SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**26**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 27,29 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

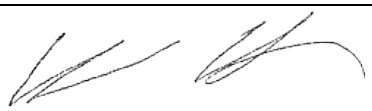
The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

It is recommended that footing excavations be inspected by a geotechnical engineer.

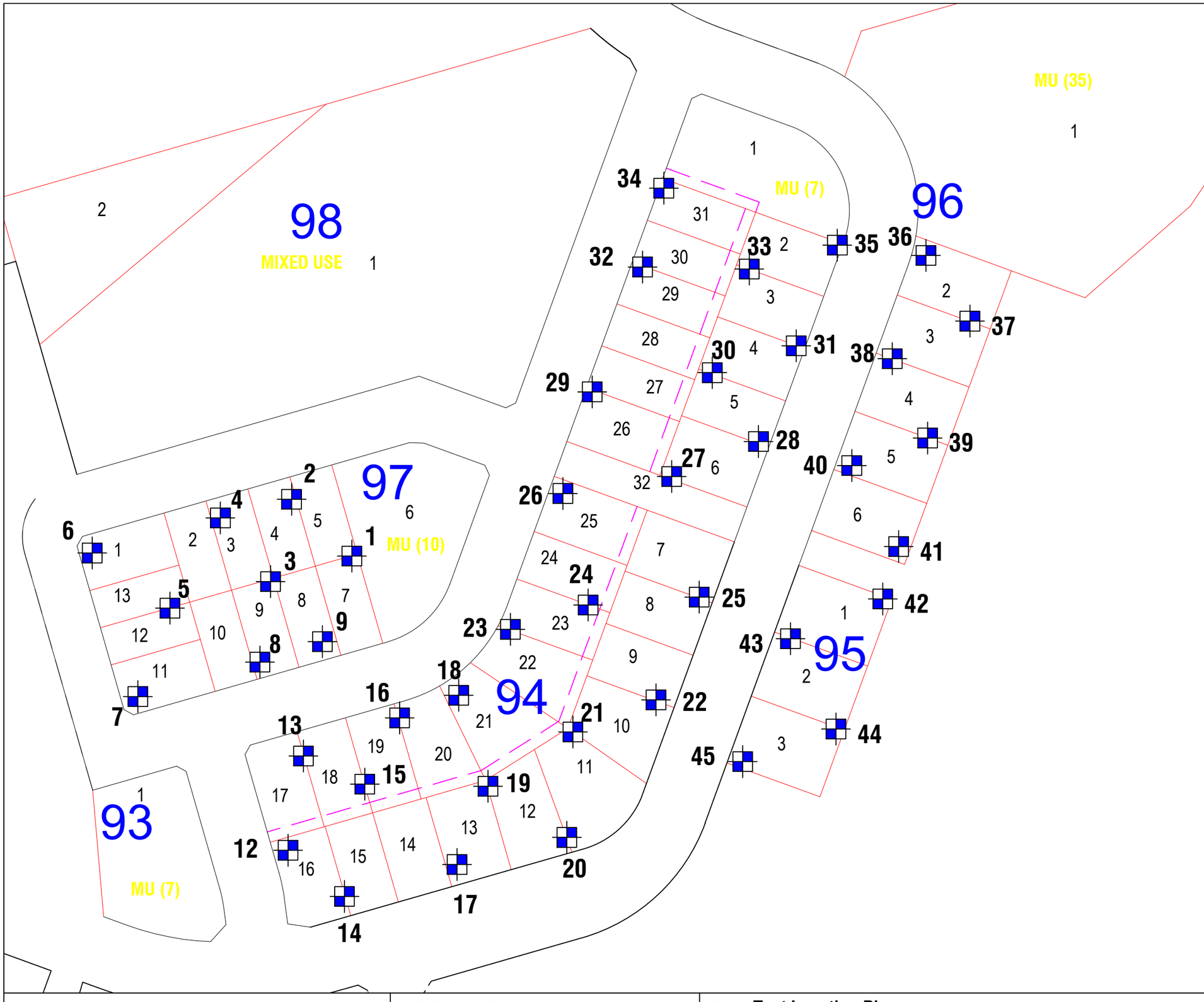
This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

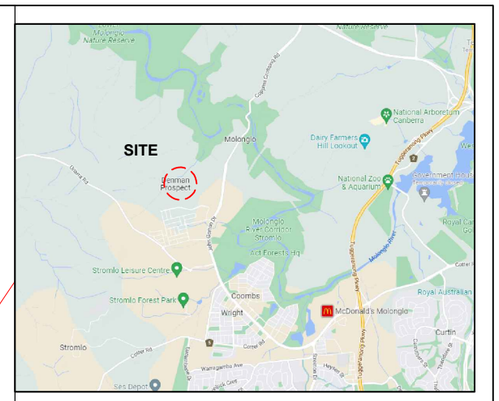
References: AS 2870:2011, Residential Slabs and Footings, Standards Australia.

