Appendix A Ground condition zoning plans

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Fig. A1
Fig. A2
Fig. A3
Fig. A4
Fig. A5
Fig. A6
Fig. A7
Fig. A8
Fig. A9
Fig. A10
Fig. A11
Fig. A12
Fig. A13

LEGEND

Study area

Ground Condition Zones

Zone A
Zone B
Zone C
Zone D

A3 SCALE 1:15,000

0 100 200 300 400 500 m

Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Vantor. World Imagery: Earthstar Geographics. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000		
DESIGNED	REOL	JUN.26	
DRAWN	REOL	JUN.26	
CHECKED	CRB	JUN.26	
APPROVED		DATE	

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES OVERVIEW PLAN
SCALE (A3) 1:15,000 FIG No. FIGURE A0 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines the limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

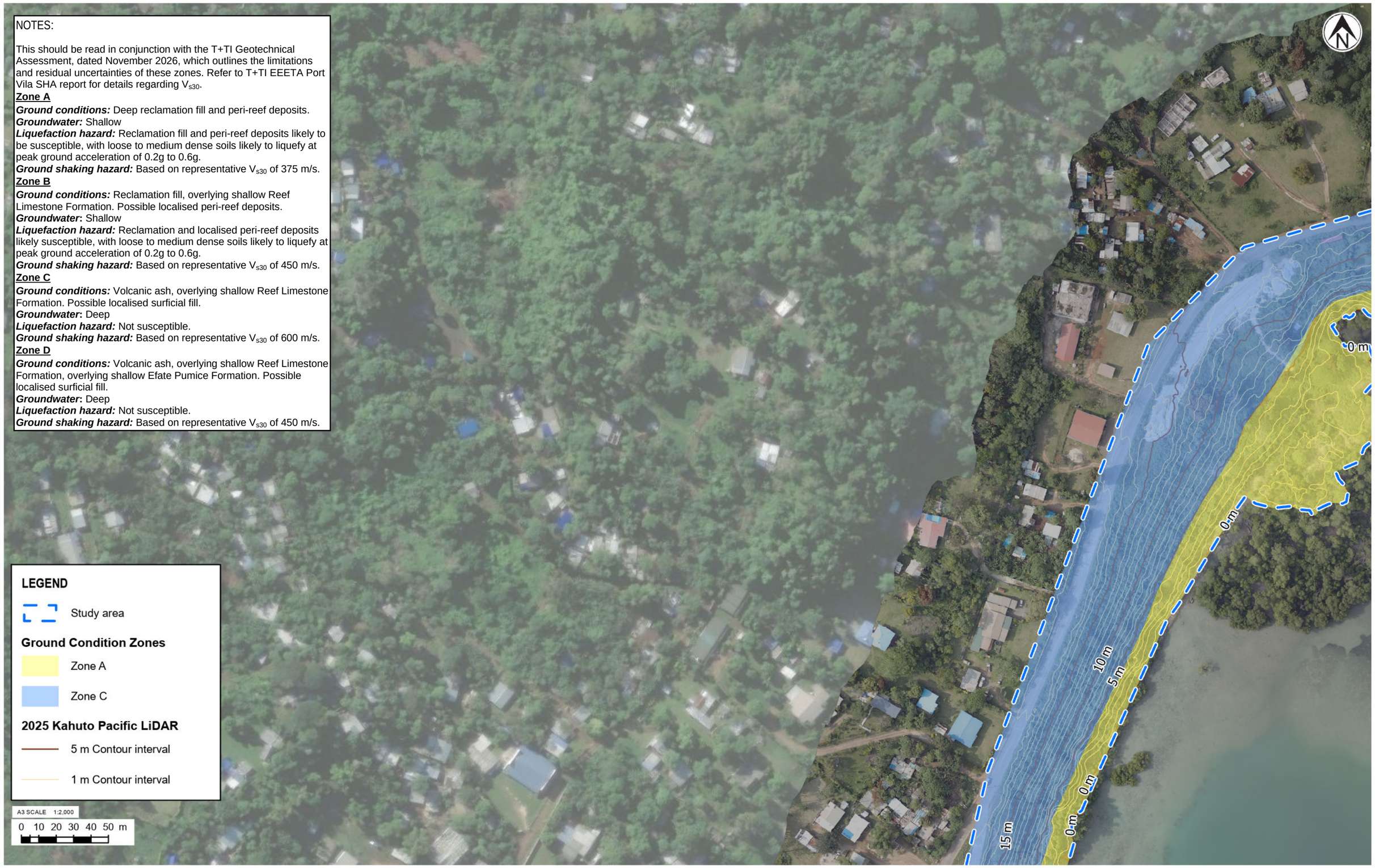
Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.



Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

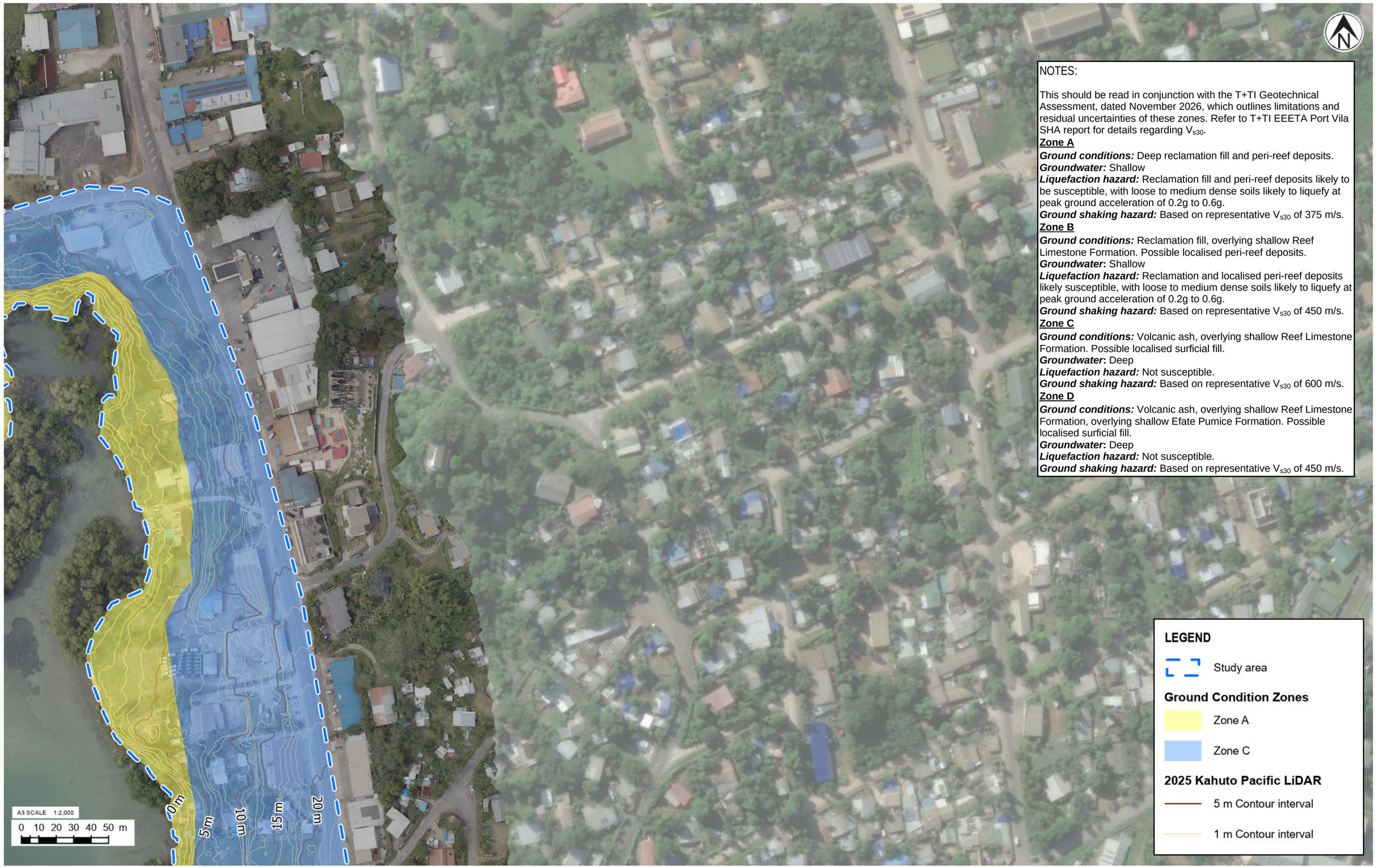
LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES PLAN 1 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A1 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES PLAN 2 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A2 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

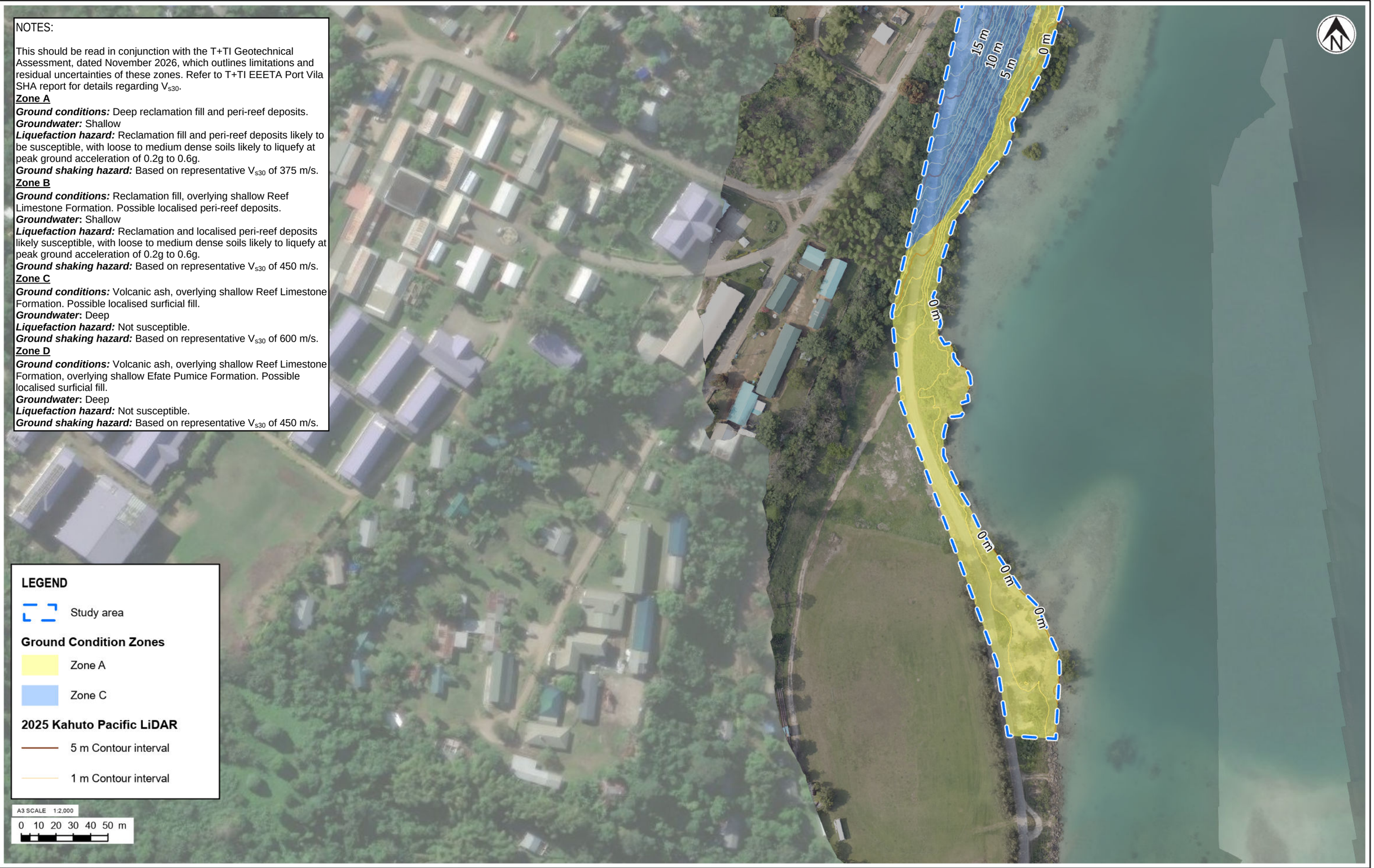
Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.



Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

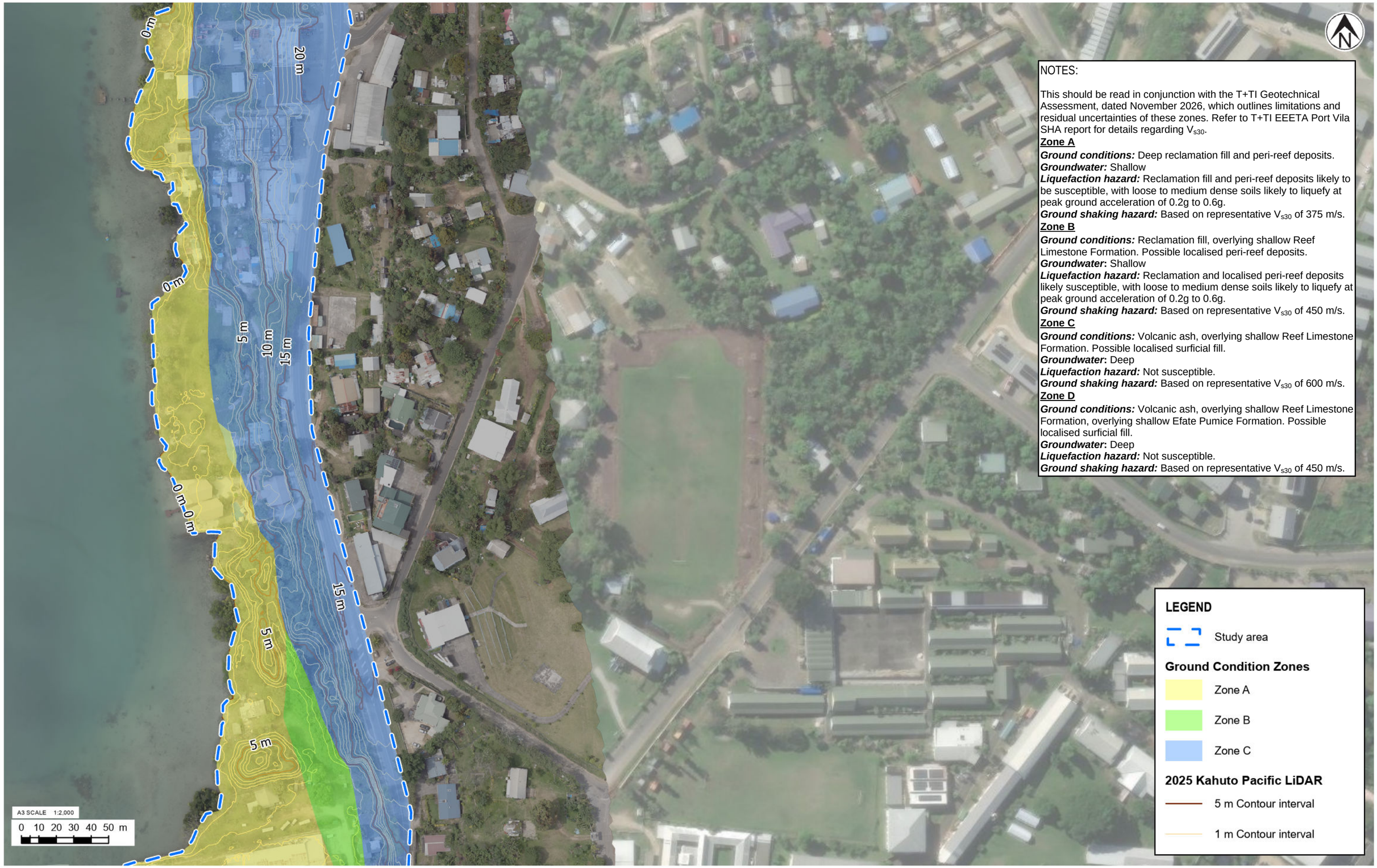
LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES PLAN 3 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A3 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

