and fire services by 2023.

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

B - LAND GRANT BUILDING



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %					
1.00	Total Sub-Structure	3	50%						0	0	0	0	69,634
2.00	Total Frame	3	50%						0	0	0	0	73,488
3.00	Total Structural Walls	3	50%						0	0	0	0	45,000
4.00	Total Upper Floors	0	0%						0	0	0	0	0
5.00	Total Roof	3	50%						33,608	810	33,608	68,026	34,418
6.00	Total External Walls & Finishes	3	50%						0	0	22,537	22,537	22,537
7.00	Total Windows & Doors	4	70%						1,343	1,343	27,254	29,941	28,597
A	TOTAL STRUCTURE	4	70%						34,952	2,153	83,399	120,503	273,675
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0
9.00	Total Internal Walls/Partitions	3	50%						0	0	0	0	5,424
10.00	Total Internal Doors	5	90%						1,518	4,554	0	6,072	6,072
11.00	Total Floor Finishes	5	90%						15,982	0	15,301	31,282	15,982
12.00	Total Wall Finishes	4	70%						21,197	1,890	14,802	37,888	37,888
13.00	Total Ceiling Finishes	4	70%						16,558	0	227	16,785	16,785
14.00	Total Fixed Joinery Units	5	90%						31,625	0	0	31,625	31,625
B	TOTAL INTERNAL FIT-OUT	5	90%						86,879	6,444	30,330	123,653	113,776
15.00	Total Sanitary Plumbing	4	70%						6,958	7,590	6,325	20,873	20,873
16.00	Total Mechanical Services	5	90%						32,258	10,753	27,830	70,840	23,403
17.00	Total Fire Services	5	90%						633	633	316	1,581	316
18.00	Total Electrical Services	4	70%						0	34,525	0	34,525	34,525
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0
20.00	Total Special Services	3	50%						7,802	0	7,802	15,603	7,802
C	TOTAL BUILDING SERVICES	4	70%						47,649	53,500	42,273	143,423	86,918
	TOTAL BUILDING	4	70%						169,480	62,097	156,002	387,579	474,369

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Reinforced Concrete Roof	Evidence of cracking, ponding of water and unprotected reinforcing
Membrane Roof Cladding	Roof not sealed and significant cracking identified in addition to ponding of water and plant matter growth
Window Glazing Treatments	Evidence of delamination, blistering and popping of glazed film to windows
Timber Door - Single	Evidence of delaminated and damaged door to Shower room
Vinyl Floor Finishes	Evidence of lifting of tiles and torn tiles
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Repair/seal cracking, level roof to prevent ponding, repair unprotected reinforcing and concrete spalling on roof immediately. Consider sealing roof with a bitumen paint to seal it. Refurbish windows, doors, floor, wall and ceiling finishes and joinery fittings by 2023. Regularly maintain and replace sanitary plumbing, mechanical, fire and special services by 2023.

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

I - BOOKSTORE



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost					Full Replace		Element	Observed Deterioration/Recommendations
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace			
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %									
1.00	Total Sub-Structure	3	50%						0	0	0	0	15,867	0.0%	Timber Doors (Solid/No Glazing)	Damaged door to entry needs to be replaced	
2.00	Total Frame	3	50%						0	0	0	0	15,651	0.0%			
3.00	Total Structural Walls	3	50%						0	0	0	0	13,915	0.0%	Vinyl Floor Finishes	Tiles lifted throughout and should be replaced	
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%			
5.00	Total Roof	4	70%						8,780	0	0	8,780	8,780	100.0%	Profiled Metal Sheet Roof Cladding (Pre-Finished)	Evidence of flaking paint and rusted fixings to roof plus corrosion at base of sheets	
6.00	Total External Walls & Finishes	3	50%						0	0	8,001	8,001	8,001	100.0%			
7.00	Total Windows & Doors	4	70%						1,898	1,898	3,768	7,563	7,563	100.0%	Solid Plaster Wall Lining with Painted Finishes	Evidence of cracking of plaster to infill walls	
A	TOTAL STRUCTURE	4	70%						10,677	1,898	11,770	24,344	69,777	34.9%			
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%	Plywood soffit lining with painted finish	Evidence of popping of boards at joins and corners.	
9.00	Total Internal Walls/Partitions	0	0%						0	0	0	0	0	0.0%			
10.00	Total Internal Doors	0	0%						0	0	0	0	0	0.0%	Overall Recommendation/Action	Targeted regular maintenance and cleaning. Treat rust, re-paint or replace roof immediately. Refurbish windows, doors, floor wall and ceiling finishes by 2023. Regularly maintain and replace mechanical and special services by 2023	
11.00	Total Floor Finishes	5	90%						3,937	0	3,937	7,875	3,937	200.0%			
12.00	Total Wall Finishes	4	70%						5,914	0	0	5,914	5,914	100.0%			
13.00	Total Ceiling Finishes	4	70%						3,115	0	3,005	6,120	6,120	100.0%			
14.00	Total Fixed Joinery Units	3	50%						0	2,151	0	2,151	2,151	100.0%			
B	TOTAL INTERNAL FIT-OUT	4	70%						12,966	2,151	6,942	22,059	18,122	121.7%			
15.00	Total Sanitary Plumbing	0	0%						0	0	0	0	0	0.0%			
16.00	Total Mechanical Services	2	30%						4,428	8,855	4,428	17,710	4,428	400.0%			
17.00	Total Fire Services	0	0%						0	0	0	0	0	0.0%			
18.00	Total Electrical Services	3	50%						0	14,830	0	14,830	14,830	100.0%			
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%			
20.00	Total Special Services	3	50%						1,969	0	1,969	3,937	1,969	200.0%			
C	TOTAL BUILDING SERVICES	3	50%						6,396	23,685	6,396	36,477	21,226	171.9%			
	TOTAL BUILDING	4	70%						30,039	27,733	25,108	82,881	109,125	76.0%			

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

H – KSBDC BUILDING - SMALL BUSINESS DEVELOPMENT CENTRE (PART)



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost					Full Replace		% Full Replace		TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT	
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total							
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %											
1.00	Total Sub-Structure	2	30%						0	0	0	0	133,462	0.0%	Element Observed Deterioration/Recommendations Membrane Roof Cladding to canopy gutters Assumed not present to canopy gutters but this or similar should be applied to provide water tightness Membrane roof cladding to feature columns Assumed not present but this or similar should be applied to provide water tightness Air-Conditioning - DX/Split System Not operating and requires attention Fire Extinguisher No fire extinguishers present Solid Plaster Cladding with Painted Finishes Evidence of cracking in and around windows Overall Recommendation/Action Targeted regular maintenance and cleaning. Review waterproofing (some leaks observed) and repair immediately. Provide fire extinguishers immediately. Replace roof by 2023. . Refurbish windows, doors, floor and ceiling finishes and joinery fittings by 2023. Regularly maintain and replace mechanical, fire and special services by 2023				
2.00	Total Frame	2	30%						0	0	0	0	208,951	0.0%					
3.00	Total Structural Walls	4	70%						0	0	203,710	203,710	203,710	100.0%					
4.00	Total Upper Floors	2	30%						0	0	0	0	204,956	0.0%					
5.00	Total Roof	4	70%						17,090	42,796	27,594	87,480	70,390	124.3%					
6.00	Total External Walls & Finishes	4	70%						0	115,236	0	115,236	115,236	100.0%					
7.00	Total Windows & Doors	3	50%						1,316	0	30,007	31,323	75,422	41.5%					
A	TOTAL STRUCTURE	3	50%						18,406	158,032	261,311	437,749	1,012,128	43.3%					
8.00	Total Stairs Balustrades & Handrails	4	70%						0	29,882	0	29,882	42,532	70.3%					
9.00	Total Internal Walls/Partitions	2	30%						0	0	0	0	6,860	0.0%					
10.00	Total Internal Doors	3	50%						0	0	6,072	6,072	6,072	100.0%					
11.00	Total Floor Finishes	3	50%						0	26,232	17,186	43,418	43,418	100.0%					
12.00	Total Wall Finishes	3	50%						52,879	0	10,031	62,910	77,482	81.2%					
13.00	Total Ceiling Finishes	4	70%						33,072	0	22,866	55,938	55,938	100.0%					
14.00	Total Fixed Joinery Units	3	50%						1,581	0	27,035	28,617	27,794	103.0%					
B	TOTAL INTERNAL FIT-OUT	3	50%						87,532	56,113	83,190	226,836	260,095	87.2%					
15.00	Total Sanitary Plumbing	3	50%						0	14,295	13,915	28,210	28,210	100.0%					
16.00	Total Mechanical Services	4	70%						26,565	26,565	26,565	79,695	17,710	450.0%					
17.00	Total Fire Services	5	90%						3,795	3,795	1,898	9,488	1,898	500.0%					
18.00	Total Electrical Services	3	50%						0	43,643	55,767	99,410	99,410	100.0%					
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%					
20.00	Total Special Services	3	50%						23,438	11,719	23,438	58,595	35,157	166.7%					
C	TOTAL BUILDING SERVICES	3	50%						53,798	100,016	121,583	275,397	182,384	151.0%					
	TOTAL BUILDING	3	50%						159,736	314,162	466,084	939,982	1,454,607	64.6%					

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

C - FACULTY BUILDING



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace		Observed Deterioration/Recommendations														
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace															
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %																					
1.00	Total Sub-Structure	3	50%						0	0	0	0	75,785	0.0%	<p>TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT</p> <table border="1"> <thead> <tr> <th>Element</th> <th>Observed Deterioration/Recommendations</th> </tr> </thead> <tbody> <tr> <td>Reinforced Concrete Roof</td> <td>Evidence of cracking, ponding of water and unprotected reinforcing</td> </tr> <tr> <td>Membrane Roof Cladding</td> <td>Evidence of spalling of concrete, leaks, ponding and deterioration of concrete roof</td> </tr> <tr> <td>Timber Doors (Solid/No Glazing)</td> <td>Delaminated and damaged timber doors</td> </tr> <tr> <td>Window Glazing Treatments</td> <td>Evidence of delamination, peeling and tearing,</td> </tr> <tr> <td>Vinyl Floor Finishes</td> <td>Evidence of staining, lifting and marks. Floor feels uneven</td> </tr> <tr> <td>Overall Recommendation/Action</td> <td>Targeted regular maintenance and cleaning. Repair/seal cracking, level roof to prevent ponding, repair unprotected reinforcing and concrete spalling on roof immediately. Consider sealing roof with a bitumen paint to seal it, or apply roofing membrane. Refurbish windows, doors, floor and wall finishes and joinery fittings by 2023. Regularly maintain and replace mechanical, fire and special services by 2023.</td> </tr> </tbody> </table>	Element	Observed Deterioration/Recommendations	Reinforced Concrete Roof	Evidence of cracking, ponding of water and unprotected reinforcing	Membrane Roof Cladding	Evidence of spalling of concrete, leaks, ponding and deterioration of concrete roof	Timber Doors (Solid/No Glazing)	Delaminated and damaged timber doors	Window Glazing Treatments	Evidence of delamination, peeling and tearing,	Vinyl Floor Finishes	Evidence of staining, lifting and marks. Floor feels uneven	Overall Recommendation/Action	Targeted regular maintenance and cleaning. Repair/seal cracking, level roof to prevent ponding, repair unprotected reinforcing and concrete spalling on roof immediately. Consider sealing roof with a bitumen paint to seal it, or apply roofing membrane. Refurbish windows, doors, floor and wall finishes and joinery fittings by 2023. Regularly maintain and replace mechanical, fire and special services by 2023.
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2.00	Total Frame	3	50%						0	0	0	0	127,558	0.0%															
3.00	Total Structural Walls	3	50%						0	0	0	0	49,557	0.0%															
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%															
5.00	Total Roof	3	50%						21,353	0	21,353	42,705	21,353	200.0%															
6.00	Total External Walls & Finishes	3	50%						0	0	24,047	24,047	24,047	100.0%															
7.00	Total Windows & Doors	5	90%						4,574	779	14,614	19,968	19,188	104.1%															
A	TOTAL STRUCTURE	4	70%						25,927	779	60,013	86,720	317,488	27.3%															
8.00	Total Stairs Balustrades & Handrails	3	50%						0	0	2,220	2,220	16,135	13.8%															
9.00	Total Internal Walls/Partitions	0	0%						0	0	0	0	0	0.0%															
10.00	Total Internal Doors	0	0%						0	0	0	0	0	0.0%															
11.00	Total Floor Finishes	4	70%						14,183	0	15,841	30,024	15,841	189.5%															
12.00	Total Wall Finishes	4	70%						18,824	0	0	18,824	18,824	100.0%															
13.00	Total Ceiling Finishes	4	70%						0	15,070	5,825	20,895	20,895	100.0%															
14.00	Total Fixed Joinery Units	3	50%						0	700	0	700	700	100.0%															
B	TOTAL INTERNAL FIT-OUT	4	70%						33,007	15,770	23,886	72,663	72,395	100.4%															
15.00	Total Sanitary Plumbing	3	50%						0	650	0	650	650	100.0%															
16.00	Total Mechanical Services	3	50%						8,855	17,710	8,855	35,420	8,855	400.0%															
17.00	Total Fire Services	5	90%						1,265	1,265	633	3,163	633	500.0%															
18.00	Total Electrical Services	3	50%						0	28,855	0	28,855	28,855	100.0%															
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%															
20.00	Total Special Services	3	50%						7,092	0	7,092	14,183	7,092	200.0%															
C	TOTAL BUILDING SERVICES	4	70%						17,212	48,480	16,579	82,271	46,084	178.5%															
	TOTAL BUILDING	4	70%						76,146	65,029	100,478	241,654	435,968	55.4%															

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

F - MAINTENANCE SHOP



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace	% Full Replace
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total		
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %						
1.00	Total Sub-Structure	3	50%						0	0	0	0	14,469	0.0%
2.00	Total Frame	4	70%						0	0	0	0	10,272	0.0%
3.00	Total Structural Walls	0	0%						0	0	0	0	0	0.0%
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%
5.00	Total Roof	3	50%						0	14,446	0	14,446	14,446	100.0%
6.00	Total External Walls & Finishes	4	70%						0	9,622	0	9,622	9,622	100.0%
7.00	Total Windows & Doors	0	0%						0	0	0	0	0	0.0%
A	TOTAL STRUCTURE	4	70%						0	24,068	0	24,068	48,809	49.3%
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%
9.00	Total Internal Walls/Partitions	4	70%						0	0	2,119	2,119	2,119	100.0%
10.00	Total Internal Doors	0	0%						0	0	0	0	0	0.0%
11.00	Total Floor Finishes	0	0%						0	0	0	0	0	0.0%
12.00	Total Wall Finishes	0	0%						0	0	0	0	0	0.0%
13.00	Total Ceiling Finishes	0	0%						0	0	0	0	0	0.0%
14.00	Total Fixed Joinery Units	0	0%						0	0	0	0	0	0.0%
B	TOTAL INTERNAL FIT-OUT	4	70%						0	0	2,119	2,119	2,119	100.0%
15.00	Total Sanitary Plumbing	0	0%						0	0	0	0	0	0.0%
16.00	Total Mechanical Services	0	0%						0	0	0	0	0	0.0%
17.00	Total Fire Services	5	90%						633	633	316	1,581	316	500.0%
18.00	Total Electrical Services	3	50%						0	9,142	0	9,142	9,142	100.0%
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%
20.00	Total Special Services	0	0%						0	0	0	0	0	0.0%
C	TOTAL BUILDING SERVICES	4	70%						633	9,775	316	10,723	9,458	113.4%
	TOTAL BUILDING	4	70%						633	33,843	2,436	36,911	60,386	61.1%

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Compacted earth ground	Not assessed as part of condition assessment however recommend that this is monitored
Fire Extinguisher	Replacement fire extinguishers required (we understand these have been ordered)
Timber Frame (Portal/Truss/Columns/Beams, etc.)	Evidence of bowing in the trusses and lack of vertical support with current use of hanging equipment from trusses
Chain Link Fencing and Swing gates	Evidence of corrosion on fence
Cyclone Sheet covers to Walls	Torn in places but generally performing as intended
Overall Recommendation/Action	Asset is run-down but is functioning as intended. We are uncertain about the condition of the substructure and this needs monitoring. Consider strengthening/propping to roof trusses. Maintain as necessary for building to function. Review in 2018.