Attachments:
Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 27,29
Drawing 1



Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 562.0 AHD
EASTING: 201388
NORTHING: 602489

PIT No: 27
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
562	0.05	TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
		FILL/Sandy CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL							
	0.3	Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, trace fine gravel, dry to moist, w<PL, hard, residual							
	0.6	DACITIC IGNIMBRITE: fine to coarse grained, white red brown, dry to moist, low to medium strength, highly to moderately weathered, highly fractured							
	0.9	Pit discontinued at 0.9m -Limit of investigation							
561	1								1

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 561.0 AHD
EASTING: 201363
NORTHING: 602517

PIT No: 29
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
561	0.05	TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
		FILL/Sandy CLAY (CL-CI): low to medium plasticity, brown, fine to coarse grained sand, trace fine to medium gravel, dry to moist, w<PL, hard, regrade FILL							
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled black, dry to moist, medium strength, moderately weathered, fractured							
	0.4	Pit discontinued at 0.4m -Bucket refusal							
560	1								1

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**27**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 29,30 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

It is recommended that footing excavations be inspected by a geotechnical engineer.

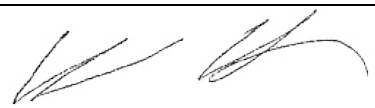
This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

References:

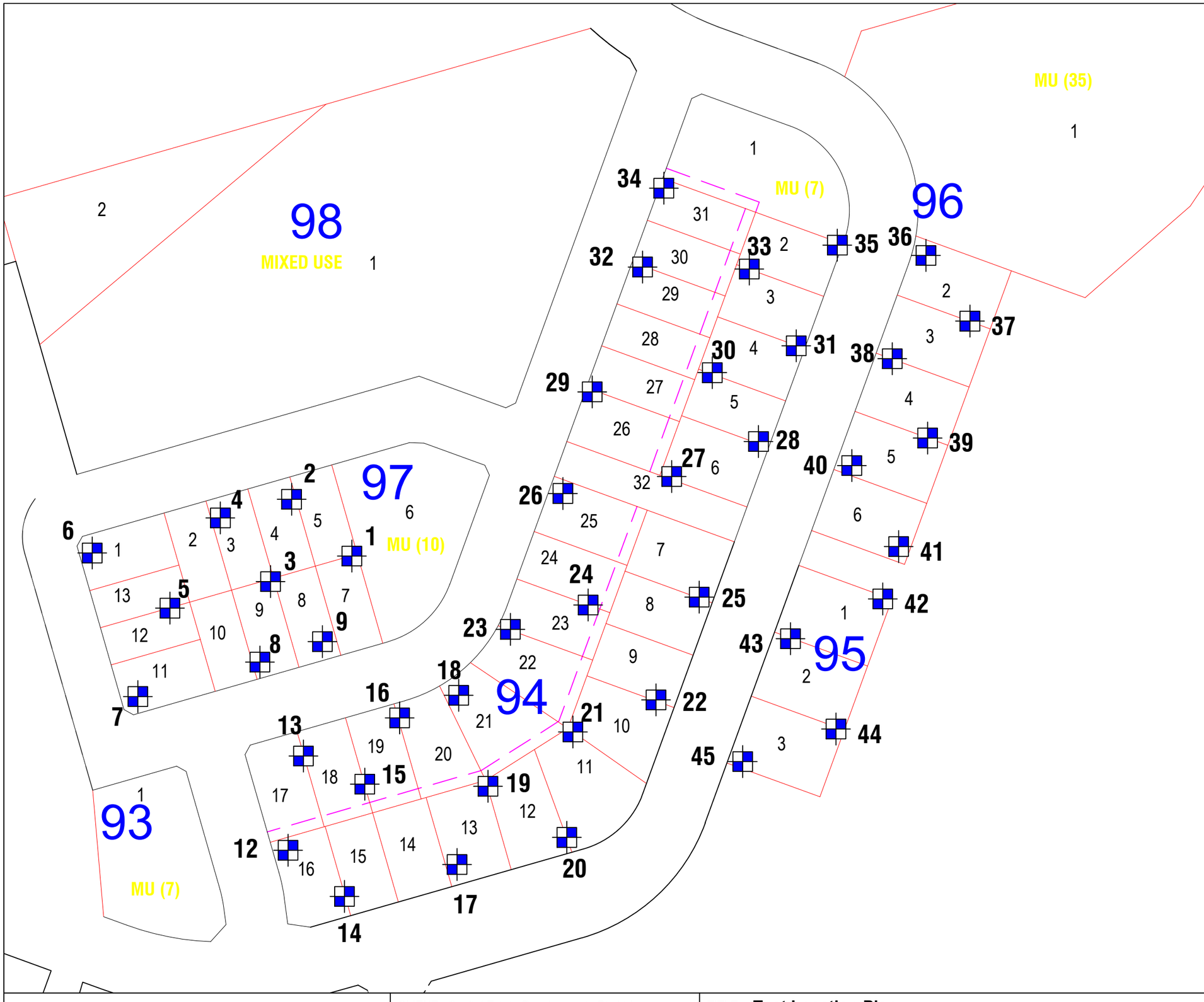
AS 2870:2011, Residential Slabs and Footings, Standards Australia.