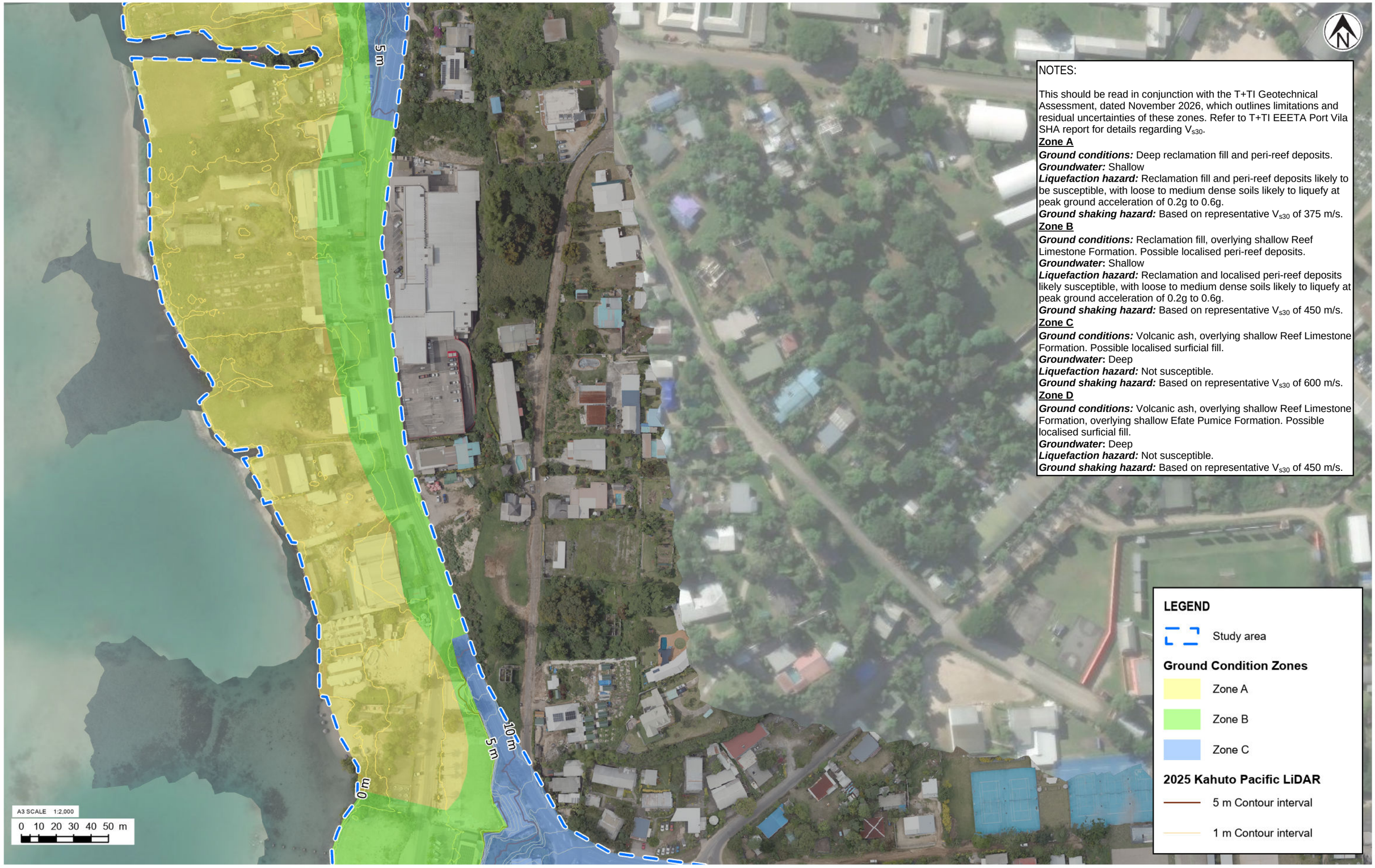
LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 4 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A4 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

LEGEND

Study area

Ground Condition Zones

Zone A

Zone B

Zone C

2025 Kahuto Pacific LiDAR

5 m Contour interval

1 m Contour interval

Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:

1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 5 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A5 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