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

G - MAINTENANCE OFFICE



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost					
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %						
1.00	Total Sub-Structure	3	50%						0	0	0	0	14,469	0.0%
2.00	Total Frame	4	70%						0	0	0	0	10,272	0.0%
3.00	Total Structural Walls	0	0%						0	0	0	0	0	0.0%
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%
5.00	Total Roof	3	50%						0	14,446	0	14,446	14,446	100.0%
6.00	Total External Walls & Finishes	4	70%						0	9,622	0	9,622	9,622	100.0%
7.00	Total Windows & Doors	0	0%						0	0	0	0	0	0.0%
A	TOTAL STRUCTURE	4	70%						0	24,068	0	24,068	48,809	49.3%
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%
9.00	Total Internal Walls/Partitions	4	70%						0	0	2,119	2,119	2,119	100.0%
10.00	Total Internal Doors	0	0%						0	0	0	0	0	0.0%
11.00	Total Floor Finishes	0	0%						0	0	0	0	0	0.0%
12.00	Total Wall Finishes	0	0%						0	0	0	0	0	0.0%
13.00	Total Ceiling Finishes	0	0%						0	0	0	0	0	0.0%
14.00	Total Fixed Joinery Units	0	0%						0	0	0	0	0	0.0%
B	TOTAL INTERNAL FIT-OUT	4	70%						0	0	2,119	2,119	2,119	100.0%
15.00	Total Sanitary Plumbing	0	0%						0	0	0	0	0	0.0%
16.00	Total Mechanical Services	0	0%						0	0	0	0	0	0.0%
17.00	Total Fire Services	5	90%						633	633	316	1,581	316	500.0%
18.00	Total Electrical Services	3	50%						0	9,142	0	9,142	9,142	100.0%
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%
20.00	Total Special Services	0	0%						0	0	0	0	0	0.0%
C	TOTAL BUILDING SERVICES	4	70%						633	9,775	316	10,723	9,458	113.4%
	TOTAL BUILDING	4	70%						633	33,843	2,436	36,911	60,386	61.1%

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Reinforced Concrete Brick/Block Masonry Walls	Evidence cracking and spalling of concrete particularly to rear portion of building
Painted ply to gable ends	Deteriorated, delaminating and rot especially at rear end of building
Fire Extinguisher	Replacement fire extinguishers required (we understand these have been ordered)
Reinforced Concrete Foundations Beams	Evidence of spalled concrete
Reinforced Concrete Slab on Grade	Some evidence of spalled and heavily worn concrete
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Repair exposed reinforcing and concrete spalling immediately. Provide fire extinguishers immediately. Replace roof by 2023. Refurbish wall finishes by 2023. Regularly maintain and replace fire and special services by 2023

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

D - ROSE MACKWELUNG BUILDING (FORMER LIBRARY PART)



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost					TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT															
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace			% Full Replace													
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %																					
1.00	Total Sub-Structure	2	30%						0	0	0	0	48,238	0.0%	<table border="1"> <thead> <tr> <th>Element</th> <th>Observed Deterioration/Recommendations</th> </tr> </thead> <tbody> <tr> <td>Timber Door - Single</td> <td>Evidence of impact damage, termite attack, delamination of panels at base</td> </tr> <tr> <td>Fire Extinguisher</td> <td>No fire extinguishers present</td> </tr> <tr> <td>Structural Steel Frame (Portal/Truss/Columns/Beams, etc.)</td> <td>Evidence of advanced corrosion to roof beams and rafters, internal columns are painted and in good condition</td> </tr> <tr> <td>Profiled Metal Sheet Roof Cladding (Pre-Finished)</td> <td>Evidence of corrosion and impact damage particular at road entrance end of building</td> </tr> <tr> <td>Timber Framed Windows & Doors (external)</td> <td>Evidence of decay and termite damage to doors, frames and infill panels</td> </tr> <tr> <td>Overall Recommendation/Action</td> <td>Targeted regular maintenance and cleaning. Provide fire extinguishers immediately. Repair decay and termite damage to windows and doors immediately. Replace roof by 2023. Refurbish doors and wall finishes by 2023. Regularly maintain and replace mechanical, fire and special services by 2023</td> </tr> </tbody> </table>	Element	Observed Deterioration/Recommendations	Timber Door - Single	Evidence of impact damage, termite attack, delamination of panels at base	Fire Extinguisher	No fire extinguishers present	Structural Steel Frame (Portal/Truss/Columns/Beams, etc.)	Evidence of advanced corrosion to roof beams and rafters, internal columns are painted and in good condition	Profiled Metal Sheet Roof Cladding (Pre-Finished)	Evidence of corrosion and impact damage particular at road entrance end of building	Timber Framed Windows & Doors (external)	Evidence of decay and termite damage to doors, frames and infill panels	Overall Recommendation/Action	Targeted regular maintenance and cleaning. Provide fire extinguishers immediately. Repair decay and termite damage to windows and doors immediately. Replace roof by 2023. Refurbish doors and wall finishes by 2023. Regularly maintain and replace mechanical, fire and special services by 2023
Element	Observed Deterioration/Recommendations																												
Timber Door - Single	Evidence of impact damage, termite attack, delamination of panels at base																												
Fire Extinguisher	No fire extinguishers present																												
Structural Steel Frame (Portal/Truss/Columns/Beams, etc.)	Evidence of advanced corrosion to roof beams and rafters, internal columns are painted and in good condition																												
Profiled Metal Sheet Roof Cladding (Pre-Finished)	Evidence of corrosion and impact damage particular at road entrance end of building																												
Timber Framed Windows & Doors (external)	Evidence of decay and termite damage to doors, frames and infill panels																												
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Provide fire extinguishers immediately. Repair decay and termite damage to windows and doors immediately. Replace roof by 2023. Refurbish doors and wall finishes by 2023. Regularly maintain and replace mechanical, fire and special services by 2023																												
2.00	Total Frame	4	70%						0	0	69,567	69,567	69,567	100.0%															
3.00	Total Structural Walls	3	50%						0	0	0	0	59,199	0.0%															
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%															
5.00	Total Roof	4	70%						5,565	24,396	0	29,962	29,962	100.0%															
6.00	Total External Walls & Finishes	3	50%						0	0	19,272	19,272	19,272	100.0%															
7.00	Total Windows & Doors	3	50%						0	11,699	4,990	16,689	18,993	87.9%															
A	TOTAL STRUCTURE	3	50%						5,565	36,095	93,829	135,489	245,229	55.3%															
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%															
9.00	Total Internal Walls/Partitions	4	70%						0	0	8,051	8,051	8,051	100.0%															
10.00	Total Internal Doors	4	70%						9,108	0	6,072	15,180	15,180	100.0%															
11.00	Total Floor Finishes	4	70%						19,768	0	14,326	34,094	19,768	172.5%															
12.00	Total Wall Finishes	4	70%						0	36,670	21,410	58,080	58,080	100.0%															
13.00	Total Ceiling Finishes	4	70%						0	0	12,559	12,559	12,559	100.0%															
14.00	Total Fixed Joinery Units	2	30%						0	0	5,542	5,542	5,542	100.0%															
B	TOTAL INTERNAL FIT-OUT	4	70%						28,876	36,670	67,959	133,505	119,179	112.0%															
15.00	Total Sanitary Plumbing	2	30%						0	0	16,445	16,445	16,445	100.0%															
16.00	Total Mechanical Services	3	50%						19,608	37,318	19,608	76,533	19,608	390.3%															
17.00	Total Fire Services	5	90%						2,530	2,530	1,265	6,325	1,265	500.0%															
18.00	Total Electrical Services	3	50%						0	25,381	10,270	35,651	35,651	100.0%															
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%															
20.00	Total Special Services	3	50%						8,372	0	8,372	16,745	8,372	200.0%															
C	TOTAL BUILDING SERVICES	3	50%						30,510	65,228	55,960	151,698	81,341	186.5%															
	TOTAL BUILDING	3	50%						64,951	137,993	217,748	420,692	445,748	94.4%															

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

RESEARCH LAB (OFF CAMPUS)



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace	% Full Replace
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total		
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %						
1.00	Total Sub-Structure	2	30%						0	0	0	0	60,562	0.0%
2.00	Total Frame	2	30%						0	0	0	0	44,948	0.0%
3.00	Total Structural Walls	2	30%						0	0	0	0	63,046	0.0%
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%
5.00	Total Roof	4	70%						4,499	33,700	2,328	40,527	40,527	100.0%
6.00	Total External Walls & Finishes	3	50%						0	14,579	0	14,579	30,748	47.4%
7.00	Total Windows & Doors	3	50%						0	0	14,956	14,956	44,511	33.6%
A	TOTAL STRUCTURE	3	50%						4,499	48,279	17,283	70,061	284,342	24.6%
8.00	Total Stairs Balustrades & Handrails	2	30%						0	0	0	0	6,325	0.0%
9.00	Total Internal Walls/Partitions	0	0%						0	0	0	0	0	0.0%
10.00	Total Internal Doors	2	30%						0	0	0	0	10,626	0.0%
11.00	Total Floor Finishes	2	30%						0	12,886	739	13,625	13,625	100.0%
12.00	Total Wall Finishes	3	50%						0	30,421	0	30,421	30,421	100.0%
13.00	Total Ceiling Finishes	2	30%						0	0	17,488	17,488	17,488	100.0%
14.00	Total Fixed Joinery Units	1	10%						0	0	4,807	4,807	4,807	100.0%
B	TOTAL INTERNAL FIT-OUT	2	30%						0	43,308	23,034	66,342	83,293	79.6%
15.00	Total Sanitary Plumbing	2	30%						3,795	0	18,975	22,770	22,770	100.0%
16.00	Total Mechanical Services	2	30%						22,138	47,058	22,138	91,333	24,921	366.5%
17.00	Total Fire Services	2	30%						2,530	2,530	1,265	6,325	1,265	500.0%
18.00	Total Electrical Services	2	30%						0	0	50,520	50,520	50,520	100.0%
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%
20.00	Total Special Services	2	30%						0	7,364	0	7,364	7,364	100.0%
C	TOTAL BUILDING SERVICES	2	30%						28,463	56,952	92,897	178,311	106,839	166.9%
	TOTAL BUILDING	3	50%						32,961	148,538	133,215	314,714	474,474	66.3%

TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT

Element	Observed Deterioration/Recommendations
Metal Gutters	Evidence of corrosion and rapid deterioration
Cold Water Storage	Missing Cover to Rainwater tank
Profiled Metal Sheet Roof Cladding (Pre-Finished) - Main Roof	Fading of protective paint and rust starting to show on fixings
Profiled Metal Sheet Wall Cladding (Pre-Finished) - Main Roof soffit	Evidence of rust at junction with barge flashing and at fixings
Timber Doors (Solid/No Glazing)	Impact damage at base of doors, general wear and tear and marks
Overall Recommendation/Action	Targeted regular maintenance and cleaning. Replace roof by 2023. . Refurbish doors and wall finishes by 2023. Regularly maintain and replace sanitary plumbing, mechanical and fire services by 2023

KOSRAE CAMPUS, TOFOL, KOSRAE STATE

TOILET BLOCK (ATTACHED TO LAB BUILDING OFF CAMPUS)



ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost				Full Replace		TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT	
		Condition Grade	% Deterioration	VG	G	A	P	VP	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace		
				0-20 %	20-40 %	40-60 %	60-80 %	80-100 %								
1.00	Total Sub-Structure	2	30%						0	0	0	0	20,709	0.0%	Element	Observed Deterioration/Recommendations
2.00	Total Frame	3	50%						0	0	8,662	8,662	37,254	23.3%		
3.00	Total Structural Walls	2	30%						0	0	0	0	29,533	0.0%	Timber Doors (Solid/No Glazing)	Damaged doors, rotten and delaminated at base
4.00	Total Upper Floors	0	0%						0	0	0	0	0	0.0%		
5.00	Total Roof	4	70%						7,748	633	0	8,381	8,381	100.0%	Profiled Metal Sheet Roof Cladding (Pre-Finished)	Evidence of advanced corrosion to metal sheet cladding
6.00	Total External Walls & Finishes	3	50%						0	0	3,985	3,985	11,341	35.1%		
7.00	Total Windows & Doors	5	90%						3,795	949	0	4,744	4,744	100.0%	Aluminium Framed Windows & Doors	Damaged mesh screen, partially removed rubber seal and glazing
A	TOTAL STRUCTURE	3	50%						11,543	1,581	12,647	25,771	111,961	23.0%		
8.00	Total Stairs Balustrades & Handrails	0	0%						0	0	0	0	0	0.0%	Overall Recommendation/Action	Targeted regular maintenance and cleaning. Replace windows, doors and roof by 2023. . Regularly maintain and replace sanitary plumbing, mechanical and fire services by 2023
9.00	Total Internal Walls/Partitions	0	0%						0	0	0	0	0	0.0%		
10.00	Total Internal Doors	2	30%						0	0	0	0	4,554	0.0%		
11.00	Total Floor Finishes	2	30%						0	3,767	452	4,220	4,220	100.0%		
12.00	Total Wall Finishes	2	30%						0	0	15,927	15,927	15,927	100.0%		
13.00	Total Ceiling Finishes	3	50%						0	1,822	4,627	6,449	6,449	100.0%		
14.00	Total Fixed Joinery Units	3	50%						0	759	8,349	9,108	9,108	100.0%		
B	TOTAL INTERNAL FIT-OUT	3	50%						0	6,348	29,355	35,703	40,257	88.7%		
15.00	Total Sanitary Plumbing	3	50%						3,163	0	6,325	9,488	9,488	100.0%		
16.00	Total Mechanical Services	3	50%						6,009	12,018	6,009	24,035	9,171	262.1%		
17.00	Total Fire Services	2	30%						1,265	1,265	633	3,163	633	500.0%		
18.00	Total Electrical Services	3	50%						0	2,214	15,490	17,704	17,704	100.0%		
19.00	Total Vertical Transportation	0	0%						0	0	0	0	0	0.0%		
20.00	Total Special Services	2	30%						0	1,984	0	1,984	1,984	100.0%		
C	TOTAL BUILDING SERVICES	3	50%						10,436	17,480	28,456	56,373	38,979	144.6%		
	TOTAL BUILDING	3	50%						21,980	25,409	70,458	117,847	191,197	61.6%		

KOSRAE CAMPUS, TOFOL, KOSRAE STATE	SITE INFRASTRUCTURE

													TOP 5 MAJOR ELEMENTS REQUIRING URGENT MAINTENANCE, RENEWAL OR REPLACEMENT				
ID Code	Element	Condition Grading		Condition Gauge					Asset Renewal Cost					Full Replace	% Full Replace	Element	Observed Deterioration/Recommendations
		Grade	% Deter.	0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Total					
1.00	Total Rooding	4	70%						8,631	8,631	4,315	21,577	4,948	436.1%			
2.00	Total Car Parks	4	70%						5,665	5,665	2,832	14,161	2,832	500.0%	Covered walkways	Concrete posts missing, damage to posts and corroding reinforcing. Repair to extend life of asset	
3.00	Total Foot Paths & Collection Areas	3	50%						0	0	0	0	90,880	0.0%			
4.00	Total Fences & Gates	3	50%						0	0	4,918	4,918	4,918	100.0%	Structures to be demolished	Covered rest area, cover to boat, Garden & Greenhouse stores noted as to be demolished 2013	
5.00	Total Structures	4	70%						129,237	298,738	43,709	471,683	599,486	78.7%			
6.00	Total Retaining Walls	3	50%						0	0	15,983	15,983	15,983	100.0%			
7.00	Site Drainage	3	50%						0	4,744	141,174	145,918	244,069	59.8%	Drainage	Underground pipework not inspected. Regularly clean/monitor swales and septic tank	
8.00	Total Electrical Infrastructure	3	50%						56,925	0	117,013	173,938	173,938	100.0%			
9.00	Total Water Services	3	50%						0	9,488	0	9,488	61,353	15.5%	Main electrical switchboard and meter box to Campus	Corroded meter boxes and roofing. Replace and enclose immediately	
10.00	Total Site Furniture	3	50%						0	0	21,379	21,379	21,379	100.0%			
TOTAL SITE INFRASTRUCTURE									200,457	327,264	351,323	879,045	1,219,786	72.1%	Fire hydrants	Uncertain if these are functioning – service and test regularly, consider replacement	
															Overall Recommendation/Action	Targeted regular maintenance and cleaning. Repair covered walkways. Repair corroded electrical cabinets, service fire hydrant. Incorporate demolished into the Campus master-plan for replacement	