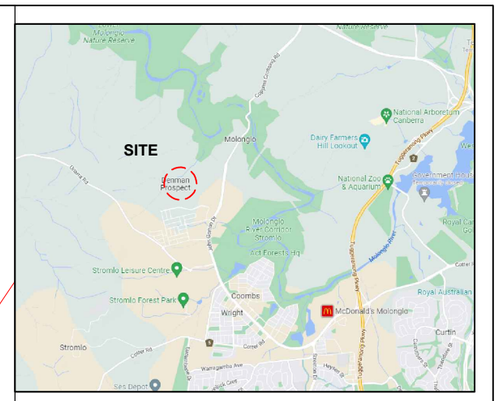
Attachments:

Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 29,30
Drawing 1



Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 561.0 AHD
EASTING: 201363
NORTHING: 602517

PIT No: 29
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
561	0.05	TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
		FILL/Sandy CLAY (CL-CI): low to medium plasticity, brown, fine to coarse grained sand, trace fine to medium gravel, dry to moist, w<PL, hard, regrade FILL							
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled black, dry to moist, medium strength, moderately weathered, fractured							
	0.4	Pit discontinued at 0.4m -Bucket refusal							
560	1								1

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 559.0 AHD
EASTING: 201401
NORTHING: 602523

PIT No: 30
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
559		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, white red brown, dry to moist, low to medium strength, highly to moderately weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket slow progress							
558	1								1

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**28**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 30,32 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

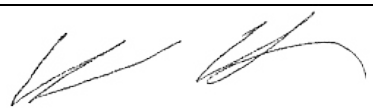
The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

It is recommended that footing excavations be inspected by a geotechnical engineer.

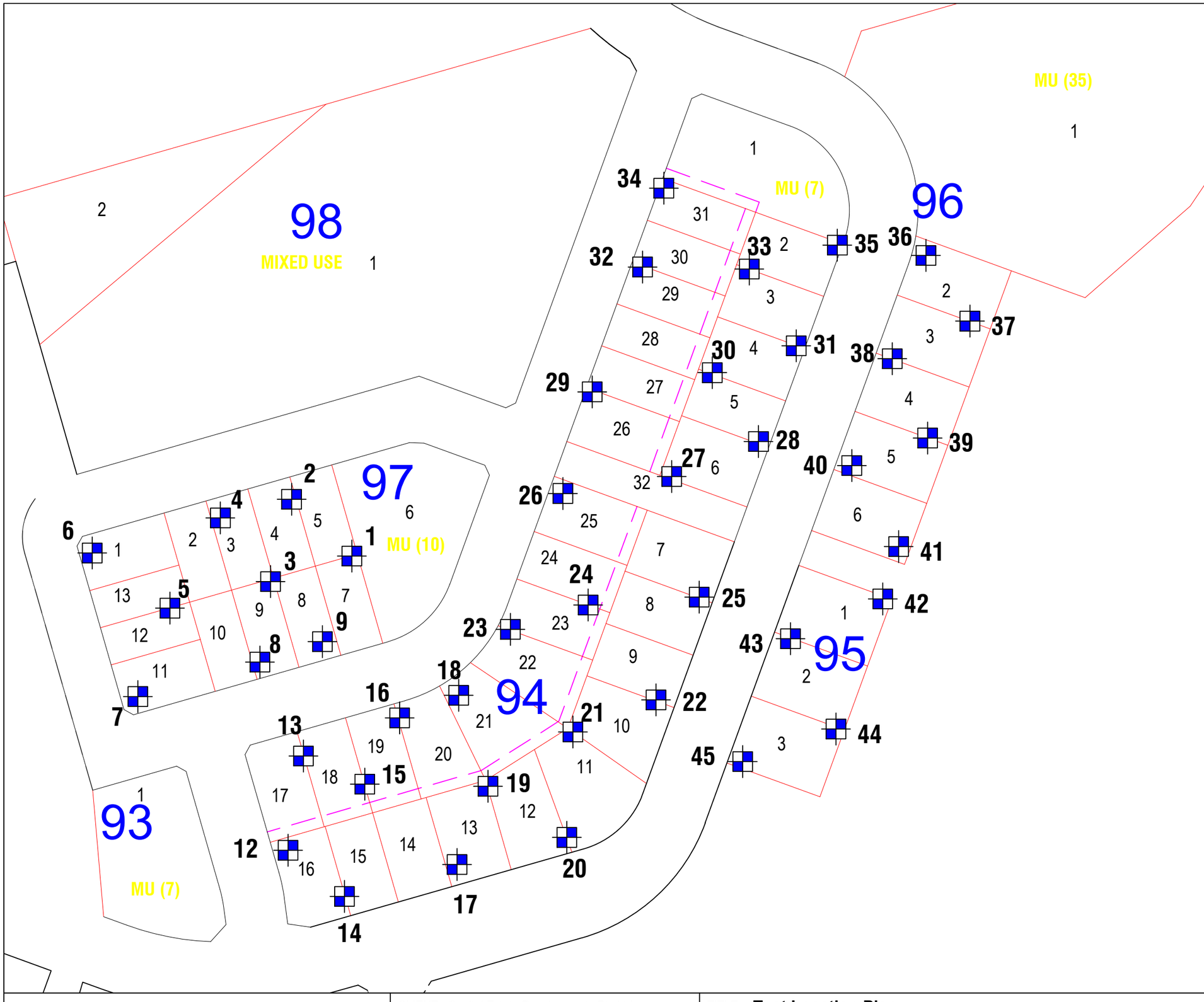
This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