LEGEND

Study area

Ground Condition Zones

Zone A

Zone B

Zone C

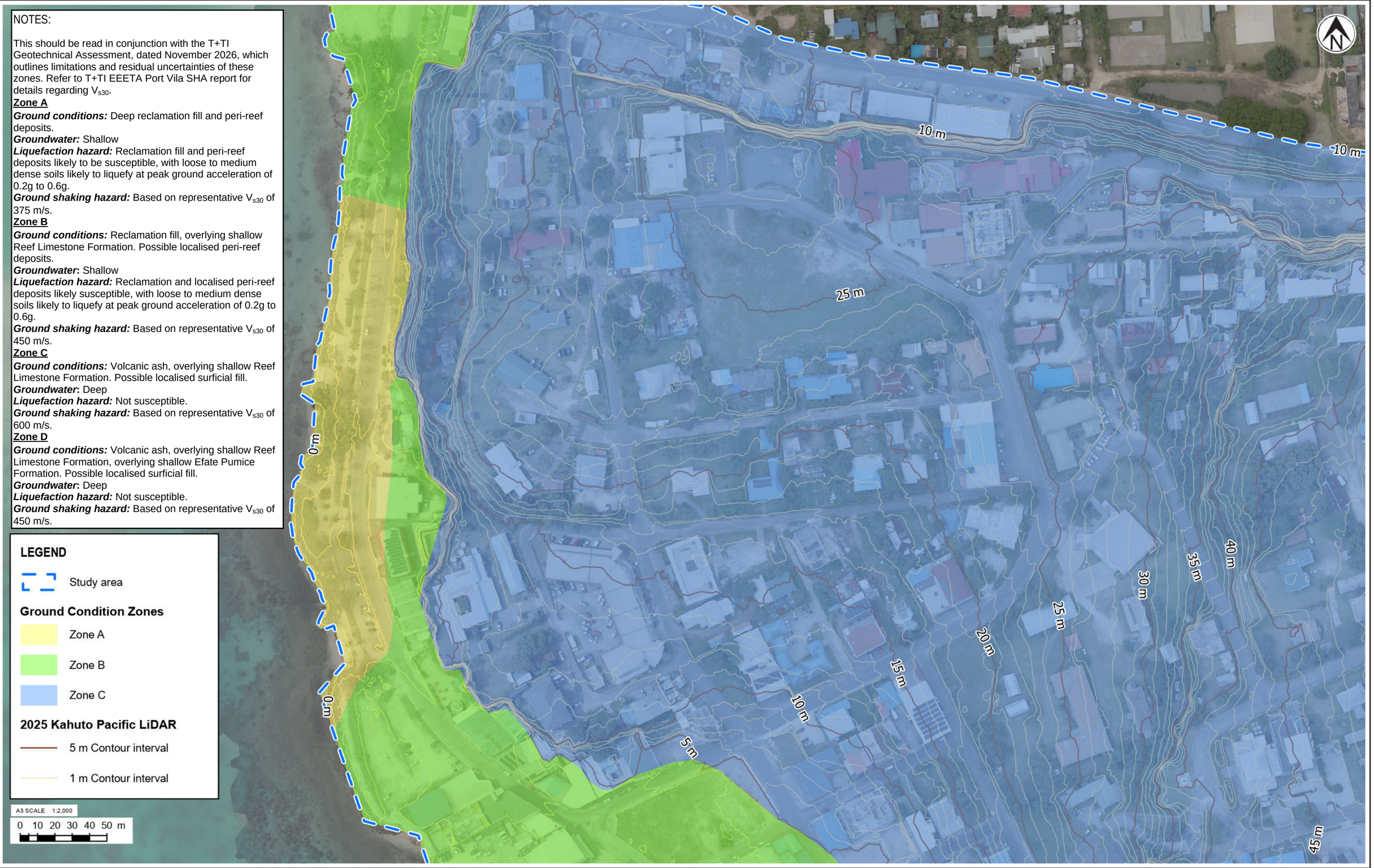
2025 Kahuto Pacific LiDAR

5 m Contour interval

1 m Contour interval

A3 SCALE 1:2,000

0 10 20 30 40 50 m



Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

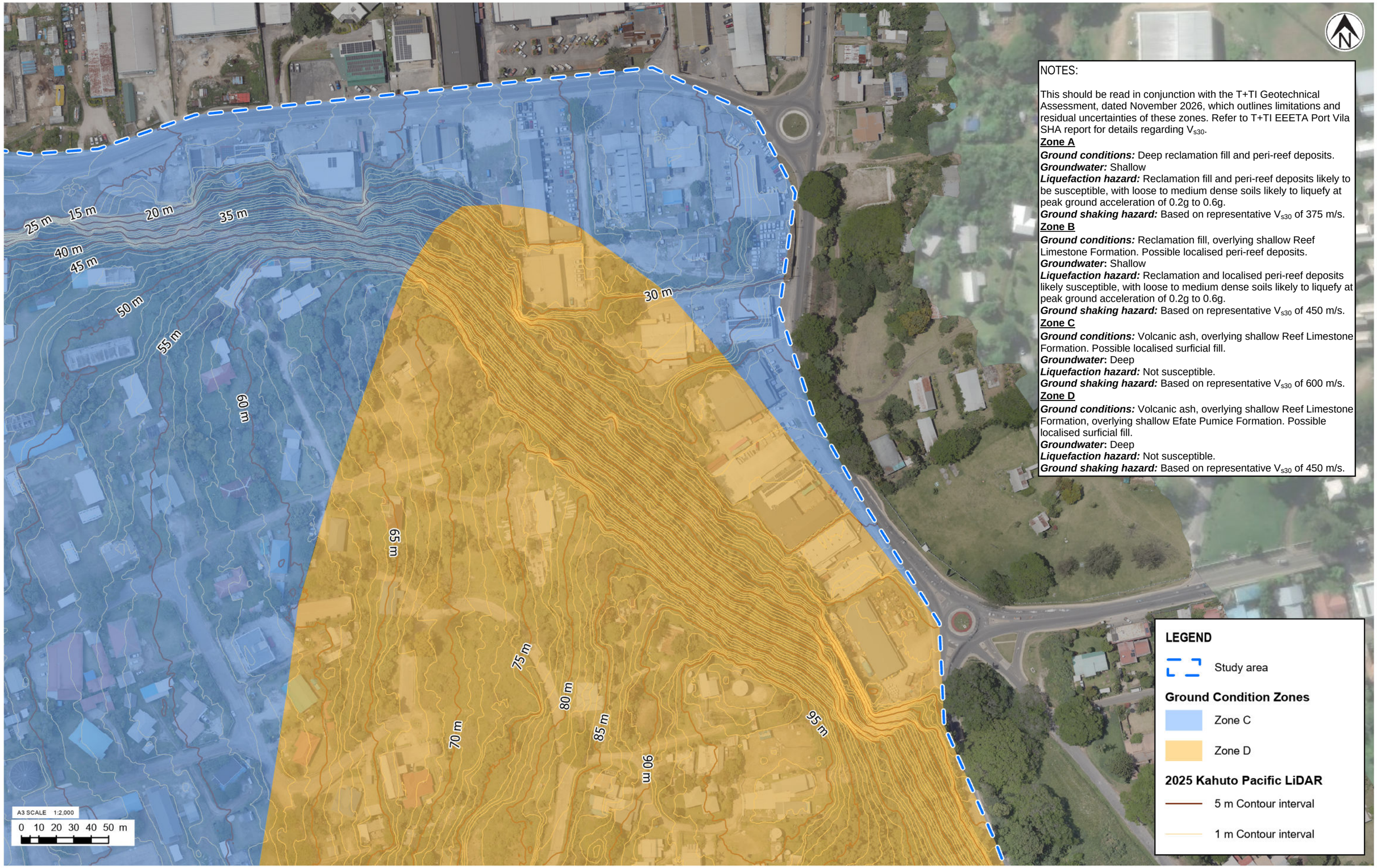
LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 6 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A6 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES PLAN 7 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A7 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.



Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

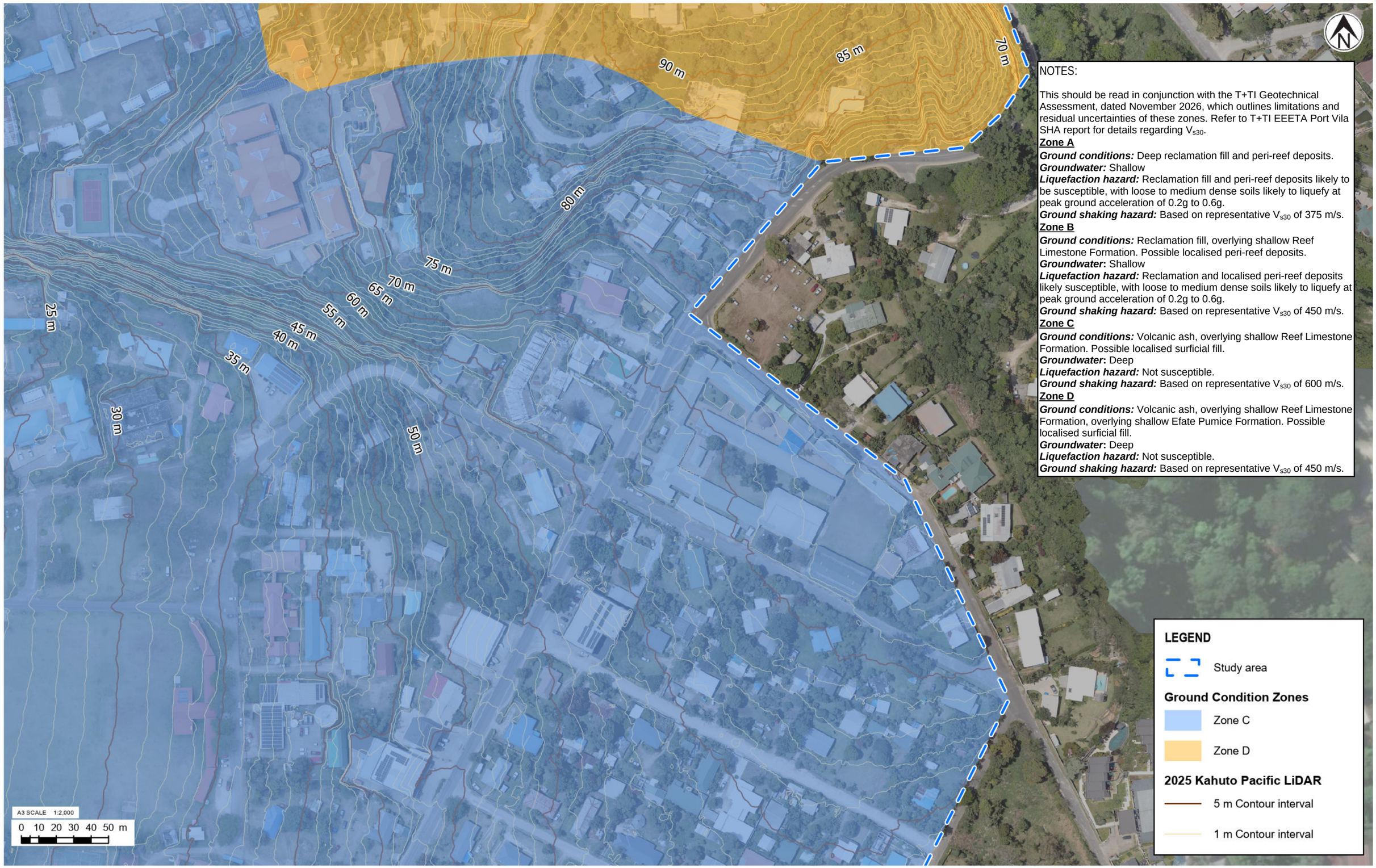
LOCATION PLAN

			APPROVED	DATE
PROJECT No.	1097984.1000			
DESIGNED	REOL	JUN.26		
DRAWN	REOL	JUN.26		
CHECKED	CRB	JUN.26		

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 8 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A8 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

LEGEND

Study area

Ground Condition Zones

Zone C

Zone D

2025 Kahuto Pacific LiDAR

5 m Contour interval

1 m Contour interval

Tonkin+Taylor

Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES PLAN 9 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A9 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

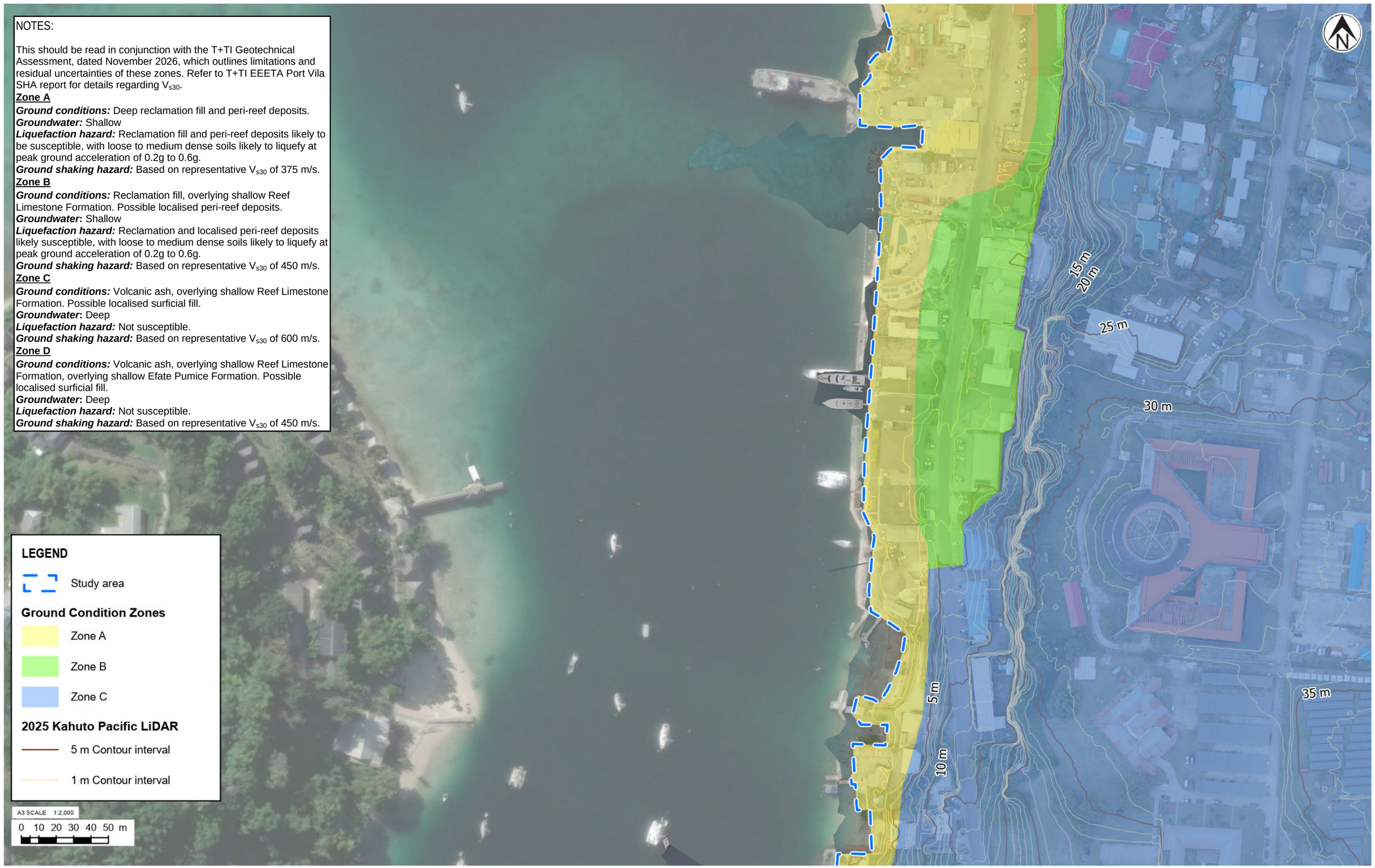
Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.



Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

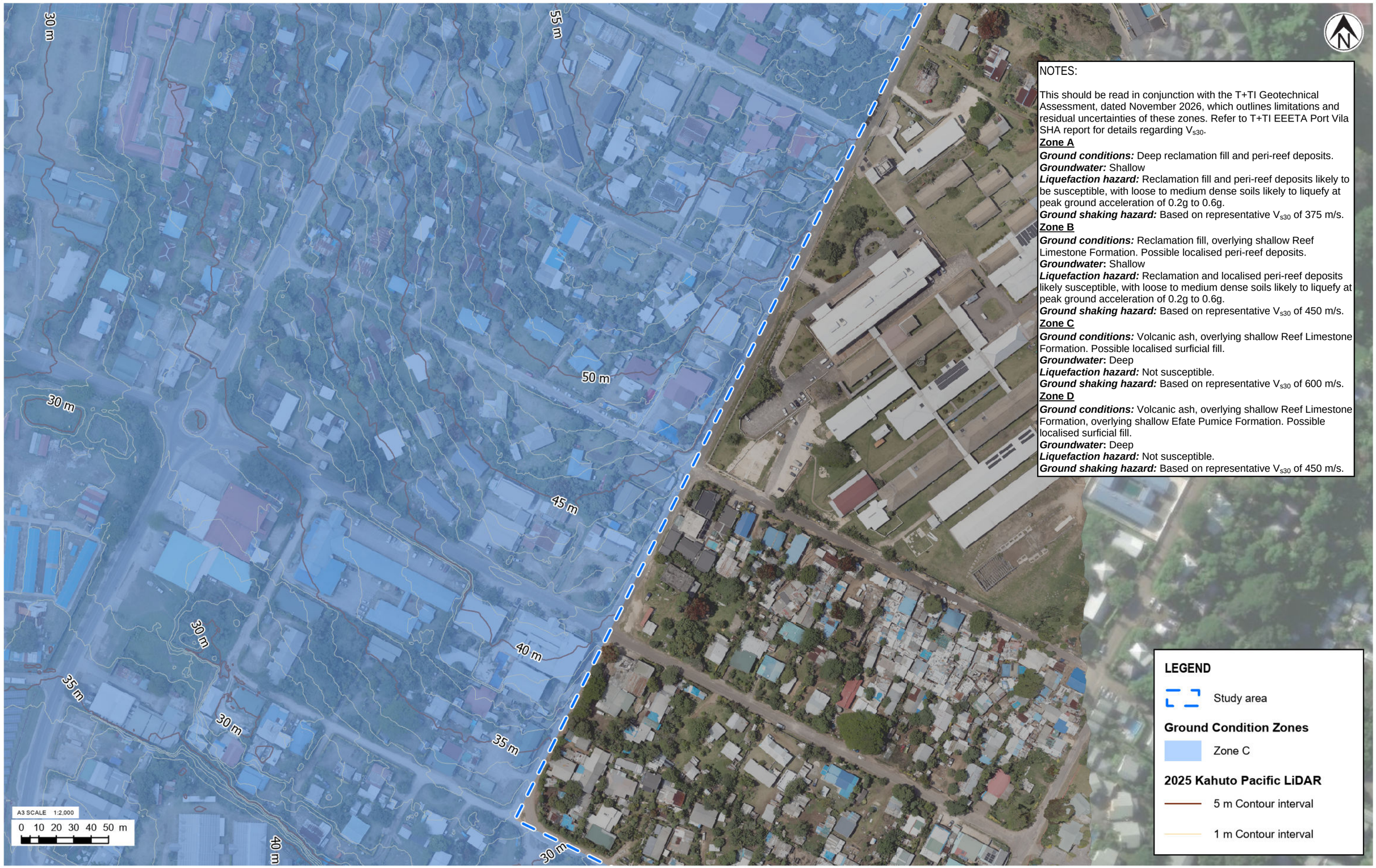
LOCATION PLAN

PROJECT No.	1097984.1000		
DESIGNED	REOL	JUN.26	
DRAWN	REOL	JUN.26	
CHECKED	CRB	JUN.26	
APPROVED		DATE	

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 10 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A10 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones1 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000		
DESIGNED	REOL	JUN.26	
DRAWN	REOL	JUN.26	
CHECKED	CRB	JUN.26	
APPROVED		DATE	

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 11 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A11 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.



Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

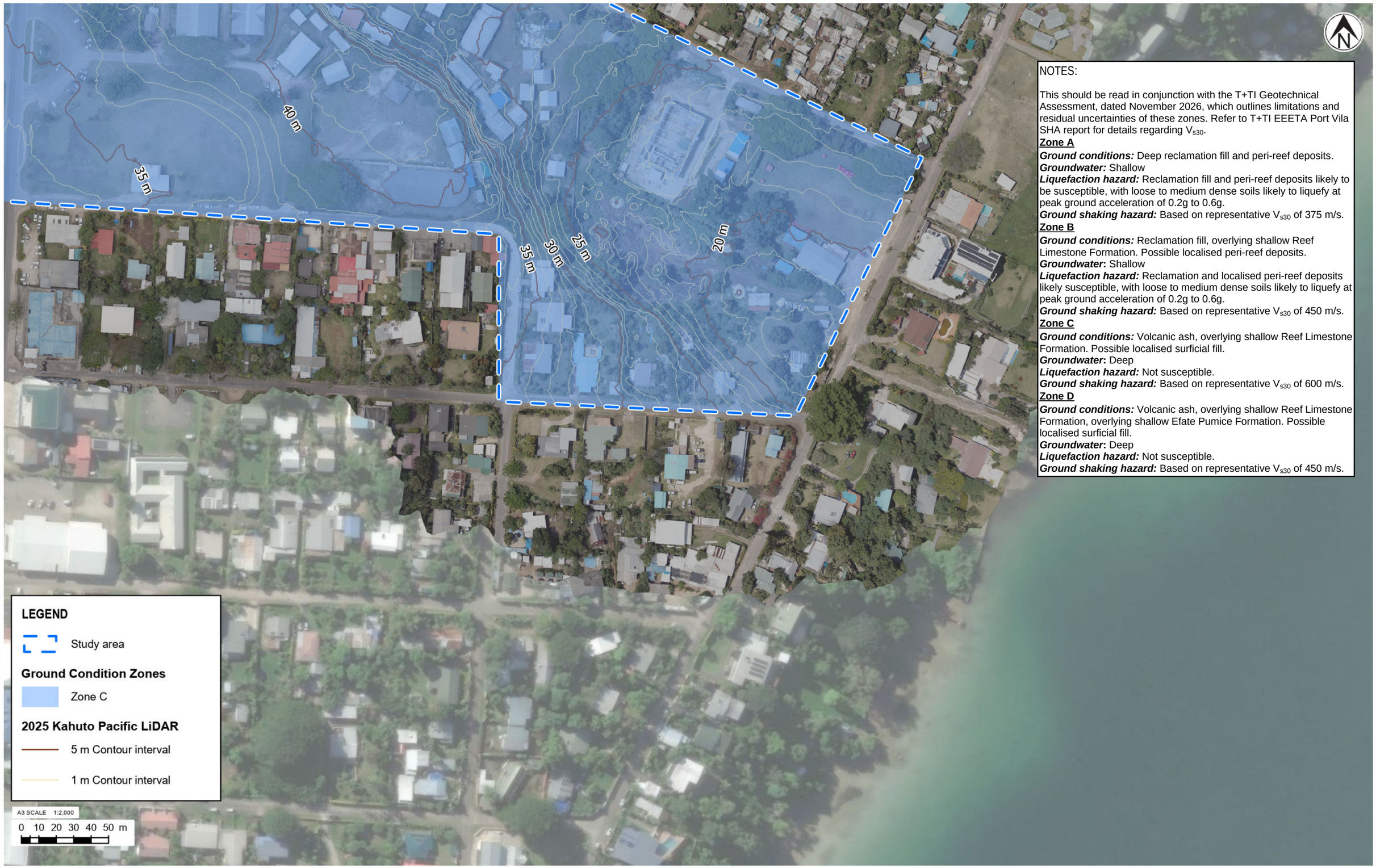
LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 12 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A12 REV 0

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE.

P:\1097984\1097984.1000\WorkingMaterial\2 Ground characterisation and hazard zoning\2C Geotechnical assessment\GIS\1097984\1097984.aprx Layout: Appendix A - Ground condition zones 2026-Jun-19 12:03 pm Drawn by REOL



NOTES:

This should be read in conjunction with the T+TI Geotechnical Assessment, dated November 2026, which outlines limitations and residual uncertainties of these zones. Refer to T+TI EEETA Port Vila SHA report for details regarding V_{s30}.

Zone A

Ground conditions: Deep reclamation fill and peri-reef deposits.
Groundwater: Shallow
Liquefaction hazard: Reclamation fill and peri-reef deposits likely to be susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 375 m/s.

Zone B

Ground conditions: Reclamation fill, overlying shallow Reef Limestone Formation. Possible localised peri-reef deposits.
***Groundwater*:** Shallow
Liquefaction hazard: Reclamation and localised peri-reef deposits likely susceptible, with loose to medium dense soils likely to liquefy at peak ground acceleration of 0.2g to 0.6g.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Zone C

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 600 m/s.

Zone D

Ground conditions: Volcanic ash, overlying shallow Reef Limestone Formation, overlying shallow Efate Pumice Formation. Possible localised surficial fill.
***Groundwater*:** Deep
Liquefaction hazard: Not susceptible.
Ground shaking hazard: Based on representative V_{s30} of 450 m/s.

Tonkin+Taylor
Exceptional thinking together www.tonkintaylor.co.nz

NOTES:
1. Basemap World Imagery: Earthstar Geographics. World Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community. Kahuto Pacific aerial imagery used within study area
2. Coordinates: UTM59S. Reduced Levels: MSL.
3. Contours have been generated using the 2025 Kahuto Pacific LiDAR Survey.

REV	DESCRIPTION	GIS	CHK	DATE
0	First version	REOL	CRB	19/06/26

LOCATION PLAN

PROJECT No.	1097984.1000	
DESIGNED	REOL	JUN.26
DRAWN	REOL	JUN.26
CHECKED	CRB	JUN.26
APPROVED		DATE

CLIENT **EGIS NZ LIMITED**
PROJECT **EEETA**
TITLE PORT VILA CBD GEOLOGICAL CONDITION ZONES
PLAN 13 OF 13
SCALE (A3) 1:2,000 FIG No. FIGURE A13 REV 0