Appendix C

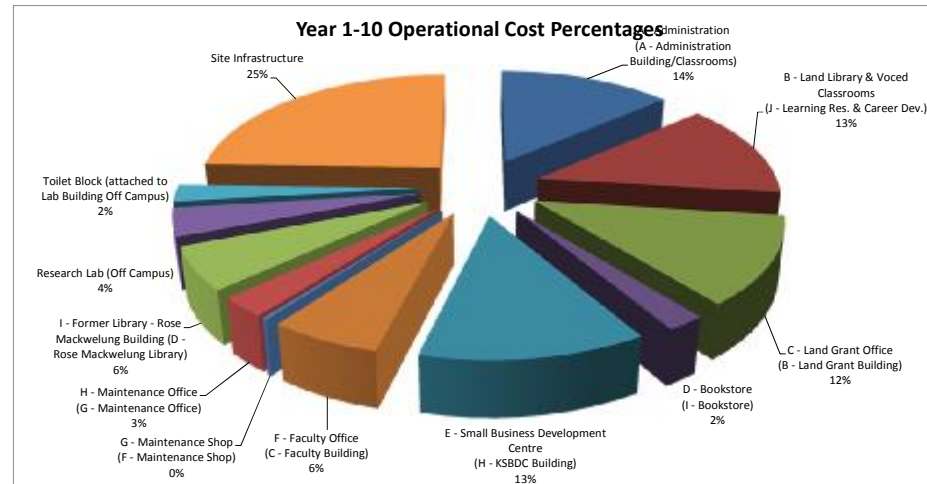
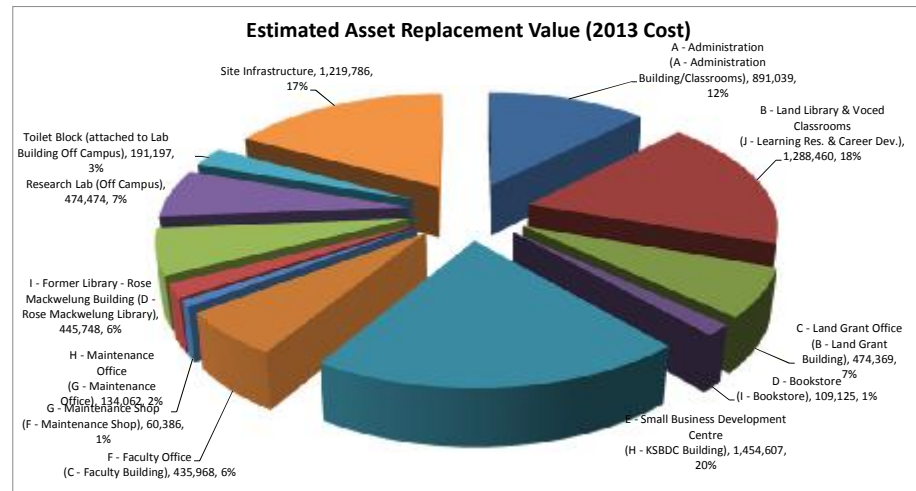
Indicative Asset Renewal and Maintenance Cost Plans





Audit Date: October 2013
 Revision: Final

Ref	Asset Description	Condition Grade	Key Metric Data					Year 1 - 10 Asset Renewal Cost vs Full Replacement Cost		Year 11 - 20 Asset Renewal Cost vs Full Replacement Cost		Year 21 - 30 Asset Renewal Cost vs Full Replacement Cost		Operational Cost (Cost of Renewal and Maintenance)											
			Rank 1 - 5	GFA (ft2)	GFA (m2)	Build Rate (ft2)	Build Rate (m2)	Cost (\$ USD)	Year 1 - 10 Asset Renewal Cost (\$ USD)	% of Full Replacement Cost	Year 11 - 20 Asset Renewal Cost (\$ USD)	% of Full Replacement Cost	Year 21 - 30 Asset Renewal Cost (\$ USD)	% of Full Replacement Cost	Total 30 Year Asset Renewal Cost (\$ USD)	% of Full Replacement Cost	Annualised Asset Renewal Cost	Annualised Maintenance Cost	Annualised Total Operational Cost	Total Year 1-10 Operational Cost (\$USD)	Total Year 11-20 Operational Cost (\$USD)	Total Year 21-30 Operational Cost (\$USD)			
1.00	A - Administration (A - Administration Building/Classrooms)	3	3,137	291	284	3,058	891,039	154,098	17%	274,868	31%	407,875	46%	836,840	94%	27,895	6,847	34,741	222,565	343,335	476,343				
2.00	B - Land Library & Voced Classrooms (J - Learning Res. & Career Dev.)	3	7,777	722	166	1,783	1,288,460	112,880	9%	332,747	26%	248,230	19%	693,856	54%	23,129	10,388	33,516	216,758	436,625	352,108				
3.00	C - Land Grant Office (B - Land Grant Building)	4	1,660	154	286	3,077	474,369	169,480	36%	62,097	13%	156,002	33%	387,579	82%	12,919	3,061	15,980	200,085	92,702	186,607				
4.00	D - Bookstore (I - Bookstore)	4	419	39	261	2,805	109,125	30,039	28%	27,733	25%	25,108	23%	82,881	76%	2,763	551	3,314	35,549	33,242	30,617				
5.00	E - Small Business Development Centre (H - KSBDC Building)	3	3,592	334	405	4,359	1,454,607	159,736	11%	314,162	22%	466,084	32%	939,982	65%	31,333	4,540	35,873	205,140	359,566	511,488				
6.00	F - Faculty Office (C - Faculty Building)	4	1,509	140	289	3,111	435,968	76,146	17%	65,029	15%	100,478	23%	241,654	55%	8,055	2,553	10,608	101,674	90,557	126,006				
7.00	G - Maintenance Shop (F - Maintenance Shop)	4	889	83	68	731	60,386	633	1%	33,843	56%	2,436	4%	36,911	61%	1,230	365	1,595	4,280	37,490	6,083				
8.00	H - Maintenance Office (G - Maintenance Office)	4	651	60	206	2,217	134,062	36,688	27%	25,153	19%	76,547	57%	138,387	103%	4,613	818	5,431	44,866	33,331	84,726				
9.00	I - Former Library - Rose Mackwelung Building (D - Rose Mackwelung Library)	3	1,781	165	250	2,694	445,748	64,951	15%	137,993	31%	217,748	49%	420,692	94%	14,023	3,235	17,258	97,302	170,344	250,099				
10.00	Research Lab (Off Campus)	3	1,566	146	303	3,260	474,474	32,961	7%	148,538	31%	133,215	28%	314,714	66%	10,490	3,096	13,587	63,923	179,500	164,176				
11.00	Toilet Block (attached to Lab Building Off Campus)	3	422	39	453	4,876	191,197	21,980	11%	25,409	13%	70,458	37%	117,847	62%	3,928	1,719	5,647	39,170	42,599	87,648				
12.00	Site Infrastructure						1,219,786	200,457	16%	327,264	27%	351,323	29%	879,045	72%	29,301	19,944	49,246	399,899	526,706	550,765				
TOTALS EXCLUDING ESCALATION								23,401	2,174		7,179,222	1,060,048	15%	1,774,836	25%	2,255,503	31%	5,090,387	71%	169,680	57,116	226,796	1,631,210	2,345,998	2,826,665
Escalation Allowance												279,999		1,211,315		3,097,176		4,588,489		152,950	99,968	252,918	1,279,684	2,211,000	4,096,861
TOTALS INCLUDING ESCALATION (3.4% per annum assumed)												1,340,047		2,986,151		5,352,679		9,678,877		322,629	157,085	479,714	2,910,894	4,556,998	6,923,526



Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE

SUMMARY OF BUILDING & ELEMENT RENEWAL COSTS

Document: **CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN**

Audit Date: October 2013

Revision: Final



Ref	Building	Cost Period	Sub-Structure	Frame	Structural Walls	Upper Floors	Roof	External Walls & Finishes	Windows & Doors	Structure	Stairs Balus. & Handrails	Internal Walls & Partitions	Internal Doors	Floor Finishes	Wall Finishes	Ceiling Finishes	Fixed Joinery Units	Internal Fit-Out	Sanitary Plumbing	Mech. Services	Fire Services	Electrical Services	Vertical Transport	Special Services	Building Services	Building	
1.00	A - Administration (A - Administration Building/Classrooms)	Year 1 - 10 Asset Renewal Cost (\$ USD)	33,990	0	0	0	0	0	2,820	36,810	0	0	0	26,924	0	26,474	0	53,398	0	44,718	4,428	0	0	14,745	63,890	154,098	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	95,442	0	2,820	98,262	0	0	0	5,771	52,692	8,056	4,269	70,787	2,277	82,541	9,957	0	0	11,043	105,818	274,868	
		Year 21 - 30 Asset Renewal Cost (\$ USD)	56,038	0	0	0	0	35,369	17,078	108,484	0	0	0	26,924	9,097	22,117	58,392	116,530	43,010	44,718	2,214	78,174	0	14,745	182,860	407,875	
		Total (\$ USD)	90,028	0	0	0	95,442	35,369	22,717	243,556	0	0	0	59,620	61,789	56,646	62,661	240,716	45,287	171,977	16,598	78,174	0	40,533	352,568	836,840	
2.00	B - Land Library & Voced Classrooms (J - Learning Res. & Career Dev.)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	0	0	1,735	1,735	0	0	0	45,901	0	24,132	0	70,033	0	35,420	5,693	0	0	0	41,113	112,880	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	139,497	0	1,735	141,231	0	0	0	0	84,600	152	84,751	0	57,558	5,693	6,958	0	0	36,556	106,764	332,747	
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	13,105	0	35,645	48,750	0	0	0	45,901	57,068	5,393	37,988	146,350	949	35,420	2,846	13,915	0	0	53,130	248,230	
		Total (\$ USD)	0	0	0	0	152,602	0	39,114	191,716	0	0	0	91,802	57,068	114,125	38,140	301,134	949	128,398	14,231	20,873	0	36,556	201,006	693,856	
3.00	C - Land Grant Office (B - Land Grant Building)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	33,608	0	1,343	34,952	0	0	1,518	15,982	21,197	16,558	31,625	86,879	6,958	32,258	633	0	0	7,802	47,649	169,480	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	810	0	1,343	2,153	0	0	4,554	0	1,890	0	0	6,444	7,590	10,753	633	34,525	0	0	53,500	62,097	
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	33,608	22,537	27,254	83,399	0	0	0	15,301	14,802	227	0	30,330	6,325	27,830	316	0	0	7,802	42,273	156,002	
		Total (\$ USD)	0	0	0	0	68,026	22,537	29,941	120,503	0	0	6,072	31,282	37,888	16,785	31,625	123,653	20,873	70,840	1,581	34,525	0	15,603	143,423	387,579	
4.00	D - Bookstore (I - Bookstore)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	8,780	0	1,898	10,677	0	0	0	3,937	5,914	3,115	0	12,966	0	4,428	0	0	0	1,969	6,396	30,039	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	0	0	1,898	1,898	0	0	0	0	0	0	0	2,151	2,151	0	8,855	0	14,830	0	0	23,685	27,733
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	0	8,001	3,768	11,770	0	0	0	3,937	0	3,005	0	6,942	0	4,428	0	0	0	1,969	6,396	25,108	
		Total (\$ USD)	0	0	0	0	8,780	8,001	7,563	24,344	0	0	0	7,875	5,914	6,120	2,151	22,059	0	17,710	0	14,830	0	3,937	36,477	82,881	
5.00	E - Small Business Development Centre (H - KSBDC Building)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	17,090	0	1,316	18,406	0	0	0	0	52,879	33,072	1,581	87,532	0	26,565	3,795	0	0	23,438	53,798	159,736	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	42,796	115,236	0	158,032	29,882	0	0	26,232	0	0	0	56,113	14,295	26,565	3,795	43,643	0	11,719	100,016	314,162	
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	203,710	0	27,594	0	30,007	261,311	0	0	6,072	17,186	10,031	22,866	27,035	83,190	13,915	26,565	1,898	55,767	0	23,438	121,583	466,084	
		Total (\$ USD)	0	0	203,710	0	87,480	115,236	31,323	437,749	29,882	0	6,072	43,418	62,910	55,938	28,617	226,836	28,210	79,695	9,488	99,410	0	58,595	275,397	939,982	
6.00	F - Faculty Office (C - Faculty Building)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	21,353	0	4,574	25,927	0	0	0	14,183	18,824	0	0	33,007	0	8,855	1,265	0	0	7,092	17,212	76,146	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	0	0	779	779	0	0	0	0	0	15,070	700	15,770	650	17,710	1,265	28,855	0	0	48,480	65,029	
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	21,353	24,047	14,614	60,013	2,220	0	0	15,841	0	5,825	0	23,886	0	8,855	633	0	0	7,092	16,579	100,478	
		Total (\$ USD)	0	0	0	0	42,705	24,047	19,968	86,720	2,220	0	0	30,024	18,824	20,895	700	72,663	650	35,420	3,163	28,855	0	14,183	82,271	241,654	
7.00	G - Maintenance Shop (F - Maintenance Shop)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	633	0	0	0	633	633	
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	14,446	9,622	0	24,068	0	0	0	0	0	0	0	0	0	0	0	633	9,142	0	0	9,775	33,843
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	0	0	0	0	0	2,119	0	0	0	0	0	0	2,119	0	0	316	0	0	0	316	2,436
		Total (\$ USD)	0	0	0	0	14,446	9,622	0	24,068	0	2,119	0	0	0	0	0	0	2,119	0	0	1,581	9,142	0	0	10,723	36,911
8.00	H - Maintenance Office (G - Maintenance Office)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	16,149	0	11,959	0	0	28,108	0	0	0	0	4,887	0	0	0	4,887	0	0	633	0	0	3,060	3,693	36,688
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	0	5,882	0	5,882	0	0	0	0	0	0	0	0	0	0	0	633	18,638	0	0	19,271	25,153
		Year 21 - 30 Asset Renewal Cost (\$ USD)	24,747	22,952	3,690	0	0	724	14,239	66,352	0	0	0	4,208	0	2,611	0	6,819	0	0	316	0	0	3,060	3,377	76,547	
		Total (\$ USD)	24,747	22,952	19,839	0	11,959	6,606	14,239	100,342	0	0	0	4,208	4,887	2,611	0	11,706	0	0	1,581	18,638	0	6,121	26,340	138,387	

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE

SUMMARY OF BUILDING & ELEMENT RENEWAL COSTS

Document: **CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN**

Audit Date: October 2013

Revision: Final



Ref	Building	Cost Period	Sub-Structure	Frame	Structural Walls	Upper Floors	Roof	External Walls & Finishes	Windows & Doors	Structure	Stairs Balus. & Handrails	Internal Walls & Partitions	Internal Doors	Floor Finishes	Wall Finishes	Ceiling Finishes	Fixed Joinery Units	Internal Fit-Out	Sanitary Plumbing	Mech. Services	Fire Services	Electrical Services	Vertical Transport	Special Services	Building Services	Building
9.00	I - Former Library - Rose Mackwelung Building (D - Rose Mackwelung Library)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	5,565	0	0	5,565	0	0	9,108	19,768	0	0	0	28,876	0	19,608	2,530	0	0	8,372	30,510	64,951
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	24,396	0	11,699	36,095	0	0	0	0	36,670	0	0	36,670	0	37,318	2,530	25,381	0	0	65,228	137,993
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	69,567	0	0	0	19,272	4,990	93,829	0	8,051	6,072	14,326	21,410	12,559	5,542	67,959	16,445	19,608	1,265	10,270	0	8,372	55,960	217,748
		Total (\$ USD)	0	69,567	0	0	29,962	19,272	16,689	135,489	0	8,051	15,180	34,094	58,080	12,559	5,542	133,505	16,445	76,533	6,325	35,651	0	16,745	151,698	420,692
10.00	Research Lab (Off Campus)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	4,499	0	0	4,499	0	0	0	0	0	0	0	0	3,795	22,138	2,530	0	0	0	28,463	32,961
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	33,700	14,579	0	48,279	0	0	0	12,886	30,421	0	0	43,308	0	47,058	2,530	0	0	7,364	56,952	148,538
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	0	0	0	2,328	0	14,956	17,283	0	0	0	739	0	17,488	4,807	23,034	18,975	22,138	1,265	50,520	0	0	92,897	133,215
		Total (\$ USD)	0	0	0	0	40,527	14,579	14,956	70,061	0	0	0	13,625	30,421	17,488	4,807	66,342	22,770	91,333	6,325	50,520	0	7,364	178,311	314,714
11.00	Toilet Block (attached to Lab Building Off Campus)	Year 1 - 10 Asset Renewal Cost (\$ USD)	0	0	0	0	7,748	0	3,795	11,543	0	0	0	0	0	0	0	0	3,163	6,009	1,265	0	0	0	10,436	21,980
		Year 11 - 20 Asset Renewal Cost (\$ USD)	0	0	0	0	633	0	949	1,581	0	0	0	3,767	0	1,822	759	6,348	0	12,018	1,265	2,214	0	1,984	17,480	25,409
		Year 21 - 30 Asset Renewal Cost (\$ USD)	0	8,662	0	0	0	3,985	0	12,647	0	0	0	452	15,927	4,627	8,349	29,355	6,325	6,009	633	15,490	0	0	28,456	70,458
		Total (\$ USD)	0	8,662	0	0	8,381	3,985	4,744	25,771	0	0	0	4,220	15,927	6,449	9,108	35,703	9,488	24,035	3,163	17,704	0	1,984	56,373	117,847
Total - Year 1 - 10 Asset Renewal Cost (\$ USD)			33,990	0	16,149	0	110,602	0	17,481	178,222	0	0	10,626	126,695	103,700	103,351	33,206	377,578	13,915	199,997	23,403	0	0	66,477	303,791	859,591
Total - Year 11 - 20 Asset Renewal Cost (\$ USD)			0	0	0	0	351,720	145,319	21,222	518,261	29,882	0	4,554	48,656	121,673	109,547	8,030	322,341	24,812	300,374	28,932	184,186	0	68,667	606,970	1,447,571
Total - Year 21 - 30 Asset Renewal Cost (\$ USD)			80,784	101,181	207,400	0	97,988	113,934	162,550	763,837	2,220	10,170	12,144	144,815	128,334	96,718	142,114	536,515	105,944	195,569	11,701	224,136	0	66,477	603,827	1,904,180
Grand Total (\$ USD)			114,774	101,181	223,549	0	560,309	259,252	201,254	1,460,320	32,102	10,170	27,324	320,167	353,707	309,616	183,350	1,236,435	144,670	695,940	64,035	408,321	0	201,621	1,514,588	4,211,343