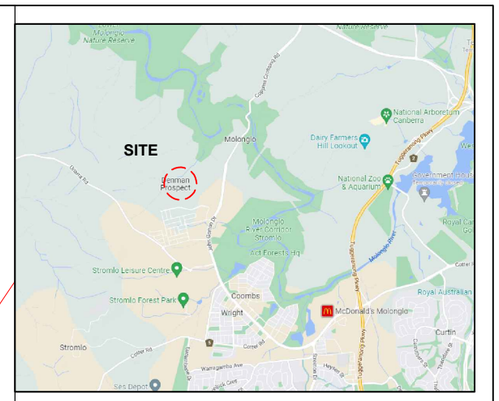
References: AS 2870:2011, Residential Slabs and Footings, Standards Australia.

Attachments:
Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 30,32
Drawing 1



Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 559.0 AHD
EASTING: 201401
NORTHING: 602523

PIT No: 30
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
559		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, white red brown, dry to moist, low to medium strength, highly to moderately weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket slow progress							
558	1								1

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 556.0 AHD
EASTING: 201379
NORTHING: 602557

PIT No: 32
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
556		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.15	FILL/Sandy CLAY (CL-CI): low to medium plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL							
	0.3	DACITIC IGNIMBRITE: fine to coarse grained, grey brown, dry to moist, medium to high strength, moderately to slightly weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket refusal							
555	1								1

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**29**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 30,32 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

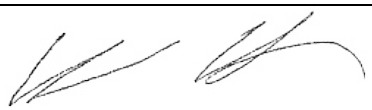
The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

It is recommended that footing excavations be inspected by a geotechnical engineer.

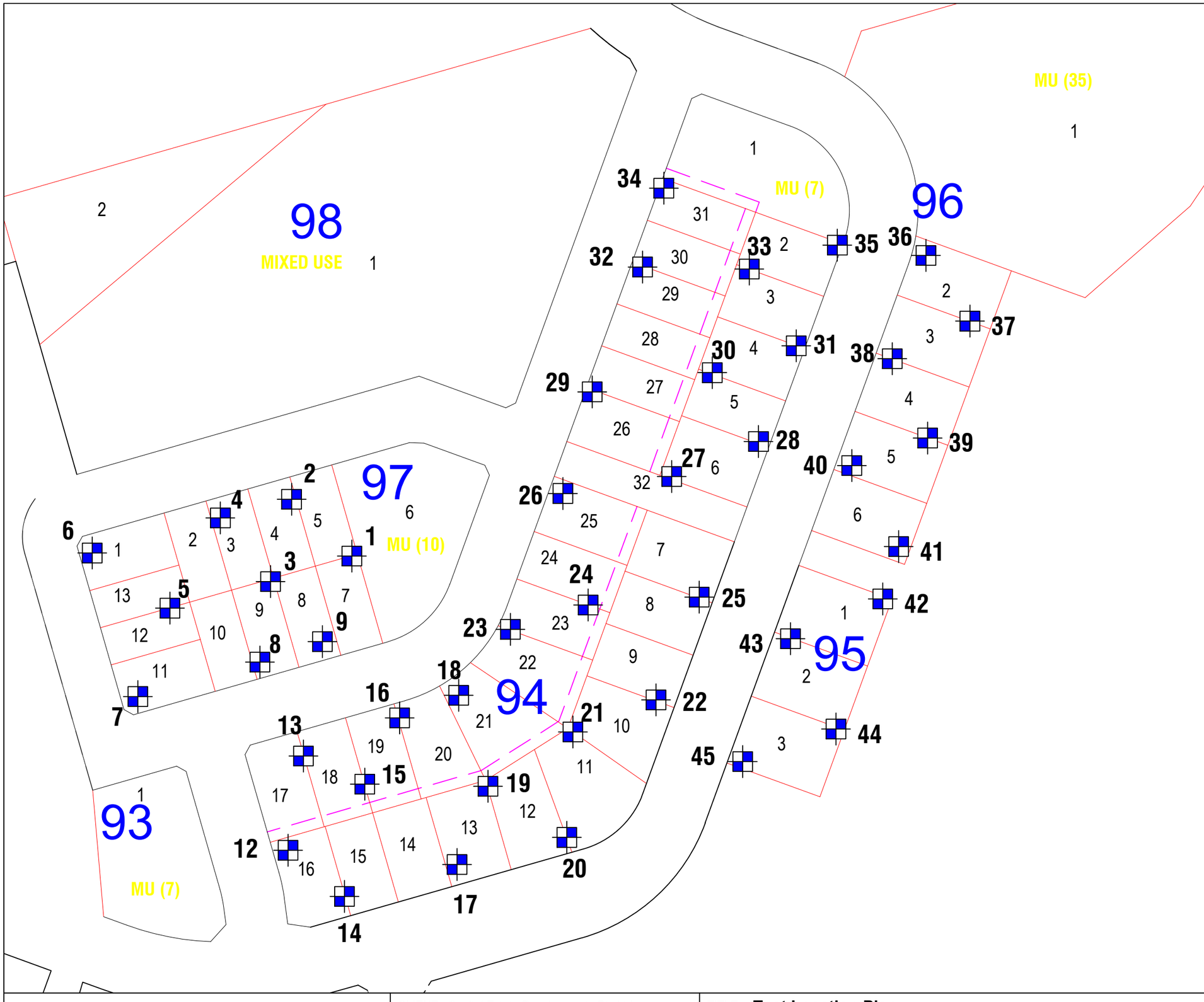
This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

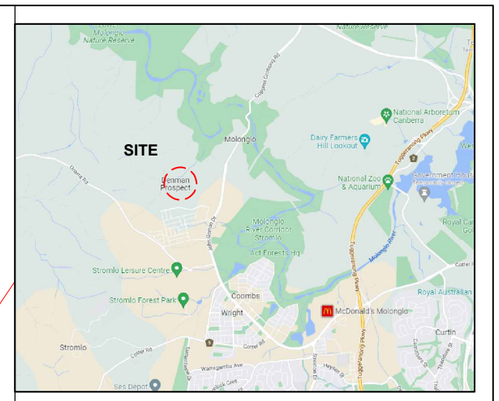
References: AS 2870:2011, Residential Slabs and Footings, Standards Australia.

Attachments:
Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 30,32
Drawing 1



Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 559.0 AHD
EASTING: 201401
NORTHING: 602523

PIT No: 30
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
559		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, white red brown, dry to moist, low to medium strength, highly to moderately weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket slow progress							
558	1								1

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 556.0 AHD
EASTING: 201379
NORTHING: 602557

PIT No: 32
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
556		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.15	FILL/Sandy CLAY (CL-CI): low to medium plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL							
	0.3	DACITIC IGNIMBRITE: fine to coarse grained, grey brown, dry to moist, medium to high strength, moderately to slightly weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket refusal							
555	1								1

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**30**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 32,33 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