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 Document: SUMMARY OF SITE INFRASTRUCTURE RENEWAL COSTS
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013
 Revision: Final



Ref	Building	Cost Period	Roading	Car Parks	Foot Paths & Circulation Areas	Fences & Gates	Structures	Retaining Walls	Site Drainage	Electrical Infrastructure	Water Services	Site Furniture	Total
1.00	Site Infrastructure	Year 1 - 10 Asset Renewal Cost (\$ USD)	8,631	5,665	0	0	129,237	0	0	56,925	0	0	200,457
		Year 11 - 20 Asset Renewal Cost (\$ USD)	8,631	5,665	0	0	298,738	0	4,744	0	9,488	0	327,264
		Year 21 - 30 Asset Renewal Cost (\$ USD)	4,315	2,832	0	4,918	43,709	15,983	141,174	117,013	0	21,379	351,323
		Total (\$ USD)	21,577	14,161	0	4,918	471,683	15,983	145,918	173,938	9,488	21,379	879,045

Project: **COLLEGE OF MICRONESIA - FSM**
 Campus: **KOSRAE CAMPUS, TOFOL, KOSRAE STATE**
SUMMARY OF BUILDING & ELEMENT CONDITION GRADES
 Document: **CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN**

Audit Date: October 2013
 Revision: Final



Ref	Building	Sub-Structure	Frame	Structural Walls	Upper Floors	Roof	External Walls & Finishes	Windows & Doors	Structure	Stairs Balus. & Handrails	Internal Walls & Partitions	Internal Doors	Floor Finishes	Wall Finishes	Ceiling Finishes	Fixed Joinery Units	Internal Fit-Out	Sanitary Plumbing	Mech. Services	Fire Services	Electrical Services	Vertical Transport	Special Services	Building Services	Building
1.00	A - Administration (A - Administration Building/Classrooms)	4	3	2	0	3	2	3	3	0	2	2	3	3	4	3	3	3	3	4	2	0	3	3	3
2.00	B - Land Library & Voced Classrooms (J - Learning Res. & Career Dev.)	2	2	2	0	3	2	3	3	0	2	2	3	2	3	2	2	2	4	5	2	0	2	3	3
3.00	C - Land Grant Office (B - Land Grant Building)	3	3	3	0	3	3	4	4	0	3	5	5	4	4	5	5	4	5	5	4	0	3	4	4
4.00	D - Bookstore (I - Bookstore)	3	3	3	0	4	3	4	4	0	0	0	5	4	4	3	4	0	2	0	3	0	3	3	4
5.00	E - Small Business Development Centre (H - KSBDC Building)	2	2	4	2	4	4	3	3	4	2	3	3	3	4	3	3	3	4	5	3	0	3	3	3
6.00	F - Faculty Office (C - Faculty Building)	3	3	3	0	3	3	5	4	3	0	0	4	4	4	3	4	3	3	5	3	0	3	4	4
7.00	G - Maintenance Shop (F - Maintenance Shop)	3	4	0	0	3	4	0	4	0	4	0	0	0	0	0	4	0	0	5	3	0	0	4	4
8.00	H - Maintenance Office (G - Maintenance Office)	4	3	4	0	4	5	3	4	0	0	0	3	4	3	0	4	0	0	5	3	0	3	4	4
9.00	I - Former Library - Rose Mackwelung Building (D - Rose Mackwelung Library)	2	4	3	0	4	3	3	3	0	4	4	4	4	4	2	4	2	3	5	3	0	3	3	3
10.00	Research Lab (Off Campus)	2	2	2	0	4	3	3	3	2	0	2	2	3	2	1	2	2	2	2	2	0	2	2	3
11.00	Toilet Block (attached to Lab Building Off Campus)	2	3	2	0	4	3	5	3	0	0	2	2	2	3	3	3	3	3	2	3	0	2	3	3

Condition Grade 0 = N/A	Not present or not applicable
Condition Grade 1 = Very Good	The building/element is new and is functioning as required.
Condition Grade 2 = Good	The building/element is functioning as required.
Condition Grade 3 = Average	The building element is approaching the end of its serviceable life but is still functioning as required. Maintenance is required to extend serviceable life.
Condition Grade 4 = Poor	The building element is showing signs of failure and deterioration. Extensive maintenance is required or the item should be considered for replacement.
Condition Grade 5 = Very Poor	The building element has failed and has deteriorated significantly beyond the point of repair. The item must be replaced

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 MAINTENANCE COST PLAN (BUILDINGS)
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Ref	Building	Gross Floor Area (GFA)		External Wall Area (EWA)		Roof Area (RA)		Door & Window Area (DWA)		Internal Wall Area (IWA)		Element	Structure							Internal Fit-Out				Services							Total					
		ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2		ft2	m2	Maintenance Task	Building Wash	External Wall Painting	Protective Coatings to Roof	Wall Cladding Repairs	Roof Cladding Repairs	Door & Window Repairs	Misc Repairs	Floor Finishes Cleaning & Repairs	Internal Wall Painting	Ceiling & Soffit Painting	Internal Door Repairs	Misc Repairs	Fire Suppress. Detection & Alarm Systems	Mechanical Ventilation	A/C Systems		Hot Water Generation	Electrical Services	Hydraulic Services	Comm. Systems	Vertical Transport
												Unit	ft2	ft2	ft2	ft2	ft2	ft2	ft2	LS Allow	ft2	ft2	ft2	No.	LS Allow	ft2	LS Allow	No.	LS Allow	ft2	No.	LS Allow	LS Allow	LS Allow	LS Allow	LS Allow
												Rate/Cost (\$ USD)	0.01	0.65	0.93	0.05	0.05	0.25	250.00	0.03	0.56	0.65	25.00	0.05	100.00	50.00	500.00	0.05	25.00	250.00	2,500.00	250.00				
												Frequency (Years)	0.50	5.00	7.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00	12.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
8.00	H - Maintenance Office (G - Maintenance Office)	651	60	888	83	1,018	95	152	14	0	0	Quantity	1,906	888	1,018	888	1,018	152	0	651	888	370	0	0	651	0	0	0	651	0	1	0	0	Total		
												Total Cost Per Occurrence (\$ USD)	19	578	945	44	51	38	0	20	495	241	0	0	33	0	0	0	33	0	250	0	0	Total	818	
												Annualised Maint. Budget (\$ USD)	38	116	135	44	51	38	0	20	41	20	0	0	33	0	0	0	33	0	250	0	0	Total	818	
													422							81				315							2.2%					
9.00	I - Former Library - Rose Mackwelung Building (D - Rose Mackwelung Library)	1,781	165	1,410	131	2,368	220	193	18	1,142	106	Quantity	3,778	1,410	2,368	1,410	2,368	193	1	1,781	3,694	1,781	10	1	1,781	0	5	0	1,781	7	1	0	1	Total		
												Total Cost Per Occurrence (\$ USD)	38	917	2,200	71	118	48	250	53	2,059	1,158	250	250	89	0	250	0	89	175	250	0	250	Total	3,235	
												Annualised Maint. Budget (\$ USD)	76	183	314	71	118	48	250	53	172	97	250	250	89	0	500	0	89	175	250	0	250	Total	3,235	
													1,060							822				1,353							8.7%					
10.00	Research Lab (Off Campus)	1,566	146	1,445	134	2,473	230	400	37	0	0	Quantity	3,918	1,445	2,473	1,445	2,473	400	1	1,566	1,445	1,566	7	1	1,566	0	5	0	1,566	7	1	0	1	Total		
												Total Cost Per Occurrence (\$ USD)	39	940	2,298	72	124	100	250	47	806	1,019	175	250	78	0	250	0	78	175	250	0	250	Total	3,096	
												Annualised Maint. Budget (\$ USD)	78	188	328	72	124	100	250	47	67	85	175	250	78	0	500	0	78	175	250	0	250	Total	3,096	
													1,140							624				1,332							8.3%					
11.00	Toilet Block (attached to Lab Building Off Campus)	422	39	809	75	590	55	54	5	0	0	Quantity	1,399	809	590	809	590	54	1	422	809	585	3	1	422	3	1	0	422	3	0	0	1	Total		
												Total Cost Per Occurrence (\$ USD)	14	526	548	40	29	13	250	13	451	381	75	250	21	300	50	0	21	75	0	0	250	Total	1,719	
												Annualised Maint. Budget (\$ USD)	28	105	78	40	29	13	250	13	38	32	75	250	21	300	100	0	21	75	0	0	250	Total	1,719	
													545							407				767							4.6%					
Total		23,401	2,174	22,961	2,133	33,311	3,095	4,569	424	5,159	479	Total Quantity	56,272	22,961	33,311	22,961	33,311	4,569	12	23,401	33,279	29,439	36	12	23,401	7	37	0	23,401	48	12	0	12			
												Total Annualised Maint. Budget (\$ USD)	1,125	2,986	4,421	1,148	1,666	1,142	3,000	702	1,546	1,595	900	3,000	1,170	700	3,700	0	1,170	1,200	3,000	0	3,000	37,172		
													15,489							7,743				13,940							100.0%					
												Labour Portion (%)	80%	50%	50%	60%	60%	50%	50%	80%	60%	60%	50%	50%	50%	70%	70%	70%	70%	70%	70%	40%	50%			
												Labour Cost (\$ USD)	900	1,493	2,210	689	999	571	1,500	562	928	957	450	1,500	585	490	2,590	0	819	840	2,100	0	1,500	21,684		
												Labour Hours (Based on \$3/Hour)	300	498	737	230	333	190	500	187	309	319	150	500	195	163	863	0	273	280	700	0	500	7,228		
												Number Maintenance Staff Required (Based on 1,800 Hours/PA)																			4.0					
												Plant Portion (%)	10%	10%	10%	10%	10%	0%	0%	10%	10%	10%	0%	0%	0%	10%	10%	10%	10%	10%	0%	20%	0%			
												Material Cost (\$ USD)	113	299	442	115	167	0	0	70	155	160	0	0	0	70	370	0	117	120	0	0	0	2,196		
												Material Portion (%)	10%	40%	40%	30%	30%	50%	50%	10%	30%	30%	50%	50%	50%	20%	20%	20%	20%	20%	30%	40%	50%			
												Material Cost (\$ USD)	113	1,195	1,768	344	500	571	1,500	70	464	479	450	1,500	585	140	740	0	234	240	900	0	1,500	13,292		

Project: COLLEGE OF MICRONESIA - FSM

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A - ADMINISTRATION (A - ADMINISTRATION BUILDING/CLASSROOMS)

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ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)							
14.10	Built-in Joinery - Shelving Unit - Pigeon hole shelving unit to Administration	Some evidence of marks	Wash down thoroughly	2	30%														1,581	0	0	1,581	1,581	1,581	100.0%		
14.11	Built-in Joinery - Administration Reception counter and flap door	Some evidence of impact damage.	Wash down thoroughly	2	30%														5,693	0	0	5,693	5,693	5,693	100.0%		
14.12	Built-in Joinery - Kitchen (Small to medium)	Some evidence of water staining and marks	Wash down thoroughly and repaint cabinetry. Ease and adjust cupboards	2	30%														13,915	0	0	13,915	13,915	13,915	100.0%		
																			0	0	0	0	0	0	0.0%		
14.00	Total Fixed Joinery Units			3	50%														62,661	0	4,269	58,392	62,661	62,459	100.3%		
B	TOTAL INTERNAL FIT-OUT			3	50%														26,474	26,924	240,716	53,398	70,787	116,530	240,716	236,520	101.8%
15.00	Sanitary Plumbing																		0	0	0	0	0	0	0.0%		
15.01	WC	One WC has a broken lid to the reservoir chamber.	Replace broken lid chamber. Clean all WCs	2	30%														12,650	0	0	12,650	12,650	12,650	100.0%		
15.02	Urinal (Stall)	General wear and tear . Early signs of corrosion	Remove rust staining and wash thoroughly	3	50%														2,277	0	2,277	0	2,277	2,277	100.0%		
15.03	WHB (Single)	General wear and tear. One not hung as has damaged bracketry that has been ordered	Install new bracketry and sealant around WHB. Wash thoroughly	2	30%														9,488	0	0	9,488	9,488	9,488	100.0%		
15.04	Cleaners Sink Unit	Well used but operational. A lot of marks and staining	Clean thoroughly and remove staining	2	30%														1,898	0	0	1,898	1,898	1,898	100.0%		
15.05	Cold Water	Good, water obtained from Rain water tank	Check and monitor	2	30%														1,265	0	0	1,265	1,265	1,265	100.0%		
15.06	Cold Water Storage	Rainwater Tank to provide water to building	Clean tank	2	30%														6,325	0	0	6,325	6,325	6,325	100.0%		
15.07	Cold Water Pump	Not inspected but assumed ok.	Service and clean regularly	2	30%														1,898	0	0	1,898	1,898	1,898	100.0%		
15.08	Bathroom floor waste	Appears ok	Clean out floor drain throughly	2	30%														9,488	0	0	9,488	9,488	9,488	100.0%		
																			0	0	0	0	0	0	0.0%		
15.00	Total Sanitary Plumbing			3	50%														45,287	0	2,277	43,010	45,287	45,287	100.0%		
16.00	Mechanical Services																		0	0	0	0	0	0	0.0%		
16.01	Air-Conditioning - DX/Split System	All operating, consists of a mixture of units	Service and clean filters regularly	2	30%														159,390	39,848	79,695	39,848	159,390	39,848	400.0%		
16.02	Ventilation - W/C Extract	Operating, two modern units to Female and Male, older unit to staff WC	Service and clean filters particularly to staff WC unit	2	30%														2,846	0	2,846	0	2,846	2,846	100.0%		
16.03	Ceiling Mounted Fan	Operating	Clean blades	3	50%														4,870	9,741	4,870	9,741	4,870	200.0%			
																			0	0	0	0	0	0	0.0%		
16.00	Total Mechanical Services			3	50%														171,977	44,718	82,541	44,718	171,977	47,564	361.6%		
17.00	Fire Services																		0	0	0	0	0	0	0.0%		
17.01	Smoke Detection & Alarm Systems	In Operation but loose plates evident	Service system and refix alarm plates	2	30%														5,529	0	5,529	0	5,529	5,529	100.0%		
17.02	Fire Extinguisher	Replacement Fire Extinguishers ordered although overall appearance seems ok of current extinguisher to this building	Replace with ordered stock	5	90%														2,214	0	0	0	0	2,214	500.0%		
																			0	0	0	0	0	0	0.0%		
17.00	Total Fire Services			4	70%														2,214	0	0	0	0	2,214	214.4%		
18.00	Electrical Services																		0	0	0	0	0	0	0.0%		
18.01	Main Distribution Boards	Evidence of rust forming to box unit	Remove rust and paint finish	2	30%														9,488	0	0	9,488	9,488	9,488	100.0%		
18.02	Sub-Main Distribution Boards	Evidence of rust forming to box unit	Remove rust and paint finish	2	30%														4,428	0	0	4,428	4,428	4,428	100.0%		
18.03	Electrical Wiring/Reticulation	Good	Tidy up loose and messy wiring	2	30%														11,058	0	0	11,058	11,058	11,058	100.0%		
18.04	General Power Outlet	Good	Clean cover plates	2	30%														14,745	0	0	14,745	14,745	14,745	100.0%		
18.05	Lighting (External) - Incandescent	Operating and in use. Some without cover grills. Oxidation and corrosion showing on grills.	Wash grills and paint. Clean tubes. Install grills/covers to exposed bulbs	2	30%														6,325	0	0	6,325	6,325	6,325	100.0%		
18.06	Lighting (Internal) - Incandescent	Good condition to lights to Janitors/store and Electrical cupboard	Clean bulbs and covers	2	30%														822	0	0	822	822	822	100.0%		
18.07	Lighting (Internal) - Single Fluorescent	Good condition	Clean tubes and diffusers	2	30%														4,428	0	0	4,428	4,428	4,428	100.0%		
18.08	Lighting (Internal) - Double Fluorescent	Good condition	Clean tubes and diffusers, replace blown tubes and missing diffusers	2	30%														10,753	0	0	10,753	10,753	10,753	100.0%		
18.09	Lighting (Internal) - Triple Fluorescent	Good condition	Clean tubes and diffusers, replace blown tubes and missing diffusers	2	30%														16,129	0	0	16,129	16,129	16,129	100.0%		
																			0	0	0	0	0	0	0.0%		
18.00	Total Electrical Services			2	30%														78,174	0	0	78,174	78,174	78,174	100.0%		

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ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																		
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace		
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)									
19.00	Vertical Transportation																				0	0	0	0	0	0.0%			
19.01	No lifts are present to this building			0	0%																0	0	0	0	0	0.0%			
19.00	Total Vertical Transportation			0	0%																0	0	0	0	0	0.0%			
20.00	Special Services																				0	0	0	0	0	0.0%			
20.01	Telecommunication/Data Network	In operation and good condition however loose and untidy wiring noticed	Service and tidy wiring. Fix damaged outlets	3	50%																14,745	29,489	14,745	0	14,745	200.0%			
20.02	Wifi Receiver and Wifi services	In operation and Wifi received installed to front of building	Repair, Replace, Service Comments:	2	30%																11,043	0	11,043	0	11,043	100.0%			
20.00	Total Special Services			3	50%																14,745	40,533	14,745	11,043	14,745	40,533	25,788	157.2%	
C	TOTAL BUILDING SERVICES			3	50%									39,848	2,214	0	0	0	0	0	19,615	352,568	63,890	105,818	182,860	352,568	204,556	172.4%	
	TOTAL BUILDING			3	50%									76,657	2,214	0	0	0	0	0	26,474	46,539	836,840	154,098	274,868	407,875	836,840	891,039	93.9%
										154,098																			
										Year 1 - 10 Consolidated Capital Replacement Cost																			

Project: COLLEGE OF MICRONESIA - FSM

Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE

B - LAND LIBRARY & VOCED CLASSROOMS (J - LEARNING RES. & CAREER DEV.)

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Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)
15.01	External tap	In operation and good working condition	Monitor	2	30%						0	0	0	0	0	0	0	0	0	0	949	0	0	949	949	949	100.0%
15.00	Total Sanitary Plumbing			2	30%						0	0	0	0	0	0	0	0	0	0	949	0	0	949	949	949	100.0%
16.00	Mechanical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
16.01	Air-Conditioning - DX/Split System	In operation	Service and clean filters regularly	2	30%						0	0	0	0	26,565	0	0	0	0	0	106,260	26,565	53,130	26,565	106,260	26,565	400.0%
16.02	Air-Conditioning - DX/Split System	External AC unit of split system broken	Replace broken external unit if unable to service and replace faulty parts	5	90%						4,428	0	0	0	0	0	0	4,428	0	0	22,138	8,855	4,428	8,855	22,138	4,428	500.0%
16.00	Total Mechanical Services			4	70%						4,428	0	0	0	26,565	0	0	4,428	0	0	128,398	35,420	57,558	35,420	128,398	30,993	414.3%
17.00	Fire Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
17.01	Fire Extinguisher	Replacement Fire Extinguishers ordered although overall appearance seems ok of current extinguisher to this building	Replace with ordered stock	5	90%						2,846	0	0	0	0	2,846	0	0	0	0	14,231	5,693	5,693	2,846	14,231	2,846	500.0%
17.00	Total Fire Services			5	90%						2,846	0	0	0	0	2,846	0	0	0	0	14,231	5,693	5,693	2,846	14,231	2,846	500.0%
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
18.01	Main Distribution Boards	Good condition, tidy installation	Clean and paint metal surround box internally	2	30%						0	0	0	0	0	0	0	0	0	0	9,488	0	0	9,488	9,488	9,488	100.0%
18.02	Sub-Main Distribution Boards	Good condition, tidy installation	Clean and paint metal surround box internally	2	30%						0	0	0	0	0	0	0	0	0	0	4,428	0	0	4,428	4,428	4,428	100.0%
18.03	Sub-Main Distribution Boards	Partially installed to Classroom	Follow up with installer to liase completion of installation	1	10%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,428	0.0%	
18.04	Electrical Wiring/Reticulation	Good, majority of wiring hidden to dado rail		1	10%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	27,417	0.0%	
18.05	General Power Outlet	Installed as part of recent refurbishment and in good condition	Clean cover plates regularly	1	10%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,556	0.0%	
18.06	Lighting (External) - Incandescent	Good condition generally however some bulbs missing	Replace missing and blown bulbs. Clean bulbs and install protective cover grilles	3	50%						0	0	0	0	0	0	0	0	0	0	6,958	0	6,958	0	6,958	6,958	100.0%
18.07	Lighting (Internal) - Double Fluorescant	Operating and in good condition	Clean tubes, fittings and diffusers regularly	1	10%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	39,215	0.0%	
18.00	Total Electrical Services			2	30%						0	0	0	0	0	0	0	0	0	0	20,873	0	6,958	13,915	20,873	128,489	16.2%
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
20.01	Telecommunication/Data Network	In use but untidy wiring to offices and at main external box	Service and tidy up wiring to offices and main box	2	30%						0	0	0	0	0	0	0	0	0	0	36,556	0	36,556	0	36,556	36,556	100.0%
20.00	Total Special Services			2	30%						0	0	0	0	0	0	0	0	0	0	36,556	0	36,556	0	36,556	36,556	100.0%
C	TOTAL BUILDING SERVICES			3	50%						7,274	0	0	0	26,565	2,846	0	4,428	0	0	201,006	41,113	106,764	53,130	201,006	199,833	100.6%
	TOTAL BUILDING			3	50%						7,274	0	0	0	28,300	2,846	0	4,428	24,132	45,901	693,856	112,880	332,747	248,230	693,856	1,288,460	53.9%

112,880
Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 C - LAND GRANT OFFICE (B - LAND GRANT BUILDING)

Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)
16.01	Air-Conditioning - DX/Split System	Operating and in satisfactory condition to two adjoining offices adjacent the shower room	Service and clean filters	4	70%						0	0	4,428	0	0	0	0	0	4,428	17,710	8,855	4,428	4,428	17,710	4,428	400.0%	
16.02	Air-Conditioning - DX/Split System	Not operating and requires attention to large office at front corner of building	Service AC unit and replace if unable to get replacement parts	5	90%						4,428	0	0	0	0	0	0	4,428	22,138	8,855	4,428	8,855	22,138	4,428	500.0%		
16.03	Air-Conditioning - Window Mounted Unit)	Significantly corroded externally and damaged window mounted unit. Should be replaced	Remove and replace existing unit	5	90%						1,898	0	0	0	0	0	0	0	5,693	1,898	1,898	1,898	5,693	1,898	300.0%		
16.04	Ventilation - Kitchen Extract	Aged Kitchen extract located in large room. Is missing the grille and filter.	Services, clean thoroughly and install grille and filter to Kitchen extract hood	4	70%						0	0	0	0	0	12,650	0	0	25,300	12,650	0	12,650	25,300	12,650	200.0%		
16.00	Total Mechanical Services			5	90%						6,325	0	4,428	0	0	12,650	0	4,428	70,840	32,258	10,753	27,830	70,840	23,403	302.7%		
17.00	Fire Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
17.01	Fire Extinguisher	Replacement Fire Extinguishers ordered although overall appearance seems ok of current extinguisher to this building	Replace with ordered stock	5	90%						316	0	0	0	0	316	0	0	1,581	633	633	316	1,581	316	500.0%		
17.00	Total Fire Services			5	90%						316	0	0	0	0	316	0	0	1,581	633	633	316	1,581	316	500.0%		
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
18.01	Main Distribution Boards	In good working condition. Evidence of rust and corrosion to distribution board	Clean and wash thoroughly. Remove corrosion and rust and paint	3	50%						0	0	0	0	0	0	0	0	9,488	0	9,488	0	9,488	9,488	100.0%		
18.03	Electrical Wiring/Reticulation	Some loose and untidy wiring	Tidy up wiring with conduit on wall and above skirting	3	50%						0	0	0	0	0	0	0	0	5,851	0	5,851	0	5,851	5,851	100.0%		
18.03	General Power Outlet	Good condition	Clean cover plates	3	50%						0	0	0	0	0	0	0	0	7,802	0	7,802	0	7,802	7,802	100.0%		
18.04	Lighting (External) - Incandescent	Operating (one bulb not present in fitting), no covers. Mixture of standard bulbs and energy saver bulbs	Clean bulbs, replace missing bulb and install cover	3	50%						0	0	0	0	0	0	0	0	1,581	0	1,581	0	1,581	1,581	100.0%		
18.05	Lighting (Internal) - Incandescent	Operating and in use to the shower room	Suggest installing an electrical fitting better suited to the wet area environment or cover the existing bulb	3	50%						0	0	0	0	0	0	0	0	316	0	316	0	316	316	100.0%		
18.06	Lighting (Internal) - Double Fluorescents	Some tubes blown, missing diffusers and tubes.	Replace missing and blown tubes. Clean tubes and diffusers. Install diffusers where existing not present	4	70%						0	0	0	0	0	0	0	0	9,488	0	9,488	0	9,488	9,488	100.0%		
18.00	Total Electrical Services			4	70%						0	0	0	0	0	0	0	0	34,525	0	34,525	0	34,525	34,525	100.0%		
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
20.01	Telecommunication/Data Network	In operation and generally ok. Some loose and untidy wiring noticed	Service and tidy loose wiring	3	50%						0	0	0	0	0	0	0	7,802	15,603	7,802	0	7,802	15,603	7,802	200.0%		
20.00	Total Special Services			3	50%						0	0	0	0	0	0	0	7,802	15,603	7,802	0	7,802	15,603	7,802	200.0%		
C	TOTAL BUILDING SERVICES			4	70%						6,641	0	4,428	0	0	12,966	0	4,428	143,423	47,649	53,500	42,273	143,423	86,918	165.0%		
	TOTAL BUILDING			4	70%						6,641	16,644	57,930	0	13,950	12,966	0	4,428	387,579	169,480	62,097	156,002	387,579	474,369	81.7%		

169,480
 Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 D - BOOKSTORE (I - BOOKSTORE)
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN



Audit Date: October 2013
 Revision: Final

ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																	
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace	
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)								
18.04	Lighting (External) - Incandescent	Two bulbs present externally	Clean bulbs and install protective cover	3	50%						0	0	0	0	0	0	0	0	0	0	633	0	633	0	633	633	100.0%	
18.05	Lighting (Internal) - Incandescent	One energy saver bulb to rear of building	Clean bulb	3	50%						0	0	0	0	0	0	0	0	0	0	316	0	316	0	316	316	100.0%	
18.06	Lighting (Internal) - Fluorescant	Good fitting in middle of room. Triple Fluorescent fitting	Clean tubes and diffuser cover	3	50%						0	0	0	0	0	0	0	0	0	0	949	0	949	0	949	949	100.0%	
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
18.00	Total Electrical Services			3	50%						0	0	0	0	0	0	0	0	0	0	14,830	0	14,830	0	14,830	14,830	100.0%	
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
19.01	No lifts present			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
20.01	Telecommunication/Data Network	Telephone and internet in operation but loose and untidy wiring noticed	Service and tidy up loose and untidy wiring	3	50%						0	0	0	0	0	0	0	0	0	0	1,969	3,937	1,969	0	1,969	3,937	200.0%	
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
20.00	Total Special Services			3	50%						0	0	0	0	0	0	0	0	0	0	1,969	3,937	1,969	0	1,969	3,937	200.0%	
C	TOTAL BUILDING SERVICES			3	50%						0	0	0	0	4,428	0	0	0	0	0	1,969	36,477	6,396	23,685	6,396	36,477	21,226	171.9%
	TOTAL BUILDING			4	70%						0	3,937	0	0	6,325	0	0	0	0	17,808	1,969	82,881	30,039	27,733	25,108	82,881	109,125	76.0%

30,039
 Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 F - FACULTY OFFICE (C - FACULTY BUILDING)
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN



Audit Date: October 2013
 Revision: Final

ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																	
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace	
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)								
17.00	Total Fire Services			5	90%						633	0	0	0	0	0	0	0	0	0	0	3,163	1,265	1,265	633	3,163	633	500.0%
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
18.01	Main Distribution Boards	Ok. Tidy Installation located in the classroom	Clean cover and monitory	3	50%						0	0	0	0	0	0	0	0	0	0	0	9,488	0	9,488	0	9,488	9,488	100.0%
18.02	Electrical Wiring/Reticulation	Some loose and untidy wiring	Tidy up wiring and install wall mounted conduit	3	50%						0	0	0	0	0	0	0	0	0	0	0	5,319	0	5,319	0	5,319	5,319	100.0%
18.03	General Power Outlet	Good condition	Clean cover plates	3	50%						0	0	0	0	0	0	0	0	0	0	0	7,092	0	7,092	0	7,092	7,092	100.0%
18.04	Lighting (External) - Incandescent	Standard bulbs mounted to soffit	Clean bulbs and install protective covers	3	50%						0	0	0	0	0	0	0	0	0	0	0	1,265	0	1,265	0	1,265	1,265	100.0%
18.05	Lighting (Internal) - Fluorescent - Twin Tube	Operating but some tubes are blown	Replace blown tubes. Clean tubes and install diffusers	3	50%						0	0	0	0	0	0	0	0	0	0	0	5,693	0	5,693	0	5,693	5,693	100.0%
18.00	Total Electrical Services			3	50%						0	0	0	0	0	0	0	0	0	0	0	28,855	0	28,855	0	28,855	28,855	100.0%
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.01	Telecommunication/Data Network	In Operation but loose and untidy wiring, some poor workmanship to outlets	Service and clean outlets, tidy loose wiring	3	50%						0	0	0	0	0	0	0	0	0	7,092	14,183	7,092	0	7,092	14,183	7,092	200.0%	
20.00	Total Special Services			3	50%						0	0	0	0	0	0	0	0	0	7,092	14,183	7,092	0	7,092	14,183	7,092	200.0%	
C	TOTAL BUILDING SERVICES			4	70%						633	0	0	8,855	0	633	0	0	0	7,092	82,271	17,212	48,480	16,579	82,271	46,084	178.5%	
	TOTAL BUILDING			4	70%						633	14,963	0	8,855	3,795	633	0	0	18,824	28,444	241,654	76,146	65,029	100,478	241,654	435,968	55.4%	

76,146
 Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 H - MAINTENANCE OFFICE (G - MAINTENANCE OFFICE)
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN



Audit Date: October 2013
 Revision: Final

ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																									
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace									
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)							
18.00	Electrical Services																			0	0	0	0	0	0	0.0%										
18.01	Main Distribution Boards	Ok condition, cover box showing signs of rust	Repair rusted cover box	3	50%															0	0	9,488	0	9,488	0	9,488	100.0%									
18.02	Electrical Wiring/Reticulation	Some loose and untidy wiring but otherwise operational	Clean and tidy loose wiring	3	50%															0	0	2,295	0	2,295	0	2,295	100.0%									
18.03	General Power Outlet	In satisfactory and operational condition	Clean and wash cover plates	3	50%															0	0	3,060	0	3,060	0	3,060	100.0%									
18.04	Lighting (Internal) - Fluorescant (double)	A total of 6No double furescent fittings to this building. Some tubes are blown and diffusers missing	Clean tubes. Replace blown tubes. Install diffusers where not present currently	3	50%															0	0	3,795	0	3,795	0	3,795	100.0%									
18.00	Total Electrical Services			3	50%															0	0	18,638	0	18,638	0	18,638	100.0%									
19.00	Vertical Transportation																			0	0	0	0	0	0	0.0%										
19.01	No lifts to this building			0	0%															0	0	0	0	0	0	0.0%										
19.00	Total Vertical Transportation			0	0%															0	0	0	0	0	0	0.0%										
20.00	Special Services																			0	0	0	0	0	0	0.0%										
20.01	Telecommunication/Data Network	Telephone in operation but some untidy and exposed wiring	Service and tidy wiring	3	50%															0	0	3,060	6,121	3,060	0	3,060	200.0%									
20.00	Total Special Services			3	50%															0	0	3,060	6,121	3,060	0	3,060	200.0%									
C	TOTAL BUILDING SERVICES			4	70%															316	0	0	0	0	316	0	0	0	3,060	26,340	3,693	19,271	3,377	26,340	22,015	119.6%
	TOTAL BUILDING			4	70%															316	0	0	0	0	316	0	0	16,846	19,209	138,387	36,688	25,153	76,547	138,387	134,062	103.2%

36,688
 Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM

Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE

I - FORMER LIBRARY - ROSE MACKWELUNG BUILDING (D - ROSE MACKWELUNG LIBRARY)

Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)	(\$ USD)					
9.00	Internal Walls/Partitions			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
9.01	Timber Framed Partition Walls	Evidence of termite damage and decay especially to WCs and Conference/classroom	Inspect framing to WCs and Conference room when rotten/termite damaged linings are removed, replace	4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,051	0	0	8,051	8,051	8,051	100.0%	
9.00	Total Internal Walls/Partitions			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,051	0	0	8,051	8,051	8,051	100.0%	
10.00	Internal Doors			5	90%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
10.01	Timber Door - Single	Evidence of impact damage, termite attack, delamination of panels at base	Remove and replace, recommend installing kickplates to base of doors	5	90%	0	0	0	0	0	0	0	9,108	0	0	0	0	0	0	9,108	9,108	0	0	9,108	9,108	100.0%	
10.02	Timber Door - Single	General wear and tear and impact damage	Wash down and repaint	3	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	6,072	0	0	6,072	6,072	6,072	100.0%		
10.00	Total Internal Doors			4	70%	0	0	0	0	0	0	0	9,108	0	0	0	0	0	15,180	9,108	0	6,072	15,180	15,180	100.0%		
11.00	Floor Finishes			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
11.01	Vinyl Floor Finishes	Evidence of chipped, lifted and part missing tiles	Remove and replace	4	70%	0	0	0	0	0	0	0	0	0	14,326	0	0	0	28,652	14,326	0	14,326	28,652	14,326	200.0%		
11.02	Tiled Floor Finishes	Evidence of chipped, missing, dirty and damaged ceramic tiles	Remove and replace	4	70%	0	0	0	0	0	0	0	0	0	0	0	5,442	0	5,442	5,442	0	0	5,442	5,442	100.0%		
11.00	Total Floor Finishes			4	70%	0	0	0	0	0	0	0	0	0	14,326	0	0	5,442	34,094	19,768	0	14,326	34,094	19,768	172.5%		
12.00	Wall Finishes			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
12.01	Plywood Wall Linings with Painted Finishes	Evidence of impact damage and water damage at base to wet areas	Remove and replace	4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	7,245	0	7,245	0	7,245	7,245	100.0%		
12.02	Plywood Wall Linings with Painted Finishes	Evidence of marks and impact damage	Wash and repaint	3	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	12,775	0	0	12,775	12,775	12,775	100.0%		
12.03	Solid Plaster Wall Lining with Painted Finishes	Some evidence of cracks internally	Repair cracks, plaster and repaint	3	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	29,424	0	29,424	0	29,424	29,424	100.0%		
12.04	T&G Timber Board to dado height in Conference room	Evidence of marks and impact damage	Wash down and repaint	3	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	8,635	0	0	8,635	8,635	8,635	100.0%		
12.00	Total Wall Finishes			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	58,080	0	36,670	21,410	58,080	58,080	100.0%		
13.00	Ceiling Finishes			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
13.01	Painted ply ceiling	Evidence of popped and damaged panels to WC and sagging to Conference room	Remove and replace, check framing for termite attack	4	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	6,231	0	0	6,231	6,231	6,231	100.0%		
13.02	Painted ply ceiling to WC	Appears ok, one section previously termite damaged has been replaced recently	Wash down, check timber framing in ceiling space (not inspected at time of visit)	3	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	6,327	0	0	6,327	6,327	6,327	100.0%		
13.00	Total Ceiling Finishes			4	70%	0	0	0	0	0	0	0	0	0	0	0	0	0	12,559	0	0	12,559	12,559	12,559	100.0%		
14.00	Fixed Joinery Units			2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
14.01	Toilet Partitions	Evidence of marks but otherwise ok	Wash down thoroughly and monitor	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	1,027	0	0	1,027	1,027	1,027	100.0%		
14.02	Bloackboard	Ok	Wash down thoroughly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	380	0	0	380	380	380	100.0%		
14.03	Mirrors	General wear and tear	Wash down thoroughly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	380	0	0	380	380	380	100.0%		
14.04	Built-in Joinery - Bench Unit	No cupboard doors and dated but otherwise ok	Wash down	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	3,123	0	0	3,123	3,123	3,123	100.0%		
14.05	Built-in Joinery - Shelving Unit	Good condition	Wash down	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	633	0	0	633	633	633	100.0%		
14.00	Total Fixed Joinery Units			2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	5,542	0	0	5,542	5,542	5,542	100.0%		
B	TOTAL INTERNAL FIT-OUT			4	70%	0	0	0	0	0	0	0	9,108	14,326	0	0	5,442	0	133,505	28,876	36,670	67,959	133,505	119,179	112.0%		
15.00	Sanitary Plumbing			2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
15.01	WC	General wear and tear and rusty hold down bolts	Replace rusted hold down bolts, wash thoroughly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	6,325	0	0	6,325	6,325	6,325	100.0%		
15.02	WHB (Single)	Ok	Seal around pipe penetrations and clean sink thoroughly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	3,795	0	0	3,795	3,795	3,795	100.0%		
15.03	Cleaners Sink	Well used but OK	Clean regularly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	1,898	0	0	1,898	1,898	1,898	100.0%		
15.04	WHB (Double)	Operating, missing fitting to tap and some rust evident	Wash down thoroughly	2	30%	0	0	0	0	0	0	0	0	0	0	0	0	0	3,163	0	0	3,163	3,163	3,163	100.0%		

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 I - FORMER LIBRARY - ROSE MACKWELUNG BUILDING (D - ROSE MACKWELUNG LIBRARY)

Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																	
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace	
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)								
15.05	Cold Water	Operating and in use	Seal around pipe and wall penetrations and monitor	2	30%						0	0	0	0	0	0	0	0	0	0	1,265	0	0	1,265	1,265	1,265	100.0%	
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
15.00	Total Sanitary Plumbing			2	30%						0	0	0	0	0	0	0	0	0	0	16,445	0	0	16,445	16,445	16,445	100.0%	
16.00	Mechanical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
16.01	Air-Conditioning - DX/Split System	Operating and in good condition	Service and clean filters regularly	2	30%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
16.02	Air-Conditioning - Window Mounted Unit	Rusted and damaged externally but still operating	Remove and replace	4	70%						0	0	1,898	0	0	0	0	0	0	0	0	5,693	1,898	1,898	1,898	5,693	1,898	300.0%
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
16.00	Total Mechanical Services			3	50%						0	0	1,898	0	17,710	0	0	0	0	0	0	76,533	19,608	37,318	19,608	76,533	19,608	390.3%
17.00	Fire Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
17.01	Fire Extinguisher	No fire extinguishers present	Install Fire extinguishers to this building	5	90%						1,265	0	0	0	0	0	1,265	0	0	0	0	6,325	2,530	2,530	1,265	6,325	1,265	500.0%
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
17.00	Total Fire Services			5	90%						1,265	0	0	0	0	1,265	0	0	0	0	0	6,325	2,530	2,530	1,265	6,325	1,265	500.0%
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
18.01	Main Distribution Boards	Not inspected but assumed in ok condition	Tidy up external wiring	3	50%						0	0	0	0	0	0	0	0	0	0	0	9,488	0	9,488	0	9,488	9,488	100.0%
18.02	Electrical Wiring/Reticulation	Fittings working but some loose and untidy wiring	Tidy up loose and untidy wiring to building	3	50%						0	0	0	0	0	0	0	0	0	0	0	6,279	0	6,279	0	6,279	6,279	100.0%
18.03	General Power Outlet	Ok	Clean cover plates	2	30%						0	0	0	0	0	0	0	0	0	0	0	8,372	0	0	8,372	8,372	100.0%	
18.04	Lighting (Internal) -Single Incandescent	Assumed all operating but some fittings have blown or no light bulbs present	Replace missing light bulbs, clean existing and service bulbs present	3	50%						0	0	0	0	0	0	0	0	0	0	0	4,744	0	4,744	0	4,744	4,744	100.0%
18.05	Lighting (Internal) -Double Incandescent	Assumed all operating but some fittings have blown or no light bulbs present	Replace missing light bulbs, clean existing bulbs	3	50%						0	0	0	0	0	0	0	0	0	0	0	4,870	0	4,870	0	4,870	4,870	100.0%
18.06	Lighting (Internal) - Double Fluorescent	In good condition	Clean tubes and diffusers	2	30%						0	0	0	0	0	0	0	0	0	0	0	1,898	0	0	1,898	1,898	100.0%	
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%		
18.00	Total Electrical Services			3	50%						0	0	0	0	0	0	0	0	0	0	0	35,651	0	25,381	10,270	35,651	35,651	100.0%
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
20.01	Telecommunication/Data Network	In operation however some untidy wiring internally and externally at junction box	Service and tidy wiring	3	50%						0	0	0	0	0	0	0	0	0	0	8,372	16,745	8,372	0	8,372	16,745	8,372	200.0%
											0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
20.00	Total Special Services			3	50%						0	0	0	0	0	0	0	0	0	0	8,372	16,745	8,372	0	8,372	16,745	8,372	200.0%
C	TOTAL BUILDING SERVICES			3	50%						1,265	0	1,898	0	17,710	1,265	0	0	0	0	8,372	151,698	30,510	65,228	55,960	151,698	81,341	186.5%
	TOTAL BUILDING			3	50%						1,265	0	1,898	0	26,818	15,591	0	0	11,007	8,372	420,692	64,951	137,993	217,748	420,692	445,748	94.4%	

64,951
 Year 1 - 10 Consolidated Capital Replacement Cost



ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)							
A	TOTAL STRUCTURE			3	50%														70,061	4,499	48,279	17,283	70,061	284,342	24.6%		
8.00	Stairs, Balustrades & Handrails																		0	0	0	0	0	0	0.0%		
8.01	Pre-cast/Insitu Reinforced Concrete Stairs	Up from front of building to main entrance and side entrance. Well worn and used but ok	Wash down and monitor	2	30%														0	0	0	0	0	6,325	0.0%		
																			0	0	0	0	0	0	0.0%		
8.00	Total Stairs Balustrades & Handrails			2	30%														0	0	0	0	0	6,325	0.0%		
9.00	Internal Walls/Partitions																		0	0	0	0	0	0	0.0%		
9.01	All walls are blockwork walls			0	0%														0	0	0	0	0	0	0.0%		
																			0	0	0	0	0	0	0.0%		
9.00	Total Internal Walls/Partitions			0	0%														0	0	0	0	0	0	0.0%		
10.00	Internal Doors																		0	0	0	0	0	0	0.0%		
10.01	Timber Door - Single	Evidence of marks and dust at base of door	Wash down and recommend installing kickplates to base of door	2	30%														0	0	0	0	0	10,626	0.0%		
																			0	0	0	0	0	0	0.0%		
10.00	Total Internal Doors			2	30%														0	0	0	0	0	10,626	0.0%		
11.00	Floor Finishes																		0	0	0	0	0	0	0.0%		
11.01	Vinyl Floor Finishes	Good condition	Clean regularly	2	30%														12,886	0	12,886	0	12,886	12,886	100.0%		
11.02	Tiled Floor Finishes	Good condition	Clean thoroughly	2	30%														739	0	0	739	739	739	100.0%		
																			0	0	0	0	0	0	0.0%		
11.00	Total Floor Finishes			2	30%														13,625	0	12,886	739	13,625	13,625	100.0%		
12.00	Wall Finishes																		0	0	0	0	0	0	0.0%		
12.01	Solid Plaster Wall Lining with Painted Finishes	Evidence of water damage and mould growth to some wall areas noticed	Wash down thoroughly, plaster and repaint mouldy and stained walls	3	50%														30,421	0	30,421	0	30,421	30,421	100.0%		
																			0	0	0	0	0	0	0.0%		
12.00	Total Wall Finishes			3	50%														30,421	0	30,421	0	30,421	30,421	100.0%		
13.00	Ceiling Finishes																		0	0	0	0	0	0	0.0%		
13.01	Fibre Cement Ceiling Lining with Painted Finishes	Good condition	Clean regularly	2	30%														17,488	0	0	17,488	17,488	17,488	100.0%		
																			0	0	0	0	0	0	0.0%		
13.00	Total Ceiling Finishes			2	30%														17,488	0	0	17,488	17,488	17,488	100.0%		
14.00	Fixed Joinery Units																		0	0	0	0	0	0	0.0%		
14.01	Mirror unit to WC	Good condition		1	10%														380	0	0	380	380	380	100.0%		
14.02	Keylock up box	Good condition		1	10%														633	0	0	633	633	633	100.0%		
14.03	Built-in Joinery - Bench Unit	Good condition, tiled top		1	10%														3,795	0	0	3,795	3,795	3,795	100.0%		
																			0	0	0	0	0	0	0.0%		
14.00	Total Fixed Joinery Units			1	10%														4,807	0	0	4,807	4,807	4,807	100.0%		
B	TOTAL INTERNAL FIT-OUT			2	30%														66,342	0	43,308	23,034	66,342	83,293	79.6%		
15.00	Sanitary Plumbing																		0	0	0	0	0	0	0.0%		
15.01	WC	Good condition		1	10%														3,163	0	0	3,163	3,163	3,163	100.0%		
15.02	WHB (Single)	Good condition		1	10%														1,898	0	0	1,898	1,898	1,898	100.0%		
15.03	Cold Water	Operating to WHB and WC		2	30%														1,265	0	0	1,265	1,265	1,265	100.0%		
15.04	Cold Water Storage	Good condition - two large water tanks	Wash down inside and out, clean filters	2	30%														7,590	0	0	7,590	7,590	7,590	100.0%		
15.05	Cold Water Storage	Missing Cover to Rainwater tank	Replace missing cover	4	70%														3,795	3,795	0	0	3,795	3,795	100.0%		
15.06	Cold Water Pump	Operating and good condition	Service and wash	2	30%														1,898	0	0	1,898	1,898	1,898	100.0%		

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 RESEARCH LAB (OFF CAMPUS)
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN



Audit Date: October 2013
 Revision: Final

ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																	
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace	
15.07	Bathroom floor waste	Good condition	Clean out floor drain thoroughly	2	30%						0	0	0	0	0	0	0	0	0	0	0	3,163	0	0	3,163	3,163	3,163	100.0%
15.00	Total Sanitary Plumbing			2	30%						0	0	0	0	0	0	0	0	0	0	0	3,795	3,795	0	18,975	22,770	22,770	100.0%
16.00	Mechanical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
16.01	Air-Conditioning - DX/Split System	Operating and in good condition	Service and clean filters	2	30%						0	0	0	0	22,138	0	0	0	0	0	0	88,550	22,138	44,275	22,138	88,550	22,138	400.0%
16.02	Ceiling Mounted Fan	Operating and in good condition	Clean blades thoroughly	2	30%						0	0	0	0	0	0	0	0	0	0	0	2,783	0	2,783	0	2,783	2,783	100.0%
16.00	Total Mechanical Services			2	30%						0	0	0	0	22,138	0	0	0	0	0	0	91,333	22,138	47,058	22,138	91,333	24,921	366.5%
17.00	Fire Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
17.01	Fire Extinguisher	In good condition	Monitor	2	30%						0	0	0	1,265	0	0	0	0	0	0	1,265	6,325	2,530	2,530	1,265	6,325	1,265	500.0%
17.00	Total Fire Services			2	30%						0	0	0	1,265	0	0	0	0	0	1,265	0	6,325	2,530	2,530	1,265	6,325	1,265	500.0%
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
18.01	Main Distribution Boards	Good condition, well labelled and professionally installed.	Tidy wiring externally above meterboard	2	30%						0	0	0	0	0	0	0	0	0	0	0	9,488	0	0	9,488	9,488	9,488	100.0%
18.02	Electrical Wiring/Reticulation	Good		2	30%						0	0	0	0	0	0	0	0	0	0	0	5,523	0	0	5,523	5,523	5,523	100.0%
18.03	General Power Outlet	Good	Clean cover plates regularly	2	30%						0	0	0	0	0	0	0	0	0	0	0	7,364	0	0	7,364	7,364	7,364	100.0%
18.04	Lighting (External) - Incandescent	Good	Clean bulbs install protective cover/grill	2	30%						0	0	0	0	0	0	0	0	0	0	0	2,214	0	0	2,214	2,214	2,214	100.0%
18.05	Lighting (Internal) - Fluorescent - Triple Tube	Operating - Only two tubes fitted in each fitting	Clean tubes and diffusers regularly	2	30%						0	0	0	0	0	0	0	0	0	0	0	20,873	0	0	20,873	20,873	20,873	100.0%
18.06	Ultra violet lights	Operating and in good working order		2	30%						0	0	0	0	0	0	0	0	0	0	0	5,060	0	0	5,060	5,060	5,060	100.0%
18.00	Total Electrical Services			2	30%						0	0	0	0	0	0	0	0	0	0	0	50,520	0	0	50,520	50,520	50,520	100.0%
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.01	Telecommunication/Data Network	In operation and in good condition		2	30%						0	0	0	0	0	0	0	0	0	0	0	7,364	0	7,364	0	7,364	7,364	100.0%
20.00	Total Special Services			2	30%						0	0	0	0	0	0	0	0	0	0	0	7,364	0	7,364	0	7,364	7,364	100.0%
C	TOTAL BUILDING SERVICES			2	30%						0	0	0	1,265	22,138	0	0	0	5,060	0	178,311	28,463	56,952	92,897	178,311	106,839	166.9%	
	TOTAL BUILDING			3	50%						0	0	4,499	1,265	22,138	0	0	0	5,060	0	314,714	32,961	148,538	133,215	314,714	474,474	66.3%	

32,961
 Year 1 - 10 Consolidated Capital Replacement Cost

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 TOILET BLOCK (ATTACHED TO LAB BUILDING OFF CAMPUS)

Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)							
9.01	All internal walls underfoot to be blockwork			0	0%														0	0	0	0	0	0	0.0%		
9.00	Total Internal Walls/Partitions			0	0%														0	0	0	0	0	0	0.0%		
10.00	Internal Doors																		0	0	0	0	0	0	0.0%		
10.01	Timber Door - Single	Not inspected, assumed ok.	Wash down	2	30%														0	0	0	0	0	4,554	0.0%		
10.00	Total Internal Doors			2	30%														0	0	0	0	0	4,554	0.0%		
11.00	Floor Finishes																		0	0	0	0	0	0	0.0%		
11.01	Vinyl Floor Finishes	Not able to access to inspect, assumed ok	Clean regularly	2	30%														3,767	0	3,767	0	3,767	3,767	100.0%		
11.02	Tiled Floor Finishes	Very dirty and unclean	Wash thoroughly	2	30%														452	0	0	452	452	452	100.0%		
11.00	Total Floor Finishes			2	30%														4,220	0	3,767	452	4,220	4,220	100.0%		
12.00	Wall Finishes																		0	0	0	0	0	0	0.0%		
12.01	Solid Plaster Wall Lining with Painted Finishes	Dirty to WC, remainder unable to be inspected	Wash thoroughly	2	30%														14,377	0	0	14,377	14,377	14,377	100.0%		
12.02	Tiled Wall Finishes	Very dirty and with marks but otherwise ok	Clean thoroughly and regularly	2	30%														1,549	0	0	1,549	1,549	1,549	100.0%		
12.00	Total Wall Finishes			2	30%														15,927	0	0	15,927	15,927	15,927	100.0%		
13.00	Ceiling Finishes																		0	0	0	0	0	0	0.0%		
13.01	Fibre Cement Soffit Lining with Painted Finishes	Blistered and flaky paint	Wash and repaint	3	50%														1,822	0	1,822	0	1,822	1,822	100.0%		
13.02	Fibre Cement Ceiling Lining with Painted Finishes	Not inspected but assumed ok	Wash down	2	30%														4,482	0	0	4,482	4,482	4,482	100.0%		
13.03	Painted ply ceiling to WC	Evidence of marks and dirty appearance	Wash down thoroughly	2	0%														146	0	0	146	146	146	100.0%		
13.00	Total Ceiling Finishes			3	50%														6,449	0	1,822	4,627	6,449	6,449	100.0%		
14.00	Fixed Joinery Units																		0	0	0	0	0	0	0.0%		
14.01	White Boards	Assumed and all ok	Wash down thoroughly	2	30%														759	0	0	759	759	759	100.0%		
14.02	Mirrors	WC- requires thorough clean, assumed 1No to main area	Clean and wash thoroughly	3	50%														759	0	759	0	759	759	100.0%		
14.03	Built-in Joinery - Bench Unit	Not inspected, assumed ok.	Clean and wash benchtop	2	30%														7,590	0	0	7,590	7,590	7,590	100.0%		
14.00	Total Fixed Joinery Units			3	50%														9,108	0	759	8,349	9,108	9,108	100.0%		
B	TOTAL INTERNAL FIT-OUT			3	50%														35,703	0	6,348	29,355	35,703	40,257	88.7%		
15.00	Sanitary Plumbing																		0	0	0	0	0	0	0.0%		
15.01	WC	Dirty but otherwise ok	Clean and wash thoroughly	2	30%														3,163	0	0	3,163	3,163	3,163	100.0%		
15.02	WHB (Single)	Very dirty and unclean but otherwise ok	Clean and wash thoroughly	2	30%														1,898	0	0	1,898	1,898	1,898	100.0%		
15.03	Cold Water	Good condition and operating	Clean taps and piping	2	30%														1,265	0	0	1,265	1,265	1,265	100.0%		
15.04	Bathroom floor waste	Very dirty and disgusting appearance from above	Wash and clean out thoroughly	4	70%														3,163	3,163	0	0	3,163	3,163	100.0%		
15.00	Total Sanitary Plumbing			3	50%														9,488	3,163	0	6,325	9,488	9,488	100.0%		
16.00	Mechanical Services																		0	0	0	0	0	0	0.0%		
16.01	Air-Conditioning - DX/Split System	Inspected from outside. Assumed in good operating condition	Clean and service filters regularly	2	30%									4,428	0	0	0	0	17,710	4,428	8,855	4,428	17,710	4,428	400.0%		
16.02	Ventilation - Room Extract	Inspected from outside, new and in good condition	Repair, Replace, Service, Clean Comments:	2	30%									0	0	0	0	0	3,163	0	3,163	0	3,163	3,163	100.0%		

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 TOILET BLOCK (ATTACHED TO LAB BUILDING OFF CAMPUS)

Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN

Audit Date: October 2013

Revision: Final



ID Code	Element	Condition Assessment		Condition Grading		Condition Gauge					Asset Renewal Cost																
		Condition Observations	Recommended Course of Action & Maintenance	Condition Grade	% Deterioration	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Renewal Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)	2013	2014	2015	2016	2017	2018	2019
16.03	Ventilation - Room Extract	Inspected from outside, rusted noticed in fan chamber	Wash down inside and out thoroughly. Service fan unit	3	50%						0	0	0	0	0	0	0	0	0	1,581	3,163	1,581	0	1,581	3,163	1,581	200.0%
16.00	Total Mechanical Services			3	50%						0	0	0	0	4,428	0	0	0	0	1,581	24,035	6,009	12,018	6,009	24,035	9,171	262.1%
17.00	Fire Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
17.01	Fire Extinguisher	Not inspected but assumed to be in good condition	Monitor	2	30%						0	0	0	633	0	0	0	0	633	0	3,163	1,265	1,265	633	3,163	633	500.0%
17.00	Total Fire Services			2	30%						0	0	0	633	0	0	0	0	633	0	3,163	1,265	1,265	633	3,163	633	500.0%
18.00	Electrical Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
18.01	Main Distribution Boards	Not inspected, assumed ok.	Service and clean cover box unit	2	30%						0	0	0	0	0	0	0	0	0	0	9,488	0	0	9,488	9,488	9,488	100.0%
18.02	Electrical Wiring/Reticulation	Not inspected, assumed ok.		2	30%						0	0	0	0	0	0	0	0	0	0	1,488	0	0	1,488	1,488	1,488	100.0%
18.03	General Power Outlet	Not inspected, assumed ok.		2	30%						0	0	0	0	0	0	0	0	0	0	1,984	0	0	1,984	1,984	1,984	100.0%
18.04	Lighting (External) - Incandescent	Dirty bulbs but otherwise ok	Replace dirty bulbs, instill protective cover grilles	3	50%						0	0	0	0	0	0	0	0	0	0	1,265	0	1,265	0	1,265	1,265	100.0%
18.05	Lighting (Internal) - Incandescent	Dirty bulb to WC, others not able to be inspected	Wash and clean bulbs	3	50%						0	0	0	0	0	0	0	0	0	0	949	0	949	0	949	949	100.0%
18.06	Lighting (Internal) - Fluorescent	Not able to be inspected but assumed ok	Clean tubes and diffusers	2	30%						0	0	0	0	0	0	0	0	0	0	2,530	0	0	2,530	2,530	2,530	100.0%
18.00	Total Electrical Services			3	50%						0	0	0	0	0	0	0	0	0	17,704	0	2,214	15,490	17,704	17,704	100.0%	
19.00	Vertical Transportation										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.01	No lifts to this building			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
19.00	Total Vertical Transportation			0	0%						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.00	Special Services										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
20.01	Telecommunication/Data Network	Not able to be inspected but assumed present and in good working order	Service and tidy any loose and untidy wiring	2	30%						0	0	0	0	0	0	0	0	0	0	1,984	0	1,984	0	1,984	1,984	100.0%
20.00	Total Special Services			2	30%						0	0	0	0	0	0	0	0	0	0	1,984	0	1,984	0	1,984	1,984	100.0%
C	TOTAL BUILDING SERVICES			3	50%						0	0	0	633	4,428	0	0	0	3,795	1,581	56,373	10,436	17,480	28,456	56,373	38,979	144.6%
	TOTAL BUILDING			3	50%						0	0	0	633	8,223	0	0	0	11,543	1,581	117,847	21,980	25,409	70,458	117,847	191,197	61.6%
										21,980																	
										Year 1 - 10 Consolidated Capital Replacement Cost																	



ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Assessment		Condition Gauge					Asset Renewal Cost																
				Condition Grade	% Deter.	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)							
5.17	Greenhouse and store (Concrete nib wall, steel and timber framing, timber framed roof with plastic sheeting to roof and perspex glazing to part of walls) - Off campus location	Scheduled for demolition later this year	Demolish and replace	5	90%															56,451	56,451	56,451	0	56,451	56,451	100.0%	
5.18	External Sink and hose bench (Off campus location)	Well used but functional	Wash down sink unit thoroughly and service tapware	3	50%															4,428	0	4,428	0	4,428	4,428	100.0%	
5.00	Total Structures			4	70%									30,282					98,955	471,683	129,237	298,738	43,709	471,683	599,486	78.7%	
6.00	Retaining Walls																		0	0	0	0	0	0	0	0.0%	
6.01	Reinforced Concrete Retaining Walls	To rear end of Land Library and Voced classrooms building. Appears to be ok	Wash down and clean regularly	3	50%														15,983	0	0	15,983	15,983	15,983	100.0%		
6.02	Stone Retaining Walls	Riprap stream wall lining considered to be maintained by the State and not part of this assessment		0	0%														0	0	0	0	0	0	0	0.0%	
6.00	Total Retaining Walls			3	50%														15,983	0	0	15,983	15,983	15,983	100.0%		
7.00	Site Drainage																		0	0	0	0	0	0	0	0.0%	
7.01	Swales	Evidence of scour and erosion particularly where swale located near to buildings	Clean out swales regularly. Widen and deepen where possible and forming to falls to discharge locations	3	50%														0	0	0	0	0	9,601	0.0%		
7.02	Inground Piped Stormwater Drainage	Not inspected but assumed ok -only to some buildings	Service and clean out	2	30%														0	0	0	0	0	37,950	0.0%		
7.02	Open Concrete Channels	Evidence of broken/damaged sections and flooding	Repair and clean out	3	50%														53,889	0	0	53,889	53,889	53,889	100.0%		
7.03	Concrete Culvert	Evidence of chipped top to culvert	Wash down	3	50%														75,900	0	0	75,900	75,900	75,900	100.0%		
7.04	Inground Piped Sewer Drainage	No evidence of damage or broken sections	Monitor	2	30%														0	0	0	0	0	50,600	0.0%		
7.05	Septic Tanks	To Off campus Research lab, old but appears to be in good condition	Clean out Septic tank and monitor	3	50%														11,385	0	0	11,385	11,385	11,385	100.0%		
7.05	Stormwater outlet headwall and wing walls to discharge point at entrance to Gym access road	Damaged PVC pipe at termination but still functions as intended. Evidence of poor workmanship with jointing and	Monitor. Clean out around headwall and to pipe. Wash down and plaster blockwork wall.	4	70%														4,744	0	4,744	0	4,744	4,744	100.0%		
7.00	Site Drainage			3	50%														145,918	0	4,744	141,174	145,918	244,069	59.8%		
8.00	Electrical Infrastructure																		0	0	0	0	0	0	0.0%		
8.01	Temporary Generators & Fuel Storage	None present on this site		0	0%														0	0	0	0	0	0	0.0%		
8.02	Transformers	Mounted onto overhead power poles. Assumed to be maintained by the Utility company		0	0%														0	0	0	0	0	0	0.0%		
8.03	HV/LV Electrical Reticulation	Ok	Monitor	2	30%														104,363	0	0	104,363	104,363	104,363	100.0%		
8.04	Lighting Poles	Old condition. Lamp fitting mounted on power pole	Clean lamp fitting	2	30%														12,650	0	0	12,650	12,650	12,650	100.0%		
8.05	Main Electrical Switchboard and meterbox to Campus	Rusty and corroded cover boxes and roofing	Replace exposed meter and switchboard boxes and roof framing. Recommended to enclose building to prevent from damage once replaced	5	90%														56,925	56,925	0	0	56,925	56,925	100.0%		
8.00	Total Electrical Infrastructure			3	50%														173,938	56,925	0	117,013	173,938	173,938	100.0%		
9.00	Water Services																		0	0	0	0	0	0	0.0%		
9.01	Incoming Water Mains	Appears to be in good condition	Monitor	2	30%														0	0	0	0	0	25,300	0.0%		
9.02	Water Reticulation	Generally in good condition	Monitor	2	30%														0	0	0	0	0	25,300	0.0%		
9.03	Meters	No water meters to Main Campus, assumed one to off-campus location however not inspected but assumed ok		2	30%														0	0	0	0	0	1,265	0.0%		
9.04	Water Storage Tanks	Included with Research Lab for Off-campus tanks. 1No rain water tank property of the Department of Education has been excluded from this condition assessment		0	0%														0	0	0	0	0	0	0.0%		
9.05	Pumps	Pump to rainwater tanks included with buildings		0	0%														0	0	0	0	0	0	0.0%		
9.06	Hydrants	Old fashioned type and need to be assessed but assumed still operational. Assumed one to off campus location also.	Service and check. Recommend replacing with new modern type	4	70%														9,488	0	9,488	0	9,488	9,488	100.0%		
9.00	Total Water Services			3	50%														9,488	0	9,488	0	9,488	61,353	15.5%		
10.00	Site Furniture																		0	0	0	0	0	0	0.0%		

Project: COLLEGE OF MICRONESIA - FSM
 Campus: KOSRAE CAMPUS, TOFOL, KOSRAE STATE
 SITE INFRASTRUCTURE
 Document: CONDITION ASSESSMENT & ASSET MANAGEMENT PLAN



Audit Date: October 2013
 Revision: Final

ID Code	Element	Condition Observations	Recommended Course of Action & Maintenance	Condition Grading		Condition Gauge										Asset Renewal Cost											
				Condition Grade	% Deter.	VG	G	A	P	VP	1	2	3	4	5	6	7	8	9	10	Total (\$ USD)	Year 1-10 Total	Year 11-20 Total	Year 21-30 Total	Grand Total	Full Replace	% Full Replace
						0-20 %	20-40 %	40-60 %	60-80 %	80-100 %	2013 (\$ USD)	2014 (\$ USD)	2015 (\$ USD)	2016 (\$ USD)	2017 (\$ USD)	2018 (\$ USD)	2019 (\$ USD)	2020 (\$ USD)	2021 (\$ USD)	2022 (\$ USD)							
10.01	Concrete Planter Boxes	To SBDC building and Land Grant office. Ok, planting a little overgrown to Land grant	Wash down and repaint top sill to SBDC plater boxes, trim up plants to Land grant office	3	50%														9,361	0	0	9,361	9,361	9,361	100.0%		
10.02	COM-FSM Kosrae Campus Sign feature board at entrance	Good condition	Wash down	2	30%														6,325	0	0	6,325	6,325	6,325	100.0%		
10.03	Flagpole	In use in front of Administration building, faded and worn protective coating	Wash down and paint finish	2	30%														5,693	0	0	5,693	5,693	5,693	100.0%		
																			0	0	0	0	0	0.0%			
10.00	Total Site Furniture			3	50%														21,379	0	0	21,379	21,379	21,379	100.0%		
	TOTAL SITE INFRASTRUCTURE																		879,045	200,457	327,264	351,323	879,045	1,219,786	72.1%		
200,457																											
Year 1 - 10 Consolidated Capital Replacement Cost																											

Appendix D

Energy Use Analysis



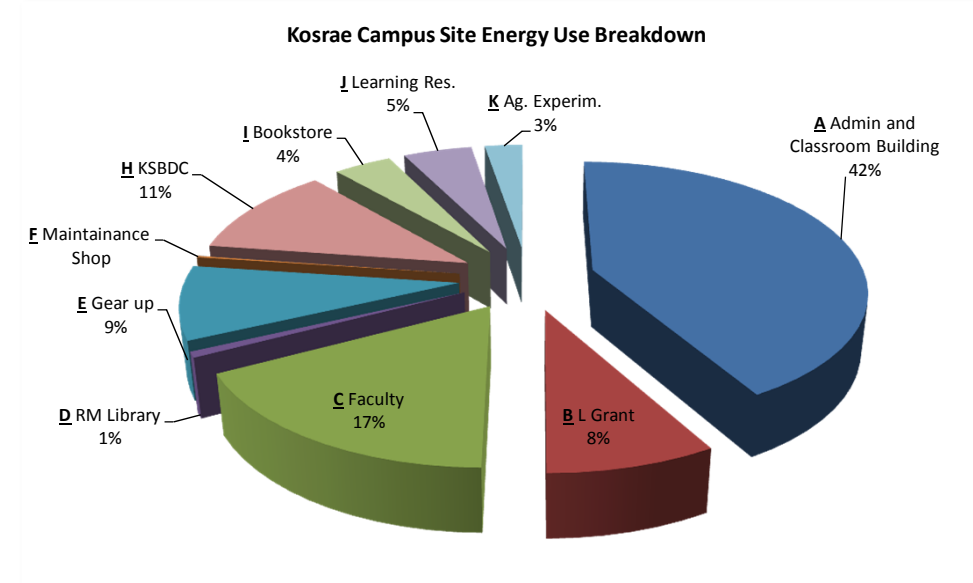
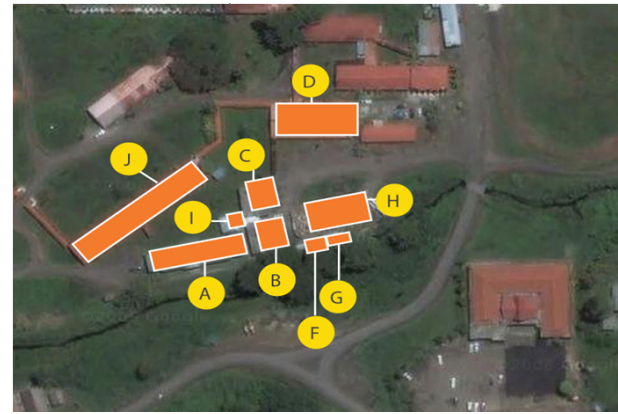
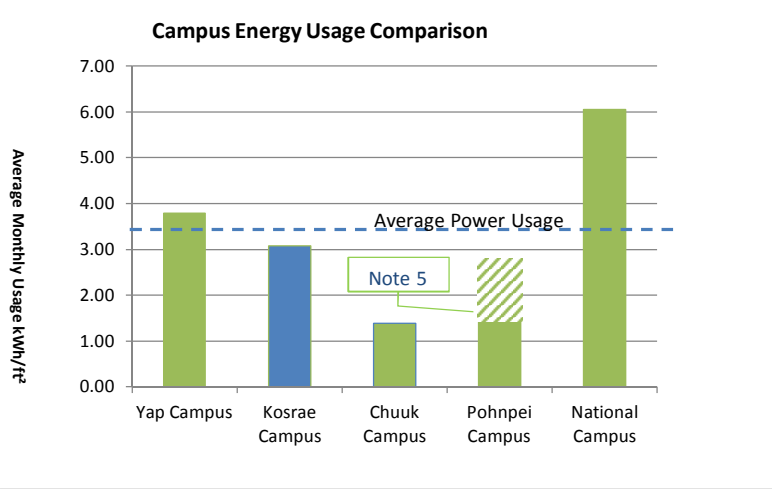


Building System Descriptions		HVAC System	AC Split-Units to provide cooling. No extract or supply system. Natural ventilation by open windows/spaces.
		Plumbing System	Metered connection to town water main, cold water only
		Electrical System	Over head and underground metered connection to town main. Single and 3 phase.

Plant Item	Description	Location	Operation	Condition	Current maintenance	Recommendations	Current Operational Status
A Administration Building							
AC Units	Split-units		Manual Operation	Good	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use	
Extract	Toilet extract	Internal	-	Good		Clean grilles and check ductwork for blockages	
General	Room infiltration	Internal	-	Average	-	Repair Gaps in walls and install self closing mechanism to doors leading into AC spaces	
B Resources & Career Dev. CT (VOCED Classes)							
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use.	
General	Roof insulation	Internal	-	Average	-	Add insulation where missing.	
General	Room infiltration	Internal	-	Average	-	Install self closing mechanism to doors leading into AC spaces	
C CRE Office(Land Grant)							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use..	
General	Roof insulation	Internal	-	Average	-	Add insulation where missing.	
Extract	Kitchen Extract Hood	Internal	-	Good		Regular cleaning and replacement of extract filters	
General	Oven	Internal	-	Average		Consider replacing oven with gas unit	
Electrical	Exposed wiring	Internal	-	Poor	-	Replace or fix wiring.	
D Bookstore/School Supplies Depot							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation. Daylight sensors.	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn off lights when not in use	
General	Roof insulation	Internal	-	Average	-	Add insulation where missing.	
General	Room infiltration	Internal	-	Poor	-	Install window curtains on A/C spaces	
General	Furniture and storage	Internal	-	Good	-	Promote better airflow by moving unnecessary items into storage areas and large objects away from AC air stream	
Electrical	Appliance standby	Internal	manual operation	Average		Switch off after hours	
E Classroom Building, General Assembly (SBC)							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation.	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn off lights when not in use.	
General	Roof insulation	Internal	-	Good	-	Add insulation where missing.	
General	Room infiltration	Internal	-	Poor		Install self closing mechanism on doors to AC spaces	
General	Room infiltration	Internal	-	Poor	-	Install window curtains on A/C spaces	
F Faculty Office							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	

Plant Item	Description	Location	Operation	Condition	Current maintenance	Recommendations	Current Operational Status
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use.	
General	Roof insulation	Internal	-	Average	-	Install and replace insulation and ceiling tiles as needed	
General	Window shade	Internal	-	Poor	-	Repair and replace window shades as needed	
G Building /Ground Maintenance Office/Shop							
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use. Consider installing Sun-Tube	
H Agriculture Experiment Station (MPPRC)							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use. Consider Sun-Tube	
General	Roof insulation	Internal	-	Average	-	Install and replace insulation and ceiling tiles as needed	
I Piggery							
J RML Conference Room/Nurse Station/Peer/Broadcast							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use. Consider Sun-tube	
General	Roof Sheet	External	-	Poor	-	Replace with light color insulated roof sheet	
General	Room infiltration	Internal	-	Poor	-	Repair door frame and install self closing mechanism on doors to AC spaces	
L Gymnasium							
AC Units	Split-units	Internal	Manual Operation	Poor	Monthly filter cleaning, quarterly condenser unit cleaning	Replace damaged units with higher efficiency units.	
AC Units	Split-units	Internal	Manual Operation	Average	Monthly filter cleaning, quarterly condenser unit cleaning	Set all units 24degC.	
General	Roof insulation	Internal	-	Average	-	Install and replace insulation and ceiling tiles as needed	
General	Room infiltration	Internal	-	Poor	-	Repair door frame and install self closing mechanisms on doors to outside and restrooms	
Lighting	Fluorescent tubes & compact fluorescent bulbs	All areas	Manual operation	Average	To replace magnetic ballast fluorescent fixtures with electronic	Turn lights off when not in use.	
General	Roofing sheet beginning to rust	-	-	Poor	-	Replace with new light color sheet	
Outbuildings							
Lighting	Compact fluorescent bulbs	All areas	Manual operation	Average	-	Consider using faculty during daylight hours	

Recommendation Key	
	Plant operating efficiently
	Improvements possible with minimal capital expenditure
	Capital investment recommended to improve system within 2-5years
	Plant requires significant maintenance or replacement
	Potential Health and Safety Hazard
	Potential for Future Improvement An opportunity to improve the standard of servicing in the site - for consideration in future stages.



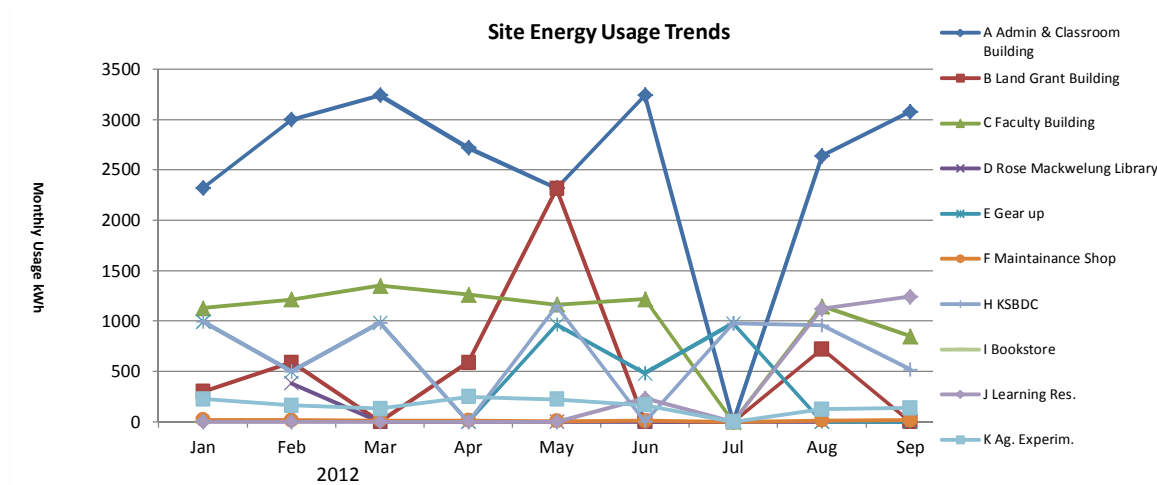
Campus Summary:

The Kosrae campus is using slightly less energy than the average across the sites.

9 months of energy data was available for 2012, and the data available show an unusual profile of energy use differing considerably and unpredictably from month to month. This may be due to sporadic use of the buildings. The breakdown gives a high proportion of energy usage to the main building which includes a computer lab, science lab as well as faculty and director offices.

Recommendations:

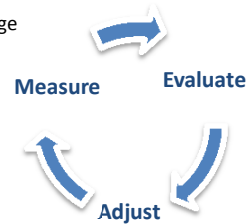
- Adjust the set point control of the AC units to 24 or 25°C
- Turn units off when spaces are un-occupied
- Ensure units are free from obstructions, filters are clean, and pipework runs are straight to reduce loads on units
Air Conditioning operates most efficiently when buildings are well sealed to prevent additional warm air entering from outside. To help achieve this:
- Close windows when systems are operating
- Seal holes and penetrations into the building in areas that are air conditioned
- Keep doors leading to AC spaces closed - employ automatic door closers where possible
- Turn off lights when leaving a room - consider installing occupancy sensor controls
- Replace ceiling insulation where missing



Energy measurement

Being able to measure and record energy usage is a key step in improving energy efficiency. It has several benefits:

- Highlighting areas of high energy usage to enable targeting of specific areas for improvement
- Tracking effectiveness of efficiency measures
- Engage staff and students in the process - to reduce energy usage between buildings / campuses e.g. competitions

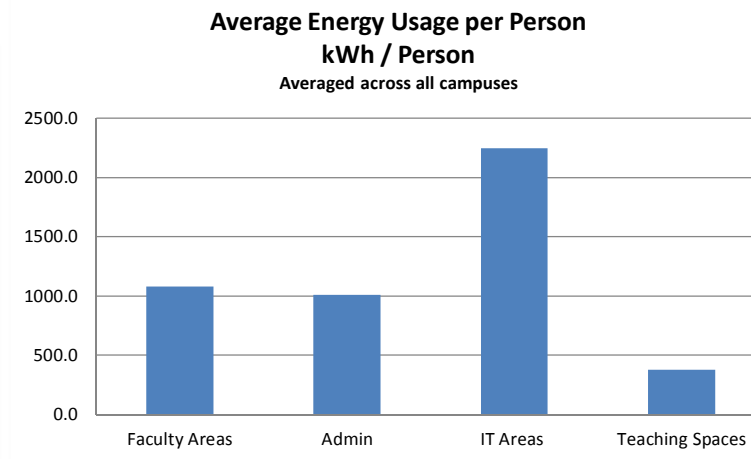
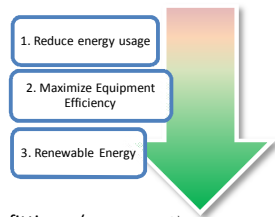


There are a range of various types of electricity meters are available which can be selected to best meet

Reducing Your Energy Usage

There are many energy efficiency measures that can be undertaken with minimal capital cost. The following procedure will help to ensure that the most cost efficient measures are undertaken first.

- Reduce how much energy you use:
e.g. (a), (b), (c), (d) above.
Use of available energy saving resources to engage and educate staff and students.
- Maximize Equipment Efficiency
e.g. Replacing air conditioning units with more efficient models when appropriate, provide high efficiency lighting when replacing fittings (see note 4)
- Consider using renewable energy resources where appropriate, e.g. solar hot water, photovoltaic cells



- Notes:
- The figures contained in this report are based on power consumption data provided by CoM (See attached Energy Usage Data Summary). Data provided was limited for some campuses and hence may not be representative of average energy use.
 - Site Energy Usage Breakdowns are estimated where insufficient background data is available.
 - Occupancy Data based on Sandy Pond room capacities and occupancy rates
 - Note that if installation of high efficiency lighting is to be considered, power conditioning to the relevant lighting circuit may be required to prolong the life of the fixtures.
 - Refer to Pohnpei Campus summary for

Moving forward:

This energy audit is a "snapshot" of how the campus is currently operating.

The findings of this study are to be fed forward into the future master planning of the college.

There are several items identified in this study which we have the ability to improve with redevelopment works or future new buildings.

Building Physics:

- Consideration of solar shading to windows to prevent solar gains
- Colour of buildings (Darker colors absorb more heat)
- Promotion of cross-flow natural ventilation
- Selection of glazing to minimize solar gain
- Consideration of requirement for cooling to equipment areas only

Renewable Energies:

Review of potentially suitable renewable energies for various sites

User engagement

- Education of users on energy consumption, and engaging of staff and students to take responsibility for energy costs
- Record keeping and metering of resource consumption
- PPM (Planned Preventative Maintenance) programmed and