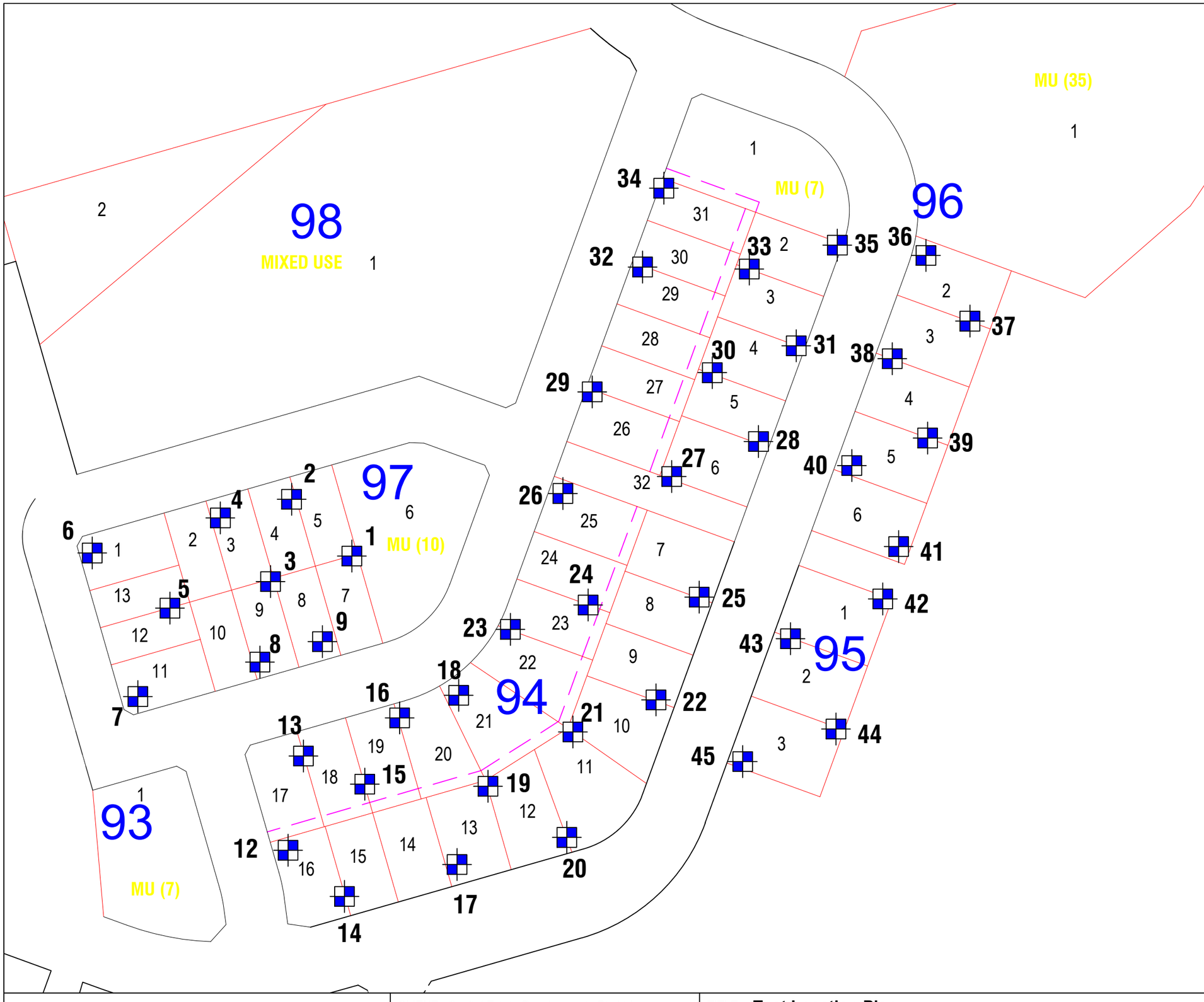
It is recommended that footing excavations be inspected by a geotechnical engineer.

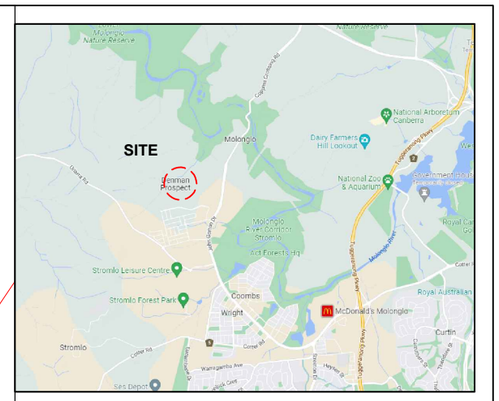
This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

References: AS 2870:2011, Residential Slabs and Footings, Standards Australia.

Attachments:
Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 32,33
Drawing 1

Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 556.0 AHD
EASTING: 201379
NORTHING: 602557

PIT No: 32
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
556		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.15	FILL/Sandy CLAY (CL-CI): low to medium plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL							
	0.3	DACITIC IGNIMBRITE: fine to coarse grained, grey brown, dry to moist, medium to high strength, moderately to slightly weathered, highly fractured							
	0.6	Pit discontinued at 0.6m -Bucket refusal							
555	1								1

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 556.0 AHD
EASTING: 201410
NORTHING: 602557

PIT No: 33
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
556	0.1	TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
		FILL/Sandy CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL		D	0.2		pp >400		
	0.35	DACITIC IGNIMBRITE: fine to coarse grained, grey, dry to moist, medium to high strength, moderately to slightly weathered, slightly fractured							
	0.5	Pit discontinued at 0.5m -Bucket slow progress							
555	1								1

Dynamic Penetrometer Test (blows per mm) scale: 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

SITE CLASSIFICATION REPORT SUMMARY

BLOCK:	**31**	**SECTION:**	**94**	**SUBURB:**	**Denman Prospect**
JOB No:	**88231.50**			**DATE:**	**August 2023**
CLIENT:	**Capital Estate Developments Pty Ltd**				**REV: 0**

Classification Procedures:

Existing Subsurface Conditions: Refer attached test pit log(s) – Pit(s) 33,34 and Drawing 1.

Laboratory Results: Previous laboratory testing results indicated liquid limit ranging from 25-80%, plasticity index ranging from 12-57%, and linear shrinkage ranging from 6-20%.

Site Classification: Site classification in accordance with AS2870:2011 provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Based on the current soil profile / state, on limited subsurface information, soil reactivity and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class S (slightly reactive) conditions. If the building pad, following site excavations exposes entirely weathered rock, a Class A (non-reactive) classification may be appropriate. Should groundwater be encountered during any site cut, Class P conditions would be warranted. Appropriate drainage measures would then be required to control the groundwater seepages to possibly enable the conventional Class S site classification indicated above. Therefore the site classification must be reassessed should the subsurface profile change by either cutting or filling and/or if the presence of service trenches, retaining walls or submerged structures are within the zone of influence of the proposed footings. Reference must be made to the comments provided below.

Footing Systems: Reference must be made to AS2870:2011 which indicates footing systems that are appropriate for each site classification. All footings must found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any service trenches, backfill zones, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice. Dwelling design must ensure suitable drainage and uniform moisture conditions are maintained in the vicinity of footings. Footing systems must be confirmed by a structural engineer taking into consideration any onsite or offsite constraints.

Maintenance Guidelines: Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils and in particular in respect to maintaining good surface drainage. It notes that minor cracking in most structures is inevitable, and it describes site maintenance practices aimed at minimising foundation movements that can lead to cracking damage.

Comments/ Limitations:

The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.

Development specific geotechnical investigations must be undertaken.

Additional topsoils / fill may have been spread subsequent to the investigation.

Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled fill.

All new fill must be placed under controlled conditions (AS 3798:2007), otherwise Class P conditions would be warranted in those fill areas.

Some variability in subsurface conditions must be anticipated.

Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction. Groundwater seepages are highly likely after heavy or prolonged rain.

Hard rock excavation must be anticipated. It is recommended that excavation depths be minimal to reduce potential site costs.

The above site classification is provided on the basis that all building materials/waste and stockpiles are removed from site and have not been spread across the site.

It is recommended that footing excavations be inspected by a geotechnical engineer.

This report must be read in conjunction with the attached "Limitations" and notes "About this Report".

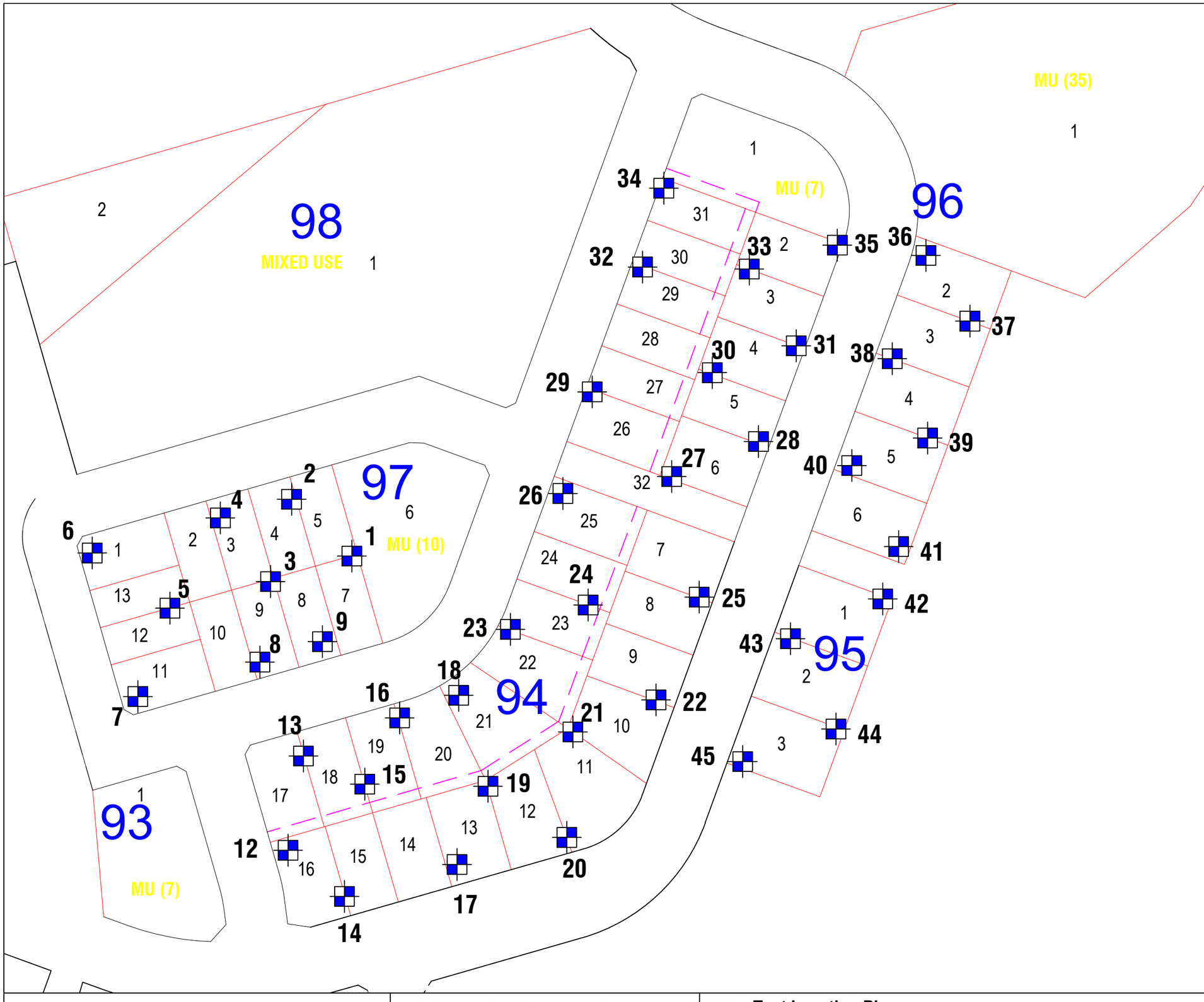
References:

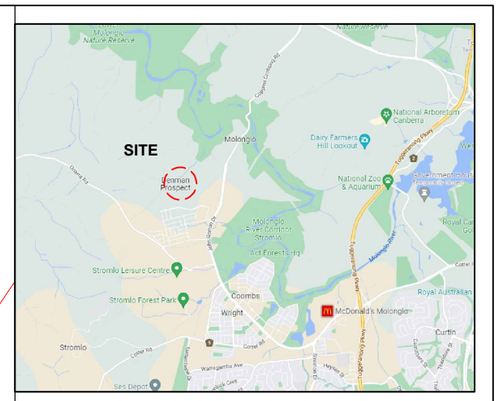
AS 2870:2011, Residential Slabs and Footings, Standards Australia.

Attachments:

Limitations & About this Report
Explanatory Notes
Test Pit Log(s) Pit(s) 33,34
Drawing 1

Douglas Partners
Geotechnics / Environment / Groundwater





Locality Plan

LEGEND

- Approximate Test Pit Location
- XY Block Number
- XY Section Number

NOTE: Base drawing from Woden Contractors

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Capital Estate Developments Pty Ltd	TITLE: **Test Location Plan** **Proposed Residential Subdivision** **Stage 2, Denman North Estate, Denman Prospect**	PROJECT No: 88231.50
	OFFICE: Canberra DRAWN BY: GM		DRAWING No: 1
	SCALE: As Shown DATE: 31.07.2023		REVISION: 0

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 556.0 AHD
EASTING: 201410
NORTHING: 602557

PIT No: 33
PROJECT No: 88231.50
DATE: 1/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
556	0.1	TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
		FILL/Sandy CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, dry to moist, w<PL, hard, regrade FILL		D	0.2		pp >400		
	0.35	DACITIC IGNIMBRITE: fine to coarse grained, grey, dry to moist, medium to high strength, moderately to slightly weathered, slightly fractured							
	0.5	Pit discontinued at 0.5m -Bucket slow progress							
555	1								1

Dynamic Penetrometer Test (blows per mm) scale: 5, 10, 15, 20

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Capital Estate Developments Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: Stage 2 Denman North Estate, Denman Prospect

SURFACE LEVEL: 553.0 AHD
EASTING: 201386
NORTHING: 602582

PIT No: 34
PROJECT No: 88231.50
DATE: 2/8/2023
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
553		TOPSOIL FILL/Silty Clayey SAND (SC): fine to coarse grained, pale grey brown, low plasticity fines, dry to moist, TOPSOIL FILL							
	0.1	FILL/Gravelly CLAY (CL-CI): low to medium plasticity, brown, fine to coarse gravel, with fine to coarse grained sand, dry to moist, w<PL, hard, regrade FILL							
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, grey brown, dry to moist, medium to high strength, moderately to slightly weathered, highly fractured							
	0.3	Pit discontinued at 0.3m -Bucket refusal							
552	1								1

RIG: CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM/WT

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface levels and coordinates are approximate only and must not be relied upon.

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater